VIA FEDERAL EXPRESS

EXIDE TECHNOLOGIES

Director - Global Environmental

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Remediation

September 1, 2015

Richard A. Hyde, P.E. Executive Director Texas Commission on Environmental Quality P.O. Box 13087 Austin, TX 78753

Sunita Singhvi, Chief Compliance Enforcement Section (6EN-HE) Compliance Assurance and Enforcement Division U.S. EPA, Region 6 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733 Attn: Paul James

Order Compliance Team
Enforcement Division, MC 149A
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Attn: Mr. Gary Beyer

Mr. Bill Shafford

Subject: Supplement to Affected Property Assessment Report

Exide Technologies Frisco Recycling Center; Frisco, Texas

TCEQ Agreed Order Docket No. 2011-1712-IHW-E; IHW Permit No. HW-50206; TCEQ SWR No. 30516; Customer No. CN600129779; Regulated Entity No. RN100218643; EPA ID No. TXD006451090; EPA Administration Order on Connect PCPA 06 2012 0066

EPA Administrative Order on Consent RCRA 06-2012-0966

Dear Mr. Hyde, and Ms. Singhvi,

Exide Technologies ("Exide") has completed additional actions at the Frisco Recycling Center in Frisco, Texas to comply with the ordering provisions of TCEQ Agreed Order Docket No. 2011-1712-IHW-E, and the EPA Order on Consent RCRA 06-2012-0966. Specifically, Exide has completed the supplemental sampling requested by the TCEQ in TCEQ's comments dated May 5, 2015 regarding the Affected Property

Richard A. Hyde, P.E. Sunita Singhvi, Chief Order Compliance Team September 1, 2015

Assessment Report for the Former Operating Plant Parcel (APAR), as responded to in Exide's response to those comments dated July 2, 2015. The TCEQ approved Exide's response to comments on July 30, 2015. Enclosed is a Supplement to the APAR presenting the results of supplemental sampling performed.

Sincerely,

EXIDE TECHNOLOGIES

Matthew A. Love

Director, Global Environmental Remediation

Enclosure

cc: Mr. Gary Beyer – TCEQ – 5 copies

Dr. Troy H. Stuckey – EPA Ms. Melissa Smith – EPA

Mr. Mack Borchardt – City of Frisco Ms. Aileen Hooks – Baker Botts

Waste Section Manager, Dallas/Fort Worth Regional Office, TCEQ

Mr. Eric Pastor – Pastor Behling & Wheeler

Texas Commission on Environmental Quality

Remediation Division Correspondence Identification Form

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Site Name: F	risco Re	cycling Center	, Former Operating	Is This Site Being Managed Under A State Lead Contract?					
P	lant			Yes	V	No			
Address 1: 7	471 Sout	h 5th Street		Program Area: IHW CORRECTIVE ACTION					
Address 2:				Mail Code:	MC-127				
City: Frisco		State: Texas	Is This A New Sit		s Prog	ram Area?			
			Yes	V	No				
1				TCEQ Facility II			30516		
TCEQ Region:	Re	egion 4 - Dallas	/Fort Worth	Leave This Fiel	d Blank-		Leave This Fiel	d Blank	
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SUPPLEMENT TO THE AFFECTED PROPERTY ASSESSMENT REPORT (APAR)

Exide Frisco Recycling Facility
7471 South 5th Street, Frisco, Texas 75034-5047
TCEQ SWR No. 30516
TCEQ Hazardous Waste Permit No. HW-50206
TCEQ Agreed Order Docket No. 2011-1712-IHW-E
EPA Administrative Order on Consent RCRA 06-2012-0966

Customer No. CN600129779 Regulated Entity No. RN100218643

Submitted To: Exide Technologies

Mr. Matthew A. Love 3000 Montrose Avenue Reading, PA 19605

Submitted By: Golder Associates Inc.

820 South Main Street, Suite 100 St. Charles, MO 63301 USA



September 1, 2015

1302086



EXECUTIVE SUMMARY

The Exide Technologies (Exide) Frisco Recycling Center (FRC) is a former oxide manufacturing, battery recycling and secondary lead smelting facility located at 7471 South 5th Street in Frisco, Collin County, Texas. The FRC encompasses approximately 257 acres consisting of the 87-acre Former Operating Plant (FOP) and the surrounding 170-acre Undeveloped Buffer Property. This Supplement to the May 22, 2014 Affected Property Assessment Report (2014 APAR) presents the results of the most recent assessment activities conducted at the FOP (the Site), which includes the FRC's former operational areas, two closed pre-RCRA landfills (North Disposal Area and South Disposal Area), one closed Class 2 landfill (the Slag Landfill), one active Class 2 landfill, and other ancillary facilities.

Golder Associates Inc. (Golder) has prepared this Supplement to the 2014 APAR at the request of the Texas Commission on Environmental Quality (TCEQ) per comments issued by the TCEQ on May 5, 2015 regarding the 2014 APAR (May 5, 2015 Comments). As part of a response Exide issued on July 2, 2015 to the May 5, 2015 Comments, Exide agreed to further assess specific areas of the FOP. The areas in which additional assessment would be performed were based on specific data requests from TCEQ (per the May 5, 2015 Comments) and through the re-evaluation of existing Site data to identify data gaps. On July 30, 2015, the TCEQ approved the response to comments issued by Exide on July 2, 2015 (which specified the scope of supplemental assessment presented in this supplement).

Additional Site assessment was done in accordance with the assessment methods discussed in the 2014 APAR. A brief discussion of the field program and procedures is included in this supplement with references to previously documented information, where appropriate. Additional Site assessment was limited to soil sampling and analytical testing.

Exide completed two additional rounds of sampling/testing at the Site following the receipt of the May 5, 2015 Comments, and many of the data gaps identified therein have been resolved. 86 additional soil samples were collected and analyzed to supplement the data included in the 2014 APAR. Only a few areas remain that have not been fully delineated laterally and vertically within the TCEQ-required timeframe for submission of this supplement.

As was the case at the time of submission of the 2014 APAR, Exide agrees with TCEQ that although it is acknowledged that delineation is not 100% complete in all areas of the Site for all metals, based on the amount of information collected for the Site to date, there is sufficient data to prepare a Remedial Action Plan (RAP) for the Site (TCEQ, 2015). The few remaining areas where data gaps exist can be addressed when remedial actions are implemented (through excavation confirmation samples or as part of a Preliminary Design Investigation) or when specific features at the Site are decontaminated and demolished (such as the Crystallization Unit and Solar Evaporation Pond).



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1.0 INTRODUCTION

The Exide Technologies (Exide) Frisco Recycling Center (FRC) is a former oxide manufacturing, battery recycling and secondary lead smelting facility located at 7471 South 5th Street in Frisco, Collin County, Texas. The FRC encompasses approximately 257 acres consisting of the 87-acre Former Operating Plant (FOP) and the surrounding 170-acre Undeveloped Buffer Property. This Supplement to the May 22, 2014 Affected Property Assessment Report (2014 APAR) presents the results of assessment activities conducted at the FOP (the Site), which includes the FRC's former operational areas, two closed pre-RCRA landfills (North Disposal Area and South Disposal Area), one closed Class 2 landfill (the Slag Landfill), one active Class 2 landfill, and other ancillary facilities.

Golder Associates Inc. (Golder) has prepared this Supplement to the 2014 APAR at the request of the Texas Commission on Environmental Quality (TCEQ) per comments issued by the TCEQ on May 5, 2015 regarding the 2014 APAR (May 5, 2015 Comments). As part of a response Exide issued on July 2, 2015 to the May 5, 2015 Comments, Exide agreed to further assess specific areas of the FOP. The areas in which additional assessment would be performed were based on specific data requests from TCEQ (per the May 5th Comments) as well as through the re-evaluation of existing Site data to identify data gaps. On July 30, 2015, the TCEQ approved the response to comments issued by Exide on July 2, 2015 (which specified the scope of supplemental assessment presented in this supplement).

Additional Site assessment work was done in accordance with the assessment methods discussed in the 2014 APAR. A brief discussion of the field program and procedures is included in this supplement with references to previously documented information, where appropriate. Additional Site assessment work was limited to soil sampling and analytical testing.

This Supplement to the 2014 APAR includes an overview of the additional Site assessment performed for each affected property as well as an updated description of the affected property, where appropriate. The affected properties for which additional assessment were performed included the following:

- Affected Property No. 1 (North Area)
- Affected Property No. 2 (Production Area)
- Affected Property No. 3 (South Area)
- Affected Property No. 4 (Crystallizer Way)
- Affected Property No. 5 (West and Southwest of Class 2 Landfill)
- Possible Affected Property No. 9 (South Lake Parcel)
- Possible Affected Property No. 10 (Entrance Driveway to Crystallization Unit)



In addition, additional assessment was done on the central and northern portions of the Lake Parcel. This area is not considered an affected property, but was delineated for lead to 250 milligrams per kilogram (mg/kg) at the request of the City of Frisco.

Boring logs for the additional sample locations completed for this supplement, are included in Appendix A, sample coordinates are included in Appendix B, and laboratory analytical results and data usability summaries (discussed in Section 2.5) are included in Appendix C.



2.0 ASSESSMENT METHODS

The additional field and laboratory investigation activities described herein were performed in June and July 2015 (supplement to the APAR investigations) with the exception of two samples collected in May 2014 for which data was not received in time to include in the 2014 APAR (2014-SCC-16 and 2014-CUFT-19). 86 additional soil samples were collected to supplement the data included in the 2014 APAR. The field and laboratory activities were implemented in conformance with Texas Risk Reduction Program (TRRP) requirements and with the methods and procedures described in the 2014 APAR. A description of the sample locations and analyses is provided below. In addition, Golder requested that the analytical lab report additional metals where possible for some previously reported samples (10 samples total) where additional data might aide in delineating specific metals. Data Usability Summaries (DUS) were prepared for new lab reports and DUS were updated for revised lab reports.

2.1 Sample Locations

In order to select sample locations for the June and July 2015 sampling programs, Golder reviewed existing data collected to date to evaluate where additional assessment was warranted and also considered TCEQ comments that requested additional data in specific locations. The review of existing data and identification of sample locations was performed by taking a comprehensive look at each of the affected properties and identifying areas where additional assessment was needed to complete delineation. This approach (and corresponding discussion below) differs from the previous discussions that were presented based on a process area-specific basis or a waste management units (WMU) specific basis. Although the individual process area/WMU discussion was more appropriate in earlier phases of investigation when the specific sources areas at the Site were being assessed, continuing the discussion on an affected property basis is more appropriate at the current state of investigation as the Site is moving toward developing a remedial action plan (RAP) to address each of the affected properties.

2.1.1 Affected Property No. 1 (North Area)

Nine samples were collected to perform additional assessment and delineation in affected property No. 1, specifically including arsenic, and to address TCEQ Comment 14 in the May 5, 2015 Comments requesting additional assessment in the vicinity of E-11C. Sample locations included the following:

- D-11C (0.5-2 feet below ground surface [ft bgs]) and (2-4 ft bgs)
- D-11D (0-0.5 ft bgs)
- D-11E (0-0.5 ft bgs)
- D-11F (0-0.5 ft bgs)
- E-11C-B (2-4 ft bgs) (Vertical delineation at E-11C)
- E-11C-C (0-0.5 ft bgs)
- E-11C-D (0-0.5 ft bgs)



■ E-15B (0-0.5 ft bgs)

All samples were analyzed for arsenic and some samples were also analyzed for lead. In addition, Golder requested that the previous lab reports for five samples collected in 2014 be revised to add additional metals to the previously reported results (D-13A [0-0.5 ft bgs], E-13A [0-0.5 ft bgs], E-14A [0-0.5 ft bgs], 2013-NT-02 [0-0.5 ft bgs] and E-11C-A [0.5-2 ft bgs]).

2.1.2 Affected Property No. 2 (Production Area)

Twenty seven samples were collected within Affected Property No. 2 to perform additional delineation and assessment of the affected property, and to specifically address various TCEQ Comments in the May 5, 2015 Comments as follows:

- Samples to perform additional delineation for antimony, arsenic and lead as needed based on review of existing data (delineation around MW-17B)
 - 2015-MW-17C (0-0.5 ft bgs) analyzed for antimony, arsenic and lead
 - 2015-MW-17D (0.5-2 ft bgs), (2-4 ft bgs) analyzed for antimony, arsenic and lead
- Samples to address TCEQ Comment 9 requesting additional benzene delineation in the vicinity of 2013-STB-6 (all samples analyzed for benzene):
 - 2015-STB-6A (1-2 ft bgs), (4-6 ft bgs) and (6-8 ft bgs)
 - 2015-STB-6B (1-2 ft bgs)
 - 2015-STB-6C (0.75-2 ft bgs)
- Samples to address TCEQ Comment 11 in the May 5, 2015 Comments requesting soil sampling in the previous locations of 2012-FWCS-5, 6 and 7 (all samples analyzed for antimony, arsenic, cadmium, lead, and zinc):
 - 2015-FWCS-5A (0-0.5 ft bgs)
 - 2015-FWCS-6A (0-0.5 ft bgs)
 - 2015-FWCS-7A (0-0.5 ft bgs)
- Samples to address TCEQ Comment 12 in the May 5, 2015 Comments and based on additional discussion with TCEQ requesting additional assessment between 2012-NDA-4 and 2012-NDA-6 and in the area surrounding ECO-11 (all samples analyzed for lead with some samples also analyzed for arsenic):
 - 2015-NDA-11 (0-0.5 ft bgs)
 - 2015-NDA-12 (0-0.5 ft bgs)
 - 2015-NDA-13 (0-0.5 ft bgs)
 - 2015-FFTA-08A (0-0.5 ft bgs)
 - ECO-11A (0-0.5 ft bgs)
 - ECO-11B (0-0.5 ft bgs)
 - ECO-11C (0-0.5 ft bgs) and (0.5-2 ft bgs)
 - ECO-11D (0-0.5 ft bgs)



- ECO-13 (0-0.5 ft bgs)
- ECO-14 (0-0.5 ft bgs)
- ECO-15 (0-0.5 ft bgs)
- ECO-16 (0-0.5 ft bgs)
- ECO-17 (0-0.5 ft bgs)
- ECO-18 (0-0.5 ft bgs)
- ECO-19 (0-0.5 ft bgs)

In addition, Golder requested that the previous lab reports for one sample collected in 2014 be revised to add arsenic to the previously reported results (MW-27B [2-4 ft bgs]).

Additional samples for vertical delineation were also planned at the original locations of 2013-STB-6 and FWFS-5B to address TCEQ Comments 9 and 10 in the May 5, 2015 Comments, respectively, but these two locations were not accessible during the June or July sampling events due to frac tanks staged in the area to respond to the flooding issues at the Site. Additional assessment at these locations will be conducted when access is available.

2.1.3 Affected Property No. 3 (South Area)

13 samples were collected in the South Area to perform additional delineation and assessment of the area, and to specifically address various TCEQ Comments in the May 5, 2015 Comments as follows:

- Samples to perform additional delineation for antimony, arsenic and lead as needed based on review of existing data (delineation around ECO-5)
 - ECO-5-A (0-0.5 ft bgs) analyzed for antimony and arsenic (at location of ECO-5 where antimony and arsenic were not previously analyzed)
 - ECO-8C (0-0.5 ft bgs) analyzed for antimony, arsenic and lead (delineation for arsenic and lead at ECO-8B and general assessment of antimony in South Area)
 - ECO-8D (0-0.5 ft bgs) analyzed for antimony, arsenic and lead (delineation for arsenic and lead at ECO-8B and general assessment of antimony in South Area)
 - 2015-SDA-3C (0-0.5 ft bgs) analyzed for antimony, arsenic and lead (delineation of lead at 2013-SDA-3B and general assessment of antimony and arsenic in South Area)
 - SCC-5C (0-0.5 ft bgs), (0.5-2 ft bgs) analyzed for antimony and lead (vertical delineation of lead and antimony at SCC-5B)
 - SCC-5D (2-4 ft bgs) (Vertical delineation at SCC-5C) analyzed for antimony, arsenic, lead and other metals
- Samples to address TCEQ Comment 2 requesting additional information for antimony in the shooting range/south berm (samples analyzed for antimony and arsenic):
 - SRB-VS-3A (0-0.5 ft bgs)
 - SRB-VS-7A (0-0.5 ft bgs)



- Samples to address TCEQ Comment 15 requesting additional delineation in the South Disposal Area (all samples analyzed for arsenic and lead with one sample analyzed for additional metals)
 - B3RA-A (0-0.5 ft bgs)
 - B3RA-B (0-0.5 ft bgs)
 - B3RA-C (0-0.5 ft bgs)
 - B3RA-D (0-0.5 ft bgs)

In addition, Golder requested that the previous lab reports for four samples collected in 2014 be revised to add additional metals to the previously reported results (SCC-5A [0-0.5 ft bgs], ECO-10A [0-0.5 ft bgs], ECO-4B [0-0.5 ft bgs], and SRB-VS-9E [0-0.5 ft bgs]).

2.1.4 Affected Property No. 4 (Crystallizer Way)

Six samples were collected along Crystallizer Way to perform additional assessment and delineation of lead in Affected Property No. 4, and to specifically address TCEQ Comment 16 in the May 5, 2015 Comments requesting additional assessment at 2014-CUFT-16 (originally identified as 2014-SDA-16 in the TCEQ comments) as follows:

- 2015-CUFT-15A (0-0.5 ft bgs)
- 2015-CUFT-16A (0-0.5 ft bgs)
- 2015-CUFT-16B (0-0.5 ft bgs), (0.5-2 ft bgs)
- 2015-CUFT-16C (2-4 ft bgs), (4-6 ft bgs) (Vertical delineation at 2015-CUFT-16)
- 2015-CUFT-16D (0-0.5 ft bgs)

All samples were analyzed for lead and one sample was analyzed for additional metals.

2.1.5 Affected Property No. 5 (West and Southwest of Class 2 Landfill)

During the 2015 supplement to the APAR investigation, eight additional borings were installed and samples were taken to further delineate areas to the southwest, east and west of the Class 2 Landfill for arsenic, antimony, lead, and selenium, as appropriate, and to specifically address TCEQ Comment 13 in the May 5, 2015 Comments requesting a sample be collected to the west of 2014-CL2-06A:

- 2015-C2L-06D (0-0.5 ft bgs)
- 2015-C2L-06E (0-0.5 ft bgs)
- 2015-C2L-06F (0-0.5 ft bgs)
- 2015-C2L-06G (0-0.5 ft bgs)
- 2015-C2L-06H (0.5-1 ft bgs)
- 2015-C2L-06J (0-0.5 ft bgs)
- 2015-C2L-06K (0-0.5 ft bgs)



2015-C2L-C01D (0-0.5 ft bgs)

Samples were analyzed for antimony, arsenic, lead and/or selenium, as appropriate. At the 2015-C2L-06H location, the shallowest interval (0-0.5 ft bgs) was primarily imported gravel, so no soil sample could be collected and a deeper sample (0.5-1 ft bgs) was collected instead.

2.1.6 Former Possible Affected Property No. 9 (South Lake Parcel)

Possible Affected Property No. 9 was defined in the 2014 APAR by a single XRF sample collected on the southern portion of the Lake Parcel near Crystallizer Road Way during the 2013 W&M Interim Actions (W&M, 2013). A confirmation sample (2014-CUFT-19) was collected in this location and analyzed for lead in May 2014 (but not in time to include in the 2014 APAR). The result for 2014-CUFT-19 was below the RAL for lead and also below 250 mg/kg. This possible affected property was eliminated from further consideration.

2.1.7 Possible Affected Property No. 10 (New Affected Property No. 9, (Entrance Driveway to Crystallization Unit))

Possible Affected Property No. 10 was defined in the 2014 APAR by a single XRF sample collected south of Stewart Creek near the entrance driveway to the Crystallization Unit during the 2013 W&M Interim Actions (W&M, 2013). A confirmation sample (2014-SCC-16) was collected in this location and analyzed for lead in May 2014 (but not in time to include in the 2014 APAR). The result for 2014-SCC-16 (358 mg/kg) exceeded the RAL for lead (274.5 mg/kg). This possible affected property is now designated Affected Property No.9. Eight additional borings were installed in 2015 in order to further characterize the affected property:

- 2015-SCC-16A (0-0.5 ft bgs)
- 2015-SCC-16B (0-0.5 ft bgs), (0.5-2 ft bgs)
- 2015-SCC-16C (0-0.5 ft bgs)
- 2015-SCC-16D (0.5-2 ft bgs) (Vertical delineation at original location of 2014-SCC-16)
- 2015-SCC-16E (0-0.5 ft bgs)
- 2015-SCC-16F (0-0.5 ft bgs)
- 2015-SCC-16G (0-0.5 ft bgs)

Samples collected from these borings were all analyzed for lead with three samples also analyzed for other metals.

2.1.8 Additional Lake Parcel Assessment

In addition to the areas above, thirteen borings were completed on the Lake Parcel to delineate lead previously detected between 250 mg/kg and the RAL (274.5 mg/kg) at locations F-4, G-5 and G-6:



- F-4A (0-0.5 ft bgs)
- F-4B (0-0.5 ft bgs)
- F-4C (0-0.5 ft bgs)
- F-4D (0-0.5 ft bgs)
- F-4E (0.5-2 ft bgs) (Vertical delineation at original location of F-4)
- G-5A (0-0.5 ft bgs)
- G-5B (0-0.5 ft bgs)
- G-5C (0-0.5 ft bgs)
- G-5D (0-0.5 ft bgs)
- G-6A (0-0.5 ft bgs)
- G-6B (0-0.5 ft bgs)
- G-6C (0-0.5 ft bgs)
- G-6D (0.5-2 ft bgs) (Vertical delineation at original location of G-6)

This area is not considered an affected property but was delineated to 250 mg/kg at the request of the City of Frisco. All samples were analyzed for lead and other metals.

2.2 Field Procedures

Soil samples were collected using several methods, including a Geoprobe drilling rig with direct push technology (DPT) outfitted with 4-foot or 5-foot core barrel lined with a cellulose acetate butyrate (CAB) disposable liner or hand tools (i.e., hand augers and disposable trowels). Samples were lithologically logged and classified based on the Unified Soil Classification System (USCS). Boring logs are included in Appendix A. Photoionization Detector (PID) readings were collected within certain process areas, where applicable (where samples were planned to be analyzed for benzene). PIDs were calibrated daily in accordance with the manufacturer's specifications. Following completion of sampling activities, boreholes were plugged with hydrated bentonite pellets. Non-disposable equipment contacting sampled material was decontaminated prior to use and between each sample location, and equipment blanks were collected to verify that decontamination procedures were adequate.

Sample locations were typically located in the field with a Trimble global positioning system (GPS) with real-time differential correction capabilities, or were pre-loaded onto the GPS unit and marked in the field prior to sampling. Coordinates for 2015 sample locations are provided in Appendix B.

Multiple soil samples were typically collected at various depth intervals from borings completed at the Site and were analyzed, as necessary, to assess/delineate affected property areas at the Site. Samples were placed in containers supplied by Test America, sealed, labeled, and placed on ice in an insulated ice



chest for delivery to Test America's Houston, Texas laboratory. Appropriate chain of custody documentation, blanks, and seals accompanied the samples in accordance with TRRP requirements.

2.3 Laboratory Analytical Program

The analytical program consisted of the following methodologies:

- Select metals by EPA SW-846 Method 6010; and
- Benzene by EPA SW-846 Method 8260.

Laboratory analyses were performed by Test America's Houston, Texas laboratory (consistent with the 2014 APAR). Laboratory analytical results are included in Appendix C.

2.4 Investigation-Derived Waste

Soil investigation-derived waste (IDW) is currently being stored in 55-gallon steel drums at the Site pending disposition. Following the receipt of waste characterization results, the IDW will be shipped off-Site in accordance with state and federal regulations.

2.5 Data Quality

The laboratory analytical methods used for the analysis of the COCs outlined above were appropriate EPA SW-846 methodologies. Sample quantitation limits (SQLs) for all analytes were below applicable PCLs for all media evaluated. Field duplicate sample data for soil are included in Tables 1 and 2. Laboratory quality assurance/quality control (QA/QC) data and blank data (trip blanks and equipment blanks) are discussed in the DUS and validation reports in Appendix C. A summary of the data validation procedures for the 2015 investigation for this supplement to the APAR investigation is provided below.

Data collected for the 2015 supplement to the affected property assessment were validated in accordance with TRRP requirements. A review was completed on 100% of the environmental samples to determine conformance with the requirements of the TRRP guidance document, *Review and Reporting of COC Concentration Data* (RGG-366/TRRP-13) (TCEQ, 2010b) and for adherence to project objectives. Results of the review are presented in DUS by sample media (Appendix C).

Criteria used for the data usability review are as follows:

- Inorganics: 70-130% spike recovery (and not less than 30% or data are rejected) and ±MQL difference or 30% RPD (for laboratory duplicates) as recommended in TRRP-13.
- Organics: 60-140% spike recovery (and not less than 10% or data are rejected) and <u>+</u>MQL difference or 40% RPD (for laboratory duplicates) as recommended in TRRP-13.
- Soil Samples: ± 3x MQL difference (if either result is less than 5x MQL) or 50% RPD (for field duplicates) as recommended in TRRP-13.



If an item was found outside of the review criteria, the reviewer applied a data qualifier and bias code to the results for the affected samples in accordance with TRRP-13. Per TRRP-13, the qualifiers and codes are defined as follows:

- U Not detected; the analyte was not detected >5x (10x for common contaminants) the level in an associated blank and thus should be considered not detected above the level of the associated numerical value (i.e., the reported sample concentration).
- UJ Estimated data; the analyte was not detected above the reported sample detection limit (SDL). The numerical value of the SDL is estimated and may be inaccurate.
- J Estimated data; the analyte was detected and identified. The associated numerical value (i.e., the reported sample concentration) is the approximate concentration of the analyte in the sample.
- NJ Tentatively identified, estimated data; the analysis indicates the presence of the analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
- NS Not selected; another result (from a secondary dilution, different analytical method, re-sampling, etc.) is selected for use based on QC outcomes and/or reported concentrations.
- R Rejected data; the result is unusable. Serious QC deficiencies make it impossible to verify the absence or presence of this analyte.
- X7 The laboratory is not NELAC accredited under the Texas Laboratory Accreditation Program for this analyte in this matrix analyzed by this method. The TCEQ does not offer accreditation for this analyte, in this matrix, analyzed by this method.
- X8 The laboratory is not NELAC accredited under the Texas Laboratory Accreditation Program for this analyte in this matrix analyzed by this method. The TCEQ offers accreditation for this analyte in this matrix by this method, but the laboratory is not accredited for this analyte in this matrix by this method. The analyte result is validated and reported as part of a suite of analytes for the method.
- H Bias in sample result is likely to be high.
- L Bias in sample result is likely to be low.

When an option exists to assign two different flags, the flag higher in the data quality hierarchy was assigned (R > U > NJ > J > JL/JH for detects and R > UJ > UJL for non-detects).

All analytical results presented in the tables and figures of this report include the data qualifier, if any was applied. Appendix C lists all of the qualified results with the specific reasons for qualification.

Results with no qualification and those qualified as estimated are of acceptable quality for the intended use. Some results are qualified as estimated (J, JH, JL, UJ or UJL) due to minor QC issues, primarily poor matrix spike recoveries or poor duplicate precision. This is not considered unusual due to the inherent variability of soil samples. Note that a data qualifier of J may be assigned solely because the analytical result was qualified by the laboratory as an estimated concentration between the sample



detection limit and the quantitation limit. The concentration reported for detects or the reporting limit for non-detects is considered estimated with a high bias (JH flag), low bias (JL or UJL flag), or unknown bias (J or UJ flag).

Results that are qualified as not detected because the result is associated with a contaminated blank (U) are also useable. No samples included in this supplement were qualified because of blank detections.

Results that are rejected (R) are not useable. No samples included in this supplement were listed as rejected.

As recommended in TRRP-13, non-detect inorganic results are not unusable when MS/MSD recoveries are lower than 30%. No samples included in this supplement were determined to be unusable.

A number of other samples were affected by MS/MSD recoveries for antimony that were marginally lower than 30%. Low antimony recoveries have been well documented as an issue with the preparation and analytical method in some soils. The laboratory control samples (or laboratory fortified blanks) were in control, indicating the analysis and sample preparation were in control with respect to antimony. Although a low bias was identified, the data required only 'J' or 'UJ' flagging and are still considered usable results.



3.0 SOIL ASSESSMENT AND AFFECTED PROPERTY DESCRIPTION

3.1 Derivation of Assessment Levels

Assessment levels for this Supplement to the 2014 APAR are the same as those referenced in the 2014 APAR. The assessment levels are listed in Tables 1 through 3 for reference purposes.

3.2 Affected Property Descriptions

Based on the data collected in the Site Investigation Report (SIR) and APAR investigations as well as data collected in 2015 for this Supplement to the APAR, nine affected property areas were identified at the Site, each of which has been delineated except where noted. A more detailed discussion of the extensive data collected to date at the Site is included in the 2014 APAR. Historical sample data from previous investigations conducted at the Site, including data from the Phase I and Phase II RCRA Facility Investigations (RFIs), were reviewed and were used to develop sampling strategies; however, these data were not used to delineate affected property boundaries at the Site.

SIR and APAR sample data, as well as historical data from the Site, indicate that soil and sediment are the primary affected media at the Site. The majority of groundwater and surface water sample data collected during the SIR and APAR investigations were below applicable residential assessment levels (RALs) and RBELs. No affected property areas were identified for these media. As discussed above, only soil data was collected in 2015 and was used to update the affected property descriptions. Details for other media are included in the 2014 APAR.

A brief description of each of the affected property areas based on RAL exceedances is included below.

3.2.1 Affected Property No. 1 (North Area)

Affected Property No. 1 (North Area) is located north of the North Tributary and south of the Class 2 Landfill. Exceedances of the soil RAL for lead and arsenic were detected in several soil samples from this area.

The maximum soil sample concentration of lead detected in this area was 11,200 mg/kg in sample E-11C (0-0.5'). The RALs for arsenic, cadmium, selenium, and antimony were also exceeded at this point. There were no other exceedances of antimony, cadmium or selenium in this affected property. The samples collected from the 0.5-2 ft bgs interval in this location (E-11C-A, analyzed for all five metals) did not have exceedances of RALs and the sample collected from 2-4 ft bgs interval (E-11C-B, analyzed for arsenic and lead) did not have exceedances of background values for lead and arsenic. Areas north, south and east of this location are included within the affected property. This boring location is delineated to the west by location E-11B on the J-Parcel (analyzed for arsenic, cadmium and lead).



The remainder of the affected property was laterally delineated for lead and arsenic within the FOP site boundary by soil samples collected to the east, north, and west of the affected property, and by sediment samples collected from the North Tributary to the south that were below the applicable assessment levels for sediment and soil for lead and cadmium. The affected property is also bounded farther to the west on the Undeveloped Buffer Property, which is being addressed separately (PBW, 2014). Lateral delineation is complete with the exception of the following:

- The area northeast of P-1 where the PCLE zone extends to the property boundary and utilities prevented additional borings in this area. The area to the east of 5th Street/Parkwood Drive is within the PCLE Zone for the Undeveloped Buffer Property (PBW, 2014).
- The affected property boundary is assumed to extend to the edge of the North Tributary, south of sample locations 2013-NT-01 and 2013-NT-02, where the southern extent of the affected property was not delineated by soil samples collected between the affected property and the North Tributary (i.e., where sediment samples were used to delineate the affected property).
- Exceedances at the property boundary were observed at E-11C-D (for arsenic) and E-11C-C (for lead). Areas farther west are within the J-Parcel PCLE zone and are being addressed separately.
- The area north of D-14 and D-15. where data has not yet been collected to assess arsenic but there were no exceedances for lead. Additional sampling will be completed in this area as part of a Preliminary Design Investigation (PDI) or during excavation confirmation sampling.

As discussed above, Affected Property No. 1 was vertically delineated to below RALs at several sample locations within the affected property boundary (including the location with the highest detections, E-11C, as discussed above). Vertical delineation to background was completed in the location of the highest detections (E-11C-B [2-4 ft bgs]) as noted above. In addition, surface water and sediment sampling results in the North Tributary did not exceed Critical PCLs, indicating that delineation is generally complete in this area.

3.2.2 Affected Property No. 2 (Production Area)

Affected Property No. 2 (Production Area) encompasses the majority of the former production area, the Slag Landfill, and the North Disposal Area. The Undeveloped Buffer Property is located east of Affected Property No. 2 (PBW, 2014), where the affected property and PCLE Zone for the FOP extend to the Site boundary. Based on their historical use, the entire Slag Landfill and North Disposal Area were included within the affected property zone.

Exceedances of the soil RALs for lead and cadmium were detected in samples within the affected property, with a maximum lead concentration of 95,000 mg/kg in soil sample 2013-WMU14-1 (0.9-2'), collected from the Battery Receiving/Storage Building loading dock, and a maximum cadmium concentration of 984 mg/kg in soil sample 2012-FWFS-9 (Floor), collected from the excavation for the



French drain along the north side of the Flood Wall near the Slag Treatment Building. Maximum concentrations of antimony (32.4 mg/kg) and arsenic (36.7 mg/kg) were detected in soil sample 2013-MW-17B, in the Battery Storage Building area. Additional samples were collected in the vicinity of MW-17B in 2015 to perform additional delineation for antimony, arsenic and lead as needed based on review of existing data. Arsenic and antimony were delineated to the RAL by the 2-4 ft bgs interval at 2015-MW-17D. One VOC exceedance, benzene at 2013-STB-6 (0.0406 mg/kg compared to a RAL of 0.026 mg/kg) was detected. Benzene did not exceed its RAL in any other samples. Benzene was horizontally delineated in 2015 by 2015-STB-6A, 6B and 6C, but the original location of 2013-STB-6 was inaccessible at the time of the field investigations as previously discussed and vertical delineation at this location will be sampled when access becomes available.

The soil RAL exceedance zone for metals in Affected Property No. 2 was laterally delineated within the FOP site boundary as follows:

- The affected property boundary generally extends to the east Site boundary (Figure 4A) or is delineated at the Site boundary. The Undeveloped Buffer Property is located east of the eastern Site boundary and, as noted above, is being addressed separately (PBW, 2014). Arsenic delineation is complete on-Site in the areas of ECO-12, 2014-FFTA-05, 2014-FFTA-04, 2014-TS-3, 2014-AD-3A.
- Affected Property No. 2 was delineated between the former production area and Stewart Creek in many locations by numerous soil samples collected along the north side of the creek. The affected property boundary extends to Stewart Creek near the MW-27 area, MW-17 area, SCC-8, SCC-10, 2015-FWCS-5A, and 2015-FWCS-7A.
- The Flood Wall is included within the affected property boundary due to observations related to white crystalline material. This material was not observed at the time of the 2015 investigations but shallow samples were completed in the vicinity of where the material was previously suspected (2015-FWCS-5A, 2015-FWCS-6A and 2015-FWCS-7A) and these locations exceeded the RAL for lead. 2015-FWCS-7A (0-0.5) also exceeded RALs for antimony and arsenic. As noted above, these locations are included within the affected property boundary. These locations were vertically delineated for lead and cadmium in 2012 with samples 2012-FWCS-5, 2012-FWCS-6, and 2012-FWCS-7 all sampled from the 0-2 ft bgs interval. Additional vertical assessment of 2015-FWCS-7A for antimony and arsenic will be performed as part of a PDI or during excavation confirmation sampling.
- The northern boundary of the affected property to the north of the slag landfill is delineated by a series of soil samples between the slag landfill and the North Tributary. The affected property extends north to the North Tributary at the location of 2014-SL-5 (exceedance for lead) and ECO-13 (exceedance for arsenic). Delineation was specifically completed for arsenic in other areas along the northern boundary (2014-SL-7, 2014-SL-6 and 2014-SL-5).
- The northern boundary of the affected property in the wooded area to the north of the north disposal area and burn area is irregular. Additional samples collected in this area in 2015 identified exceedances of lead and arsenic in an area that was not previously included in the affected property boundary (2015-FFTA-08A, 2015-NDA-11, 2015-NDA-13, ECO-14, ECO-19, ECO-11B, ECO-11C, and ECO-11D). This area is delineated to the north by ECO-11, ECO-15, ECO-16, ECO-17, and ECO-18.



Consistent with 30 TAC §350.51(d)(2), RALs were used for vertical delineation purposes for lead and cadmium within Affected Property No. 2 since a groundwater assessment was performed in this area by sampling multiple groundwater monitoring wells within and downgradient of the affected property, Background was used for vertical delineation for arsenic since the RAL is equivalent to background. Vertical delineation to RALs was generally completed at depths of less than 5 feet bgs in each sampling area, typically at locations where the highest sample concentrations were observed. However, at several locations within the former production area, including within the Battery Receiving/Storage Building and Raw Material Storage Building, the affected property was vertically delineated at depths deeper than 5 feet bgs or was not vertically delineated before reaching the saturated zone (where soil delineation would terminate and groundwater assessment would be performed). Arsenic was vertically delineated to background in this area at 2013-RMSB-5 (9 ft bgs).

Vertical delineation was not completed at FWFS-5B because the location was inaccessible at the time of the field investigations as described above in Section 2.1.2 and will be sampled when access becomes available.

Soil samples at two locations within the Battery Receiving/Storage Building (2013-BSB-2 and 2013-BSB-9) and one location within the Raw Material Storage Building (2013-RMSB-4) from the approximate depth of observed saturation at these locations exceeded the applicable RAL for lead. Consistent with 30 TAC §350.51(d)(3), groundwater samples were collected from monitoring wells:

- MW-16 and MW-17, downgradient from the slag landfill/boneyard area;
- MW-26, downgradient from the Wastewater Treatment Building;
- MW-29, located downgradient of the Raw Material Storage Building;
- MW-31, within the Battery Receiving/Storage Building;
- MW-39 and MW-40, between the slag landfill area and the North Tributary;
- MW-44, in the truck wash area, to assess groundwater in this area; and
- MW-46, in the Wastewater Treatment Building area.

As shown on Table 5B.1 in the 2014 APAR, metals were not detected above RALs in the groundwater samples from these wells with the exception of the first sample collected from MW-46. Subsequent resampling, including a duplicate sample did not exceed RALs.

The depth of fill material within the North Disposal Area was assessed as part of the 1993 Addendum to the Phase I RFI (Lake, 1993). The reported maximum depth of fill material was 20 feet bgs, observed in test pits and soil borings completed in the North Disposal Area during the study.



3.2.3 Affected Property No. 3 (South Area)

Affected Property No. 3 (South Area) is located on the south side of the FOP property, south of Stewart Creek (Figure 1B.1). Exceedances of the soil RAL for lead were detected in soil samples from the vicinity of the South Disposal Area, the wooded area east of the South Disposal Area, and the former Shooting Range Berm and South Berm. Arsenic and antimony also exceeded their respective RALs in several locations. Based on its historical use, the entire South Disposal Area was included within the affected property boundary. The maximum soil sample concentration of lead in this area was 6,150 mg/kg in sample 2014-SDA-7 (0-0.5'), located near the southeast corner of the South Disposal Area. The maximum RAL exceedances for antimony (102 mg/kg) and arsenic (96.6 mg/kg) were also detected in this location.

The soil RAL exceedance zone (i.e., the affected property) was laterally delineated as follows:

- To the north by ECO-5, ECO-5A, ECO-8C, ECO-8D, 2015-SDA-3C, SCC-4, 2013-SDA-4B. The north boundary of the affected property boundary extends to Stewart Creek in the vicinity of SCC-5 but is delineated by soil samples below the RAL in all other areas. Samples collected in 2015 in the vicinity of SCC-5 exceeded the RALs for lead (at all three locations) and antimony (at one location). Arsenic was specifically delineated along the northern boundary by ECO-1A, ECO-5A, ECO-8D, ECO-8C, 2015-SDA-3C, 2013-SDA-4B, and the SCC-5 area
- To the northwest of B3RA (exceedances for arsenic and lead) by 2015 samples B3RA-B, B3RA-C and B3RA-D. The RAL for lead was exceeded at B3RA-A, but the Undeveloped Buffer Property is located to the west of this location and the location is delineated to the north by B3RA-D. Delineation was completed for arsenic in this area.
- To the west, south, and east of the Site by the Undeveloped Buffer Property, which is being addressed separately (PBW, 2014), as well as select soil sample locations (ECO-4A, ECO-7D, ECO-10A, SRB-VS-6, SRB-VS-7, SRB-VS-7A, SRB-VS-8, SRB-VS-9E, and SRB-VS-10).

Consistent with 30 TAC §350.51(d)(2), RALs were used for vertical delineation purposes within Affected Property No. 3 since a groundwater assessment was performed in this area. Background was used for vertical delineation for arsenic since the RAL is equivalent to background. The affected property was generally vertically delineated to the RAL at a maximum sample depth of 2 feet bgs in the vicinity (but outside the boundary) of the South Disposal Area and 0.5 feet bgs in the wooded area east of the South Disposal Area. Samples collected in 2015 provided delineation points for previous data gaps identified near the northwest corner of the affected property and along the northern affected property boundary. Samples SRB-VS-7A and SRB-VS-3A were collected in 2015 and provided confirmation of the affected property boundary with respect to antimony and arsenic near the southwest corner of the South Disposal Area (both were below RALs for antimony and arsenic).

In the location of highest lead, antimony and arsenic concentrations (2014-SDA-7), arsenic was delineated vertically to RALs, but lead and antimony were not vertically delineated at the maximum



sample depth, 2 feet bgs (antimony was not delineated due to data quality issues in the deeper sample as reported in the 2014 APAR). Vertical delineation will be completed at the time of excavation by conducting confirmation sampling in this area. Groundwater samples at B4R (located downgradient of 2014-SDA-7) did not exceed the RALs for metals.

3.2.4 Affected Property No. 4 (Crystallizer Way)

Affected Property No. 4 (Crystallizer Way) is a portion of the road (Crystallizer Way) and adjacent ditch. Crystallizer Way is a road extending west from Eagan Drive, past the storm water retention pond to the west boundary of the Site. Affected Property No. 4 includes an approximately 500 foot long section of the Site generally to the south of Crystallizer Way, including 2014-CUFT-5B-A at the east end and 2014-CUFT-16 at the west end. Several soil samples were found to exceed the RAL for lead, and further delineation samples were collected in 2015. None of the samples in this affected property exceeded the RAL for arsenic.

The area is delineated to the east and west by 2013-CUFT-4 and 2015-CUFT-16A, respectively. In general, areas to the south are included within the Undeveloped Buffer Property PCLE Zone (Figure 4A). The affected property was delineated to the north by a series of borings north of Crystallizer Way, including two samples collected in 2015, 2015-CUFT-16D and 2015-CUFT-15A. At the location of maximum concentration, 2014-CUFT-16 (1,530 mg/kg), lead was vertically delineated to the RAL at a depth of 0.5 feet bgs (117 mg/kg), but not to background. An additional vertical delineation sample was collected at 2015-CUFT-16C (located adjacent to 2015-CUFT-16) and the results from 2-4 ft bgs and 4-6 ft bgs were also below the RAL but not below background. At most sampling locations, the maximum depth of RAL exceedance was observed at 0.5 feet bgs. Additional evaluation at 2014-CUFT-16C will be completed in the future to vertically delineate COCs to below background concentrations in accordance with 30 TAC §350.51(d)(1) since groundwater assessment was not performed in this area.

3.2.5 Affected Property No. 5 (West and Southwest of Class 2 Landfill)

Affected Property No. 5 (West and Southwest of Class 2 Landfill) includes an area to the west of the Class 2 Landfill with one small area extending onto the final cap of the Class 2 Landfill (near the southwest corner of the Landfill).

In this affected property, several samples exceeded RALs for lead, antimony, selenium, and/or arsenic. Impacts were laterally delineated within the Site boundary to the north, south, east (by Class 2 Landfill cap samples) and west (with the exception of 2015-CL2-06F for arsenic and selenium and, 2015-CL2-06J for selenium and 2015-C2L-06K for lead). The solar evaporation pond is located to the west of 2015-CL2-06F, 2015-CL2-06J and 2015-C2L-06K. The area immediately west of these samples is the current



location of the Solar Evaporation Pond. A more extensive investigation of the soils beneath the solar evaporation pond will be performed at the time of decontamination and demolition, if warranted.

At the location of the maximum concentration for all four of these metals, 2014-C2L-6C (lead at 2,970 mg/kg, antimony at 7.99 mg/kg, selenium at 7.09 mg/kg, and arsenic at 28.0 mg/kg), lead, arsenic and selenium were vertically delineated to below the RAL; and antimony was vertically delineated to below background. Consistent with 30 TAC §350.51(d)(2), RALs were used for vertical delineation since a groundwater assessment was performed in this area. Groundwater samples collected at LMW-5 and LMW-21, in and downgradient from Affected Property No. 5, did not exceed RALs for arsenic, selenium, lead, or cadmium.

3.2.6 Affected Property No. 6 (Lake Parcel North)

Affected Property No. 6 (Lake Parcel North) includes one sample location (F-5) in the north part of the Lake Parcel where the lead concentration (367 mg/kg) exceeded the RAL in the 0 to 3-inch bgs depth interval (Figure 4A). Delineation samples were collected surrounding F-5, and none were found to exceed the RAL. Consistent with 30 TAC §350.51(d)(1), background was used for vertical delineation purposes for lead within Affected Property No. 6 since a groundwater assessment was not performed in this area. The sample at the 1 foot bgs interval also did not exceed background. This area is considered to be delineated vertically and horizontally.

No additional soil assessment was performed for this affected property in 2015.

3.2.7 Affected Property No. 7 (North Tributary at Boundary)

Affected Property No. 7 (North Tributary at Boundary) includes one soil sample location exceeding the lead RAL (2014-NT-3) located between the North Tributary and the M Tract of the Undeveloped Buffer Property. The concentration of lead in the 0 to 0.5 foot bgs sample at 2014-NT-3 (353 mg/kg) exceeded the RAL. The area is bounded to the east and west by samples that do not exceed the RAL; to the north by the Undeveloped Buffer Property (areas to the north are within the Undeveloped Buffer Property PCLE Zone) and to the south by the North Tributary, including sediment samples in the North Tributary. Consistent with 30 TAC §350.51(d)(1), background was used for vertical delineation purposes within Affected Property No. 7 since a groundwater assessment was not performed in this area. The soil sample is vertically delineated on the Site to the RAL but not to background at 0.5 feet. However, areas immediately adjacent to the north on the Undeveloped Buffer Property with higher concentrations of lead have been vertically delineated to background (PBW, 2014). Two samples collected between the north tributary and the M Tract (2014-NT-4 and 2014-NT-3) were also analyzed for arsenic and neither exceeded the RAL.

No additional soil assessment was performed for this affected property in 2015.



3.2.8 Affected Property No. 8 (Stewart Creek Sediments)

Affected Property No. 8 (Stewart Creek Sediments) includes on-site and downstream areas of Stewart Creek from just east of the Battery Receiving/Storage Building to the upstream end of the USACE property. Assessment of Stewart Creek sediments was previously described in the 2014 APAR and additional data for Stewart Creek sediments was included in the Interim Action Report, Slag and Battery Case Fragment Removal and Disposal prepared by Golder Associates dated August 22, 2015 (Golder, 2014b). No sediment sampling was performed in 2015. Additional assessment of Stewart Creek is planned and is addressed under separate cover.

3.2.9 Affected Property No. 9 (Entrance Driveway to Crystallization Unit)

As described above, Possible Affected Property No. 10 was defined in the 2014 APAR by a single XRF sample collected south of Stewart Creek near the entrance driveway to the Crystallization Unit during the 2013 W&M Interim Actions (W&M, 2013). A confirmation sample (2014-SCC-16) was collected in this location and analyzed for lead in May 2014 (but not in time to include in the 2014 APAR). The result for 2014-SCC-16 (358 mg/kg) exceeded the RAL for lead (274.5 mg/kg). This possible affected property is now designated Affected Property No.9. The affected property has been renumbered because, as described above, Possible Affected Property No. 9 has been eliminated as an affected property.

The affected property is bounded to the northeast by Stewart Creek and delineated for lead to the northwest and southeast by samples SCC-7 and 2015-SCC-16F, respectively. The area is not delineated to the southwest and additional data to the southwest will be collected as part of a PDI or during excavation confirmation sampling.

Consistent with 30 TAC §350.51(d)(1), background was used for vertical delineation purposes within Affected Property No. 9 since a groundwater assessment was not performed in this area. Lead at this location was vertically delineated to background at the location of the highest detection, 2015-SCC-16B 0.5-2 ft bgs.

Two samples within this affected property (2015-SCC-16E and 2015-SCC-16C) were also analyzed for arsenic and neither exceeded the RAL. In addition, the sample to the southeast, 2015-SCC-16F also was below the RAL for arsenic.

3.2.10 Additional Lake Parcel Assessment

In addition to the areas above, thirteen borings were completed on the Lake Parcel to delineate lead previously detected between 250 mg/kg and the RAL (274.5 mg/kg) at locations F-4, G-5 and G-6. This area is not considered an affected property but was delineated to 250 mg/kg at the request of the City of Frisco. Lead was not detected above the RAL in any of the locations. Arsenic was detected slightly above the RAL (background concentration) at one location but is considered representative of



background conditions. In addition, the duplicate sample at this location did not exceed the RAL for arsenic and arsenic was not detected above the RAL in any of the other samples collected in this area.



4.0 CONCLUSIONS

During the additional investigation performed for this Supplement to the 2014 APAR, samples were collected to address the need for additional vertical or horizontal delineation of various Affected Properties or specific data requests by TCEQ in the May 5, 2015 Comments to the 2014 APAR (TCEQ, 2015). TCEQ required that the supplement to the APAR addressing these comments be submitted by September 2, 2015. Exide completed two additional rounds of sampling/testing at the Site following the receipt of comments by TCEQ, and many of the previous data gaps have been resolved. Only a few areas remain that were not fully delineated laterally and vertically within the TCEQ-required timeframe for submission.

As was the case at the time of submission of the 2014 APAR, Exide agrees with TCEQ that although it is acknowledged that delineation is not 100% complete in all areas of the Site for all metals, based on the amount of information collected for the Site to date, there is sufficient data to prepare a RAP for the Site (TCEQ, 2015). The few remaining areas where data gaps exist can be addressed at the time that remedial actions are implemented (through excavation confirmation samples or as part of a PDI) or when specific features at the Site are decontaminated and demolished (such as the Crystallization Unit and Solar Evaporation Pond).



5.0 CLOSING

Golder appreciates the opportunity to assist Exide with this project. Please contact the undersigned if you have any questions or comments regarding this Supplement to the 2014 APAR.

Sincerely,

GOLDER ASSOCIATES INC.

Anne Fauth - Bond

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AMF/JW/MRS



6.0 REFERENCES

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- Golder Associates Inc. (Golder), 2014a. Affected Property Assessment Report, Former Operating Plant, Frisco Recycling Facility, Frisco, Collin County, Texas. July 9.
- Golder Associates Inc. (Golder), 2014b. Interim Action Report, Slag and Battery Case Fragment Removal and Disposal, Exide Frisco Recycling Facility. August 22.
- Pastor, Behling & Wheeler, LLC (PBW), 2013. Affected Property Assessment Report, Former Operating Plant, Frisco Recycling Facility, Frisco, Collin County, Texas. July 9.
- Pastor, Behling & Wheeler, LLC (PBW), 2014. Affected Property Assessment Report, Exide Technologies Undeveloped Buffer Property, Frisco, Collin County, Texas. April 1.
- Texas Commission on Environmental Quality (TCEQ), 2015. Comments to the Affected Property Assessment Report (APAR) for the Former Operating Plant, dated May 22, 2014. May 5.
- W&M Environmental (W&M), 2013. Implementation of Interim Actions, Slag and Battery Case Fragment Removal and Disposal, Exide Frisco Recycling Facility, Frisco, Texas. October 14.



TABLES

Table 1 Supplement to the Soil Data Summary - Lead, Cadmium, and Additional Metals (2015)

		Sample Depth	Antimony	Arsenic	Cadmium	Lead	Selenium
Sample ID	Sample Date	Campic Beptii	7	711 301110	oudiiiidiii	Loud	C CICIII G III
		(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Surface Soil Resident	2.7	15.9	30	274.5	1.6		
Surface Soil	Critical PCL ² :		2.7	15.9	30	274.5	1.6
Subsurface Soil Resider	ntial Assessm	ent Level ¹ :	2.7	15.9	30	274.5	1.6
Subsurface So	2.7	15.9	30	274.5	1.6		
STEWART CREEK CORRIDOR	₹						
2015-MW-17C (0-0.5)	06/10/15	(0-0.5)	0.611 J	19.5		42.2 J	
2015-MW-17D (0.5-2)	06/10/15	(0.5-2)	20.6 J	24.7		1,600 J	
2015-MW-17D (2-4)	06/10/15	(2-4)	0.293 UJL	14.5		101 J	
SCC-5C (0-0.5)	06/10/15	(0-0.5)	2.05 J			1,580	
SCC-5C (0.5-2)	06/10/15	(0.5-2)	8.81 JL			5,160 J	
SCC-5D (2-4)	07/27/15	(2-4)	0.256 UJL	2.54	0.160 J	637	0.286 U
2014-SCC-16 (0-0.5)	05/13/14	(0-0.5)				358 J	
2015-SCC-16A (0-0.5)	06/10/15	(0-0.5)				582 J	
2015-SCC-16B (0-0.5)	06/10/15	(0-0.5)				2,010 J	
2015-SCC-16B (0.5-2)	06/10/15	(0.5-2)				16.9 J	
2015-SCC-16C (0-0.5)	06/10/15	(0-0.5)				810 J	
2015-SCC-16D (0.5-2)	06/10/15	(0.5-2)				40.8 J	
2015-SCC-16D (0.5-2) DUP-4	06/10/15	(0.5-2)				27.6 J	
2015-SCC-16E (0-0.5)	07/27/15	(0-0.5)	0.257 UJL	11.2	0.487	215 J	0.287 U
2015-SCC-16E DUP-1	07/27/15	(0.5-2)	0.920 JL	12.2	0.543	580	0.287 U
2015-SCC-16F (0-0.5)	07/27/15	(0-0.5)	0.257 UJL	11.2	0.597	104	0.286 U
2015-SCC-16G (0-0.5)	07/27/15	(0-0.5)	0.671 JL	11.0	1.45	282 J	0.290 U
SOUTH AREA							
Crystallization Unit Area							
2015-CUFT-15A (0-0.5)	06/08/15	(0-0.5)				141 J	
2015-CUFT-16A (0-0.5)	06/08/15	(0-0.5)				69.0 J	
2015-CUFT-16B (0-0.5)	06/08/15	(0-0.5)				1,020 J	
2015-CUFT-16B (0.5-2)	06/08/15	(0.5-2)				17.0	
2015-CUFT-16C (2-4)	06/08/15	(2-4)				104 J	
2015-CUFT-16C (2-4) DUP-2	06/08/15	(2-4)				22.5 J	
2015-CUFT-16C (4-6)	06/08/15	(4-6)				83.0	
2015-CUFT-16D (0-0.5)	07/27/15	(0-0.5)	0.256 UJL	11.9	0.828	114 J	0.286 U
2014-CUFT-19 (0-0.5)	05/13/14	(0-0.5)				232	
Shooting Range Berm and S		<u> </u>	les				
SRB-VS-3A (0-0.5)	06/08/15	(0-0.5)	0.263 UJL	10.7			
SRB-VS-7A (0-0.5)	06/08/15	(0-0.5)	0.250 UJL	14.8			
South Disposal Area		,					
B3RA-A (0-0.5)	06/08/15	(0-0.5)		15.0		501 J	
B3RA-A (0-0.5) DUP-1	06/08/15	(0-0.5)		14.0		75.9 J	

Former Operating Plant Frisco Recycling Center Frisco, Texas

Table 1 Supplement to the Soil Data Summary - Lead, Cadmium, and Additional Metals (2015)

		Sample Depth	Antimony	Arsenic	Cadmium	Lead	Selenium
Sample ID	Sample Date						
		(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Surface Soil Resident	2.7	15.9	30	274.5	1.6		
Surface Soil	Critical PCL ² :		2.7	15.9	30	274.5	1.6
Subsurface Soil Reside	ntial Assessm	ent Level ¹ :	2.7	15.9	30	274.5	1.6
Subsurface So	oil Critical PCL	² :	2.7	15.9	30	274.5	1.6
B3RA-B (0-0.5) 06/08/15 (0-0.5)				13.0		95.6 J	
B3RA-C (0-0.5)	06/08/15	(0-0.5)		14.7		249 J	
B3RA-D (0-0.5)	07/27/15	(0-0.5)	0.262 UJL	9.54	.0152 J	30.7 J	0.292 U
ECO-5-A (0-0.5)	06/10/15	(0-0.5)	0.266 U	15.1			
ECO-8C (0-0.5)	06/09/15	(0-0.5)	1.37 J	11.0		182	
ECO-8D (0-0.5)	06/09/15	(0-0.5)	0.432 J	12.9		27.0	
2015-SDA-3C (0-0.5)	06/09/15	(0-0.5)	1.21 J	10.3		205	
NORTH AREA							
Class 2 Landfill							
2015-C2L-06D (0-0.5)	06/11/15	(0-0.5)				331 b	
2015-C2L-06E (0-0.5)	06/08/15	(0-0.5)				1,100 J	
2015-C2L-06F (0-0.5)	06/08/15	(0-0.5)	0.958 JL	18.8		221 J	2.52 J
2015-C2L-06G (0-0.5)	07/29/15	(0-0.5)				32.4	
2015-C2L-06H (0.5-1)	07/29/15	(0.5-1)				149	
2015-C2L-06J (0-0.5)	07/29/15	(0-0.5)		13.5			2.55
2015-C2L-06K (0-0.5)	07/29/15	(0-0.5)				1,360	
2015-C2L-C01D (0-0.5)	06/11/15	(0-0.5)		7.80 J			
2015-C2L-C01D (0-0.5) DUP-9	06/11/15	(0-0.5)		15.2 J			
North Tributary Corridor an	d North Wood	led Area					
ECO-13 (0-0.5)	07/28/15	(0-0.5)		19.4		180	
ECO-14 (0-0.5)	07/28/15	(0-0.5)		22.7		2,450	
ECO-15 (0-0.5)	07/28/15	(0-0.5)		13.9		115	
ECO-16 (0-0.5)	07/28/15	(0-0.5)		13.9		219	
ECO-17 (0-0.5)	07/28/15	(0-0.5)				196	
ECO-18 (0-0.5)	07/28/15	(0-0.5)				218 J	
ECO-19 (0-0.5)	07/28/15	(0-0.5)		15.8		1,190	
D-11C (0.5-2)	06/10/15	(0.5-2)		16.9 J			
D-11C (0.5-2) DUP-6	06/10/15	(0.5-2)		7.25 J			
D-11C (2-4)	06/10/15	(2-4)		9.97			
D-11D (0-0.5)	06/10/15	(0-0.5)		8.89			
D-11E (0-0.5)	06/10/15	(0-0.5)		28.3			
D-11F (0-0.5)	07/29/15	(0-0.5)		9.98			
E-11C-C (0-0.5)	06/10/15	(0-0.5)		10.3		704	
E-11C-D (0-0.5)	06/10/15	(0-0.5)		16.2		155	

Table 1 Supplement to the Soil Data Summary - Lead, Cadmium, and Additional Metals (2015)

		Sample Depth	Antimony	Arsenic	Cadmium	Lead	Selenium
Sample ID	Sample Date		,				
		(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Surface Soil Residen	2.7	15.9	30	274.5	1.6		
Surface Soil	Critical PCL2:		2.7	15.9	30	274.5	1.6
Subsurface Soil Reside	ential Assessm	ent Level ¹ :	2.7	15.9	30	274.5	1.6
Subsurface So	oil Critical PCL	² :	2.7	15.9	30	274.5	1.6
E-11C-B (2-4)	06/10/15	(2-4)		9.95		19.0	
E-15B (0-0.5)	07/29/15	(0-0.5)		15.5			
ECO-11A (0-0.5)	06/11/15	(0-0.5)		11.6		158 b	
ECO-11B (0-0.5)	06/11/15	(0-0.5)		16.2		743 b	
ECO-11C (0-0.5)	06/11/15	(0-0.5)		17.8		4,000 b	
ECO-11C (0.5-2)	06/11/15	(0.5-2)		16.8		17.2	
ECO-11D (0-0.5)	06/11/15	(0-0.5)		14.9		554 b	
North Disposal Area							
2015-NDA-11 (0-0.5)	06/11/15	(0-0.5)				4,440 J	
2015-NDA-11 (0-0.5) DUP-7	06/11/15	(0-0.5)				1,120 J	
2015-NDA-12 (0-0.5)	06/11/15	(0-0.5)				44.7	
2015-NDA-13 (0-0.5)	06/11/15	(0-0.5)				350 b	
FORMER FIREFIGHTER TRA	INING AREA						
2015-FFTA-08A (0-0.5)	06/11/15	(0-0.5)		11.5		342	
FORMER PROCESS AREA							
Flood Wall Creek Side							
2015-FWCS-5A (0-0.5)	06/11/15	(0-0.5)	1.90 JL	13.1	4.07	1,040 b	0.796 J
2015-FWCS-6A (0-0.5)	06/11/15	(0-0.5)	1.07 JL	12.2	2.67	570 b	0.307 U
2015-FWCS-7A (0-0.5)	06/11/15	(0-0.5)	5.09 JL	17.1	9.62	1,730 b	1.34 J
Lake Parcel		·					
F-4A (0-0.5)	07/27/15	(0-0.5)	0.289 UJL	14.4	1.90	178 J	0.323 U
F-4B (0-0.5)	07/27/15	(0-0.5)	0.295 UJL	14.1	0.597	18.3 J	0.329 U
F-4C (0-0.5)	07/27/15	(0-0.5)	0.285 UJL	13.4	0.847	69.5 J	0.318 U
F-4D (0-0.5)	07/27/15	(0-0.5)	0.297 UJL	14.6	0.763	20.8 J	0.332 U
F-4E (0.5-2)	07/27/15	(0.5-2)	0.280 UJL	14.3	0.663	25.1 J	0.312 U
G-5A (0-0.5)	07/27/15	(0-0.5)	0.286 UJL	13.5	1.99	176 J	0.339 J
G-5B (0-0.5)	07/27/15	(0-0.5)	0.283 UJL	13.5	1.25	146 J	0.316 U
G-5C (0-0.5)	07/27/15	(0-0.5)	0.278 UJL	13.8	1.78	193 J	0.323 J
G-5D (0-0.5)	07/27/15	(0-0.5)	0.298 UJL	14.6	1.30	153 J	0.332 U
G-6A (0-0.5)	07/27/15	(0-0.5)	0.273 UJL	16.3	0.842	41.5 J	0.305 U
G-6A (0-0.5) DUP-3	07/27/15	(0-0.5)	0.275 UJL	14.6	0.671	26.0	0.307 U
G-6B (0-0.5)	07/27/15	(0-0.5)	0.269 UJL	14.9	1.63	102 J	0.301 U
G-6C (0-0.5)	07/27/15	(0-0.5)	0.263 UJL	10.0	0.385	33.3 J	0.293 U
G-6D (0.5-2)	07/27/15	(0.5-2)	0.285 UJL	11.7	0.855	157 J	0.319 U

Table 1 Supplement to t Soil Data Summary Lead, Cadmium, and Additional Metals (2015)

Sample ID	Sample Date	Sample Depth	Antimony	Arsenic	Cadmium	Lead	Selenium
		(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Surface Soil Residential Assessment Level ¹ :			2.7	15.9	30	274.5	1.6
Surface Soil Critical PCL ² :			2.7	15.9	30	274.5	1.6
Subsurface Soil Residential Assessment Level ¹ :			2.7	15.9	30	274.5	1.6
Subsurface Soil Critical PCL ² :			2.7	15.9	30	274.5	1.6

Notes:

RAL/Critical PCL exceedances are highlighted. Detections are bolded.

- 1. ¹ The Residential Assessment Level (RAL) is the lower of the TRRP residential Tier 1 Tot Soil Comb (applicable to surface soil only), Air Soil Inh-V (applicable to mercury only), and Tier 1 or Tier 2 GW Soil Ing PCLs for a 30-acresource area. More information on the TRRP protective concentration levels can be accessed at http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html.
- 2. ² The critical PCL is the lower of the TRRP commercial-industrial Tier 1 ^{Tot}Soil_{Comb} (applicable to surface soil only), ^{Air}Soil_{Inh-V} (applicable to mercury only), and Tier 1 or Tier 2 ^{GW}Soil_{Ing} PCLs for a 30-acre source area. More information on the TRRP protective concentration levels can be accessed at http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html.
- 3. Surface Soil = 0-15 feet bgs for residential land use and 0-5 feet bgs for commercial-industrial land use; subsurface soil = greater than 15 feet bgs for residential land use and greater than 5 feet bgs for commercial-industrial land use.
- 4. Data Qualifiers: b compound was found in the blank and the sample; J estimated result; U analyte was not detected at or above the sample detection limit. Value shown is the method quantitation limit; L bias in sample result is likely to be low.
- 5. bgs below ground surface.
- 6. "--" Not analyzed.
- 7. mg/kg milligrams per kilogram.

Soil Data Summary -

Revised Results for Lead, Cadmium, and Additional Metals (2014)

		Sample Depth	Antimony	Arsenic	Cadmium	Lead	Selenium
Sample ID	Sample Date		, ,				
		(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Surface Soil Reside	ntial Assessme	ent Level ¹ :	2.71	15.90	30.00	274.51	1.60
Surface So	il Critical PCL ²	:	2.71	15.90	30.00	274.51	1.60
Subsurface Soil Resid	ential Assessn	nent Level ¹ :	2.71	15.90	30.00	274.51	1.60
Subsurface Soil Critical PCL ² :			2.71	15.90	30.00	274.51	1.60
NORTH AREA							
North Tributary Corridor	and North Wo	oded Area					
D-13A	01/09/14	0-0.5		14.0	0.503	67.3	
E-13A	01/10/14	0-0.5		13.8	0.492	44.4	
E-14A	01/10/14	0-0.5		19.0	1.84	349	
E-11C-A	01/09/14	0.5-2	0.291 U	13.8	0.515	88.5	0.325 U
2013-NT-02 (0-0.5)	01/10/14	0-0.5	1.13 J	14.9	4.89	837	0.654 J
STEWART CREEK CORRIE	OR						
SCC-5A	01/10/14	0-0.5	0.278 U		0.258 J	29.8	
MW-27B (2-4)	01/09/14	2-4		11.9	0.480 J	27.6	
SOUTH AREA							
South Wooded Area							
ECO-10A (0-0.5)	01/10/14	0-0.5	0.263 UJL	6.76	0.409 J	21.4 J	0.534 J
ECO-4B (0-0.5)	01/13/14	0-0.5	0.752 J	31.5	1.21 JL	201 JL	0.573 J
Shooting Range Berm an	nples						
SRB-VS-9E (0-0.5)	01/10/14	0-0.5		9.26	0.210 J	31.0	0.311 U

Notes:

RAL/Critical PCL exceedances are highlighted. Detections are bolded.

- 1. ¹ The Residential Assessment Level (RAL) is the lower of the TRRP residential Tier 1 ^{Tot}Soil_{Comb} (applicable to surface soil only), ^{Air}Soil_{Inh-V} (applicable to mercury only), and Tier 1 or Tier 2 ^{GW}Soil_{Ing} PCLs for a 30-acresource area. More information on the TRRP protective concentration levels can be accessed at http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html.
- 2. ² The critical PCL is the lower of the TRRP commercial-industrial Tier 1 ^{Tot}Soil_{Comb} (applicable to surface soil only), ^{Air}Soil_{Inh-V} (applicable to mercury only), and Tier 1 or Tier 2 ^{GW}Soil_{Ing} PCLs for a 30-acre source area. More information on the TRRP protective concentration levels can be accessed at http://www.tceg.state.tx.us/remediation/trrp/trrppcls.html.
- 3. Surface Soil = 0-15 feet bgs for residential land use and 0-5 feet bgs for commercial-industrial land use; subsurface soil = greater than 15 feet bgs for residential land use and greater than 5 feet bgs for commercial-industrial land use.
- 4. Data Qualifiers: J estimated result; U analyte was not detected at or above the sample detection limit. Value shown in the method quantitation limit.
- 5. bgs below ground surface.
- 6. "--" Not analyzed.
- 7. mg/kg milligrams per kilogram.

Table 3 Soil Data Summary 2015 Benzene Results

Sample ID	Sample Date	Sample Depth	Benzene
		(feet)	(mg/kg)
Surface Soil Residen	0.026		
Surface Soi	:	0.026	
Subsurface Soil Reside	1180.24		
Subsurface S	oil Critical PCL	² :	-
FORMER PRODUCTION AR	EA		
Slag Treatment Building			
2015-STB-6A (1-2)	06/09/15	1-2	0.00124 J
2015-STB-6A (4-6)	06/09/15	4-6	0.000895 U
2015-STB-6A (6-8)	06/09/15	6-8	0.00784 U
2015-STB-6B (1-2)	06/09/15	1-2	0.000868 U
2015-STB-6C (0.75-2)	06/09/15	0.75-2	0.000688 J
2015-STB-6C (0.75-2) DUP-3	06/09/15	0.75-2	0.000692 U

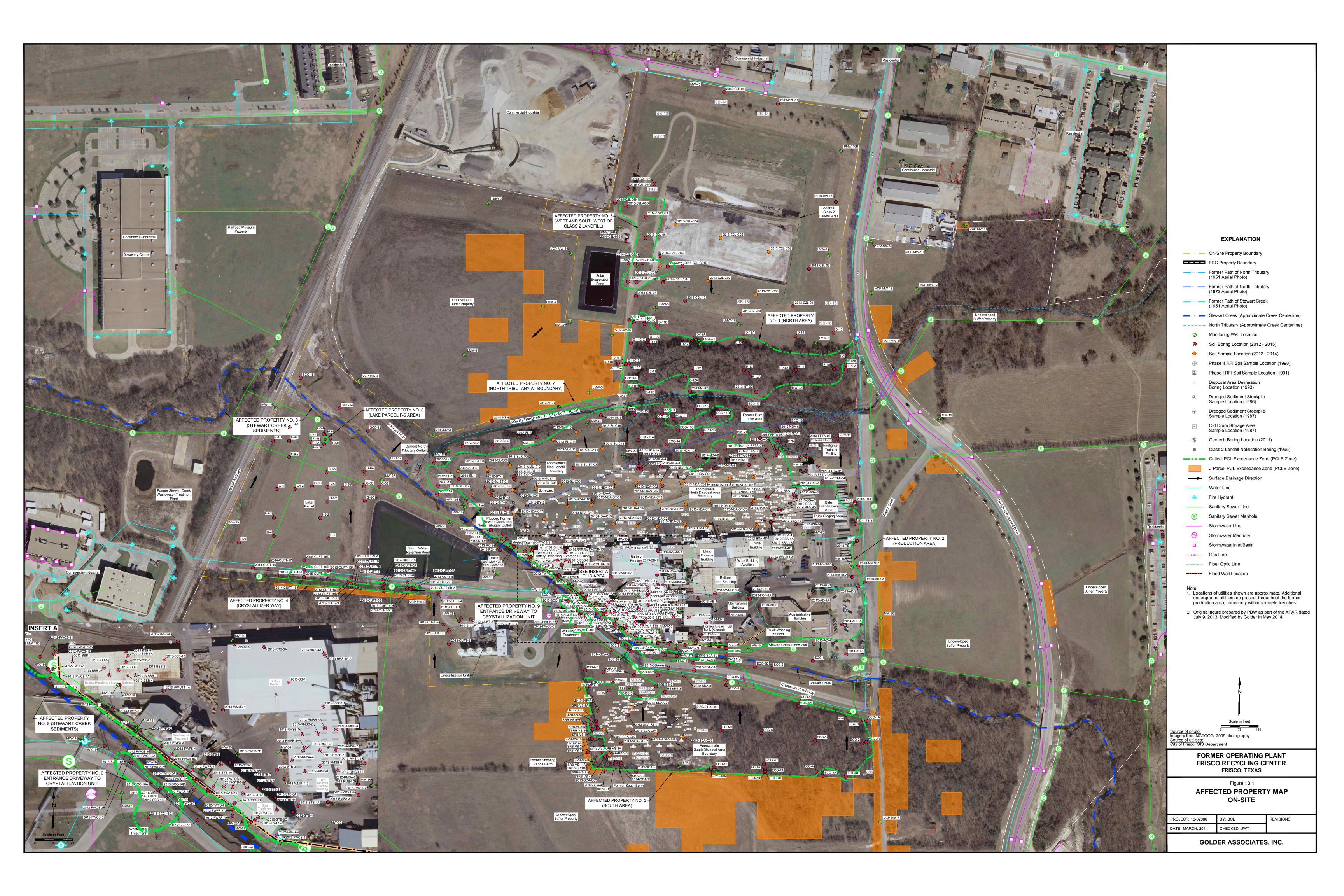
Notes:

RAL/Critical PCL exceedances are highlighted. Detections are bolded.

- 1. ¹ Residential Assessment Levels (RALs) are the lower of the TRRP Tier 1 residential ^{Tot}Soil_{Comb} and ^{GW}SoilIng PCLs for a 0.5-acre source area. More information on the TRRP protective concentration levels can be accessed at http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html.
- 2. ² Critical PCLs are the lower of the TRRP commercial-industrial Tier 1 ^{Tot}Soil_{Comb} and Tier 1 ^{GW}Soil_{Ing} PCLs for a 0.5-acre source area. More information on the TRRP protective concentration levels can be accessed at http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html.
- 3. Surface Soil = 0-15 feet bgs for residential land use and 0-5 feet bgs for commercial-industrial land use; subsurface soil = greater than 15 feet bgs for residential land use and greater than 5 feet bgs for commercial-industrial land use.
- 4. Data Qualifiers: J estimated result; U analyte was not detected at or above the sample detection limit. Value shown in the method quantitation limit.
- 5. bgs Below ground surface.
- 6. mg/kg milligrams per kilogram

Figures

FIGURES





APPENDIX A
Boring Logs

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-C2L-06D

DATE 6/11/2015

		
LOCATION Class 2 Landfill	DRILLER SCI, Vincent Burnham	TIME <u>1125</u>
TOTAL DEPTH 4 FT BGS	RIG Geoprobe	NO. SAMPLES 3

	· · · · · · · · · · · · · · · · ·			- '''' =	
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1140)	
-					
				0.5-2.0 (1140)	
-	1	N/A	<u>3.4</u> 4.0		2.0-4.0 FT, (CH) CLAY, trace gravel; dark brown, dry, stiff.
			7.0		2.04.011, (OII) OLAT, trace graver, dark blown, dry, still.
-				2.0-4.0 (1140)	
-					End of borehole at 4 FT BGS
_					
-5					
-					
-					
-					
-					
40					
- 10					
-					
-					
-					
-					
- 15					
_					
-					
-					
-					
		1			

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	Class 2 Landfill	REVIEWED BY	JW

Golder LOG OF DIRECT PUSH BO Associates					ECT PUSH BOREH	HOLE BORE	HOLE <u>:</u> ATE <u>6/</u> 0	2015-C2L-06E	_
I OCATIO	ON_ Class 2 I	andfill		DRII	LER_SCI, Vincent Burnha		IME 14		-
TOTAL DEPTH 4 FT BGS			RIG_			IO. SAMPL			
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DES	SCRIPTION AND	COMMENT	··S	MD.
	1	N/A	2.6 4.0	0.0-0.5 (1445)	very dry, hard.			, organic material, brow	VII,
			4.0	2.0-4.0 (1445)			ury, iiirii.		
					End of borehole at 4 FT B0	GS			
- 10									
- 15									
PRC	DJECT No	130-2086			l	OGGED BY	AM		
	DJECT _	Exide Fri				CHECKED BY	JX		

PROJECT No	130-2086			LOGGED BY	AM
PROJECT	Exide Fris	со		CHECKED BY	JX
LOCATION	Class 2 La	andfill		REVIEWED BY	JW
			SHEET 1 of 1		

(7)	Golder Associates		LO			H BOREHC		DATE <u>6/</u>	08/2015	06F
	ON Class 2 L					incent Burnham		TIME14		
	L DEPTH			_ RIG_	Geoprobe			NO. SAMPL	.ES <u>3</u>	
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES			RIPTION AND			
_				0.0-0.5 (1500)	0.25-1.0 FT, organics; bro	(ML) CLAYEY SI (CL) SILTY CLA' wn; dry, stiff. CH) CLAY; dark I	Y, some fine-	medium grai	n gravel (<10%	/ dry. //6);
_	1	N/A	<u>3.92</u> 4.0	0.3-2.0 (1300)		,	·			
_				2.0-4.0 (1500)						
-					End of boreh	ole at 4 FT BGS				
5										
_										
- 10 -										
- - -15										

PROJECT No	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	JX
LOCATION	Class 2 Landfill	REVIEWED BY	JW

	Golder Associates		LO	G OF DIRE	ECT PUSH BORE	HOLE BORE	HOLE_	2015-C2L-06G	_
LOCATION Class 2 Landfill			DDILLED COLVE ID					7/29/2015	_
					LER SCI, Vincent Burnh		TME <u>0</u> NO. SAMP		-
		4 FT BGS	Ι	_ RIG_	Geoprobe	'	NO. SAIVIP	LES_3	
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES		SCRIPTION AND			
				0.0-0.5 (0745)	0.0-1.0 FT, (CH) CLAY wi	ith some silt; dark	brown, whi	ite motteling; dry.	
				0.5-2.0 (0745)	1.0-2.5 FT, (CH) CLAY; d	ark brown/black: d	rv. verv sti	iff.	
			2.05	0.5-2.0 (0745)	, (- , - , -	,	, - ,		
	1	N/A	3.95 4.0		1.0 FT, area of gypsum de	eposits (<4%).			
				2.0-4.0 (0745)	2.5-4.0 FT, (CH) CLAY ar	nd GRAVEL; dark l	brown/blac	ck; dry, very stiff.	
				2.0 1.0 (01 10)					
					End of borehole at 4 FT B	BGS			
-5									
-10									
- 15									
PRO	DJECT No_	130-2086	3			LOGGED BY	AM	<u> </u>	
PRC	- DJECT	Exide Fris	sco			CHECKED BY		W	

PROJECT No_	130-2086			LOGGED BY	AM	
PROJECT _	Exide Frisc	0		CHECKED BY	EPW	
LOCATION _	Class 2 La	ndfill		REVIEWED BY	JW	
			SHEET 1 of 1			

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-C2L-06H

DATE <u>07/29/2015</u> TIME _0721 LOCATION Class 2 Landfill DRILLER SCI, Vincent Burnham NO. SAMPLES 3 TOTAL DEPTH 4 FT RGS

IOIAL	DEFII	411665			Geoprobe No. SAMILLO 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
					0-0.5 FT, GRAVEL
					0.5-4.0 FT, (CH) CLAY; dark brown; dry, very stiff.
-				0.5-1.0 (0730)	
				1.0-2.5 (0734)	
-	1	N/A	<u>4.0</u> 4.0	2 (0.0)	
-				2.5-4.0 (0737)	
-					End of borehole at 4 FT BGS
-5					
-					
_					
_					
_					
10					
- 10					
_					
_					
- 15					
_					
-					
-					
-					

PROJECT No	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	EPW
LOCATION	Class 2 Landfill	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-C2I-06J

DATE 07/29/2015

LOCATION_	Class 2 Landfill	DRILLER	SCI, Vincent Burnham	TIME	0752	

TOTAL DEPTH 4 FT BGS NO. SAMPLES 3 RIG_ Geoprobe DEPTH (Feet) RUN NO. PID (ppm) RECOVERY SAMPLES **DESCRIPTION AND COMMENTS** 0.0-3.5 FT, (MLG) GRAVEL and SILT; tan; very dry, very dry. 0.0-0.5 (0800) 0.5-2.0 (0803) 3.0 4.0 1 N/A 2.0-4.0 (0805) 3.5-4.0 FT, (CLG) CLAY and GRAVEL; tan; dry, firm. End of borehole at 4 FT BGS - 5 - 10 - 15

PROJECT No	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	EPW
LOCATION	Class 2 Landfill	REVIEWED BY	JW

LOCATION Class 2 Landfill

Golder Associates			LO	G OF DIRI	ECT PUSH BOREHOLI	E BOREHO	OLE <u>2015-C2L-</u>	06K
						DA	TE <u>07/29/2015</u>	
LOCATION Class 2 Landfill				LER SCI, Vincent Burnham		ИЕ <u>0757</u>		
	_ DEPTH_	4 FT BGS	1	_ RIG_	Geoprobe	NO	o. SAMPLES 3	
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIP	TION AND CO	OMMENTS	
				0.0-0.5 (0825)				se.
					0.5-1.0 FT, (CL/MLG) CLAY, GR			int Comm
				0.5-2.0 (0827	1.0-4.0 FT, (CL/MLS) GRAVEL,	CLAY, and SA	(ND; brown; slightly mo	oist, iirm.
	1	N/A	<u>2.0</u> 4.0					
				2.0-4.0 (0850)				
.								
					End of borehole at 4 FT BGS			
-5								
- 10								
- 15								
•								
PRC	DJECT No_	130-2086	6		LOGG	GED BY	AM	
PRO	JECT	Exide Fris	SCO		CHEC	CKED BY	EPW	
	_							

SHEET 1 of 1

REVIEWED BY JW



LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-C2L-C01D DATE 6/11/2015 LOCATION Class 2 Landfill TIME _1527 DRILLER SCI, Vincent Burnham TOTAL DEPTH 1 FT BGS NO. SAMPLES 2 RIG_{\perp} Geoprobe DEPTH (Feet) RUN NO. PID (ppm) RECOVERY SAMPLES **DESCRIPTION AND COMMENTS** 0-1.0 FT, (CH) CLAY with some gravel; brown with orange mottling; dry, stiff. 0.0-0.5 (1535) <u>1</u> 1.0 1 N/A 0.5-1.0 (1535) End of borehole at 1 FT BGS - 5 - 10 - 15

PROJECT No	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	JX
LOCATION	Class 2 Landfill	REVIEWED BY	JW

Golder

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-CUFT-15A

DATE 6/08/2015

LOCATION Crystallizer Area	DRILLER SCI, Vincent Burnham	TIME _0955
TOTAL DEPTH 6 FT BGS	RIG Geoprobe	NO. SAMPLES_4

TOTAL	L DEPTH_	6 FT BGS		_ RIG_	Geoprobe NO. SAMPLES 4
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
_	1	N/A	<u>3</u> 4.0	0.0-0.5 (1000) 0.5-2.0 (1000) 2.0-4.0 (1000))
-5	2	N/A	<u>2</u> 2.0	4.0-6.0 (1000)	
					End of borehole at 6 FT BGS
-					
- 10					
-					
– 15					
-					
-					
-					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	Crystallizer Area	REVIEWED BY	JW

	Golder Associates	i	LO	G OF DIRE	ECT PUSH BOREHOLE	BOREHOLE <u>2015-CUFT-16A</u> DATE <u>6/08/2015</u>	
LOCATIO	DN _ Crystalli:	zer Area		DRIL	LER SCI, Vincent Burnham	TIME _0915	
TOTAL	DEPTH	6 FT BGS		RIG_	Geoprobe	NO. SAMPLES 4	
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY		DESCRIPTIO	ON AND COMMENTS	
-	1	N/A	<u>3</u> 4.0	0.0-0.5 (0925) 0.5-2.0 (0925) 2.0-4.0 (0925)	0.5-4.5 FT, (CL) SILTY CLAY, some brown; dry, stiff.	fine-medium grain gravel (<10%); organics	;
_			1.8			/EL and some SILT;brown, dry, hard.	
-5	2	N/A	1.8 2.0	4.0-6.0 (0925)	5.0-6.0 FT, (CH) CLAY; dark brown,	orange motteling; dry, firm.	
-10					End of borehole at 6 FT BGS		
- 15							
PRO	DJECT No	130-2086	3		LOGGEI	D BY AM	

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	JX
LOCATION	Crystallizer Area	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-CUFT-16B

DATE 6/08/2015

OCATION	Crystallizer Area	DRILLER	SCI. Vincent Burnham	TIME	0945	
_	- ,		oon, through Darrinani			

TOTAL DEPTH 6 FT BGS RIG Geoprobe NO. SAMPLES 4

101	AL DEPTH_	6 FT BGS		_ RIG_	Geoprobe NO. SAMPLES_4
DEPTI (Feet)	H RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
-	1	N/A	<u>3.2</u> 4.0	0.0-0.5 (0950) 0.5-2.0 (0950)	
_				2.0-4.0 (0950)	
-5	2	N/A	<u>1.7</u> 2.0	4.0-6.0 (0950)	
_					End of borehole at 6 FT BGS
_					
_					
- 10					
_					
- - 15					
_					
_					
_					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	Crystallizer Area	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-CUFT-16C

DATE <u>6/08/2015</u>

OCATION	Crystallizer Area	DRILLER	SCI. Vincent Burnham	TIM	IE 1352	
	0. journie 0. 7 ii 0 ii	DIVILLEIN_	COI, VIIICCIII DUITIIIUITI		·- <u>-1002</u>	

TOTAL DEPTH <u>6 FT BGS</u> RIG <u>G</u>	eoprobe NO. SAMPLES_2	2
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TOTAL	DEPTH_	6 FT BGS		_ RIG_	Geoprobe NO. SAMPLES 2
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
_	1	N/A	<u>3</u> 4.0	2.0-4.0 (1355)	0-0.5 FT, (CL) SILTY CLAY; brown; very dry, hard. 0.5-6.0 FT, (CL) SILTY CLAY, dark brown; dry, firm.
-5	2	N/A	<u>1.4</u> 2.0	4.0-6.0 (1357)	
					End of borehole at 6 FT BGS
_					
-					
- - 10					
_					
-					
- 15 -					
_					
_					

PROJECT No	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	JX
LOCATION	Crystallizer Area	REVIEWED BY	JW

	Golder Associates		LOC	G OF DIRI	ECT PUSH BOREHOLE	BOREHOLE <u>2015-CUFT-16D</u> DATE <u>07/27/2015</u>
LOCATION	ON <u>Crystalli</u>	zer Area		DRII	LER SCI, Vincent Burnham	TIME 0951
TOTA	L DEPTH_	4 FT BGS		_ RIG_	Geoprobe	NO. SAMPLES_4
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES		TION AND COMMENTS
-				0.0-0.5 (0958)		vn/black; dry, very stiff.
-	1	N/A	4.0 4.0			
-				2.0-4.0 (1003)		
-5	2	N/A	<u>2.0</u> 2.0	4.0-6.0 (1005)		
_					End of borehole at 6 FT BGS	
-						
- 10						
_						

PROJECT No	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	Crystallizer Area	REVIEWED BY	JW

- 15

Golder

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-FFTA-08A

DATE 6/11/2015

LOCATION	Former Fire Fighter Training Area	DRILLER	SCI, Vincent Burnham	TIME	1020	
_		_				

TOTAL DEPTH 4 FT BGS NO. SAMPLES 3 RIG Geoprobe DEPTH (Feet) RUN NO. PID (ppm) RECOVERY SAMPLES **DESCRIPTION AND COMMENTS** 0-1.0 FT, (CL) SILTY CLAY, some gravel; organics; brown; moist, soft. 0.0-0.5 (1035) 1.0-3.0 FT, (CHG) CLAY and GRAVEL; tan/brown with orange and grey mottling; dry, stiff. 0.5-2.0 (1035) <u>4</u> 4.0 1 N/A 2.0-4.0 (1035) 3.0-4.0 FT, (CH) CLAY; tan/orange with grey mottling; dry, stiff. End of borehole at 4 FT BGS - 5 - 10 - 15

PROJECT No	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	JX
LOCATION	Former Fire Fighter Training Area	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-MW-17C

DATE 6/10/2015

TIME _1243 LOCATION Stewart Creek Corridor DRILLER SCI, Vincent Burnham

TOTAL DEPTH 4 FT BGS RIG Geoprobe NO. SAMPLES 3

IOIA	_ DEF ITI	411000		_ NG_	Geoprobe No. SAMI EES_5
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1305)	DESCRIPTION AND COMMENTS 0-4.0 FT, (CL) SILTY CLAY; dark brown, organics and ferrous nodules; dry, stiff, hard.
-				0.5-2.0 (1305)	
	_			0.5-2.0 (1505)	
	1	N/A	<u>2.8</u> 4.0		
_				2.0-4.0 (1305)	
_					End of borehole at 4 FT BGS.
-5					
-					
-					
- 10					
-					
_					
- 15					
-					
-					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION _	Stewart Creek Corridor	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-MW-17D Golder ssociates DATE 6/10/2015 LOCATION Stewart Creek Corridor DRILLER SCI, Vincent Burnham TIME _1253 NO. SAMPLES 2 TOTAL DEPTH 4 FT BGS RIG_ Geoprobe **DEPTH** RUN NO. PID (Feet) RECOVERY SAMPLES **DESCRIPTION AND COMMENTS** (ppm) 0-0.75 FT, (CL) SILTY CLAY with some gravel; brown; dry, hard. 0.75-4.0 FT, (CL) SILTY CLAY; dark brown; dry, stiff. 0.5-2.0 (1310) 2.8 4.0 N/A 2.0-4.0 (1310) End of borehole at 4 FT BGS. - 5 - 10

PROJECT No 130-2086 LOGGED BY AM

PROJECT Exide Frisco CHECKED BY JX

LOCATION Stewart Creek Corridor REVIEWED BY JW

- 15

	Golder Associates		LO	G OF DIRE	ECT PUSH BOREHOLE	BOREHOL	E 2015-NDA-11	
LOCATIO				551	15D 0011// 15 1		E <u>6/11/2015</u>	
LOCATION North Disposal Area TOTAL DEPTH 4 FT BGS					LER SCI, Vincent Burnham		6 0902 SAMPLES 3	
		PID		_ RIG_	Geoprobe	110. 0	DAIVII LLO <u>J</u>	_
DEPTH (Feet)	RUN NO.	(ppm)	RECOVERY	SAMPLES		TION AND COM		
				0.0-0.5 (0925)	0-0.5 FT, (CL) SILTY CLAY with c 0.5-4.0 FT, (CH) CLAY with some			
				0.5.0.0.(0005)	0.5-4.0 FT, (CH) CLAY WITH SOME	graver, dark bri	own, slightly moist, still	•
				0.5-2.0 (0925)				
	1	N/A	<u>3.2</u> 4.0					
				0.0.4.0.(0005)				
'				2.0-4.0 (0925)				
					Ford of bornels and A FT DOO			
					End of borehole at 4 FT BGS			
-5								
- 10								
- 15								
.								
PRO	DJECT No_	130-2086	3		LOGG	ED BY _	AM	
PRO)JECT _	Exide Fris	sco		CHEC	KED BY	JX	

PROJECT No_	130-2086			LOGGED BY	AM
PROJECT _	Exide Frisco	0		CHECKED BY	JX
LOCATION	North Dispo	osal Area		REVIEWED BY	JW
			SHEET 1 of 1		

- 10

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LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-NDA-12 DATE 6/11/2015 LOCATION North Disposal Area DRILLER SCI, Vincent Burnham TIME _1040 TOTAL DEPTH 4 FT BGS NO. SAMPLES 3 RIG_ Geoprobe DEPTH (Feet) RUN NO. PID RECOVERY SAMPLES **DESCRIPTION AND COMMENTS** (ppm) 0-0.5 FT, (CH) CLAY, some gravel and organics; dark brown; dry, stiff. 0.0-0.5 (1110) 0.5-4.0 FT, (CH) CLAY, some gravel; dark brown/black; dry, stiff. 0.5-2.0 (1110) 2.8 4.0 1 N/A 2.0-4.0 (1110) End of borehole at 4 FT BGS - 5

PROJECT No	130-2086		LOGGED BY	AM	
PROJECT _	Exide Frisco		CHECKED BY	JX	
LOCATION	North Disposal Area		REVIEWED BY	JW	

Golder Associates			LO	G OF DIRE	ECT PUSH BORE	HOLE BORE	DATE 6/11/2015		
LOCATIO							OATE 6/11/2015		
	N North Di	sposal Area 4 FT BGS			LER SCI, Vincent Burnh		TIME <u>0955</u> NO. SAMPLES <u>3</u>		
DEPTH	RUN NO.	PID		_ RIG_	Geoprobe		VO. OAIVII EEO <u>U</u>		
(Feet)	RUN NO.	(ppm)	RECOVERY		0.0 = ET (OLD) OLAN(L	ESCRIPTION AND	COMMENTS		
				0.0-0.5 (1000)	0-0.5 FT, (CH) CLAY; bro 0.5-1.5 FT, (CH) CLAY; t		· dry firm		
				0.5-2.0 (1000)		an orango mounig	,, ,		
			2.8	0.0 2.0 (1000)	1.5-1.75 FT, (CH/GC) GF	RAVELLY CLAY; ta	ın with orange mottling; dı	ry, firm.	
	1	N/A	<u>2.8</u> 4.0		2.0-3.5 FT, (CH) CLAY; t	an; dry, firm.			
				2.0-4.0 (1000)					
					3.5-3.75 FT, (CH/GC) GF	RAVELLY CLAY: ta	in with orange mottling: di	ry firm	
.					3.75-4.0 FT, (CH) CLAY;	tan; dry, firm.	in with orange motting, di	у, шш.	
					End of borehole at 4 FT E	BGS			
-5									
•									
- 10									
- 15									
:									
PRO	DJECT No	130-2086	3			LOGGED BY	AM		
PRO	JECT	Exide Fris	SCO			CHECKED BY	, JX		
	ATION		posal Area			REVIEWED B			

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16A

DATE 6/10/2015

		27112 071072010
LOCATION Stewart Creek Corridor	DRILLER SCI, Vincent Burnham	TIME 0930
TOTAL DEPTH 4 FT RGS	RIG Geonrobe	NO SAMPLES 3

10171	- DEI III <u> </u>	+111000		_ '_	<u>Geoplobe</u>
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
_ ` ,		W 1 /		0.0-0.5 (0935)	
					0.5-4.0 FT, (CH) CLAY; dark brown/black; dry, stiff.
-				0.5.0.0.0005	
				0.5-2.0 (0935)	
_	1	N/A	3.8 4.0		
	·		4.0		
_				2.0-4.0 (0935)	
- }					End of borehole at 4 FT BGS
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION _	Stewart Creek Corridor	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16B

DATE <u>6/10/2015</u> TIME _0958 LOCATION Stewart Creek Corridor DRILLER SCI, Vincent Burnham TOTAL DEPTH 4 FT BGS NO. SAMPLES 3 RIG Geoprobe

10171	- DEI III			_ ''''	<u>Geoplobe</u>
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1005)	0-0.75 FT, (CL) SILTY CLAY; dark brown with orange and light brown mottling; organics; very dry, hard.
_				0.5-2.0 (1005)	0.75-4.0 FT, (CH) CLAY with some gravel; dark brown with orange mottling; dry,
_	1	N/A	<u>3.6</u> 4.0		
_				2.0-4.0 (1005)	
					End of borehole at 4 FT BGS
-5					
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-					
_					
- 10					
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-					
_					
-					
- 15					
-					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	Stewart Creek Corridor	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16C DATE 6/10/2015 LOCATION Stewart Creek Corridor DRILLER SCI, Vincent Burnham TIME _0946 NO. SAMPLES 3 TOTAL DEPTH 4 FT BGS RIG_ Geoprobe DEPTH (Feet) RUN NO. PID RECOVERY SAMPLES **DESCRIPTION AND COMMENTS** (ppm) 0-0.5 FT, (CL) SILTY CLAY; brown, organics; very dry, firm. 0.0-0.5 (0955) 0.5-4.0 FT, (CH) CLAY; dark brown, ferrous nodules; dry, stiff. 0.5-2.0 (0955) <u>2</u> 4.0 1 N/A 2.0-4.0 (0955)

End of borehole at 4 FT BGS - 5 - 10 - 15

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	Stewart Creek Corridor	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16D

DATE <u>6/10/2015</u> TIME _0940 LOCATION Stewart Creek Corridor DRILLER SCI, Vincent Burnham TOTAL DEPTH_ 4 FT BGS NO. SAMPLES 2 RIG <u>Geoprobe</u>

DEPTH Feet Pun NO.	55551		5.5			·
0.5-2.0 (0945) 1 N/A 3.4	DEPTH (Foot)	RUN NO.	PID (nnm)	DECOVEDY	CAMBLES	DESCRIPTION AND COMMENTS
0.5-2.0 (0945) 1 N/A 3.4 2.0-4.0 (0945) End of borehole at 4 FT BGS	(Feet)		(ppm)	RECOVERT	SAMPLES	DESCRIPTION AND COMMENTS
0.5-2.0 (0945) 1 N/A 3.4 2.0-4.0 (0945) End of borehole at 4 FT BGS						U-U.20 FT, (UL) SILTY CLAY; Drown; Organics; Gry, Tirm.
1 N/A 3.4 4.0 2.0-4.0 (0945) End of borehole at 4 FT BGS						0.25-4.0 FT, (CH) CLAY; dark brown with light grey motteling; dry, stiff.
1 N/A 3.4 4.0 2.0-4.0 (0945) End of borehole at 4 FT BGS	-					
1 N/A 3.4 4.0 2.0-4.0 (0945) End of borehole at 4 FT BGS					0.5-2.0 (0945)	
2.0-4.0 (0945) End of borehole at 4 FT BGS					1	
2.0-4.0 (0945) End of borehole at 4 FT BGS	L	4	NI/A	<u>3.4</u>		
2.0-4.0 (0945) End of borehole at 4 FT BGS		'	IN/A	4.0		
End of borehole at 4 FT BGS						
End of borehole at 4 FT BGS						
-5 - - -10 - -	F				2.0-4.0 (0945)	
-5 - - -10 - -						
-5 - - -10 - -						
-5 - - -10 - -	-					End of horehole at 4 FT RGS
- 10						Lift of bolefiole at 41 1 BGS
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	Stewart Creek Corridor	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16E Golder ssociates DATE 07/27/2015 LOCATION Stewart Creek Corridor DRILLER SCI, Vincent Burnham TIME _0900 NO. SAMPLES 3 TOTAL DEPTH 4 FT BGS RIG_ Geoprobe **DEPTH** RUN NO. PID (Feet) RECOVERY SAMPLES **DESCRIPTION AND COMMENTS** (ppm) 0-0.5 FT, (CH) CLAY; dark brown; mostly dry, firm. 0.0-0.5 (0912) 0.5-0.75 FT, (CLG) SILTY CLAY and GRAVEL; grey; very dry, loose. 0.75-4.0 FT, (CH) CLAY; dark brown/black; mostly dry, firm 0.5-2.0 (0914) <u>4.0</u> 4.0 N/A 2.0-4.0 (0916) End of borehole at 4 FT BGS - 5 - 10 - 15 PROJECT No 130-2086 LOGGED BY AM **PROJECT** Exide Frisco **CHECKED BY EPW**

LOCATION Stewart Creek Corridor **REVIEWED BY** JW SHEET 1 of 1

Golder Associates			LO	G OF DIRI	ECT PUSH BOREHOLE	E BOREHO	BOREHOLE <u>2015-SCC-16F</u> DATE <u>07/27/2015</u>	
LOCATION Stewart Creek Corridor TOTAL DEPTH 4 FT BGS		<u> </u>		LER SCI, Vincent Burnham		1E <u>0911</u> . SAMPLES <u>3</u>		
DEPTH		4 FT BGS PID		_ RIG_	Geoprobe		. OAWI LLO_U	
(Feet)	RUN NO.	(ppm)	RECOVERY	SAMPLES	0.0 = ET (OU) OLAY(TION AND CO		
				0.0-0.5 (0925)	0-0.5 FT, (CH) CLAY, organics; of 0.5-4.0 FT, (CH) CLAY; dark brown			
				0.5-2.0 (0927)		willblack, dry,	Suii.	
			3.05	0.5-2.0 (0921)				
	1	N/A	3.95 4.0					
				2.0-4.0 (0929)				
				2.0 4.0 (0020)				
.					End of borehole at 4 FT BGS			
-5								
- 10								
•								
- 15								
.								
PRC	JECT No_	130-2086	3		LOGO	GED BY	AM	
PRC	JECT _	Exide Fris	sco		CHEC	CKED BY	EPW	

REVIEWED BY JW

LOCATION Stewart Creek Corridor

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SCC-16G DATE <u>07/27/2015</u> LOCATION Stewart Creek Corridor DRILLER SCI, Vincent Burnham TIME _0840 NO. SAMPLES 3 TOTAL DEPTH 4 FT BGS RIG_ Geoprobe DEPTH (Feet) RUN NO. PID RECOVERY SAMPLES DESCRIPTION AND COMMENTS (ppm) 0-0.5 FT, (CL) SILTY CLAY; brown; very dry, hard. 0.0-0.5 (1000) 0.5-1.0 FT, (CH) CLAY; red; very dry, hard. 1.0-4.0 FT, (CH) CLAY; brown with grey mottling; stiff, dry. 0.5-2.0 (1003) 2.0-3.0 with some sand. <u>4.0</u> 4.0 1 N/A 2.0-4.0 (1005) End of borehole at 4 FT BGS - 5 - 10 - 15

PROJ	JECT No_	130-2086	;			LOGGED BY	AM
PROJ	JECT _	Exide Fris	CO			CHECKED BY	EPW
LOCA	ATION _	Stewart Creek Corridor				REVIEWED BY	JW
					SHEET 1 of 1		

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-SDA-3C

DATE 6/09/2015

OCATION	South Disposal Area	DRILLER	SCI, Vincent Burnham	TIME	0939	

TOTAL DEPTH 4 FT BGS NO. SAMPLES 3 RIG_ Geoprobe DEPTH (Feet) RUN NO. PID (ppm) RECOVERY SAMPLES DESCRIPTION AND COMMENTS 0-0.5 FT, (ML) CLAYEY SILT, oragnics; brown; dry, firm. 0.0-0.5 (0945) 0.5-4.0 FT, (CL) SILTY CLAY; dark brown; dry, firm. 0.5-2.0 (0945) 3.6 4.0 1 N/A 2.0-4.0 (0945) End of borehole at 4 FT BGS - 5 - 10 - 15

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	South Disposal Area	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-STB-6A

DATE 6/09/2015

LOCATION Slag Treatment Building DRILLER SCI, Vincent Burnham TIME _1357

NO. SAMPLES 3 TOTAL DEPTH 8 FT BGS RIG_ Geoprobe **DEPTH** RUN NO. PID (Feet) **RECOVERY SAMPLES DESCRIPTION AND COMMENTS** (ppm) 0-1.0 FT, Concrete. 1.0-1.25 FT, FILL - (GP/SP) SAND, coarse, and GRAVEL, fine; dark black; 1.0-2.0 (1405) slightly wet, loose, soft. 1.25-1.5 FT, (CL) SILTY CLAY and gravel; dark brown; slightly wet, soft. 3.4 4.0 1 4.7 1.5-5.0 FT, (CH) CLAY; dark brown with black mottling; dry, stiff. 2.1 4.0-6.0 (1405) 5.0-8.0 FT, (CH) CLAY; dark brown; dry, stiff. - 5 4.6 <u>1.6</u> 4.0 2 6.0-8.0 (1405) 200 End of borehole at 8.0 FT BGS - 10 - 15

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	JX
LOCATION	Slag Treatment Building	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-STB-6B

DATE 6/09/2015

TIME _1638 LOCATION Slag Treatment Building DRILLER SCI, Vincent Burnham

TOTAL DEPTH 8 FT BGS NO. SAMPLES 3 RIG Geoprobe

IOIA	DEPTH_	0 1 1 1 1 1 1		_ RIG_	Geoprobe No. Samples 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
_	1	3.7 4.5	<u>3.6</u> 4.0	1.0-2.0 (1450) 2.0-4.0 (1450)	2.5-8.0 FT, (CH) CLAY; dark brown/black; dry, stiff.
_ _5	2	6.0	3.8 4.0	4.0-6.0 (1450)	
		5.0			
- 10 - 15 					End of borehole at 8.0 FT BGS

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	Slag Treatment Building	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE 2015-STB-6C

DATE 6/09/2015

LOCATION Slag Treatment Building	DRILLER SCI, Vincent Burnham	TIME 1425
TOTAL DEPTH 8 FT BGS	RIG Geoprobe	NO. SAMPLES_3

. •	· ··- <u>-</u>			- '''' =	
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
-	1	10.1	<u>3</u> 4.0	0.75-2.0 (1435)	0-0.75 FT, Concrete. 0.75-1.25 FT, (ML) CLAYEY SILT; red with black mottling; slightly moist, soft. 1.25-1.3 FT, (CL) CLAY and GRAVEL; black, dry, thick/firm. 1.3-2.0 FT, (ML) SILT; light grey/white; dry, loose. 2.0-4.0 FT, (CL) CLAY; dark brown; dry, stiff.
-		7.2		2.0-4.0 (1435)	
- 5		5.8		4.0-6.0 (1438)	4.0-5.0 FT, (CL) CLAY, with some gravel, dark brown and light brown; slightly wet, stiff. 5.0-8.0 FT, (CL) CLAY, dark brown; dry, stiff.
-	2		<u>3.6</u> 4.0		
-		5.9			
-					End of borehole at 8 FT BGS
- 10 -					
-					
-					
- 15					
-					
-					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	Slag Treatment Building	REVIEWED BY	JW

Golder

LOG OF DIRECT PUSH BOREHOLE BOREHOLE B3RA-A

DATE 6/08/2015

LOCATION South Disposal Area DRILLER SCI, Vincent Burnham TIME 1240

TOTAL DEPTH 4 FT BGS RIG Geoprobe NO. SAMPLES 3

IOIA	L DEPTH_	4 FT BGS		RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1255)	
_				0.5-2.0 (1255)	
	1	N/A			
	'	IN/A	4.0		
_				2.0-4.0 (1255)	
					End of borehole at 4 FT BGS
-5					
_					
_					
_					
_					
- 10					
_					
-					
- 15					
13					
-					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION _	South Disposal Area	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE B3RA-B

DATE 6/08/2015

LOCATION South Disposal Area DRILLER SCI, Vincent Burnham TIME 1248

TOTAL	L DEPTH_	4 FT BGS		RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1300)	0-0.5 FT, (CL) SILTY CLAY, dark brown; very dry, hard.
_					0.5-4.0 FT, (CL) SILTY CLAY, dark brown; dry, firm.
				0.5-2.0 (1300)	
	1	N/A	4.0		
				2.0-4.0 (1300)	
					End of borehole at 4 FT BGS
-5					
_					
- 10					
_					
-					
- 15					
-					
-					
-					
		1	1		

PROJECT No	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	JX
LOCATION	South Disposal Area	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE B3RA-C

DATE 6/08/2015

LOCATION South Disposal Area DRILLER SCI, Vincent Burnham TIME 1255

IOIA	L DEPTH_	4 FT BGS		RIG_	Geoprobe NO. SAMPLE	=8 <u>3</u>
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENT	S
				0.0-0.5 (1310)	0-0.5 FT, (ML) CLAYEY SILT, organics; dark brown; dry	
					0.5-4.0 FT, (CL) SILTY CLAY, trace fine grain gravel (<3	3%), brown; dry, firm.
				0.5-2.0 (1310)		
	1	N/A	<u>3.8</u> 4.0			
		1471	4.0			
				2.0-4.0 (1310)		
_					End of borehole at 4 FT BGS	
					End of poreficie at 4 FT BGS	
-5						
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_						
- 10						
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_						
- 15						
		1	1	'		

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	South Disposal Area	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE B3RA-D

DATE <u>07/27/2015</u>

LOCATION South Disposal Area DRILLER SCI, Vincent Burnham TIME 0800

TOTAL DEPTH 4 FT BGS RIG Geoprobe NO. SAMPLES 3

10171	- DLI III	+111000		_ '_	<u>Geoplobe</u>
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (0810)	0-2.0 FT, (CH) CLAY; dark brown, some orange/ferrous mottling; dry, stiff, stiff-hard.
_					
				0.5-2.0 (0812)	
-	1	N/A	<u>3.9</u> 4.0	_	2.0-4.0 FT, (CH) CLAY; dark brown, some light brown mottling; dry, stiff, hard.
			1.0		2.0 1.0 1.1, (0.17) 0.2 (1), dank blottin, bollo light blottin mottaling, diff, ball, hard.
-				2.0-4.0 (0814)	
_					End of borehole at 4 FT BGS
-5					
-					
-					
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_					
- 10					
-					
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-					
-					
45					
- 15					
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-					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	South Disposal Area	REVIEWED BY	JW

Caldan	
Golder	
Associates	

DATE 6/10/2015

LOCATION North Tributary Corridor and North Wooded AreaRILLER SCI, Vincent Burnham TIME 1340

IOTAL	DEPTH_	4 FT BGS		_ RIG_	Geoprobe No. Samples 2
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
					0-4.0 FT, (CH) CLAY; dark brown/black; trace amounts of gravel (<2%), dry, very stiff.
_					
				0.5-2.0 (1345)	
-	1	N/A	4.0		
				2.0-4.0 (1345)	
-					Ford of househole and FT DOC
					End of borehole at 4 FT BGS
-5					
_					
-					
-10					
-					
_					
-					
15					
- 15					
-					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION _	North Tributary Corridor and North Wooded Area	REVIEWED BY	JW

Golder
Associates

DATE 6/10/2015

LOCATION North Tributary Corridor and North Wooded AreaRILLER SCI, Vincent Burnham TIME 1350

IOTAL	_ DEPTH_	4 FT BGS		_ RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY		DESCRIPTION AND COMMENTS
				0.0-0.5 (1355)	
_					0.5-4.0 FT, (CH) CLAY with some silt; dark brownwith black mottling; dry, firm.
				0.5-2.0 (1355)	
-	1	N/A	<u>0.75</u> 4.0		
_				2.0-4.0 (1355)	
					End of borehole at 4 FT BGS
-5					
-					
_					
- 10					
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-					
-					
- 15					
-					
-					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	North Tributary Corridor and North Wooded Area	REVIEWED BY	JW

Golder
Associates

DATE 6/10/2015

LOCATION North Tributary Corridor and North Wooded Area RILLER SCI, Vincent Burnham TIME 1332

IOIA	DEPTH_	4 FT BGS		RIG_	Geoprobe	NO. SAMPLES_3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES		DESCRIPTION AND COMMENTS
				0.0-0.5 (1340)	0-0.25 FT, (CL) SILTY	CLAY; brown; organics; very dry, hard.
					0.5-4.0 FT, (CH) CLAY	with some gravel; dark brown; dry, stiff.
				0.5-2.0 (1340)		
			4			
_	1	N/A	<u>4</u> 4.0			
				2.0-4.0 (1340)		
					End of borehole at 4 F	T BGS
_						
-5						
10						
- 10						
- 15						
-						
-						

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	North Tributary Corridor and North Wooded Area	REVIEWED BY	JW



DATE <u>07/29/2015</u>

LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent Burnham TIME 0840

IOIA	_ DEF ITI	4 1 1 1 1 1 1 1 1		_ 1110_	Geoprobe No. SAMI EES_5
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (0855)	0-0.75 FT, (CL) SILTY CLAY; dark brown; organics, dry, firm.
_	1	N/A	<u>4.0</u> 4.0	0.5-2.0 (0857)	0.75-2.5 FT, (CH) CLAY with trace gravel; dark brown/black; dry, stiff.
_				2.0-4.0 (0900)	2.5-4.0 FT, (CH) GRAVELLY CLAY; dark brown/black with some orange mottling, gypsum deposits; dry, stiff.
-					End of borehole at 4 FT BGS
-5					
_					
- 10					
_					
- 15					
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-					
_					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	North Tributary Corridor & North Wooded Area	REVIEWED BY	JW

Golder Ssociates

LOG OF DIRECT PUSH BOREHOLE BOREHOLE E-11C-B

DATE 6/10/2015

TIME _1401 LOCATION North Tributary Corridor and North Wooded AreaRILLER SCI, Vincent Burnham

IOTAL	DEPTH	8 F I BGS		_ RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
_	1	N/A	<u>3.4</u> 4.0	0.0-0.5 (1410)	0-0.25 FT, (CL) SILTY CLAY; brown; organics; very dry, hard. 0.5-6.0 FT, (CH) CLAY; dark brown/black; dry, stiff.
-5 -	2	N/A	<u>4</u> 4.0	0.5-2.0 (1410)	6.0-7.0 FT, (CH) GRAVELLY CLAY; brown; dry, very stiff.
_				2.0-4.0 (1410)	7.0-8.0 FT, (CH) GRAVELLY CLAY; light brown with dark brown motteling; dry, stiff.
					End of borehole at 8 FT BGS
- 10 -					
_					
- 15 -					
_					
_					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	North Tributary Corridor and North Wooded Area	REVIEWED BY	JW



DATE 6/10/2015

LOCATION North Tributary Corridor and North Wooded AreaRILLER SCI, Vincent Burnham TIME 1384

IOIA	_ DEF IT	+111000		_ 1110_	Geoprobe No. SAMI EES_5
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1440)	0-4.0 FT, (CH) CLAY; dark brown/black; dry, stiff.
_	1	N/A		0.5-2.0 (1440)	
	Į.	IN/A	<u>3.4</u> 4.0		
_				2.0-4.0 (1440)	
					End of borehole at 4 FT BGS
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- 10					
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- 15					
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-					
-					
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	North Tributary Corridor and North Wooded Area	REVIEWED BY	JW



DATE 6/10/2015

TIME _1323 LOCATION North Tributary Corridor and North Wooded AreaRILLER SCI, Vincent Burnham

IOTAL	_ DEPTH_	4 FT BGS		_ RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1430)	0-2.0 FT, (CH) CLAY with some silt; dark brown/black; mostly dry, soft.
_				0.5-2.0 (1430)	
_	1	N/A	<u>2.4</u> 4.0		2.0-4.0 FT, (CH) CLAY; dark brown with black mottling; dry, stiff.
_				2.0-4.0 (1430)	
					End of borehole at 4 FT BGS
-5					
3					
-					
_					
- 10					
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-					
- 15					
-					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	North Tributary Corridor and North Wooded Area	REVIEWED BY	JW

Golder	c

DATE 07/29/2015

LOCATION N Tributary Corridor & N Wooded Area DRILLER SCI, Vincent Burnham TIME 1510

IOTAL	_ DEPTH_	4 FT BGS		_ RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY		DESCRIPTION AND COMMENTS
				0.0-0.5 (1515)	0-0.5 FT, (CL) SILTY CLAY with some gravel; dark brown; very dry, hard. 0.5-4 FT, (CL) GRAVELLY SILTY CLAY; brown; loose, dry, hard.
_				0.5.0.0.(4.54.7)	
				0.5-2.0 (1517)	
_	1	NA	<u>3.95</u> 4.0		
_				2.0-4.0 (1520)	
					End of borehole at 4 FT BGS
-5					
_					
- 10					
_					
_					
- 15					
-					
-					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	N Tributary Corridor & N Wooded Area	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-11A

DATE 6/11/2015

LOCATION N Tributary Corridor & N Wooded Area

DRILLER SCI, Vincent Burnham

TIME _1400

TOTAL	DEPTH	4 FT	BGS

RIG Geoprobe

NO. SAMPLES 3

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1410)	0-1.0 FT, (CH) CLAY; dark brown; dry, soft.
-				0.5-2.0 (1410)	1.0-4.0 FT, (CH) CLAY; dark brown, black mottling; dry, firm.
_	1	N/A	<u>3.2</u> 4.0	1	
	·		4.0		
_				2.0-4.0 (1410)	
_					Ford of heavahala at 4 FT DOC
					End of borehole at 4 FT BGS
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- 10					
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- 15					
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	N Tributary Corridor & N Wooded Area	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-11B

DATE 6/11/2015

LOCATION North Tributary Corridor and North Wooded AreaRILLER SCI, Vincent Burnham TIME 1431

IOIAL	_ DEF ITI	+111000		_ NG_	Geoprobe No. SAMI EES_5
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1435)	0-4.0 FT, (CL) SILTY CLAY with organics; dark brown/black, dry, soft.
_	1	N/A	<u>2.8</u> 4.0	0.5-2.0 (1435)	
_				2.0-4.0 (1435)	
					End of borehole at 4 FT BGS
-5					
_					
_					
-					
- 10					
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_					
-					
 15					
-					
-					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	North Tributary Corridor and North Wooded Area	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-11C

DATE 6/11/2015

LOCATION North Tributary Corridor and North Wooded Area RILLER SCI, Vincent Burnham TIME 1419

IOIAL	_ DEPTH_	4 FT BGS		RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1425)	0-0.25 FT (ML) CLAYEY SILT; brown; slightly moist, soft.
					0.25-2.0 FT, (CH) CLAY; dark brown; dry, firm.
				0.5-2.0 (1425)	5)
]	
-	1	N/A	<u>3</u> 4.0		2.0-2.25 FT, (CH) CLAY and GRAVEL; gray and reddish brown; moist, stiff-hard.
					2.25-4.0 FT, (CH) CLAY; dark brown; dry, firm.
-				2.0-4.0 (1425)	
-					End of borehole at 4 FT BGS
-5					
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- 1					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	JX
LOCATION	North Tributary Corridor and North Wooded Area	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-11D

DATE 6/11/2015

LOCATION North Tributary Corridor and North Wooded AreaRILLER SCI, Vincent Burnham TIME 1350

IOTAL	_ DEPTH_	4 FT BGS		_ RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1450)	0-0.5 FT (ML) CLAYEY SILT with organics; dark brown; dry, hard. 0.5-4.0 FT, (CL) SILTY CLAY with organics; dark brown, dry, stiff.
_				0.5-2.0 (1450)	
-	1	N/A	<u>2.8</u> 4.0		
_				2.0-4.0 (1450)	
_					End of borehole at 4 FT BGS
- 5					
_					
-					
- 10					
_					
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-					
4.5					
- 15					
-					
-					
_					
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	North Tributary Corridor and North Wooded Area	REVIEWED BY	JW



DATE <u>07/28/2015</u>

TIME _0742 LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent Burnham

TOTAL DEPTH 4 FT BGS NO. SAMPLES 3 RIG_ Geoprobe

IOTAL	DEPTH_	4 FT BGS		RIG	Geoprobe NO. SAMPLES_3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (0746)	0-0.75 FT (ML) CLAYEY SILT with organics; brown; dry, loose, soft.
_	1	N/A	3.8 4.0	0.5-2.0 (0750)	0.75-4.0 FT, (CL) CLAY with some silt; dark brown with tan mottling; dry, stiff.
_				2.0-4.0 (0752)	
					End of borehole at 4 FT BGS
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- 10					
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- 15					
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION _	North Tributary Corridor & North Wooded Area	REVIEWED BY	JW



DATE <u>07/28/2015</u>

LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent Burnham TIME 0757

TOTAL DE	PTH 4 FT BGS	RIG	Geoprobe	NO. SA	MPLES 3	

IOIAL	_ DEF IT	4 1 1 1 1 1 1 1 1		_ NG_	Geoprobe No. Salvii EES_5
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (0815)	0-0.25 FT (ML) CLAYEY SILT with organics; brown; loose, dry.
					0.25-3.0 FT, (CL) CLAY; dark brown; dry, stiff.
				0.5-2.0 (0818)	
	_		3.8		
	1	N/A	3.8 4.0		
				2.0-4.0 (0820)	3.0-3.5 FT, (CLG) GRAVELLY CLAY; brown; loose, dry.
					3.5-4.0 FT, (CL) CLAY with some silt; dark brown; mostly dry, soft.
					End of borehole at 4 FT BGS
-5					
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- 15					

PROJECT No	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	EPW
LOCATION	North Tributary Corridor & North Wooded Area	REVIEWED BY	JW



DATE 07/28/2015

LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent Burnham TIME 0940

	IOTAL	_ DEPTH_	4 FT BGS		_ RIG_	Geoprobe NO. SAMPLES 3
1 N/A 3.75	DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
1 N/A 3.75 4.0 (1950) 2.0-4.0 (1950) 2.5-4.0 FT, (CL) CLAY with some silt; dark brown/black; dry, soft. End of borehole at 4 FT BGS					0.0-0.5 (0945)	0-1.0 FT (ML) CLAYEY SILT; dark brown; loose, dry, hard.
2.0-4.0 (0950) 2.0-4.0 (0950) End of borehole at 4 FT BGS	-				0.5-2.0 (0947)	1.0-2.5 FT, (CL) SILTY CLAY; dark brown; dry, hard-stiff.
2.0-4.0 (0950) 2.0-4.0 (0950) End of borehole at 4 FT BGS	-	1	N/A	3.75 4.0		
End of borehole at 4 FT BGS					2 0-4 0 (0950)	2.5-4.0 FT, (CL) CLAY with some silt; dark brown/black; dry, soft.
-5					2.0-4.0 (0930)	
	-					End of borehole at 4 FT BGS
	-5					
	_					
	-					
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	- 10					
	10					
-	-					
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- 15 	_					
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- 15 						
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	EPW
LOCATION	North Tributary Corridor & North Wooded Area	REVIEWED BY	JW



DATE <u>07/28/2015</u>

LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent Burnham TIME 0959

10174	L DEPTH_	4 FT BGS		_ RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1005)	0-2.5 FT, (CL) SILTY CLAY; dark brown; very dry, hard, firm.
-				0.5-2.0 (1008)	
_	1	N/A	<u>3.75</u> 4.0		
					2.5-4.0 FT, (CL) GRAVELLY SILTY CLAY; brown; dry, hard, firm.
				2.0-4.0 (1010)	
					End of borehole at 4 FT BGS
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- 10					
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- 15					
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-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION _	North Tributary Corridor & North Wooded Area	REVIEWED BY	JW



DATE 07/28/2015

LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent Burnham TIME 1229

TOTAL DEPTH 4 FT BGS RIG Hand Auger NO. SAMPLES 3

LIOTAL	DEPTH_	4 FT BGS		RIG_	Hand Auger NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1230)	0-2.0 FT, (ML) SILT with some clay; dark brown; very dry, hard, firm.
_				0.5-2.0 (1240)	1.75-2.0 FT area of gravel and silt (friable sandstone).
_	1	N/A	<u>NA</u> 4.0		2.0-4.0 FT, (CL) SILTY CLAY and some gravel; dark brown/black; dry, stiff.
				2.0-4.0 (1250)	
					End of borehole at 4 FT BGS
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- 10					
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- 15					
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	EPW
LOCATION _	North Tributary Corridor & North Wooded Area	REVIEWED BY	JW



DATE <u>07/27/2015</u>

LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent Burnham TIME 1325

TOTAL DEPTH	3.5 FT BGS	RIG	Geoprobe	NO. SAMPLES 3

IOIAL	_ DEF III	3.3 FT BG	<i></i>	_ NG_	Geoprobe No. SAMI ELS_5
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1326)	0-0.5 FT, (ML) SILT with some clay and organics; dark brown; loose, very dry.
_	1	N/A	<u>NA</u> 3.5	0.5-2.0 (1337) 2.0-3.5 (1345)	0.5-3.0 FT, (CL) SILTY CLAY and some gravel; dark brown with orange ferrous mottling; dry, firm.
F				1	3.0-3.5 FT, (CL) SILTY CLAY and GRAVEL; dark brown, loose, dry.
_ _ 5					Refusal at 3.5 FT BGS
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- 10 - -					
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- 15 - -					
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	North Tributary Corridor & North Wooded Area	REVIEWED BY	JW



DATE <u>07/28/2015</u>

TIME _1037 LOCATION North Tributary Corridor & North Wooded Area DRILLER SCI, Vincent Burnham

IOIAL	DEFIN_	+111000		_ 1110_	Geoprobe No. SAMI EES_5
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
_ `		,, ,		0.0-0.5 (1045)	
				(10,10)	0.5-2.5 FT, (CL) CLAY with some silt; dark brown; dry, stiff.
-					
				0.5-2.0 (1047)	
	1	N/A	3.85		
	ı	IN/A	<u>3.85</u> 4.0		
					2.5-4.0 FT, (CL) CLAY; dark brown; mostly dry, stiff.
-				2.0-4.0 (1050)	
					End of borehole at 4 FT BGS
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- 15					
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	North Tributary Corridor & North Wooded Area	REVIEWED BY	JW

	15500111105					DATE <u>6/10/2015</u>
LOCATIO	ON South Di	sposal Area		DRIL	LER SCI, Vincent Burnham	TIME <u>1033</u>
TOTAL	_ DEPTH	4 FT BGS		RIG_	Geoprobe	NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTI	ON AND COMMENTS
					0.0 E ET (CL) CILTY CLAY and or	ganion: dark brown: dry firm

TOTAL	L DEPTH_	4 FT BGS		RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
	1	N/A	<u>2.8</u> 4.0	0.0-0.5 (1040) 0.5-2.0 (1040) 2.0-4.0 (1040)	0.5-4.0 FT, (CH) CLAY some gravel; brown; slightly moist, stiff.
-5					End of borehole at 4 FT BGS
- 10					
-15					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	South Disposal Area	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-8C

DATE 6/09/2015

LOCATION	South Disposal Area	DRILLER	SCI, Vincent Burnham	TIME	0947	
						

	_ DEPTH_	4 FT BGS		 RIG	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
		(17 /		0.0-0.5 (0955)	0-0.5 FT, (CL) SILTY CLAY; brown; dry, firm.
-				0.5.0.0.0055	0.5-2.0 FT, (CH) CLAY with some silt; dark brown; dry, firm.
				0.5-2.0 (0955)	
	1	N/A	<u>3.2</u> 4.0		2.0-4.0 FT, (CL) SILTY CLAY and GRAVEL; reddish brown; dry, firm.
_				2.0-4.0 (0955)	
					End of borehole at 4 FT BGS
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PROJECT No	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION _	South Disposal Area	REVIEWED BY _	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE ECO-8D

DATE 6/09/2015

 LOCATION
 South Disposal Area
 DRILLER
 SCI, Vincent Burnham
 TIME
 0953

IOTAL	L DEPTH_	4 FT BGS		RIG_	Geoprobe	NO. SAMPLES_3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTIO	ON AND COMMENTS
				0.0-0.5 (1055)	0-0.5 FT, (CL) SILTY CLAY; dark br	
					0.5-4.0 FT, (CH) CLAY; some fine g	rain gravel (<5%), dark brown; dry, stiff.
				0.5-2.0 (1055)		
	1	N/A	<u>1.6</u> 4.0			
		14// (4.0			
				2.0-4.0 (1055		
_					End of borehole at 4 FT BGS	
					End of borefiole at 4 FT BGS	
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- 15						
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PROJECT No	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	JX
LOCATION	South Disposal Area	REVIEWED BY	JW



DATE <u>07/27/2015</u>

DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
(- 301)		(1-12)		0-0.5 (1340)	
-				0.5-2.0 (1342)	
_	1	N/A	<u>3.95</u> 4.0	0.0 2.0 (1042)	
	'	IN/A	4.0		
-				2.0-4.0 (1346)	
-					Find of heavyled and A.F.T. DOO
					End of borehole at 4 FT BGS
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	Lake Parcel	REVIEWED BY	JW



DATE <u>07/27/2015</u>

LOCATION Lake Parcel DRILLER SCI, Vincent Burnham TIME 1328

TOTAL		4 FT BGS		 _ RIG	Geoprobe	NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES		DESCRIPTION AND COMMENTS
-	1	N/A	<u>3.85</u> 4.0	0.0-0.5 (1338) 0.5-2.0 (1340)	0-4.0 FT, (CL) CLAY; odry, very stiff.	ark brown/black with significant orange ferrous mottling;
_				2.0-4.0 (1342)		
-					End of borehole at 4 F	T BGS
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- 10						
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- 15						
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	Lake Parcel	REVIEWED BY	JW



DATE <u>07/27/2015</u>

LOCATION Lake Parcel	DRILLER_SCI, Vincent Burnham	TIME _1321
TOTAL DEPTH 4 FT BGS	RIG Geoprobe	NO. SAMPLES 3

IOTAL	L DEPTH_	4 FT BGS		_ RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1327)	0-0.25 FT, organics
					0-4.0 FT, (CL) CLAY; dark brown/black; dry, very stiff.
				0.5-2.0 (1331)	2.0-4.0 FT, orange ferrous mottling
	1	N/A	3.90 4.0		
	'	IV/A	4.0		
				2.0-4.0 (1337)	
_					End of borehole at 4 FT BGS
					End of borefiole at 4 FT BGS
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- 10					
- 15					
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	EPW
LOCATION	Lake Parcel	REVIEWED BY	JW



DATE <u>07/27/2015</u>

LOCATION	Lake Parcel	DRILLER	SCI, Vincent Burnham	TIME	1315	
-		-	,			

TOTAL	DEPTH_	4 FT BGS		 RIG	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
-	1	N/A		0.0-0.5 (1327) 0.5-2.0 (1329)	0-2.0 FT, Orange ferrous mottling
_				2.0-4.0 (1330)	
-5					End of borehole at 4 FT BGS
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- 10 -					
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- 15 -					
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	EPW
LOCATION	Lake Parcel	REVIEWED BY	JW

(Golder
Associates

DATE <u>07/27/2015</u>

LOCATION	Lake Parcel	DRILLER	SCI. Vincent Burnham	TIME	1310	
		D. (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	COI, VIIICOIN BUITINGIII		1010	_

IOTAL	_ DEPTH_	4 FT BGS		RIG_	Geoprobe NO. SAMPLES 2
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
_	1	N/A		0.5-2.0 (1320)	0-4.0 FT, (CL) CLAY; dark brown/black with orange ferrous mottling; dry, very stiff.
_				2.0-4.0 (1322)	
- - 5					End of borehole at 4 FT BGS
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- 10 -					
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	Lake Parcel	REVIEWED BY	JW

	Golder Ssociates	cel	LOC	DRIL	LERSCI, Vincent Burnham	DATE <u>07/27/2015</u> TIME <u>1100</u>
	_ DEPTH_			_ RIG_	Geoprobe	NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPT	ION AND COMMENTS
_	1	NA		0.0-0.5 (1112) 0.5-2.0 (1119) 2.0-4.0 (1120)	0-4.0 FT, (CH) CLAY; dark brown/l	black; dry, very stiff.
_					Ford of household at A FT DOO	
-5 - -					End of borehole at 4 FT BGS	
- 10 - -						
- - 15 -						

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	Lake Parcel	REVIEWED BY	JW

Caldan
Golder
Associates

DATE 07/27/2015

LOCATION Lake Parcel	DRILLER SCI, Vincent Burnham	TIME 1039
TOTAL DEPTH 4 FT BGS	RIG Geoprobe	NO. SAMPLES 3

TOTAL	_ DEPTH_	4 FT BGS		RIG_	Geoprobe NO. SAMPLES_3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
_				0.0-0.5 (1044) 0.5-2.0 (1046)	0-0.5 FT, organics. 0-4.0 FT, (CH) CLAY; dark brown/black; dry, stiff.
_	1	NA	3.95 4.0	2.0-4.0 (1048)	
_ _5					End of borehole at 4 FT BGS
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- 10 -					
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- 15					
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	Lake Parcel	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE G-5C Golder Ssociates DATE <u>07/27/2015</u> LOCATION _ Lake Parcel DRILLER SCI, Vincent Burnham TIME _1043 TOTAL DEPTH 4 FT BGS NO. SAMPLES 3 RIG_{\perp} Geoprobe DEPTH (Feet) RUN NO. PID (ppm) RECOVERY SAMPLES DESCRIPTION AND COMMENTS 0-4.0 FT, (CH) CLAY; dark brown/black; dry, very stiff. 0.0-0.5 (1100) 0.5-2.0 (1103) <u>4.0</u> 4.0 1 NA 2.0-4.0 (1105) End of borehole at 4 FT BGS - 5 - 10 - 15

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	Lake Parcel	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE G-5D Golder Ssociates DATE <u>07/27/2015</u> LOCATION _ Lake Parcel DRILLER SCI, Vincent Burnham TIME _1054 NO. SAMPLES 3 TOTAL DEPTH 4 FT BGS RIG_{-} Geoprobe DEPTH (Feet) RUN NO. PID (ppm) RECOVERY SAMPLES DESCRIPTION AND COMMENTS 0-4.0 FT, (CH) CLAY; dark brown/black; dry, very stiff. 0.0-0.5 (1111) 0.5-2.0 (1115) 3.0 4.0 1 NA 2.0-4.0 (1117) End of borehole at 4 FT BGS - 5 - 10 - 15

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY	EPW
LOCATION	Lake Parcel	REVIEWED BY	JW



DATE <u>07/27/2015</u>

LOCATION	Lake Parcel	DRILLER	SCI, Vincent Burnham	TIME	1334	
						

TOTAL DEPTH 4	FT BGS	 RIG_	Geoprobe	NO. SAMPLES_3

IOTAL	_ DEPTH_	4 FT BGS		_ RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1443)	
_				0.5-2.0 (1447)	0-4.0 FT, (CH) GRAVELLY CLAY; dark brown/black; dry, very stiff.
				0.5-2.0 (1447)	
_	1	NA	<u>3.5</u> 4.0		
				2.0-4.0 (1450)	
_					End of borehole at 4 FT BGS
-5					
3					
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- 10					
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- 15					
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	Lake Parcel	REVIEWED BY	JW

DATE <u>07/27/2015</u>

LOCATION Lake Parcel DRILLER SCI, Vincent Burnham TIME 1340

TOTAL DEPTH 4 FT BGS RIG Geoprobe NO. SAMPLES 3

IOIA	L DEPTH_	4 FT BGS		RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1450)	
_					0-4.0 FT, (CH) GRAVELLY CLAY; dark brown/black; dry, very stiff.
				0.5-2.0 (1452)	
_	1	NA	<u>3.8</u> 4.0		
				0.0.4.0.4454	
_				2.0-4.0 (1454)	
_					End of borehole at 4 FT BGS
					End of potentiale at 4.1.1 poe
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PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	EPW
LOCATION	Lake Parcel	REVIEWED BY	JW

(Golder
Associates

	Golder Ssociates		LO	G OF DIRE	ECT PUSH BOREH	HOLE BOREHOLE G-6C			
V A	ssociates			J J. J			DATE	07/27/2015	
LOCATIO	N <u>Lake Par</u>	rcel		DRIL	LER SCI, Vincent Burnha	am .	TIME _	1420	
TOTAL	DEPTH_	4 FT BGS		_ RIG_	Geoprobe		NO. SAM	MPLES_3	
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES		SCRIPTION AND	ОСОММ	ENTS	
	1	NA	3.95 4.0	0.0-0.5 (1428)	0-2.0 FT, (CH) CLAY; brow				
				2.0-4.0 (1432)	c.				
					End of borehole at 4 FT BC	GS			
-5									
-10									
-15									
PRO	JECT No	130-2086	3	1	L	OGGED BY	A	.M	
PRO	JECT _	Exide Fris	SCO			CHECKED BY	YE	PW	

PROJECT No	130-2086			LOGGED BY	AM
PROJECT _	Exide Fris	СО		CHECKED BY	EPW
LOCATION	Lake Pard	el		REVIEWED BY	JW
			SHEET 1 of 1		

LOG OF DIRECT PUSH BOREHOLE BOREHOLE G-6D Golder ssociates DATE <u>07/27/2015</u> LOCATION Lake Parcel DRILLER SCI, Vincent Burnham TIME _1426 NO. SAMPLES 2 TOTAL DEPTH 4 FT BGS RIG_ Geoprobe DEPTH (Feet) RUN NO. PID RECOVERY SAMPLES **DESCRIPTION AND COMMENTS** (ppm) 0-2.0 FT, (CH) CLAY with organics; brown with orange, black, and grey mottling; dry, stiff. 0.5-0.75 FT, (CH) CLAY, organics, brown with orange mottling; dry. 0.75-4.0 FT, (CH) CLAY; dark brown/black, dry, stiff. 0.5-2.0 (1434) <u>2.0</u> 4.0 1 NA 2.0-4.0 (1436) End of borehole at 4 FT BGS - 5 - 10 - 15

PROJECT No_	130-2086			LOGGED BY	AM
PROJECT	Exide Fris	со		CHECKED BY	EPW
LOCATION	Lake Pard	cel		REVIEWED BY	JW
			SHEET 1 of 1		

LOG OF DIRECT PUSH BOREHOLE BOREHOLE SCC-5C

DATE <u>6/10/2015</u>

OCATION Stewart	Creek Corridor	DRILLER	SCI. Vincent Burnham	TIME	1017	
	order derrider	DIVILLEIN_	OOI, VIIICCIII DUITIIIAITI	1 11VIL	1017	_

TOTAL DEPTH 4 FT BGS RIG Geoprobe NO. SAMPLES 2

IOIA	_ DEPTH_	4 FT BGS		RIG_	Geoprobe NO. SAMPLES_2
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
_	1	N/A	<u>2.4</u> 4.0	0.5-2.0 (1025) 2.0-4.0 (1025)	
					End of borehole at 4 FT BGS
-5					
_					
_					
_					
_					
-10					
_					
_					
_					
- 15					
-					
-					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION	Stewart Creek Corridor	REVIEWED BY	JW

Golder

LOG OF DIRECT PUSH BOREHOLE BOREHOLE SCC-5D

DATE <u>07/27/2015</u>

LOCATION Stewart Creek C	orridor DRILLER	SCI. Vincent Burnham	TIME	0740
LOCATION Stewart Creek C	OHIGOI DRILLER	SCI, VIIICEIII BUITIIIAIII		0740

TOTAL	_DEPTH_	6 FT BGS		 _ RIG	Geoprobe NO. SAMPLES 2
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
-	1	N/A	<u>3.75</u> 4.0	2.0-4.0 (0745)	0-1.0 FT, (ML) CLAYEY SILT with organics; brown; loose, very dry. 1.0-4.0 FT, (CH) CLAY with trace gravel; brown with some orange ferrous mottling; dry, stiff.
-5	2	N/A	<u>2.0</u> 2.0	4.0-6.0 (0750)	4.0-6.0 FT, (CH) CLAY with trace gravel; brown with some orange ferrous mottling; slightly moist, stiff.
-					End of borehole at 6 FT BGS
- - 10 -					
- - 15					
-					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT _	Exide Frisco	CHECKED BY _	EPW
LOCATION _	Stewart Creek Corridor	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE SRB-VS-3A

DATE 6/08/2015

OCATION	Shooting Range Berm & South Berm	DRILLER	SCI, Vincent Burnham	TIME	1230	
		-				

TOTAL DEPTH 4 FT BGS RIG Geoprobe NO. SAMPLES 3

IOTAL	_ DEPTH_	4 FT BGS		RIG_	Geoprobe NO. SAMPLES 3
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1230) 0.5-2.0 (1230)	
-	1	N/A	<u>3</u> 4.0	2.0-4.0 (1230)	2.0-2.25 FT, (CL) SILTY CLAY; grey with black and orange ferrous nodules; dry, firm. 2.25-4.0 FT, (CL) SILTY CLAY; grey/brown with orange mottling; dry, firm.
_					End of borehole at 4 FT BGS
-5					
_					
- 10					
_					
_					
_					
-					
- 15					
_					
_					
_					

PROJECT No_	130-2086	LOGGED BY	AM
PROJECT	Exide Frisco	CHECKED BY	JX
LOCATION _	Shooting Range Berm & South Berm	REVIEWED BY	JW

LOG OF DIRECT PUSH BOREHOLE BOREHOLE SRB-VS-7A

DATE 6/08/2015

LOCATION Shooting Range Berm & South Berm	DRILLER SCI, Vincent Burnham	TIME _1030
TOTAL DEPTH 4 FT BGS	RIG Geoprobe	NO. SAMPLES_3

IOIAL	_ DEF ITI	4 1 1 1 1 1 1 1		_ RIG_	Geoprobe No. SAMI EES_5
DEPTH (Feet)	RUN NO.	PID (ppm)	RECOVERY	SAMPLES	DESCRIPTION AND COMMENTS
				0.0-0.5 (1045)	0-0.5 FT, (CL) SILTY CLAY; orange/brown; very dry, hard.
				,	0.5-2.0 FT, (CH) CLAY; orange/brown; dry, firm.
-				0.5-2.0 (1045)	
				0.5-2.0 (1045)	
_	1	N/A	3.8 4.0		0.0.00 FT (01) 011 TV 01 AV
			4.0		2.0-2.25 FT, (CL) SILTY CLAY; red/brown; dry, stiff.
				0.0.4.0.4045	2.25-4.0 FT, (CH) CLAY; orange brown with some light grey mottling; dry, firm.
				2.0-4.0 (1045)	
-					End of borehole at 4 FT BGS
-5					
-					
-					
- 10					
-					
- 15					
-					

PROJECT No	130-2086		LOGGED BY	AM
PROJECT	Exide Frisco		CHECKED BY	JX
LOCATION	Shooting Range Berm & So	outh Berm	REVIEWED BY	JW
		CHEET 1 of 1		

APPENDIX B
Soil Sample Location Coordinates

Coordinate Data Summary 2015 Soil Sample Locations

Location ID	Northing	Easting
Soil Sample Locations		
2014-CUFT-19 (0-0.5)	2478559	7101988
2014-SCC-16 (0-0.5)	2479876	7101807
2015-C2L-06D (0-0.5)	2480058	7103441
2015-C2L-06E (0-0.5)	2480099	7103138
2015-C2L-06F (0-0.5)	2480094	7103212
2015-C2L-06G (0-0.5)	2480065	7103516
2015-C2L-06H (0.5-1)	2480013	7103456
2015-C2L-06J (0-0.5)	2480068	7103213
2015-C2L-06K (0-0.5)	2480066	7103140
2015-C2L-C01D (0-0.5)	2480284	7103202
2015-CUFT-15A (0-0.5)	2478863	7101978
2015-CUFT-16A (0-0.5)	2478656	7101959
2015-CUFT-16B (0.5-2)	2478764	7101980
2015-CUFT-16B (0-0.5)	2478764	7101980
2015-CUFT-16C (2-4)	2478763	7101953
2015-CUFT-16D (0-0.5)	2478764	7102021
2015-FFTA-08A (0-0.5)	2480596	7102511
2015-FWCS-5A (0-0.5)	2479883	7101869
2015-FWCS-6A (0-0.5)	2479940	7101825
2015-FWCS-7A (0-0.5)	2479966	7101803
2015-MW-17C (0-0.5)	2479593	7102081
2015-MW-17D (0.5-2)	2479608	7102074
2015-MW-17D (2-4)	2479608	7102074
2015-NDA-11 (0-0.5)	2480197	7102397
2015-NDA-12 (0-0.5)	2480343	7102436
2015-NDA-13 (0-0.5)	2480456	7102465
2015-SCC-16A (0-0.5)	2479860	7101821
2015-SCC-16B (0.5-2)	2479891	7101795
2015-SCC-16B (0-0.5)	2479891	7101795
2015-SCC-16C (0-0.5)	2479871	7101806
2015-SCC-16D (0.5-2)	2479879	7101810
2015-SCC-16E (0-0.5)	2479822	7101856
2015-SCC-16F (0-0.5)	2479946	7101749
2015-SCC-16G (0-0.5)	2479854	7101755
2015-SDA-3C (0-0.5)	2480339	7101624
2015-STB-6A (1-2)	2480092	7101791
2015-STB-6A (4-6)	2480092	7101791
2015-STB-6A (6-8)	2480092	7101791
2015-STB-6B (1-2)	2480012	7101811
2015-STB-6C (0.75-2)	2480060	7101754
B3RA-A (0-0.5)	2479910	7101515
B3RA-B (0-0.5)	2479966	7101571
B3RA-C (0-0.5)	2480006	7101526
B3RA-D (0-0.5)	2479893	7101577
D-11C (0.5-2)	2480132	7102970
D-11C (2-4)	2480132	7102970
D-11D (0-0.5)	2480180	7102963

Coordinate Data Summary 2015 Soil Sample Locations

Location ID	Northing	Easting
Soil Sample Locations		
D-11E (0-0.5)	2480089	7102976
D-11F (0-0.5)	2480070	7102985
E-11C-B (2-4)	2480056	7102809
E-11C-C (0-0.5)	2480077	7102893
E-11C-D (0-0.5)	2480046	7102739
E-15B (0-0.5)	2480939	7102806
ECO-11A (0-0.5)	2480108	7102502
ECO-11B (0-0.5)	2480171	7102584
ECO-11C (0-0.5)	2480267	7102541
ECO-11C (0.5-2)	2480267	7102541
ECO-11D (0-0.5)	2480412	7102599
ECO-13 (0-0.5)	2480092	7102605
ECO-14 (0-0.5)	2480221	7102485
ECO-15 (0-0.5)	2480335	7102626
ECO-16 (0-0.5)	2480364	7102529
ECO-17 (0-0.5)	2480541	7102636
ECO-18 (0-0.5)	2480714	7102568
ECO-19 (0-0.5)	2480203	7102609
ECO-5-A (0-0.5)	2480750	7101433
ECO-8C (0-0.5)	2480459	7101611
ECO-8D (0-0.5)	2480575	7101592
F-4A (0-0.5)	2478706	7102554
F-4B (0-0.5)	2478790	7102496
F-4C (0-0.5)	2478704	7102434
F-4D (0-0.5)	2478638	7102501
F-4E (0.5-2)	2478704	7102501
G-5A (0-0.5)	2478854	7102374
G-5B (0-0.5)	2478918	7102311
G-5C (0-0.5)	2478858	7102256
G-5D (0-0.5)	2478796	7102317
G-6A (0-0.5)	2479007	7102376
G-6B (0-0.5)	2479066	7102315
G-6C (0-0.5)	2479008	7102259
G-6D (0.5-2)	2479005	7102316
SCC-5C (0.5-2)	2480076	7101654
SCC-5C (0-0.5)	2480076	7101654
SCC-5D (2-4)	2480080	7101653
SRB-VS-3A (0-0.5)	2479963	7101250
SRB-VS-7A (0-0.5)	2479905	7101249

Notes:

1. Coordinate System: Texas State Plane North Central Zone, NAD 83, units in feet.

APPENDIX C

Laboratory Analytical Data and Data Usability Summaries





NELAP - Recognized Laboratory Fields of Accreditation

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to

verify the laboratory's current accreditation status for particular methods and analyses.

TestAmerica Laboratories, Inc. - Houston

6310 Rothway Drive Houston, TX 77040-5056

Certificate: T104704223-15-16 **Expiration Date:** 10/31/2015

> 7/7/2015 **Issue Date:**

Matrix: Non-Potable Water Method EPA 1010 AB **Analyte ID Method ID Analyte** Ignitability TX 1780 10116606 Method EPA 1311 AB **Analyte ID Method ID Analyte TCLP** TX 849 10118806 Method EPA 1312 AB **Analyte ID** Method ID **Analyte SPLP** ΤX 10119003 850 Method EPA 160.4 AB **Analyte ID Method ID Analyte** Residue-volatile TX 1970 10010409 Method EPA 1664 **Analyte ID Analyte** AB Method ID n-Hexane Extractable Material (HEM) (O&G) TX 1803 10127807 TX Silica Gel Treated n-Hexane Extractable Material (SGT-HEM) 10220 10127807 Method EPA 180.1 AB **Analyte ID Method ID Analyte** TX **Turbidity** 2055 10011606 Method EPA 200.7 AB **Analyte ID Method ID Analyte** Aluminum TX 1000 10013806 TX **Antimony** 1005 10013806 TX Arsenic 1010 10013806 TX **Barium** 1015 10013806 TX Beryllium 1020 10013806 TX **Boron** 1025 10013806 Cadmium TX 1030 10013806 TX Calcium 1035 10013806 TX Chromium 1040 10013806 Cobalt TX 1050 10013806





NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704223-15-16
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Matrix: Non-Potable Water			
Copper	TX	1055	10013806
Iron	TX	1070	10013806
Lead	TX	1075	10013806
Lithium	TX	1080	10013806
Magnesium	TX	1085	10013806
Manganese	TX	1090	10013806
Molybdenum	TX	1100	10013806
Nickel	TX	1105	10013806
Potassium	TX	1125	10013806
Selenium	TX	1140	10013806
Silica as SiO2	TX	1990	10013806
Silver	TX	1150	10013806
Sodium	TX	1155	10013806
Strontium	TX	1160	10013806
Thallium	TX	1165	10013806
Tin	TX	1175	10013806
Titanium	TX	1180	10013806
Vanadium	TX	1185	10013806
Zinc	TX	1190	10013806
Method EPA 245.1			
Analyte	АВ	Analyte ID	Method ID
Mercury	TX	1095	10036609
Method EPA 300.0			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006
Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrate-nitrite	TX	1820	10053006
Nitrite as N	TX	1840	10053006
Sulfate	TX	2000	10053006





10/31/2015

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> Issue Date: 7/7/2015

Matrix: Non-Potable Water			
Method EPA 335.1			
Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10060001
Method EPA 335.4			
Analyte	AB	Analyte ID	Method ID
Total cyanide	TX	1645	10061402
Method EPA 350.1			
Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	10063408
Method EPA 351.2			
Analyte	AB	Analyte ID	Method ID
Kjeldahl nitrogen - total (TKN)	TX	1795	10065200
Method EPA 353.2			
Analyte	AB	Analyte ID	Method ID
Nitrate as N	TX	1810	10067400
Nitrate-nitrite	TX	1820	10067400
Method EPA 420.4			
Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10080203
Method EPA 6010			
Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10155609
Antimony	TX	1005	10155609
Arsenic	TX	1010	10155609
Barium	TX	1015	10155609
Beryllium	TX	1020	10155609
Boron	TX	1025	10155609
Cadmium	TX	1030	10155609
Calcium	TX	1035	10155609
Chromium	TX	1040	10155609
Cobalt	TX	1050	10155609





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Expiration Date: 10/31/2015

Issue Date: 7/7/2015

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Matrix: Non-Potable Water			
Copper	TX	1055	10155609
Iron	TX	1070	10155609
Lead	TX	1075	10155609
Lithium	TX	1080	10155609
Magnesium	TX	1085	10155609
Manganese	TX	1090	10155609
Molybdenum	TX	1100	10155609
Nickel	TX	1105	10155609
Potassium	TX	1125	10155609
Selenium	TX	1140	10155609
Silica as SiO2	TX	1990	10155609
Silver	TX	1150	10155609
Sodium	TX	1155	10155609
Strontium	TX	1160	10155609
Thallium	TX	1165	10155609
Tin	TX	1175	10155609
Titanium	TX	1180	10155609
Vanadium	TX	1185	10155609
Zinc	TX	1190	10155609
Method EPA 602			
Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10102202
Ethylbenzene	TX	4765	10102202
m+p-xylene	TX	5240	10102202
o-Xylene	TX	5250	10102202
Toluene	TX	5140	10102202
Xylene (total)	TX	5260	10102202
Method EPA 608			
Analyte	АВ	Analyte ID	Method ID
4,4'-DDD	TX	7355	10103603
4,4'-DDE	TX	7360	10103603





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Houston, TX 77040-5056

atrix: Non-Potable Water			
4,4'-DDT	TX	7365	10103603
Aldrin	TX	7025	10103603
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10103603
alpha-Chlordane	TX	7240	10103603
Aroclor-1016 (PCB-1016)	TX	8880	10103603
Aroclor-1221 (PCB-1221)	TX	8885	10103603
Aroclor-1232 (PCB-1232)	TX	8890	10103603
Aroclor-1242 (PCB-1242)	TX	8895	10103603
Aroclor-1248 (PCB-1248)	TX	8900	10103603
Aroclor-1254 (PCB-1254)	TX	8905	10103603
Aroclor-1260 (PCB-1260)	TX	8910	10103603
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10103603
Chlordane (tech.)	TX	7250	10103603
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10103603
Dieldrin	TX	7470	10103603
Endosulfan I	TX	7510	10103603
Endosulfan II	TX	7515	10103603
Endosulfan sulfate	TX	7520	10103603
Endrin	TX	7540	10103603
Endrin aldehyde	TX	7530	10103603
Endrin ketone	TX	7535	10103603
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10103603
gamma-Chlordane	TX	7245	10103603
Heptachlor	TX	7685	10103603
Heptachlor epoxide	TX	7690	10103603
Methoxychlor	TX	7810	10103603
Toxaphene (Chlorinated camphene)	TX	8250	10103603
ethod EPA 615			
Analyte	AB	Analyte ID	Method ID
2,4,5-T	TX	8655	10105609





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Issue Date: 7/7/2015

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Matrix: Non-Potable Water			
2,4-D	TX	8545	10105609
2,4-DB	TX	8560	10105609
Dalapon	TX	8555	10105609
Dicamba	TX	8595	10105609
Dichloroprop (Dichlorprop, Weedone)	TX	8605	10105609
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10105609
MCPA	TX	7775	10105609
MCPP	TX	7780	10105609
Silvex (2,4,5-TP)	TX	8650	10105609
Method EPA 624			
Analyte	AB	Analyte ID	Method ID
1,1,1-Trichloroethane	TX	5160	10107207
1,1,2,2-Tetrachloroethane	TX	5110	10107207
1,1,2-Trichloroethane	TX	5165	10107207
1,1-Dichloroethane	TX	4630	10107207
1,1-Dichloroethylene	TX	4640	10107207
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10107207
1,2-Dichlorobenzene	TX	4610	10107207
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10107207
1,2-Dichloropropane	TX	4655	10107207
1,3-Dichlorobenzene	TX	4615	10107207
1,4-Dichlorobenzene	TX	4620	10107207
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10107207
2-Chloroethyl vinyl ether	TX	4500	10107207
Acetone (2-Propanone)	TX	4315	10107207
Acrolein (Propenal)	TX	4325	10107207
Acrylonitrile	TX	4340	10107207
Benzene	TX	4375	10107207
Bromodichloromethane	TX	4395	10107207
Bromoform	TX	4400	10107207





NELAP - Recognized Laboratory Fields of Accreditation

Certificate: Expiration Date:

T104704223-15-16

Issue Date:

10/31/2015 7/7/2015

6310 Rothway Drive Houston, TX 77040-5056

TestAmerica Laboratories, Inc. - Houston

Matrix: Non-Potable Water			
Carbon tetrachloride	TX	4455	10107207
Chlorobenzene	TX	4475	10107207
Chlorodibromomethane	TX	4575	10107207
Chloroethane (Ethyl chloride)	TX	4485	10107207
Chloroform	TX	4505	10107207
cis-1,2-Dichloroethylene	TX	4645	10107207
cis-1,3-Dichloropropene	TX	4680	10107207
Ethylbenzene	TX	4765	10107207
m+p-xylene	TX	5240	10107207
Methyl bromide (Bromomethane)	TX	4950	10107207
Methyl chloride (Chloromethane)	TX	4960	10107207
Methyl tert-butyl ether (MTBE)	TX	5000	10107207
Methylene chloride (Dichloromethane)	TX	4975	10107207
Naphthalene	TX	5005	10107207
o-Xylene	TX	5250	10107207
Tetrachloroethylene (Perchloroethylene)	TX	5115	10107207
Toluene	TX	5140	10107207
Total trihalomethanes	TX	5205	10107207
trans-1,2-Dichloroethylene	TX	4700	10107207
trans-1,3-Dichloropropylene	TX	4685	10107207
Trichloroethene (Trichloroethylene)	TX	5170	10107207
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10107207
Vinyl chloride	TX	5235	10107207
Xylene (total)	TX	5260	10107207
Method EPA 625			
Analyte	AB	Analyte ID	Method ID
1,2,4,5-Tetrachlorobenzene	TX	6715	10107401
1,2,4-Trichlorobenzene	TX	5155	10107401
1,2-Dichlorobenzene	TX	4610	10107401
1,2-Diphenylhydrazine	TX	6220	10107401





NELAP - Recognized Laboratory Fields of Accreditation

Certificate:

T104704223-15-16

Expiration Date: Issue Date:

10/31/2015 7/7/2015

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TestAmerica Laboratories, Inc. - Houston

Matrix: Non-Potable Water			
1,3-Dichlorobenzene	TX	4615	10107401
1,4-Dichlorobenzene	TX	4620	10107401
2,3,4,6-Tetrachlorophenol	TX	6735	10107401
2,4,5-Trichlorophenol	TX	6835	10107401
2,4,6-Trichlorophenol	TX	6840	10107401
2,4-Dichlorophenol	TX	6000	10107401
2,4-Dimethylphenol	TX	6130	10107401
2,4-Dinitrophenol	TX	6175	10107401
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10107401
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10107401
2-Chloronaphthalene	TX	5795	10107401
2-Chlorophenol	TX	5800	10107401
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10107401
2-Methylphenol (o-Cresol)	TX	6400	10107401
2-Nitrophenol	TX	6490	10107401
3,3'-Dichlorobenzidine	TX	5945	10107401
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10107401
4-Chloro-3-methylphenol	TX	5700	10107401
4-Chlorophenyl phenylether	TX	5825	10107401
4-Methylphenol (p-Cresol)	TX	6410	10107401
4-Nitrophenol	TX	6500	10107401
Acenaphthene	TX	5500	10107401
Acenaphthylene	TX	5505	10107401
Anthracene	TX	5555	10107401
Benzidine	TX	5595	10107401
Benzo(a)anthracene	TX	5575	10107401
Benzo(a)pyrene	TX	5580	10107401
Benzo(b)fluoranthene	TX	5585	10107401
Benzo(g,h,i)perylene	TX	5590	10107401
Benzo(k)fluoranthene	TX	5600	10107401





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TestAmerica Laboratories, Inc. - Houston

6310 Rothway Drive Houston, TX 77040-5056

TX	5760	10107401
TX	5765	10107401
TX	5780	10107401
TX	6065	10107401
TX	5670	10107401
TX	5855	10107401
TX	5895	10107401
TX	6070	10107401
TX	6135	10107401
TX	5925	10107401
TX	6200	10107401
TX	6265	10107401
TX	6270	10107401
TX	6275	10107401
TX	4835	10107401
TX	6285	10107401
TX	4840	10107401
TX	6315	10107401
TX	6320	10107401
TX	5005	10107401
TX	5015	10107401
TX	6525	10107401
TX	6530	10107401
TX	5025	10107401
TX	6545	10107401
TX	6535	10107401
TX	6590	10107401
TX	6605	10107401
TX	6615	10107401
TX	6625	10107401
	TX T	TX 5765 TX 5780 TX 6065 TX 5670 TX 5855 TX 5895 TX 6070 TX 6135 TX 6200 TX 6265 TX 6270 TX 6275 TX 6275 TX 4835 TX 6285 TX 6315 TX 6320 TX 6315 TX 6320 TX 6320 TX 5005 TX 5005 TX 5005 TX 5005 TX 5025 TX 6545 TX 6545 TX 6545 TX 6545 TX 6590 TX 6605 TX 6605 TX 6615





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TestAmerica Laboratories, Inc. - Houston

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Matrix: Non-Potable Water			
Pyrene	TX	6665	10107401
Pyridine	TX	5095	10107401
Method EPA 7196			
Analyte	AB	Analyte ID	Method ID
Chromium (VI)	TX	1045	10162400
Method EPA 7470			
Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10165807
Method EPA 8015			
Analyte	AB	Analyte ID	Method ID
Allyl alcohol	TX	4350	10173601
Diesel range organics (DRO)	TX	9369	10173601
Ethanol	TX	4750	10173601
Ethylene glycol	TX	4785	10173601
Gasoline range organics (GRO)	TX	9408	10173601
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173601
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10173601
Methanol	TX	4930	10173601
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173601
n-Propanol (1-Propanol)	TX	5055	10173601
Method EPA 8021			
Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10174808
Ethylbenzene	TX	4765	10174808
m+p-xylene	TX	5240	10174808
Methyl tert-butyl ether (MTBE)	TX	5000	10174808
o-Xylene	TX	5250	10174808
Toluene	TX	5140	10174808
Xylene (total)	TX	5260	10174808
Method EPA 8081			
Analyte	AB	Analyte ID	Method ID





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Matrix: Non-Potable Water			
4,4'-DDD	TX	7355	10178606
4,4'-DDE	TX	7360	10178606
4,4'-DDT	TX	7365	10178606
Aldrin	TX	7025	10178606
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178606
alpha-Chlordane	TX	7240	10178606
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178606
Chlordane (tech.)	TX	7250	10178606
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178606
Dieldrin	TX	7470	10178606
Endosulfan I	TX	7510	10178606
Endosulfan II	TX	7515	10178606
Endosulfan sulfate	TX	7520	10178606
Endrin	TX	7540	10178606
Endrin aldehyde	TX	7530	10178606
Endrin ketone	TX	7535	10178606
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178606
gamma-Chlordane	TX	7245	10178606
Heptachlor	TX	7685	10178606
Heptachlor epoxide	TX	7690	10178606
Methoxychlor	TX	7810	10178606
Toxaphene (Chlorinated camphene)	TX	8250	10178606
Method EPA 8082			
Analyte	AB	Analyte ID	Method ID
Aroclor-1016 (PCB-1016)	TX	8880	10179007
Aroclor-1221 (PCB-1221)	TX	8885	10179007
Aroclor-1232 (PCB-1232)	TX	8890	10179007
Aroclor-1242 (PCB-1242)	TX	8895	10179007
Aroclor-1248 (PCB-1248)	TX	8900	10179007
Aroclor-1254 (PCB-1254)	TX	8905	10179007





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Matrix: Non-Potable Water			
Aroclor-1260 (PCB-1260)	TX	8910	10179007
PCBs (total)	TX	8870	10179007
Method EPA 8151			
Analyte	AB	Analyte ID	Method ID
2,4,5-T	TX	8655	10183207
2,4-D	TX	8545	10183207
2,4-DB	TX	8560	10183207
Dalapon	TX	8555	10183207
Dicamba	TX	8595	10183207
Dichloroprop (Dichlorprop, Weedone)	TX	8605	10183207
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10183207
MCPA	TX	7775	10183207
MCPP	TX	7780	10183207
Silvex (2,4,5-TP)	TX	8650	10183207
Method EPA 8260			
Analyte	AB	Analyte ID	Method ID
1,1,1,2-Tetrachloroethane	TX	5105	10184802
1,1,1-Trichloroethane	TX	5160	10184802
1,1,2,2-Tetrachloroethane	TX	5110	10184802
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	TX	5195	10184802
1,1,2-Trichloroethane	TX	5165	10184802
1,1-Dichloroethane	TX	4630	10184802
1,1-Dichloroethylene	TX	4640	10184802
1,1-Dichloropropene	TX	4670	10184802
1,2,3-Trichlorobenzene	TX	5150	10184802
1,2,3-Trichloropropane	TX	5180	10184802
	TX	5155	10184802
1,2,4-Trichlorobenzene			
1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene	TX	5210	10184802
	TX TX	5210 4570	10184802 10184802
1,2,4-Trimethylbenzene			





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Matrix: Non-Potable Water			
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184802
1,2-Dichloropropane	TX	4655	10184802
1,3,5-Trimethylbenzene	TX	5215	10184802
1,3-Dichlorobenzene	TX	4615	10184802
1,3-Dichloropropane	TX	4660	10184802
1,4-Dichlorobenzene	TX	4620	10184802
1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10184802
2,2-Dichloropropane	TX	4665	10184802
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184802
2-Chloroethyl vinyl ether	TX	4500	10184802
2-Chlorotoluene	TX	4535	10184802
2-Hexanone (MBK)	TX	4860	10184802
2-Nitropropane	TX	5020	10184802
4-Chlorotoluene	TX	4540	10184802
4-Isopropyltoluene (p-Cymene)	TX	4915	10184802
4-Methyl-2-pentanone (MIBK)	TX	4995	10184802
Acetone (2-Propanone)	TX	4315	10184802
Acetonitrile	TX	4320	10184802
Acrolein (Propenal)	TX	4325	10184802
Acrylonitrile	TX	4340	10184802
Allyl chloride (3-Chloropropene)	TX	4355	10184802
Benzene	TX	4375	10184802
Benzyl chloride	TX	5635	10184802
Bromobenzene	TX	4385	10184802
Bromochloromethane	TX	4390	10184802
Bromodichloromethane	TX	4395	10184802
Bromoform	TX	4400	10184802
Carbon disulfide	TX	4450	10184802
Carbon tetrachloride	TX	4455	10184802
Chlorobenzene	TX	4475	10184802





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Matrix: Non-Potable Water			
Chlorodibromomethane	TX	4575	10184802
Chloroethane (Ethyl chloride)	TX	4485	10184802
Chloroform	TX	4505	10184802
Chloroprene (2-Chloro-1,3-butadiene)	TX	4525	10184802
cis-1,2-Dichloroethylene	TX	4645	10184802
cis-1,3-Dichloropropene	TX	4680	10184802
Dibromofluoromethane	TX	4590	10184802
Dibromomethane (Methylene bromide)	TX	4595	10184802
Dichlorodifluoromethane (Freon-12)	TX	4625	10184802
Diethyl ether	TX	4725	10184802
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	TX	4745	10184802
Ethyl acetate	TX	4755	10184802
Ethyl methacrylate	TX	4810	10184802
Ethylbenzene	TX	4765	10184802
Ethylene oxide	TX	4795	10184802
Hexachlorobutadiene	TX	4835	10184802
Iodomethane (Methyl iodide)	TX	4870	10184802
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10184802
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10184802
Isopropylbenzene (Cumene)	TX	4900	10184802
m+p-xylene	TX	5240	10184802
Methyl acrylate	TX	4945	10184802
Methyl bromide (Bromomethane)	TX	4950	10184802
Methyl chloride (Chloromethane)	TX	4960	10184802
Methyl methacrylate	TX	4990	10184802
Methyl tert-butyl ether (MTBE)	TX	5000	10184802
Methylcyclohexane	TX	4965	10184802
Methylene chloride (Dichloromethane)	TX	4975	10184802
Naphthalene	TX	5005	10184802
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10184802





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Matrix: Non-Potable Water			
n-Butylbenzene	TX	4435	10184802
n-Propylbenzene	TX	5090	10184802
o-Xylene	TX	5250	10184802
Propionitrile (Ethyl cyanide)	TX	5080	10184802
sec-Butylbenzene	TX	4440	10184802
Styrene	TX	5100	10184802
tert-Butyl alcohol	TX	4420	10184802
tert-Butylbenzene	TX	4445	10184802
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184802
Toluene	TX	5140	10184802
Total trihalomethanes	TX	5205	10184802
trans-1,2-Dichloroethylene	TX	4700	10184802
trans-1,3-Dichloropropylene	TX	4685	10184802
trans-1,4-Dichloro-2-butene	TX	4605	10184802
Trichloroethene (Trichloroethylene)	TX	5170	10184802
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184802
Vinyl acetate	TX	5225	10184802
Vinyl chloride	TX	5235	10184802
Xylene (total)	TX	5260	10184802
Method EPA 8270			
Analyte	AB	Analyte ID	Method ID
1,2,4,5-Tetrachlorobenzene	TX	6715	10185805
1,2,4-Trichlorobenzene	TX	5155	10185805
1,2-Dichlorobenzene	TX	4610	10185805
1,2-Dinitrobenzene	TX	6155	10185805
1,2-Diphenylhydrazine	TX	6220	10185805
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10185805
1,3-Dichlorobenzene	TX	4615	10185805
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10185805
1,4-Dichlorobenzene	TX	4620	10185805





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Matrix: Non-Potable Water			
1,4-Dinitrobenzene	TX	6165	10185805
1,4-Naphthoquinone	TX	6420	10185805
1,4-Phenylenediamine	TX	6630	10185805
1-Chloronaphthalene	TX	5790	10185805
1-Naphthylamine	TX	6425	10185805
2,3,4,6-Tetrachlorophenol	TX	6735	10185805
2,4,5-Trichlorophenol	TX	6835	10185805
2,4,5-Trimethylaniline	TX	6880	10185805
2,4,6-Trichlorophenol	TX	6840	10185805
2,4-Diaminotoluene	TX	5880	10185805
2,4-Dichlorophenol	TX	6000	10185805
2,4-Dimethylphenol	TX	6130	10185805
2,4-Dinitrophenol	TX	6175	10185805
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10185805
2,4-Toluene diisocyanate	TX	9636	10185805
2,6-Dichlorophenol	TX	6005	10185805
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10185805
2-Acetylaminofluorene	TX	5515	10185805
2-Chloronaphthalene	TX	5795	10185805
2-Chlorophenol	TX	5800	10185805
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10185805
2-Methylaniline (o-Toluidine)	TX	5145	10185805
2-Methylnaphthalene	TX	6385	10185805
2-Methylphenol (o-Cresol)	TX	6400	10185805
2-Naphthylamine	TX	6430	10185805
2-Nitroaniline	TX	6460	10185805
2-Nitrophenol	TX	6490	10185805
2-Picoline (2-Methylpyridine)	TX	5050	10185805
3,3'-Dichlorobenzidine	TX	5945	10185805
3,3'-Dimethoxybenzidine	TX	6100	10185805





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Matrix: Non-Potable Water			
3,3'-Dimethylbenzidine	TX	6120	10185805
3-Methylcholanthrene	TX	6355	10185805
3-Methylphenol (m-Cresol)	TX	6405	10185805
3-Nitroaniline	TX	6465	10185805
4-Aminobiphenyl	TX	5540	10185805
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10185805
4-Chloroaniline	TX	5745	10185805
4-Chlorophenyl phenylether	TX	5825	10185805
4-Dimethyl aminoazobenzene	TX	6105	10185805
4-Methylphenol (p-Cresol)	TX	6410	10185805
4-Nitroaniline	TX	6470	10185805
4-Nitrophenol	TX	6500	10185805
4-Nitroquinoline-1-oxide	TX	6510	10185805
5-Nitro-o-toluidine	TX	6570	10185805
7,12-Dimethylbenz(a) anthracene	TX	6115	10185805
a-a-Dimethylphenethylamine	TX	6125	10185805
Acenaphthene	TX	5500	10185805
Acenaphthylene	TX	5505	10185805
Acetophenone	TX	5510	10185805
Aniline	TX	5545	10185805
Anthracene	TX	5555	10185805
Azobenzene	TX	5562	10185805
Benzidine	TX	5595	10185805
Benzo(a)anthracene	TX	5575	10185805
Benzo(a)pyrene	TX	5580	10185805
Benzo(b)fluoranthene	TX	5585	10185805
Benzo(g,h,i)perylene	TX	5590	10185805
Benzo(k)fluoranthene	TX	5600	10185805
Benzoic acid	TX	5610	10185805
Benzyl alcohol	TX	5630	10185805





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Matrix: Non-Potable Water			
Biphenyl	TX	5640	10185805
bis(2-Chloroethoxy)methane	TX	5760	10185805
bis(2-Chloroethyl) ether	TX	5765	10185805
bis(2-Chloroisopropyl) ether	TX	5780	10185805
bis(2-Ethylhexyl) phthalate (Di(2-Ethylhexyl) phthalate, DEHP)	TX	6065	10185805
Butyl benzyl phthalate	TX	5670	10185805
Caprolactam	TX	7180	10185805
Carbazole	TX	5680	10185805
Chrysene	TX	5855	10185805
Diallate	TX	7405	10185805
Dibenz(a,h) anthracene	TX	5895	10185805
Dibenz(a,j) acridine	TX	5900	10185805
Dibenzo(a,e) pyrene	TX	5890	10185805
Dibenzofuran	TX	5905	10185805
Diethyl phthalate	TX	6070	10185805
Dimethoate	TX	7475	10185805
Dimethyl phthalate	TX	6135	10185805
Di-n-butyl phthalate	TX	5925	10185805
Di-n-octyl phthalate	TX	6200	10185805
Diphenylamine	TX	6205	10185805
Disulfoton	TX	8625	10185805
Ethyl methanesulfonate	TX	6260	10185805
Fluoranthene	TX	6265	10185805
Fluorene	TX	6270	10185805
Hexachlorobenzene	TX	6275	10185805
Hexachlorobutadiene	TX	4835	10185805
Hexachlorocyclopentadiene	TX	6285	10185805
Hexachloroethane	TX	4840	10185805
Hexachloropropene	TX	6295	10185805
Indeno(1,2,3-cd) pyrene	TX	6315	10185805





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Matrix: Non-Potable Water			
Isodrin	TX	7725	10185805
Isophorone	TX	6320	10185805
Isosafrole	TX	6325	10185805
Methyl methanesulfonate	TX	6375	10185805
Methyl parathion (Parathion, methyl)	TX	7825	10185805
Naphthalene	TX	5005	10185805
Nitrobenzene	TX	5015	10185805
n-Nitrosodiethylamine	TX	6525	10185805
n-Nitrosodimethylamine	TX	6530	10185805
n-Nitrosodi-n-butylamine	TX	5025	10185805
n-Nitrosodi-n-propylamine	TX	6545	10185805
n-Nitrosodiphenylamine	TX	6535	10185805
n-Nitrosomethylethylamine	TX	6550	10185805
n-Nitrosomorpholine	TX	6555	10185805
n-Nitrosopiperidine	TX	6560	10185805
n-Nitrosopyrrolidine	TX	6565	10185805
o,o,o-Triethyl phosphorothioate	TX	8290	10185805
Parathion, ethyl	TX	7955	10185805
Pentachlorobenzene	TX	6590	10185805
Pentachloronitrobenzene (PCNB)	TX	6600	10185805
Pentachlorophenol	TX	6605	10185805
Phenacetin	TX	6610	10185805
Phenanthrene	TX	6615	10185805
Phenol	TX	6625	10185805
Phorate	TX	7985	10185805
Pyrene	TX	6665	10185805
Pyridine	TX	5095	10185805
Safrole	TX	6685	10185805
Thionazin (Zinophos)	TX	8235	10185805





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Natrix: Non-Potable Water			
Method EPA 9012			
Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10193405
Total Cyanide	TX	1635	10193405
Method EPA 9034			
Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	10196006
Method EPA 9040			
Analyte	AB	Analyte ID	Method ID
рН	TX	1900	10197203
Method EPA 9050			
Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	10198808
Method EPA 9056			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10199209
Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Sulfate	TX	2000	10199209
Method EPA 9060			
Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	10200201
Method EPA 9066			
Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10200609
Method EPA RSK 175			
Analyte	AB	Analyte ID	Method ID
Ethane	TX	4747	10212905





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Matrix: Non-Potable Water			
Ethene	TX	4752	10212905
Methane	TX	4926	10212905
Method HACH 8000			
Analyte	AB	Analyte ID	Method ID
Chemical oxygen demand (COD)	TX	1565	60003001
Method HACH 8507			
Analyte	AB	Analyte ID	Method ID
Nitrite as N	TX	1840	60004208
Method SM 2120 B			
Analyte	AB	Analyte ID	Method ID
Color	TX	1605	20223807
Method SM 2130 B			
Analyte	AB	Analyte ID	Method ID
Turbidity	TX	2055	20042200
Method SM 2310 B (4a)			
Analyte	AB	Analyte ID	Method ID
Acidity, as CaCO3	TX	1500	20002806
Method SM 2320 B			
Analyte	AB TX	Analyte ID	Method ID
Alkalinity as CaCO3	IX	1505	20045005
Method SM 2340 B	4.5	Amalasta ID	Madead
Analyte Total hardness as CaCO3	AB TX	Analyte ID 1755	Method ID 20046008
	174	1/33	20040008
Method SM 2510 B	АВ	Analyte ID	Method ID
Analyte Conductivity	AB TX	1610	20048004
•	.,,	1010	20040004
Method SM 2540 B	АВ	Analyte ID	Method ID
Analyte Residue-total (total solids)	TX	1950	20004608
Method SM 2540 C		1750	2000-1000
Analyte	АВ	Analyte ID	Method ID
Residue-filterable (TDS)	TX	1955	20049803
` '			





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TestAmerica Laboratories, Inc. - Houston

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latrix: Non-Potable Water			
Method SM 2540 D			
Analyte	AB	Analyte ID	Method ID
Residue-nonfilterable (TSS)	TX	1960	20004802
Method SM 3500-Cr B			
Analyte	AB	Analyte ID	Method ID
Chromium (VI)	TX	1045	20065809
Method SM 3500-Cr D			
Analyte	AB	Analyte ID	Method ID
Chromium (VI)	TX	1045	20009001
Method SM 4500-CI F			
Analyte	AB	Analyte ID	Method ID
Total residual chlorine	TX	1940	20080482
Method SM 4500-CN ⁻ G			
Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	20021607
Method SM 4500-H+ B			
Analyte	AB	Analyte ID	Method ID
pH	TX	1900	20104603
Method SM 4500-NH3 B			
Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	20022804
Method SM 4500-NH3 G			
Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	20023205
Method SM 4500-NO3 F			
Analyte	AB	Analyte ID	Method ID
Nitrate-nitrite	TX	1820	20024402
Method SM 4500-O C			
Analyte	AB	Analyte ID	Method ID
Oxygen, dissolved	TX	1880	20025201
Method SM 4500-P E			
Analyte	AB	Analyte ID	Method ID





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TestAmerica Laboratories, Inc. - Houston

Matrix: Non-Potable Water			
Orthophosphate as P	TX	1870	20025803
Phosphorus	TX	1910	20025803
Method SM 4500-S2 ⁻ D			
Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	20125400
Method SM 4500-S2 ⁻ E			
Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	20026408
Method SM 4500-SO3 ⁻ B			
Analyte	AB	Analyte ID	Method ID
Sulfite	TX	2015	20026806
Method SM 5210 B			
Analyte	AB	Analyte ID	Method ID
Biochemical oxygen demand (BOD)	TX	1530	20027401
Carbonaceous BOD, CBOD	TX	1555	20027401
Method SM 5310 D			
Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	20139202
Method SM 5540 C			
Analyte	AB	Analyte ID	Method ID
Surfactants - MBAS	TX	2025	20144405
Method TCEQ 1005			
Analyte	AB	Analyte ID	Method ID
Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208





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Matrix: Solid & Chemical Materials			
Method EPA 1010			
Analyte	АВ	Analyte ID	Method ID
Ignitability	TX	1780	10116606
Method EPA 1311			
Analyte	АВ	Analyte ID	Method ID
TCLP	TX	849	10118806
Method EPA 1312			
Analyte	АВ	Analyte ID	Method ID
SPLP	TX	850	10119003
Method EPA 300.0	_		
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006
Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrate-nitrite	TX	1820	10053006
Nitrite as N	TX	1840	10053006
Sulfate	TX	2000	10053006
Method EPA 353.2			
Analyte	AB	Analyte ID	Method ID
Nitrate-nitrite	TX	1820	10067604
Method EPA 365.2			
Analyte	AB	Analyte ID	Method ID
Phosphorus	TX	1910	10070403
Method EPA 6010			
Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10155609
Antimony	TX	1005	10155609
Arsenic	TX	1010	10155609
Barium	TX	1015	10155609
Beryllium	TX	1020	10155609





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atrix: Solid & Chemical Materials			
Boron	TX	1025	10155609
Cadmium	TX	1030	10155609
Calcium	TX	1035	10155609
Chromium	TX	1040	10155609
Cobalt	TX	1050	10155609
Copper	TX	1055	10155609
Iron	TX	1070	10155609
Lead	TX	1075	10155609
Magnesium	TX	1085	10155609
Manganese	TX	1090	10155609
Molybdenum	TX	1100	10155609
Nickel	TX	1105	10155609
Potassium	TX	1125	10155609
Selenium	TX	1140	10155609
Silica as SiO2	TX	1990	10155609
Silver	TX	1150	10155609
Sodium	TX	1155	10155609
Strontium	TX	1160	10155609
Thallium	TX	1165	10155609
Tin	TX	1175	10155609
Titanium	TX	1180	10155609
Vanadium	TX	1185	10155609
Zinc	TX	1190	10155609
ethod EPA 7471			
Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10166208
ethod EPA 8015			
Analyte	AB	Analyte ID	Method ID
Allyl alcohol	TX	4350	10173601
Diesel range organics (DRO)	TX	9369	10173601
Ethanol	TX	4750	10173601





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Matrix: Solid & Chemical Materials			
Ethylene glycol	TX	4785	10173601
Gasoline range organics (GRO)	TX	9408	10173601
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173601
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10173601
Methanol	TX	4930	10173601
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173601
n-Propanol (1-Propanol)	TX	5055	10173601
Method EPA 8021			
Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10174808
Ethylbenzene	TX	4765	10174808
m+p-xylene	TX	5240	10174808
Methyl tert-butyl ether (MTBE)	TX	5000	10174808
o-Xylene	TX	5250	10174808
Toluene	TX	5140	10174808
Xylene (total)	TX	5260	10174808
Method EPA 8081			
Analyte	AB	Analyte ID	Method ID
4,4'-DDD	TX	7355	10178606
4,4'-DDE	TX	7360	10178606
4,4'-DDT	TX	7365	10178606
Aldrin	TX	7025	10178606
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178606
alpha-Chlordane	TX	7240	10178606
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178606
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178606
Dieldrin	TX	7470	10178606
Endosulfan I	TX	7510	10178606
Endosulfan II	TX	7515	10178606
Endosulfan sulfate	TX	7520	10178606
Endrin	TX	7540	10178606





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Matrix: Solid & Chemical Materials			
Endrin aldehyde	TX	7530	10178606
Endrin ketone	TX	7535	10178606
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178606
gamma-Chlordane	TX	7245	10178606
Heptachlor	TX	7685	10178606
Heptachlor epoxide	TX	7690	10178606
Methoxychlor	TX	7810	10178606
Toxaphene (Chlorinated camphene)	TX	8250	10178606
Method EPA 8082			
Analyte	AB	Analyte ID	Method ID
Aroclor-1016 (PCB-1016)	TX	8880	10179007
Aroclor-1221 (PCB-1221)	TX	8885	10179007
Aroclor-1232 (PCB-1232)	TX	8890	10179007
Aroclor-1242 (PCB-1242)	TX	8895	10179007
Aroclor-1248 (PCB-1248)	TX	8900	10179007
Aroclor-1254 (PCB-1254)	TX	8905	10179007
Aroclor-1260 (PCB-1260)	TX	8910	10179007
PCBs (total)	TX	8870	10179007
Method EPA 8151			
Analyte	AB	Analyte ID	Method ID
2,4,5-T	TX	8655	10183207
2,4-D	TX	8545	10183207
2,4-DB	TX	8560	10183207
Dalapon	TX	8555	10183207
Dicamba	TX	8595	10183207
Dichloroprop (Dichlorprop, Weedone)	TX	8605	10183207
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10183207
MCPA	TX	7775	10183207
MCPP	TX	7780	10183207
Silvex (2,4,5-TP)	TX	8650	10183207





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These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: Solid & Chemical Materials

TestAmerica Laboratories, Inc. - Houston

Method EPA 8260			
Analyte	AB	Analyte ID	Method ID
1,1,1,2-Tetrachloroethane	TX	5105	10184802
1,1,1-Trichloroethane	TX	5160	10184802
1,1,2,2-Tetrachloroethane	TX	5110	10184802
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	TX	5195	10184802
1,1,2-Trichloroethane	TX	5165	10184802
1,1-Dichloroethane	TX	4630	10184802
1,1-Dichloroethylene	TX	4640	10184802
1,1-Dichloropropene	TX	4670	10184802
1,2,3-Trichlorobenzene	TX	5150	10184802
1,2,3-Trichloropropane	TX	5180	10184802
1,2,4-Trichlorobenzene	TX	5155	10184802
1,2,4-Trimethylbenzene	TX	5210	10184802
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10184802
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184802
1,2-Dichlorobenzene	TX	4610	10184802
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184802
1,2-Dichloropropane	TX	4655	10184802
1,3,5-Trimethylbenzene	TX	5215	10184802
1,3-Dichlorobenzene	TX	4615	10184802
1,3-Dichloropropane	TX	4660	10184802
1,4-Dichlorobenzene	TX	4620	10184802
1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10184802
2,2-Dichloropropane	TX	4665	10184802
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184802
2-Chloroethyl vinyl ether	TX	4500	10184802
2-Chlorotoluene	TX	4535	10184802
2-Hexanone (MBK)	TX	4860	10184802
2-Nitropropane	TX	5020	10184802





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trix: Solid & Chemical Materials			
4-Chlorotoluene	TX	4540	10184802
4-Isopropyltoluene (p-Cymene)	TX	4915	10184802
4-Methyl-2-pentanone (MIBK)	TX	4995	10184802
Acetone (2-Propanone)	TX	4315	10184802
Acetonitrile	TX	4320	10184802
Acrolein (Propenal)	TX	4325	10184802
Acrylonitrile	TX	4340	10184802
Allyl chloride (3-Chloropropene)	TX	4355	10184802
Benzene	TX	4375	10184802
Benzyl chloride	TX	5635	10184802
Bromobenzene	TX	4385	10184802
Bromochloromethane	TX	4390	10184802
Bromodichloromethane	TX	4395	10184802
Bromoform	TX	4400	10184802
Carbon disulfide	TX	4450	10184802
Carbon tetrachloride	TX	4455	10184802
Chlorobenzene	TX	4475	10184802
Chlorodibromomethane	TX	4575	10184802
Chloroethane (Ethyl chloride)	TX	4485	10184802
Chloroform	TX	4505	10184802
Chloroprene (2-Chloro-1,3-butadiene)	TX	4525	10184802
cis-1,2-Dichloroethylene	TX	4645	10184802
cis-1,3-Dichloropropene	TX	4680	10184802
Dibromofluoromethane	TX	4590	10184802
Dibromomethane (Methylene bromide)	TX	4595	10184802
Dichlorodifluoromethane (Freon-12)	TX	4625	10184802
Ethyl acetate	TX	4755	10184802
Ethyl methacrylate	TX	4810	10184802
Ethylbenzene	TX	4765	10184802
Ethylene oxide	TX	4795	10184802





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Matrix: Solid & Chemical Materials			
Hexachlorobutadiene	TX	4835	10184802
lodomethane (Methyl iodide)	TX	4870	10184802
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10184802
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10184802
Isopropylbenzene (Cumene)	TX	4900	10184802
m+p-xylene	TX	5240	10184802
Methacrylonitrile	TX	4925	10184802
Methyl acrylate	TX	4945	10184802
Methyl bromide (Bromomethane)	TX	4950	10184802
Methyl chloride (Chloromethane)	TX	4960	10184802
Methyl methacrylate	TX	4990	10184802
Methyl tert-butyl ether (MTBE)	TX	5000	10184802
Methylcyclohexane	TX	4965	10184802
Methylene chloride (Dichloromethane)	TX	4975	10184802
Naphthalene	TX	5005	10184802
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10184802
n-Butylbenzene	TX	4435	10184802
n-Propylbenzene	TX	5090	10184802
o-Xylene	TX	5250	10184802
Propionitrile (Ethyl cyanide)	TX	5080	10184802
sec-Butylbenzene	TX	4440	10184802
Styrene	TX	5100	10184802
tert-Butyl alcohol	TX	4420	10184802
tert-Butylbenzene	TX	4445	10184802
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184802
Toluene	TX	5140	10184802
trans-1,2-Dichloroethylene	TX	4700	10184802
trans-1,3-Dichloropropylene	TX	4685	10184802
trans-1,4-Dichloro-2-butene	TX	4605	10184802
Trichloroethene (Trichloroethylene)	TX	5170	10184802





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Natrix: Solid & Chemical Materials			
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184802
Vinyl acetate	TX	5225	10184802
Vinyl chloride	TX	5235	10184802
Xylene (total)	TX	5260	10184802
Method EPA 8270			
Analyte	AB	Analyte ID	Method ID
1,2,4,5-Tetrachlorobenzene	TX	6715	10185805
1,2,4-Trichlorobenzene	TX	5155	10185805
1,2-Dichlorobenzene	TX	4610	10185805
1,2-Dinitrobenzene	TX	6155	10185805
1,2-Diphenylhydrazine	TX	6220	10185805
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10185805
1,3-Dichlorobenzene	TX	4615	10185805
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10185805
1,4-Dichlorobenzene	TX	4620	10185805
1,4-Dinitrobenzene	TX	6165	10185805
1,4-Naphthoquinone	TX	6420	10185805
1,4-Phenylenediamine	TX	6630	10185805
1-Chloronaphthalene	TX	5790	10185805
1-Naphthylamine	TX	6425	10185805
2,3,4,6-Tetrachlorophenol	TX	6735	10185805
2,4,5-Trichlorophenol	TX	6835	10185805
2,4,6-Trichlorophenol	TX	6840	10185805
2,4-Diaminotoluene	TX	5880	10185805
2,4-Dichlorophenol	TX	6000	10185805
2,4-Dimethylphenol	TX	6130	10185805
2,4-Dinitrophenol	TX	6175	10185805
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10185805
2,4-Toluene diisocyanate	TX	9636	10185805
2,6-Dichlorophenol	TX	6005	10185805





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Matrix: Solid & Chemical Materials			
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10185805
2-Acetylaminofluorene	TX	5515	10185805
2-Chloronaphthalene	TX	5795	10185805
2-Chlorophenol	TX	5800	10185805
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10185805
2-Methylaniline (o-Toluidine)	TX	5145	10185805
2-Methylnaphthalene	TX	6385	10185805
2-Methylphenol (o-Cresol)	TX	6400	10185805
2-Naphthylamine	TX	6430	10185805
2-Nitroaniline	TX	6460	10185805
2-Nitrophenol	TX	6490	10185805
2-Picoline (2-Methylpyridine)	TX	5050	10185805
3,3'-Dichlorobenzidine	TX	5945	10185805
3,3'-Dimethoxybenzidine	TX	6100	10185805
3,3'-Dimethylbenzidine	TX	6120	10185805
3-Methylcholanthrene	TX	6355	10185805
3-Methylphenol (m-Cresol)	TX	6405	10185805
3-Nitroaniline	TX	6465	10185805
4-Aminobiphenyl	TX	5540	10185805
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10185805
4-Chloro-3-methylphenol	TX	5700	10185805
4-Chloroaniline	TX	5745	10185805
4-Chlorophenyl phenylether	TX	5825	10185805
4-Methylphenol (p-Cresol)	TX	6410	10185805
4-Nitroaniline	TX	6470	10185805
4-Nitrobiphenyl	TX	6480	10185805
4-Nitrophenol	TX	6500	10185805
4-Nitroquinoline-1-oxide	TX	6510	10185805
5-Nitro-o-toluidine	TX	6570	10185805
7,12-Dimethylbenz(a) anthracene	TX	6115	10185805





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trix: Solid & Chemical Materials			
Acenaphthene	TX	5500	10185805
Acenaphthylene	TX	5505	10185805
Acetophenone	TX	5510	10185805
Aniline	TX	5545	10185805
Anthracene	TX	5555	10185805
Azobenzene	TX	5562	10185805
Benzenethiol (Thiophenol)	TX	6750	10185805
Benzidine	TX	5595	10185805
Benzo(a)anthracene	TX	5575	10185805
Benzo(a)pyrene	TX	5580	10185805
Benzo(b)fluoranthene	TX	5585	10185805
Benzo(g,h,i)perylene	TX	5590	10185805
Benzo(k)fluoranthene	TX	5600	10185805
Benzoic acid	TX	5610	10185805
Benzyl alcohol	TX	5630	10185805
Biphenyl	TX	5640	10185805
bis(2-Chloroethoxy)methane	TX	5760	10185805
bis(2-Chloroethyl) ether	TX	5765	10185805
bis(2-Chloroisopropyl) ether	TX	5780	10185805
bis(2-Ethylhexyl) phthalate (Di(2-Ethylhexyl) phthalate, DEHP)	TX	6065	10185805
Butyl benzyl phthalate	TX	5670	10185805
Caprolactam	TX	7180	10185805
Carbazole	TX	5680	10185805
Chlorobenzilate	TX	7260	10185805
Chrysene	TX	5855	10185805
Diallate	TX	7405	10185805
Dibenz(a,h) anthracene	TX	5895	10185805
Dibenzofuran	TX	5905	10185805
Diethyl phthalate	TX	6070	10185805
Dimethoate	TX	7475	10185805





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atrix: Solid & Chemical Materials			
Dimethyl phthalate	TX	6135	10185805
Di-n-butyl phthalate	TX	5925	10185805
Di-n-octyl phthalate	TX	6200	10185805
Diphenylamine	TX	6205	10185805
Disulfoton	TX	8625	10185805
Ethyl methanesulfonate	TX	6260	10185805
Fluoranthene	TX	6265	10185805
Fluorene	TX	6270	10185805
Hexachlorobenzene	TX	6275	10185805
Hexachlorobutadiene	TX	4835	10185805
Hexachlorocyclopentadiene	TX	6285	10185805
Hexachloroethane	TX	4840	10185805
Hexachlorophene	TX	6290	10185805
Hexachloropropene	TX	6295	10185805
Indeno(1,2,3-cd) pyrene	TX	6315	10185805
Isodrin	TX	7725	10185805
Isophorone	TX	6320	10185805
Isosafrole	TX	6325	10185805
Methyl methanesulfonate	TX	6375	10185805
Methyl parathion (Parathion, methyl)	TX	7825	10185805
Methylphenols, total	TX	10313	10185805
Naphthalene	TX	5005	10185805
Nitrobenzene	TX	5015	10185805
n-Nitrosodiethylamine	TX	6525	10185805
n-Nitrosodimethylamine	TX	6530	10185805
n-Nitrosodi-n-butylamine	TX	5025	10185805
n-Nitrosodi-n-propylamine	TX	6545	10185805
n-Nitrosodiphenylamine	TX	6535	10185805
n-Nitrosomethylethylamine	TX	6550	10185805
n-Nitrosomorpholine	TX	6555	10185805





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Matrix: Solid & Chemical Materials			
n-Nitrosopiperidine	TX	6560	10185805
n-Nitrosopyrrolidine	TX	6565	10185805
o,o,o-Triethyl phosphorothioate	TX	8290	10185805
Parathion, ethyl	TX	7955	10185805
Pentachlorobenzene	TX	6590	10185805
Pentachloronitrobenzene (PCNB)	TX	6600	10185805
Pentachlorophenol	TX	6605	10185805
Phenacetin	TX	6610	10185805
Phenanthrene	TX	6615	10185805
Phenol	TX	6625	10185805
Phorate	TX	7985	10185805
Pronamide (Kerb)	TX	6650	10185805
Pyrene	TX	6665	10185805
Pyridine	TX	5095	10185805
Safrole	TX	6685	10185805
Thionazin (Zinophos)	TX	8235	10185805
Method EPA 9012			
Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10193405
Total Cyanide	TX	1635	10193405
Method EPA 9034			
Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	10196006
Method EPA 9045			
Analyte	AB	Analyte ID	Method ID
Corrosivity	TX	1615	10198400
рН	TX	1900	10198400
Method EPA 9050			
Analyte	AB TX	Analyte ID	Method ID
Conductivity	IX	1610	10198808





NELAP - Recognized Laboratory Fields of Accreditation

Certificate:

T104704223-15-16

Expiration Date:

10/31/2015

Issue Date:

7/7/2015

6310 Rothway Drive Houston, TX 77040-5056

TestAmerica Laboratories, Inc. - Houston

Matrix: Solid & Chemical Materials			
Method EPA 9056			
Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10199209
Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Sulfate	TX	2000	10199209
Method EPA 9066			
Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10200609
Method EPA 9071			
Analyte	AB	Analyte ID	Method ID
Silica Gel Treated n-Hexane Extractable Material (SGT-HEM)	TX	10220	10201806
Method EPA 9095			
Analyte	AB	Analyte ID	Method ID
Paint Filter Liquids Test	TX	10312	10204203
Method SM 2320 B			
Analyte	AB	Analyte ID	Method ID
Alkalinity as CaCO3	TX	1505	20045005
Method SM 2510 B			
Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	20048004
Method TCEQ 1005			
Analyte	AB	Analyte ID	Method ID
Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208



Test America Work Orders: 113214-1, 113214-3, 113192-1, 113192-

3, 113063-1, 113063-3, 113019-1, 113019-3, 113019-4

Sample Dates: June 8, 9, 10 and 11, 2015 **Project No.:** 1302086

Laboratory: Test America (TLAP Certification Client: Exide Technologies Inc.

T104704223)

Work Orders: Work Orders: 113214-1, 113214-3, 113192-1, 113192-3, 113063-1, 113063-3,

113019-1, 113019-3, 113019-4

Intended Use Affected Property Assessment Report (APAR) Addendum

Site: Exide Former Operating Plant (FOP), 7471 5th Street, Frisco, TX

1.0 TESTS/ METHODS

Total Metals by SW-846 6010B - Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP) Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Percent moisture/percent solids (general chemistry)

2.0 SAMPLES

53 soil samples, 7 field duplicates, and 9 field MS/MSD pairs. See Table 1 for a complete cross-referenced listing of samples.

Golder completed a review of the above chemical analysis data for conformance with the requirements of the Texas Risk Reduction Program (TRRP) guidance document, Review and Reporting of COC Concentration Data (RGG-366/TRRP-13 Revised May 2010) and for adherence to project objectives. The results of the review are discussed in this data usability summary (DUS).

Golder completed the review using the following laboratory and project submittals:

- Laboratory reportable data as defined in TRRP-13;
- Laboratory review checklists (LRC) with the associated exception reports;
- Laboratory Electronic Data Deliverable (EDD); and
- Project field notes from the sampling event.

The review of the reportable data included the quality control (QC) parameters listed below, as required per TRRP-13, using the applicable analytical method and project requirements:

- Data Completeness
- Chain-of-Custody Procedures
- Sample Condition Holding Time, Preservation, and Containers
- Field Procedures





Test America Work Orders: 113214-1, 113214-3, 113192-1, 113192-3, 113063-1, 113063-3, 113019-1, 113019-3, 113019-4

- Results Reporting Procedures
- Laboratory and Field QC Blanks
- Laboratory Control Spike and Matrix Spike Recoveries
- Surrogate Recoveries
- Laboratory and Field Duplicate Precision

Additionally, Golder used the LRC to evaluate the following QC parameters:

- Method Quantitation Limits (MQLs)
- Method Detection Limits (MDLs)
- Instrument Tuning, Calibration, and Performance
- Internal Standards

Criteria used for this data usability review are as follows:

- Inorganics: 70-130% spike recovery (and not less than 30% or data is rejected) and +MQL difference or 30% RPD (for laboratory duplicates) as recommended in TRRP-13; and
- Organics: 60-140% spike recovery (and not less than 10% or data is rejected) and ± MQL difference or 30% RPD (for laboratory duplicates) as recommended in TRRP-13
- Soil Samples: + 3x MQL difference (if either result is less than 5x MQL) or 50% RPD (for field duplicates) as recommended in TRRP-13.
- Aqueous Samples: ± 2x MQL difference (if either result is less than 5x MQL) or 30% RPD (for field duplicates) as recommended in TRRP-13

If an item was found outside of the review criteria, the reviewer applied a data qualifier (DQ) and bias code to the results for the affected samples in accordance with TRRP-13. A list of all qualified results and definitions of the qualifier and bias codes are given in Table 2.

GLOSSARY OF TERMS

The following definitions apply for terms related to analyte reporting limits:

MDL (Method Detection Limit) – the minimum concentration of an analyte that the laboratory can measure and report with 99% confidence that the analyte concentration is greater than zero. The MDL is determined by the laboratory for each analyte in a given reagent matrix (water or soil) generally using the procedures specified in 40 CFR Part 136, Appendix B. It is a measure of the concentration an instrument can detect or 'see' in a given reagent matrix. TRRP-13 requires that the laboratory routinely check the MDL for reasonableness.

<u>SDL</u> (Sample Detection Limit) – the MDL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and taking into account sample





Test America Work Orders: 113214-1, 113214-3, 113192-1, 113192-

3, 113063-1, 113063-3, 113019-1, 113019-3, 113019-4

characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can detect or 'see' in a given sample. For TRRP, non-detects are reported using the SDL. This term was originally called the SQL (Sample Quantitation Limit) before the TRRP rule revisions effective March 19, 2007.

<u>Unadjusted MQL (Method Quantitation Limit)</u> – the lowest non-zero concentration standard in the laboratory's initial calibration curve calculated using the normal aliquot sizes and final volumes prescribed in the analytical method. The unadjusted MQL is reported by the laboratory for each analyte in a given matrix (water or soil). It is a measure of the concentration an instrument can accurately measure in a typical sample. Per TRRP, the unadjusted MQLs should be below the Levels of Required Performance (LORPs) for purposes of assessment as well as demonstration of conformance with critical Protective Concentration Levels (PCLs).

<u>MQL</u> – the unadjusted MQL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and takes into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can accurately measure in a given sample. Analytes with concentrations above the SDL but below the MQL, though present in the sample, may not be accurately measured and are thus flagged as estimated (J).

LABORATORY CERTIFICATION

At the time the laboratory data were generated for this project, the laboratory was NELAC accredited under the Texas Laboratory Accreditation Program (TLAP) for the matrices, methods and parameters of analysis requested on the chain-of-custody forms. A copy of the applicable pages of the laboratory's National Environmental Laboratory Accreditation Program (NELAP) certificate valid during the period in which the laboratory generated the data in this report is also included in Appendix C to the Supplement to the Affected Property Assessment Report.

USABILITY SUMMARY

1. Usability of Unqualified Non-Detects – Non-detects are reported at the sample detection limit (SDL) as required per TRRP. Additionally, according to the LRC, an MDL study was performed for each analyte and the MDLs were checked for reasonableness for each applicable analyte. The levels of required performance (LORPs) have been established by Golder/PBW as the Residential Assessment Levels (RALs), which are the minimum of the TRRP residential Tier 1 Tot Soil Comb and Tier 1, 2 or 3 GW Soil Ing PCLs for a 30-acre source area. As needed per TRRP, the unadjusted MQL stated by the laboratory is at or below the LORP for each applicable analyte, and thus the analytical methods are appropriate and the results can be used to demonstrate conformance with the criteria.





2. Usability of Qualified Data – There are no major QC deficiencies, and thus all data is usable as qualified for the intended use. As shown in Table 2, the reviewer qualified some detects as estimated (J) due to minor QC deficiencies. Detects that are biased high can be used; however, the reported concentration may be high. Detects that are estimated may be either low or high. Results with a laboratory J-flag (i.e., at a concentration between the SDL and MQL) should be considered estimates. The actual value is not expected to exceed the sample MQL.

Reviewer: Christina Higginbotham 8/31/15

QUALITY CONTROL PARAMETERS AND OUTCOMES

Data Completeness

The laboratory data packages contain all necessary data (i.e., the laboratory reportable data per TRRP-13) and the EDD contain all sample results in acceptable format.

Chain-of-Custody

Proper sample custody procedures were used, which confirms that the integrity of the samples was maintained. Additionally, the information on the custody records is complete and agrees with that in the field notes and laboratory reports, with the following exceptions:

- Four samples were left off the chain-of-custody for 600-113019 and were subsequently added.
- A number of deeper interval samples were archived at the laboratory pending results of shallow interval samples.

Sample Condition

Samples were collected in appropriate containers, properly preserved in the field, and prepared and analyzed within the holding times as required in the analytical methods, which ensures that the samples were not affected by analyte degradation. Although temperatures were marginally outside of 2-6 °C in some cases, sample integrity is not believed to be affected:

- 600-113019, the temperature of the cooler at receipt was 2.2°C.
- 600-113063, the temperature of the cooler at receipt was 1.9°C.
- 600-113192, the temperature of the cooler at receipt was 3.2°C
- 600-113214, the temperature of the cooler at receipt was 0.3°C and 0.9°C

Field Procedures

The samples were collected and placed immediately into sterilized jars provided by the laboratory and then into a cooler with ice for overnight delivery to the laboratory.





Test America Work Orders: 113214-1, 113214-3, 113192-1, 113192-

3, 113063-1, 113063-3, 113019-1, 113019-3, 113019-4

9 site-specific MS/MSDs and 7 field duplicate samples were analyzed with the investigative samples.

Results Reporting Procedures

The hardcopy analytical results include a Result, MQL (adjusted), and SDL. The EDD includes the MDL, SDL (under the SQL column per previously used terminology) and the MQL, which is not adjusted for sample specific factors.

Results are reported in mg/kg with dry-weight correction for the metals. Non-detects are reported using the SDL as specified per TRRP and detects between the SDL and MQL are reported with a laboratory J-flag. The concentration reported for detects between the SDL and MQL is below the calibration range and thus is considered estimated.

MQLs- The LORPs have been established by Golder/PBW as the Residential Assessment Levels (RALs), which are the minimum of the TRRP residential Tier 1 Tier 1 Tot Soil Comb and Tier 1, 2 or 3 GW Soil Ing PCLs for a 30-acre source area. The Unadjusted MQLs for the laboratory are at or below the LORPs for each applicable analyte.

MDLs- According to the LRC, an MDL study was performed for each analyte, and the MDLs were checked for reasonableness and either adjusted or supported by the analysis of detectability check standards (DCS) for each applicable analyte as required per TRRP-13. Results for the DCS are included in the data packages.

Laboratory Blanks

Results for samples prepared in the same QC batch as a contaminated method blank may be affected by laboratory contamination. No analytes were detected in the laboratory blanks except for lead in 600-113214 batch 165417. Five times the method blank detection of 5.175 mg/kg was less than all lead concentrations in this data package; therefore, sample results were not affected.

Field QC Blanks

Five equipment blanks were collected as part of these data packages. Lead was detected at an estimated value in the equipment blank collected in package 600-113192 and in Equipment Blank 2 (Auger) in package 600-113214; however, field samples had elevated lead concentrations and are of a soil matrix, and therefore cannot be correlated to any potential cross contamination from decontamination procedures.



Test America Work Orders: 113214-1, 113214-3, 113192-1, 113192-3, 113063-1, 113063-3, 113019-1, 113019-3, 113019-4

Laboratory Control Sample

The laboratory prepared one laboratory control sample (LCS) for each analytical batch and reported recoveries for all of the analytes for each test. The LCS recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on a sample, free of matrix effects, except for the following:

600-113019, antimony had slightly low LCS recovery of 69.4% which is only slightly below TRRP criteria of 70-130%. Samples in the associated batch were not qualified on this basis.

Matrix Spike Recovery

The laboratory prepared one or more matrix spike (MS) and matrix spike duplicate (MSD) with each analytical batch. MS/MSD recoveries are reported for the same analytes as the LCS for MS/MSD prepared using designated samples from the site as shown in Table 1. The lab also selected unrelated samples as MS/MSDs for several job packages. In these cases, MS/MSD recoveries were not evaluated. In cases where the spiking amount is sufficiently less than the amount in the unspiked parent sample, the data were considered inconclusive and the MS/MSD recovery check was waived.

PDS outcomes are given on the LRC for each job package; however PDS data are not reportable data per TRRP-13. According to the LRC, the PDS met method requirements, which indicates good accuracy for the analysis technique on the given sample matrix.

The MS/MSD recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on a sample free of matrix effects, except as follows:

QC Batch	Lab Sample ID	MS/MSD ID	Analyte	Parent Amount (mg/kg)	Spike Amount for MS/MSD (mg/kg)	MS % Recovery	MSD % Recovery	Qual
164854	600-113019- 9	2015-CUFT- 16C 2-4	antimony	<0.293	66.3, 64.5	34	34	JL or UJL
164854	600-113019- 25	B3RA-B 0- 0.5	antimony	<0.268	60.1, 57.3	33	32	JL or UJL
164854	600-113019- 9	2015-CUFT- 16C 2-4	Lead-DL	104	66.3, 64.5	129	23	-
164854	600-113019- 25	B3RA-B 0- 0.5	Lead-DL	95.6	60.1, 57.3	31	134	J
165116	600-113192- 10	2015-SCC- 16D 0.5-2	antimony	0.480 J	59.1, 56.9	51	49	JL or UJL
165116	600-113192- 10	2015-SCC- 16D 0.5-2	lead	40.8	59.1, 56.9	117	57	-
167686	600-113192- 28	2015-MW- 17D 2-4	antimony	<0.293	64.5, 65.1	28	34	JL or UJL
167686	600-113192- 28	2015-MW- 17D 2-4	Lead (DL)	101	64.5, 65.1	4	107	-
165357	600-113214-	2015-NDA-	antimony	17.5	63.8, 61.5	52	58	JL or





Test America Work Orders: 113214-1, 113214-3, 113192-1, 113192-3, 113063-1, 113063-3, 113019-1, 113019-3, 113019-4

	5	11 0-0.5						UJL
165417	600-113214- 30	2015-C2L- C01D 0-0.5	antimony	<0.285	62.5, 63.8	38	40	JL or UJL

NA - Not available.

Samples qualified only if both MS and MSD were outside of criteria of approximately 70-130%

Surrogate Recovery

Organic analyses where requested had surrogate recoveries within acceptable criteria.

Laboratory Duplicate Precision

The laboratory prepared one or more Matrix Spike Duplicate (MSD) with each analytical batch for each test. Additionally, the laboratory prepared one Matrix Duplicate (MD) with each metals analytical batch. RPDs are reported for the same analytes as the LCS for MSD/MD prepared using a sample from the site, which includes one MSD and MD for Total Metals.

The MSD and MD RPDs are within the TRRP recommended criteria, which indicates good precision for the preparation and analysis technique for the given sample matrix, except as follows:

QC Batch	Lab Sample ID	MS/MSD ID	Analyte	Parent Amount (mg/kg)	MSD RPD	MD RPD	Qual
164854	600-113019- 25	B3RA-B 0-0.5	antimony	<0.268	32	NC	-
164854	600-113019-9	2015-CUFT- 16C 2-4	antimony	<0.293	34	NC	-
164854	600-113019-9	2015-CUFT- 16C 2-4	Lead-DL	104	46	78	J
164854	600-113019- 25	B3RA-B 0-0.5	Lead-DL	95.6	41	58	J
165116	600-113192- 10	2015-SCC- 16D 0.5-2	Lead-DL	40.8	40	34	J
167686	600-113192- 28	2015-MW-17D 2-4	Lead (DL)	101	49	47	J
165357	600-113214-5	2015-NDA-11 0-0.5	selenium	1.83J	2	41	-
165417	600-113214- 30	2015-C2L- C01D 0-0.5	arsenic	7.80	13	43	-

Samples qualified only if both MS and MSD RPDs were outside of criteria of 30%. Where MSD RPDs were acceptable and MD RPDs were outside of criteria or not calculated, a batch effect was not indicated and the parent sample (only) was qualified as estimated.

Field Duplicate Precision

7 field duplicates were collected with the samples. Results are summarized in Table 3. The RPDs (or the absolute difference between results for concentrations <5x MQL and for non-detects) are within the TRRP criteria in most cases, which indicates good precision for the sampling, preparation, and analysis technique on the given sample matrix. Qualifications are indicated on Table 3.





Test America Work Orders: 113214-1, 113214-3, 113192-1, 113192-3, 113063-1, 113063-3, 113019-1, 113019-3, 113019-4

Instrument Tuning

According to the LRC, instrument tuning met method requirements for the samples, which indicates the GC/MS instrument was properly set up to identify analytes.

Instrument Calibration

According to the LRC, initial and continuing calibration data met method requirements for all reported results, which indicates the instruments were properly calibrated to measure analyte concentrations.

Instrument Performance

According to the LRC, the serial dilution and ICP interference check samples met method requirements, which indicates that no significant matrix interference exists.

Internal Standards

According to the LRC, area counts and retention times were within method requirements.



TABLE 1
CROSS REFERENCE OF FIELD SAMPLE IDENTIFICATIONS AND LABORATORY IDENTIFICATIONS

CKO35 KEI	LICENCE OF THEED SAME		I ONS AI	ID LABORATORY IDENTIFICATIONS
Lab Sample ID	Field Sample ID	Sample Date	Matrix	Comments
(00 112010 1	2015 OUET 1/A 0 0 5	01/00/0015	0 "	
600-113019-1	2015-CUFT-16A 0-0.5 2015-CUFT-15A 0-0.5	06/08/2015 06/08/2015	Soil Soil	
600-113019-9	2015-CUFT-16C 2-4	06/08/2015	Soil	MS/MSD
600-113019-10	2015-CUFT-16C 4-6	06/08/2015	Soil	IVIO/IVIOD
600-113019-11	DUP-02	06/08/2015	Soil	Parent sample 2015-CUFT-16C 2-4
600-113019-12	SRB-VS-7A 0-0.5	06/08/2015	Soil	Taront sample 2010 001 1 100 2 1
600-113019-15	SRB-VS-3A 0-0.5	06/08/2015	Soil	
600-113019-18	2015-C2L-06F 0-0.5	06/08/2015	Soil	
600-113019-21	B3RA-A 0-0.5	06/08/2015	Soil	
600-113019-22	DUP-01	06/08/2015	Soil	Parent sample B3RA-A 0-0.5
600-113019-25	B3RA-B 0-0.5	06/08/2015	Soil	MS/MSD
600-113019-28	B3RA-C 0-0.5	06/08/2015	Soil	
600-113019-31	2015-C2L-06E 0-0.5	06/08/2015	Soil	
600-113019-34	2015-CUFT-16B 0-0.5	06/08/2015	Soil	
600-113019-35	2015-CUFT-16B 0.5-2	06/08/2016	Soil	
600-113063-1	2015-SDA-3C 0-0.5	06/09/2015	Soil	
600-113063-1	ECO-8C 0-0.5	06/09/2015	Soil	
600-113063-7	ECO-8D 0-0.5	06/09/2015	Soil	
600-113063-10	2015-STB-6A 1-2	06/09/2015	Soil	
600-113063-11	2015-STB-6A 4-6	06/09/2015	Soil	
600-113063-12	2015-STB-6A 6-8	06/09/2015	Soil	
600-113063-13	2015-STB-6B 1-2	06/09/2015	Soil	
600-113063-16	2015-STB-6C 0.75-2	06/09/2015	Soil	MS/MSD
600-113063-19	DUP-03	06/09/2015	Soil	Parent sample 2015-STB-6C 0.75-2
600-113192-1	2015-SCC-16A 0-0.5	06/10/2015	Soil	
600-113192-4	2015-SCC-16B 0-0.5	06/10/2015	Soil	
600-113192-5	2015-SCC-16B 0.5-2	06/10/2015	Soil	
600-113192-7	2015-SCC-16C 0-0.5	06/10/2015	Soil	MS/MSD
600-113192-10	2015-SCC-16D 0.5-2	06/10/2015	Soil	
600-113192-12	Dup-04	06/10/2015	Soil	Parent sample 2015-SCC-16D 0.5-2
600-113192-13 600-113192-15	SCC-5C 0.5-2 D-11D 0-0.5	06/10/2015	Soil Soil	
600-113192-13	D-11E 0-0.5	06/10/2015 06/10/2015	Soil	
600-113192-10	D-11C 0-0.5	06/10/2015	Soil	
600-113192-22	D-11C 2-4	06/10/2015	Soil	MS/MSD
600-113192-23	DUP-06	06/10/2015	Soil	Parent sample D-11C 0.5-2
600-113192-24	2015-MW-17C 0-0.5	06/10/2015	Soil	, , , , , , , , , , , , , , , , , , ,
600-113192-27	2015-MW-17D 0.5-2	06/10/2015	Soil	
600-113192-28	2015-MW-17D 2-4	06/10/2015	Soil	MS/MSD
600-113192-30	ECO-5-A 0-0.5	06/10/2015	Soil	
600-113192-33	E-11C-C 0-0.5	06/10/2015	Soil	
600-113192-36	E-11C-D 0-0.5	06/10/2015	Soil	
600-113192-39	E-11C-B 2.4	06/10/2015	Soil	
600-113192-42 600-113192-43	Equipment Blank SCC-5C 0-0.5	06/10/2015 06/10/2015	Soil Soil	
400 112214 1	2015 EETA 00A 0 0 5	04/11/2015	Call	MC/MCD
600-113214-1	2015-FFTA-08A 0-0.5	06/11/2015	Soil	MS/MSD
600-113214-5 600-113214-8	2015-NDA-11 0-0.5 DUP-07	06/11/2015	Soil Soil	MS/MSD Parent sample 2015-NDA-11 0-0.5
600-113214-8	2015-NDA-12 0-0.5	06/11/2015 06/11/2015	Soil	Farent Sample 2015-NDA-11 0-0.5
600-113214-9	2015-NDA-12 0-0.5	06/11/2015	Soil	
600-113214-15	ECO-11A 0-0.5	06/11/2015	Soil	
600-113214-18	ECO-11B 0-0.5	06/11/2015	Soil	
600-113214-21	ECO-11C 0-0.5	06/11/2015	Soil	
600-113214-22	ECO-11C 0.5-2	6/11/2015	Soil	
600-113214-24	ECO-11D 0-0.5	06/11/2015	Soil	
600-113214-27	2015-C2L-06D 0-0.5	06/11/2015	Soil	
600-113214-30	2015-C2L-C01D-0-0.5	06/11/2015	Soil	MS/MSD
600-113214-32	DUP-09	06/11/2015	Soil	Parent sample 2015-C2L-C01D-0-0.5
600-113214-33	2015-FWCS-5A 0-0.5	06/11/2015	Soil	
600-113214-34	2015-FWCS-6A 0-0.5	06/11/2015	Soil	
600-113214-35	2015-FWCS-7A 0-0.5	06/11/2015	Soil	
600-113214-36	Equipment Blank2 Auger	06/11/2015	Soil	
600-113214-37	Equipment Blank2 Probe	06/11/2015	Soil	

TABLE 2 - QUALIFIED DATA

Lab Sample ID	Field Sample ID	Analyte	Result	Units	Qualifer	Explanation
600-113019-18	2015-C2L-06F 0-0.5	Antimony	0.958	mg/Kg	JL	Estimated concentration between SDL and MQL; low MS/MSD recovery
600-113019-18	2015-C2L-06F 0-0.5	Selenium	2.52	mg/Kg	J	Estimated concentration between SDL and MQL
600-113019-12	SRB-VS-7A 0-0.5	Antimony	< 0.250	mg/Kg	UJL	low MS/MSD recovery
600-113019-15	SRB-VS-3A 0-0.5	Antimony	<0.263	mg/Kg	UJL	low MS/MSD recovery
600-113019-1	2015-CUFT-16A 0-0.5	Lead	69.0	mg/Kg	J	MS/MSD recoveries and MSD/MD RPDs outside of criteria
600-113019-5	2015-CUFT-15A 0-0.5	Lead	141	mg/Kg	J	MS/MSD recoveries and MSD/MD RPDs outside of criteria
600-113019-9	2015-CUFT-16C 2-4	Lead	104	mg/Kg	J	MS/MSD recoveries and MSD/MD RPDs outside of criteria; field duplicate RPD
600-113019-11	DUP-02	Lead	22.5	mg/Kg	J	MS/MSD recoveries and MSD/MD RPDs outside of criteria; field duplicate RPD
600-113019-18	2015-C2L-06F 0-0.5	Lead	221	mg/Kg	J	MS/MSD recoveries and MSD/MD RPDs outside of criteria
600-113019-21	B3RA-A 0-0.5	Lead	501	mg/Kg	J	MS/MSD recoveries and MSD/MD RPDs outside of criteria; field duplicate RPD
600-113019-22	DUP-01	Lead	75.9	mg/Kg	J	MS/MSD recoveries and MSD/MD RPDs outside of criteria; field duplicate RPD
600-113019-25	B3RA-B 0-0.5	Lead	95.6	mg/Kg	J	MS/MSD recoveries and MSD/MD RPDs outside of criteria
600-113019-28	B3RA-C 0-0.5	Lead	249	mg/Kg	j	MS/MSD recoveries and MSD/MD RPDs outside of criteria
600-113019-31	2015-C2L-06E 0-0.5	Lead	1100	mg/Kg	j	MS/MSD recoveries and MSD/MD RPDs outside of criteria
600-113019-34	2015-CUFT-16B 0-0.5	Lead	1020	mg/Kg	J	MS/MSD recoveries and MSD/MD RPDs outside of criteria
600-113063-1	2015-SDA-3C 0-0.5	Antimony	1.21	mg/Kg	J	Estimated concentration between SDL and MQL
600-113063-4	ECO-8C 0-0.5	Antimony	1.37	mg/Kg	J	Estimated concentration between SDL and MQL
600-113063-7	ECO-8D 0-0.5	Antimony	0.432	mg/Kg	J	Estimated concentration between SDL and MQL
600-113063-10	2015-STB-6A 1-2	Benzene	0.00124	mg/Kg	J	Estimated concentration between SDL and MQL
600-113063-16	2015-STB-6C 0.75-2	Benzene	0.000688	mg/Kg	J	Estimated concentration between SDL and MQL
600-113192-1	2015-SCC-16A 0-0.5	lead	582	mg/Kg	J	MSD/MD RPD outside of criteria
600-113192-4	2015-SCC-16B 0-0.5	lead	2010	mg/Kg	J	MSD/MD RPD outside of criteria
600-113192-5	2015-SCC-16B 0.5-2	lead	16.9	mg/kg	J	MSD/MD RPD outside of criteria
600-113192-7	2015-SCC-16C 0-0.5	lead	810	mg/Kg	J	MSD/MD RPD outside of criteria
600-113192-10	2015-SCC-16D 0.5-2	lead	40.8	mg/Kg	J	MSD/MD RPD outside of criteria
600-113192-12	Dup-04	lead	27.6	mg/Kg	J	MSD/MD RPD outside of criteria
600-113192-13	SCC-5C 0.5-2	Antimony	8.81	mg/Kg	JL	MS/MSD recoveries outside of criteria
600-113192-13	SCC-5C 0.5-2	lead	5160	mg/Kg	J	MSD/MD RPD outside of criteria
600-113192-21	D-11C 0.5-2	arsenic	16.9	mg/Kg	J	Field duplicate RPD
600-113192-23	DUP-06	arsenic	7.25	mg/Kg	J	Field duplicate RPD
600-113192-24	2015-MW-17C 0-0.5	Antimony	0.611	mg/Kg	J	Estimated concentration between SDL and MQL;
600-113192-24	2015-MW-17C 0-0.5	lead	42.2	mg/Kg	J	MSD/MD RPD outside of criteria
600-113192-27	2015-MW-17D 0.5-2	lead	1600	mg/Kg	J	MSD/MD RPD outside of criteria
600-113192-27	2015-MW-17D 0.5-2	Antimony	20.6	mg/Kg	JL	MS/MSD recoveries outside of criteria
600-113192-42	Equipment Blank	Lead	0.00405	mg/L	J	Estimated concentration between SDL and MQL
600-113192-43	SCC-5C 0-0.5	Antimony	2.05	mg/Kg	J	Estimated concentration between SDL and MQL
600-113192-28	2015-MW-17D 2-4	Antimony	<0.293	mg/kg	UJL	MS/MSD recoveries outside of criteria
600-113192-28	2015-MW-17D 2-4	Lead	101	mg/kg	J	MSD/MD RPD outside of criteria
	<u>, </u>					
600-113214-5	2015-NDA-11 0-0.5	lead	4440	mg/Kg	J	Field duplicate RPD
600-113214-8	DUP-07	lead	1120	mg/Kg	J	Field duplicate RPD
600-113214-30	2015-C2L-C01D-0-0.5	arsenic	7.8	mg/Kg	J	Field duplicate RPD
600-113214-32	DUP-09	arsenic	15.2	mg/Kg	J	Field duplicate RPD
600-113214-33	2015-FWCS-5A 0-0.5	Antimony	1.90	mg/Kg	JL	Estimated concentration between SDL and MQL; MS/MSD recoveries outside of criteria
600-113214-33	2015-FWCS-5A 0-0.5	Selenium	0.796	mg/Kg	J	Estimated concentration between SDL and MQL
600-113214-34	2015-FWCS-6A 0-0.5	Antimony	1.07	mg/Kg	JL	Estimated concentration between SDL and MQL; MS/MSD recoveries outside of criteria
600-113214-35	2015-FWCS-7A 0-0.5	Selenium	1.34	mg/Kg	J	Estimated concentration between SDL and MQL
600-113214-35	2015-FWCS-7A 0-0.5	Antimony	5.09	mg/Kg	JL	MS/MSD recoveries outside of criteria
Note:						

Note:

Detected results between the SDL and MQL (i.e., results with a laboratory J-flag) have been included in the above table since the reported concentration is below the calibration range.

J Estimated data; The analyte was detected and identified. The associated numerical value (i.e., the reported sample concentration) is the approximate concentration of the analyte in the sample.

NJ Tentatively identified, estimated data; The analysis indicates the presence of the analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.

NS Not selected: Another result (from a secondary dilution, different analytical method, re-sampling, etc.) is selected for use based on QC outcomes and/or reported concentrations.

R Rejected data; The data is unusable. Serious QC deficiencies make it impossible to verify the absence or presence of this analyte.

U Not detected; The analyte was not detected >5x (10x for common contaminants) the level in an associated blank and thus should be considered not detected above the level of the associated numerical value (i.e., the reported sample concentration).

UJ Estimated data; The analyte was not detected above the reported sample detection limit (SDL). The numerical value of the SDL is estimated and may be inaccurate.

H Bias in sample result is likely to be high

L Bias in sample result is likely to be low

TABLE 3 - FIELD DUPLICATE PRECISION CALCULATIONS

Duplicate and Parent Sample Field Identification	Lab Package	Analyte	Sample Result	Duplicate Result	RPD ^a	Accept or Reject	Qualifier Added
Dup-01 / B3RA-A (0-0.5)	600-113019	lead	501	75.9	147.4	А	J
Dup-01 / B3KA-A (0-0.5)	000-113019	arsenic	15	14	6.9	А	-
Dup-02 / 2015-CUFT-16C (2-4)	600-113019	lead	104	22.5	128.9	A	J
Dup-03 / 2015-STB-6C (0.75-2)	600-113063	benzene	0.000688 J	<0.000692	NC	A	-
Dup-04 / 2015-SCC-16D (0.5-2)	600-113192	lead	27.6	40.8	38.6	A	-
Dup-06 / D-11C (0.5-2)	600-113192	arsenic	16.9	7.25	79.9	A	J
Dup-07 / 2015-NDA-11 (0-0.5)	600-113214	lead	4440	1120	119.4	A	J
Dup-09 / 2015-C2L-C01D (0-0.5)	600-113214	arsenic	7.8	15.2	64.3	А	J

 $^{^{}a}$ RPD = ((SR - DR)*200)/(SR + DR)

A - Acceptable Data

NA - Not Analyzed
The RPD test (<50%) applies if both
results are greater than 5x MQL.
Otherwise, the absolute difference test (<
3x MQL) applies.
NC - Not calculated if one or both results
were nnon-detect



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-113019-1

Client Project/Site: Exide Recycling Center, Frisco TX

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 6/23/2015 6:25:36 PM

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

----- Links -----

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-113019-1 and consists of:

- ☑ R2 Sample identification cross-reference;
- ☑ R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☐ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

Official Title (printed)

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)

Project Manager I

Signature

6/23/2015
Date

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/23/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113019-1
Reviewer Name:	Cathy Unton		

#1 A	Description	Yes	No	NA^3	NR ⁴	ER# ⁵
	Chain-of-custody (C-O-C)	1.00				
	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		Х			R01A
	Were all departures from standard conditions described in an exception report?	Х				
12 OI	Sample and quality control (QC) identification					
	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Х				
	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Х				
3 OI	Test reports					
	Were all samples prepared and analyzed within holding times?	Х				
	Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
	Were calculations checked by a peer or supervisor?	X				
	Were all analyte identifications checked by a peer or supervisor?	X				
	Were sample detection limits reported for all analytes not detected?	X				
	Were all results for soil and sediment samples reported on a dry weight basis?	X				
	Were % moisture (or solids) reported for all soil and sediment samples?	X				
	Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	^		Х		
	If required for the project, are TICs reported?			X		
<u> </u>				۸		
4 0	Surrogate recovery data	1		V		
	Were surrogates added prior to extraction?	1		X		
- Io.	Were surrogate percent recoveries in all samples within the laboratory QC limits?	-		Χ		
5 OI	Test reports/summary forms for blank samples	V				
	Were appropriate type(s) of blanks analyzed?	X				
	Were blanks analyzed at the appropriate frequency?	Х				
	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
	procedures?	Х				
	Were blank concentrations < MQL?	Χ				
6 OI	Laboratory control samples (LCS):					
	Were all COCs included in the LCS?			Χ		
	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?			Χ		
	Were LCSs analyzed at the required frequency?			Χ		
	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?			Χ		
	Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used					
	to calculate the SDLs?			Χ		
	Was the LCSD RPD within QC limits?			Χ		
7 OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
	Were the project/method specified analytes included in the MS and MSD?	Χ				
	Were MS/MSD analyzed at the appropriate frequency?	Х				
	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		Х			R07C
	Were MS/MSD RPDs within laboratory QC limits?		Х			R07D
8 OI	Analytical duplicate data	1				
<u> </u>	Were appropriate analytical duplicates analyzed for each matrix?	Х				
	Were analytical duplicates analyzed at the appropriate frequency?	X				
	Were RPDs or relative standard deviations within the laboratory QC limits?	<u> </u>	Х			R08C
9 OI	Method quantitation limits (MQLs):	1	<u> </u>			
<u>. OI</u>	Are the MQLs for each method analyte included in the laboratory data package?	Х				
	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
	Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
10 IO	Other problems/anomalies	^				
10 01	'	V				
	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Х				
	Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the		,,			D.4.5.5
	sample results?		Х			R10B
	Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and					
	methods associated with this laboratory data package?	Х	I			

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/23/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113019-1
Reviewer Name:	Cathy Upton		

# ¹	A ²	Description	Yes	No	NA ³	NP ⁴	ER# ⁵
# S1		Initial calibration (ICAL)	res	NO	IVA	INIX	ER#
31	Oi	, ,					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X	<u> </u>			
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
	1	Has the initial calibration curve been verified using an appropriate second source standard?	Х				
•		to Male and a contraction and Marchae and Marchae (IOV and IOOV) and I are discolar and Marchae I have (OOD)					
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):		<u> </u>			
		Was the CCV analyzed at the method-required frequency?	X	<u> </u>			
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
	_	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
33		Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?		ļ	Χ		
		Were ion abundance data within the method-required QC limits?		<u> </u>	Χ		
S4		Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			Χ		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
		Were data associated with manual integrations flagged on the raw data?	Х				
S6	0	Dual column confirmation					
	•	Did dual column confirmation results meet the method-required QC?			Χ		
S 7	0	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Χ		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	Х				
S9	l	Serial dilutions, post digestion spikes, and method of standard additions					
	1	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	Х				
S10	OI	Method detection limit (MDL) studies					
	١٠.	Was a MDL study performed for each reported analyte?	Х				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
211	О	Proficiency test reports					
<u> </u>		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
212	_	Standards documentation	^				
J 1 Z	Oi	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х				
242		, , , , , , , , , , , , , , , , , , , ,	^				
513	Oi	Compound/analyte identification procedures					
24.4		Are the procedures for compound/analyte identification documented?	X	ļ			
514	Oi	Demonstration of analyst competency (DOC)		ļ			
		Was DOC conducted consistent with NELAC Chapter 5?	X				
	101	Is documentation of the analyst's competency up-to-date and on file?	Х				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
			.,				
	T	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Х	<u> </u>			
S16	OI	Laboratory standard operating procedures (SOPs)		<u> </u>			
		Are laboratory SOPs current and on file for each method performed?	Х	<u> </u>			
	1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required in		Items			
		identified by the letter "S" should be retained and made available upon request for the appropriate retention period					
	2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
	3.	NA = Not applicable;					
	4.	NR = Not reviewed;					
	5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No	o" is checl	ked).			

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Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/23/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113019-1
Reviewer Name:	Cathy Upton		

ER # ¹	Description
R01A	The following samples was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): 2015-CUFT-16B 0-0.5 (600-113019-34), 2015-CUFT-16B 0.5-2 (600-113019-35), 2015-CUFT-16B 2-4 (600-113019-36) and 2015-CUFT-16B 4-6 (600-113019-37). See attached email.
R07C	Method 6010B: 600-113019-25 MS/MSD failed the recovery criteria for the following analyte(s): Antimony, Lead. Matrix interference is suspected. Method 6010B: 600-113019-9 MS/MSD failed the recovery criteria for the following analyte(s): Antimony, Lead. Matrix interference is suspected.
	Method 6010B: 600-113019-25 MSD failed the RPD criteria for the following analyte(s): Lead.
R07D	Method 6010B: 600-113019-9 MSD failed the RPD criteria for the following analyte(s): Lead.
	Method 6010B: 600-113019-9 DU failed the RPD criteria for the following analyte(s): Lead.
R08C	Method 6010B: 600-113019-25 DU failed the RPD criteria for the following analyte(s): Cadmium, Lead.
R10B	Method 6010B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-113019-1, 600-113019-5, 600-113019-9, 600-113019-9 DU, 600-113019-9 MS, 600-113019-9 MSD, 600-113019-11, 600-113019-18, 600-113019-21, 600-113019-22, 600-113019-25, 600-113019-25 DU, 600-113019-25 MS, 600-113019-25 MSD, 600-113019-28, 600-113019-31, and 600-113019-34. Elevated reporting limits (RLs) are provided.
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
2.	identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
	NA = Not applicable;
	NR = Not reviewed;
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

4.0

TestAmerica Houston

Matrix:

Detection Check Standard

Solid SW-846 6010B & SW-846 6010C SW-846 3050B Method:

Prep Method: Date Analyzed: 2/10/2015 600-104865 Job #: TALS Batch: 155745 Units: mg/Kg

AI Thermo6500 0.300 0.500 0.510 25 As Thermo6500 0.218 0.500 0.435 1 B Thermo6500 0.386 0.600 0.585 20 Ba Thermo6500 0.030 0.000 0.500 1 Be Thermo6500 0.030 0.000 0.500 1 Be Thermo6500 0.015 0.020 0.020 0.25 Ca Thermo6500 0.864 2.500 3.305 100 Cd Thermo6500 0.026 0.050 0.055 0.25 Co Thermo6500 0.068 0.100 0.095 0.5 Cr Thermo6500 0.068 0.100 0.095 0.5 Cr Thermo6500 0.051 0.100 0.145 0.5 Cu Thermo6500 0.174 0.500 0.430 0.5 Fe Thermo6500 0.174 0.500 0.430 0.5 Fe Thermo6500 10.999 12.000 15.950 100 Li Thermo6500 10.999 12.000 15.950 100 Mg Thermo6500 1.999 12.000 15.950 100 Mg Thermo6500 0.088 0.010 0.120 10 Mg Thermo6500 1.921 3.000 4.500 100 Mn Thermo6500 0.038 0.050 0.070 1.5 Mo Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.105 0.200 0.245 0.5 Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.550 1.5 Sr Thermo6500 0.008 0.007 0.150 0.550 1 Sr Thermo6500 0.008 0.007 0.550 1.5 Sr Thermo6500 0.008 0.007 0.550 0.550 1.5 Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.008 0.005 0.0075 1.5 Sr Thermo6500 0.008 0.005 0.005 0.055 Ti Thermo6500 0.007 0.150 0.055 0.5 Ti Thermo6500 0.007 0.150 0.055 0.5	Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
As Thermo6500 0.218 0.500 0.435 1 B Thermo6500 0.386 0.600 0.585 20 Ba Thermo6500 0.030 0.030 0.500 1 Be Thermo6500 0.015 0.020 0.020 0.25 Ca Thermo6500 0.864 2.500 3.305 100 Cd Thermo6500 0.026 0.050 0.055 0.25 Co Thermo6500 0.068 0.100 0.095 0.5 Cr Thermo6500 0.051 0.100 0.0430 0.5 Cr Thermo6500 0.051 0.100 0.145 0.5 Cr Thermo6500 0.051 0.100 0.145 0.5 Cr Thermo6500 0.051 0.100 0.1430 0.5 Fe Thermo6500 2.534 4.000 5.370 20 K Thermo6500 10.999 12.000 15.950 100	Ag	Thermo6500	0.119	0.200	0.330	0.4
B Thermo6500 0.386 0.600 0.585 20 Ba Thermo6500 0.030 0.030 0.500 1 Be Thermo6500 0.015 0.020 0.020 0.25 Ca Thermo6500 0.864 2.500 3.305 100 Cd Thermo6500 0.026 0.050 0.055 0.25 Co Thermo6500 0.068 0.100 0.095 0.5 Cr Thermo6500 0.051 0.100 0.145 0.5 Cu Thermo6500 0.051 0.100 0.145 0.5 Cu Thermo6500 0.074 0.500 0.430 0.5 Fe Thermo6500 2.534 4.000 5.370 20 K Thermo6500 10.999 12.000 15.950 100 Li Thermo6500 0.008 0.010 0.120 10 Mg Thermo6500 0.038 0.050 0.070 1.5 <	Al	Thermo6500	0.300	0.500	0.510	25
Ba Thermo6500 0.030 0.030 0.500 1 Be Thermo6500 0.015 0.020 0.020 0.25 Ca Thermo6500 0.864 2.500 3.305 100 Cd Thermo6500 0.026 0.050 0.055 0.25 Co Thermo6500 0.068 0.100 0.095 0.5 Cr Thermo6500 0.051 0.100 0.145 0.5 Cu Thermo6500 0.174 0.500 0.430 0.5 Fe Thermo6500 2.534 4.000 5.370 20 K Thermo6500 10.999 12.000 15.950 100 Li Thermo6500 10.999 12.000 15.950 100 Li Thermo6500 10.999 12.000 15.950 100 Mg Thermo6500 1.098 0.010 0.120 10 Mg Thermo6500 1.038 0.050 0.070 1.5 <td>As</td> <td>Thermo6500</td> <td>0.218</td> <td>0.500</td> <td>0.435</td> <td>1</td>	As	Thermo6500	0.218	0.500	0.435	1
Be Thermo6500 0.015 0.020 0.020 0.25 Ca Thermo6500 0.864 2.500 3.305 100 Cd Thermo6500 0.026 0.050 0.055 0.25 Co Thermo6500 0.068 0.100 0.095 0.5 Cr Thermo6500 0.051 0.100 0.145 0.5 Cu Thermo6500 0.174 0.500 0.430 0.5 Fe Thermo6500 0.174 0.500 0.430 0.5 K Thermo6500 2.534 4.000 5.370 20 K Thermo6500 10.999 12.000 15.950 100 Li Thermo6500 0.008 0.010 0.120 10 Mg Thermo6500 1.921 3.000 4.500 100 Mn Thermo6500 0.038 0.050 0.070 1.5 Mo Thermo6500 0.136 0.350 0.400 0.5	В	Thermo6500	0.386	0.600	0.585	20
Ca Thermo6500 0.864 2.500 3.305 100 Cd Thermo6500 0.026 0.050 0.055 0.25 Co Thermo6500 0.068 0.100 0.095 0.5 Cr Thermo6500 0.051 0.100 0.145 0.5 Cu Thermo6500 0.174 0.500 0.430 0.5 Fe Thermo6500 2.534 4.000 5.370 20 K Thermo6500 10.999 12.000 15.950 100 Li Thermo6500 10.999 12.000 15.950 100 Mg Thermo6500 0.008 0.010 0.120 10 Mg Thermo6500 1.921 3.000 4.500 100 Mn Thermo6500 0.038 0.050 0.070 1.5 Mo Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.117 0.150 0.140 1	Ва	Thermo6500	0.030	0.030	0.500	1
Cd Thermo6500 0.026 0.050 0.055 0.25 Co Thermo6500 0.068 0.100 0.095 0.5 Cr Thermo6500 0.051 0.100 0.145 0.5 Cu Thermo6500 0.174 0.500 0.430 0.5 Fe Thermo6500 2.534 4.000 5.370 20 K Thermo6500 10.999 12.000 15.950 100 Li Thermo6500 0.008 0.010 0.120 10 Mg Thermo6500 1.921 3.000 4.500 100 Mn Thermo6500 0.038 0.050 0.070 1.5 Mo Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.117 0.150 0.245 0.5	Be	Thermo6500	0.015	0.020	0.020	0.25
Co Thermo6500 0.068 0.100 0.095 0.5 Cr Thermo6500 0.051 0.100 0.145 0.5 Cu Thermo6500 0.174 0.500 0.430 0.5 Fe Thermo6500 2.534 4.000 5.370 20 K Thermo6500 10.999 12.000 15.950 100 Li Thermo6500 10.08 0.010 0.120 10 Mg Thermo6500 1.921 3.000 4.500 100 Mn Thermo6500 0.038 0.050 0.070 1.5 Mo Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.117 0.150 0.245 0.5 <	Ca	Thermo6500	0.864	2.500	3.305	100
Cr Thermo6500 0.051 0.100 0.145 0.5 Cu Thermo6500 0.174 0.500 0.430 0.5 Fe Thermo6500 2.534 4.000 5.370 20 K Thermo6500 10.999 12.000 15.950 100 Li Thermo6500 0.008 0.010 0.120 10 Mg Thermo6500 1.921 3.000 4.500 100 Mn Thermo6500 0.038 0.050 0.070 1.5 Mo Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.886 2.400 7.500 100 Ni Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.105 0.200 0.245 0.5 Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.560 2 <tr< td=""><td>Cd</td><td>Thermo6500</td><td>0.026</td><td>0.050</td><td>0.055</td><td>0.25</td></tr<>	Cd	Thermo6500	0.026	0.050	0.055	0.25
Cu Thermo6500 0.174 0.500 0.430 0.5 Fe Thermo6500 2.534 4.000 5.370 20 K Thermo6500 10.999 12.000 15.950 100 Li Thermo6500 0.008 0.010 0.120 10 Mg Thermo6500 1.921 3.000 4.500 100 Mn Thermo6500 0.038 0.050 0.070 1.5 Mo Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.886 2.400 7.500 100 Ni Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.105 0.200 0.245 0.5 Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.087 0.150 0.075 1	Co	Thermo6500	0.068	0.100	0.095	0.5
Fe Thermo6500 2.534 4.000 5.370 20 K Thermo6500 10.999 12.000 15.950 100 Li Thermo6500 0.008 0.010 0.120 10 Mg Thermo6500 1.921 3.000 4.500 100 Mn Thermo6500 0.038 0.050 0.070 1.5 Mo Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.886 2.400 7.500 100 Ni Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.105 0.200 0.245 0.5 Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.117 0.270 0.355 10	Cr	Thermo6500	0.051	0.100	0.145	0.5
K Thermo6500 10.999 12.000 15.950 100 Li Thermo6500 0.008 0.010 0.120 10 Mg Thermo6500 1.921 3.000 4.500 100 Mn Thermo6500 0.038 0.050 0.070 1.5 Mo Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.146 0.350 0.400 0.5 Na Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.105 0.200 0.245 0.5 Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.117 0.270 0.355 10 Sn Thermo6500 0.087 0.150 0.075 1	Cu	Thermo6500	0.174	0.500	0.430	0.5
Li Thermo6500 0.008 0.010 0.120 10 Mg Thermo6500 1.921 3.000 4.500 100 Mn Thermo6500 0.038 0.050 0.070 1.5 Mo Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.886 2.400 7.500 100 Ni Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.105 0.200 0.245 0.5 Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.117 0.270 0.355 10 Sn Thermo6500 0.087 0.150 0.075 1 Sr Thermo6500 0.003 0.005 1.020 0.25	Fe	Thermo6500	2.534	4.000	5.370	20
Mg Thermo6500 1.921 3.000 4.500 100 Mn Thermo6500 0.038 0.050 0.070 1.5 Mo Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.886 2.400 7.500 100 Ni Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.105 0.200 0.245 0.5 Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.117 0.270 0.355 10 Sn Thermo6500 0.087 0.150 0.075 1 Sr Thermo6500 0.003 0.005 1.020 0.25 Ti Thermo6500 0.015 0.030 0.050 0.5 Ti Thermo6500 0.079 0.150 0.125 0.5	K	Thermo6500	10.999	12.000	15.950	100
Mn Thermo6500 0.038 0.050 0.070 1.5 Mo Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.886 2.400 7.500 100 Ni Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.105 0.200 0.245 0.5 Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.117 0.270 0.355 10 Sn Thermo6500 0.087 0.150 0.075 1 Sr Thermo6500 0.003 0.005 1.020 0.25 Ti Thermo6500 0.015 0.030 0.050 0.5 TI Thermo6500 0.277 0.700 0.660 1.5 V Thermo6500 0.079 0.150 0.125 0.5	Li	Thermo6500	0.008	0.010	0.120	10
Mo Thermo6500 0.136 0.350 0.400 0.5 Na Thermo6500 0.886 2.400 7.500 100 Ni Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.105 0.200 0.245 0.5 Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.117 0.270 0.355 10 Sn Thermo6500 0.087 0.150 0.075 1 Sr Thermo6500 0.003 0.005 1.020 0.25 Ti Thermo6500 0.015 0.030 0.050 0.5 TI Thermo6500 0.277 0.700 0.660 1.5 V Thermo6500 0.079 0.150 0.125 0.5	Mg	Thermo6500	1.921	3.000	4.500	100
Na Thermo6500 0.886 2.400 7.500 100 Ni Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.105 0.200 0.245 0.5 Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.117 0.270 0.355 10 Sn Thermo6500 0.087 0.150 0.075 1 Sr Thermo6500 0.003 0.005 1.020 0.25 Ti Thermo6500 0.015 0.030 0.050 0.5 TI Thermo6500 0.277 0.700 0.660 1.5 V Thermo6500 0.079 0.150 0.125 0.5	Mn	Thermo6500	0.038	0.050	0.070	1.5
Ni Thermo6500 0.117 0.150 0.140 1 Pb Thermo6500 0.105 0.200 0.245 0.5 Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.117 0.270 0.355 10 Sn Thermo6500 0.087 0.150 0.075 1 Sr Thermo6500 0.003 0.005 1.020 0.25 Ti Thermo6500 0.015 0.030 0.050 0.5 TI Thermo6500 0.277 0.700 0.660 1.5 V Thermo6500 0.079 0.150 0.125 0.5	Mo	Thermo6500	0.136	0.350	0.400	0.5
Pb Thermo6500 0.105 0.200 0.245 0.5 Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.117 0.270 0.355 10 Sn Thermo6500 0.087 0.150 0.075 1 Sr Thermo6500 0.003 0.005 1.020 0.25 Ti Thermo6500 0.015 0.030 0.050 0.5 TI Thermo6500 0.277 0.700 0.660 1.5 V Thermo6500 0.079 0.150 0.125 0.5	Na	Thermo6500	0.886	2.400	7.500	100
Sb Thermo6500 0.232 0.450 0.905 2.5 Se Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.117 0.270 0.355 10 Sn Thermo6500 0.087 0.150 0.075 1 Sr Thermo6500 0.003 0.005 1.020 0.25 Ti Thermo6500 0.015 0.030 0.050 0.5 TI Thermo6500 0.277 0.700 0.660 1.5 V Thermo6500 0.079 0.150 0.125 0.5	Ni	Thermo6500	0.117	0.150	0.140	1
Se Thermo6500 0.259 0.500 0.560 2 Si Thermo6500 0.117 0.270 0.355 10 Sn Thermo6500 0.087 0.150 0.075 1 Sr Thermo6500 0.003 0.005 1.020 0.25 Ti Thermo6500 0.015 0.030 0.050 0.5 TI Thermo6500 0.277 0.700 0.660 1.5 V Thermo6500 0.079 0.150 0.125 0.5	Pb	Thermo6500	0.105	0.200	0.245	0.5
Si Thermo6500 0.117 0.270 0.355 10 Sn Thermo6500 0.087 0.150 0.075 1 Sr Thermo6500 0.003 0.005 1.020 0.25 Ti Thermo6500 0.015 0.030 0.050 0.5 TI Thermo6500 0.277 0.700 0.660 1.5 V Thermo6500 0.079 0.150 0.125 0.5	Sb	Thermo6500	0.232	0.450	0.905	2.5
Sn Thermo6500 0.087 0.150 0.075 1 Sr Thermo6500 0.003 0.005 1.020 0.25 Ti Thermo6500 0.015 0.030 0.050 0.5 TI Thermo6500 0.277 0.700 0.660 1.5 V Thermo6500 0.079 0.150 0.125 0.5	Se	Thermo6500	0.259	0.500	0.560	2
Sr Thermo6500 0.003 0.005 1.020 0.25 Ti Thermo6500 0.015 0.030 0.050 0.5 TI Thermo6500 0.277 0.700 0.660 1.5 V Thermo6500 0.079 0.150 0.125 0.5	Si	Thermo6500	0.117	0.270	0.355	10
Ti Thermo6500 0.015 0.030 0.050 0.5 TI Thermo6500 0.277 0.700 0.660 1.5 V Thermo6500 0.079 0.150 0.125 0.5	Sn	Thermo6500	0.087	0.150	0.075	1
TI Thermo6500 0.277 0.700 0.660 1.5 V Thermo6500 0.079 0.150 0.125 0.5	Sr	Thermo6500	0.003	0.005	1.020	0.25
V Thermo6500 0.079 0.150 0.125 0.5	Ti	Thermo6500	0.015	0.030	0.050	0.5
	TI	Thermo6500	0.277	0.700	0.660	1.5
Zn Thermo6500 0.108 0.200 0.315 1.5	V	Thermo6500	0.079	0.150	0.125	0.5
	Zn	Thermo6500	0.108	0.200	0.315	1.5

DCS = Detection Check Standard MQL = Method Quantitation Limit

Page 1 of 1

Case Narrative

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-1

Job ID: 600-113019-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-113019-1

Comments

No additional comments.

Receipt

The samples were received on 6/9/2015 10:14 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

Receipt Exceptions

The following samples was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): 2015-CUFT-16B 0-0.5 (600-113019-34), 2015-CUFT-16B 0.5-2 (600-113019-35), 2015-CUFT-16B 2-4 (600-113019-36) and 2015-CUFT-16B 4-6 (600-113019-37). See attached email.

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Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-113019-1	2015-CUFT-16A 0-0.5	Solid	06/08/15 09:25	06/09/15 10:14
600-113019-5	2015-CUFT-15A 0-0.5	Solid	06/08/15 09:50	06/09/15 10:14
600-113019-9	2015-CUFT-16C 2-4	Solid	06/08/15 13:55	06/09/15 10:14
600-113019-11	DUP-02	Solid	06/08/15 00:00	06/09/15 10:14
600-113019-12	SRB-VS-7A 0-0.5	Solid	06/08/15 10:45	06/09/15 10:14
600-113019-15	SRB-VS-3A 0-0.5	Solid	06/08/15 12:30	06/09/15 10:14
600-113019-18	2015-C2L-06F 0-0.5	Solid	06/08/15 15:00	06/09/15 10:14
600-113019-21	B3RA-A 0-0.5	Solid	06/08/15 12:55	06/09/15 10:14
600-113019-22	DUP-01	Solid	06/08/15 00:00	06/09/15 10:14
600-113019-25	B3RA-B 0-0.5	Solid	06/08/15 13:00	06/09/15 10:14
600-113019-28	B3RA-C 0-0.5	Solid	06/08/15 15:10	06/09/15 10:14
600-113019-31	2015-C2L-06E 0-0.5	Solid	06/08/15 14:45	06/09/15 10:14
600-113019-34	2015-CUFT-16B 0-0.5	Solid	06/08/15 09:50	06/09/15 10:14

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Date Received: 06/09/15 10:14

Client Sample ID: 2015-CUFT-16A 0-0.5 Lab Sample ID: 600-113019-1

Date Collected: 06/08/15 09:25

Matrix: Solid

General Chemistry Analyte Result Qualifier SDL Unit Dil Fac MQL (Adj) D Prepared Analyzed **Percent Moisture** 1.0 1.0 % 06/10/15 19:39 23 1.0 1.0 % 06/10/15 19:39 **Percent Solids** 77

Client Sample ID: 2015-CUFT-16A 0-0.5 Lab Sample ID: 600-113019-1

Date Collected: 06/08/15 09:25

Date Received: 06/09/15 10:14

Matrix: Solid
Percent Solids: 77.3

Date Received: 06/09/15 10:14 Percent Solids: 77.3

 Method: 6010B - Metals (ICP) - DL

 Analyte
 Result
 Qualifier
 MQL (Adj)
 SDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Lead
 69.0
 69.0
 63.4
 1.33
 mg/Kg
 60/17/15 10:57
 06/18/15 13:04
 10

Client Sample ID: 2015-CUFT-15A 0-0.5 Lab Sample ID: 600-113019-5

Date Collected: 06/08/15 09:50 Matrix: Solid
Date Received: 06/09/15 10:14

General Chemistry

Analyte Result Qualifier MQL (Adi) SDL Unit D Prepared Analyzed Dil Fac **Percent Moisture** 10 1.0 % 06/10/15 19:39 21 **Percent Solids 79** 1.0 1.0 % 06/10/15 19:39

Client Sample ID: 2015-CUFT-15A 0-0.5

Date Collected: 06/08/15 09:50

Lab Sample ID: 600-113019-5

Matrix: Solid

Date Received: 06/09/15 10:14 Matrix: Solid

Percent Solids: 79.0

 Method: 6010B - Metals (ICP) - DL

 Analyte
 Result
 Qualifier
 MQL (Adj)
 SDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Lead
 141
 3.13
 0.657
 mg/Kg
 □ 06/17/15 10:57
 06/18/15 13:07
 □ 5

Client Sample ID: 2015-CUFT-16C 2-4 Lab Sample ID: 600-113019-9

Date Collected: 06/08/15 13:55 Matrix: Solid
Date Received: 06/09/15 10:14

General Chemistry Analyte SDL Unit Result Qualifier MQL (Adj) D Prepared Analyzed Dil Fac 1.0 % 06/10/15 19:39 **Percent Moisture** 28 1.0 **Percent Solids** 1.0 06/10/15 19:39 **72** 1.0

Client Sample ID: 2015-CUFT-16C 2-4 Lab Sample ID: 600-113019-9

Date Collected: 06/08/15 13:55

Matrix: Solid

Date Received: 06/09/15 10:14

Percent Solids: 71.8

 Method: 6010B - Metals (ICP) - DL

 Analyte
 Result
 Qualifier
 MQL (Adj)
 SDL
 Unit
 D
 Prepared
 Analyzed
 Dil Factor

 Lead
 104
 3.17
 0.664
 mg/Kg
 □ 06/17/15 10:57
 06/17/15 20:42
 □ 5

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-1

Client Sample ID: DUP-02

Date Collected: 06/08/15 00:00 Date Received: 06/09/15 10:14 Lab Sample ID: 600-113019-11

Matrix: Solid

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21	1.0	1.0 %			06/10/15 19:39	1
Percent Solids	79	1.0	1.0 %			06/10/15 19:39	1

Client Sample ID: DUP-02 Lab Sample ID: 600-113019-11

Date Collected: 06/08/15 00:00 Date Received: 06/09/15 10:14

Matrix: Solid

Percent Solids: 78.6

Method: 6010B - Metals (ICP) - DL Result Qualifier Analyte MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac 06/17/15 10:57 06/18/15 13:09 Lead 22.5 3.03 0.635 mg/Kg

Client Sample ID: SRB-VS-7A 0-0.5 Lab Sample ID: 600-113019-12 Date Collected: 06/08/15 10:45 Matrix: Solid

Date Received: 06/09/15 10:14

General Chemistry Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac 1.0 1.0 % 06/10/15 19:39 **Percent Moisture** 14 1.0 % 06/10/15 19:39 **Percent Solids** 86 1.0

Client Sample ID: SRB-VS-7A 0-0.5

Date Collected: 06/08/15 10:45 Date Received: 06/09/15 10:14

Matrix: Solid

Lab Sample ID: 600-113019-12

Lab Sample ID: 600-113019-15

Percent Solids: 86.5

Matrix: Solid

Method: 6010B - Metals (ICP) MQL (Adi) Analyte Result Qualifier SDL Unit Prepared Analyzed Dil Fac Antimony 0.250 U 06/17/15 10:57 06/17/15 18:35 2.70 0.250 mg/Kg **Arsenic** 14.8 1.08 0.236 mg/Kg 06/17/15 10:57 06/17/15 18:35

Client Sample ID: SRB-VS-3A 0-0.5

Date Collected: 06/08/15 12:30

Date Received: 06/09/15 10:14

General Chemistry Analyte MQL (Adj) SDL Unit Result Qualifier Prepared Analyzed Dil Fac 1.0 % 06/10/15 19:39 **Percent Moisture** 15 1.0 **Percent Solids** 1.0 1.0 % 06/10/15 19:39

Client Sample ID: SRB-VS-3A 0-0.5 Lab Sample ID: 600-113019-15

85

Date Collected: 06/08/15 12:30

Matrix: Solid

Date Received: 06/09/15 10:14 Percent Solids: 84.7

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.263	U	2.84	0.263	mg/Kg	₩	06/17/15 10:57	06/17/15 18:37	1
Arsenic	10.7		1.14	0.247	mg/Kg	₩	06/17/15 10:57	06/17/15 18:37	1

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-1

Client Sample ID: 2015-C2L-06F 0-0.5

Date Collected: 06/08/15 15:00

Lab Sample ID: 600-113019-18

Matrix: Solid

Date Received: 06/09/15 10:14

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24	1.0	1.0 %			06/10/15 19:39	1
Percent Solids	76	1.0	1.0 %			06/10/15 19:39	1

Lab Sample ID: 600-113019-18 Client Sample ID: 2015-C2L-06F 0-0.5

Date Collected: 06/08/15 15:00 Date Received: 06/09/15 10:14 Matrix: Solid

Percent Solids: 75.8

Method: 6010B - Metals (ICP	')								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.958	J	3.17	0.294	mg/Kg	₽	06/17/15 10:57	06/17/15 18:39	1
Arsenic	18.8		1.27	0.277	mg/Kg	☼	06/17/15 10:57	06/17/15 18:39	1
Selenium	2.52	J	2.54	0.329	mg/Kg	≎	06/17/15 10:57	06/17/15 18:39	1
Method: 6010B - Metals (ICP) - DL								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	221		3.17	0.665	mg/Kg	<u> </u>	06/17/15 10:57	06/18/15 13:16	5

Client Sample ID: B3RA-A 0-0.5 Lab Sample ID: 600-113019-21

Date Collected: 06/08/15 12:55

Matrix: Solid

Date Received: 06/09/15 10:14

General Chemistry Analyte Result Qualifier SDL Unit MQL (Adj) Prepared Analyzed Dil Fac **Percent Moisture** 1.0 % 06/10/15 19:39 19 1.0 1.0 % **Percent Solids** 1.0 06/10/15 19:39 81

Client Sample ID: B3RA-A 0-0.5 Lab Sample ID: 600-113019-21

Date Collected: 06/08/15 12:55 Date Received: 06/09/15 10:14

Mathada COAOD Matala (IOD)

Matrix: Solid Percent Solids: 81.3

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15.0	1.22	0.265	mg/Kg	<u> </u>	06/17/15 10:57	06/17/15 18:49	1
_								
Method: 6010B - Metals (ICP)		MOL (Adi)	eDi	Unit	D	Droporod	Analyzad	Dil Ess
Method: 6010B - Metals (ICP) - Analyte	- DL Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: DUP-01 Lab Sample ID: 600-113019-22

Date Collected: 06/08/15 00:00

Date Received: 06/09/15 10:14

Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20	1.0	1.0	%			06/11/15 08:19	1
Percent Solids	80	1.0	1.0	%			06/11/15 08:19	1

Matrix: Solid

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-1

Client Sample ID: DUP-01

Date Collected: 06/08/15 00:00 Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-22

Matrix: Solid Percent Solids: 80.0

Method: 6010B - Metals (ICP)

Result Qualifier Dil Fac **Analyte** MQL (Adj) SDL Unit D Prepared Analyzed 变 06/17/15 10:57 06/17/15 18:51 Arsenic 1.18 0.257 mg/Kg 14.0

Method: 6010B - Metals (ICP) - DL

Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac 06/17/15 10:57 06/18/15 13:20 Lead 2.95 0.618 mg/Kg 75.9

Client Sample ID: B3RA-B 0-0.5 Lab Sample ID: 600-113019-25

Date Collected: 06/08/15 13:00 Date Received: 06/09/15 10:14

Matrix: Solid

General Chemistry

Result Qualifier SDL Unit Analyte MQL (Adj) D Prepared Analyzed Dil Fac 1.0 % 06/10/15 19:39 **Percent Moisture** 17 1.0 **Percent Solids** 83 1.0 1.0 % 06/10/15 19:39

Client Sample ID: B3RA-B 0-0.5 Lab Sample ID: 600-113019-25

Date Collected: 06/08/15 13:00 Date Received: 06/09/15 10:14

Matrix: Solid Percent Solids: 83.1

Method: 6010B - Metals (ICP)

Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac Arsenic 13.0 1.16 0.252 mg/Kg ₩ 06/17/15 10:57 06/17/15 18:53

Method: 6010B - Metals (ICP) - DL

Result Qualifier SDL Unit D **Analyte** MQL (Adj) Prepared Analyzed Dil Fac Lead 95.6 2.89 0.606 mg/Kg 06/17/15 10:57 06/18/15 13:23

Client Sample ID: B3RA-C 0-0.5

Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-28 Date Collected: 06/08/15 15:10 **Matrix: Solid**

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D Prepared	Analyzed	Dil Fac
Percent Moisture	18	1.0	1.0 %		06/10/15 18:56	1
Percent Solids	82	1.0	1.0 %		06/10/15 18:56	1

Client Sample ID: B3RA-C 0-0.5 Lab Sample ID: 600-113019-28

Date Collected: 06/08/15 15:10 **Matrix: Solid** Date Received: 06/09/15 10:14 Percent Solids: 81.8

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.7	1.15	0.251	mg/Kg	<u> </u>	06/17/15 10:57	06/17/15 19:03	1

Method: 6010B - Metals (ICP) -								
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	249	5.76	1.21	mg/Kg		06/17/15 10:57	06/18/15 13:39	10

Client Sample Results

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-1

Client Sample ID: 2015-C2L-06E 0-0.5 Lab Sample ID: 600-113019-31

Date Collected: 06/08/15 14:45 Date Received: 06/09/15 10:14

Matrix: Solid

General Chemistry Result Qualifier SDL Unit D

Analyte Dil Fac MQL (Adj) Prepared Analyzed 1.0 % 06/10/15 18:56 **Percent Moisture** 13 1.0 1.0 06/10/15 18:56 **Percent Solids** 87 1.0

Client Sample ID: 2015-C2L-06E 0-0.5 Lab Sample ID: 600-113019-31

Date Collected: 06/08/15 14:45 Date Received: 06/09/15 10:14

Matrix: Solid Percent Solids: 87.4

Method: 6010B - Metals (ICP) - DL Result Qualifier Analyte MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac Lead 1100 5.50 1.15 mg/Kg 06/17/15 10:57 06/18/15 13:41

Client Sample ID: 2015-CUFT-16B 0-0.5 Lab Sample ID: 600-113019-34

Date Collected: 06/08/15 09:50 Date Received: 06/09/15 10:14

General Chemistry Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac 1.0 1.0 % 06/11/15 08:19 **Percent Moisture** 21 1.0 % **Percent Solids** 79 1.0 06/11/15 08:19

Client Sample ID: 2015-CUFT-16B 0-0.5 Lab Sample ID: 600-113019-34 Date Collected: 06/08/15 09:50 **Matrix: Solid** Percent Solids: 79.0

Date Received: 06/09/15 10:14

Method: 6010B - Metals (ICP) - DL Analyte Result Qualifier MQL (Adi) SDL Unit Prepared Analyzed Dil Fac 2.90 06/17/15 10:57 06/18/15 13:43 0.609 mg/Kg Lead 1020

Matrix: Solid

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 600-113019-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
F	Duplicate RPD exceeds the control limit
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
N2	RPD of the MS and MSD exceeds the control limits

Glossary

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX

Lab Sample ID: LCSSRM 600-164854/2-A

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-164854/1-A **Matrix: Solid**

Analysis Batch: 164871

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 164854

	INIR	INIR							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		06/17/15 10:57	06/17/15 15:28	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		06/17/15 10:57	06/17/15 15:28	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		06/17/15 10:57	06/17/15 15:28	1
Lead	0.105	Ü	0.500	0.105	mg/Kg		06/17/15 10:57	06/17/15 15:28	1
Selenium	0.259	U	2.00	0.259	mg/Kg		06/17/15 10:57	06/17/15 15:28	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 164854

Analysis Batch: 164871 Spike LCSSRM LCSSRM %Rec. Analyte Added Result Qualifier Unit D %Rec Limits **Antimony** 108 74.92 69.4 mg/Kg 0.9 - 214. 80.8 - 119. Arsenic 151 151.1 100.1 mg/Kg 9 101.1 81.6 - 117. Cadmium 152 153.6 mg/Kg 8 81.5 - 120. Lead 254 244.2 mg/Kg 96.1 9 Selenium 162 166.5 102.8 77.2 - 122. mg/Kg 2

Lab Sample ID: 600-113019-9 MS

Matrix: Solid

Matrix: Solid

Analysis Batch: 164871

Client Sample ID: 2015-CUFT-16C 2-4

Prep Type: Total/NA Prep Batch: 164854

MS MS Sample Sample Spike %Rec. Result Qualifier Added Result Qualifier %Rec Limits **Analyte** Unit D 34 **Antimony** 0.293 Ū 66.3 22.69 N1 75 - 125 mg/Kg Arsenic 14.4 66.3 76.90 mg/Kg ₩ 94 75 - 125 ☼ Cadmium 0.697 33.2 33 88 mg/Kg 100 75 - 125 Selenium 0.328 U 66.3 61.98 mg/Kg 93 75 - 125

Lab Sample ID: 600-113019-9 MSD

Matrix: Solid

Analysis Ratch: 164871

Client Sample ID: 2015-CUFT-16C 2-4

Prep Type: Total/NA Drop Batch: 164954

Analysis balcii. 10407 i									Frep Da	ten. It	94004
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.293	U	64.5	22.18	N1	mg/Kg	<u> </u>	34	75 - 125	2	20
Arsenic	14.4		64.5	76.37		mg/Kg	₩	96	75 - 125	1	20
Cadmium	0.697		32.3	32.54		mg/Kg	₩	99	75 - 125	4	20
Selenium	0.328	Ü	64.5	59.36		mg/Kg	₩.	92	75 - 125	4	20

Lab Sample ID: 600-113019-25 MS

Matrix: Solid

Analysis Ratch: 164871

Client Sample ID: B3RA-B 0-0.5 Prep Type: Total/NA

Prep Batch: 164854

Analysis Daten. 104071	Sample	Sample	Spike	MS	MS				%Rec.	1040
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	0.268	U	60.1	19.59	N1	mg/Kg	<u> </u>	33	75 - 125	
Arsenic	13.0		60.1	71.74		mg/Kg	₩	98	75 - 125	
Cadmium	0.642		30.1	30.34		mg/Kg	☼	99	75 ₋ 125	

TestAmerica Houston

6/23/2015

Page 17 of 32

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-113019-25 MS Client Sample ID: B3RA-B 0-0.5 **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 164871 Prep Batch: 164854**

MS MS Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Selenium 0.299 U 60.1 57.31 95 75 - 125

Lab Sample ID: 600-113019-25 MSD Client Sample ID: B3RA-B 0-0.5 **Matrix: Solid** Prep Type: Total/NA

mg/Kg

Analysis Batch: 164871

Prep Batch: 164854 Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit **Analyte** D ₩ 0.268 57.3 18.26 N1 32 20 Antimony Ū mg/Kg 75 - 125 ₩ Arsenic 13.0 57.3 67.81 mg/Kg 96 75 - 125 6 20 ☼ 0.642 28.6 28.63 mg/Kg 98 75 - 125 20 Cadmium 6 0.299 U Selenium 57.3 53.13 mg/Kg 75 - 12520

Client Sample ID: 2015-CUFT-16C 2-4 Lab Sample ID: 600-113019-9 DU **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 164871 Prep Batch: 164854

DU DU Sample Sample **RPD** Analyte Result Qualifier Result Qualifier Unit D RPD Limit 74 Antimony 0.293 Ū 0.302 U mg/Kg NC 20 Ö 14.29 Arsenic 14.4 mg/Kg 0.5 20 ₩ Cadmium 0.697 0.6381 mg/Kg 9 20 NC Selenium 0.328 U 0.337 U mg/Kg 20

Lab Sample ID: 600-113019-25 DU Client Sample ID: B3RA-B 0-0.5

Matrix: Solid

Analysis Batch: 1648/1							Prep Batch: 16	04854
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Antimony	0.268	<u>U</u>	0.270	U	mg/Kg	-	NC	20
Arsenic	13.0		13.56		mg/Kg	≎	4	20
Cadmium	0.642		0.4787		mg/Kg	≎	29	20
Selenium	0.299	U	0.302	U	mg/Kg	*	NC	20

Method: 6010B - Metals (ICP) - DL

Lab Sample ID: 600-113019-9 MS Client Sample ID: 2015-CUFT-16C 2-4 **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 164871 Prep Batch: 164854** Sample Sample Spike MS MS %Rec.

Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Lead - DL 104 66.3 189.0 N1 mg/Kg 129 75 - 125

Lab Sample ID: 600-113019-9 MSD Client Sample ID: 2015-CUFT-16C 2-4 **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 164871** Prep Batch: 164854

Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added %Rec Limits RPD Limit Analyte Result Qualifier Unit D ☼ Lead - DL 104 64.5 23 75 - 125 118.7 N1 N2 mg/Kg

Prep Type: Total/NA

Prep Batch: 164854

Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP) - DL (Continued)

Lab Sample ID: 600-113019-25 MS Client Sample ID: B3RA-B 0-0.5 **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 164978

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits

Lead - DL 60.1 31 75 - 125 95.6 114.1 N1 mg/Kg

Lab Sample ID: 600-113019-25 MSD Client Sample ID: B3RA-B 0-0.5 **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 164978** Prep Batch: 164854 Sample Sample Spike MSD MSD %Rec.

Limits **Result Qualifier** Added RPD Analyte Result Qualifier Limit Unit D %Rec ₩ Lead - DL 57.3 75 - 125 95.6 172.5 N1 N2 mg/Kg 134 20

Lab Sample ID: 600-113019-9 DU Client Sample ID: 2015-CUFT-16C 2-4 **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 164871 Prep Batch: 164854

Sample Sample DU DU **RPD** Result Qualifier Result Qualifier RPD Limit Analyte Unit Lead - DL 104 45.67 F mg/Kg

Lab Sample ID: 600-113019-25 DU Client Sample ID: B3RA-B 0-0.5 Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 164978

Prep Batch: 164854 DU DU Sample Sample **RPD** Analyte Result Qualifier Result Qualifier **RPD** Limit 77 Lead - DL 95.6 52.63 F 58 20 mg/Kg

Method: Moisture - Percent Moisture

Lab Sample ID: 600-113019-12 DU Client Sample ID: SRB-VS-7A 0-0.5 Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 164356

DU DU Sample Sample **RPD** Analyte Result Qualifier Result Qualifier Unit D RPD Limit 14 13 % Percent Moisture 2 20 Percent Solids 86 87 %

Client Sample ID: DUP-01 Lab Sample ID: 600-113019-22 DU Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 164383

Amaryolo Batom 10-1000	Sample	Sample	DU	DU				RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit	
Percent Moisture	20		 20		%		 0.06	20	
Percent Solids	80		80		%		0	20	

TestAmerica Houston

Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-1

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Antimony	2.50	0.232	mg/Kg	6010B
Arsenic	1.00	0.218	mg/Kg	6010B
Lead	0.500	0.105	mg/Kg	6010B
Selenium	2.00	0.259	mg/Kg	6010B

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

3

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QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-1

Metals

Prep Batch: 164854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113019-1 - DL	2015-CUFT-16A 0-0.5	Total/NA	Solid	3050B	
600-113019-5 - DL	2015-CUFT-15A 0-0.5	Total/NA	Solid	3050B	
600-113019-9 - DL	2015-CUFT-16C 2-4	Total/NA	Solid	3050B	
600-113019-9 DU	2015-CUFT-16C 2-4	Total/NA	Solid	3050B	
600-113019-9 DU - DL	2015-CUFT-16C 2-4	Total/NA	Solid	3050B	
600-113019-9 MS - DL	2015-CUFT-16C 2-4	Total/NA	Solid	3050B	
600-113019-9 MS	2015-CUFT-16C 2-4	Total/NA	Solid	3050B	
600-113019-9 MSD - DL	2015-CUFT-16C 2-4	Total/NA	Solid	3050B	
600-113019-9 MSD	2015-CUFT-16C 2-4	Total/NA	Solid	3050B	
600-113019-11 - DL	DUP-02	Total/NA	Solid	3050B	
600-113019-12	SRB-VS-7A 0-0.5	Total/NA	Solid	3050B	
600-113019-15	SRB-VS-3A 0-0.5	Total/NA	Solid	3050B	
600-113019-18 - DL	2015-C2L-06F 0-0.5	Total/NA	Solid	3050B	
600-113019-18	2015-C2L-06F 0-0.5	Total/NA	Solid	3050B	
600-113019-21	B3RA-A 0-0.5	Total/NA	Solid	3050B	
600-113019-21 - DL	B3RA-A 0-0.5	Total/NA	Solid	3050B	
600-113019-22	DUP-01	Total/NA	Solid	3050B	
600-113019-22 - DL	DUP-01	Total/NA	Solid	3050B	
600-113019-25	B3RA-B 0-0.5	Total/NA	Solid	3050B	
600-113019-25 - DL	B3RA-B 0-0.5	Total/NA	Solid	3050B	
600-113019-25 DU - DL	B3RA-B 0-0.5	Total/NA	Solid	3050B	
600-113019-25 DU	B3RA-B 0-0.5	Total/NA	Solid	3050B	
600-113019-25 MS	B3RA-B 0-0.5	Total/NA	Solid	3050B	
600-113019-25 MS - DL	B3RA-B 0-0.5	Total/NA	Solid	3050B	
600-113019-25 MSD - DL	B3RA-B 0-0.5	Total/NA	Solid	3050B	
600-113019-25 MSD	B3RA-B 0-0.5	Total/NA	Solid	3050B	
600-113019-28	B3RA-C 0-0.5	Total/NA	Solid	3050B	
600-113019-28 - DL	B3RA-C 0-0.5	Total/NA	Solid	3050B	
600-113019-31 - DL	2015-C2L-06E 0-0.5	Total/NA	Solid	3050B	
600-113019-34 - DL	2015-CUFT-16B 0-0.5	Total/NA	Solid	3050B	
LCSSRM 600-164854/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-164854/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 164871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113019-9 - DL	2015-CUFT-16C 2-4	Total/NA	Solid	6010B	164854
600-113019-9 DU	2015-CUFT-16C 2-4	Total/NA	Solid	6010B	164854
600-113019-9 DU - DL	2015-CUFT-16C 2-4	Total/NA	Solid	6010B	164854
600-113019-9 MS	2015-CUFT-16C 2-4	Total/NA	Solid	6010B	164854
600-113019-9 MS - DL	2015-CUFT-16C 2-4	Total/NA	Solid	6010B	164854
600-113019-9 MSD	2015-CUFT-16C 2-4	Total/NA	Solid	6010B	164854
600-113019-9 MSD - DL	2015-CUFT-16C 2-4	Total/NA	Solid	6010B	164854
600-113019-12	SRB-VS-7A 0-0.5	Total/NA	Solid	6010B	164854
600-113019-15	SRB-VS-3A 0-0.5	Total/NA	Solid	6010B	164854
600-113019-18	2015-C2L-06F 0-0.5	Total/NA	Solid	6010B	164854
600-113019-21	B3RA-A 0-0.5	Total/NA	Solid	6010B	164854
600-113019-22	DUP-01	Total/NA	Solid	6010B	164854
600-113019-25	B3RA-B 0-0.5	Total/NA	Solid	6010B	164854
600-113019-25 DU	B3RA-B 0-0.5	Total/NA	Solid	6010B	164854
600-113019-25 MS	B3RA-B 0-0.5	Total/NA	Solid	6010B	164854
600-113019-25 MSD	B3RA-B 0-0.5	Total/NA	Solid	6010B	164854

TestAmerica Houston

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10

QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-1

Metals (Continued)

Analysis Batch: 164871 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113019-28	B3RA-C 0-0.5	Total/NA	Solid	6010B	164854
LCSSRM 600-164854/2-A	Lab Control Sample	Total/NA	Solid	6010B	164854
MB 600-164854/1-A	Method Blank	Total/NA	Solid	6010B	164854

Analysis Batch: 164978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113019-1 - DL	2015-CUFT-16A 0-0.5	Total/NA	Solid	6010B	164854
600-113019-5 - DL	2015-CUFT-15A 0-0.5	Total/NA	Solid	6010B	164854
600-113019-11 - DL	DUP-02	Total/NA	Solid	6010B	164854
600-113019-18 - DL	2015-C2L-06F 0-0.5	Total/NA	Solid	6010B	164854
600-113019-21 - DL	B3RA-A 0-0.5	Total/NA	Solid	6010B	164854
600-113019-22 - DL	DUP-01	Total/NA	Solid	6010B	164854
600-113019-25 - DL	B3RA-B 0-0.5	Total/NA	Solid	6010B	164854
600-113019-25 DU - DL	B3RA-B 0-0.5	Total/NA	Solid	6010B	164854
600-113019-25 MS - DL	B3RA-B 0-0.5	Total/NA	Solid	6010B	164854
600-113019-25 MSD - DL	B3RA-B 0-0.5	Total/NA	Solid	6010B	164854
600-113019-28 - DL	B3RA-C 0-0.5	Total/NA	Solid	6010B	164854
600-113019-31 - DL	2015-C2L-06E 0-0.5	Total/NA	Solid	6010B	164854
600-113019-34 - DL	2015-CUFT-16B 0-0.5	Total/NA	Solid	6010B	164854

General Chemistry

Analysis Ratch: 164356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113019-1	2015-CUFT-16A 0-0.5	Total/NA	Solid	Moisture	
600-113019-5	2015-CUFT-15A 0-0.5	Total/NA	Solid	Moisture	
600-113019-9	2015-CUFT-16C 2-4	Total/NA	Solid	Moisture	
600-113019-9 MS	2015-CUFT-16C 2-4	Total/NA	Solid	Moisture	
600-113019-9 MSD	2015-CUFT-16C 2-4	Total/NA	Solid	Moisture	
600-113019-11	DUP-02	Total/NA	Solid	Moisture	
600-113019-12	SRB-VS-7A 0-0.5	Total/NA	Solid	Moisture	
600-113019-12 DU	SRB-VS-7A 0-0.5	Total/NA	Solid	Moisture	
600-113019-15	SRB-VS-3A 0-0.5	Total/NA	Solid	Moisture	
600-113019-18	2015-C2L-06F 0-0.5	Total/NA	Solid	Moisture	
600-113019-21	B3RA-A 0-0.5	Total/NA	Solid	Moisture	
600-113019-25	B3RA-B 0-0.5	Total/NA	Solid	Moisture	
600-113019-25 MS	B3RA-B 0-0.5	Total/NA	Solid	Moisture	
600-113019-25 MSD	B3RA-B 0-0.5	Total/NA	Solid	Moisture	
600-113019-28	B3RA-C 0-0.5	Total/NA	Solid	Moisture	
600-113019-31	2015-C2L-06E 0-0.5	Total/NA	Solid	Moisture	

Analysis Batch: 164383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113019-22	DUP-01	Total/NA	Solid	Moisture	
600-113019-22 DU	DUP-01	Total/NA	Solid	Moisture	
600-113019-34	2015-CUFT-16B 0-0.5	Total/NA	Solid	Moisture	

TestAmerica Houston

Page 22 of 32

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-CUFT-16A 0-0.5

Date Collected: 06/08/15 09:25 Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-1

Matrix: Solid Percent Solids: 77.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.02 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B	DL	10	1.02 g	50 mL	164978	06/18/15 13:04	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164356	06/10/15 19:39	MJB	TAL HOU

Client Sample ID: 2015-CUFT-15A 0-0.5

Date Collected: 06/08/15 09:50 Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-5 **Matrix: Solid**

Percent Solids: 79.0

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.01 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.01 g	50 mL	164978	06/18/15 13:07	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164356	06/10/15 19:39	MJB	TAL HOU

Client Sample ID: 2015-CUFT-16C 2-4

Analysis

Moisture

Date Collected: 06/08/15 13:55

Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-9

06/10/15 19:39 MJB

Matrix: Solid Percent Solids: 71.8

TAL HOU

Batch Batch Dil Initial Final Batch Prepared Number **Prep Type** Type Method Run **Factor** Amount Amount or Analyzed Analyst Lab Total/NA 3050B DL 1.10 g 164854 06/17/15 10:57 NER TAL HOU Prep 50 mL Total/NA DL 6010B 50 mL 164871 06/17/15 20:42 DCL TAL HOU Analysis 5 1.10 g

164356

Client Sample ID: DUP-02 Lab Sample ID: 600-113019-11

1

Total/NA

Date Collected: 06/08/15 00:00 **Matrix: Solid** Date Received: 06/09/15 10:14 Percent Solids: 78.6

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.05 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.05 g	50 mL	164978	06/18/15 13:09	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164356	06/10/15 19:39	MJB	TAL HOU

Client Sample ID: SRB-VS-7A 0-0.5

Date Collected: 06/08/15 10:45

Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-12

Matrix: Solid

Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.07 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.07 g	50 mL	164871	06/17/15 18:35	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164356	06/10/15 19:39	MJB	TAL HOU

TestAmerica Houston

Page 23 of 32

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: SRB-VS-3A 0-0.5

Date Collected: 06/08/15 12:30

Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-15

Matrix: Solid Percent Solids: 84.7

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	164871	06/17/15 18:37	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164356	06/10/15 19:39	MJB	TAL HOU

Client Sample ID: 2015-C2L-06F 0-0.5

Date Collected: 06/08/15 15:00

Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-18

Matrix: Solid Percent Solids: 75.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	164871	06/17/15 18:39	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.04 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.04 g	50 mL	164978	06/18/15 13:16	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164356	06/10/15 19:39	MJB	TAL HOU

Client Sample ID: B3RA-A 0-0.5

Date Collected: 06/08/15 12:55

Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-21 **Matrix: Solid**

Percent Solids: 81.3

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.01 g	50 mL	164871	06/17/15 18:49	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.01 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.01 g	50 mL	164978	06/18/15 13:18	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164356	06/10/15 19:39	MJB	TAL HOU

Client Sample ID: DUP-01

Date Collected: 06/08/15 00:00

Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-22

Matrix: Solid

Percent Solids: 80.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	 -		1.06 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	164871	06/17/15 18:51	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.06 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.06 g	50 mL	164978	06/18/15 13:20	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164383	06/11/15 08:19	MJB	TAL HOU

TestAmerica Houston

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: B3RA-B 0-0.5

Date Collected: 06/08/15 13:00 Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-25

Matrix: Solid Percent Solids: 83.1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	164871	06/17/15 18:53	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.04 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.04 g	50 mL	164978	06/18/15 13:23	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164356	06/10/15 19:39	MJB	TAL HOU

Client Sample ID: B3RA-C 0-0.5

Date Collected: 06/08/15 15:10 Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-28 Matrix: Solid

Percent Solids: 81.8

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	164871	06/17/15 19:03	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.06 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B	DL	10	1.06 g	50 mL	164978	06/18/15 13:39	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164356	06/10/15 18:56	MJB	TAL HOU

Client Sample ID: 2015-C2L-06E 0-0.5

Date Collected: 06/08/15 14:45 Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-31 **Matrix: Solid** Percent Solids: 87.4

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.04 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B	DL	10	1.04 g	50 mL	164978	06/18/15 13:41	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164356	06/10/15 18:56	MJB	TAL HOU

Client Sample ID: 2015-CUFT-16B 0-0.5

Date Collected: 06/08/15 09:50

Date Received: 06/09/15 10:14

Lab Sample ID: 600-113019-34

Matrix: Solid Percent Solids: 79.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.09 g	50 mL	164854	06/17/15 10:57	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.09 g	50 mL	164978	06/18/15 13:43	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164383	06/11/15 08:19	MJB	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-1

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223	10-31-15
The following analytes	s are included in this repor	rt, but certification is	not offered by the go	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	е	
Moisture		Solid	Percei	nt Moisture	

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Chain of Custody Record

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Chain of Custody Record Chain of Custody Record	Custody Seals Intact Custody Seal No.:	Reinquished by:	Relinquished by:	Relinquished by: JiMb So NG X)	Empty Kit Relinquished by:	Deliverable Requested. I, II, III, IV, Other (specify)	3rrt	Possible Hazard Identification	DU9-01	B3RA - A 0-0.5	2015-671-64 2-4	- C24 - 26 F	-C2L-01=	Stp-15-3A 2-4	-V5 -3A	1	4-2 4t - 5A- 925	528 -V5 - 7A 0.5-2	5PB-VS-7A 0-0-5		Sample Identification	Site Exide Recycling Center, Frisco TX	Project Name: Exide Recycling Center, Frisco TX	Email: afaeth@golder.com	Phone: 636-724-9191	State, Zip: MO, 63301	City: St. Charles	Address: 820 South Main Street Suite 100	Company: Golder Associates Inc.	Clent Contect Anne Faeth-Boyd	Client Information	TestAmerica Houston 6319 Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646
State of the Temporature (a) Canal Control of Shipments Analysis Requirements Analysis Requiremen		Date/Time:	Date/Time:	18/15 16	Date				(15 -	18/15 1255	15 1500	18/15 1500	15/15 1500	18/15 1230	1/8.115 1830	1/6/15 1335	8/15 1045	(s),5 (045)	18/15 [1045]	X	Sample Time	\$SOW#	Project #: 60006523	WO#	Po#. Purchase Order Requested	10 Days	Ÿ	Due Date Requested:		832) 416	Jima Sorg	
and Other Remarks: Second Continues Second Con	Cooler Temper			Ksoc	Time:	Special Histroco	Retum To	Sample Dispos			z	z		z	Z		z	z	Z	vation Code: XX N N N	Matrix (Wewater, Speed) Speed, Pitterse, Speed, Ownarded, Pitterse, M33 Dennarded, Pitterse, M33 8260B - Target Moisture - Loo	VISID (Comp al Meti	(es o) ound L	Noj ist	200			\bigcap		cathy upton@testameric	Upton, Cathy L	stody Record
COC No 600-38678-12035. Page 2 of 3 Sob # COC No 600-38678-12035. Page 2 of 3 Job # COC No 600-38678-1203	(\$)a.	Dat	Dat	5	Method of Shipi	Sych define ments	fient		X	, X	XXX	XXX	×	<u>×</u>	/	××	XX	××	×	\$	8260B - (MOD) 6010B - (MOD) 6010B - (MOD)	Target 6010B	Comp	ound I	List			Į.	Analysis Requested	ainc ∞m	Camer fracking nots	
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Chain of Custody Record

Custody Seals Intact Custody Seal No	Relinquished by	Relinquished by.	Relinquished by JING SONG XI	Empty Kit Relinquished by:	Deliverable Requested: I, II, III, IV, Other (specify)	Possible Hazard Identification Non-Hazard Flammable Skin Initant	1215-CZL-06E 2-4	2015-C21-0/15 0.5-2	2015-CBL - 066 8-05	PA-C	132A-C 65-2	1	١	3	832A -B 0-05	832A-A 2-4	D3RA-A 0.5-2		 Sample Identification	Site Exide Recycling Center, Frisco TX	Project Name: Exide Recycling Center, Frisco TX	Email afaeth@golder.com	Phone: 636-724-9191	State, Zip: MO, 63301	City: St. Charles	Address 820 South Main Street Surte 100	Company: Golder Associates Inc.	Cirent Contact Anne Faeth-Boyd	Client Information	TestAmerica Houston 6510 Rothwäy Street Houston, TX 77040 Phone (713) 680-4444 Fax (713) 680-5646
-	Date/Time:	Date/Time.	Date/Time 6/8/13 1645	Date:		Poison B Unknown Radiological	6/8/15 1445 G	6/8/12 (442 e	e 1411 5/8/9	6/8/15 (510 G	6/8/15 (510 6	6/8/15 (510 6	6/8/15 (4pg G	6/8/15 1300 6	6/6/15 (300 G	6/8/15 (255 G	6/8/15 (755) G	Preser	Sample Type Sample (C=comp, Sample Date Time G=grab)	SSOW#:	60006523	WC#	Purchase Order Requested	10 Days	TAT Requested (days):	Due Date Requested:		Phone: (632) 4/6 3888	Sampler: Jr45.6 XI	_
Cooler Temperature(s)	Company Received by.	Company Received by:	Company 16 / Received By H	Time:	Special Instructions/Q	Sample Disposal (A fee may be assumed to Client Disposal (A fee may be	Water N X	Solid N	Solid N	Solid	Solid	Solid N	Solid	Solid N	Solid N ×	Solid N	Solid N	Pueservation Code: XXX N N N	Matrix (Wasseler, South Andrix Paramondal Bertonning	MSD (Comp al Met	Yes o ound hod	r No} ∟ist				Aco de	A	cathy.upton@testamericainc.com	Upton, Cathy L	Chain of Custody Record
) °C and Other Remarks:	Date/Time.	Date/Time.	Date Time (Method of Shipment		osal By Lab		X XXXX	× 88.88 ×	×	××	X	X	×	X X	XX	××	A Division of the second	601013	6010E	3- As, (≿d, Pb,	Se, Sb			15 M 745 J	Analysis Requested	iom .	Carrier Tracking No(s).	
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Upton, Cathy

From: Xi, Jing Song [JingSong_Xi@golder.com]
Sent: Wednesday, June 10, 2015 8:23 PM

To: Xi, Jing Song; Faeth-Boyd, Anne; Upton, Cathy

Subject: RE: Exide June 8 2015

Follow Up Flag: Follow up Flag Status: Red

Sent via the Samsung Galaxy S® 6, an AT&T 4G LTE smartphone

----- Original message -----

From: "Xi, Jing Song" <JingSong_Xi@golder.com>

Date: 06/10/2015 5:39 PM (GMT-06:00)

To: cathy.upton@testamerica.com, "Faeth-Boyd, Anne" <Anne_Faeth-Boyd@golder.com>

Subject: Exide June 8 2015

Hello, looking back at the COCS I appear to have accidentally left 4 samples off the list.

They are:

2015-CUFT-16B 0-0.5' 2015-CUFT-16B 0.5'-2' HOLD 2015-CUFT-16B 2'-4' HOLD 2015-CUFT-16B 4'-6' HOLD

All sampled 6/8/2015, 0950. Pb only.

Sorry about the mix up.

Sent via the Samsung Galaxy S® 6, an AT&T 4G LTE smartphone

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Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 600-113019-1

Login Number: 113019 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

oreator. Granton, rominie o		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	2.2
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-113019-3

Client Project/Site: Exide Recycling Center, Frisco TX

Revision: 1

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 7/30/2015 4:38:55 PM

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

Laboratory Data Package Cover Page - Page 1 of 4
This data package is for TestAmerica Houston job number 600-113019-3 and consists of:
☑ R1 - Field chain-of-custody documentation;
☑ R2 - Sample identification cross-reference;
☑ R3 - Test reports (analytical data sheets) for each environmental sample that includes:
a. Items consistent with NELAC Chapter 5,
b. dilution factors,
c. preparation methods,
d. cleanup methods, and
e. if required for the project, tentatively identified compounds (TICs).
R4 - Surrogate recovery data including:
a. Calculated recovery (%R), and
b. The laboratory's surrogate QC limits.
☑ R5 - Test reports/summary forms for blank samples;
☐ R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
a. LCS spiking amounts,
b. Calculated %R for each analyte, and
c. The laboratory's LCS QC limits.
☑ R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
a. Samples associated with the MS/MSD clearly identified,
b. MS/MSD spiking amounts,
c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
d. Calculated %Rs and relative percent differences (RPDs), and
e. The laboratory's MS/MSD QC limits
☑ R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
a. The amount of analyte measured in the duplicate,
b. The calculated RPD, and
c. The laboratory's QC limits for analytical duplicates.
☑ R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for
each method and matrix

each method and matrix.

☑ R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Jeanette Castillo, for Cathy Upton	Jeannthe Constillo	7/30/2015
Name (printed)	Signature	Date
Project Manager I		
Official Title (printed)	_	

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	7/30/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113019-3
Reviewer Name:	Jeanette Castillo, for Cathy Unton		

# ¹ A ²	Description	Yes	No	NA ³	NR⁴	ER#
	chain-of-custody (C-O-C)					
	id samples meet the laboratory's standard conditions of sample acceptability upon receipt?		Х			R01A
	Vere all departures from standard conditions described in an exception report?	Χ				
	ample and quality control (QC) identification					
	re all field sample ID numbers cross-referenced to the laboratory ID numbers?	Χ				
	re all laboratory ID numbers cross-referenced to the corresponding QC data?	Х				
	est reports					
	Vere all samples prepared and analyzed within holding times?	Χ				
	Other than those results < MQL, were all other raw values bracketed by calibration standards?	Х				
	Vere calculations checked by a peer or supervisor?	Х				
	Vere all analyte identifications checked by a peer or supervisor?	Χ				
	Vere sample detection limits reported for all analytes not detected?	Χ				
	Vere all results for soil and sediment samples reported on a dry weight basis?	Χ				
	Vere % moisture (or solids) reported for all soil and sediment samples?	Χ				
	Vere bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Χ		
	required for the project, are TICs reported?			Χ		
	surrogate recovery data					
	Vere surrogates added prior to extraction?			Χ		
	Vere surrogate percent recoveries in all samples within the laboratory QC limits?			Χ		
5 OI T	est reports/summary forms for blank samples					
V	Vere appropriate type(s) of blanks analyzed?	Χ				
V	Vere blanks analyzed at the appropriate frequency?	Χ				
V	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
	rocedures?	Χ				
V	Vere blank concentrations < MQL?	Χ				
6 OI L	aboratory control samples (LCS):					
	Vere all COCs included in the LCS?	Χ				
V	Vas each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Х				
	Vere LCSs analyzed at the required frequency?	Х				
	Vere LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Х				
_	Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used					
	o calculate the SDLs?	Х				
	Vas the LCSD RPD within QC limits?			Х		
	latrix spike (MS) and matrix spike duplicate (MSD) data					
	Vere the project/method specified analytes included in the MS and MSD?	Х				
	Vere MS/MSD analyzed at the appropriate frequency?	X				
	Vere MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
	Vere MS/MSD RPDs within laboratory QC limits?	X				
	nalytical duplicate data	<u> </u>				
	Vere appropriate analytical duplicates analyzed for each matrix?	Х				
	Vere analytical duplicates analyzed at the appropriate frequency?	X				
	Vere RPDs or relative standard deviations within the laboratory QC limits?	X				
	lethod quantitation limits (MQLs):	_^				
		Х	-			
	are the MQLs for each method analyte included in the laboratory data package?	X	-			
	to the MQLs correspond to the concentration of the lowest non-zero calibration standard?		-			
	are unadjusted MQLs and DCSs included in the laboratory data package?	Х				
	Other problems/anomalies	.,				
_	are all known problems/anomalies/special conditions noted in this LRC and ER?	Х				
	Vas applicable and available technology used to lower the SDL to minimize the matrix interference effects on the		١			_ ,
	ample results?	<u> </u>	Х			R10E
	s the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and					
lm	nethods associated with this laboratory data package?	Х				L

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	7/30/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113019-3
Reviewer Name:	Jeanette Castillo, for Cathy Upton		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER#
31		Initial calibration (ICAL)	103				
	<u>.</u>	Were response factors and/or relative response factors for each analyte within QC limits?	Х				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
	T .	rias the initial cambration curve been verified using an appropriate second source standard:					
2	\cap	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
	Oi	Was the CCV analyzed at the method-required frequency?	Х				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		,	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	^				
3	0	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
_	<u></u>	Were ion abundance data within the method-required QC limits?		<u> </u>	Х		
4	0	Internal standards (IS)		<u> </u>	.,		
_	I C :	Were IS area counts and retention times within the method-required QC limits?			Х		
5	ΟI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X	<u> </u>			
		Were data associated with manual integrations flagged on the raw data?	Х				
6	0	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			Х		
7	0	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Χ		
8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	Х				
9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	Х				
10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	Х				
		Is the MDL either adjusted or supported by the analysis of DCSs?	Х				
11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х				
12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х				
13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	Х				
14	OI	Demonstration of analyst competency (DOC)					
	•	Was DOC conducted consistent with NELAC Chapter 5?	Х	1			
		Is documentation of the analyst's competency up-to-date and on file?	X	1			
15	OI	Verification/validation documentation for methods (NELAC Chapter 5)		1			
_				t	1		
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	Х				
16	ΟI	Laboratory standard operating procedures (SOPs)	+ ^	1	1	\vdash	
	<u> </u>	Are laboratory SOPs current and on file for each method performed?	Х				
	1	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required re		teme			
	١.			CITIE	,		
	2	identified by the letter "S" should be retained and made available upon request for the appropriate retention period.					
		O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
	3.	NA = Not applicable;					
	4.	NR = Not reviewed;					

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7/30/2015

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	7/30/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113019-3
Reviewer Name:	Jeanette Castillo, for Cathy Upton		

ER # ¹	Description
R01A	The following samples was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): 2015-CUFT-16B 0.5-2 (600-113019-35).
R10B	Method 6010B: The following sample was diluted to bring the concentration of lead within the calibration range: 2015-CUFT-16B 0.5-2 (600-113019-35). Elevated reporting limits (RLs) are provided.
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
	identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3.	NA = Not applicable;
4.	NR = Not reviewed;
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Matrix: Solid

Method: SW-846 6010B or 6010C

SW-846 3050B Prep Method: Date Analyzed: 5/13/2015 Job #: 600-109337 TALS Batch: 162296 Units: mg/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Ag	Thermo6500	0.119	0.200	0.220	0.4
Al	SPECTRO1	0.300	0.500	0.718	25
As	Thermo6500	0.218	0.500	0.480	1
В	SPECTRO1	0.386	0.600	0.698	20
Ва	Thermo6500	0.030	0.030	0.040	1
Be	Thermo6500	0.015	0.020	0.020	0.25
Ca	SPECTRO1	0.864	2.500	7.426	100
Cd	Thermo6500	0.026	0.050	0.045	0.25
Co	Thermo6500	0.068	0.100	0.105	0.5
Cr	Thermo6500	0.051	0.100	0.110	0.5
Cu	Thermo6500	0.174	0.500	0.425	0.5
Fe	Thermo6500	2.530	4.000	3.915	20
K	Thermo6500	11.000	12.000	13.360	100
Li	SPECTRO1	0.008	0.010	0.062	10
Mg	Thermo6500	1.920	3.000	3.705	100
Mn	Thermo6500	0.038	0.050	0.055	1.5
Мо	Thermo6500	0.136	0.350	0.325	0.5
Na	Thermo6500	0.886	2.400	2.520	100
Ni	Thermo6500	0.117	0.150	0.140	1
Pb	Thermo6500	0.105	0.200	0.195	0.5
Sb	Thermo6500	0.232	0.450	0.410	2.5
Se	Thermo6500	0.259	0.500	0.550	2
Si	SPECTRO1	0.117	0.270	6.900	10
Sn	SPECTRO1	0.087	0.150	0.117	1
Sr	SPECTRO1	0.003	0.005	0.042	0.25
Ti	Thermo6500	0.015	0.030	0.020	0.5
TI	Thermo6500	0.277	0.700	0.580	1.5
V	Thermo6500	0.079	0.150	0.145	0.5
Zn	SPECTRO1	0.108	0.200	0.198	1.5

Case Narrative

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-3

Job ID: 600-113019-3

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-113019-3

Comments

The report was revised on 7/30/15 to report lead only in the client sample, replacing the final report generated on 7/27/15.

Receipt

The samples were received on 6/9/2015 10:14 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

Receipt Exceptions

The following samples was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): 2015-CUFT-16B 0.5-2 (600-113019-35).

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Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-113019-35	2015-CUFT-16B 0.5-2	Solid	06/08/15 09:50	06/09/15 10:14

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Client Sample Results

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-CUFT-16B 0.5-2

TestAmerica Job ID: 600-113019-3

Lab Sample ID: 600-113019-35

Date Collected: 06/08/15 09:50 Matrix: Solid

Date Received: 06/09/15 10:14

General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	28	H	1.0	1.0	%			07/21/15 17:11	1
Percent Solids	72	Н	1.0	1.0	%			07/21/15 17:11	1

Lab Sample ID: 600-113019-35 Client Sample ID: 2015-CUFT-16B 0.5-2

Date Collected: 06/08/15 09:50 **Matrix: Solid**

Date Received: 06/09/15 10:14 Percent Solids: 72.0

Method: 6010B - Metals (ICP) - DL

MQL (Adj) Analyte Result Qualifier SDL Unit D Prepared Analyzed Dil Fac Lead 17.0 3.40 0.714 mg/Kg

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Relative error ratio

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

TestAmerica Job ID: 600-113019-3

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.

General Chemistry

Qualifier	Qualifier Description
Н	Sample was prepped or analyzed beyond the specified holding time

Glossary

RER

RPD

TEF

TEQ

RL

Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control

TestAmerica Houston

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7/30/2015

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 167594

Prep Type: Total/NA

Prep Batch: 167594

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-167594/1-A

Matrix: Solid Analysis Batch: 167744

MB MB

Analyte Result Qualifier MQL (Adj) SDL Unit Analyzed Dil Fac **Prepared** 07/23/15 12:10 07/24/15 14:11 Lead 0.105 U 0.500 0.105 mg/Kg

Lab Sample ID: LCSSRM 600-167594/2-A

Matrix: Solid

Analysis Batch: 167744

Analyte Lead

Spike LCSSRM LCSSRM Added

Result Qualifier 84.22

MS MS

MSD MSD

DU DU

0.8519 J

Result Qualifier

45.34

Result Qualifier

Unit mg/Kg

%Rec 93.5

Limits 81.7 - 118.

%Rec.

Client Sample ID: Lab Control Sample

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Client Sample ID: Matrix Spike

Method: 6010B - Metals (ICP) - DL

Lab Sample ID: 600-115087-A-1-G MS ^2

Lab Sample ID: 600-115087-A-1-H MSD ^2

Matrix: Solid

Analysis Batch: 167744

Analyte

Lead - DL

Result Qualifier 0.353 J

Sample Sample

Sample Sample

0.873 J

Result Qualifier

Added 49.0

Spike

Spike

Added

47.6

90.1

41.16

Result Qualifier Unit mg/Kg

Unit

Unit

mg/Kg

mg/Kg

D %Rec 83

D %Rec

D

93

Limits 75 - 125

%Rec.

%Rec.

Limits

75 - 125

Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA Prep Batch: 167594

RPD

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RPD

Limit

20

RPD

20

Prep Type: Total/NA

Prep Batch: 167594

Matrix: Solid

Analysis Batch: 167744

Analyte Lead - DL

Lab Sample ID: 600-115087-A-1-F DU ^2 **Matrix: Solid**

Analysis Batch: 167744

Analyte

Sample Sample Result Qualifier Lead - DL 0.873 J

Client Sample ID: Duplicate

Prep Type: Total/NA **Prep Batch: 167594**

RPD RPD Limit

Method: Moisture - Percent Moisture

Lab Sample ID: 600-113192-A-5 DU

Matrix: Solid

Analysis Batch: 167427

Sample Sample Analyte Result Qualifier Percent Moisture 20 Percent Solids 80

DU DU Result Qualifier Unit D 20 % 80 %

Client Sample ID: Duplicate

Prep Type: Total/NA

RPD Limit 20

0.5

TestAmerica Houston

7/30/2015

Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-3

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Lead	0.500	0.105	mg/Kg	6010B

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

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QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-3

Metals

Prep Batch: 167594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113019-35 - DL	2015-CUFT-16B 0.5-2	Total/NA	Solid	3050B	
600-115087-A-1-F DU	Duplicate	Total/NA	Solid	3050B	
600-115087-A-1-F DU ^2 - D	Duplicate	Total/NA	Solid	3050B	
600-115087-A-1-G MS ^2 - E	Matrix Spike	Total/NA	Solid	3050B	
600-115087-A-1-H MSD ^2 -	Matrix Spike Duplicate	Total/NA	Solid	3050B	
600-115154-B-1-B DU	Duplicate	Total/NA	Solid	3050B	
LCSSRM 600-167594/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-167594/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 167744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113019-35 - DL	2015-CUFT-16B 0.5-2	Total/NA	Solid	6010B	167594
600-115087-A-1-F DU	Duplicate	Total/NA	Solid	6010B	167594
600-115087-A-1-F DU ^2 - D	Duplicate	Total/NA	Solid	6010B	167594
600-115087-A-1-G MS ^2 - E	Matrix Spike	Total/NA	Solid	6010B	167594
600-115087-A-1-H MSD ^2 -	Matrix Spike Duplicate	Total/NA	Solid	6010B	167594
600-115154-B-1-B DU	Duplicate	Total/NA	Solid	6010B	167594
LCSSRM 600-167594/2-A	Lab Control Sample	Total/NA	Solid	6010B	167594
MB 600-167594/1-A	Method Blank	Total/NA	Solid	6010B	167594

General Chemistry

Analysis Batch: 167427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113019-35	2015-CUFT-16B 0.5-2	Total/NA	Solid	Moisture	
600-113192-A-5 DU	Duplicate	Total/NA	Solid	Moisture	
600-113192-A-28 MS	Matrix Spike	Total/NA	Solid	Moisture	
600-113192-A-28 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	

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Lab Chronicle

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-3

Lab Sample ID: 600-113019-35 Client Sample ID: 2015-CUFT-16B 0.5-2

Date Collected: 06/08/15 09:50 **Matrix: Solid**

Date Received: 06/09/15 10:14

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			167427	07/21/15 17:11	MJB	TAL HOU

Client Sample ID: 2015-CUFT-16B 0.5-2 Lab Sample ID: 600-113019-35

Date Collected: 06/08/15 09:50 **Matrix: Solid** Date Received: 06/09/15 10:14 Percent Solids: 72.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.02 g	50 mL	167594	07/23/15 12:10	DCL	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.02 g	50 mL	167744	07/24/15 16:51	DCL	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113019-3

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223	10-31-15
The following analytes	s are included in this repor	rt, but certification is	not offered by the go	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	е	
Moisture		Solid	Percer	nt Moisture	

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TestAmerica Houston 631f Rothway Street Houston, TX 77040

Chain of Custody Record

	,										
Client Information	Jim G Sag XI	×-	Upton	Lab PM Upton, Cathy L			Carner Tracking No(s)	g No(s)		600-36678-12035.1	35.1
Dient Contact. Anne Faeth-Boyd	Phone (832) 416 7	3888	E-Mail: cathy	upton@testa	E-Mail: cathy upton@testamericainc com					Page. 2 of	(W
շտրբույ։ Golder Associates Inc.					Ana	Analysis Requested	ested.			Job#	
address: 320 South Main Street Suite 100	Due Date Requested:			\bigcap	[" VC"	HH Judby	the me			Preservation Codes:	M - Hexane
Dity:	TAT Requested (days):		2	### /	1	1	+	Į		B - NaOH C - Zn Acetate	N - None O - ASNAO2
MO, 63301	1	10 Days		COLUMN TO THE STREET						E - NaHSO4	P - Na2CAS Q - Na2SO3 R - Na2SOSO3
Phone: 536-724-9191	Po #: Purchase Order Requested	sted	an.		še, Sb					G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
:mait: afaeth@golder.com	WO#			Ñø)	d, Pb, S				(\$ · · ·	I-Ice J-DI Water	U - Acetone V - MCAA
Project Name: Exide Recycling Center, Fris⇔ TX	Project #: 60006523		ca chista	und L					ntájné	L-EDA	Z - other (specify)
site Exide Recycling Center, Frisco TX	SSOW#		* #5.5.	SD () Compo			As Sk	Ps	ofeo	Other:	
		Sample Type	Matrix (w-water,	n MS/N - Target re - Loca	- (MOD)	- (MOD) -	0B-	oß-	Ņúmber		
Sample Identification	Sample Date Time	-	<u>-</u>	Peri 8260	6010	8260	(0	-	Foto	Special Ir	Special Instructions/Note:
			Preservation Code:	X Z	X	\$D	/ /	3. 1. 15.03		u. 12.7.1	
SRB-VS-7A 0-0-5	6/8/15 1045	9	Solid	z	. *		XX				
5RS-VS-7A 05-2	6/6/13 (045	G	Solid	Z			X				
5RB-W5-7A 2-4	6/8/15 1045	6	Solid	z			X	.,	ii.	2	
SPB-VS-3A 0-0.5	6/6/15 1330	ن	Solid	z X	/3		×		,	e annocenta	
- 3A	6/8/15 133	<u> </u>	Solid	×			×		- 3	hold	
-V5-3A 26-	6/8/15 1230	G	Solid	×			X			hold	
-C2L-off	6/5/15 1500	0	Solid	×			×	X	outrown.		
- C24 -06F	6/8/15 1500	ა ი	Solid	z			X	×	33 43	h=1	
2015-621-064 2-4	6/8/15 1500	ن 6	Solid	×			X	X	[3 N.	4.16	
B3RA - A 0-0.5	6/8/15 1255	G G	Solid	z			メ	X	1 1 A 1 (3 A		
DU9-01	6/8/15 -	- G	Water	×			\times	X	77 ; Z		
Possible Hazard Identification	Poison B Unknown C	Radiological		Sample Di	Sample Disposal (A fe	ee may be assessed if samples Disposal By Lab	assessed if sar Disposal By Lab	amples are	retained Ion	ger than	1 month) Months
ested. I, II, III, IV, Other (specify)				Special Ins	Special Instructions/QC	Requirements	o;				
Empty Kit Relinquished by:	Date [,]			Time:	1 ,		Method c	Method of Shipment			
Relinquished by: Junty Song X)	Date/Time: /8 / c5	645	6-	Mysoc Research					3	1014	Company
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Relinquished by.	Date/Time:		Company	Received by	, Ag			Date/Time:			Company
Custody Seals Intact Custody Seal No.:				Cooler T	Cooler Temperature(s) °C	and Other Remarks	arks:				

Chain of Custody Record

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S	Date/Timper	Received By Ps	de	1645 Compan	me 6/8/13	Date/Time	1× y	Relinquished by JING SON
	Method of Shipment		Time:		Date:			Empty Kit Relinquished by:
	S.	Special Instructions/QC Requirements:	Spec				III, IV, Other (specify)	Deliverable Requested: I, II, III, IV, Other (specify)
Archive For	be assessed if samples are retained Disposal By Lab Archive	Sample Disposal (A fee may be as Return To Client	Sam □	Radiological	Unknown Rad	Poison B	tffication	Possible Hazard Identification Non-Hazard Flammat
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	S	al Meti) 6010E			, an	SSOW#,	⊗ TX	Site Exide Recycling Center, Frisco TX
` ` ` `	5	anod B- As, i			523	60006523	© TX	Project Name: Exide Recycling Center, Frisco TX
ers; J - DI Water		Cd, Pb				WC#.		email afaeth@golder.com
G - Amchlor H - Ascorbic		List	No)		PO# Purchase Order Requested	Po# Purch		Phone: 636-724-9191
				Sh	10 Days		-	State, Zip: MO, 63301
B - NaOH			- Const		TAT Requested (days):	TAT Re	_	City: St Charles
	N 5/	Accorded with			Due Date Requested:	Due Da	100	Address 820 South Main Street Suite 100
	Requested	Analysis Req						Company: Golder Associates Inc.
		E-Mail. cathy.upton@testamericainc.com	E-Mail. cathy.upton@	3888	(B32) 4/6	Phone:	-	Client Contact Anne Faeth-Boyd
	Carrier Tracking No(s).		Upton, Cathy L	×	" Jraq 50.6	Sampler		Client Information
			Chain of Custody Record	f Custoc	Chain o		713) 690-5646	65:10 Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646
							- —	Tantamanian Hallet

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orm Them Corrected Temp	CARRIER/DRIVER: Number of Coolers Receive Observed Temp The	Temp Temp Blank Y N Y	ustody Seal Present: Cooler ID CF = correction factor	- o n

Upton, Cathy

From: Faeth-Boyd, Anne [Anne_Faeth-Boyd@golder.com]

Sent: Sunday, July 19, 2015 11:42 PM

To: Upton, Cathy

Cc: Thomas, Jim; Higginbotham, Christina

Subject: please run 5 hold samples

Follow Up Flag: Follow up Flag Status: Red

Cathy,

Can we please run the following hold samples:

ECO-11C (0.5-2) – arsenic and lead 2015-CUFT-16B (0.5-2) - lead D-11C (2-4) - arsenic 2015-MW-17D (2-4) – antimony, arsenic, and lead 2015-SCC-16B (0.5-2) – lead

Thanks, Anne

Anne Faeth-Boyd, R.G., P.E. | Senior Engineer | Golder Associates Inc.
820 South Main Street, Suite 100, St. Charles, Missouri, USA 63301
T: +1 (636) 724-9191 | F: +1 (636) 724-9323 | C: +1 314 503-5179 | E: Anne_Faeth-Boyd@golder.com | www.golder.com

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Please consider the environment before printing this email.

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Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 600-113019-3

Login Number: 113019 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Creator: Crafton, Tommie S		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	2.2
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-113019-4

Client Project/Site: Exide Recycling Center, FriscoTX Rush Pb

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 8/30/2015 7:55:29 PM

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Default Detection Limits	13
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Racaint Chacklists	22

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-113019-4 and consists of:

☑ R1 - Field chain-of-custody of the control o	documentation
---	---------------

- ☑ R2 Sample identification cross-reference;
- ☑ R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☐ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton	ami	8/30/2015
Name (printed)	Signature	Date
Project Manager I		
Official Title (printed)		

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/30/2015
Project Name:	Exide Recycling Center, FriscoTX Rush Pb	Laboratory Job Number:	600-113019-4
Reviewer Name:	Cathy Unton		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
# R1		Chain-of-custody (C-O-C)	162	NO	INA	INIX	EN#
Κī		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Х				
		Were all departures from standard conditions described in an exception report?	X				
R2		Sample and quality control (QC) identification	^				
NΖ		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Х				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	\cap	Test reports					
ΝJ		Were all samples prepared and analyzed within holding times?	Х				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?					
			X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	Х				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			Х		
R4		Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			Х		
R5		Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	Х				
		Were blanks analyzed at the appropriate frequency?	Х				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
		procedures?	Х				
		Were blank concentrations < MQL?	Х				
R6		Laboratory control samples (LCS):					
		Were all COCs included in the LCS?			Χ		
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?			Χ		
		Were LCSs analyzed at the required frequency?			Χ		
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?			Χ		
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used					
		to calculate the SDLs?			Х		
		Was the LCSD RPD within QC limits?			Χ		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	Χ				
		Were MS/MSD analyzed at the appropriate frequency?	Х				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Х				
		Were MS/MSD RPDs within laboratory QC limits?			Χ		
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	Х				
		Were analytical duplicates analyzed at the appropriate frequency?	Х				
		Were RPDs or relative standard deviations within the laboratory QC limits?	Х				
R9		Method quantitation limits (MQLs):					
-		Are the MQLs for each method analyte included in the laboratory data package?	Х	1			
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies	 ^`				
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	Х	1			
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the		~			D10D
		sample results?	1	Х			R10B
l		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and					
	1.	methods associated with this laboratory data package? Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required reports.	X	<u> </u>			

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/30/2015
Project Name:	Exide Recycling Center, FriscoTX Rush Pb	Laboratory Job Number:	600-113019-4
Reviewer Name:	Cathy Upton		

<u>μ</u> 1	A ²	December 1	V	NI.	NI A 3	ND41	ER# ⁵
#		Description	Yes	No	NA ³	NK.	ER#
S1	Oi	Initial calibration (ICAL)	V	-			
		Were response factors and/or relative response factors for each analyte within QC limits?	X	-			
		Were percent RSDs or correlation coefficient criteria met?	X	-			
		Was the number of standards recommended in the method used for all analytes?	X	-			
		Were all points generated between the lowest and highest standard used to calculate the curve?	X	-			
		Are ICAL data available for all instruments used?	X				
	1	Has the initial calibration curve been verified using an appropriate second source standard?	Х	-			
00		luisial and antimuing a libertian unification (IOV and COV) and apptimuing a libertian blank (COD).					
S2	Oi	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):	V				
		Was the CCV analyzed at the method-required frequency? Were percent differences for each analyte within the method-required QC limits?	X				
			X				
		Was the ICAL curve verified for each analyte?	X	-			
00	_	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
S3		Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
0.4	10	Were ion abundance data within the method-required QC limits?			Х		
S4	_	Internal standards (IS)		1	,,		
-		Were IS area counts and retention times within the method-required QC limits?		<u> </u>	Х		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
_		Were data associated with manual integrations flagged on the raw data?	Х				
S6	0	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			Χ		
S7		Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Χ		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	Х				
		Is the MDL either adjusted or supported by the analysis of DCSs?	Х				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	Х				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	Х				
		Is documentation of the analyst's competency up-to-date and on file?	Х				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		·					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	Х				
S16	OI	Laboratory standard operating procedures (SOPs)					
	•	Are laboratory SOPs current and on file for each method performed?	Х				
	1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required r	eport(s).	Items			
		identified by the letter "S" should be retained and made available upon request for the appropriate retention period.					
	2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
		NA = Not applicable;					
		NR = Not reviewed;					
	5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No	" is checl	(ed)			
	v.	2.1.2 2.1.2 part identification frames (an Exception report directed to difficill in 1417 of 140	. 10 011001				

Page 5 of 22 8/30/2015

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/30/2015
Project Name:	Exide Recycling Center, FriscoTX Rush Pb	Laboratory Job Number:	600-113019-4
Reviewer Name:	Cathy Upton		

ER #1	Description
R10B	Method 6010B: The following sample was diluted to bring the concentration of lead within calibration range: 2015-CUFT-16C 4-6 (600-113019-10). Elevated reporting limits (RLs) are provided.
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items	
identified by the letter "S" should be retained and made available upon request for the appropriate retention period.	
O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);	
3. NA = Not applicable;	
4.	NR = Not reviewed;
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Matrix: Solid

Method: SW-846 6010B or 6010C

SW-846 3050B Prep Method: Date Analyzed: 5/13/2015 Job #: 600-109337 TALS Batch: 162296 Units: mg/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Ag .	Thermo6500	0.119	0.200	0.220	0.4
Al	SPECTRO1	0.300	0.500	0.718	25
As	Thermo6500	0.218	0.500	0.480	1
В	SPECTRO1	0.386	0.600	0.698	20
Ba	Thermo6500	0.030	0.030	0.040	1
Be	Thermo6500	0.015	0.020	0.020	0.25
Ca	SPECTRO1	0.864	2.500	7.426	100
Cd	Thermo6500	0.026	0.050	0.045	0.25
Co	Thermo6500	0.068	0.100	0.105	0.5
Or	Thermo6500	0.051	0.100	0.110	0.5
Cu	Thermo6500	0.174	0.500	0.425	0.5
-e	Thermo6500	2.530	4.000	3.915	20
<	Thermo6500	11.000	12.000	13.360	100
Li	SPECTRO1	0.008	0.010	0.062	10
Mg	Thermo6500	1.920	3.000	3.705	100
Mn	Thermo6500	0.038	0.050	0.055	1.5
Mo	Thermo6500	0.136	0.350	0.325	0.5
Na	Thermo6500	0.886	2.400	2.520	100
Ni	Thermo6500	0.117	0.150	0.140	1
Pb	Thermo6500	0.105	0.200	0.195	0.5
Sb	Thermo6500	0.232	0.450	0.410	2.5
Se	Thermo6500	0.259	0.500	0.550	2
Si	SPECTRO1	0.117	0.270	6.900	10
Sn	SPECTRO1	0.087	0.150	0.117	1
Sr Sr	SPECTRO1	0.003	0.005	0.042	0.25
Гі	Thermo6500	0.015	0.030	0.020	0.5
П	Thermo6500	0.277	0.700	0.580	1.5
V	Thermo6500	0.079	0.150	0.145	0.5
Zn	SPECTRO1	0.108	0.200	0.198	1.5

Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, FriscoTX Rush Pb

TestAmerica Job ID: 600-113019-4

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, FriscoTX Rush Pb

TestAmerica Job ID: 600-113019-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-113019-10	2015-CUFT-16C 4-6	Solid	06/08/15 13:55	06/09/15 10:14

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Client Sample Results

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, FriscoTX Rush Pb

TestAmerica Job ID: 600-113019-4

Lab Sample ID: 600-113019-10

□ 08/28/15 11:17 □ 08/28/15 15:24

Client Sample ID: 2015-CUFT-16C 4-6

Date Collected: 06/08/15 13:55 Date Received: 06/09/15 10:14

Lead

Matrix: Solid

General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26	Н	1.0	1.0	%			08/27/15 17:17	1
Percent Solids	74	H	1.0	1.0	%			08/27/15 17:17	1

Lab Sample ID: 600-113019-10 Client Sample ID: 2015-CUFT-16C 4-6 Date Collected: 06/08/15 13:55 **Matrix: Solid**

Date Received: 06/09/15 10:14 Percent Solids: 74.5

Method: 6010B - Metals (ICP) - DL MQL (Adj) Dil Fac Analyte Result Qualifier SDL Unit D Prepared Analyzed

3.17

0.665 mg/Kg

83.0

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, FriscoTX Rush Pb

TestAmerica Job ID: 600-113019-4

Qualifiers

Metals

Qualifier Qualifier Description

U Analyte was not detected at or above the SDL.

General Chemistry

Qualifier Qualifier Description

H Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this rep	ort.
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Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration
MDA Minimum detectable activity
EDL Estimated Detection Limit

MDC Minimum detectable concentration

MDL Method Detection Limit
ML Minimum Level (Dioxin)

NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

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TestAmerica Job ID: 600-113019-4

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 170549

Prep Type: Total/NA

Prep Batch: 170549

Project/Site: Exide Recycling Center, FriscoTX Rush Pb

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-170549/1-A

Matrix: Solid Analysis Batch: 170557

Client: Golder Associates Inc.

MB MB

Analyte Result Qualifier MQL (Adj) SDL Unit Analyzed Dil Fac **Prepared** 08/28/15 11:17 08/28/15 15:08 Lead 0.105 U 0.500 0.105 mg/Kg

90.1

Lab Sample ID: LCSSRM 600-170549/2-A

Matrix: Solid

Analysis Batch: 170557

Analyte Lead

Spike LCSSRM LCSSRM Added

Result Qualifier 89.69

Unit mg/Kg

%Rec 99.5

81.7 - 118. 8

Client Sample ID: Matrix Spike

%Rec. Limits

Client Sample ID: Lab Control Sample

Method: 6010B - Metals (ICP) - DL

Lab Sample ID: 600-116529-A-10-K MS ^2

Lab Sample ID: 600-116529-A-10-J DU ^2

Matrix: Solid

Matrix: Solid

Analysis Batch: 170557

Analysis Batch: 170557

Analyte Lead - DL

Sample Sample Result Qualifier 11.0

Spike Added 54.2

70.57

MS MS Result Qualifier Unit mg/Kg

DU DU

19

81

Result Qualifier

Unit

%

%

%Rec 110

D

Limits 75 - 125

%Rec.

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 170549

Prep Type: Total/NA

Prep Batch: 170549 RPD

RPD

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Limit

20

20

20

Sample Sample DU DU Result Qualifier Analyte Result Qualifier Unit D Lead - DL 11.0 9.967 mg/Kg

Method: Moisture - Percent Moisture

Lab Sample ID: 600-116713-A-12 DU

Matrix: Solid

Analysis Batch: 170480

Sample Sample Analyte Result Qualifier Percent Moisture 19 Percent Solids 81

Client Sample ID: Duplicate Prep Type: Total/NA

RPD

RPD Limit 0.2 0

TestAmerica Houston

8/30/2015

Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, FriscoTX Rush Pb

TestAmerica Job ID: 600-113019-4

Method: 6010B - Metals (ICP)

Analyte	MQL N		Units	Method	
Lead	0.500	0.105	mg/Kg	6010B	

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

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QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, FriscoTX Rush Pb

TestAmerica Job ID: 600-113019-4

Metals

Prep Batch: 170549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113019-10 - DL	2015-CUFT-16C 4-6	Total/NA	Solid	3050B	
600-116529-A-10-J DU ^2 - [Duplicate	Total/NA	Solid	3050B	
600-116529-A-10-K MS ^2 -	Matrix Spike	Total/NA	Solid	3050B	
LCSSRM 600-170549/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-170549/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 170557

Lab Sample ID 600-113019-10 - DL	Client Sample ID 2015-CUFT-16C 4-6	Prep Type Total/NA	Matrix Solid	Method 6010B	Prep Batch 170549
600-116529-A-10-J DU ^2 -	I Duplicate	Total/NA	Solid	6010B	170549
600-116529-A-10-K MS ^2 -	Matrix Spike	Total/NA	Solid	6010B	170549
LCSSRM 600-170549/2-A	Lab Control Sample	Total/NA	Solid	6010B	170549
MB 600-170549/1-A	Method Blank	Total/NA	Solid	6010B	170549

General Chemistry

Analysis Batch: 170480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113019-10	2015-CUFT-16C 4-6	Total/NA	Solid	Moisture	
600-116713-A-12 DU	Duplicate	Total/NA	Solid	Moisture	

TestAmerica Houston

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Lab Chronicle

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, FriscoTX Rush Pb

Client Sample ID: 2015-CUFT-16C 4-6

TestAmerica Job ID: 600-113019-4

Lab Sample ID: 600-113019-10

Matrix: Solid

Date Collected: 06/08/15 13:55 Date Received: 06/09/15 10:14

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			170480	08/27/15 17:17	MJB	TAL HOU

Client Sample ID: 2015-CUFT-16C 4-6 Lab Sample ID: 600-113019-10

Date Collected: 06/08/15 13:55 **Matrix: Solid**

Date Received: 06/09/15 10:14 Percent Solids: 74.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.06 g	50 mL	170549	08/28/15 11:17	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.06 g	50 mL	170557	08/28/15 15:24	DCL	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, FriscoTX Rush Pb

TestAmerica Job ID: 600-113019-4

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223-15-16	10-31-15
The following analyte:	s are included in this repo	rt, but certification is	not offered by the g	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	te	
Moisture		Solid	Perce	nt Moisture	
Moistare		00			

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TestAmerica Houston 631f Rothway Street Houston, TX 77040

Chain of Custody Record

Client Information			Lab PM		Carner Tracking No(s):	COC No
	3,53 DEP	*	Upton, Cathy L	athy L		600-366/8-12035.1
Chert Contact Anne Faeth-Boyd	914	3888	E-Mail: cathy up	E-Mail: cathy upton@testamericainc com		Page 2 of 3
Company: Golder Associates Inc.				Analysis Requested	quested	Job#
Address: 820 South Main Street Suite 100	Due Date Requested:		Si Uri	[n Kca/dry]	#55W 77F	Preservation Codes: A-HCL M-Hexane
City:	TAT Requested (days):		K.A.			B - NaOH C - Zn Acetate
State, Zip: MO, 63301	1	10 Days				D - Nific Acid P - Na2CAS E - NaHSO4 Q - Na2SO3 R - Na2SO3
Phone: 636-724-9191	Po# Purchase Order Requested	sted	ō)	lst		맖
Emait afaeth@golder.com	WO#		š or N	st d, Pb, ound L		J - DI Water
Project Name: Exide Recycling Center, Frisco TX	Project #: 60006523		êY) êl	ound L As, C		L-EDA
Site Exide Recycling Center, Frisco TX	SSOW#		Sajirip	Composit Meth	5e	Of so Other:
		Sample Type	Matrix (Waster,	3 - Target ure - Loca B - (MOD) 3 - (MOD) 3 - (MOD)		Ŋűmpe
Sample Identification	Sample Date Time	-	. E	8260 Mols 801	60 60	Special Instructions/Note:
VELS (21 4G)	2018/)	د G Solid	Solid	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	X	
- 72 6	(g), X	G G	Solid N	×	XX	
•	6/8/15 1045	5 6	Solid N	×	XX	
SRB-VS-3A 0-0.5	6/8/15 1330	6	Solid N	X	×	, , , , , , , , , , , , , , , , , , ,
- 3A	6/8/15 133	G	Solid	×	×	No la
SRD - 15 - 3A 2-4	6/8/15 1230	0	Solid	X	X	hold
2015-626-04 0-05	6/5/15 1500	ბ - G	Solid	,×	XXXX	
- C2C -06F	6/8/15 1500	Ğ G	Solid	×	XXXX	Na C
2015-621-264 2-4	6/8/15 1500	ن G	Solid N	X	XXX	K.16
A	6(8)15 1255	G G	Solid N	X	X	
Dup-01	6/8/15 -	G	Water N	- - - -	×	
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B	Unknown	Radiological		Sample Disposal (A fee may be a	A fee may be assessed if samples are retained in the samples are retained. In the samples are retained in the samples are retained.	are retained longer than 1 month) Archive For Months
Other				Special Instructions/QC Requirements	nts:	
Empty Kit Relinquished by:	Date		Time:	ne:	Method of Shipment	
Reinquished by: JiMl SonGX	Date/Times: /8 / c 5	1695	Company Ksoc	or removed of	Date Times (5 1014 B
ı	Date/Time:		Ÿ	Received by	Date/Time:	Company
Reimquished by:	Date/Time:		Company	Received by	Date/Time:	Company
Custody Seals Intact Custody Seal No.: A Yes A No				Cooler Temperature(s) °C and Other Remarks	emarks:	

TestAmerica Houston
6510 Rothwäy Street
Houston, TX 77040

Chain of Custody Record

Custody Seal Infact Custody Seal No	Relinquished by	Relinquished by.	Relinquished by JING SONG XI	Empty Kit Relinquished by:	Deliverable Requested: I, II, III, IV, Other (specify)	nt	7	1015-CZL-06E 2-4	プリケーしているに 0.5-2	2015-CIL-068 8-05	-C	-C 6.	1			832A -B 0-05	B324-A 2-4	BAA-A 0.5-2		Sample Identification	Site Exide Recycling Center, Frisco TX	Project Name: Exide Recycling Center, Frisco TX	Email afaeth@golder.com	Phone: 636-724-9191	State, Zip: MO, 63301	City: St. Charles	Address 820 South Main Street Suite 100	Company: Golder Associates Inc.	Client Contact Anne Faeth-Boyd	Client Information	Phone (713) 690-4444 Fax (713) 690-5646
	Date/Time:	Date/Time.	Date/Time 6/8/13 1645 CC	Date:		Poison B Unknown Radiological]	e 5451 51/8/9	6/8/15 [445 6	e 4th 5/8/9	6/4/15 1510 6	6/8/15 (510 6	6/8/15 (1510 6	C/8/15 (200 G	6/8/15 1300 G	6/8/15 (300 G	6/8/15 (255 G	6/8/15 (755) G	Preservation Code:	Sample Type Sample (C=comp. Time G=grab) ar	SSOW#	60006523	WC#	Purchase Order Requested	10 Days	TAT Requested (days):	Due Date Requested:		Phone: (632) 4/6 3888	Sampler Jing Song XI	r
Cooler Temperature(s) °C and Other Remarks	Company Received by.	Company Received by:	Company Received By F	Time:	Special Instructions/QC Requirements		Sample Disposal (A fee may be	Water N X	Solid Z	solid z	Solid Z	Solid	Solid N	Solid X	Solid N	Solid N X	Solid	Solid N	on Code: XXN N N N A D	Figld Filtere Rentorn IMS 8260B - Targo Moisture - Lo 6010B - (MOI	MSD (t Comp al Met e) 6010	Yes of ound I nod 3- As,	lst Cd, Pb	Se, St			Accorder with	Analysis Re	e-Mail, cathy.upton@testamericainc.com	Upton, Cathy L	To be provided in the provided
Remarks:	Date/Time.	Date/Time.	- Daily (mg/ (5 /6)	Method of Shipment		Disposal By Lab Archive For	may be assessed if samples are retained longer than 1	- X 2 X X X X X X X X X X X X X X X X X	X XXXX	× SS	XX	X	XX	XX	×××	XX WsjasD	XX	××		6010 B 6010 B 6010 B	P1.3 1/3 5/3 S/3 S/4	S				B · NaOH	Preservati A-HCL	Requested	Page 3	Carrier Francisco No. 600-3667	5
	Company	Company	14 7			Months	than 1 month)	Pb only.	p only	Pb 00 14		F Broading		-		150 maked	0			Special Instructions/Note:		Z - ather (specify)				N - None tate O - AsNaO2	ion Code		of W	600-36678-12035.1	

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e.e)- 1155	Observed Temp	P	A A A A A A A A A A	TE ≈ correction factor	MBZ
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eived: Therm Corrected Ter (°C) Therm CF (°C)	SARRIER/DRIVER: Vulnber of Coolers Reconcing (°C) (°C)	S	Tem Bian Y / Y / Y / Y / Y / Y / Y / Y / Y / Y	tody Seal Presen	Cust
Therm Them Corrected Ter (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C)	oper of Coolers Record Temps of Coolers Record Temps (3)	S	Tem Bian Y / Y / Y / Y / Y / Y / Y / Y / Y / Y	tody Seal Presen Cooler ID Sector Sector To a correction factor	Cust

Upton, Cathy

From: Faeth-Boyd, Anne [Anne_Faeth-Boyd@golder.com]

Sent: Thursday, August 27, 2015 12:19 AM

To: Upton, Cathy
Subject: hold sample
Follow Up Flag: Follow up
Flag Status: Red

Cathy,

Can we get a rush analysis of the following hold samples:

2015-CUFT-16C (4-6), TestAmerica Job ID: 600-113019-1, ONLY Pb should be reported.

Can we get one or two day?

Thanks, Anne

Anne Faeth-Boyd, R.G., P.E. | Senior Engineer | Golder Associates Inc.
820 South Main Street, Suite 100, St. Charles, Missouri, USA 63301
T: +1 (636) 724-9191 | F: +1 (636) 724-9323 | C: +1 314 503-5179 | E: Anne Faeth-Boyd@golder.com | www.golder.com

Work Safe, Home Safe

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Please consider the environment before printing this email.

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Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 600-113019-4

Login Number: 113019 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

ordator: Gratton, Forming C		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	2.2
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-113063-1

Client Project/Site: Exide Recycling Center, Frisco TX

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 6/24/2015 11:47:27 AM

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

.....LINKS

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

This data package is for Te	estAmerica Houston job num	nber 600-113063-1 and consists of:

☑ R1 - Field chain-of-custody documentation;

☑ R2 - Sample identification cross-reference;

☑ R3 - Test reports (analytical data sheets) for each environmental sample that includes:

- a. Items consistent with NELAC Chapter 5,
- b. dilution factors,
- c. preparation methods,
- d. cleanup methods, and
- e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☐ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

Official Title (printed)

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Donnie Combs, for Cathy Upton	Donnix Comba	6/23/2015
Name (printed)	Signature	Date
Project Manager I		

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/23/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113063-1
Reviewer Name:	Donnie Combs. for Cathy Unton		

#1 A	Description	Yes	No	NA^3	NR^4	ER# ⁵
R1 0	Chain-of-custody (C-O-C)					
•	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Х				
	Were all departures from standard conditions described in an exception report?	Х				
R 2 0	Sample and quality control (QC) identification					
	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Х				
	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Х				
13 O	Test reports					
.0 0	Were all samples prepared and analyzed within holding times?	Х				
	Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
	Were calculations checked by a peer or supervisor?	X				
	Were all analyte identifications checked by a peer or supervisor?	X				
	Were sample detection limits reported for all analytes not detected?	X				
	Were all results for soil and sediment samples reported on a dry weight basis?	X				
	Were % moisture (or solids) reported for all soil and sediment samples?	X				
	Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	^		~		
				X		
4 10	If required for the project, are TICs reported?			Х		
4 0	Surrogate recovery data			V		
	Were surrogates added prior to extraction?	-		X		
- 1-	Were surrogate percent recoveries in all samples within the laboratory QC limits?			Х		
5 O	Test reports/summary forms for blank samples					
	Were appropriate type(s) of blanks analyzed?	Χ				
	Were blanks analyzed at the appropriate frequency?	Х				
	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
	procedures?	Х				
	Were blank concentrations < MQL?	Χ				
6 O	Laboratory control samples (LCS):					
	Were all COCs included in the LCS?			Χ		
	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?			Χ		
	Were LCSs analyzed at the required frequency?			Χ		
	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?			Χ		
	Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used					
	to calculate the SDLs?			Χ		
	Was the LCSD RPD within QC limits?			Χ		
7 0	Matrix spike (MS) and matrix spike duplicate (MSD) data					
	Were the project/method specified analytes included in the MS and MSD?	Χ				
	Were MS/MSD analyzed at the appropriate frequency?	Х				
	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		Х			R07C
	Were MS/MSD RPDs within laboratory QC limits?	<u> </u>	Х			R07D
8 0	Analytical duplicate data					
- 0	Were appropriate analytical duplicates analyzed for each matrix?	Х			\vdash	
	Were analytical duplicates analyzed at the appropriate frequency?	X			\vdash	
	Were RPDs or relative standard deviations within the laboratory QC limits?	<u> </u>	Х		\vdash	R08C
9 0	Method quantitation limits (MQLs):	1			\vdash	
<u> </u>	Are the MQLs for each method analyte included in the laboratory data package?	Х				
	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
	Are unadjusted MQLs and DCSs included in the laboratory data package?	X			\vdash	
10 IO	Other problems/anomalies				\vdash	
טן טו	'	V				D404
	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Х				R10A
	Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the					
	sample results?		Х			R10B
	Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and					
	methods associated with this laboratory data package?	Х		Ì		

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/23/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113063-1
Reviewer Name:	Donnie Combs. for Cathy Upton		

_							
#1	A ²	Description	Yes	No	NA³	NR⁴	ER#
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	Х				
		Were percent RSDs or correlation coefficient criteria met?	Х				
		Was the number of standards recommended in the method used for all analytes?	Х				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	Х				
		Has the initial calibration curve been verified using an appropriate second source standard?	Х				
S2	\circ	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
<u> </u>	O.	Was the CCV analyzed at the method-required frequency?	Х				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		,	X				
22	10	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	^				
S3	0	Mass spectral tuning			V		
		Was the appropriate compound for the method used for tuning?			X		
	10	Were ion abundance data within the method-required QC limits?			Х		
S4	0	Internal standards (IS)			,,		
		Were IS area counts and retention times within the method-required QC limits?			Х		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
		Were data associated with manual integrations flagged on the raw data?	Х				
S6	0	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			Χ		
S7	0	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Χ		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	Х				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		Х			S09A
S10	OI	Method detection limit (MDL) studies					
	•	Was a MDL study performed for each reported analyte?	Х				
		Is the MDL either adjusted or supported by the analysis of DCSs?	Х				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х				
S12	OI	Standards documentation					
	<u> </u>	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х				
S13	ΟI	Compound/analyte identification procedures					
0.10	<u> U </u>	Are the procedures for compound/analyte identification documented?	Х				
S14	О	Demonstration of analyst competency (DOC)	^				
314	Oi	Was DOC conducted consistent with NELAC Chapter 5?	Х				
C4 E		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	Oi	Verification/validation documentation for methods (NELAC Chapter 5)					
		Annual the most hade would be necessarist the data decomposited to 20% to 1 c. 1. 20 to 1 c. 1. 20 to 1 c. 1. 20 to 1	.,				
242	10:	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Х				
516	OI	Laboratory standard operating procedures (SOPs)	.,				
		Are laboratory SOPs current and on file for each method performed?	X	<u> </u>			
	1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required research.		tems	;		
		identified by the letter "S" should be retained and made available upon request for the appropriate retention period.					
		O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
		NA = Not applicable;					
	4.	NR = Not reviewed;					
	5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No		- 1			

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Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/23/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113063-1
Reviewer Name:	Donnie Combs, for Cathy Upton		

ER # ¹	Description	
Method 6010B: 600-113192-A-10-C MS/MSD failed the recovery criteria for the following analyte(s): Antimony. Matrix interference Method 6010B: 600-113192-A-10-D MSD ^5 failed the recovery criteria for the following analyte(s):Lead. Matrix interference is so		
R07D Method 6010B: 600-113192-A-10-D MSD ^5 failed the RPD criteria for the following analyte(s): Lead.		
R08C	Method 6010B: 600-113192-A-10-B DU ^5 failed the RPD criteria for the following analyte(s): Lead.	
R10A	Method 6010B: Since the chain of custody only requested As, Pb and Sb, these are the only analytes reported in the method blank and DUPs.	
R10B	Method 6010B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-113063-1 and 600-113063-7. Elevated reporting limits (RLs) are provided.	
S09A	Method 6010B: The serial dilution performed for the following sample(s) associated with batch 165242 was outside control limits for Lead (27%): 600-113192-10 SD. See attached.	
1. 2. 3.	identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable;	
4. 5.	NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).	

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TestAmerica Houston

Detection Check Standard

Matrix:

Solid SW-846 6010B & SW-846 6010C SW-846 3050B Method:

Prep Method: Date Analyzed: 2/10/2015 600-104865 Job #: TALS Batch: 155745 Units: mg/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Ag	Thermo6500	0.119	0.200	0.330	0.4
Al	Thermo6500	0.300	0.500	0.510	25
As	Thermo6500	0.218	0.500	0.435	1
В	Thermo6500	0.386	0.600	0.585	20
Ва	Thermo6500	0.030	0.030	0.500	1
3e	Thermo6500	0.015	0.020	0.020	0.25
Ca	Thermo6500	0.864	2.500	3.305	100
Cd	Thermo6500	0.026	0.050	0.055	0.25
Co	Thermo6500	0.068	0.100	0.095	0.5
Or	Thermo6500	0.051	0.100	0.145	0.5
Cu	Thermo6500	0.174	0.500	0.430	0.5
-e	Thermo6500	2.534	4.000	5.370	20
<	Thermo6500	10.999	12.000	15.950	100
_i	Thermo6500	0.008	0.010	0.120	10
Mg	Thermo6500	1.921	3.000	4.500	100
Mn	Thermo6500	0.038	0.050	0.070	1.5
Мо	Thermo6500	0.136	0.350	0.400	0.5
Va	Thermo6500	0.886	2.400	7.500	100
Ni	Thermo6500	0.117	0.150	0.140	1
Pb	Thermo6500	0.105	0.200	0.245	0.5
Sb	Thermo6500	0.232	0.450	0.905	2.5
Se	Thermo6500	0.259	0.500	0.560	2
Si	Thermo6500	0.117	0.270	0.355	10
Sn	Thermo6500	0.087	0.150	0.075	1
Sr	Thermo6500	0.003	0.005	1.020	0.25
Гі	Thermo6500	0.015	0.030	0.050	0.5
П	Thermo6500	0.277	0.700	0.660	1.5
V	Thermo6500	0.079	0.150	0.125	0.5
Zn	Thermo6500	0.108	0.200	0.315	1.5

DCS = Detection Check Standard MQL = Method Quantitation Limit

Page 1 of 1

Case Narrative

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-1

Job ID: 600-113063-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-113063-1

Comments

No additional comments.

Receipt

The samples were received on 6/10/2015 10:31 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9° C.

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Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-113063-1	2015-SDA-3C 0-0.5	Solid	06/09/15 09:45	6/10/15 10:31
600-113063-4	ECO-8C 0-0.5	Solid	06/09/15 09:55 06	6/10/15 10:31
600-113063-7	ECO-8D 0-0.5	Solid	06/09/15 10:55 06	6/10/15 10:31

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Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-SDA-3C 0-0.5

Lab Sample ID: 600-113063-1 Date Collected: 06/09/15 09:45 Matrix: Solid

Date Received: 06/10/15 10:31

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23	1.0	1.0 %			06/11/15 18:02	1
Percent Solids	77	1.0	1.0 %			06/11/15 18:02	1

Client Sample ID: 2015-SDA-3C 0-0.5 Lab Sample ID: 600-113063-1

Date Collected: 06/09/15 09:45

Matrix: Solid Date Received: 06/10/15 10:31 Percent Solids: 77.1

Method: 6010B - Metals (ICP)								
Analyte	Result Qualifie	er MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.21 J	2.95	0.274	mg/Kg	\	06/19/15 15:55	06/22/15 15:41	1
Arsenic	10.3	1.18	0.257	mg/Kg	≎	06/19/15 15:55	06/22/15 15:41	1

Method: 6010B - Metals (ICP) - DL Analyte SDL Unit Result Qualifier MQL (Adj) Prepared Analyzed Dil Fac 2.95 0.619 mg/Kg 06/19/15 15:55 06/22/15 16:59 Lead 205

Client Sample ID: ECO-8C 0-0.5 Lab Sample ID: 600-113063-4

Date Collected: 06/09/15 09:55 Date Received: 06/10/15 10:31

General Chemistry Dil Fac Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Analyzed **Percent Moisture** 21 1.0 1.0 % 06/11/15 18:02 **Percent Solids 79** 1.0 1.0 % 06/11/15 18:02

Lab Sample ID: 600-113063-4 Client Sample ID: ECO-8C 0-0.5

Date Collected: 06/09/15 09:55

Matrix: Solid Date Received: 06/10/15 10:31 Percent Solids: 79.3

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.37	J	3.15	0.292	mg/Kg	<u> </u>	06/19/15 15:55	06/22/15 15:43	1
Arsenic	11.0		1.26	0.275	mg/Kg	₩	06/19/15 15:55	06/22/15 15:43	1
Lead	182		0.630	0.132	mg/Kg	₽	06/19/15 15:55	06/22/15 15:43	1

Client Sample ID: ECO-8D 0-0.5 Lab Sample ID: 600-113063-7

Date Collected: 06/09/15 10:55 Date Received: 06/10/15 10:31

General Chemistry Analyte	Result Qu	ualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23		1.0	1.0	%			06/11/15 18:02	1
Percent Solids	77		1.0	1.0	%			06/11/15 18:02	1

Client Sample ID: ECO-8D 0-0.5 Lab Sample ID: 600-113063-7

Date Collected: 06/09/15 10:55 **Matrix: Solid** Date Received: 06/10/15 10:31 Percent Solids: 76.5

Method: 6010B - Metals (ICP)								
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.432 J	3.14	0.291	mg/Kg	<u> </u>	06/19/15 15:55	06/22/15 15:46	1

TestAmerica Houston

Matrix: Solid

Matrix: Solid

Client Sample Results

Client: Golder Associates Inc.

Date Collected: 06/09/15 10:55

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: ECO-8D 0-0.5

TestAmerica Job ID: 600-113063-1

Lab Sample ID: 600-113063-7

Matrix: Solid

Date Received: 06/10/15 10:31 Percent Solids: 76.5

Method: 6010B - Metals (ICP) (Continued) Analyte Result Qualifier MQL (Adi) SDL Unit D Prepared Analyzed D										
	Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac		
	Arsenic	12.9	1.26	0.274 mg/Kg		06/19/15 15:55	06/22/15 15:46	1		
	Method: 6010B - Metals (ICP) - I	DL								

Method: 6010B - Metals (ICP) -	·DL							
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	27.0	3.14	0.660	mg/Kg		06/19/15 15:55	06/22/15 17:01	5

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 600-113063-1

Qualifiers

Metals

Qualifier	Qualifier Description	
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.	
F	Duplicate RPD exceeds the control limit	
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.	
N2	RPD of the MS and MSD exceeds the control limits	
U	Analyte was not detected at or above the SDL.	

Glossary

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP)

Lab Sample ID: LCSSRM 600-165116/2-A

Lab Sample ID: MB 600-165116/1-A

Matrix: Solid Analysis Batch: 165242 **Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 165116**

•	MB	MB						•	
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		06/19/15 15:55	06/22/15 15:33	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		06/19/15 15:55	06/22/15 15:33	1
Lead	0.105	U	0.500	0.105	mg/Kg		06/19/15 15:55	06/22/15 15:33	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 165242	Spike	LCSSRM	LCSSRM				Prep Batch: 165116 %Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Antimony	108	106.7		mg/Kg		98.8	0.9 - 214.
Arsenic	151	144.5		mg/Kg		95.7	8 80.8 - 119.
Cadmium	152	141.4		mg/Kg		93.0	9 81.6 - 117.
							8
Lead	254	232.8		mg/Kg		91.7	81.5 - 120. 9
Selenium	162	152.9		mg/Kg		94.4	77.2 - 122.
							2

Lab Sample ID: 600-113192-A-10-C MS

Matrix: Solid

Matrix: Solid

Analysis Batch: 165242

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 165116

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	0.480	J	59.1	30.82	N1	mg/Kg	₽	51	75 - 125	
Arsenic	9.74		59.1	62.20		mg/Kg	☼	89	75 - 125	
Selenium	0.300	U	59.1	48.01		mg/Kg	₩	81	75 - 125	

Lab Sample ID: 600-113192-A-10-D MSD

Matrix: Solid

Analysis Batch: 165242

Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Prep Batch: 165116

7 many one Datem 1002 12												
_	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Antimony	0.480	J	56.9	28.57	N1	mg/Kg	\	49	75 - 125	8	20	
Arsenic	9.74		56.9	59.60		mg/Kg	₽	88	75 - 125	4	20	
Selenium	0.300	U	56.9	45.35		mg/Kg	₽	80	75 - 125	6	20	

Lab Sample ID: 600-113192-A-10-B DU

Matrix: Solid

Analysis Batch: 165242

Client Sample ID: Duplicate Prep Type: Total/NA

Prep Batch: 165116

	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Antimony	0.480	J	0.4717	J	mg/Kg	<u> </u>		20
Arsenic	9.74		9.689		mg/Kg	₩	0.5	20

QC Sample Results

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-1

75 - 125

75 - 125

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117

57

Method: 6010B - Metals (ICP) (Continued)

40.8

40.8

Lab Sample ID: 600-113192-A-10-B DU ^5

Matrix: Solid

Lead - DL

Lead - DL

Analysis Batch: 165206

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 165116
DU DU RPD

mg/Kg

mg/Kg

Sample
AnalyteSample
Result
LeadDU
Result
40.8DU
Result
Qualifier
28.91Unit
FD
mg/KgRPD
RPD
mg/KgLimit
RPD
Mg/Kg

Method: 6010B - Metals (ICP) - DL

Lab Sample ID: 600-113192-A-10-C MS ^5 Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 165206 Prep Batch: 165116** Sample Sample Spike MS MS %Rec. Result Qualifier Limits Analyte Added Result Qualifier Unit %Rec D ₩ Cadmium - DL 0.348 J 29.5 31.34 105 75 - 125 mg/Kg

110.0

73.52 N1 N2

59.1

56.9

Lab Sample ID: 600-113192-A-10-D MSD ^5 Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 165206 Prep Batch: 165116** Sample Sample Spike MSD MSD %Rec. **RPD** Analyte **Result Qualifier** Added Result Qualifier Unit D %Rec Limits RPD Limit ₩ Cadmium - DL 0.348 J 28.5 29.97 104 75 - 125 4 20 mg/Kg

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8-IN ICP-AES AND ICP-MS SERIAL DILUTIONS METALS

Lab ID: 600-113192-A-10-A SD ^5

SDG No:

Lab Name: TestAmerica Houston Job No: 600-113063-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Samp Result (I)	le C	Serial Dilution Result (S)	С	% Difference	Q	Method
Antimony	0.480	J	1.35	U	NC		6010B
Arsenic	9.74		11.73		NC		6010B
Cadmium	1.18		0.4995	J	NC		6010B
Lead	33.2		42.07		27	*	6010B
Selenium	0.300	U	1.50	U	NC		6010B

 $\hbox{\it Calculations are performed before rounding to avoid round-off errors in calculated results.}$

Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-1

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method	
Antimony	2.50	0.232	mg/Kg	6010B	
Arsenic	1.00	0.218	mg/Kg	6010B	
Lead	0.500	0.105	mg/Kg	6010B	

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

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QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-1

Metals

Prep Batch: 165116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113063-1	2015-SDA-3C 0-0.5	Total/NA	Solid	3050B	_
600-113063-1 - DL	2015-SDA-3C 0-0.5	Total/NA	Solid	3050B	
600-113063-4	ECO-8C 0-0.5	Total/NA	Solid	3050B	
600-113063-7	ECO-8D 0-0.5	Total/NA	Solid	3050B	
600-113063-7 - DL	ECO-8D 0-0.5	Total/NA	Solid	3050B	
600-113192-A-10-B DU	Duplicate	Total/NA	Solid	3050B	
600-113192-A-10-B DU ^5	Duplicate	Total/NA	Solid	3050B	
600-113192-A-10-C MS	Matrix Spike	Total/NA	Solid	3050B	
600-113192-A-10-C MS ^5 -	Matrix Spike	Total/NA	Solid	3050B	
600-113192-A-10-D MSD	Matrix Spike Duplicate	Total/NA	Solid	3050B	
600-113192-A-10-D MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3050B	
LCSSRM 600-165116/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-165116/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 165206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113063-1 - DL	2015-SDA-3C 0-0.5	Total/NA	Solid	6010B	165116
600-113063-7 - DL	ECO-8D 0-0.5	Total/NA	Solid	6010B	165116
600-113192-A-10-B DU ^5	Duplicate	Total/NA	Solid	6010B	165116
600-113192-A-10-C MS ^5 -	Matrix Spike	Total/NA	Solid	6010B	165116
600-113192-A-10-D MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	165116

Analysis Batch: 165242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113063-1	2015-SDA-3C 0-0.5	Total/NA	Solid	6010B	165116
600-113063-4	ECO-8C 0-0.5	Total/NA	Solid	6010B	165116
600-113063-7	ECO-8D 0-0.5	Total/NA	Solid	6010B	165116
600-113192-A-10-B DU	Duplicate	Total/NA	Solid	6010B	165116
600-113192-A-10-C MS	Matrix Spike	Total/NA	Solid	6010B	165116
600-113192-A-10-D MSD	Matrix Spike Duplicate	Total/NA	Solid	6010B	165116
LCSSRM 600-165116/2-A	Lab Control Sample	Total/NA	Solid	6010B	165116
MB 600-165116/1-A	Method Blank	Total/NA	Solid	6010B	165116

General Chemistry

Analysis Batch: 164478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113063-1	2015-SDA-3C 0-0.5	Total/NA	Solid	Moisture	
600-113063-4	ECO-8C 0-0.5	Total/NA	Solid	Moisture	
600-113063-7	ECO-8D 0-0.5	Total/NA	Solid	Moisture	

TestAmerica Houston

6/24/2015

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Lab Chronicle

Client: Golder Associates Inc.

Date Collected: 06/09/15 09:45

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-SDA-3C 0-0.5

TestAmerica Job ID: 600-113063-1

Lab Sample ID: 600-113063-1

Matrix: Solid

Date Received	: 06/10/15 <i>′</i>	10:31						P	ercent S	olids: 77.1	
	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Prep	3050B			1.10 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU	
Total/NA	Analysis	6010B		1	1 10 a	50 ml	165242	06/22/15 15:41	DCI	TAL HOU	

Total/NA 3050B DL 1.10 g 50 mL 165116 06/19/15 15:55 NER TAL HOU Prep Total/NA Analysis 6010B DL 5 1.10 g 50 mL 165206 06/22/15 16:59 DCL TAL HOU Total/NA Analysis Moisture 1 164478 06/11/15 18:02 MJB TAL HOU

Client Sample ID: ECO-8C 0-0.5 Lab Sample ID: 600-113063-4

 Date Collected: 06/09/15 09:55
 Matrix: Solid

 Date Received: 06/10/15 10:31
 Percent Solids: 79.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.00 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.00 g	50 mL	165242	06/22/15 15:43	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164478	06/11/15 18:02	MJB	TAL HOU

Client Sample ID: ECO-8D 0-0.5 Lab Sample ID: 600-113063-7

Date Collected: 06/09/15 10:55

Date Received: 06/10/15 10:31

Matrix: Solid
Percent Solids: 76.5

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	165242	06/22/15 15:46	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.04 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.04 g	50 mL	165206	06/22/15 17:01	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164478	06/11/15 18:02	MJB	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-1

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223	10-31-15
The following analyte	s are included in this repo	rt, but certification is	not offered by the go	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	е	
Moisture		Solid	Percei	nt Moisture	
Moisture		Solid	_	nt Solids	

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Lab PM: Upton, Cathy L E-Mail: cathy, upton@testamericainc.com 8335 717 (258) Jud Sag X Housion, TX 77040 Phone (713) 690-444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica Houston

6310 Rothway Street

THE TATE OF THE STANDARD OF THE STANDARD SET O

0.000 (0.1.) XB 1 (1.1.) 0.00 (0.1.) 0.001										_	
Client Information	Sampler Luck &) × 50	Lab PM Upton	Lab PM; Upton, Cathy L			Carrier Tracking No(s)	j No(s).	COC No: 600-36678-12035.	-12035.1	
Client Contact Anne Faeth-Boyd	Phone: (831)	8995 91h	E-Mail: cathy.	upton@tes	E-Mail: cathy.upton@testamericainc.com	m cx			Page 2 Page 2	<u>ن</u> ق	
Company: Golder Associates Inc						Analysis Pagmastad	Guestad				
Address:	Due Date Requested:		.3	T in	Ŀ		Name of the last	f	Preservation Codes	n Codes:	
820 South Main Street Suite 100				J	- L CC	Accepted w	15 E		A-HC		a de se
Ony. St. Charles	TAT Requested (days):		Anne.						B - NaOH C - Zn Acetatr		one sNaO2
State, Zip MO, 63301		10 Days							D - Nitric Acid		a204S a2SO3
Phone: 636-724-9191	PO#. Purchase Order Requested	sted			48 'e		-		F - MeOH G - Amchior H - Ascorbin	3	R - Na2S2SO3 S - H2SO4 T - TSD Dodecabutrate
Email afaeth@golder.com	#OM			løj	S 'qd 'i					į	cetone CAA
Project Name Exide Recycling Center, Frisco TX	Project #. 60006523		30,71	40 S			₩		(alnej L-EDA	≱ <u>-</u> 2	W - ph 4-5 Z - other (specify)
Site. Exide Recycling Center, Frisco TX	#MOSS		, , , , , , , , , , , , , , , , , , ,	A) dis					oo of on		
	}	Sample	Ī	M\&M:n M\\$M:n Diegraf	(WOD) e	T (GOM)			Jedůlh		
Sample identification	Sample Date Time	d)	_	(i)ofija9			.92 <u>ફ</u>			Special Instructions/Note:	ijons/Note:
		V	Thronia.	2	2	A	2				
2015-518-6A 6'-8'	6/9/15 1405	1	Solid		×		×				
2015-578-63 1-2	61915 145	9 o	Solid	Z	×		×				
2015-578-63 2-4)	ŋ	N piloS		-		- Addison		ا المالح		
2015-518-6B 4-6	→	ŋ	Solid		V		-2		Part S		
2015-518-60 0.75'-2'	द्धीर म	35 G	Solid	×	$\overline{\mathbf{x}}$		×		USW/SM		ip cluded.
1-15 - 518 - 51x	- California	9	Solid		\$10 km		*******		, pol		
12-578-6C 4'-6'	Ď	ອ	N pilos				1				
DVP-03	[[FI 15] -	ŋ	Solid				×				
	na)	၁	Solid								
e.		9	Solid		:						
		ŋ	Water	$\overline{}$					2, 7		
Possible Hazard Identification Non-Hazard Flammable Skin Initant Poison B	Juknown	Radiological		Sample	le Disposal (A 1 Return To Client	fee may be a t	assessed if sar Disposal By Lab	mples are re	Sample Disposal (A fee may be assessed if samples are retained longer than 1 mohth) Return To Client Disposal By Lab Mont	in 1 month) Months) ths
ested: I, II, IV, Other (specify))	,	Special I	nstructions/Q	Requiren	l				
Empty Kit Relinquished by:	Date:		<u>;</u>	Time:			Method of	Method of Shipment			
Relinquishesoy Jah Sonlixi F	Date/Time: 6/5/15	(Jao	Company Golder		Receiped by //				(5 103	Comoan)	Z
Reinquished by.	Date/Time;		Company	Received) }		Date/Time	<u>.</u>	Company	lan'y
Relinquished by.	Date/Time		Company	Recei	Received by:			Date/Time.	-	Company	suny.
Custody Seals Intact. Custody Seal No.: A Yes A No	-			Cooler	Temperature(s	Cooler Temperature(s) °C and Other Remarks	marks			-	
				-						-	

TestAmerica[,]Houston

Loc: 600 113063

THE LEADER IN ENVIRONMENTAL TESTING

Sam Checklist

		Date/Time Received:	Col	de s	, '15 JUN 10 10:
JOB NUMBER:		CLIENT:		ao 1	
UNPACKED BY:		CARRIER/DRIVER:	1	<u>\</u>	
Custody Seal Prese	nt: YES NO	Number of Coolers R	eceived:		
Cooler ID	Y / N .Y Y / N Y	Observed Temp Blank (°C) I N I N I N I N I N I N I N I N I N I	Therm ID	Them CF	Corrected Temp
CF = correction factor		1 N		<u> </u>	
Samples received of	on ice? YES NC				
LABORATORY PF Base samples are>	RESERVATION OF SAME		NO > <ph 2;<="" td=""><td>∏YES</td><td>□ио</td></ph>	∏YES	□ио
LABORATORY PF Base samples are>	RESERVATION OF SAME	PLES REQUIRED:	,		□ио
LABORATORY PF Base samples are> pH paper Lot#	RESERVATION OF SAME	PLES REQUIRED: Acid preserved are	,		□ио
LABORATORY PF Base samples are> pH paper Lot# VOA headspace are	RESERVATION OF SAME pH 12: YES NO cceptable (5-6mm): Y	PLES REQUIRED: Acid preserved are	<ph 2:<="" td=""><td>YES</td><td>□NO YES NO</td></ph>	YES	□NO YES NO
LABORATORY PF Base samples are> pH paper Lot# VOA headspace are	RESERVATION OF SAME PH 12: YES NO cceptable (5-6mm): Yes	PLES REQUIRED: Acid preserved are-	<ph 2:<="" td=""><td>YES</td><td></td></ph>	YES	
LABORATORY PF Base samples are> pH paper Lot#_ VOA headspace ad Did samples mee	RESERVATION OF SAME PH 12: YES NO cceptable (5-6mm): Yes	PLES REQUIRED: Acid preserved are-	<ph 2:<="" td=""><td>YES</td><td></td></ph>	YES	
LABORATORY PF Base samples are> pH paper Lot#_ VOA headspace ad Did samples mee	RESERVATION OF SAME PH 12: YES NO cceptable (5-6mm): Yes	PLES REQUIRED: Acid preserved are-	<ph 2:<="" td=""><td>YES</td><td></td></ph>	YES	
LABORATORY PF Base samples are> pH paper Lot#_ VOA headspace ad Did samples mee	RESERVATION OF SAME PH 12: YES NO cceptable (5-6mm): Yes	PLES REQUIRED: Acid preserved are-	<ph 2:<="" td=""><td>YES</td><td></td></ph>	YES	
LABORATORY PF Base samples are> pH paper Lot#_ VOA headspace ad Did samples mee	RESERVATION OF SAME PH 12: YES NO cceptable (5-6mm): Yes	PLES REQUIRED: Acid preserved are-	<ph 2:<="" td=""><td>YES</td><td></td></ph>	YES	

Login Sample Receipt Checklist

Client: Golder Associates Inc. Job Number: 600-113063-1

Login Number: 113063 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Creator: Cratton, Tommie 5		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-113063-3

Client Project/Site: Exide Recycling Center, Frisco TX

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 6/17/2015 5:05:03 PM

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

····· Links ·····

Review your project results through
Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

This data package is for i	TestAmerica Houston	job number 600-1	13063-3 and c	consists of

- ☑ R1 Field chain-of-custody documentation;
- ☑ R2 Sample identification cross-reference;
- ☑ R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- ☑ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☑ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☐ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

Official Title (printed)

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Jeanette Castillo, for Cathy Upton	Jeanith Castillo	6/17/2015
Name (printed)	Signature	Date
Project Manager I		

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/17/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113063-3
Reviewer Name:	Jeanette Castillo, for Cathy Upton		

# ¹ A ²	Description	Yes	No	NA ³	NR ⁴	ER#
R1 OI	Chain-of-custody (C-O-C)					
-	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Χ				
Ī	Were all departures from standard conditions described in an exception report?	Χ				
2 OI	Sample and quality control (QC) identification					
	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Χ				
ľ	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Χ				
	Test reports					
	Were all samples prepared and analyzed within holding times?	Χ				
	Other than those results < MQL, were all other raw values bracketed by calibration standards?	Χ				
	Were calculations checked by a peer or supervisor?	Χ				
	Were all analyte identifications checked by a peer or supervisor?	Χ				
	Were sample detection limits reported for all analytes not detected?	X				
	Were all results for soil and sediment samples reported on a dry weight basis?	X				
	Were % moisture (or solids) reported for all soil and sediment samples?	X				
	Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Х		
	If required for the project, are TICs reported?			X		
	Surrogate recovery data					
	Were surrogates added prior to extraction?	Х				
	Were surrogates added prior to extraction? Were surrogate percent recoveries in all samples within the laboratory QC limits?	^	Х			R04B
	Test reports/summary forms for blank samples		^			NU4D
		Х				
	Were appropriate type(s) of blanks analyzed?					
	Were blanks analyzed at the appropriate frequency?	Х	-			
	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
	procedures?	X				
	Were blank concentrations < MQL?	Χ				
	Laboratory control samples (LCS):					
	Were all COCs included in the LCS?	Χ				
	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Χ				
	Were LCSs analyzed at the required frequency?	Χ				
	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Χ				
	Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used					
L	to calculate the SDLs?	Χ				
	Was the LCSD RPD within QC limits?	Χ				
7 OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
•	Were the project/method specified analytes included in the MS and MSD?	Χ				
ľ	Were MS/MSD analyzed at the appropriate frequency?	Χ				
ľ	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	Χ				
	Were MS/MSD RPDs within laboratory QC limits?		Χ			R07D
	Analytical duplicate data					
	Were appropriate analytical duplicates analyzed for each matrix?			Х		
	Were analytical duplicates analyzed at the appropriate frequency?			Х		
	Were RPDs or relative standard deviations within the laboratory QC limits?			Х		
	Method quantitation limits (MQLs):			,,		
	Are the MQLs for each method analyte included in the laboratory data package?	Х				
	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
	Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
	Other problems/anomalies		-		\vdash	
	•	V	-			
	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Х	-			
	Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the	١				
	sample results?	Х				
	Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and					
	methods associated with this laboratory data package?	Χ				
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required repo	ort(s). I	tems			

identified by the letter "8" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "5" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/17/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113063-3
Reviewer Name:	Jeanette Castillo, for Cathy Upton		

# ¹	A ²	Description	Yes	Nο	NA ³	NP ⁴	ER#⁵
# S1		Description Initial calibration (ICAL)	res	NO	NA	INIX	ER#
31	Oi	· ,					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?					
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
	1	Has the initial calibration curve been verified using an appropriate second source standard?	X				
		In the Land Control of the Control o					
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	Х				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
S3	0	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	Х				
		Were ion abundance data within the method-required QC limits?	Х				
S4	0	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
		Were data associated with manual integrations flagged on the raw data?	Х				
S6	0	Dual column confirmation					
	•	Did dual column confirmation results meet the method-required QC?			Χ		
S 7	0	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Χ		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			Х		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions	1				
	1	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	1		Х		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	Х				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	ΟI	Proficiency test reports					
• • •	Ů.	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х				
S12	ΟI	Standards documentation					
	<u> </u>	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х				
C12	О	Compound/analyte identification procedures	^				
010	O.	Are the procedures for compound/analyte identification documented?	X				
S1/	О	Demonstration of analyst competency (DOC)	^				
314	Oi	Was DOC conducted consistent with NELAC Chapter 5?	Х				
		·	X				
C4 E		Is documentation of the analyst's competency up-to-date and on file? Verification/validation documentation for methods (NELAC Chapter 5)	^				
S15	Oi	verification/validation documentation for methods (NELAC Chapter 3)					
		Are all the matheds used to generate the data decrements a confirmation of the little and confirmation.					
040	<u> </u>	Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
516	OI	Laboratory standard operating procedures (SOPs)		—			
	_	Are laboratory SOPs current and on file for each method performed?	X				
	1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required		items			
		identified by the letter "S" should be retained and made available upon request for the appropriate retention period					
		O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
	3.	NA = Not applicable;					
	4.	NR = Not reviewed;					
	5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "Ne	o" is checl	red).			

Page 5 of 27 6/17/2015

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/17/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113063-3
Reviewer Name:	Jeanette Castillo, for Cathy Upton		

ER # ¹	Description
R04B	Method 8260B: Surrogate recovery for the following sample(s) was outside control limits: 600-113063-10 and 600-113063-13. Re-analysis was performed with concurring results. The second set of data has been reported.
R07D	Method 8260B: 600-113063-16 MSD failed the RPD criteria for the following analyte(s): Benzene.
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
	identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3.	NA = Not applicable;
4.	NR = Not reviewed;
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Detection Check Standard TestAmerica Houston

 Matrix:
 Solid

 Method:
 8260B

 Prep Method:
 5030B

 Date Analyzed:
 1/12/2015

 Job #:
 600-104877

 TALS Batch:
 153484

 Units:
 ug/Kg

1,1,1,2-Trichloroethane	Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1=Trichloroethane						
1.1.2.2-Tetrachloroethane CHVOAMS09 0.870 2.500 4.354 5 1.1.2-Trichloro-1,2.2-trifiluroethane CHVOAMS09 1.440 2.500 3.689 40 1.1.1-Chrichloroethane CHVOAMS09 0.730 2.500 3.264 5 1.1-Dichloroethane CHVOAMS09 0.870 2.500 3.204 5 1.1-Dichloropthane CHVOAMS09 1.220 2.500 4.430 5 1,1-Dichloropthane CHVOAMS09 1.220 2.500 4.430 5 1,1-Dichloropthane CHVOAMS09 1.810 2.500 3.041 5 1,2,3-Trichlorobenzene CHVOAMS09 1.310 2.500 4.311 5 1,2,3-Trichlorobenzene CHVOAMS09 1.820 2.500 4.549 5 1,2,2-Trichlorobenzene CHVOAMS09 1.920 2.500 4.578 5 1,2-Dichlorobenzene CHVOAMS09 0.920 2.500 4.578 5 1,2-Dichlorobenzene CHVOAMS09 0.900 2.500 <td< td=""><td>1 1 1</td><td></td><td></td><td></td><td></td><td></td></td<>	1 1 1					
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1,4-Dioxane CHVOAMS09 62.070 100.000 80.080 500 2,2-Dichloropropane CHVOAMS09 1.820 2.500 2.622 5 2-Butanone (MEK) CHVOAMS09 1.900 5.000 8.856 10 2-Chloro-1,3-butadiene CHVOAMS09 2.710 5.000 6.351 5 2-Chloroethyl vinyl ether CHVOAMS09 0.98 5 7.001 10 2-Chlorotoluene CHVOAMS09 0.680 2.500 0.217 5 2-Hexanone CHVOAMS09 1.010 5.000 7.107 10 2-Hexanone CHVOAMS09 10.000 50.000 7.994 50 2-Nitropropane CHVOAMS09 1.390 2.500 8.933 5 3-Chloro-1-						
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2-Chloroethyl vinyl ether CHVOAMS09 0.98 5 7.001 10 2-Chlorotoluene CHVOAMS09 0.680 2.500 0.217 5 2-Hexanone CHVOAMS09 1.010 5.000 7.107 10 2-Methyl-2-propanol CHVOAMS09 10.000 50.000 7.994 50 2-Nitropropane CHVOAMS09 24.290 5.000 8.933 5 3-Chloro-1-propene CHVOAMS09 1.390 2.500 4.295 5 4-Chlorotoluene CHVOAMS09 1.390 2.500 4.401 5 4-Isopropyltoluene CHVOAMS09 1.020 2.500 5.730 5 4-Methyl-2-pentanone (MIBK) CHVOAMS09 1.470 5.000 5.441 10 Acetonitrile CHVOAMS09 1.390 100.000 197.413 10 Acrolein CHVOAMS09 1.390 100.000 197.413 10 Acrolonitrile CHVOAMS09 5.820 25.000 26.663 25	·	CHVOAMS09		5.000		
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2-Methyl-2-propanol CHVOAMS09 10.000 50.000 7.994 50 2-Nitropropane CHVOAMS09 24.290 5.000 8.933 5 3-Chloro-1-propene CHVOAMS09 1.390 2.500 4.295 5 4-Chlorotoluene CHVOAMS09 0.830 2.500 4.401 5 4-Isopropyltoluene CHVOAMS09 1.020 2.500 5.730 5 4-Methyl-2-pentanone (MIBK) CHVOAMS09 1.470 5.000 5.441 10 Acetone CHVOAMS09 1.660 25.000 24.903 10 Acetonitrile CHVOAMS09 1.390 100.000 197.413 10 Acrolein CHVOAMS09 6.230 12.500 15.141 25 Acrylonitrile CHVOAMS09 5.820 25.000 26.663 25 Benzene CHVOAMS09 0.630 2.500 3.098 5 Beromobenzene CHVOAMS09 0.990 2.500 4.446 5 Bromometh	2-Chlorotoluene	CHVOAMS09	0.680	2.500		5
2-Methyl-2-propanol CHVOAMS09 10.000 50.000 7.994 50 2-Nitropropane CHVOAMS09 24.290 5.000 8.933 5 3-Chloro-1-propene CHVOAMS09 1.390 2.500 4.295 5 4-Chlorotoluene CHVOAMS09 0.830 2.500 4.401 5 4-Isopropyltoluene CHVOAMS09 1.020 2.500 5.730 5 4-Methyl-2-pentanone (MIBK) CHVOAMS09 1.470 5.000 5.441 10 Acetone CHVOAMS09 1.660 25.000 24.903 10 Acetonitrile CHVOAMS09 1.390 100.000 197.413 10 Acrolein CHVOAMS09 6.230 12.500 15.141 25 Acrylonitrile CHVOAMS09 5.820 25.000 26.663 25 Benzene CHVOAMS09 0.630 2.500 3.098 5 Beromobenzene CHVOAMS09 0.990 2.500 4.446 5 Bromometh	2-Hexanone	CHVOAMS09	1.010	5.000	7.107	10
3-Chloro-1-propene CHVOAMS09 1.390 2.500 4.295 5 4-Chlorotoluene CHVOAMS09 0.830 2.500 4.401 5 4-Isopropyltoluene CHVOAMS09 1.020 2.500 5.730 5 4-Methyl-2-pentanone (MIBK) CHVOAMS09 1.470 5.000 5.441 10 Acetone CHVOAMS09 1.660 25.000 24.903 10 Acetonitrile CHVOAMS09 1.390 100.000 197.413 10 Acrolein CHVOAMS09 6.230 12.500 15.141 25 Acrylonitrile CHVOAMS09 5.820 25.000 26.663 25 Benzene CHVOAMS09 0.630 2.500 3.098 5 Bernzyl chloride CHVOAMS09 2.140 2.500 5.425 5 Bromoform CHVOAMS09 1.370 2.500 4.162 5 Bromomethane CHVOAMS09 0.830 2.500 3.978 5	2-Methyl-2-propanol		10.000	50.000	7.994	50
3-Chloro-1-propene CHVOAMS09 1.390 2.500 4.295 5 4-Chlorotoluene CHVOAMS09 0.830 2.500 4.401 5 4-Isopropyltoluene CHVOAMS09 1.020 2.500 5.730 5 4-Methyl-2-pentanone (MIBK) CHVOAMS09 1.470 5.000 5.441 10 Acetone CHVOAMS09 1.660 25.000 24.903 10 Acetonitrile CHVOAMS09 1.390 100.000 197.413 10 Acrolein CHVOAMS09 6.230 12.500 15.141 25 Acrylonitrile CHVOAMS09 5.820 25.000 26.663 25 Benzene CHVOAMS09 0.630 2.500 3.098 5 Bernzyl chloride CHVOAMS09 2.140 2.500 5.425 5 Bromoform CHVOAMS09 1.370 2.500 4.162 5 Bromomethane CHVOAMS09 0.830 2.500 3.978 5	2-Nitropropane	CHVOAMS09	24.290	5.000	8.933	5
4-Isopropyltoluene CHVOAMS09 1.020 2.500 5.730 5 4-Methyl-2-pentanone (MIBK) CHVOAMS09 1.470 5.000 5.441 10 Acetone CHVOAMS09 1.660 25.000 24.903 10 Acetonitrile CHVOAMS09 1.390 100.000 197.413 10 Acrolein CHVOAMS09 6.230 12.500 15.141 25 Acrylonitrile CHVOAMS09 5.820 25.000 26.663 25 Benzene CHVOAMS09 0.630 2.500 3.098 5 Benzyl chloride CHVOAMS09 2.140 2.500 5.425 5 Bromobenzene CHVOAMS09 0.990 2.500 4.446 5 Bromomethane CHVOAMS09 0.830 2.500 2.976 10 Butadiene CHVOAMS09 1.250 2.500 3.978 5	3-Chloro-1-propene	CHVOAMS09	1.390			5
4-Methyl-2-pentanone (MIBK) CHVOAMS09 1.470 5.000 5.441 10 Acetone CHVOAMS09 1.660 25.000 24.903 10 Acetonitrile CHVOAMS09 1.390 100.000 197.413 10 Acrolein CHVOAMS09 6.230 12.500 15.141 25 Acrylonitrile CHVOAMS09 5.820 25.000 26.663 25 Benzene CHVOAMS09 0.630 2.500 3.098 5 Benzyl chloride CHVOAMS09 2.140 2.500 5.425 5 Bromobenzene CHVOAMS09 0.990 2.500 4.446 5 Bromoform CHVOAMS09 1.370 2.500 4.162 5 Bromomethane CHVOAMS09 0.830 2.500 3.978 5	4-Chlorotoluene	CHVOAMS09	0.830	2.500	4.401	5
Acetone CHVOAMS09 1.660 25.000 24.903 10 Acetonitrile CHVOAMS09 1.390 100.000 197.413 10 Acrolein CHVOAMS09 6.230 12.500 15.141 25 Acrylonitrile CHVOAMS09 5.820 25.000 26.663 25 Benzene CHVOAMS09 0.630 2.500 3.098 5 Benzyl chloride CHVOAMS09 2.140 2.500 5.425 5 Bromobenzene CHVOAMS09 0.990 2.500 4.446 5 Bromoform CHVOAMS09 1.370 2.500 4.162 5 Bromomethane CHVOAMS09 0.830 2.500 2.976 10 Butadiene CHVOAMS09 1.250 2.500 3.978 5	4-Isopropyltoluene	CHVOAMS09	1.020	2.500	5.730	5
Acetonitrile CHVOAMS09 1.390 100.000 197.413 10 Acrolein CHVOAMS09 6.230 12.500 15.141 25 Acrylonitrile CHVOAMS09 5.820 25.000 26.663 25 Benzene CHVOAMS09 0.630 2.500 3.098 5 Benzyl chloride CHVOAMS09 2.140 2.500 5.425 5 Bromobenzene CHVOAMS09 0.990 2.500 4.446 5 Bromoform CHVOAMS09 1.370 2.500 4.162 5 Bromomethane CHVOAMS09 0.830 2.500 2.976 10 Butadiene CHVOAMS09 1.250 2.500 3.978 5	4-Methyl-2-pentanone (MIBK)	CHVOAMS09	1.470	5.000	5.441	10
Acrolein CHVOAMS09 6.230 12.500 15.141 25 Acrylonitrile CHVOAMS09 5.820 25.000 26.663 25 Benzene CHVOAMS09 0.630 2.500 3.098 5 Benzyl chloride CHVOAMS09 2.140 2.500 5.425 5 Bromobenzene CHVOAMS09 0.990 2.500 4.446 5 Bromoform CHVOAMS09 1.370 2.500 4.162 5 Bromomethane CHVOAMS09 0.830 2.500 2.976 10 Butadiene CHVOAMS09 1.250 2.500 3.978 5	Acetone	CHVOAMS09	1.660	25.000	24.903	10
Acrolein CHVOAMS09 6.230 12.500 15.141 25 Acrylonitrile CHVOAMS09 5.820 25.000 26.663 25 Benzene CHVOAMS09 0.630 2.500 3.098 5 Benzyl chloride CHVOAMS09 2.140 2.500 5.425 5 Bromobenzene CHVOAMS09 0.990 2.500 4.446 5 Bromoform CHVOAMS09 1.370 2.500 4.162 5 Bromomethane CHVOAMS09 0.830 2.500 2.976 10 Butadiene CHVOAMS09 1.250 2.500 3.978 5	Acetonitrile		1.390	100.000	197.413	10
Acrylonitrile CHVOAMS09 5.820 25.000 26.663 25 Benzene CHVOAMS09 0.630 2.500 3.098 5 Benzyl chloride CHVOAMS09 2.140 2.500 5.425 5 Bromobenzene CHVOAMS09 0.990 2.500 4.446 5 Bromoform CHVOAMS09 1.370 2.500 4.162 5 Bromomethane CHVOAMS09 0.830 2.500 2.976 10 Butadiene CHVOAMS09 1.250 2.500 3.978 5	Acrolein					25
Benzene CHVOAMS09 0.630 2.500 3.098 5 Benzyl chloride CHVOAMS09 2.140 2.500 5.425 5 Bromobenzene CHVOAMS09 0.990 2.500 4.446 5 Bromoform CHVOAMS09 1.370 2.500 4.162 5 Bromomethane CHVOAMS09 0.830 2.500 2.976 10 Butadiene CHVOAMS09 1.250 2.500 3.978 5	Acrylonitrile	CHVOAMS09	5.820	25.000	26.663	
Benzyl chloride CHVOAMS09 2.140 2.500 5.425 5 Bromobenzene CHVOAMS09 0.990 2.500 4.446 5 Bromoform CHVOAMS09 1.370 2.500 4.162 5 Bromomethane CHVOAMS09 0.830 2.500 2.976 10 Butadiene CHVOAMS09 1.250 2.500 3.978 5	Benzene					
Bromobenzene CHVOAMS09 0.990 2.500 4.446 5 Bromoform CHVOAMS09 1.370 2.500 4.162 5 Bromomethane CHVOAMS09 0.830 2.500 2.976 10 Butadiene CHVOAMS09 1.250 2.500 3.978 5	Benzyl chloride		2.140			5
Bromoform CHVOAMS09 1.370 2.500 4.162 5 Bromomethane CHVOAMS09 0.830 2.500 2.976 10 Butadiene CHVOAMS09 1.250 2.500 3.978 5	Bromobenzene					
Butadiene CHVOAMS09 1.250 2.500 3.978 5	Bromoform					
Butadiene CHVOAMS09 1.250 2.500 3.978 5	Bromomethane	CHVOAMS09	0.830	2.500	2.976	10
Carbon disulfide CHVOAMS09 0.550 2.500 4.434 10	Butadiene		1.250	2.500	3.978	5
	Carbon disulfide	CHVOAMS09	0.550	2.500	4.434	10

DCS = Detection Check Standard MQL = Method Quantitation Limit

Page 1 of 3

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Detection Check Standard TestAmerica Houston

Matrix: Solid Method: 8260B 5030B **Prep Method:** Date Analyzed: 1/12/2015 Job #: 600-104877 153484 TALS Batch: Units: ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Carbon tetrachloride	CHVOAMS09	1.130	2.500	4.441	5
Chlorobenzene	CHVOAMS09	0.960	2.500	3.969	5
Chlorobromomethane	CHVOAMS09	1.780	2.500	2.961	5
Chlorodibromomethane	CHVOAMS09	0.940	2.500	3.650	5
Chloroethane	CHVOAMS09	1.400	2.500	2.414	10
Chloroform	CHVOAMS09	0.660	2.500	3.114	5
Chloromethane	CHVOAMS09	1.660	2.500	1.975	10
cis-1,2-Dichloroethene	CHVOAMS09	0.830	2.500	3.016	5
cis-1,3-Dichloropropene	CHVOAMS09	0.540	2.500	3.556	5
Cyclohexane	CHVOAMS09	1.920	5.000	1.421	5
Cyclohexanone	CHVOAMS09	134.780	250.000	281.188	250
Dibromomethane	CHVOAMS09	0.750	2.500	2.830	5
Dichlorobromomethane	CHVOAMS09	0.660	2.500	2.853	5
Dichlorodifluoromethane	CHVOAMS09	1.540	2.500	2.238	5
Dichlorofluoromethane	CHVOAMS09	1.000	2.500	2.304	5
Ethyl acetate	CHVOAMS09	2.810	5.000	8.802	5
Ethyl acrylate	CHVOAMS09	10.660	5.000	5.439	10
Ethyl ether	CHVOAMS09	1.950	2.500	2.806	5
Ethyl methacrylate	CHVOAMS09	1.660	2.500	3.654	5
Ethylbenzene	CHVOAMS09	1.020	2.500	3.914	5
Ethylene Dibromide	CHVOAMS09	1.020	2.500	3.749	5
Hexachlorobutadiene	CHVOAMS09	1.130	2.500	4.934	5
Hexane	CHVOAMS09	1.230	2.500	4.596	5
lodomethane	CHVOAMS09	2.500	2.500	4.285	5
Isobutyl alcohol	CHVOAMS09	17.160	62.500	130.592	50
Isooctane	CHVOAMS09	10.000	2.500	3.142	5
Isopropyl ether	CHVOAMS09	1.760	2.500	2.854	5
Methyl methacrylate	CHVOAMS09	2.860	5.000	4.752	10
Methyl tert-butyl ether	CHVOAMS09	1.830	2.500	2.992	5
Methylcyclohexane	CHVOAMS09	1.460	2.500	4.578	5
Methylene Chloride	CHVOAMS09	2.190	2.500	3.707	10
m-Xylene & p-Xylene	CHVOAMS09	1.520	2.500	3.999	5
Naphthalene	CHVOAMS09	2.370	2.500	5.431	10
n-Butyl acetate	CHVOAMS09	2.370	2.500	3.603	5
N-Propylbenzene	CHVOAMS09	0.950	2.500	0.470	5
o-Xylene	CHVOAMS09	1.130	2.500	3.937	5
Pentachloroethane	CHVOAMS09	5.000	5.000	7.550	5
sec-Butylbenzene	CHVOAMS09	0.700	2.500	5.670	5
Styrene	CHVOAMS09	0.710	2.500	5.107	5
tert-Butylbenzene	CHVOAMS09	0.950	2.500	5.617	5
Tetrachloroethene	CHVOAMS09	0.710	2.500	5.418	5
Tetrahydrofuran	CHVOAMS09	5.390	10.000	9.543	5
Toluene	CHVOAMS09	1.380	2.500	3.904	5
trans-1,2-Dichloroethene	CHVOAMS09	1.140	2.500	3.199	5
trans-1,3-Dichloropropene	CHVOAMS09	0.580	2.500	3.617	5
trans-1,4-Dichloro-2-butene	CHVOAMS09	1.900	2.500	3.419	5
Trichloroethene	CHVOAMS09	1.400	2.500	3.140	5

DCS = Detection Check Standard MQL = Method Quantitation Limit

Detection Check Standard TestAmerica Houston

 Matrix:
 Solid

 Method:
 8260B

 Prep Method:
 5030B

 Date Analyzed:
 1/12/2015

 Job #:
 600-104877

 TALS Batch:
 153484

 Units:
 ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Trichlorofluoromethane	CHVOAMS09	0.660	2.500	2.219	10
Vinyl chloride	CHVOAMS09	0.900	2.500	2.121	10
Xylenes, Total	CHVOAMS09	1.130	5.000	7.900	5

6/17/2015

Case Narrative

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-3

Job ID: 600-113063-3

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-113063-3

Comments

No additional comments.

Receipt

The samples were received on 6/10/2015 10:31 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9° C.

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Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-3

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-113063-10	2015-STB-6A 1-2	Solid	06/09/15 14:05 06	6/10/15 10:31
600-113063-11	2015-STB-6A 4-6	Solid	06/09/15 14:05 06	6/10/15 10:31
600-113063-12	2015-STB-6A 6-8	Solid	06/09/15 14:05 06	6/10/15 10:31
600-113063-13	2015-STB-6B 1-2	Solid	06/09/15 14:50 06	6/10/15 10:31
600-113063-16	2015-STB-6C 0.75-2	Solid	06/09/15 14:35 06	6/10/15 10:31
600-113063-19	DUP-03	Solid	06/09/15 00:00 06	6/10/15 10:31

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TestAmerica Job ID: 600-113063-3

Client Sample ID: 2015-STB-6A 1-2

Lab Sample ID: 600-113063-10 Date Collected: 06/09/15 14:05 **Matrix: Solid** Date Received: 06/10/15 10:31 Percent Solids: 88.0

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00124	J	0.00571	0.000720	mg/Kg	\	06/15/15 12:00	06/15/15 16:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		57 - 140				06/15/15 12:00	06/15/15 16:21	1
Dibromofluoromethane	58	Χ	68 - 140				06/15/15 12:00	06/15/15 16:21	1
1,2-Dichloroethane-d4 (Surr)	89		61 - 130				06/15/15 12:00	06/15/15 16:21	1
Toluene-d8 (Surr)	86		50 - 130				06/15/15 12:00	06/15/15 16:21	1

Client Sample ID: 2015-STB-6A 4-6 Lab Sample ID: 600-113063-11

Date Collected: 06/09/15 14:05 **Matrix: Solid** Date Received: 06/10/15 10:31 Percent Solids: 74.9

Analyte	Result Qualifie	er MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000895 U	0.00710	0.000895 mg/Kg	₩	06/14/15 14:17	06/14/15 20:59	1
Surrogate	%Recovery Qualifie	er Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	120	57 - 140			06/14/15 14:17	06/14/15 20:59	1
Dibromofluoromethane	81	68 - 140			06/14/15 14:17	06/14/15 20:59	1
1,2-Dichloroethane-d4 (Surr)	86	61 - 130			06/14/15 14:17	06/14/15 20:59	1
Toluene-d8 (Surr)	86	50 - 130			06/14/15 14:17	06/14/15 20:59	1

Client Sample ID: 2015-STB-6A 6-8 Lab Sample ID: 600-113063-12 Date Collected: 06/09/15 14:05 **Matrix: Solid**

Date Received: 06/10/15 10:31 Percent Solids: 75.8

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00784	U	0.0622	0.00784	mg/Kg	\	06/15/15 12:00	06/15/15 17:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		57 - 140				06/15/15 12:00	06/15/15 17:45	1
Dibromofluoromethane	82		68 - 140				06/15/15 12:00	06/15/15 17:45	1
1,2-Dichloroethane-d4 (Surr)	76		61 - 130				06/15/15 12:00	06/15/15 17:45	1
Toluene-d8 (Surr)	81		50 - 130				06/15/15 12:00	06/15/15 17:45	1

Client Sample ID: 2015-STB-6B 1-2 Lab Sample ID: 600-113063-13

Date Collected: 06/09/15 14:50 **Matrix: Solid** Date Received: 06/10/15 10:31 Percent Solids: 72.8

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000868	U	0.00689	0.000868	mg/Kg	\	06/15/15 12:00	06/15/15 16:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	119		57 - 140				06/15/15 12:00	06/15/15 16:49	1
Dibromofluoromethane	54	Χ	68 - 140				06/15/15 12:00	06/15/15 16:49	1
1,2-Dichloroethane-d4 (Surr)	76		61 - 130				06/15/15 12:00	06/15/15 16:49	1
Toluene-d8 (Surr)	90		50 - 130				06/15/15 12:00	06/15/15 16:49	1

TestAmerica Houston

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Client Sample Results

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX Client Sample ID: 2015-STB-6C 0.75-2 TestAmerica Job ID: 600-113063-3

Lab Sample ID: 600-113063-16

Matrix: Solid Percent Solids: 95.1

Date Collected: 06/09/15 14:35 Date Received: 06/10/15 10:31

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000688	J	0.00530	0.000668	mg/Kg	<u> </u>	06/14/15 14:17	06/14/15 16:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	112		57 - 140				06/14/15 14:17	06/14/15 16:21	1
Dibromofluoromethane	79		68 - 140				06/14/15 14:17	06/14/15 16:21	1
1,2-Dichloroethane-d4 (Surr)	87		61 - 130				06/14/15 14:17	06/14/15 16:21	1
Toluene-d8 (Surr)	80		50 - 130				06/14/15 14:17	06/14/15 16:21	1

Lab Sample ID: 600-113063-19 **Client Sample ID: DUP-03** Date Collected: 06/09/15 00:00

Matrix: Solid Date Received: 06/10/15 10:31 Percent Solids: 91.8

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000692	U	0.00549	0.000692	mg/Kg	\	06/15/15 18:00	06/15/15 21:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	115		57 - 140				06/15/15 18:00	06/15/15 21:55	1
Dibromofluoromethane	73		68 - 140				06/15/15 18:00	06/15/15 21:55	1
1,2-Dichloroethane-d4 (Surr)	100		61 - 130				06/15/15 18:00	06/15/15 21:55	1
Toluene-d8 (Surr)	102		50 - 130				06/15/15 18:00	06/15/15 21:55	1

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 600-113063-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
Χ	Surrogate is outside control limits
U	Analyte was not detected at or above the SDL.
N2	RPD of the MS and MSD exceeds the control limits

Glossary

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Surrogate Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

			Pe	ercent Surre	ogate Reco
		BFB	DBFM	12DCE	TOL
Lab Sample ID	Client Sample ID	(57-140)	(68-140)	(61-130)	(50-130)
600-113063-10	2015-STB-6A 1-2	108	58 X	89	86
600-113063-11	2015-STB-6A 4-6	120	81	86	86
600-113063-12	2015-STB-6A 6-8	109	82	76	81
600-113063-13	2015-STB-6B 1-2	119	54 X	76	90
600-113063-16	2015-STB-6C 0.75-2	112	79	87	80
600-113063-16 MS	2015-STB-6C 0.75-2	133	84	96	87
600-113063-16 MSD	2015-STB-6C 0.75-2	111	70	93	86
600-113063-19	DUP-03	115	73	100	102
LCS 600-164592/4	Lab Control Sample	122	88	87	81
LCS 600-164639/4	Lab Control Sample	112	83	87	87
LCSD 600-164592/5	Lab Control Sample Dup	111	81	76	78
LCSD 600-164639/5	Lab Control Sample Dup	115	91	86	88
MB 600-164592/7	Method Blank	117	73	73	80
MB 600-164639/7	Method Blank	108	88	85	85

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Toluene-d8 (Surr)

TestAmerica Job ID: 600-113063-3

06/14/15 13:48

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-16 Matrix: Solid Analysis Batch: 164592	4592/7					Client Sam	Prep Type: To	
	MB	MB						
Analyte	Result	Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630 mg/Kg			06/14/15 13:48	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene			57 - 140				06/14/15 13:48	1
Dibromofluoromethane	73		68 ₋ 140				06/14/15 13:48	1
1 2-Dichloroethane-d4 (Surr)	73		61 130				06/14/15 13:48	1

Lab Sample ID: LCS 600- Matrix: Solid Analysis Batch: 164592	164592/4					Clier	nt Sai	mple ID	: Lab Control Sample Prep Type: Total/NA
7 maryolo Batom 104002			Spike	LCS	LCS				%Rec.
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene			0.0500	0.05293		mg/Kg		106	70 - 131
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene	122		57 - 140						
Dibromofluoromethane	88		68 - 140						
1,2-Dichloroethane-d4 (Surr)	87		61 - 130						
Toluene-d8 (Surr)	81		50 - 130						

50 - 130

Lab Sample ID: LCSD 60 Matrix: Solid	0-164592/5				(Client Sai	nple	ID: Lak	Control : Prep Ty		
Analysis Batch: 164592			Spike	LCSD	LCSD				%Rec.		RPI
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Benzene			0.0500	0.04815		mg/Kg		96	70 - 131	9	30
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene	111		57 - 140								
Dibromofluoromethane	81		68 - 140								
1,2-Dichloroethane-d4 (Surr)	76		61 - 130								
Toluene-d8 (Surr)	78		50 - 130								

Lab Sample ID: 600-11306 Matrix: Solid Analysis Batch: 164592	63-16 MS					Clie	nt Sa	mple II	D: 2015-STB-6C 0.75-2 Prep Type: Total/NA Prep Batch: 164595
-	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.000688	J	0.0518	0.03922		mg/Kg	<u> </u>	74	70 - 131
	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene	133		57 - 140						
Dibromofluoromethane	84		68 - 140						
1,2-Dichloroethane-d4 (Surr)	96		61 - 130						
Toluene-d8 (Surr)	87		50 - 130						

TestAmerica Job ID: 600-113063-3

Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-11300 Matrix: Solid Analysis Batch: 164592	63-16 MSD					Clie	nt Sa	mple IC	0: 2015-ST Prep Tyl Prep Ba	e: Tot	al/NA
Analysis Baton. 104002	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.000688	J	0.0534	0.05356	N2	mg/Kg	<u>∓</u>	99	70 - 131	31	30
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene	111		57 - 140								
Dibromofluoromethane	70		68 - 140								
1,2-Dichloroethane-d4 (Surr)	93		61 - 130								
Toluene-d8 (Surr)	86		50 - 130								

Matrix: Solid Analysis Batch: 164639	4639/7					Client Sam	Prep Type: To	
•	MB	MB						
Analyte	Result	Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000630	U	0.00500	0.000630 mg/Kg			06/15/15 14:57	1
	MB	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		57 - 140				06/15/15 14:57	1
Dibromofluoromethane	88		68 - 140				06/15/15 14:57	1
1,2-Dichloroethane-d4 (Surr)	85		61 - 130				06/15/15 14:57	1
Toluene-d8 (Surr)	85		50 - 130				06/15/15 14:57	1

Lab Sample ID: LCS 600-7 Matrix: Solid Analysis Batch: 164639	164639/4					Clier	it Sai	mple ID	: Lab Control Samp Prep Type: Total/N
, , , , , , , , , , , , , , , , , , , ,			Spike	LCS	LCS				%Rec.
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene			0.0500	0.05888		mg/Kg		118	70 - 131
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene	112		57 - 140						
Dibromofluoromethane	83		68 - 140						
1,2-Dichloroethane-d4 (Surr)	87		61 - 130						
Toluene-d8 (Surr)	87		50 - 130						

Lab Sample ID: LCSD 600 Matrix: Solid Analysis Batch: 164639)-164639/5				C	Client Sa	mple	ID: Lak	Control Prep Ty		
			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.0500	0.05635		mg/Kg		113	70 - 131	4	30
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene	115		57 - 140								
Dibromofluoromethane	91		68 ₋ 140								
1,2-Dichloroethane-d4 (Surr)	86		61 - 130								
Toluene-d8 (Surr)	88		50 - 130								

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Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
Benzene	0.00500	0.000630	mg/Kg	8260B

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QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-3

GC/MS VOA

Analysis Batch: 164592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113063-11	2015-STB-6A 4-6	Total/NA	Solid	8260B	164595
600-113063-16	2015-STB-6C 0.75-2	Total/NA	Solid	8260B	164595
600-113063-16 MS	2015-STB-6C 0.75-2	Total/NA	Solid	8260B	164595
600-113063-16 MSD	2015-STB-6C 0.75-2	Total/NA	Solid	8260B	164595
LCS 600-164592/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-164592/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 600-164592/7	Method Blank	Total/NA	Solid	8260B	

Prep Batch: 164595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113063-11	2015-STB-6A 4-6	Total/NA	Solid	5030B	
600-113063-16	2015-STB-6C 0.75-2	Total/NA	Solid	5030B	
600-113063-16 MS	2015-STB-6C 0.75-2	Total/NA	Solid	5030B	
600-113063-16 MSD	2015-STB-6C 0.75-2	Total/NA	Solid	5030B	

Analysis Batch: 164639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113063-10	2015-STB-6A 1-2	Total/NA	Solid	8260B	164651
600-113063-12	2015-STB-6A 6-8	Total/NA	Solid	8260B	164651
600-113063-13	2015-STB-6B 1-2	Total/NA	Solid	8260B	164651
600-113063-19	DUP-03	Total/NA	Solid	8260B	164651
LCS 600-164639/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-164639/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 600-164639/7	Method Blank	Total/NA	Solid	8260B	

Prep Batch: 164651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113063-10	2015-STB-6A 1-2	Total/NA	Solid	5030B	
600-113063-12	2015-STB-6A 6-8	Total/NA	Solid	5030B	
600-113063-13	2015-STB-6B 1-2	Total/NA	Solid	5030B	
600-113063-19	DUP-03	Total/NA	Solid	5030B	

Lab Sample ID: 600-113063-10

Client Sample ID: 2015-STB-6A 1-2 Date Collected: 06/09/15 14:05 **Matrix: Solid** Date Received: 06/10/15 10:31 Percent Solids: 88.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.97 g	5 mL	164651	06/15/15 12:00	KLV	TAL HOU
Total/NA	Analysis	8260B		1	4.97 g	5 mL	164639	06/15/15 16:21	KLV	TAL HOU

Client Sample ID: 2015-STB-6A 4-6 Lab Sample ID: 600-113063-11

Date Collected: 06/09/15 14:05 **Matrix: Solid** Date Received: 06/10/15 10:31 Percent Solids: 74.9

	Batch	Batch	D	Dil	Initial	Final	Batch	Prepared	Amalust	Lab
Prep Type Total/NA	Type Prep	Method 5030B	Run	Factor	4.70 g	Amount 5 mL	Number 164595	or Analyzed 06/14/15 14:17	Analyst WS1	TAL HOU
Total/NA	Analysis	8260B		1	4.70 g	5 mL	164592	06/14/15 20:59	WS1	TAL HOU

Client Sample ID: 2015-STB-6A 6-8 Lab Sample ID: 600-113063-12

Date Collected: 06/09/15 14:05 **Matrix: Solid** Date Received: 06/10/15 10:31 Percent Solids: 75.8

	Batch	Batch	Desir	Dil	Initial	Final	Batch	Prepared	A = l = 4	Lab
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			0.53 g	5 mL	164651	06/15/15 12:00	KLV	TAL HOU
Total/NA	Analysis	8260B		1	0.53 g	5 mL	164639	06/15/15 17:45	KLV	TAL HOU

Client Sample ID: 2015-STB-6B 1-2 Lab Sample ID: 600-113063-13

Date Collected: 06/09/15 14:50 **Matrix: Solid**

Date Received: 06/10/15 10:31 Percent Solids: 72.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.98 g	5 mL	164651	06/15/15 12:00	KLV	TAL HOU
Total/NA	Analysis	8260B		1	4.98 g	5 mL	164639	06/15/15 16:49	KLV	TAL HOU

Client Sample ID: 2015-STB-6C 0.75-2 Lab Sample ID: 600-113063-16

Date Collected: 06/09/15 14:35 **Matrix: Solid** Date Received: 06/10/15 10:31 Percent Solids: 95.1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.96 g	5 mL	164595	06/14/15 14:17	WS1	TAL HOU
Total/NA	Analysis	8260B		1	4.96 g	5 mL	164592	06/14/15 16:21	WS1	TAL HOU

Client Sample ID: DUP-03 Lab Sample ID: 600-113063-19

Date Collected: 06/09/15 00:00 **Matrix: Solid** Date Received: 06/10/15 10:31 Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.96 g	5 mL	164651	06/15/15 18:00		TAL HOU
Total/NA	Analysis	8260B		1	4.96 g	5 mL	164639	06/15/15 21:55	KLV	TAL HOU

Lab Chronicle

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-3

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113063-3

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223	10-31-15
Analysis Method	Prep Method	Matrix	Analyt	Α.	
Allarysis Metriod	Fieb Metiloa	IVIALITA	Analyi		

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Chain of Custody Record

N - None
0 - Ashao2
P - Na204S
P - Na204S
R - Na25SSO3
S - H250A
I - TSP Dodecafyddale
V - MCAA
W - ph 4-5 Special Instructions/Note: other (specify) MS/MSD boloded ompany Jompany Sample Disposal (A fee may be assessed if samples are retained longer than 1 mohth)

Return To Client Disposal By Lab Archive For Month COC No: 600-36678-12035. A-HCI.
B-NaOH
C-Zn Acetate
D-Nitric Acid
E-NaHSO4
F-MeOH
G-Anchlor
H-Ascorbic Acid
J-DI Watter
K-EDTA ₽ \leq reservation Š ئے۔ گ چ Page" Page_ Archive For retal Mumber of container's Date/Time. Aethod of Shipment MSA 2002 1-24) Analysis Requested 2 × \Leftarrow Cooler Temperature(s) °C and Other Remarks Special Instructions/QC Requirements 3 e010B - (MOD) e010B- V2, Cd, Pb, Se, Sb 8260B - (MOD) Target Compound List Adronda cathy.upton@testamericainc.com 2010B - (WOD) 2010B- V2' CQ' bp' 29' 2P Received by: Lab PM: Upton, Cathy L E-Mail: Perform MS/MSD (Yes or No) Company G. I cler z z (W=wrater, S=solid, O=waste/oll, Preservation Code: Matrix Solid Solid Solid Solid Solid Solid Water Solid Solid Solid Solid Company Company Type (C=comp, G=grab) Sample 386) Radiological O Ø O ტ Ø ტ Ø Ø O Ø O I. 1 2 2 2 2 2 2 2 X 10 Days 9)7 (268) Po#. |Purchase Order Requested 1435 Sample 1405 3 ţ 6/9/15 Date: TAT Requested (days) Unknown Due Date Requested: Sample Date <u>م</u> ک 5 Project #. 60006523 SSOW# 4 Date/Time: Date/Time Date/Time જ Phone: و، Poison B 5 カーカ Skin Initant 0.75 1 ☐ Non-Hazard ☐ Flammable Skin Infit Deliverable Requested: I, II, III, IV, Other (specify) ر ا 7 **3** Custody Seal No. 1x gues hall Exide Recycling Center, Frisco TX 785-57B-6B 2015-578-63 2015-5TB-6B 2015 - 5TB-6C 75-5TB-6C 820 South Main Street Suite 100 2015-518-6A Possible Hazard Identification 12 - 516 - C Dup-03 Empty Kit Relinquished by: Project Name Exide Recycling Center, Custody Seals Intact Client Information Sample Identification Golder Associates Inc. sfaeth@golder.com Anne Faeth-Boyd 536-724-9191 elinquishec.by sinquished by. elinquished by. State, Zip: MO, 63301 St. Charles

TestAmerica Houston

Phone (713) 690-4444 Fax (713) 690-5646 6310 Rothway ≲treet Houston, TX 77040

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6/17/2015

Sam Checklist

Tes	A	M	eri	CO
THE LEAD	ER IN E	ORIVE	NMENTAL	TESTING

ç. <u> </u>	The state of the s	J	· · · · · · · · · · · · · · · · · · ·	
		Date/Time Received:	C-11 C	, '15 JUN 10 10:31
	JOB NUMBER:	CLIENT:	adde (
	UNPACKED BY:	CARRIER/DRIVER:	FS	
	Custody Seal Present: YES INO	Number of Coolers R	eceived:	
	Cooler ID Temp Blank Y I N .Y I N Y I N	19	Therm Them CF	Corrected Temp
	CF = correction factor Samples received on ice? YES NO			
	LABORATORY PRESERVATION OF SAMPLES Base samples are > pH 12: YES NO		NO YES	□NO
	pH paper Lot#			
	VOA headspace acceptable (5-6mm): TYES	□NO □NA		
	Did samples meet the laboratory's standard condition	ons of sample acceptabilit	y upon receipt?	YES NO
	COMMENTS:			
and the state of t				

Login Sample Receipt Checklist

Client: Golder Associates Inc. Job Number: 600-113063-3

Login Number: 113063 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Groater: Granten, Ferning G		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-113192-1

Client Project/Site: Exide Recycling Center, Frisco TX

Revision: 2

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Donnie Combe

Authorized for release by: 7/27/2015 3:49:09 PM
Donnie Combs, Project Management Assistant I (713)690-4444

donnie.combs@testamericainc.com

Designee for

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

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This data package is for T	estAmenca nouston i	00 110111061 000-1 13	192-1 and consists of

☑ R1 - Field chain-of-custody documentation;

☑ R2 - Sample identification cross-reference;

☑ R3 - Test reports (analytical data sheets) for each environmental sample that includes:

- a. Items consistent with NELAC Chapter 5,
- b. dilution factors,
- c. preparation methods,
- d. cleanup methods, and
- e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☑ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

Official Title (printed)

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Donnie Combs, for Cathy Upton	Connix Comba	6/25/2015
Name (printed)	Signature	Date
Project Manager I		

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/25/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113192-1
Reviewer Name:	Donnie Combs. for Cathy Unton		

# ¹ A ²	Description	Yes	No	NA^3	NR ⁴	ER# ⁵
R1 OI	Chain-of-custody (C-O-C)					
	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		Х			R01A
	Were all departures from standard conditions described in an exception report?	Х				
R2 OI	Sample and quality control (QC) identification					
	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Х				
	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Х				
3 OI	Test reports					
-	Were all samples prepared and analyzed within holding times?	Х				
	Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
	Were calculations checked by a peer or supervisor?	X				
	Were all analyte identifications checked by a peer or supervisor?	X				
	Were sample detection limits reported for all analytes not detected?	X				
	Were all results for soil and sediment samples reported on a dry weight basis?	X				
	Were % moisture (or solids) reported for all soil and sediment samples?	X				
	Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Х		
	If required for the project, are TICs reported?			X		
4 0				۸		
4 O	Surrogate recovery data	-		V		
	Were surrogates added prior to extraction?	-		X		
<u>- I.</u>	Were surrogate percent recoveries in all samples within the laboratory QC limits?			Χ		
5 OI	Test reports/summary forms for blank samples					
	Were appropriate type(s) of blanks analyzed?	X				
	Were blanks analyzed at the appropriate frequency?	Х				
	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
	procedures?	Х				
	Were blank concentrations < MQL?	Χ				
6 OI	Laboratory control samples (LCS):					
	Were all COCs included in the LCS?	Χ				
	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Х				
	Were LCSs analyzed at the required frequency?	Χ				
	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Х				
	Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used					
	to calculate the SDLs?	Χ				
	Was the LCSD RPD within QC limits?			Χ		
7 OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
	Were the project/method specified analytes included in the MS and MSD?	Χ				
	Were MS/MSD analyzed at the appropriate frequency?	Х				
	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		Х			R07C
	Were MS/MSD RPDs within laboratory QC limits?		Х			R07D
8 OI	Analytical duplicate data					
1	Were appropriate analytical duplicates analyzed for each matrix?	Х				
	Were analytical duplicates analyzed at the appropriate frequency?	X				
	Were RPDs or relative standard deviations within the laboratory QC limits?	<u> </u>	Х			R08C
9 OI	Method quantitation limits (MQLs):					
- 101	Are the MQLs for each method analyte included in the laboratory data package?	Х				
	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
	Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
10 ∩	Other problems/anomalies	_^				
10 01	'	~				
	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Х				
	Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the		,,			D465
	sample results?		Χ			R10B
	Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and					
	methods associated with this laboratory data package?	Х				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/25/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113192-1
Reviewer Name:	Donnie Combs. for Cathy Upton		

,,1	. 2			1	11.2	11-1	:
#'	A²	Description Description	Yes	No	NA ³	NR⁴	ER#
31	Ol	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	Х				
		Were percent RSDs or correlation coefficient criteria met?	Х				
		Was the number of standards recommended in the method used for all analytes?	Х				
		Were all points generated between the lowest and highest standard used to calculate the curve?	Х				
		Are ICAL data available for all instruments used?	Х				
		Has the initial calibration curve been verified using an appropriate second source standard?	Х				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	Х				
		Were percent differences for each analyte within the method-required QC limits?	Х				
		Was the ICAL curve verified for each analyte?	Х				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
3	0	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			Χ		
		Were ion abundance data within the method-required QC limits?			Χ		
34	0	Internal standards (IS)					
	-	Were IS area counts and retention times within the method-required QC limits?			Χ		
35	OI	Raw data (NELAC Section 5.5.10)					
	-	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
		Were data associated with manual integrations flagged on the raw data?	Х				
36	0	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			Х		
37	0	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Х		
88	li .	Interference Check Sample (ICS) results					
	ı.	Were percent recoveries within method QC limits?	Х				
S9	lı .	Serial dilutions, post digestion spikes, and method of standard additions	^				
55	<u>'</u>	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		Х			S09A
210		Method detection limit (MDL) studies					309A
310	Oi	, ,	V				
		Was a MDL study performed for each reported analyte?	X				
	l 0 1	Is the MDL either adjusted or supported by the analysis of DCSs?	Х				
511	OI	Proficiency test reports		-			
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	Х				
314	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	Х				
		Is documentation of the analyst's competency up-to-date and on file?	Х				
315	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	Х				
316	OI	Laboratory standard operating procedures (SOPs)					
	-	Are laboratory SOPs current and on file for each method performed?	Х				
	1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required r	eport(s).	Items	<u> </u>		•
		identified by the letter "S" should be retained and made available upon request for the appropriate retention period.					
	2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
		NA = Not applicable;					
	Ο.	• •					
	4.	NR = Not reviewed;					

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Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/25/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113192-1
Reviewer Name:	Donnie Combs, for Cathy Upton		

ER # ¹	Description
R01A	The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): 600-113192-43.
	Method 6010B: 600-113192-10 MS failed the recovery criteria for the following analyte(s): Antimony. Matrix interference is suspected. Method 6010B: 600-113192-10 MSD failed the recovery criteria for the following analyte(s): Antimony, Lead. Matrix interference is suspected.
R07C	Method 6010B: 600-113192-21 MS failed the recovery criteria for the following analyte(s): Antimony, Arsenic, Lead, Selenium. Matrix interference is suspected.
	Method 6010B: 600-113192-21 MSD failed the recovery criteria for the following analyte(s): Antimony, Lead. Matrix interference is suspected.
	Method 6010B: 600-113451-A-28-F MS/MSD failed the recovery criteria for the following analyte(s): Antimony. Matrix interference is suspected.
	Method 6010B: 600-113566-A-6-D MS failed the recovery criteria for the following analyte(s): Antimony. Matrix interference is suspected.
R07D	Method 6010B: 600-113192-10 MSD failed the RPD criteria for the following analyte(s): Lead.
NOID	Method 6010B: 600-113192-21 MSD failed the RPD criteria for the following analyte(s): Lead.
	Method 6010B: 600-113192-10 DU failed the RPD criteria for the following analyte(s): Lead.
R08C	Method 6010B: 600-113192-21 DU failed the RPD criteria for the following analyte(s): Lead.
	Method 6010B: 600-113451-A-28-E DU failed the RPD criteria for the following analyte(s): Arsenic.
R10B	Method 6010B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-113192-1, 600-113192-4, 600-113192-7, 600-113192-10, 600-113192-10 DU, 600-113192-10 MS, 600-113192-10 MSD, 600-113192-12, 600-113192-13, 600-113192-15, 600-113192-18, 600-113192-21, 600-113192-21 DU, 600-113192-21 MS, 600-113192-21 MSD, 600-113192-23, 600-113192-24, 600-113192-27, 600-113192-30, 600-113192-33, 600-113192-36, 600-113192-39, and 600-113192-43. Elevated reporting limits (RLs) are provided.
S09A	Method 6010B: The serial dilution performed for the following sample(s) associated with batch 165242 was outside control limits for Lead (27%): 600-113192-10 SD. See attached.
2. 3.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed;
	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

7/27/2015

Detection Check Standard TestAmerica Houston

Matrix:

Solid SW-846 6010B & SW-846 6010C SW-846 3050B Method:

Prep Method: Date Analyzed: 2/10/2015 600-104865 Job #: TALS Batch: 155745 Units: mg/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Ag	Thermo6500	0.119	0.200	0.330	0.4
Al	Thermo6500	0.300	0.500	0.510	25
As	Thermo6500	0.218	0.500	0.435	1
В	Thermo6500	0.386	0.600	0.585	20
Ва	Thermo6500	0.030	0.030	0.500	1
Be	Thermo6500	0.015	0.020	0.020	0.25
Ca	Thermo6500	0.864	2.500	3.305	100
Cd	Thermo6500	0.026	0.050	0.055	0.25
Co	Thermo6500	0.068	0.100	0.095	0.5
Cr	Thermo6500	0.051	0.100	0.145	0.5
Cu	Thermo6500	0.174	0.500	0.430	0.5
Fe	Thermo6500	2.534	4.000	5.370	20
K	Thermo6500	10.999	12.000	15.950	100
Li	Thermo6500	0.008	0.010	0.120	10
Mg	Thermo6500	1.921	3.000	4.500	100
Mn	Thermo6500	0.038	0.050	0.070	1.5
Мо	Thermo6500	0.136	0.350	0.400	0.5
Na	Thermo6500	0.886	2.400	7.500	100
Ni	Thermo6500	0.117	0.150	0.140	1
Pb	Thermo6500	0.105	0.200	0.245	0.5
Sb	Thermo6500	0.232	0.450	0.905	2.5
Se	Thermo6500	0.259	0.500	0.560	2
Si	Thermo6500	0.117	0.270	0.355	10
Sn	Thermo6500	0.087	0.150	0.075	1
Sr	Thermo6500	0.003	0.005	1.020	0.25
Ti	Thermo6500	0.015	0.030	0.050	0.5
TI	Thermo6500	0.277	0.700	0.660	1.5
V	Thermo6500	0.079	0.150	0.125	0.5
Zn	Thermo6500	0.108	0.200	0.315	1.5

DCS = Detection Check Standard MQL = Method Quantitation Limit

Page 1 of 1

Matrix: Water

Method: SW-846 6010B, SW-846 6010C, & EPA 200.7

Prep Method: SW-846 3010A & EPA 200

 Date Analyzed:
 2/10/2015

 Job #:
 600-104865

 TALS Batch:
 155745

 Units:
 mg/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Ag	Thermo6500	0.001	0.003	0.003	0.01
Al	Thermo6500	0.022	0.050	0.084	0.5
As	Thermo6500	0.003	0.009	0.008	0.01
В	Thermo6500	0.008	0.020	0.030	0.2
Ba	Thermo6500	0.002	0.005	0.009	0.02
Be	Thermo6500	0.001	0.002	0.005	0.005
Ca	Thermo6500	0.022	0.050	0.064	1
Cd	Thermo6500	0.000	0.001	0.001	0.005
Co	Thermo6500	0.001	0.001	0.001	0.01
Cr	Thermo6500	0.002	0.002	0.006	0.01
Cu	Thermo6500	0.001	0.002	0.008	0.01
Fe	Thermo6500	0.087	0.100	0.133	0.4
K	Thermo6500	0.129	0.300	0.172	1
Li	Thermo6500	0.002	0.005	0.011	0.2
Mg	Thermo6500	0.019	0.025	0.085	1
Mn	Thermo6500	0.001	0.002	0.003	0.01
Мо	Thermo6500	0.003	0.005	0.010	0.01
Na	Thermo6500	0.020	0.050	0.048	1
Ni	Thermo6500	0.002	0.005	0.006	0.01
Pb	Thermo6500	0.003	0.005	0.006	0.01
Sb	Thermo6500	0.006	0.010	0.014	0.05
Se	Thermo6500	0.004	0.010	0.013	0.04
Si	Thermo6500	0.008	0.020	0.015	0.2
Sn	Thermo6500	0.003	0.005	0.002	0.01
Sr	Thermo6500	0.000	0.001	0.002	0.005
Ti	Thermo6500	0.001	0.002	0.002	0.01
TI	Thermo6500	0.008	0.020	0.015	0.03
V	Thermo6500	0.002	0.002	0.005	0.01
Zn	Thermo6500	0.002	0.005	0.005	0.03

Case Narrative

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-1

Job ID: 600-113192-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-113192-1

Comments

The report was revised on 7/27/15 to report lead in samples 13 and 43, replacing the final report generated on 6/25/15.

Receipt

The samples were received on 6/11/2015 9:22 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2° C.

Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): SCC-5C 0-0.5 (600-113192-43)

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Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX TestAmerica Job ID: 600-113192-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-113192-1	2015-SCC-16A 0-0.5	Solid	06/10/15 09:35	06/11/15 09:22
600-113192-4	2015-SCC-16B 0-0.5	Solid	06/10/15 10:05 0	06/11/15 09:22
600-113192-7	2015-SCC-16C 0-0.5	Solid	06/10/15 09:55	06/11/15 09:22
600-113192-10	2015-SCC-16D 0.5-2	Solid	06/10/15 09:45 0	06/11/15 09:22
600-113192-12	Dup-04	Solid	06/10/15 00:00 0	06/11/15 09:22
600-113192-13	SCC-5C 0.5-2	Solid	06/10/15 10:25 0	06/11/15 09:22
600-113192-15	D-11D 0-0.5	Solid	06/10/15 13:55 0	06/11/15 09:22
600-113192-18	D-11E 0-0.5	Solid	06/10/15 13:40 0	06/11/15 09:22
600-113192-21	D-11C 0.5-2	Solid	06/10/15 13:45 0	06/11/15 09:22
600-113192-23	Dup-06	Solid	06/10/15 00:00 0	06/11/15 09:22
600-113192-24	2015-MW-17C 0-0.5	Solid	06/10/15 13:05 0	06/11/15 09:22
600-113192-27	2015-MW-17D 0.5-2	Solid	06/10/15 13:10 0	06/11/15 09:22
600-113192-30	ECO-5-A 0-0.5	Solid	06/10/15 10:40 0	06/11/15 09:22
600-113192-33	E-11C-C 0-0.5	Solid	06/10/15 14:40 0	06/11/15 09:22
600-113192-36	E-11C-D 0-0.5	Solid	06/10/15 14:30 0	06/11/15 09:22
600-113192-39	E-11C-B 2.4	Solid	06/10/15 14:10 0	06/11/15 09:22
600-113192-42	Equipment Blank	Water	06/10/15 16:00 0	06/11/15 09:22
600-113192-43	SCC-5C 0-0.5	Solid	06/10/15 10:25 0	06/11/15 09:22

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Client Sample ID: 2015-SCC-16A 0-0.5

Date Collected: 06/10/15 09:35 Date Received: 06/11/15 09:22 Lab Sample ID: 600-113192-1

Matrix: Solid

General Chemistry Analyte Result Qualifier SDL Unit Dil Fac MQL (Adj) D Prepared Analyzed 1.0 1.0 % 06/15/15 17:42 **Percent Moisture** 18 1.0 1.0 % 06/15/15 17:42 **Percent Solids** 82

Client Sample ID: 2015-SCC-16A 0-0.5

Date Collected: 06/10/15 09:35

Lab Sample ID: 600-113192-1

Matrix: Solid

Date Received: 06/11/15 09:22 Percent Solids: 82.4

 Method: 6010B - Metals (ICP) - DL

 Analyte
 Result Lead
 Qualifier Qualifier
 MQL (Adj) Qualifier
 SDL Qualifier Qualifier
 Unit Qualifier Qualifier Qualifier
 D Qualifier Qualifier

Client Sample ID: 2015-SCC-16B 0-0.5 Lab Sample ID: 600-113192-4

Date Collected: 06/10/15 10:05 Matrix: Solid
Date Received: 06/11/15 09:22

General Chemistry Analyte Result Qualifier MQL (Adi) SDL Unit D Prepared Analyzed Dil Fac **Percent Moisture** 13 10 1.0 % 06/12/15 18:08 **Percent Solids** 1.0 1.0 % 06/12/15 18:08 87

Client Sample ID: 2015-SCC-16B 0-0.5 Lab Sample ID: 600-113192-4

 Date Collected: 06/10/15 10:05
 Matrix: Solid

 Date Received: 06/11/15 09:22
 Percent Solids: 87.0

 Method: 6010B - Metals (ICP) - DL

 Analyte
 Result
 Qualifier
 MQL (Adj)
 SDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Lead
 2010
 2.79
 0.586
 mg/Kg
 \$\frac{\text{D}}{\text{C}}\$ \frac{\text{O6/19/15 15:55}}{\text{O6/23/15 15:51}}\$
 \$\frac{\text{Dil Fac}}{\text{Dil Fac}}\$

Client Sample ID: 2015-SCC-16C 0-0.5 Lab Sample ID: 600-113192-7

Date Collected: 06/10/15 09:55

Date Received: 06/11/15 09:22

Matrix: Solid

General Chemistry Analyte SDL Unit Result Qualifier MQL (Adj) D Prepared Analyzed Dil Fac 1.0 % 06/12/15 18:08 **Percent Moisture** 21 1.0 **Percent Solids** 1.0 06/12/15 18:08 **79** 1.0

Client Sample ID: 2015-SCC-16C 0-0.5

Date Collected: 06/10/15 09:55

Lab Sample ID: 600-113192-7

Matrix: Solid

Date Received: 06/11/15 09:22 Percent Solids: 78.5

 Method: 6010B - Metals (ICP) - DL2

 Analyte
 Result Lead
 Qualifier
 MQL (Adj)
 SDL Unit
 D Prepared
 Analyzed Analyzed
 Dil Fac Di

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-1

Client Sample ID: 2015-SCC-16D 0.5-2

Date Collected: 06/10/15 09:45 Date Received: 06/11/15 09:22

Lab Sample ID: 600-113192-10

Matrix: Solid

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20	1.0	1.0 %			06/12/15 18:08	1
Percent Solids	80	1.0	1.0 %			06/12/15 18:08	1

Client Sample ID: 2015-SCC-16D 0.5-2 Lab Sample ID: 600-113192-10

Date Collected: 06/10/15 09:45 Date Received: 06/11/15 09:22

Matrix: Solid Percent Solids: 79.9

	Method: 6010B - Metals (ICP) - I	DL								
	Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
l	Lead	40.8		2.90	0.609	mg/Kg		06/19/15 15:55	06/22/15 17:03	5

Client Sample ID: Dup-04 Lab Sample ID: 600-113192-12 Date Collected: 06/10/15 00:00 **Matrix: Solid**

Date Received: 06/11/15 09:22

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL U	nit D	Prepared	Analyzed	Dil Fac
Percent Moisture	20	1.0	1.0 %			06/12/15 18:08	1
Percent Solids	80	1.0	1.0 %			06/12/15 18:08	1

Client Sample ID: Dup-04 Lab Sample ID: 600-113192-12 Date Collected: 06/10/15 00:00 **Matrix: Solid**

Date Received: 06/11/15 09:22 Percent Solids: 79.9

Method: 6010B - Metals (ICP) - DL Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac 2.95 06/19/15 15:55 06/23/15 15:56 0.620 mg/Kg Lead 27.6

Lab Sample ID: 600-113192-13 Client Sample ID: SCC-5C 0.5-2 Matrix: Solid

Date Collected: 06/10/15 10:25 Date Received: 06/11/15 09:22

Lead

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		1.0	1.0	%			06/12/15 18:08	1
Percent Solids	86		1.0	1.0	%			06/12/15 18:08	1

Client Sample ID: SCC-5C 0.5-2 Lab Sample ID: 600-113192-13 Date Collected: 06/10/15 10:25 Matrix: Solid Date Received: 06/11/15 09:22 Percent Solids: 85.9

Method: 6010B - Metals (ICP) Analyte Antimony	Result Qualifier 8.81	MQL (Adj) 2.91	SDL 0.270	Unit mg/Kg	D — ≅	Prepared 06/19/15 15:55	Analyzed 06/22/15 17:45	Dil Fac
Method: 6010B - Metals (ICP) - DL Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac

2.91

0.611 mg/Kg

5160

□ 06/19/15 15:55 □ 06/23/15 16:05

TestAmerica Houston

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-1

Client Sample ID: D-11D 0-0.5

Date Collected: 06/10/15 13:55 Date Received: 06/11/15 09:22 Lab Sample ID: 600-113192-15

Matrix: Solid

Matrix: Solid

Matrix: Solid

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21	1.0	1.0 %			06/12/15 18:08	1
Percent Solids	79	1.0	1.0 %			06/12/15 18:08	1

Client Sample ID: D-11D 0-0.5 Lab Sample ID: 600-113192-15

Date Collected: 06/10/15 13:55

Date Received: 06/11/15 09:22

Percent Solids: 78.6

Method: 6010B - Metals (ICP)							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.89	1.21	0.264 mg/Kg	<u>₩</u>	06/19/15 15:55	06/22/15 17:52	1

Client Sample ID: D-11E 0-0.5 Lab Sample ID: 600-113192-18

Date Collected: 06/10/15 13:40

Date Received: 06/11/15 09:22

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22	1.0	1.0	%			06/12/15 18:08	1
Percent Solids	78	1.0	1.0	%			06/12/15 18:08	1

Client Sample ID: D-11E 0-0.5 Lab Sample ID: 600-113192-18 Date Collected: 06/10/15 13:40 **Matrix: Solid** Percent Solids: 78.2

Date Received: 06/11/15 09:22

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	28.3	1.18	0.258 mg/Kg	_ ₽	06/19/15 15:55	06/22/15 17:54	1

Client Sample ID: D-11C 0.5-2 Lab Sample ID: 600-113192-21 Matrix: Solid

Date Collected: 06/10/15 13:45 Date Received: 06/11/15 09:22

General Chemistry SDL Unit Analyte Result Qualifier MQL (Adj) D Prepared Dil Fac Analyzed

Percent Moisture 1.0 1.0 % 06/12/15 18:08 24 **Percent Solids** 1.0 1.0 % 06/12/15 18:08 76

Client Sample ID: D-11C 0.5-2 Lab Sample ID: 600-113192-21 Date Collected: 06/10/15 13:45 Matrix: Solid Date Received: 06/11/15 09:22 Percent Solids: 75.9

Method: 6010B - Metals (ICP)								
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	16.9	1.32	0.287	mg/Kg	\	06/19/15 15:55	06/22/15 17:56	1

Client: Golder Associates Inc. TestAmerica Job ID: 600-113192-1

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: Dup-06 Lab Sample ID: 600-113192-23 Date Collected: 06/10/15 00:00

Matrix: Solid

Date Received: 06/11/15 09:22

General Chemistry Analyte		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26		1.0	1.0	%			06/12/15 18:08	1
Percent Solids	74		1.0	1.0	%			06/12/15 18:08	1

Client Sample ID: Dup-06 Lab Sample ID: 600-113192-23

Date Collected: 06/10/15 00:00

Matrix: Solid Percent Solids: 74.3

Date Received: 06/11/15 09:22

Method: 6010B - Metals (ICP) Result Qualifier Analyte MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac **Arsenic** 7.25 1.31 0.285 mg/Kg 06/19/15 15:55 06/22/15 18:05

Client Sample ID: 2015-MW-17C 0-0.5 Lab Sample ID: 600-113192-24

Date Collected: 06/10/15 13:05 Matrix: Solid

Date Received: 06/11/15 09:22

General Chemistry Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac 1.0 1.0 % 06/12/15 18:08 **Percent Moisture** 20 1.0 % 06/12/15 18:08 **Percent Solids** 80 1.0

Client Sample ID: 2015-MW-17C 0-0.5 Lab Sample ID: 600-113192-24 Date Collected: 06/10/15 13:05

Matrix: Solid Date Received: 06/11/15 09:22 Percent Solids: 79.6

Method: 6010B - Metals (ICP) MQL (Adi) Analyte Result Qualifier SDL Unit D Prepared Analyzed Dil Fac 06/19/15 15:55 06/22/15 18:07 2.96 0.275 mg/Kg **Antimony** 0.611 .1 **Arsenic** 19.5 1.19 0.258 mg/Kg 06/19/15 15:55 06/22/15 18:07

Method: 6010B - Metals (ICP) - DL Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac 2.96 0.622 mg/Kg 06/19/15 15:55 06/23/15 16:24 Lead 42.2

Client Sample ID: 2015-MW-17D 0.5-2 Lab Sample ID: 600-113192-27

Date Collected: 06/10/15 13:10 Date Received: 06/11/15 09:22

General Chemistry Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac **Percent Moisture** 18 1.0 1.0 % 06/12/15 18:08 1.0 1.0 % 06/12/15 18:08 **Percent Solids** 82

Client Sample ID: 2015-MW-17D 0.5-2 Lab Sample ID: 600-113192-27

Date Collected: 06/10/15 13:10 Matrix: Solid Date Received: 06/11/15 09:22 Percent Solids: 82.2

Method: 6010B - Metals (ICP)	Decute Overlifier	MOL (Adi)	e Di	l lmi4	_	Duamawad	Amalumad	Dil Fac
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	ט	Prepared	Analyzed	Dil Fac
Antimony	20.6	2.84	0.264	mg/Kg	₩	06/19/15 15:55	06/22/15 18:09	1
Arsenic	24.7	1.14	0.248	mg/Kg	₩	06/19/15 15:55	06/22/15 18:09	1

TestAmerica Houston

Matrix: Solid

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-1

Client Sample ID: 2015-MW-17D 0.5-2

Date Collected: 06/10/15 13:10 Date Received: 06/11/15 09:22

Lab Sample ID: 600-113192-27

Matrix: Solid Percent Solids: 82.2

Method: 6010B - Metals (ICP) - DL

SDL Unit Analyte Result Qualifier MQL (Adj) D Prepared Analyzed Dil Fac 06/19/15 15:55 06/23/15 16:26 0.597 mg/Kg Lead 1600 2.84

Client Sample ID: ECO-5-A 0-0.5 Lab Sample ID: 600-113192-30

Date Collected: 06/10/15 10:40

Matrix: Solid

Date Received: 06/11/15 09:22

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19	1.0	1.0	%			06/12/15 18:08	1
Percent Solids	81	1.0	1.0	%			06/12/15 18:08	1

Client Sample ID: ECO-5-A 0-0.5

Date Collected: 06/10/15 10:40

Lab Sample ID: 600-113192-30 **Matrix: Solid** Percent Solids: 80.8

Date Received: 06/11/15 09:22

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.266	U	2.86	0.266	mg/Kg		06/22/15 15:11	06/23/15 13:24	1
Arsenic	15.1		1.15	0.250	mg/Kg	☆	06/22/15 15:11	06/23/15 13:24	1

Client Sample ID: E-11C-C 0-0.5

Date Collected: 06/10/15 14:40 Date Received: 06/11/15 09:22

Lab Sample ID: 600-113192-33 **Matrix: Solid**

General Chemistry Analyte Result Qualifier MQL (Adi) SDL Unit Prepared Analyzed Dil Fac 06/12/15 18:08 1.0 % **Percent Moisture** 1.0 23

1.0

1.0 %

77

Client Sample ID: E-11C-C 0-0.5

Date Collected: 06/10/15 14:40

Percent Solids

Lab Sample ID: 600-113192-33 **Matrix: Solid**

06/12/15 18:08

Date Received: 06/11/15 09:22 Percent Solids: 76.8

Method: 6010B - Metals (ICP) Analyte Arsenic	Result Qualifier	MQL (Adj)	SDL Unit 0.261 mg/Kg	D	Prepared 06/22/15 15:11	Analyzed 06/23/15 13:34	Dil Fac
Method: 6010B - Metals (ICP) - Analyte Lead	Result Qualifier	MQL (Adj) 2.99	SDL Unit 0.627 mg/Kg	D	Prepared 06/22/15 15:11	Analyzed 06/23/15 16:38	Dil Fac

Client Sample ID: E-11C-D 0-0.5

Lab Sample ID: 600-113192-36 Date Collected: 06/10/15 14:30 **Matrix: Solid**

Date Received: 06/11/15 09:22

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21		1.0	1.0	%			06/12/15 18:08	1
Percent Solids	79		1.0	1.0	%			06/12/15 18:08	1

TestAmerica Houston

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Lab Sample ID: 600-113192-36

Matrix: Solid

Percent Solids: 78.6

Matrix: Solid

Client Sample ID: E-11C-D 0-0.5
Date Collected: 06/10/15 14:30

Date Received: 06/11/15 09:22

Arsenic 16.2 1.17 0.254 mg/Kg © 06/22/15 15:11 06/23/15 13:36	Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Arsenic	16.2	1.17	0.254	mg/Kg		06/22/15 15:11	06/23/15 13:36	1

Method: 6010B - Metals (ICP) - DL

Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Lead	155	2.92	0.613 mg/Kg	-	06/22/15 15:11	06/23/15 16:40	5

Client Sample ID: E-11C-B 2.4 Lab Sample ID: 600-113192-39

Date Collected: 06/10/15 14:10 Date Received: 06/11/15 09:22

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22	1.0	1.0 %			06/12/15 18:08	1
Percent Solids	78	1.0	1.0 %			06/12/15 18:08	1

Client Sample ID: E-11C-B 2.4 Lab Sample ID: 600-113192-39

Date Collected: 06/10/15 14:10	Matrix: Solid
Date Received: 06/11/15 09:22	Percent Solids: 78.1

Method: 6010B - Metals (ICP) Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac **Arsenic** 9.95 1.22 0.266 mg/Kg □ 06/22/15 15:11 □ 06/23/15 13:39
□ 06/23/15 13:39
□ 06/23/15 13:39
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Method: 6010B - Metals (ICP) -	DL								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	19.0		3.05	0.640	mg/Kg		06/22/15 15:11	06/23/15 16:42	5

Client Sample ID: Equipment Blank Lab Sample ID: 600-113192-42 **Matrix: Water**

Date Collected: 06/10/15 16:00 Date Received: 06/11/15 09:22

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00630	U	0.0500	0.00630	mg/L		06/22/15 08:40	06/22/15 16:34	1
Arsenic	0.00328	U	0.0100	0.00328	mg/L		06/22/15 08:40	06/22/15 16:34	1
Cadmium	0.000350	U	0.00500	0.000350	mg/L		06/22/15 08:40	06/22/15 16:34	1
Lead	0.00405	J	0.0100	0.00290	mg/L		06/22/15 08:40	06/22/15 16:34	1
Selenium	0.00417	U	0.0400	0.00417	mg/L		06/22/15 08:40	06/22/15 16:34	1

Lab Sample ID: 600-113192-43 Client Sample ID: SCC-5C 0-0.5

Date Collected: 06/10/15 10:25 Date Received: 06/11/15 09:22

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			06/15/15 17:42	1
Percent Solids	84		1.0	1.0	%			06/15/15 17:42	1

Matrix: Solid

Client Sample Results

Client: Golder Associates Inc.

Date Collected: 06/10/15 10:25

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: SCC-5C 0-0.5

TestAmerica Job ID: 600-113192-1

Lab Sample ID: 600-113192-43

Matrix: Solid

Percent Solids: 84.3

Date Received: 06/11/15 09:22 Method: 6010B - Metals (ICP)

Result Qualifier Prepared Analyte MQL (Adj) SDL Unit Analyzed D Dil Fac ₩ 2.75 0.255 mg/Kg 06/22/15 15:11 06/23/15 13:41 **Antimony** 2.05 J

Method: 6010B - Metals (ICP) - DL Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac

1.15 mg/Kg □ 06/22/15 15:11 □ 06/23/15 16:44 10 Lead 1580 5.49

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
F	Duplicate RPD exceeds the control limit
U	Analyte was not detected at or above the SDL.
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
N2	RPD of the MS and MSD exceeds the control limits

Glossary

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Houston

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP)

Selenium

Lab Sample ID: MB 600-165116/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Total/NA Analysis Batch: 165242 Prep Batch: 165116**

	MB	MR							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		06/19/15 15:55	06/22/15 15:33	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		06/19/15 15:55	06/22/15 15:33	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		06/19/15 15:55	06/22/15 15:33	1
Lead	0.105	U	0.500	0.105	mg/Kg		06/19/15 15:55	06/22/15 15:33	1
Selenium	0.259	U	2.00	0.259	mg/Kg		06/19/15 15:55	06/22/15 15:33	1

Lab Sample ID: LCSSRM 600-165116/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 165242 Prep Batch: 165116** Spike LCSSRM LCSSRM %Rec. Analyte Added Result Qualifier Unit D %Rec Limits **Antimony** 108 106.7 98.8 mg/Kg 0.9 - 214. 80.8 - 119. Arsenic 151 144.5 95.7 mg/Kg 9 Cadmium 93.0 81.6 - 117. 152 141.4 mg/Kg 8 232.8 81.5 - 120. Lead 254 mg/Kg 91.7 9 Selenium 162 152.9 mg/Kg 94.4 77.2 - 122. 2

Lab Sample ID: 600-113192-10 MS Client Sample ID: 2015-SCC-16D 0.5-2 **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 165242 Prep Batch: 165116

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	0.480	J	59.1	30.82	N1	mg/Kg	₩	51	75 - 125	
Arsenic	9.74		59.1	62.20		mg/Kg	☼	89	75 - 125	
Selenium	0.300	U	59.1	48.01		mg/Kg	☼	81	75 - 125	

Lab Sample ID: 600-113192-10 MSD Client Sample ID: 2015-SCC-16D 0.5-2 **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 165242 Prep Batch: 165116** Sample Sample Spike MSD MSD %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit 0.480 J 56.9 28.57 N1 mg/Kg ₩ 49 75 - 125 Я 20 **Antimony** 9.74 56.9 59.60 mg/Kg Ö 88 75 - 125 20 Arsenic 75 - 125 0.300 U 56.9 45.35 mg/Kg 80 20

Lab Sample ID: 600-113192-21 MS Client Sample ID: D-11C 0.5-2 **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 165242 Sample Sample Spike MS MS %Rec. Analyte **Result Qualifier** Added Result Qualifier Unit D %Rec Limits ₩ 1.98 J Antimony 65.2 38.31 N1 mg/Kg 56 75 - 125 ₩ Arsenic 16.9 65.2 59.55 N1 mg/Kg 65 75 - 125 ₩ Selenium 0.341 U 65.2 45.38 N1 mg/Kg 70 75 - 125

TestAmerica Houston

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RPD

Client Sample ID: 2015-SCC-16D 0.5-2

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 165170

Client Sample ID: D-11C 0.5-2

Client Sample ID: Method Blank

Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-113192-21 MSD

M

Ar

ab Sample ID: 600-1131	92-21 MSD						C	lient S	ample ID:	D-11C	0.5-2	
Matrix: Solid									Prep Ty	pe: Tot	al/NA	
Analysis Batch: 165242									Prep Ba	atch: 16	55116	
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	

An 41.72 N1 1.98 J 65.2 20 Antimony mg/Kg 75 - 125 mg/Kg Arsenic 16.9 65.2 65.90 75 75 - 125 20 10 65.2 mg/Kg Selenium 0.341 U 50.12 77 75 - 125 20 10

Lab Sample ID: 600-113192-10 DU

Matrix: Solid

Analysis Batch: 165242							Prep Batch: 10	65116
_	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Antimony	0.480	J	0.4717	J	mg/Kg	-		20
Arsenic	9.74		9.689		mg/Kg	≎	0.5	20
Selenium	0.300	U	0.303	U	mg/Kg	≎	NC	20

Lab Sample ID: 600-113192-21 DU

Matrix: Solid

	Analysis Batch: 165242							Prep Batch:	1651	116
		Sample	Sample	DU	DU				F	RPD
	Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Li	.imit
	Antimony	1.98	J	2.386	J	mg/Kg	₩			20
	Arsenic	16.9		17.17		mg/Kg	≎	2		20
Į	Selenium	0.341	U	0.335	U	mg/Kg	₽	NC		20

Lab Sample ID: MB 600-165170/1-A

Matrix: Water

Analysis Batch: 165242

-	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00630	U	0.0500	0.00630	mg/L		06/22/15 08:40	06/22/15 15:15	1
Arsenic	0.00328	U	0.0100	0.00328	mg/L		06/22/15 08:40	06/22/15 15:15	1
Cadmium	0.000350	U	0.00500	0.000350	mg/L		06/22/15 08:40	06/22/15 15:15	1
Lead	0.00290	U	0.0100	0.00290	mg/L		06/22/15 08:40	06/22/15 15:15	1
Selenium	0.00417	U	0.0400	0.00417	mg/L		06/22/15 08:40	06/22/15 15:15	1

Lab Sample ID: LCS 600-165170/2-A Matrix: Water Analysis Batch: 165242				Client Sample ID: Lab Control S Prep Type: To Prep Batch: 1					
-	Spike	LCS	LCS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Antimony	1.00	1.057		mg/L		106	80 - 120		
Arsenic	1.00	1.039		mg/L		104	80 - 120		
Cadmium	0.500	0.5238		mg/L		105	80 - 120		
Lead	1.00	1.056		mg/L		106	80 - 120		
Selenium	1.00	1.041		mg/L		104	80 - 120		

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Client Sample ID: Duplicate

104

110

Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP) (Continued)

0.00290 U

0.0917

Lab Sample ID: 600-113524-C-1-C MS Client Sample ID: Matrix Spike **Matrix: Water** Prep Type: Total/NA Analysis Batch: 165242 **Prep Batch: 165170** Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Unit D %Rec Limits **Analyte** 1.00 1.008 75 - 125 Antimony 0.00630 U mg/L 101 0.00969 J 1.134 Arsenic 1.00 mg/L 112 75 - 125 Cadmium 0.000350 U 0.500 0.5219 mg/L 104 75 - 125

1.035

1.188

1.00

1.00

Lab Sample ID: 600-113524-C-1-D MSD **Client Sample ID: Matrix Spike Duplicate Matrix: Water** Prep Type: Total/NA **Analysis Batch: 165242 Prep Batch: 165170** Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier **Analyte** Added Result Qualifier Unit D %Rec Limits RPD Limit 1.00 75 - 125 20 Antimony 0.00630 U 1.016 mg/L 102 Arsenic 0.00969 J 1.00 1.132 112 75 - 125 20 mg/L 0 0.500 0.5236 105 75 - 125 20 Cadmium 0.000350 U mg/L 0 1.00 104 20 Lead 0.00290 U 1.037 mg/L 75 - 1250 Selenium 0.0917 1.00 75 - 125 20 1.194 mg/L 110

Lab Sample ID: 600-113524-C-1-B DU

Matrix: Water

Lead

Selenium

Prep Type: Total/NA **Analysis Batch: 165242 Prep Batch: 165170** Sample Sample DU DU **RPD** Result Qualifier **Analyte** Result Qualifier Unit RPD Limit Antimony 0.00630 U 0.00630 U mg/L NC 20 Arsenic 0.00969 J 0.008330 J 15 20 mg/L 0.000350 U 0.000350 U NC 20 Cadmium mg/L Lead 0.00290 U 0.00290 U mg/L NC 20 Selenium 0.0917 0.09448 20 mg/L

Lab Sample ID: MB 600-165237/1-A

Matrix: Solid

Analysis Batch: 165305

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 165237 MB MB

mg/L

mg/L

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		06/22/15 15:11	06/23/15 13:05	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		06/22/15 15:11	06/23/15 13:05	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		06/22/15 15:11	06/23/15 13:05	1
Lead	0.105	U	0.500	0.105	mg/Kg		06/22/15 15:11	06/23/15 13:05	1
Selenium	0.259	U	2.00	0.259	mg/Kg		06/22/15 15:11	06/23/15 13:05	1

Matrix: Solid Analysis Batch: 165305							1/NA 5237	
	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	108	77.64		mg/Kg		71.9	0.9 - 214.	
							8	
Arsenic	151	152.8		mg/Kg		101.2	80.8 - 119.	
							9	
Cadmium	152	147.9		mg/Kg		97.3	81.6 - 117.	
							8	

TestAmerica Houston

Client Sample ID: Lab Control Sample

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Client Sample ID: Lab Control Sample

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Matrix Spike

Client Sample ID: Duplicate

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 600-165237/2-A Matrix: Solid

Matrix: Solid Analysis Batch: 165305				Prep Type: To Prep Batch: 1					
7 manyolo Batom 100000	Spike	LCSSRM LCSSI	RM			%Rec.			
Analyte	Added	Result Qualif	ier Unit	D	%Rec	Limits			
Lead	254	246.9	mg/Kg		97.2	81.5 - 120.			
						9			
Selenium	162	159.7	mg/Kg		98.6	77.2 - 122.			
						2			

Lab Sample ID: 600-113451-A-28-F MS

Matrix: Solid

Analysis Batch: 165305	Sample	Sample	Spike	MS	MS				Prep Batch: 165237 %Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Antimony	0.249	U	57.9	25.18	N1	mg/Kg	<u></u>	44	75 - 125
Arsenic	2.31		57.9	62.64		mg/Kg	☼	104	75 - 125
Cadmium	0.0275	U	28.9	29.69		mg/Kg	₩	103	75 - 125
Lead	5.26		57.9	63.97		mg/Kg	₩.	101	75 - 125
Selenium	0.278	U	57.9	56.92		mg/Kg	₩	98	75 - 125

Lab Sample ID: 600-113451-A-28-G MSD

Matrix: Solid

Analysis Batch: 165305

Analysis Batch: 165305									Prep Ba	itcn: 16)52 <i>31</i>
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.249	U	56.8	23.34	N1	mg/Kg	<u> </u>	41	75 - 125	8	20
Arsenic	2.31		56.8	62.56		mg/Kg	₩	106	75 - 125	0	20
Cadmium	0.0275	U	28.4	29.20		mg/Kg	₩	103	75 - 125	2	20
Lead	5.26		56.8	63.30		mg/Kg	₩.	102	75 - 125	1	20
Selenium	0.278	U	56.8	56.09		mg/Kg	₩	99	75 - 125	1	20

Lab Sample ID: 600-113566-A-6-D MS

Matrix: Solid

Prep Type: Total/NA Analysis Batch: 165305 Prep Batch: 165237 Sample Sample Spike MS MS %Rec.

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	1.59	J	71.0	21.91	N1	mg/Kg	\	29	75 - 125	
Arsenic	11.9		71.0	79.40		mg/Kg	₩	95	75 - 125	
Cadmium	0.188	J	35.5	35.47		mg/Kg	₩	99	75 - 125	
Selenium	0.375	Ü	71.0	64.63		mg/Kg	₽	91	75 - 125	

Lab Sample ID: 600-113451-A-28-E DU

Matrix: Solid Analysis Batch: 165305							Prep Type: Tot Prep Batch: 10	
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Antimony	0.249	U	0.254	U	mg/Kg	□ □	NC	20
Arsenic	2.31		2.863		mg/Kg	≎	21	20
Cadmium	0.0275	U	0.0280	U	mg/Kg	≎	NC	20
Lead	5.26		6.153		mg/Kg	\$	16	20
Selenium	0.278	U	0.3279	J	mg/Kg	₩	NC	20

TestAmerica Houston

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Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-113566-A-6-C DU

Analysis Batch: 165305

Client Sample ID: Duplicate Matrix: Solid Prep Type: Total/NA Prep Batch: 165237

	Sample	Sample	DU	DU				RPD
1	Analyte Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
7	Antimony 1.59	J	0.326	U	mg/Kg	- -	NC	20
/	Arsenic 11.9		10.01		mg/Kg	₩	17	20
(Cadmium 0.188	J	0.1686	J	mg/Kg	₩	11	20
Ŀ	Selenium 0.375	Ü	0.364	U	mg/Kg	₩	NC	20

Method: 6010B - Metals (ICP) - DL

Lab Sample ID: 600-113192-10 MS Client Sample ID: 2015-SCC-16D 0.5-2 **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 165206

Analysis Batch: 165206									Prep Batch: 165116
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Cadmium - DL	0.348	J	29.5	31.34		mg/Kg	<u> </u>	105	75 - 125
Lead - DL	40.8		59.1	110.0		mg/Kg	₩	117	75 - 125

Lab Sample ID: 600-113192-10 MSD Client Sample ID: 2015-SCC-16D 0.5-2 **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 165206 Prep Batch: 165116** Sample Sample Spike MSD MSD %Rec. **RPD** Analyte Result Qualifier Added Result Qualifier D %Rec Limits RPD Unit

Limit ₹ Cadmium - DL 0.348 J 28.5 29.97 104 75 - 125 4 20 mq/Kq Lead - DL 40.8 56.9 75 - 125 73.52 N1 N2 mg/Kg 57 40 20

Lab Sample ID: 600-113192-21 MS Client Sample ID: D-11C 0.5-2 **Matrix: Solid** Prep Type: Total/NA **Prep Batch: 165116**

Analysis Batch: 165305

		Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Cadmium - DL	1.53		32.6	30.23		mg/Kg	<u>∓</u>	88	75 - 125	
Lead - DL	239		65.2	102.9	N1	mg/Kg	₩	-208	75 ₋ 125	

Lab Sample ID: 600-113192-21 MSD Client Sample ID: D-11C 0.5-2 **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 165305 Prep Batch: 165116** MSD MSD Sample Sample Spike %Rec. **RPD** Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit ₩ Cadmium - DL 1.53 32.6 32.86 mg/Kg 96 75 - 125 8 20

Lead - DL 239 65.2 150.8 N1 N2 mg/Kg -135 75 - 125 38 20 Lab Sample ID: 600-113192-10 DU Client Sample ID: 2015-SCC-16D 0.5-2

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 165206 Prep Batch: 165116**

•	Sample	Sample	DU	DU			•		RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit	
Cadmium - DL	0.348	J	0.3219	J	mg/Kg	- ∓ -		8	20	
Lead - DL	40.8		28.91	F	mg/Kg	₩		34	20	

TestAmerica Houston

QC Sample Results

DU DU

1.680

305.7 F

Result Qualifier Unit

mg/Kg

mg/Kg

D

₩

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-1

Method: 6010B - Metals (ICP) - DL (Continued)

Sample Sample

1.53

239

Result Qualifier

Lab Sample ID: 600-113192-21 DU

Matrix: Solid

Cadmium - DL

Analyte

Lead - DL

Analysis Batch: 165305

Client Sample ID: D-11C 0.5-2

Prep Type: Total/NA

25

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Duplicate

Prep Ba	itcn: 16	5116
		RPD
	RPD	Limit
	9	20

Client Sample ID: 2015-SCC-16B 0-0.5

Client Sample ID: 2015-MW-17D 0.5-2

Method: Moisture - Percent Moisture

Lab Sample ID: 600-113192-4 DU

Matrix: Solid

Analysis Batch: 164564

/ manyone Datem Te 100 !	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Percent Moisture	13		14		%			6	20
Percent Solids	87		86		%			0.9	20

Lab Sample ID: 600-113192-27 DU

Matrix: Solid

Analysis Batch: 164564

-	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Moisture	18		17		%		 3	20
Percent Solids	82		83		%		0.6	20

Lab Sample ID: 600-113146-B-1 DU

Matrix: Solid

Analysis Batch: 164679

Alialysis Datell. 104013								
-	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Moisture	12		12		%		 0.6	20
Percent Solids	88		88		%		0.09	20

20

TestAmerica Houston

8-IN ICP-AES AND ICP-MS SERIAL DILUTIONS METALS

Lab ID: 600-113192-A-10-A SD ^5	
SDG No:	
Lab Name: TestAmerica Houston	Job No: 600-113063-1
Matrix: Solid	Concentration Units: mg/Kg

Analyte	Initial Samp Result (I)	le C	Serial Dilution Result (S)	С	% Difference	Q	Method
Antimony	0.480	J	1.35	U	NC		6010B
Arsenic	9.74		11.73		NC		6010B
Cadmium	1.18		0.4995	J	NC		6010B
Lead	33.2		42.07		27	*	6010B
Selenium	0.300	U	1.50	U	NC		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-1

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Antimony	2.50	0.232	mg/Kg	6010B
Antimony	0.0500	0.00630	mg/L	6010B
Arsenic	1.00	0.218	mg/Kg	6010B
Arsenic	0.0100	0.00328	mg/L	6010B
Cadmium	0.00500	0.000350	mg/L	6010B
Lead	0.500	0.105	mg/Kg	6010B
Lead	0.0100	0.00290	mg/L	6010B
Selenium	0.0400	0.00417	mg/L	6010B

General Chemistry

Analyte	MQL	MDL	Units	Method	
Percent Moisture	1.0	1.0	%	Moisture	
Percent Solids	1.0	1.0	%	Moisture	

QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-1

Metals

Prep Batch: 165116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113192-1 - DL	2015-SCC-16A 0-0.5	Total/NA	Solid	3050B	
600-113192-4 - DL	2015-SCC-16B 0-0.5	Total/NA	Solid	3050B	
600-113192-7 - DL2	2015-SCC-16C 0-0.5	Total/NA	Solid	3050B	
600-113192-10 - DL	2015-SCC-16D 0.5-2	Total/NA	Solid	3050B	
600-113192-10 DU	2015-SCC-16D 0.5-2	Total/NA	Solid	3050B	
600-113192-10 DU - DL	2015-SCC-16D 0.5-2	Total/NA	Solid	3050B	
600-113192-10 MS	2015-SCC-16D 0.5-2	Total/NA	Solid	3050B	
600-113192-10 MS - DL	2015-SCC-16D 0.5-2	Total/NA	Solid	3050B	
600-113192-10 MSD	2015-SCC-16D 0.5-2	Total/NA	Solid	3050B	
600-113192-10 MSD - DL	2015-SCC-16D 0.5-2	Total/NA	Solid	3050B	
600-113192-12 - DL	Dup-04	Total/NA	Solid	3050B	
600-113192-13	SCC-5C 0.5-2	Total/NA	Solid	3050B	
600-113192-13 - DL	SCC-5C 0.5-2	Total/NA	Solid	3050B	
600-113192-15	D-11D 0-0.5	Total/NA	Solid	3050B	
600-113192-18	D-11E 0-0.5	Total/NA	Solid	3050B	
600-113192-21	D-11C 0.5-2	Total/NA	Solid	3050B	
600-113192-21 DU	D-11C 0.5-2	Total/NA	Solid	3050B	
600-113192-21 DU - DL	D-11C 0.5-2	Total/NA	Solid	3050B	
600-113192-21 MS	D-11C 0.5-2	Total/NA	Solid	3050B	
600-113192-21 MS - DL	D-11C 0.5-2	Total/NA	Solid	3050B	
600-113192-21 MSD	D-11C 0.5-2	Total/NA	Solid	3050B	
600-113192-21 MSD - DL	D-11C 0.5-2	Total/NA	Solid	3050B	
600-113192-23	Dup-06	Total/NA	Solid	3050B	
600-113192-24	2015-MW-17C 0-0.5	Total/NA	Solid	3050B	
600-113192-24 - DL	2015-MW-17C 0-0.5	Total/NA	Solid	3050B	
600-113192-27	2015-MW-17D 0.5-2	Total/NA	Solid	3050B	
600-113192-27 - DL	2015-MW-17D 0.5-2	Total/NA	Solid	3050B	
LCSSRM 600-165116/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-165116/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 165170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113192-42	Equipment Blank	Total/NA	Water	3010A	
600-113524-C-1-B DU	Duplicate	Total/NA	Water	3010A	
600-113524-C-1-C MS	Matrix Spike	Total/NA	Water	3010A	
600-113524-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
LCS 600-165170/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 600-165170/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 165206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113192-10 - DL	2015-SCC-16D 0.5-2	Total/NA	Solid	6010B	165116
600-113192-10 DU - DL	2015-SCC-16D 0.5-2	Total/NA	Solid	6010B	165116
600-113192-10 MS - DL	2015-SCC-16D 0.5-2	Total/NA	Solid	6010B	165116
600-113192-10 MSD - DL	2015-SCC-16D 0.5-2	Total/NA	Solid	6010B	165116

Prep Batch: 165237

Lab Sample ID 600-113192-30	Client Sample ID ECO-5-A 0-0.5	Prep Type Total/NA	Matrix Solid	Method 3050B	Prep Batch
600-113192-33 - DL	E-11C-C 0-0.5	Total/NA	Solid	3050B	
600-113192-33	E-11C-C 0-0.5	Total/NA	Solid	3050B	

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX

Metals (Continued)

Prep Batch: 165237 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113192-36	E-11C-D 0-0.5	Total/NA	Solid	3050B	_
600-113192-36 - DL	E-11C-D 0-0.5	Total/NA	Solid	3050B	
600-113192-39	E-11C-B 2.4	Total/NA	Solid	3050B	
600-113192-39 - DL	E-11C-B 2.4	Total/NA	Solid	3050B	
600-113192-43	SCC-5C 0-0.5	Total/NA	Solid	3050B	
600-113192-43 - DL	SCC-5C 0-0.5	Total/NA	Solid	3050B	
600-113451-A-28-E DU	Duplicate	Total/NA	Solid	3050B	
600-113451-A-28-F MS	Matrix Spike	Total/NA	Solid	3050B	
600-113451-A-28-G MSD	Matrix Spike Duplicate	Total/NA	Solid	3050B	
600-113566-A-6-C DU	Duplicate	Total/NA	Solid	3050B	
600-113566-A-6-D MS	Matrix Spike	Total/NA	Solid	3050B	
LCSSRM 600-165237/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-165237/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 165242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113192-10 DU	2015-SCC-16D 0.5-2	Total/NA	Solid	6010B	165116
600-113192-10 MS	2015-SCC-16D 0.5-2	Total/NA	Solid	6010B	165116
600-113192-10 MSD	2015-SCC-16D 0.5-2	Total/NA	Solid	6010B	165116
600-113192-13	SCC-5C 0.5-2	Total/NA	Solid	6010B	165116
600-113192-15	D-11D 0-0.5	Total/NA	Solid	6010B	165116
600-113192-18	D-11E 0-0.5	Total/NA	Solid	6010B	165116
600-113192-21	D-11C 0.5-2	Total/NA	Solid	6010B	165116
600-113192-21 DU	D-11C 0.5-2	Total/NA	Solid	6010B	165116
600-113192-21 MS	D-11C 0.5-2	Total/NA	Solid	6010B	165116
600-113192-21 MSD	D-11C 0.5-2	Total/NA	Solid	6010B	165116
600-113192-23	Dup-06	Total/NA	Solid	6010B	165116
600-113192-24	2015-MW-17C 0-0.5	Total/NA	Solid	6010B	165116
600-113192-27	2015-MW-17D 0.5-2	Total/NA	Solid	6010B	165116
600-113192-42	Equipment Blank	Total/NA	Water	6010B	165170
600-113524-C-1-B DU	Duplicate	Total/NA	Water	6010B	165170
600-113524-C-1-C MS	Matrix Spike	Total/NA	Water	6010B	165170
600-113524-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	6010B	165170
LCS 600-165170/2-A	Lab Control Sample	Total/NA	Water	6010B	165170
LCSSRM 600-165116/2-A	Lab Control Sample	Total/NA	Solid	6010B	165116
MB 600-165116/1-A	Method Blank	Total/NA	Solid	6010B	165116
MB 600-165170/1-A	Method Blank	Total/NA	Water	6010B	165170

Analysis Batch: 165305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113192-1 - DL	2015-SCC-16A 0-0.5	Total/NA	Solid	6010B	165116
600-113192-4 - DL	2015-SCC-16B 0-0.5	Total/NA	Solid	6010B	165116
600-113192-7 - DL2	2015-SCC-16C 0-0.5	Total/NA	Solid	6010B	165116
600-113192-12 - DL	Dup-04	Total/NA	Solid	6010B	165116
600-113192-13 - DL	SCC-5C 0.5-2	Total/NA	Solid	6010B	165116
600-113192-21 DU - DL	D-11C 0.5-2	Total/NA	Solid	6010B	165116
600-113192-21 MS - DL	D-11C 0.5-2	Total/NA	Solid	6010B	165116
600-113192-21 MSD - DL	D-11C 0.5-2	Total/NA	Solid	6010B	165116
600-113192-24 - DL	2015-MW-17C 0-0.5	Total/NA	Solid	6010B	165116
600-113192-27 - DL	2015-MW-17D 0.5-2	Total/NA	Solid	6010B	165116
600-113192-30	ECO-5-A 0-0.5	Total/NA	Solid	6010B	165237

TestAmerica Houston

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QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-1

Metals (Continued)

Analysis Batch: 165305 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113192-33	E-11C-C 0-0.5	Total/NA	Solid	6010B	165237
600-113192-33 - DL	E-11C-C 0-0.5	Total/NA	Solid	6010B	165237
600-113192-36	E-11C-D 0-0.5	Total/NA	Solid	6010B	165237
600-113192-36 - DL	E-11C-D 0-0.5	Total/NA	Solid	6010B	165237
600-113192-39	E-11C-B 2.4	Total/NA	Solid	6010B	165237
600-113192-39 - DL	E-11C-B 2.4	Total/NA	Solid	6010B	165237
600-113192-43	SCC-5C 0-0.5	Total/NA	Solid	6010B	165237
600-113192-43 - DL	SCC-5C 0-0.5	Total/NA	Solid	6010B	165237
600-113451-A-28-E DU	Duplicate	Total/NA	Solid	6010B	165237
600-113451-A-28-F MS	Matrix Spike	Total/NA	Solid	6010B	165237
600-113451-A-28-G MSD	Matrix Spike Duplicate	Total/NA	Solid	6010B	165237
600-113566-A-6-C DU	Duplicate	Total/NA	Solid	6010B	165237
600-113566-A-6-D MS	Matrix Spike	Total/NA	Solid	6010B	165237
LCSSRM 600-165237/2-A	Lab Control Sample	Total/NA	Solid	6010B	165237
MB 600-165237/1-A	Method Blank	Total/NA	Solid	6010B	165237

General Chemistry

Analysis Batch: 164564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113192-4	2015-SCC-16B 0-0.5	Total/NA	Solid	Moisture	_
600-113192-4 DU	2015-SCC-16B 0-0.5	Total/NA	Solid	Moisture	
600-113192-7	2015-SCC-16C 0-0.5	Total/NA	Solid	Moisture	
600-113192-10	2015-SCC-16D 0.5-2	Total/NA	Solid	Moisture	
600-113192-10 MS	2015-SCC-16D 0.5-2	Total/NA	Solid	Moisture	
600-113192-10 MSD	2015-SCC-16D 0.5-2	Total/NA	Solid	Moisture	
600-113192-12	Dup-04	Total/NA	Solid	Moisture	
600-113192-13	SCC-5C 0.5-2	Total/NA	Solid	Moisture	
600-113192-15	D-11D 0-0.5	Total/NA	Solid	Moisture	
600-113192-18	D-11E 0-0.5	Total/NA	Solid	Moisture	
600-113192-21	D-11C 0.5-2	Total/NA	Solid	Moisture	
600-113192-21 MS	D-11C 0.5-2	Total/NA	Solid	Moisture	
600-113192-21 MSD	D-11C 0.5-2	Total/NA	Solid	Moisture	
600-113192-23	Dup-06	Total/NA	Solid	Moisture	
600-113192-24	2015-MW-17C 0-0.5	Total/NA	Solid	Moisture	
600-113192-27	2015-MW-17D 0.5-2	Total/NA	Solid	Moisture	
600-113192-27 DU	2015-MW-17D 0.5-2	Total/NA	Solid	Moisture	
600-113192-30	ECO-5-A 0-0.5	Total/NA	Solid	Moisture	
600-113192-33	E-11C-C 0-0.5	Total/NA	Solid	Moisture	
600-113192-36	E-11C-D 0-0.5	Total/NA	Solid	Moisture	
600-113192-39	E-11C-B 2.4	Total/NA	Solid	Moisture	

Analysis Batch: 164679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113146-B-1 DU	Duplicate	Total/NA	Solid	Moisture	
600-113192-1	2015-SCC-16A 0-0.5	Total/NA	Solid	Moisture	
600-113192-43	SCC-5C 0-0.5	Total/NA	Solid	Moisture	
600-113214-A-5 MS	Matrix Spike	Total/NA	Solid	Moisture	
600-113214-A-5 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	

TestAmerica Houston

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Matrix: Solid

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-SCC-16A 0-0.5

Lab Sample ID: 600-113192-1 Date Collected: 06/10/15 09:35 Matrix: Solid

Date Received: 06/11/15 09:22

Dil Initial Batch Batch **Batch** Final Prepared Method Amount Number **Prep Type** Type Run **Factor** Amount or Analyzed Analyst Lab Total/NA Analysis Moisture 164679 06/15/15 17:42 MJB TAL HOU

Client Sample ID: 2015-SCC-16A 0-0.5 Lab Sample ID: 600-113192-1

Date Collected: 06/10/15 09:35 **Matrix: Solid** Date Received: 06/11/15 09:22 Percent Solids: 82.4

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.06 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.06 g	50 mL	165305	06/23/15 15:49	DCL	TAL HOU

Client Sample ID: 2015-SCC-16B 0-0.5 Lab Sample ID: 600-113192-4

Date Collected: 06/10/15 10:05 Date Received: 06/11/15 09:22

Batch Dil **Batch** Initial Final **Batch** Prepared

Туре **Prep Type** Method Amount Amount Number or Analyzed Run **Factor** Analyst Lab Total/NA 164564 06/12/15 18:08 MJB TAL HOU Analysis Moisture

Client Sample ID: 2015-SCC-16B 0-0.5 Lab Sample ID: 600-113192-4

Date Collected: 06/10/15 10:05 **Matrix: Solid** Date Received: 06/11/15 09:22 Percent Solids: 87.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.03 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.03 g	50 mL	165305	06/23/15 15:51	DCL	TAL HOU

Lab Sample ID: 600-113192-7 Client Sample ID: 2015-SCC-16C 0-0.5

Date Collected: 06/10/15 09:55 **Matrix: Solid**

Date Received: 06/11/15 09:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	Moisture		1			164564	06/12/15 18:08	MJB	TAL HOU	

Lab Sample ID: 600-113192-7 Client Sample ID: 2015-SCC-16C 0-0.5

Date Collected: 06/10/15 09:55 **Matrix: Solid** Date Received: 06/11/15 09:22 Percent Solids: 78.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL2		1.07 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B	DL2	10	1.07 g	50 mL	165305	06/23/15 17:15	DCL	TAL HOU

TestAmerica Houston

Matrix: Solid

Matrix: Solid

Matrix: Solid

Percent Solids: 79.9

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-SCC-16D 0.5-2

Lab Sample ID: 600-113192-10 Date Collected: 06/10/15 09:45 **Matrix: Solid**

Date Received: 06/11/15 09:22

Dil Initial Batch **Batch** Final Batch Prepared **Prep Type** Type Method Run **Factor** Amount Amount Number or Analyzed Analyst Total/NA Analysis Moisture 164564 06/12/15 18:08 MJB TAL HOU

Client Sample ID: 2015-SCC-16D 0.5-2 Lab Sample ID: 600-113192-10

Date Collected: 06/10/15 09:45 Date Received: 06/11/15 09:22

Matrix: Solid Percent Solids: 79.9

Dil Initial Batch **Batch** Final **Batch Prepared Prep Type** Type Method **Factor** Amount **Amount** Number or Analyzed Run Analyst Lab DL 3050B TAL HOU Total/NA Prep 1.08 g 50 mL 165116 06/19/15 15:55 NER Total/NA Analysis 6010B DL 5 1.08 g 50 mL 165206 06/22/15 17:03 DCL TAL HOU

Client Sample ID: Dup-04 Lab Sample ID: 600-113192-12

Date Collected: 06/10/15 00:00

Date Received: 06/11/15 09:22

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			164564	06/12/15 18:08	MJB	TAL HOU

Lab Sample ID: 600-113192-12 Client Sample ID: Dup-04

Date Collected: 06/10/15 00:00

Date Received: 06/11/15 09:22

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.06 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.06 g	50 mL	165305	06/23/15 15:56	DCL	TAL HOU

Client Sample ID: SCC-5C 0.5-2 Lab Sample ID: 600-113192-13

Date Collected: 06/10/15 10:25

Date Received: 06/11/15 09:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			164564	06/12/15 18:08	MJB	TAL HOU

Client Sample ID: SCC-5C 0.5-2 Lab Sample ID: 600-113192-13

Date Collected: 06/10/15 10:25

Matrix: Solid Date Received: 06/11/15 09:22 Percent Solids: 85.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.00 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.00 g	50 mL	165242	06/22/15 17:45	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.00 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.00 g	50 mL	165305	06/23/15 16:05	DCL	TAL HOU

TestAmerica Houston

Matrix: Solid

Percent Solids: 78.6

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: D-11D 0-0.5

Lab Sample ID: 600-113192-15 Date Collected: 06/10/15 13:55 **Matrix: Solid** Date Received: 06/11/15 09:22

Dil Initial Batch **Batch** Final Batch Prepared **Prep Type** Type Method Run **Factor** Amount Amount Number or Analyzed **Analyst** Lab Total/NA Analysis Moisture 164564 06/12/15 18:08 MJB TAL HOU

Client Sample ID: D-11D 0-0.5 Lab Sample ID: 600-113192-15

Date Collected: 06/10/15 13:55 Date Received: 06/11/15 09:22

Dil Initial Batch **Batch** Final **Batch Prepared Prep Type** Type Method Run **Factor** Amount **Amount** Number or Analyzed Analyst Lab 3050B TAL HOU Total/NA Prep 1.05 g 50 mL 165116 06/19/15 15:55 NER Total/NA Analysis 6010B 1 1.05 g 50 mL 165242 06/22/15 17:52 DCL TAL HOU

Client Sample ID: D-11E 0-0.5 Lab Sample ID: 600-113192-18 Matrix: Solid

Date Collected: 06/10/15 13:40

Date Received: 06/11/15 09:22

Batch **Batch** Dil Initial Final **Batch** Prepared Method Run Factor Amount Number or Analyzed **Prep Type** Type Amount **Analyst** Lab Total/NA Analysis Moisture 164564 06/12/15 18:08 MJB TAL HOU

Client Sample ID: D-11E 0-0.5 Lab Sample ID: 600-113192-18

Date Collected: 06/10/15 13:40 **Matrix: Solid** Date Received: 06/11/15 09:22 Percent Solids: 78.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.08 g	50 mL	165116	06/19/15 15:55		TAL HOU
Total/NA	Analysis	6010B		1	1.08 g	50 mL	165242	06/22/15 17:54	DCL	TAL HOU

Client Sample ID: D-11C 0.5-2 Lab Sample ID: 600-113192-21

Date Collected: 06/10/15 13:45

Date Received: 06/11/15 09:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			164564	06/12/15 18:08	MJB	TAL HOU

Client Sample ID: D-11C 0.5-2 Lab Sample ID: 600-113192-21

Date Collected: 06/10/15 13:45

Matrix: Solid Date Received: 06/11/15 09:22 Percent Solids: 75.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.00 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.00 g	50 mL	165242	06/22/15 17:56	DCL	TAL HOU

TestAmerica Houston

Matrix: Solid

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: Dup-06

Lab Sample ID: 600-113192-23

Matrix: Solid

Date Collected: 06/10/15 00:00 Date Received: 06/11/15 09:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			164564	06/12/15 18:08	MJB	TAL HOU

Client Sample ID: Dup-06 Lab Sample ID: 600-113192-23

Date Collected: 06/10/15 00:00 Date Received: 06/11/15 09:22 Matrix: Solid
Percent Solids: 74.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	165242	06/22/15 18:05	DCL	TAL HOU

Client Sample ID: 2015-MW-17C 0-0.5

Date Collected: 06/10/15 13:05

Lab Sample ID: 600-113192-24

Matrix: Solid

Date Collected: 06/10/15 13:05 Date Received: 06/11/15 09:22

Batch **Batch** Dil Initial Final **Batch Prepared** Method Run Number or Analyzed **Prep Type** Type Factor Amount Amount **Analyst** Lab 06/12/15 18:08 MJB Total/NA Analysis Moisture 164564 TAL HOU

Client Sample ID: 2015-MW-17C 0-0.5 Lab Sample ID: 600-113192-24

Date Collected: 06/10/15 13:05
Date Received: 06/11/15 09:22

Matrix: Solid
Percent Solids: 79.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	165116	06/19/15 15:55		TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	165242	06/22/15 18:07	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.06 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.06 g	50 mL	165305	06/23/15 16:24	DCL	TAL HOU

Client Sample ID: 2015-MW-17D 0.5-2 Lab Sample ID: 600-113192-27

Date Collected: 06/10/15 13:10 Date Received: 06/11/15 09:22

Dil Initial Final Batch Batch Batch **Prepared** Method Number or Analyzed **Prep Type** Type Run Factor Amount Amount **Analyst** Lab 164564 06/12/15 18:08 MJB Total/NA Analysis Moisture TAL HOU

Client Sample ID: 2015-MW-17D 0.5-2 Lab Sample ID: 600-113192-27

 Date Collected: 06/10/15 13:10
 Matrix: Solid

 Date Received: 06/11/15 09:22
 Percent Solids: 82.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.07 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.07 g	50 mL	165242	06/22/15 18:09	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.07 g	50 mL	165116	06/19/15 15:55	NER	TAL HOU

TestAmerica Houston

Matrix: Solid

Matrix: Solid

Matrix: Solid

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-MW-17D 0.5-2 Lab Sample ID: 600-113192-27

 Date Collected: 06/10/15 13:10
 Matrix: Solid

 Date Received: 06/11/15 09:22
 Percent Solids: 82.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	6010B	DL	5	1.07 g	50 mL	165305	06/23/15 16:26	DCL	TAL HOU

Client Sample ID: ECO-5-A 0-0.5 Lab Sample ID: 600-113192-30

Date Collected: 06/10/15 10:40

Date Received: 06/11/15 09:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			164564	06/12/15 18:08	MJB	TAL HOU

Client Sample ID: ECO-5-A 0-0.5 Lab Sample ID: 600-113192-30

Date Collected: 06/10/15 10:40

Date Received: 06/11/15 09:22

Matrix: Solid
Percent Solids: 80.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.08 g	50 mL	165237	06/22/15 15:11	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.08 g	50 mL	165305	06/23/15 13:24	DCL	TAL HOU

Client Sample ID: E-11C-C 0-0.5 Lab Sample ID: 600-113192-33

Date Collected: 06/10/15 14:40

Date Received: 06/11/15 09:22

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			164564	06/12/15 18:08	MJB	TAL HOU

Client Sample ID: E-11C-C 0-0.5 Lab Sample ID: 600-113192-33

 Date Collected: 06/10/15 14:40
 Matrix: Solid

 Date Received: 06/11/15 09:22
 Percent Solids: 76.8

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.09 g	50 mL	165237	06/22/15 15:11	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.09 g	50 mL	165305	06/23/15 13:34	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.09 g	50 mL	165237	06/22/15 15:11	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.09 g	50 mL	165305	06/23/15 16:38	DCL	TAL HOU

Client Sample ID: E-11C-D 0-0.5 Lab Sample ID: 600-113192-36

Date Collected: 06/10/15 14:30 Date Received: 06/11/15 09:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			164564	06/12/15 18:08	MJB	TAL HOU

TestAmerica Houston

Matrix: Solid

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Client: Golder Associates Inc.

Total/NA

Analysis

Moisture

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: E-11C-D 0-0.5

Date Collected: 06/10/15 14:30

Lab Sample ID: 600-113192-36 Matrix: Solid

Percent Solids: 78.6

Date Received: 06/11/15 09:22

Batch Batch Dil Initial Final Batch P

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.09 g	50 mL	165237	06/22/15 15:11	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.09 g	50 mL	165305	06/23/15 13:36	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.09 g	50 mL	165237	06/22/15 15:11	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.09 g	50 mL	165305	06/23/15 16:40	DCL	TAL HOU

Client Sample ID: E-11C-B 2.4 Lab Sample ID: 600-113192-39

Date Collected: 06/10/15 14:10 Matrix: Solid
Date Received: 06/11/15 09:22

Dil Batch Batch Initial Final Batch Prepared **Prep Type** Type Method Run **Factor** Amount Amount Number or Analyzed **Analyst** Lab

Prep TypeTypeMethodRunFactorAmountNumberor AnalyzedAnalyzedAnalystLabTotal/NAAnalysisMoisture11116456406/12/15 18:08MJBTAL HOU

Client Sample ID: E-11C-B 2.4 Lab Sample ID: 600-113192-39

Date Collected: 06/10/15 14:10 Matrix: Solid

Date Collected: 06/14/45 00:22

Date Received: 06/11/15 09:22 Percent Solids: 78.1

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	50 mL	165237	06/22/15 15:11	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.05 g	50 mL	165305	06/23/15 13:39	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.05 g	50 mL	165237	06/22/15 15:11	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.05 a	50 mL	165305	06/23/15 16:42	DCL	TAL HOU

Client Sample ID: Equipment Blank

Lab Sample ID: 600-113192-42

Date Collected: 06/10/15 16:00 Matrix: Water
Date Received: 06/11/15 09:22

Batch **Batch** Dil Initial Final **Batch Prepared** Method Amount Amount Number or Analyzed **Prep Type** Type Run Factor Analyst Lab Total/NA 3010A 165170 06/22/15 08:40 NER Prep 50 mL 50 mL TAL HOU Total/NA Analysis 6010B 1 50 mL 50 mL 165242 06/22/15 16:34 DCL TAL HOU

Client Sample ID: SCC-5C 0-0.5 Lab Sample ID: 600-113192-43

Date Collected: 06/10/15 10:25 Matrix: Solid
Date Received: 06/11/15 09:22

Batch Batch Dil Initial Final Batch **Prepared** Method Number Run Amount **Amount** or Analyzed **Prep Type** Type **Factor** Analyst Lab

164679

06/15/15 17:42 MJB

TAL HOU

Lab Chronicle

Client: Golder Associates Inc.

Date Collected: 06/10/15 10:25

Date Received: 06/11/15 09:22

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: SCC-5C 0-0.5

TestAmerica Job ID: 600-113192-1

Lab Sample ID: 600-113192-43

Matrix: Solid

Percent Solids: 84.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.08 g	50 mL	165237	06/22/15 15:11	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.08 g	50 mL	165305	06/23/15 13:41	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.08 g	50 mL	165237	06/22/15 15:11	NER	TAL HOU
Total/NA	Analysis	6010B	DL	10	1.08 g	50 mL	165305	06/23/15 16:44	DCL	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-1

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223	10-31-15
The following analyte:	s are included in this repo	rt, but certification is	not offered by the g	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	te	
Moisture		Solid	Perce	nt Moisture	
Moisture		Solid	Perce	nt Solids	

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TestAmerica Houston
631Q Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 69

Chain of Custody Record

le: Company	Date/Time:	Received by: Cooler Temperature(s) °C and Other Remarks	Cox	Company			Date/Time	Custody Seal No.:	Relinquished by: Custody Seals Intact: Custody A Yes A No
le. Company	Date/Time	SAME O 100.	Rec	Company			Date/Time, •	2	Relinquished by
1 Red CO 5/11/10	Date/ijm	(WW y' Nia solve	Recei	Ü,	615	1.15	Date/Time.	11	Reinquished by Jinh Som
	Method of Shipment	<u></u>	Time:			Date:			Empty Kit Relinquished by:
		Special Instructions/QC Requirements:	Specia					Other (specify)	Deliverable Requested I, II, III, IV, Other (specify)
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of po Other:	-P -SE -A:	I Meth 6010B	(SI D (SSOW#	•	Site Exide Recycling Center, Frisco TX
	>	od - As, C	as or				Project #: 60006523	(Project Name: Exide Recycling Center, Frisco TX
J - DI Water		d, Pb,	No				WO#		Email afaeth@golder.com
G - Amchlor H - Ascorbic Acid		ist	o) :		sted	der Reque	Purchase Order Requested		Phone 636-724-9191
D-Niffic Acid P-Na2O4S 6 E-NaHSO4 Q-Na2SO3 7 F-MaCH R-Na2SOSO3					10 Days	_			State, Zip: MO, 63301
	_	ı					TAT Requested (days):		City: St. Charles
6	\$	The transport with				lested:	Due Date Requested:		Address: 820 South Main Street Suite 100
Job#	Requested	Analysis							Company: Golder Associates Inc.
Page 2 of 4		E-Mail: cathy.upton@testamericainc.com	ilt: iy.upton@t		6 3888	८) ५16	Phone (832)		Client Contact Anne Faeth-Boyd
COC No: 600-36678-12035.1	Camer Tracking No(s).		Lab PM Upton, Cathy L	Lab F Upto	50AG X1	Jin6 50			Client Information
できましまなので、大きなおおの母のならでで、これに「食べているな								690-5646	Phone (713) 690-4444 Fax (713) 690-5646

TestAmerica Houston
6310 Rof Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 65

Chain of Custody Record

TestAmerica

Phone (713) 690-4444 Fax (713) 690-5646	Sampler:			Lab PM	Lab PM			Carrier Tra	Tracking No(s).	٦		COC No	The second secon
Client Contact Anne Faeth-Boyd	Phone: (S23)	635t 917 (≪	E-Mail.	E-Mail. cathy.upton@testamericaing	ericainc.com		, 				Page 3 of 4	
Company Golder Associates Inc.	1						Analysis Re	Requested				Job#	
Address: 820 South Main Street Suite 100	Due Date Requested:				A	Accordan-4	211/2 J		(A)		- 3	ion Cod	ਗ <u>ੋ</u>
City: St. Charles	TAT Requested (days):	,-			W								N - None O - AsNaO2
State, Zip: MO, 63301		10 Days								•		E - NaHSO4	
Phone: 636-724-9191	Po# Purchase Order Requested	equested		214.7		Se, Sb					777777 2.5 25	or Acid	4 odecahydrate
Email: afaeth@golder.com	#OW				loj-	i, Pb, :					rst.	J - Ice J - Di Water	, ne
Project Name Fried Beauting Center Erison IX	Project #:		:	200	s or ind Li	As, Co					talne	C-EDA	specify)
Site:	SSOW#				(Y) ipot	0B-		A 5	Pb	-	ööń	Other:	
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TestAmerica Houston
63.′ ⇒Rothikay Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Days Call C	Client Information	Sampler いっこ とうちょく	*	Lab del	Lab PM: Upton, Cathy L			Camer Tracking No(s):	No(s):	0 .0	COC No 600-36678-12035,1	5.1
Analysis Reduceded Analysi	Client Contact: Anne Faeth-Boyd	المارة (15 ك) المرا	88867	E-v	lail· hv.upton@tes:	americainc.c	ř			- rel	age: 👍 of	
	Company: Golder Associates Inc.	ŀ	1 1 1			<u>≯</u>	nalysis Req	uested				
The Contact Fisco X Some	Address: 820 South Main Street Suite 100	Due Date Requested:				刮	it m so rap	#5m 7	Į		ation Cod	: 15
10 Days 10 D	City: St. Charles	TAT Requested (days)							<u>_</u>			M - Hexane N - None O - AsNaO2
Control Fridon N	State, Zip: MO, 63301		10 Days							77 () 		P - Na2O4S Q - Na2SO3
## Combine Fridox IX	Phone: 636-724-9191	Po#. Purchase Order Re	equested		0)= (6e, Sb					<u> </u>	R - N8252503 S - H2SO4 T - TSP Dodecahydrate
Ing Center, Fisco 1x	Email: afaeth@golder.com	₩O#:			No.	і, Рь, \$				<u> </u>		U - Acetone V - MCAA
Ing Contact, Frisco 1x Scholar Sample Contact Frisco 1x Sample Contact Frisco 1x Sample Contact Contact Frisco 1x Sample Contact	Project Name. Exide Recycling Center, Frisco TX	Project #: 60006523			s or					.,,,,,,		W - ph 4-5 Z - other (specify)
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	<u> </u>				Cooler	Temperature(s)	°C and Other Rem	ıarks				

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JOB NUMBER:		CLIENT:		ldes FK		
UNPACKED BY:		CARRIER/DRIVER:		• •		
Custody Seal Present.	NO □ NO	Number of Coolers R	leceived:			
<u>Go</u> olex ID	Temp Blank Trip Blank	Observed Temp	Therm	Them QF	Corrected Temp (℃)	
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	Y / N Y / N Y / N Y / N		·			-
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	YINYIN	· · · · · · · · · · · · · · · · · · ·		\		
Samples received on i	ce? Syes NO	REQUIRED:	NO	YES		
LABORATORY PRES Base samples are>pH	SERVATION OF SAMPLES	REQUIRED:		□ YES	□ио	
LABORATORY PRES	SERVATION OF SAMPLES			/	□ио	
LABORATORY PRES Base samples are>pH pH paper Lot #	SERVATION OF SAMPLES	Acid preserved are		/	□NO	
LABORATORY PRES Base samples are>pH pH paper Lot #	SERVATION OF SAMPLES 12: YES NO 432654	Acid preserved are		/		
LABORATORY PRES Base samples are>pH pH paper Lot # LC VOA headspace acce	SERVATION OF SAMPLES 12: YES NO 432654	Acid preserved are	<ph 2:<="" td=""><td>YES</td><td>□ NO</td><td></td></ph>	YES	□ NO	
LABORATORY PRES Base samples are>pH pH paper Lot # #C VOA headspace acce Did samples meet th	SERVATION OF SAMPLES 12: YES NO 432654 ptable (5-6mm): YES	Acid preserved are	<ph 2:<br="">ty upon recei</ph>	YES		
LABORATORY PRES Base samples are>pH pH paper Lot # LC VOA headspace acce	SERVATION OF SAMPLES 12: YES NO 432654 ptable (5-6mm): YES	Acid preserved are	<ph 2:<br="">ty upon recei</ph>	YES		
LABORATORY PRES Base samples are>pH pH paper Lot # #C VOA headspace acce Did samples meet th	SERVATION OF SAMPLES 12: YES NO 432654 ptable (5-6mm): YES	Acid preserved are	<ph 2:<br="">ty upon recei</ph>	YES		
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TestAmerica-Houston

Login Sample Receipt Checklist

Client: Golder Associates Inc. Job Number: 600-113192-1

Login Number: 113192 **List Source: TestAmerica Houston**

List Number: 1

Creator: Capps, Dana R

oroator. Suppo, Buna IX		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-113192-3

Client Project/Site: Exide Recycling Center, Frisco TX

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 7/31/2015 3:14:43 PM

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Cover Page	1
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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

This data package is for	TestAmerica Houston	job number	600-113192-3	and consists of:

☑ R1 - Field chain-of-custody documentation;

☑ R2 - Sample identification cross-reference;

☑ R3 - Test reports (analytical data sheets) for each environmental sample that includes:

- a. Items consistent with NELAC Chapter 5,
- b. dilution factors,
- c. preparation methods,
- d. cleanup methods, and
- e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☐ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

Official Title (printed)

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Jeanette Castillo, for Cathy Upton	Jeanith Costillo	7/31/2015
Name (printed)	Signature	Date
Project Manager I		

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	7/31/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113192-3
Reviewer Name:	Jeanette Castillo, for Cathy Unton		

# ¹ A ²	Description	Yes	No	NA ³	NR⁴	ER# ⁵
	n-of-custody (C-O-C)	<u> </u>				
	amples meet the laboratory's standard conditions of sample acceptability upon receipt?	Χ				
	all departures from standard conditions described in an exception report?	Χ				
	ole and quality control (QC) identification					
	If ield sample ID numbers cross-referenced to the laboratory ID numbers?	Х				
Are all	ll laboratory ID numbers cross-referenced to the corresponding QC data?	Х				
R3 OI Test r	reports					
	all samples prepared and analyzed within holding times?	Χ				
Other	than those results < MQL, were all other raw values bracketed by calibration standards?	Χ				
	calculations checked by a peer or supervisor?	Χ				
Were	all analyte identifications checked by a peer or supervisor?	Χ				
Were	sample detection limits reported for all analytes not detected?	Х				
Were	all results for soil and sediment samples reported on a dry weight basis?	Х				
	% moisture (or solids) reported for all soil and sediment samples?	Х				
Were	bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Χ		
If requ	uired for the project, are TICs reported?			Χ		
4 O Surro	gate recovery data					
Were	surrogates added prior to extraction?			Χ		
	surrogate percent recoveries in all samples within the laboratory QC limits?			Χ		
S OI Test r	reports/summary forms for blank samples					
	appropriate type(s) of blanks analyzed?	Х				
	blanks analyzed at the appropriate frequency?	Х				
	method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
	dures?	Х				
1	blank concentrations < MQL?	Х				
	ratory control samples (LCS):					
	all COCs included in the LCS?			Х		
	each LCS taken through the entire analytical procedure, including prep and cleanup steps?			X		
	LCSs analyzed at the required frequency?			X		
	LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?			X		
	the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used					
	culate the SDLs?			Х		
	the LCSD RPD within QC limits?	1		X		
		1		^		
	x spike (MS) and matrix spike duplicate (MSD) data	Х				
	the project/method specified analytes included in the MS and MSD? MS/MSD analyzed at the appropriate frequency?	X				
		Χ	· ·			D070
	MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
	MS/MSD RPDs within laboratory QC limits?		Χ			R07D
	tical duplicate data					
	appropriate analytical duplicates analyzed for each matrix?	X				
	analytical duplicates analyzed at the appropriate frequency?	Х	L.,			D060
	RPDs or relative standard deviations within the laboratory QC limits?	ļ	Х			R08C
	od quantitation limits (MQLs):	<u> </u>				
	ne MQLs for each method analyte included in the laboratory data package?	Х				
	e MQLs correspond to the concentration of the lowest non-zero calibration standard?	Χ				
	nadjusted MQLs and DCSs included in the laboratory data package?	Χ				
	r problems/anomalies					
Are all	Il known problems/anomalies/special conditions noted in this LRC and ER?	Χ				
	applicable and available technology used to lower the SDL to minimize the matrix interference effects on the					
sampl	le results?		Х			R10B
	laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and					
	ods associated with this laboratory data package?	Х				
	identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required repo	ort(s). I	tems			

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	7/31/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113192-3
Reviewer Name:	Jeanette Castillo, for Cathy Upton		

#1 A2	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
	Initial calibration (ICAL)	103				
. 0.	Were response factors and/or relative response factors for each analyte within QC limits?	Х				
	Were percent RSDs or correlation coefficient criteria met?	X				
	Was the number of standards recommended in the method used for all analytes?	X				
	Were all points generated between the lowest and highest standard used to calculate the curve?	X				
	Are ICAL data available for all instruments used?	X				
	Has the initial calibration curve been verified using an appropriate second source standard?	X				
	That the littlat cambration curve been verified using an appropriate second source standard?	^				
S2 OI	Initial and continuing colibration varification /ICV and CCV) and continuing colibration blank (CCP)					
52 OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB): Was the CCV analyzed at the method-required frequency?	V				
		X				
	Were percent differences for each analyte within the method-required QC limits?	X				
	Was the ICAL curve verified for each analyte?	X				
. 1-	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
S3 O	Mass spectral tuning					
	Was the appropriate compound for the method used for tuning?			Χ		
	Were ion abundance data within the method-required QC limits?			Х		
34 O	Internal standards (IS)					
	Were IS area counts and retention times within the method-required QC limits?			Χ		
55 OI	Raw data (NELAC Section 5.5.10)					
	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
	Were data associated with manual integrations flagged on the raw data?	Х				
36 O	Dual column confirmation					
	Did dual column confirmation results meet the method-required QC?			Χ		
37 O	Tentatively identified compounds (TICs)					
	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Χ		
S8	Interference Check Sample (ICS) results					
	Were percent recoveries within method QC limits?	Х				
S9 I	Serial dilutions, post digestion spikes, and method of standard additions					
	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		Х			S09A
S10 OI	Method detection limit (MDL) studies					
	Was a MDL study performed for each reported analyte?	Х				
	Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11 O	Proficiency test reports	^				
311 O1	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х				
12 O	Standards documentation					
) IZ OI	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
242 01	Compound/analyte identification procedures	^				
513		V				
244 101	Are the procedures for compound/analyte identification documented?	Х				
514 01	Demonstration of analyst competency (DOC)					
	Was DOC conducted consistent with NELAC Chapter 5?	X				
1 - 1 - ·	Is documentation of the analyst's competency up-to-date and on file?	Х	ļ			
S15 OI	Verification/validation documentation for methods (NELAC Chapter 5)		ļ			
	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Х				
S16 OI	Laboratory standard operating procedures (SOPs)					
	Are laboratory SOPs current and on file for each method performed?	X				
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required		tems			
	identified by the letter "S" should be retained and made available upon request for the appropriate retention period	d.				
2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
3.	NA = Not applicable;					
4.	NR = Not reviewed;					
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "N	o" is chacl	(ba)			

Page 5 of 27 7/31/2015

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	7/31/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113192-3
Reviewer Name:	Jeanette Castillo, for Cathy Upton		

ER # ¹	Description	
R07C	Method 6010B: 600-113192-28 MS/MSD failed the recovery criteria for the following analyte(s): Antimony. Matrix interference is suspected. Method 6010B: 600-113192-28 MS failed the recovery criteria for the following analyte(s): Lead. Matrix interference is suspected	
R07D	Method 6010B: 600-113192-28 MSD failed the RPD criteria for the following analyte(s): Lead.	
R08C	Method 6010B: 600-113192-28 DU failed the RPD criteria for the following analyte(s): Lead.	
R10B	Method 6010B: The following samples was diluted to bring the concentration of target analytes within calibration range: 2015-SCC-16B 0.5-2 (600-113192-5), D-11C 2-4 (600-113192-22) and 2015-MW-17D 2-4 (600-113192-28). Elevated reporting limits (RLs) are provided.	
S09A	Method 6010B: The serial dilution performed for the following sample associated with batch 167744 was outside control limits for Arsenic (11%): (600-113192-A-28-A SD).	
1. 2. 3. 4.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed:	
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).	ı

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TestAmerica Houston

Matrix: Solid

Method: SW-846 6010B or 6010C

 Prep Method:
 SW-846 3050B

 Date Analyzed:
 5/13/2015

 Job #:
 600-109337

 TALS Batch:
 162296

 Units:
 mg/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Ag	Thermo6500	0.119	0.200	0.220	0.4
Al	SPECTRO1	0.300	0.500	0.718	25
As	Thermo6500	0.218	0.500	0.480	1
В	SPECTRO1	0.386	0.600	0.698	20
Ва	Thermo6500	0.030	0.030	0.040	1
Be	Thermo6500	0.015	0.020	0.020	0.25
Ca	SPECTRO1	0.864	2.500	7.426	100
Cd	Thermo6500	0.026	0.050	0.045	0.25
Co	Thermo6500	0.068	0.100	0.105	0.5
Cr	Thermo6500	0.051	0.100	0.110	0.5
Cu	Thermo6500	0.174	0.500	0.425	0.5
Fe	Thermo6500	2.530	4.000	3.915	20
K	Thermo6500	11.000	12.000	13.360	100
Li	SPECTRO1	0.008	0.010	0.062	10
Mg	Thermo6500	1.920	3.000	3.705	100
Mn	Thermo6500	0.038	0.050	0.055	1.5
Мо	Thermo6500	0.136	0.350	0.325	0.5
Na	Thermo6500	0.886	2.400	2.520	100
Ni	Thermo6500	0.117	0.150	0.140	1
Pb	Thermo6500	0.105	0.200	0.195	0.5
Sb	Thermo6500	0.232	0.450	0.410	2.5
Se	Thermo6500	0.259	0.500	0.550	2
Si	SPECTRO1	0.117	0.270	6.900	10
Sn	SPECTRO1	0.087	0.150	0.117	1
Sr	SPECTRO1	0.003	0.005	0.042	0.25
Ti	Thermo6500	0.015	0.030	0.020	0.5
TI	Thermo6500	0.277	0.700	0.580	1.5
V	Thermo6500	0.079	0.150	0.145	0.5
Zn	SPECTRO1	0.108	0.200	0.198	1.5

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Case Narrative

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-3

Job ID: 600-113192-3

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-113192-3

Comments

No additional comments.

Receipt

The samples were received on 6/11/2015 9:22 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2° C.

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Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-3

Method	Method Description	Protocol	Laboratory	
6010B	Metals (ICP)	SW846	TAL HOU	
Moisture	Percent Moisture	EPA	TAL HOU	

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-113192-5	2015-SCC-16B 0.5-2	Solid	06/10/15 10:05	06/11/15 09:22
600-113192-22	D-11C 2-4	Solid	06/10/15 13:45	06/11/15 09:22
600-113192-28	2015-MW-17D 2-4	Solid	06/10/15 13:10	06/11/15 09:22

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Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-SCC-16B 0.5-2

Lab Sample ID: 600-113192-5

Date Collected: 06/10/15 10:05 Matrix: Solid Date Received: 06/11/15 09:22

General Chemistry Analyte Result Qualifier SDL Unit Dil Fac MQL (Adj) D Prepared Analyzed 20 H 1.0 1.0 % 07/21/15 17:11 **Percent Moisture** 1.0 1.0 % 07/21/15 17:11 **Percent Solids** 80 H

Client Sample ID: 2015-SCC-16B 0.5-2 Lab Sample ID: 600-113192-5

Date Collected: 06/10/15 10:05 **Matrix: Solid** Date Received: 06/11/15 09:22 Percent Solids: 80.1

Method: 6010B - Metals (ICP) - DL MQL (Adj) SDL Unit D Dil Fac Analyte Result Qualifier Prepared Analyzed ₩ Lead 3.06 0.643 mg/Kg 07/24/15 08:30 07/24/15 15:50 16.9

Client Sample ID: D-11C 2-4 Lab Sample ID: 600-113192-22 Matrix: Solid

Date Collected: 06/10/15 13:45 Date Received: 06/11/15 09:22

General Chemistry Analyte Result Qualifier MQL (Adi) SDL Unit D Prepared Analyzed Dil Fac 26 H 10 1.0 % 07/21/15 17:11 **Percent Moisture Percent Solids** 74 H 1.0 1.0 % 07/21/15 17:11

Client Sample ID: D-11C 2-4 Lab Sample ID: 600-113192-22 Date Collected: 06/10/15 13:45 Matrix: Solid

Date Received: 06/11/15 09:22 Percent Solids: 73.9

Method: 6010B - Metals (ICP) - DL Analyte Result Qualifier MQL (Adj) SDL Unit D Dil Fac Prepared Analyzed <u>07/24/15 08:30</u> <u>07/24/15 15:52</u> 2.60 0.567 mg/Kg **Arsenic** 9.97

Client Sample ID: 2015-MW-17D 2-4 Lab Sample ID: 600-113192-28

Date Collected: 06/10/15 13:10 Matrix: Solid Date Received: 06/11/15 09:22

General Chemistry Analyte Result Qualifier SDL Unit MQL (Adj) D Prepared Analyzed Dil Fac 1.0 % 07/21/15 17:11 **Percent Moisture** 25 H 1.0 **Percent Solids** 1.0 07/21/15 17:11 75 H 1.0

Client Sample ID: 2015-MW-17D 2-4 Lab Sample ID: 600-113192-28

Date Collected: 06/10/15 13:10 Matrix: Solid Date Received: 06/11/15 09:22 Percent Solids: 74.6

Method: 6010B - Metals (ICP) Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac Antimony 0.293 U 3.16 0.293 mg/Kg 07/24/15 08:30 07/24/15 13:47 Method: 6010B - Metals (ICP) - DL

Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac 6.32 1.38 mg/Kg ₩ 07/24/15 08:30 07/24/15 15:54 5 Arsenic 14.5 07/24/15 08:30 07/24/15 15:54 3.16 0.664 mg/Kg 5 Lead 101

TestAmerica Houston

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Relative error ratio

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

TestAmerica Job ID: 600-113192-3

Qualifiers

Metals

Qualifier	Qualifier Description	
U	Analyte was not detected at or above the SDL.	
F	Duplicate RPD exceeds the control limit	
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.	
N2	RPD of the MS and MSD exceeds the control limits	

General Chemistry

Qualifier	Qualifier Description
Н	Sample was prepped or analyzed beyond the specified holding time

Glossary

RER

RPD

TEF

TEQ

RL

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control

TestAmerica Houston

TestAmerica Job ID: 600-113192-3

Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX

Lab Sample ID: LCSSRM 600-167686/2-A

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-167686/1-A **Matrix: Solid**

Analysis Batch: 167744

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 167686

	1410	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		07/24/15 08:30	07/24/15 13:30	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		07/24/15 08:30	07/24/15 13:30	1
Lead	0.105	U	0.500	0.105	mg/Kg		07/24/15 08:30	07/24/15 13:30	1

MD MD

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 167686

Prep Type: Total/NA

Analysis Batch: 167744 Spike LCSSRM LCSSRM %Rec. Analyte Added Result Qualifier Limits Unit D %Rec **Antimony** 94.0 65.05 mg/Kg 69.2 1.1 - 213. 8 Arsenic 113 108.8 mg/Kg 96.3 78.2 - 122. 96.8 81.7 - 118. 90.1 87.24 Lead mg/Kg 8

Client Sample ID: 2015-MW-17D 2-4 Lab Sample ID: 600-113192-28 MS

Matrix: Solid

Matrix: Solid

Analysis Batch: 167744

Prep Batch: 167686 Sample Sample Spike MS MS %Rec.

Added Limits Result Qualifier Result Qualifier %Rec **Analyte** Unit D ₩ 28 Antimony 0.293 U 64.5 18.07 N1 mg/Kg 75 - 125 Arsenic 14.2 64.5 71 87 mg/Kg 90 75 - 125

Lab Sample ID: 600-113192-28 MSD Client Sample ID: 2015-MW-17D 2-4 Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 167744

Prep Batch: 167686 MSD MSD Sample Sample Spike %Rec. **RPD** Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit 0.293 U 65.1 22.20 N1 34 **Antimony** mg/Kg 75 - 125 20 20 Arsenic 14.2 65.1 73.80 mg/Kg 92 75 - 125

Lab Sample ID: 600-113192-28 DU Client Sample ID: 2015-MW-17D 2-4 Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 167744 Prep Batch: 167686 Sample Sample DU DU **RPD** Analyte Result Qualifier Result Qualifier Unit D **RPD** Limit ₩ Antimony 0.293 U 0.302 U mg/Kg NC 20 ₩ Arsenic 14.2 13.97 mg/Kg 2 20

Method: 6010B - Metals (ICP) - DL

Lab Sample ID: 600-113192-28 MS Client Sample ID: 2015-MW-17D 2-4 Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 167744 Prep Batch: 167686 Sample Sample Spike MS MS %Rec. Result Qualifier Analyte Added Result Qualifier Unit D %Rec Limits 77 Lead - DL 101 64.5 103.9 N1 mg/Kg

TestAmerica Houston

7/31/2015

QC Sample Results

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-3

Method: 6010B - Metals (ICP) - DL (Continued)

Lab Sample ID: 600-113192-28 MSD Client Sample ID: 2015-MW-17D 2-4 **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 167744** Prep Batch: 167686 Sample Sample Spike MSD MSD %Rec. **RPD** Analyte **Result Qualifier** Added Result Qualifier Unit D %Rec Limits RPD Limit Lead - DL 65.1 107 75 - 125 101 171.3 N2 mg/Kg 20 49

Lab Sample ID: 600-113192-28 DU Client Sample ID: 2015-MW-17D 2-4 **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 167744 Prep Batch: 167686** Sample Sample DU DU **RPD** Result Qualifier Result Qualifier RPD Limit Analyte Unit D ☼ 20 Arsenic - DL 14.5 14.55 mg/Kg 0.2 ₩ Lead - DL 101 62.90 F mg/Kg 47 20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-113192-5 DU Client Sample ID: 2015-SCC-16B 0.5-2 **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 167427** DU DU RPD Sample Sample RPD Analyte **Result Qualifier** Result Qualifier Unit D Limit Percent Moisture 20 H 20 % 2 20 Percent Solids 80 H 80 % 0.5 20

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8-IN ICP-AES AND ICP-MS SERIAL DILUTIONS METALS

Lab ID: 600-113192-28	
SDG No:	
Lab Name: TestAmerica Houston	Job No: 600-113192-3
Matrix: Solid	Concentration Units: mg/Kg

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	Method
Antimony	0.293 U	1.929 J	NC		6010B
Arsenic	14.2	15.75	11	*	6010B
Lead	103	103.9	0.83		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-3

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method	
Antimony	2.50	0.232	mg/Kg	6010B	
Arsenic	1.00	0.218	mg/Kg	6010B	
Lead	0.500	0.105	mg/Kg	6010B	

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

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QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-3

Metals

Prep Batch: 167686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113192-5 - DL	2015-SCC-16B 0.5-2	Total/NA	Solid	3050B	
600-113192-22 - DL	D-11C 2-4	Total/NA	Solid	3050B	
600-113192-28	2015-MW-17D 2-4	Total/NA	Solid	3050B	
600-113192-28 - DL	2015-MW-17D 2-4	Total/NA	Solid	3050B	
600-113192-28 DU	2015-MW-17D 2-4	Total/NA	Solid	3050B	
600-113192-28 DU - DL	2015-MW-17D 2-4	Total/NA	Solid	3050B	
600-113192-28 MS - DL	2015-MW-17D 2-4	Total/NA	Solid	3050B	
600-113192-28 MS	2015-MW-17D 2-4	Total/NA	Solid	3050B	
600-113192-28 MSD	2015-MW-17D 2-4	Total/NA	Solid	3050B	
600-113192-28 MSD - DL	2015-MW-17D 2-4	Total/NA	Solid	3050B	
LCSSRM 600-167686/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-167686/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 167744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113192-5 - DL	2015-SCC-16B 0.5-2	Total/NA	Solid	6010B	167686
600-113192-22 - DL	D-11C 2-4	Total/NA	Solid	6010B	167686
600-113192-28	2015-MW-17D 2-4	Total/NA	Solid	6010B	167686
600-113192-28 - DL	2015-MW-17D 2-4	Total/NA	Solid	6010B	167686
600-113192-28 DU	2015-MW-17D 2-4	Total/NA	Solid	6010B	167686
600-113192-28 DU - DL	2015-MW-17D 2-4	Total/NA	Solid	6010B	167686
600-113192-28 MS	2015-MW-17D 2-4	Total/NA	Solid	6010B	167686
600-113192-28 MS - DL	2015-MW-17D 2-4	Total/NA	Solid	6010B	167686
600-113192-28 MSD	2015-MW-17D 2-4	Total/NA	Solid	6010B	167686
600-113192-28 MSD - DL	2015-MW-17D 2-4	Total/NA	Solid	6010B	167686
LCSSRM 600-167686/2-A	Lab Control Sample	Total/NA	Solid	6010B	167686
MB 600-167686/1-A	Method Blank	Total/NA	Solid	6010B	167686

General Chemistry

Analysis Batch: 167427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113192-5	2015-SCC-16B 0.5-2	Total/NA	Solid	Moisture	
600-113192-5 DU	2015-SCC-16B 0.5-2	Total/NA	Solid	Moisture	
600-113192-22	D-11C 2-4	Total/NA	Solid	Moisture	
600-113192-28	2015-MW-17D 2-4	Total/NA	Solid	Moisture	
600-113192-28 MS	2015-MW-17D 2-4	Total/NA	Solid	Moisture	
600-113192-28 MSD	2015-MW-17D 2-4	Total/NA	Solid	Moisture	

Page 17 of 27

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-SCC-16B 0.5-2 Lab Sample ID: 600-113192-5

Date Collected: 06/10/15 10:05

Matrix: Solid

Date Received: 06/11/15 09:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			167427	07/21/15 17:11	MJB	TAL HOU

Client Sample ID: 2015-SCC-16B 0.5-2 Lab Sample ID: 600-113192-5

Date Collected: 06/10/15 10:05 Matrix: Solid Date Received: 06/11/15 09:22 Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.02 g	50 mL	167686	07/24/15 08:30	DCL	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.02 g	50 mL	167744	07/24/15 15:50	DCL	TAL HOU

Client Sample ID: D-11C 2-4 Lab Sample ID: 600-113192-22 **Matrix: Solid**

Date Collected: 06/10/15 13:45 Date Received: 06/11/15 09:22

Batch Dil **Batch** Initial Final **Batch** Prepared Туре **Prep Type** Method Factor Amount Amount Number or Analyzed Analyst Run Lab Total/NA 167427 07/21/15 17:11 MJB TAL HOU Analysis Moisture

Client Sample ID: D-11C 2-4 Lab Sample ID: 600-113192-22

Date Collected: 06/10/15 13:45 **Matrix: Solid** Date Received: 06/11/15 09:22 Percent Solids: 73.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.04 g	50 mL	167686	07/24/15 08:30	DCL	TAL HOU
Total/NA	Analysis	6010B	DL	2	1.04 g	50 mL	167744	07/24/15 15:52	DCL	TAL HOU

Lab Sample ID: 600-113192-28 **Client Sample ID: 2015-MW-17D 2-4**

Date Collected: 06/10/15 13:10 **Matrix: Solid** Date Received: 06/11/15 09:22

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	Moisture					167427	07/21/15 17:11	MJB	TAL HOU	

Lab Sample ID: 600-113192-28 Client Sample ID: 2015-MW-17D 2-4

Date Collected: 06/10/15 13:10 **Matrix: Solid** Date Received: 06/11/15 09:22 Percent Solids: 74.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	167686	07/24/15 08:30	DCL	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	167744	07/24/15 13:47	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.06 g	50 mL	167686	07/24/15 08:30	DCL	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.06 g	50 mL	167744	07/24/15 15:54	DCL	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-3

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113192-3

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223	10-31-15
The following analyte:	s are included in this repo	rt, but certification is	not offered by the g	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	е	
		0-1:-1			
Moisture		Solid	Perce	nt Moisture	

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TestAmerica Houston
631Q Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 69

Chain of Custody Record

(713) 590-4444 Fax (713) 590-5646					/:
	Sampler:	Lab PM	Camer Tracking No(s).	COC No:	31
it Information	LING YEAR Y	Upton, Cathy L		600-36678-12035.1	7/'
ontact	Phone Connection of the Phone	E-Mail:		Page 🤾	
Faeth-Boyd	(026) 416 3800	cathy.upton@testamericainc.com		Page Z of 4	
JV:				# doi:	
r Associates Inc.		Analysis Rec	guested		
	Due Date Requested:			Preservation Codes:	
outh Main Street Suite 100		では、これには、これには、これには、これには、これには、これには、これには、これに	ディーデンドン		

	Sampler \ () () Sand	۲	Lab PM	Camer Tracking No(s).	COC No:
Client Contact Anne Faeth-Boyd	Phone (832) 416	3888	E-Mail: cathy.upton@testamericainc.com	!	Page 2 of 4
Company: Golder Associates Inc.			Analysis Re	Requested	Job 非
Address: 820 South Main Street Suite 100	Due Date Requested:		" The the state of the	CHSW 11mm	Preservation Codes: A - HCl M - Hexane
City: St Charles	TAT Requested (days):				B - NaOH N - None C - Zn Acetate O - AsNaO2
State, ZIp: MO, 63301	10 Days	ays .			D - Nittle Acid E - NaHSO4
Phone 636-724-9191	Po #. Purchase Order Requested		se, Sb		G - Amchlor H - Ascerbic Acid
Emaii afaeth@golder.com	WO#		t t , Pb, S		i-ice J-Di Water
nter, Fris∞ TX	Project #: 60006523		es or l und Lis d As, Co	•	
	SSOW#		mpo letho 10B-	.γ[S 6 A s	Other:
Exide Recycling Center, Frisco TX			MSI t Cor al M) 60°		
	Sample	Sample Matrix Type (w-water, Seold, CE-comp	d Filterød Form MS/I DB - Target sture - Loca DB - (MOD) DB - (MOD)	9010	
Sample Identification	Sample Pate Time	Preservation Code	F 8:		Special instructions/Note:
40 - MIE	G1015 -	G Solid	X	メ	- N. J
SCE-5C 0.5-2	6/15 1025	G Solid	X	X	x Tolog
SCC-SC 2-4	,	G Solid	X	X	Hold
ジョウ 0.0.5	8615 1355	G Solid	×	×	
0-110 0.5-2	- Marie Color	G Solid	N		せっし
0-110 2-4	<u> </u>	G Solid	V		Had
D-18 0-0.5	S(a) (34)	G Solid	X	*	·
1)_11E 0.5-2	and the second	G Solid	Z	7 % 100	Kal
D-11E 2-4	-	G Solid	Z		1 Karel
D-11 C 0:5-2	1015 1345	G Solid	× ×	4	1 Spras Csw(5H)
D-11C 2-4	2	G	Z		4.10
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B	Unknown [Radiological C	Sample Disposal (A fee may be	be assessed if samples are retained ion. Disposal By Lab Archive For	are retained longer than 1 month) Archive For Months
ested I, II, III, IV, Other (specify)			Special Instructions/QC Requirements:		
Empty Kit Relinquished by:	Date:		Time:	Method of Shipment	
Relinquished by Jinh Sonh XI	Date/Time. 6/6/1/5	Company	Received by) Date/Timb\	1 Reduced RED S
Relinquished by	Date/Time, *	Company	Received 10 V	Date/Time: **	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time;	Company
Custody Seals intact A Yes A No			Cooler Temperature(s) °C and Other Remarks	demarks:	

TestAmerica Houston

Chain of Custody Record

												曹 明 四年 一年 四年 日本
-	C	Chain of Custody Record	Cust	ody R	ecord							
Phone (713) 690-4444 Fax (713) 690-5646											146. Ex.2-1 14. 4	is experience and the acceptance
Client Information	Sampler Jink	3016 41		Lab PM Upton,	Lab PM Upton, Cathy L			Camer Tracking No(s).	ng No(s).		COC No 600-36678-12035.1	5.1
Client Confact Anne Faeth-Boyd	Phone: (SIL)	1888 973 (Ŷ	cathy	.upton@tes	e-Mail. cathy.upton@testamericainc.com	ח		į		ر م آ	- C
Company Golder Associates Inc.						An	Analysis Req	Requested			Job#	
Address: 820 South Main Street Suite 100	Due Date Requested:	#- 			V M	아가시기	المعمول المالح	5. Pr. 3.	U	·- ;;	Preservation Codes	es:
City: St. Charles	TAT Requested (days):	/s):	,								cetate	N - None O - AsNaO2
State, Zip: MO, 63301		10 Days										P - NaZO4S Q - NaZSO3 R - NaZSZSO3
Phone: 636-724-9191	Po# Purchase Order Requested	Requested			ő)	Se, Sb				**************************************	Acid	S - H2SO4 T - TSP Dodecahydrate
Email: afaeth@golder.com	#OW				No)	d, Pb,				rs' ·	J-DI Water	V - MCAA
Project Name Exide Recycling Center, Frisco TX	Project #: 60006523				Yes or				_	htain	L-EDA	Z - other (specify)
Site: Exide Recycling Center, Frisco TX	SSOW#				/8D (<u>- </u>	- p	r of a	Ciner.	
			Sample Type	Matrix (w-water, S-soild	d Filtered erm MS/N B - Target	iture - Loca 0B - (MOD))B - (MOD))B - (MOD)	01013		àt:Numbé	- \$1.00A 22.32, <u>22.</u>	
Sample Identification	Sample Date		₩ —	`. 🙄	X Pe	80	601		^	X to		Special Instructions/Note:
Dug-06	d10 15	1	6	Solid	Z	X		×		13/5		
2015-MW-17C 0-0.5	61613	1305 S	G	Solid	Z	X		X	メメ			
2015-MW-17C 0.5-2	W-1		G	Solid	z	Esp.	!	all controls			2004	
2015-MN-17C 2-4		<	6	Solid	Z	100		E	6	3933	Ho C	
2015-MW-17D 0,5-2	516319	(})3	6	Solid	Z	*		*	メイ	70.0		
2015-MW-17) 2-4	6 (a) (5	1310	G	Solid	×	X		1	<u>ス</u>		Hold : ms	THINGS ASM
Dup-05	61/0/19	(o	Solid	z	*		4	X	100	72 0 Q	
Eco-15-4 0-0-5	6113115	1040	G	Solid	Z	*		×	メ		المسابقة	
-5-4		richer)	G	Solid	Z	-panesel		strang.	- Internal		700	
0-5-	*	Œ	6	Solid	z	-		•	Chi.		7.10	
E-11C-C 0-0.5	6/18/15	1444	G	離	Z	×		X	<u>×</u>	(3,32		
Possible Hazard Identification Non-Hazard Flammable Skin Initant Poison B	n B Unknown	n Radiological	ogical	(Sample $\square_{R_{\ell}}$	Sample Disposal (A fe	e may be as □Dis	assessed if san Disposal By Lab	samples ard ab	e retaine	fee may be assessed if samples are retained longer than 1 month) t	month) Months
Deliverable Requested: I, II, III, IV, Other (specify)					Special	Special Instructions/QC	Requirements	l '			;	
Empty Kit Relinquished by		Date:			Time:			Method	Method of Shipment)	
Relinquished by Jin (, 5-316 K)	Date/Time	5	9	Company	Rece	Aged by	JUS J		Date/Time		ects	Company
Relinquished by	Date/Time		C	Company	Rece	Received by			Date/Time:	, "		Company
Custody Seals Intact: Custody Seal No.: Δ Yes Δ No					Cools	Cooler Temperature(s) °	°C and Other Remarks	marks:	,		i.	

TestAmerica Houston 63/⊋Rothikay Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Custody Seals Intact Custody Seal No.:	elinquished by		elinquished by: Italy South &	mpty Kit Relinquished by:	i, III, IV, Oth	ant	ossible Hazard Identification	70.	-	TRANSPORT BIEN 1	E-11C-B 6-8	11-11C-B +6	15-15-18 3-4	E-11C-D 2-4	- (K-))	-11C-D	E-110-0 2-4	E-11C-C 0,5-2		àmple identification		ite. xide Recycling Center, Frisco TX	xide Recycling Center, Frisco TX	mait tfaeth@golder.com	hone: 36-724-9191	itale, Zip: NO, 63301	ity: St. Charles	odress: 320 South Main Street Suite 100	Solder Associates Inc.	Anne Faeth-Boyd	Client Information
	Date/Time:		Date/Time 6 (c)	Date:		Poison B Unknown			ď	6 10 15 16	4		5/10/13	~	Section 1	1 31019		1 SI 019		ample Date	e	SSOW#.	Project #: 60006523	WO#	Po#. Purchase Order Requested		TAT Requested (days):	Due Date Requested:		Phone: (532) 4(6	Sampler July 70 + 4 + 1
			15 1515	e.		Radiological	-	6	9	1600 G	6	1 G	မြို့၁ ေ	• •	G	ि द्री	↓ 6	júdo e	, , ,	Time G=grab)	•				quested	10 Days				8886	1.4
_	Company	Company	Сопрапу					Water	Solid	\$ 4 6 4 4 4 4 4 4 4 4	Solid	Solid .	Solid s	Solid .	Solid	Solid .	Solid .	Solid	-Ø.	φ.	le Watrix (w=water, S=solid,									E-Mail- cathy.	Upto
Cooler Temperature(s) °C and Other Remarks	Received by	Received by	Received by M	Time:	Special Instructions/QC Requirements	Return To Client	Sample Disposal (A fee may be assessed if samples	2	2	<u>z</u>	N.	Z.	X	2	Z	×	Z	*	XXIII. IN	8260 Mois 6010	d Filtered Form MS/M DB - Target Sture - Loca DB - (MOD) DB - (MOD)	Compo I Meth 6010B	es of ound L od - As, C	No) Ist d, Pb,	Se, Sb			M Drop-com VI / IN	Analysis Requested	E-Mail: cathy.upton@testamericainc.com	Upton, Cathy L
marks	Date/Time.	Date/Time	Pate/fine /	Method of Shipment		Disposal By Lab Archive For	ssessed if samples are retained	S. C.		· · · · · · · · · · · · · · · · · · ·			X X			<u> </u>	•		イン ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・	6	510B-	Py	nta)ńe					1 + 1 m 1 m			Camer Tracking No(s):
	Company	Company	となるとしたと			For Months	are retained longer than 1 month)				1	Tola		Hola	Hol		4	Hold		Special Instructions/Note:		Other			ద	D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MaOH R - Na2SOSO3		ation Code:	Job#	Page: 4 of 4	CCC No 600-36678-12035.1

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JOB NUMBER:			Date/Time Received: CLIENT:	GD	lde	'15 JUN 11	Ś
UNPACKED BY:			CARRIER/DRIVER:		lde FK		
Custody Seal Present.	YFS [] NO	Number of Coolers R		(
Coolex ID	Temp Blank	Trip Blank	Observed Temp	Therm	Them	Corrected Temp)
BW	Y / N Y / N	Y / N Y / N	3.2	600	SF	3.2	
	Y / N	Y / N					_
	Y / N Y / N	YIN	0				
	Y/N	Y N N	6115			,	
	Y / N	Y / N			-		
CF = correction factor	IY/N	Y / N			<u></u>		
Samples received on	,	□NO	REQUIRED:	NO	□ VE 9		
Samples received on LABORATORY PRE Base samples are>pt	SERVATION OF	SAMPLES	REQUIRED: Z	NO <ph 2:<="" td=""><td>□ YES</td><td>∏ио</td><td></td></ph>	□ YES	∏ио	
Samples received on LABORATORY PRE	SERVATION OF	SAMPLES □NO	Acid preserved are				
Samples received on LABORATORY PRE Base samples are>pl pH paper Lot #	SERVATION OF 112: YES 432454 eptable (5-6mm);	SAMPLES NO YES [Acid preserved are	<ph 2:<="" td=""><td>YES</td><td>□ NO</td><td></td></ph>	YES	□ NO	
Samples received on LABORATORY PRE Base samples are>pl pH paper Lot #	SERVATION OF 112: YES 432454 eptable (5-6mm);	SAMPLES NO YES (Acid preserved are	<ph 2:<br="">ty upon recei</ph>	YES		
Samples received on LABORATORY PRE Base samples are>pl pH paper Lot # LC VOA headspace according Did samples meet the	SERVATION OF 112: YES 432454 eptable (5-6mm);	SAMPLES NO YES (Acid preserved are	<ph 2:<br="">ty upon recei</ph>	YES		
Samples received on LABORATORY PRE Base samples are>pl pH paper Lot # LC VOA headspace according Did samples meet the	SERVATION OF 112: YES 432454 eptable (5-6mm);	SAMPLES NO YES (Acid preserved are	<ph 2:<br="">ty upon recei</ph>	YES		
Samples received on LABORATORY PRE Base samples are>pl pH paper Lot # LC VOA headspace according Did samples meet the	SERVATION OF 112: YES 432454 eptable (5-6mm);	SAMPLES NO YES (Acid preserved are	<ph 2:<br="">ty upon recei</ph>	YES		

TestAmerica-Houston

Upton, Cathy

From: Faeth-Boyd, Anne [Anne_Faeth-Boyd@golder.com]

Sent: Sunday, July 19, 2015 11:42 PM

To: Upton, Cathy

Cc: Thomas, Jim; Higginbotham, Christina

Subject: please run 5 hold samples

Follow Up Flag: Follow up Flag Status: Red

Cathy,

Can we please run the following hold samples:

ECO-11C (0.5-2) – arsenic and lead 2015-CUFT-16B (0.5-2) - lead D-11C (2-4) - arsenic 2015-MW-17D (2-4) – antimony, arsenic, and lead 2015-SCC-16B (0.5-2) – lead

Thanks, Anne

Anne Faeth-Boyd, R.G., P.E. | Senior Engineer | Golder Associates Inc. 820 South Main Street, Suite 100, St. Charles, Missouri, USA 63301
T: +1 (636) 724-9191 | F: +1 (636) 724-9323 | C: +1 314 503-5179 | E: Anne_Faeth-Boyd@golder.com | www.golder.com

Work Safe, Home Safe

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Please consider the environment before printing this email.

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Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 600-113192-3

Login Number: 113192 List Source: TestAmerica Houston

List Number: 1

Creator: Capps, Dana R

Grouter: Guppe, Buriu IX		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-113214-1

Client Project/Site: Exide Recycling Center, Frisco TX

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 6/26/2015 2:01:02 PM

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary	11
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Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-113214-1 and consists of:

- ☑ R1 Field chain-of-custody documentation;
- ☑ R2 Sample identification cross-reference;
- ☑ R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☑ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton	amo	6/26/2015
Name (printed)	Signature	Date
Project Manager I	<u></u>	
Official Title (printed)		

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/26/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113214-1
Reviewer Name:	Cathy Unton		

# ¹ A ²	Description	Yes	No	NA^3	NR ⁴	ER#
1 OI Chain-	of-custody (C-O-C)					
Did san	mples meet the laboratory's standard conditions of sample acceptability upon receipt?		Х			R01A
	all departures from standard conditions described in an exception report?	Х				
2 OI Sample	e and quality control (QC) identification					
	field sample ID numbers cross-referenced to the laboratory ID numbers?	Х				
	laboratory ID numbers cross-referenced to the corresponding QC data?	Х				
3 OI Test re						
Were a	all samples prepared and analyzed within holding times?	Χ				
	han those results < MQL, were all other raw values bracketed by calibration standards?	Χ				
	calculations checked by a peer or supervisor?	Χ				
	all analyte identifications checked by a peer or supervisor?	Х				
	sample detection limits reported for all analytes not detected?	Х				
	all results for soil and sediment samples reported on a dry weight basis?	Х				
	% moisture (or solids) reported for all soil and sediment samples?	Х				
	oulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Х		
	red for the project, are TICs reported?			X		
	gate recovery data					
	surrogates added prior to extraction?			Х		
	surrogate percent recoveries in all samples within the laboratory QC limits?			X		
	eports/summary forms for blank samples					
	appropriate type(s) of blanks analyzed?	Х				
	planks analyzed at the appropriate frequency?	X				
	nethod blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
procedu		Х				
1	olank concentrations < MQL?		Χ			R05D
	atory control samples (LCS):					TOOD
	all COCs included in the LCS?	Х				
	ach LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
	CSs analyzed at the required frequency?	X				
	CS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		^				
	he detectability check sample data document the laboratory's capability to detect the COCs at the MDL used ulate the SDLs?	Х				
	to LCSD RPD within QC limits?	^		Х		
				^		
	spike (MS) and matrix spike duplicate (MSD) data	Х				
	he project/method specified analytes included in the MS and MSD? MS/MSD analyzed at the appropriate frequency?	X				
	MS (and MSD, if applicable) %Rs within the laboratory QC limits?	^				R07C
	MS/MSD RPDs within laboratory QC limits?		X			R07D
			^			KUID
	ical duplicate data	V				
	appropriate analytical duplicates analyzed for each matrix?	X	 			
	analytical duplicates analyzed at the appropriate frequency? RPDs or relative standard deviations within the laboratory QC limits?	Х	Х			R08C
	,		^			RUSC
	d quantitation limits (MQLs):	.,	<u> </u>			
	e MQLs for each method analyte included in the laboratory data package?	X	<u> </u>			
	MQLs correspond to the concentration of the lowest non-zero calibration standard?	X	<u> </u>			
	adjusted MQLs and DCSs included in the laboratory data package?	Х				
	problems/anomalies	.,				
	known problems/anomalies/special conditions noted in this LRC and ER?	Х				
	oplicable and available technology used to lower the SDL to minimize the matrix interference effects on the					
	e results?		Х			R10B
	aboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and					
method	ds associated with this laboratory data package?	Χ				<u> </u>

- 1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/26/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113214-1
Reviewer Name:	Cathy Upton		

1	1.2			١	1 3	14	
#'	A ²	Description (2011)	Yes	No	NA ³	NR⁴	ER#
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	Х				
		Was the number of standards recommended in the method used for all analytes?	Х				
		Were all points generated between the lowest and highest standard used to calculate the curve?	Х				
		Are ICAL data available for all instruments used?	Х				
		Has the initial calibration curve been verified using an appropriate second source standard?	Х				
S 2		Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
32	Oi	Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
S3	0	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			Χ		
		Were ion abundance data within the method-required QC limits?			Χ		
S4	0	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			Х		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
		Were data associated with manual integrations flagged on the raw data?	Х				
S6	0	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			Х		
S7	0	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Х		
S8	Ti.	Interference Check Sample (ICS) results					
30	<u>'</u> '	Were percent recoveries within method QC limits?	X				
	1.		^				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
	T	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	Х				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	Х				
		Is the MDL either adjusted or supported by the analysis of DCSs?	Х				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х				
S12	OI	Standards documentation					
	-	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Χ				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	Х				
S14	OI	Demonstration of analyst competency (DOC)					
	-	Was DOC conducted consistent with NELAC Chapter 5?	Х				
		Is documentation of the analyst's competency up-to-date and on file?	Х				
S15	ΟI	Verification/validation documentation for methods (NELAC Chapter 5)					
	Ů.	To modificial variation declarification for modifical (NEE) to shape of					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
216	ΟΙ	Laboratory standard operating procedures (SOPs)	^				
010	Oi	Are laboratory SOPs current and on file for each method performed?	X	1	-	-	
	4			to:	<u> </u>		
	Τ.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required		iems	•		
	_	identified by the letter "S" should be retained and made available upon request for the appropriate retention period	d.				
		O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
	3.	NA = Not applicable;					
	4.	NR = Not reviewed;					
	5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "N	lo" is checl	ced).			

Page 5 of 40 6/26/2015

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	6/26/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113214-1
Reviewer Name:	Cathy Upton		

ER #1	Description
R01A	The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Per client request via email, please change the sample IDs as follows: 2015-C2L-01D is actually supposed to be 2015-C2L-C01D and the 0.5-2 is only 0.5-1. See attached email.
R05D	Method 6010B: The method blank for Prep Batch 165417 contained Lead above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.
	Method 6010B: 600-113214-30 MS failed the recovery criteria for the following analyte(s): Antimony, Lead. Matrix interference is suspected.
R07C	Method 6010B: 600-113214-30 MSD failed the recovery criteria for the following analyte(s): Antimony. Matrix interference is suspected.
	Method 6010B: 600-113214-5 MS/MSD failed the recovery criteria for the following analyte(s): Antimony, Lead. Matrix interference is suspected due to the high concentration of lead in the parent sample.
R07D	Method 6010B: 600-113214-30 MSD failed the RPD criteria for the following analyte(s): Lead.
	Method 6010B: 600-113214-30 DU failed the RPD criteria for the following analyte(s): Arsenic.
R08C	Method 6010B: 600-113214-5 DU failed the RPD criteria for the following analyte(s): Lead, Selenium.
R10B	Method 6010B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-113214-1, 600-113214-5, 600-113214-5 DU, 600-113214-5 MS, 600-113214-5 MSD, 600-113214-8, 600-113214-9, 600-113214-12, 600-113214-15, 600-113214-18, 600-113214-21, 600-113214-24, 600-113214-27,600-113214-30, 600-113214-30 DU, 600-113214-30 MS,600-113214-30 MSD, 600-113214-32, 600-113214-33, 600-113214-34, and 600-113214-35. Elevated reporting limits (RLs) are provided.
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
	identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3.	NA = Not applicable;
4.	NR = Not reviewed;
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TestAmerica Houston

Detection Check Standard

Matrix:

Solid SW-846 6010B & SW-846 6010C SW-846 3050B Method:

Prep Method: Date Analyzed: 2/10/2015 600-104865 Job #: TALS Batch: 155745 Units: mg/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Ag	Thermo6500	0.119	0.200	0.330	0.4
Al	Thermo6500	0.300	0.500	0.510	25
As	Thermo6500	0.218	0.500	0.435	1
В	Thermo6500	0.386	0.600	0.585	20
Ва	Thermo6500	0.030	0.030	0.500	1
Be	Thermo6500	0.015	0.020	0.020	0.25
Са	Thermo6500	0.864	2.500	3.305	100
Cd	Thermo6500	0.026	0.050	0.055	0.25
Co	Thermo6500	0.068	0.100	0.095	0.5
Cr	Thermo6500	0.051	0.100	0.145	0.5
Cu	Thermo6500	0.174	0.500	0.430	0.5
Fe	Thermo6500	2.534	4.000	5.370	20
K	Thermo6500	10.999	12.000	15.950	100
Li	Thermo6500	0.008	0.010	0.120	10
Mg	Thermo6500	1.921	3.000	4.500	100
Mn	Thermo6500	0.038	0.050	0.070	1.5
Mo	Thermo6500	0.136	0.350	0.400	0.5
Na	Thermo6500	0.886	2.400	7.500	100
Ni	Thermo6500	0.117	0.150	0.140	1
Pb	Thermo6500	0.105	0.200	0.245	0.5
Sb	Thermo6500	0.232	0.450	0.905	2.5
Se	Thermo6500	0.259	0.500	0.560	2
Si	Thermo6500	0.117	0.270	0.355	10
Sn	Thermo6500	0.087	0.150	0.075	1
Sr	Thermo6500	0.003	0.005	1.020	0.25
Ti	Thermo6500	0.015	0.030	0.050	0.5
TI	Thermo6500	0.277	0.700	0.660	1.5
V	Thermo6500	0.079	0.150	0.125	0.5
Zn	Thermo6500	0.108	0.200	0.315	1.5

DCS = Detection Check Standard MQL = Method Quantitation Limit

Page 1 of 1

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Matrix: Water

Method: SW-846 6010B, SW-846 6010C, & EPA 200.7

Prep Method: SW-846 3010A & EPA 200

 Date Analyzed:
 2/10/2015

 Job #:
 600-104865

 TALS Batch:
 155745

 Units:
 mg/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Ag	Thermo6500	0.001	0.003	0.003	0.01
Al	Thermo6500	0.022	0.050	0.084	0.5
As	Thermo6500	0.003	0.009	0.008	0.01
В	Thermo6500	0.008	0.020	0.030	0.2
Ba	Thermo6500	0.002	0.005	0.009	0.02
Be	Thermo6500	0.001	0.002	0.005	0.005
Ca	Thermo6500	0.022	0.050	0.064	1
Cd	Thermo6500	0.000	0.001	0.001	0.005
Co	Thermo6500	0.001	0.001	0.001	0.01
Cr	Thermo6500	0.002	0.002	0.006	0.01
Cu	Thermo6500	0.001	0.002	0.008	0.01
Fe	Thermo6500	0.087	0.100	0.133	0.4
K	Thermo6500	0.129	0.300	0.172	1
Li	Thermo6500	0.002	0.005	0.011	0.2
Mg	Thermo6500	0.019	0.025	0.085	1
Mn	Thermo6500	0.001	0.002	0.003	0.01
Мо	Thermo6500	0.003	0.005	0.010	0.01
Na	Thermo6500	0.020	0.050	0.048	1
Ni	Thermo6500	0.002	0.005	0.006	0.01
Pb	Thermo6500	0.003	0.005	0.006	0.01
Sb	Thermo6500	0.006	0.010	0.014	0.05
Se	Thermo6500	0.004	0.010	0.013	0.04
Si	Thermo6500	0.008	0.020	0.015	0.2
Sn	Thermo6500	0.003	0.005	0.002	0.01
Sr	Thermo6500	0.000	0.001	0.002	0.005
Ti	Thermo6500	0.001	0.002	0.002	0.01
TI	Thermo6500	0.008	0.020	0.015	0.03
V	Thermo6500	0.002	0.002	0.005	0.01
Zn	Thermo6500	0.002	0.005	0.005	0.03

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Case Narrative

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-1

Job ID: 600-113214-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-113214-1

Comments

No additional comments.

Receipt

The samples were received on 6/12/2015 9:57 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.3° C and 0.9° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Per client request via email, please change the sample IDs as follows: 2015-C2L-01D is actually supposed to be 2015-C2L-C01D and the 0.5-2 is only 0.5-1. See attached email.

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Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX TestAmerica Job ID: 600-113214-1

Lab Sample ID	Client Sample ID	Matrix	Collected Received
600-113214-1	2015-FFTA-08A 0-0.5	Solid	06/11/15 10:35 06/12/15 09:57
600-113214-5	2015-NDA-11 0-0.5	Solid	06/11/15 09:25 06/12/15 09:57
600-113214-8	DUP-07	Solid	06/11/15 00:00 06/12/15 09:57
600-113214-9	2015-NDA-12 0-0.5	Solid	06/11/15 11:10 06/12/15 09:57
600-113214-12	2015-NDA-13 0-0.5	Solid	06/11/15 10:00 06/12/15 09:57
600-113214-15	ECO-11A 0-0.5	Solid	06/11/15 14:10 06/12/15 09:57
600-113214-18	ECO-11B 0-0.5	Solid	06/11/15 14:35 06/12/15 09:57
600-113214-21	ECO-11C 0-0.5	Solid	06/11/15 14:25 06/12/15 09:57
600-113214-24	ECO-11D 0-0.5	Solid	06/11/15 14:50 06/12/15 09:57
600-113214-27	2015-C2L-06D 0-0.5	Solid	06/11/15 11:40 06/12/15 09:57
600-113214-30	2015-C2L-C01D 0-0.5	Solid	06/11/15 15:35 06/12/15 09:57
600-113214-32	DUP-09	Solid	06/11/15 00:00 06/12/15 09:57
600-113214-33	2015-FWCS-5A 0-0.5	Solid	06/11/15 16:35 06/12/15 09:57
600-113214-34	2015-FWCS-6A 0-0.5	Solid	06/11/15 16:30 06/12/15 09:57
600-113214-35	2015-FWCS-7A 0-0.5	Solid	06/11/15 16:25 06/12/15 09:57
600-113214-36	Equipment Blank2 Auger	Water	06/11/15 10:10 06/12/15 09:57
600-113214-37	Equipment Blank2 Probe	Water	06/11/15 10:10 06/12/15 09:57
600-113214-38	Equipment Blank2 Hand Shovel	Water	06/11/15 16:15 06/12/15 09:57

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Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-FFTA-08A 0-0.5

Lab Sample ID: 600-113214-1

Matrix: Solid

Date Collected: 06/11/15 10:35 Date Received: 06/12/15 09:57

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	32	1.0	1.0	%			06/15/15 17:42	1
Percent Solids	68	1.0	1.0	%			06/15/15 17:42	1

Client Sample ID: 2015-FFTA-08A 0-0.5 Lab Sample ID: 600-113214-1

Date Collected: 06/11/15 10:35

Matrix: Solid

Parcent Solids: 67.8

Date Received: 06/12/15 09:57 Percent Solids: 67.8

Method: 6010B - Metals (ICP)								
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11.5	1.42	0.309	mg/Kg	\	06/23/15 17:19	06/24/15 15:08	1

Method: 6010B - Metals (ICP) - D	JL2						
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Lead	342	7.09	1.49 mg/Kg	₩	06/23/15 17:19	06/25/15 14:45	10

Client Sample ID: 2015-NDA-11 0-0.5 Lab Sample ID: 600-113214-5

Date Collected: 06/11/15 09:25

Matrix: Solid

Date Received: 06/12/15 09:57

General Chemistry	Decello Occalidad	MOL (A.II)	ODI 11-14	_	B	A l	D!! E
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25	1.0	1.0 %			06/15/15 17:42	1
Percent Solids	75	1.0	1.0 %			06/15/15 17:42	1

Client Sample ID: 2015-NDA-11 0-0.5 Lab Sample ID: 600-113214-5

Date Collected: 06/11/15 09:25 Matrix: Solid
Date Received: 06/12/15 09:57 Percent Solids: 75.3

Method: 6010B - Metals (ICP) - DI	L								
Analyte	Result (Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4440		6.09	1.28	mg/Kg	\	06/23/15 17:19	06/25/15 13:08	10

Client Sample ID: DUP-07

Date Collected: 06/11/15 00:00

Lab Sample ID: 600-113214-8

Matrix: Solid

Date Collected: 06/11/15 00:00 Date Received: 06/12/15 09:57

Γ								
General Chemistry								
Analyte	Result Qualifier	MQL (Adj)	SDL U	nit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	27	1.0	1.0 %	0			06/15/15 17:42	1

Percent Solids	73	1.0	1.0 %	06/15/15 17:42 1
Client Sample ID: DUP-07				Lab Sample ID: 600-113214-8
Date Collected: 06/11/15 00:00				Matrix: Solid

Date Received: 06/12/15 09:57						Percent Solid	s: 72.9
Method: 6010B - Metals (ICP) -	- DL						
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Lead	1120	6.30	1.32 mg/Kg	<u>₩</u>	06/23/15 17:19	06/25/15 13:24	10

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-NDA-12 0-0.5

Date Collected: 06/11/15 11:10 Date Received: 06/12/15 09:57

Lab Sample ID: 600-113214-9

TestAmerica Job ID: 600-113214-1

Matrix: Solid

Matrix: Solid

Matrix: Solid

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	t D	Prepared	Analyzed	Dil Fac
Percent Moisture	24	1.0	1.0 %			06/15/15 17:42	1
Percent Solids	76	1.0	1.0 %			06/15/15 17:42	1

Client Sample ID: 2015-NDA-12 0-0.5 Lab Sample ID: 600-113214-9

Date Collected: 06/11/15 11:10 Date Received: 06/12/15 09:57

Matrix: Solid Percent Solids: 75.8

Method: 6010B - Metals (ICP) - DL SDL Unit Analyte Result Qualifier MQL (Adj) D Prepared Analyzed Dil Fac Lead 44.7 3.11 0.654 mg/Kg 06/23/15 17:19 06/25/15 13:26

Client Sample ID: 2015-NDA-13 0-0.5 Lab Sample ID: 600-113214-12

Date Collected: 06/11/15 10:00 Date Received: 06/12/15 09:57

General Chemistry Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac 1.0 % 06/15/15 17:42 **Percent Moisture** 18 1.0 1.0 % 06/15/15 17:42 **Percent Solids** 82 1.0

Client Sample ID: 2015-NDA-13 0-0.5 Lab Sample ID: 600-113214-12 Date Collected: 06/11/15 10:00 **Matrix: Solid**

Date Received: 06/12/15 09:57 Percent Solids: 82.1

Method: 6010B - Metals (ICP) - DL Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac 1.25 mg/Kg 06/24/15 11:42 06/25/15 13:28 5.97 Lead 350 b

Lab Sample ID: 600-113214-15 Client Sample ID: ECO-11A 0-0.5

Date Collected: 06/11/15 14:10 Date Received: 06/12/15 09:57

General Chemistry Analyte Result Qualifier MQL (Adj) SDL Unit D Dil Fac Prepared Analyzed 1.0 1.0 % 06/15/15 17:42 **Percent Moisture** 27 1.0

1.0 % 06/15/15 17:42 **Percent Solids 73**

Client Sample ID: ECO-11A 0-0.5 Lab Sample ID: 600-113214-15 Date Collected: 06/11/15 14:10 Matrix: Solid Date Received: 06/12/15 09:57 Percent Solids: 73.2

Method: 6010B - Metals (ICP) Result Qualifier SDL Unit Analyte MQL (Adj) D Prepared Analyzed Dil Fac ₩ 1.24 0.271 mg/Kg 06/24/15 11:42 06/24/15 16:05 Arsenic 11.6

Method: 6010B - Metals (ICP) - DL Result Qualifier Analyte MQL (Adj) SDL Unit Dil Fac D Prepared Analyzed 0.652 mg/Kg 06/24/15 11:42 06/25/15 13:31 Lead 158 b 3.10 5

Project/Site: Exide Recycling Center, Frisco TX

Lab Sample ID: 600-113214-18

Matrix: Solid

Dil Fac

Client Sample	ID: ECO-11B	0-0.5
Date Collected: 00	6/11/15 14:35	

Date Received: 06/12/15 09:57

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23	1.0	1.0	%			06/15/15 17:42	1
Percent Solids	77	1.0	1.0	%			06/15/15 17:42	1

Lab Sample ID: 600-113214-18 Client Sample ID: ECO-11B 0-0.5

Date Collected: 06/11/15 14:35

Date Received: 06/12/15 09:57

245 Campio 15: 000 1102 14 10	
Matrix: Solid	
Matrix: Solid	
Percent Solids: 77.2	

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	16.2		1.26	0.274	mg/Kg	₩	06/24/15 11:42	06/24/15 16:08	1
Method: 6010B - Metals (ICP) - DI									

Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed 3.14 Lead 743 b 0.660 mg/Kg

Client Sample ID: ECO-11C 0-0.5 Lab Sample ID: 600-113214-21 **Matrix: Solid**

Date Collected: 06/11/15 14:25 Date Received: 06/12/15 09:57

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22		1.0	1.0	%			06/15/15 17:42	1
Percent Solids	78		1.0	1.0	%			06/15/15 17:42	1

Lab Sample ID: 600-113214-21 Client Sample ID: ECO-11C 0-0.5 Date Collected: 06/11/15 14:25 **Matrix: Solid**

Date Received: 06/12/15 09:57 Percent Solids: 77.9 Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17.8		1.22	0.266	mg/Kg	₩	06/24/15 11:42	06/24/15 16:10	1
Method: 6010B - Metals (ICP) - D	L								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4000	b	3.06	0.642	mg/Kg	₩	06/24/15 11:42	06/25/15 13:36	5

Client Sample ID: ECO-11D 0-0.5 Lab Sample ID: 600-113214-24

Date Collected: 06/11/15 14:50 Date Received: 06/12/15 09:57

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D Prepared	Analyzed	Dil Fac
Percent Moisture		1.0	1.0 %		06/15/15 17:42	1
Percent Solids	81	1.0	1.0 %		06/15/15 17:42	1

TestAmerica Houston

Matrix: Solid

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-1

Client Sample ID: ECO-11D 0-0.5

Date Collected: 06/11/15 14:50 Date Received: 06/12/15 09:57

Lab Sample ID: 600-113214-24

Matrix: Solid

Matrix: Solid

Percent Solids: 80.8

Method:	6010B	- Metals	(ICP)
Analysta			

Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.9	1.21	0.264 mg/Kg	_ <u>∓</u>	06/24/15 11:42	06/24/15 16:19	1

Method: 6010B - Metals (ICP) - DL

Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Lead	554 b	3.03	0.637 mg/Kg	<u>₩</u>	06/24/15 11:42	06/25/15 13:38	5

Client Sample ID: 2015-C2L-06D 0-0.5

Date Collected: 06/11/15 11:40 Date Received: 06/12/15 09:57

Lab Sample ID: 600-113214-27

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21	1.0	1.0	%			06/15/15 17:42	1
Percent Solids	79	1.0	1.0	%			06/15/15 17:42	1

Client Sample ID: 2015-C2L-06D 0-0.5

Date Collected: 06/11/15 11:40

Lab Sample ID: 600-113214-27 **Matrix: Solid** Percent Solids: 78.8

Date Received: 06/12/15 09:57

Mothod: 6010R - Motals (ICP) - DI

Analyte		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	331	b	3.08	0.646	mg/Kg	₩	06/24/15 11:42	06/25/15 13:40	5	

Client Sample ID: 2015-C2L-C01D 0-0.5

Date Collected: 06/11/15 15:35

Lab Sample ID: 600-113214-30 **Matrix: Solid**

Date Received: 06/12/15 09:57

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22	1.0	1.0 %			06/15/15 17:42	1
Percent Solids	78	1.0	1.0 %			06/15/15 17:42	1

Client Sample ID: 2015-C2L-C01D 0-0.5

Date Collected: 06/11/15 15:35

Matrix: Solid Date Received: 06/12/15 09:57 Percent Solids: 77.6

Method: 6010B - Metals (ICP)

Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.80	1.23	0.267 mg/Kg	₩	06/24/15 11:42	06/24/15 16:24	1

Client Sample ID: DUP-09

Date Collected: 06/11/15 00:00 Date Received: 06/12/15 09:57

Lab Sample ID:	600-113214-32
	Matrix: Solid

Lab Sample ID: 600-113214-30

Conoral Chamistry

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20	1.0	1.0 %			06/15/15 17:42	1
Percent Solids	80	1.0	1.0 %			06/15/15 17:42	1

TestAmerica Job ID: 600-113214-1

Client Sample ID: DUP-09

Lab Sample ID: 600-113214-32 Date Collected: 06/11/15 00:00

Matrix: Solid Percent Solids: 79.8

Date Received: 06/12/15 09:57

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15.2		1.23	0.268	mg/Kg		06/24/15 11:42	06/24/15 16:34	1

Client Sample ID: 2015-FWCS-5A 0-0.5 Lab Sample ID: 600-113214-33

Matrix: Solid

Date Collected: 06/11/15 16:35 Date Received: 06/12/15 09:57

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17	1.0	1.0 %			06/15/15 17:42	1
Percent Solids	83	1.0	1.0 %			06/15/15 17:42	1

Client Sample ID: 2015-FWCS-5A 0-0.5 Lab Sample ID: 600-113214-33 Date Collected: 06/11/15 16:35

Matrix: Solid Date Received: 06/12/15 09:57 Percent Solids: 82.7

Method: 6010B - Metals (ICP) Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Dil Fac Analyzed 2.82 0.262 mg/Kg 06/24/15 11:42 06/24/15 16:36 **Antimony** 1.90 J **Arsenic** 13.1 1.13 0.246 mg/Kg 06/24/15 11:42 06/24/15 16:36 0.282 0.0289 mg/Kg 06/24/15 11:42 06/24/15 16:36 Cadmium 4.07 0.293 mg/Kg 06/24/15 11:42 06/24/15 16:36 Selenium 0.796 J 2.26

Method: 6010B - Metals (ICP) - DL Result Qualifier MQL (Adi) SDL Unit Analyte Prepared Analyzed Dil Fac 1.19 mg/Kg 06/24/15 11:42 06/25/15 13:45 5.65 Lead 1040 b

Lab Sample ID: 600-113214-34 Client Sample ID: 2015-FWCS-6A 0-0.5

Date Collected: 06/11/15 16:30 Matrix: Solid Date Received: 06/12/15 09:57

General Chemistry Result Qualifier SDL Unit Analyte MQL (Adj) Prepared Analyzed Dil Fac 1.0 % **Percent Moisture** 17 1.0 06/15/15 17:42 **Percent Solids** 83 1.0 1.0 % 06/15/15 17:42

Client Sample ID: 2015-FWCS-6A 0-0.5 Lab Sample ID: 600-113214-34

Date Collected: 06/11/15 16:30 **Matrix: Solid** Date Received: 06/12/15 09:57 Percent Solids: 82.6

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.07	J	2.97	0.275	mg/Kg	₩	06/24/15 11:42	06/24/15 16:39	1
Arsenic	12.2		1.19	0.259	mg/Kg	₩	06/24/15 11:42	06/24/15 16:39	1
Cadmium	2.67		0.297	0.0304	mg/Kg	₩	06/24/15 11:42	06/24/15 16:39	1
Selenium	0.307	U	2.37	0.307	mg/Kg	\$	06/24/15 11:42	06/24/15 16:39	1

Method: 6010B - Metals (ICP) -	DL						
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Lead	570 b	2.97	0.623 mg/Kg	₩	06/24/15 11:42	06/25/15 13:54	5

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-FWCS-7A 0-0.5

Lab Sample ID: 600-113214-35

Date Collected: 06/11/15 16:25 Date Received: 06/12/15 09:57

Matrix: Solid

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21	1.0	1.0 %			06/15/15 17:42	1
Percent Solids	79	1.0	1.0 %			06/15/15 17:42	1

Client Sample ID: 2015-FWCS-7A 0-0.5 Lab Sample ID: 600-113214-35

Date Collected: 06/11/15 16:25 Date Received: 06/12/15 09:57

Matrix: Solid Percent Solids: 79.1

06/22/15 13:30 06/23/15 14:30

Analyte	Result Qu	ualifier MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	5.09	3.07	0.285	mg/Kg	<u> </u>	06/24/15 11:42	06/24/15 16:41	1
Arsenic	17.1	1.23	0.268	mg/Kg	☼	06/24/15 11:42	06/24/15 16:41	1
Cadmium	9.62	0.307	0.0314	mg/Kg	☼	06/24/15 11:42	06/24/15 16:41	1
Selenium	1.34 J	2.45	0.318	mg/Kg	*	06/24/15 11:42	06/24/15 16:41	1

Method: 6010B - Metals (ICP) - DL Analyte Result Qualifier MQL (Adj) SDL Unit Dil Fac Prepared Analyzed Lead 1730 b 3.07 0.644 mg/Kg 06/24/15 11:42 06/25/15 13:56

Client Sample ID: Equipment Blank2 Auger

Lab Sample ID: 600-113214-36 Date Collected: 06/11/15 10:10 **Matrix: Water**

Date Received: 06/12/15 09:57

Method: 6010B - Metals (ICP) Analyte Prepared Result Qualifier MQL (Adj) SDL Unit Analyzed Dil Fac **Antimony** 06/22/15 13:30 06/23/15 14:30 0.00630 U 0.0500 0.00630 mg/L Arsenic 0.00328 U 0.0100 0.00328 mg/L 06/22/15 13:30 06/23/15 14:30 Cadmium 0.000350 U 0.00500 0.000350 mg/L 06/22/15 13:30 06/23/15 14:30 Lead 0.0344 0.0100 0.00290 mg/L 06/22/15 13:30 06/23/15 14:30

Client Sample ID: Equipment Blank2 Probe

0.00417 U

Lab Sample ID: 600-113214-37 Date Collected: 06/11/15 10:10 **Matrix: Water**

0.0400

0.00417 mg/L

Date Received: 06/12/15 09:57

Selenium

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00630	U	0.0500	0.00630	mg/L		06/22/15 13:30	06/23/15 14:32	1
Arsenic	0.00328	U	0.0100	0.00328	mg/L		06/22/15 13:30	06/23/15 14:32	1
Cadmium	0.000350	U	0.00500	0.000350	mg/L		06/22/15 13:30	06/23/15 14:32	1
Lead	0.00290	U	0.0100	0.00290	mg/L		06/22/15 13:30	06/23/15 14:32	1
Selenium	0.00417	U	0.0400	0.00417	mg/L		06/22/15 13:30	06/23/15 14:32	1

Client Sample ID: Equipment Blank2 Hand Shovel Lab Sample ID: 600-113214-38

Date Collected: 06/11/15 16:15

Date Received: 06/12/15 09:57

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00630	U	0.0500	0.00630	mg/L		06/22/15 13:30	06/23/15 14:39	1
Arsenic	0.00328	U	0.0100	0.00328	mg/L		06/22/15 13:30	06/23/15 14:39	1
Cadmium	0.000350	U	0.00500	0.000350	mg/L		06/22/15 13:30	06/23/15 14:39	1

TestAmerica Houston

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Matrix: Water

Client Sample Results

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-1

Lab Sample ID: 600-113214-38

Client Sample ID: Equipment Blank2 Hand Shovel Date Collected: 06/11/15 16:15

Matrix: Water

Date Received: 06/12/15 09:57

Method: 6010B - Metals (ICP) (Continued)										
	Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Lead	0.00290	U	0.0100	0.00290	mg/L		06/22/15 13:30	06/23/15 14:39	1
	Selenium	0.00417	U	0.0400	0.00417	mg/L		06/22/15 13:30	06/23/15 14:39	1

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-1

Qualifiers

Metals

Qualitier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
b	The compound was found in the blank and sample
F	Duplicate RPD exceeds the control limit
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
N2	RPD of the MS and MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

RPD

TEF TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Houston

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TestAmerica Job ID: 600-113214-1

Client Sample ID: Lab Control Sample

Client: Golder Associates Inc.
Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-165216/1-A Matrix: Water

Lab Sample ID: LCS 600-165216/2-A

Analysis Batch: 165321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 165216

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00630	U	0.0500	0.00630	mg/L		06/22/15 13:30	06/23/15 13:26	1
Arsenic	0.00328	U	0.0100	0.00328	mg/L		06/22/15 13:30	06/23/15 13:26	1
Cadmium	0.000350	U	0.00500	0.000350	mg/L		06/22/15 13:30	06/23/15 13:26	1
Lead	0.00290	U	0.0100	0.00290	mg/L		06/22/15 13:30	06/23/15 13:26	1
Selenium	0.00417	U	0.0400	0.00417	mg/L		06/22/15 13:30	06/23/15 13:26	1
Selenium	0.00417	U	0.0400	0.00417	mg/L		06/22/15 13:30	06/23/15 13:26	1

Matrix: Water Prep Type: Total/NA **Analysis Batch: 165321 Prep Batch: 165216** LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 1.00 mg/L 80 - 120 Antimony 1.056 106 Arsenic 1.00 1.057 mg/L 106 80 - 120 Cadmium 0.500 0.5331 mg/L 107 80 - 120 Lead 1.00 1.074 107 mg/L 80 - 120 Selenium 1.00 1.056 mg/L 106 80 - 120

Lab Sample ID: 600-113112-D-7-G MS

Matrix: Water

Analysis Batch: 165321

Sample Sample Spike MS MS

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 165216
%Rec.

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	0.00630	U	1.00	0.9055	-	mg/L		91	75 - 125	
Arsenic	0.0386		1.00	1.168		mg/L		113	75 - 125	
Cadmium	0.000652	J	0.500	0.4836		mg/L		97	75 ₋ 125	
Lead	0.00290	U	1.00	0.9427		mg/L		94	75 - 125	
Selenium	0.00417	U	1.00	1.085		ma/L		109	75 - 125	

Lab Sample ID: 600-113112-D-7-H MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Water** Prep Type: Total/NA **Analysis Batch: 165321 Prep Batch: 165216** Sample Sample Spike MSD MSD %Rec. **RPD** Analyte Result Qualifier Added Result Qualifier Unit Limits RPD Limit D %Rec

, ,								
Antimony	0.00630	U 1.00	0.9285		93	75 - 125	3	20
Arsenic	0.0386	1.00	1.202	mg/L	116	75 - 125	3	20
Cadmium	0.000652	J 0.500	0.4928	mg/L	98	75 - 125	2	20
Lead	0.00290 l	U 1.00	0.9649	mg/L	96	75 - 125	2	20
Selenium	0.00417 l	U 1.00	1.109	mg/L	111	75 - 125	2	20

Lab Sample ID: 600-113112-D-7-F DU

Matrix: Water

Client Sample ID: Duplicate
Prep Type: Total/NA

Analysis Batch: 165321 Prep Batch: 165216

J	Alialysis Datcii. 100021							Fieb Datcii. It	JJZ 10
		Sample	Sample	DU	DU				RPD
	Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
	Antimony	0.00630	U	0.00630	U	mg/L		NC	20
	Arsenic	0.0386		0.03989		mg/L		3	20
	Cadmium	0.000652	J	0.0005610	J	mg/L		15	20
	Lead	0.00290	U	0.00290	U	mg/L		NC	20
	Selenium	0.00417	U	0.00417	U	mg/L		NC	20
	Antimony Arsenic Cadmium Lead	0.00630 0.0386 0.000652 0.00290	n n	0.00630 0.03989 0.0005610 0.00290	J	mg/L mg/L mg/L mg/L	<u>D</u>	NC 3 15 NC	2 2

TestAmerica Houston

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6/26/2015

TestAmerica Job ID: 600-113214-1

Lab Sample ID: MB 600-165357/1-A

Matrix: Solid

Analysis Batch: 165419

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 165357

	IVID	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		06/23/15 17:19	06/24/15 14:09	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		06/23/15 17:19	06/24/15 14:09	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		06/23/15 17:19	06/24/15 14:09	1
Lead	0.105	Ü	0.500	0.105	mg/Kg		06/23/15 17:19	06/24/15 14:09	1
Selenium	0.259	U	2.00	0.259	mg/Kg		06/23/15 17:19	06/24/15 14:09	1

Lab Sample ID: LCSSRM 600-165357/2-A

Matrix: Solid

Analysis Batch: 165419

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 165357

•	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	108	87.37		mg/Kg		80.9	0.9 - 214.	-
							8	
Arsenic	151	152.1		mg/Kg		100.7	80.8 - 119.	
Cadmium	152	148.7		ma/Ka		07.0	9	
Caumum	152	140.7		mg/Kg		97.0	81.6 - 117. 8	
Lead	254	255.1		mg/Kg		100.4	81.5 - 120.	
				0 0			9	
Selenium	162	162.6		mg/Kg		100.4	77.2 - 122.	
							2	

Lab Sample ID: 600-113214-5 MS

Matrix: Solid

Analysis Batch: 165419

Client Sample ID: 2015-NDA-11 0-0.5

Prep Type: Total/NA Prep Batch: 165357

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	17.5		63.8	50.85	N1	mg/Kg	<u> </u>	52	75 - 125	
Arsenic	23.0		63.8	92.36		mg/Kg	₩	109	75 ₋ 125	
Cadmium	24.4		31.9	56.01		mg/Kg	₩	99	75 - 125	
Selenium	1.83	J	63.8	66.32		mg/Kg	₩	101	75 ₋ 125	

Lab Sample ID: 600-113214-5 MSD

Matrix: Solid

Analysis Batch: 165419

Client Sample ID: 2015-NDA-11 0-0.5

Prep Type: Total/NA

Prep Batch: 165357

•	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	17.5		61.5	53.26	N1	mg/Kg	<u> </u>	58	75 - 125	5	20
Arsenic	23.0		61.5	89.98		mg/Kg	₩	109	75 - 125	3	20
Cadmium	24.4		30.7	56.81		mg/Kg	₩	105	75 - 125	1	20
Selenium	1.83	J	61.5	64.84		mg/Kg	₩	103	75 ₋ 125	2	20

Lab Sample ID: 600-113214-5 DU

Matrix: Solid

Analysis Batch: 165419

Client Sample ID: 2015-NDA-11 0-0.5

Prep Type: Total/NA

Prep Batch: 165357

_	Sample	Sample	DU	DU			•	RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Antimony	17.5		16.01		mg/Kg	- -		20
Arsenic	23.0		19.54		mg/Kg	₩	16	20
Cadmium	24.4		20.20		mg/Kg	₩	19	20
Selenium	1.83	J	1.212	J	mg/Kg	₩	41	20

TestAmerica Houston

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Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 600-165417/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 165419 Prep Batch: 165417

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		06/24/15 11:42	06/24/15 15:58	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		06/24/15 11:42	06/24/15 15:58	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		06/24/15 11:42	06/24/15 15:58	1
Lead	5.175		0.500	0.105	mg/Kg		06/24/15 11:42	06/24/15 15:58	1
Selenium	0.259	U	2.00	0.259	mg/Kg		06/24/15 11:42	06/24/15 15:58	1

Lab Sample ID: LCSSRM 600-165417/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid Prep Type: Total/NA Analysis Batch: 165419 Prep Batch: 165417

	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	108	87.13		mg/Kg		80.7	0.9 - 214.	_
Arsenic	151	153.9		mg/Kg		101.9	80.8 - 119. 9	
Cadmium	152	151.2		mg/Kg		99.5	81.6 - 117. 8	
Lead	254	264.4		mg/Kg		104.1	81.5 - 120. 9	
Selenium	162	162.8		mg/Kg		100.5	77.2 - 122. 2	

Lab Sample ID: 600-113214-30 MS Client Sample ID: 2015-C2L-C01D 0-0.5

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 165419 Prep Batch: 165417

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	0.285	U	62.5	23.52	N1	mg/Kg	<u> </u>	38	75 - 125	
Arsenic	7.80		62.5	70.09		mg/Kg	₩	100	75 - 125	
Cadmium	0.350		31.3	30.02		mg/Kg	₩	95	75 - 125	
Selenium	0.318	U	62.5	56.10		mg/Kg	₩.	90	75 ₋ 125	

Lab Sample ID: 600-113214-30 MSD Client Sample ID: 2015-C2L-C01D 0-0.5

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 165419 Prep Batch: 165417

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-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Antimony	0.285	U	63.8	25.75	N1	mg/Kg	₩	40	75 - 125	9	20	
Arsenic	7.80		63.8	79.77		mg/Kg	≎	113	75 - 125	13	20	
Cadmium	0.350		31.9	31.56		mg/Kg	₩	98	75 - 125	5	20	
Selenium	0.318	U	63.8	59.47		mg/Kg	₩	93	75 - 125	6	20	

Lab Sample ID: 600-113214-30 DU Client Sample ID: 2015-C2L-C01D 0-0.5

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 165419 Prep Batch: 165417

	Sample	Sample	DU	DU			•		RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RI	PD	Limit
Antimony	0.285	U	0.279	U	mg/Kg	- -	<u> </u>	NC	20
Arsenic	7.80		12.04	F	mg/Kg	₩		43	20
Cadmium	0.350		0.3070		mg/Kg	₩		13	20

TestAmerica Houston

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TestAmerica Job ID: 600-113214-1

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-113214-30 DU Client Sample ID: 2015-C2L-C01D 0-0.5

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 165419 Prep Batch: 165417**

DU DU Sample Sample **RPD** Result Qualifier Result Qualifier RPD Analyte Unit D Limit ₩ Selenium 0.318 U 0.312 U NC 20 mg/Kg

Lab Sample ID: MB 600-165524/1-A

Matrix: Solid

Analysis Batch: 165519

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 165524

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	Ū	2.50	0.232	mg/Kg		06/25/15 12:13	06/25/15 15:49	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		06/25/15 12:13	06/25/15 15:49	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		06/25/15 12:13	06/25/15 15:49	1
Lead	0.105	U	0.500	0.105	mg/Kg		06/25/15 12:13	06/25/15 15:49	1
Selenium	0.259	U	2.00	0.259	mg/Kg		06/25/15 12:13	06/25/15 15:49	1
	Antimony Arsenic Cadmium Lead	Analyte Result Antimony 0.232 Arsenic 0.218 Cadmium 0.0256 Lead 0.105	Antimony 0.232 U Arsenic 0.218 U Cadmium 0.0256 U Lead 0.105 U	Analyte Result Qualifier MQL (Adj) Antimony 0.232 U 2.50 Arsenic 0.218 U 1.00 Cadmium 0.0256 U 0.250 Lead 0.105 U 0.500	Analyte Result Oualifier MQL (Adj) SDL MQL (Adj) Antimony 0.232 U 2.50 0.232 Arsenic 0.218 U 1.00 0.218 Cadmium 0.0256 U 0.250 0.0256 Lead 0.105 U 0.500 0.105	Analyte Result Antimony Qualifier Output MQL (Adj) MQL (Adj) SDL MIT Unit Arsenic 0.218 U 1.00 0.218 mg/Kg Cadmium 0.0256 U 0.250 0.0256 mg/Kg Lead 0.105 U 0.500 0.105 mg/Kg	Analyte Result Antimony Qualifier Qualifier MQL (Adj) MQL (Adj) SDL Monitor Unit MQL (Adj) D Antimony 0.232 U 2.50 0.232 mg/Kg Arsenic 0.218 U 1.00 0.218 mg/Kg Cadmium 0.0256 U 0.250 0.0256 mg/Kg Lead 0.105 U 0.500 0.105 mg/Kg	Analyte Result Analyte Qualifier MQL (Adj) SDL SDL Unit SDL	Analyte Result Analyte Qualifier MQL (Adj) SDL Unit SDL

Lab Sample ID: LCSSRM 600-165524/2-A

Matrix: Solid

Analysis Batch: 165519

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 165524

Spike LCSSRM LCSSRM %Rec. Added Analyte Result Qualifier Unit %Rec Limits 108 Antimony 76.98 mg/Kg 71.3 0.9 - 214. 8 Arsenic 151 155.1 mg/Kg 102.7 80.8 - 119. Cadmium 152 153.7 mg/Kg 101.1 81.6 - 117. 8 104.0 81.5 - 120. Lead 254 264.2 mg/Kg 9 Selenium 162 165.8 mg/Kg 102.3 77.2 - 122.

Lab Sample ID: 600-113214-30 DU Client Sample ID: 2015-C2L-C01D 0-0.5

Matrix: Solid

Analysis Batch: 165519

Prep Type: Total/NA

2

Prep Batch: 165524

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_	Sample	Sample	DU	DU			•	RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Antimony	1.02	J	0.277	U	mg/Kg	_ ₽	NC	20
Arsenic	11.6		12.68		mg/Kg	₽	9	20
Cadmium	0.365		0.3459		mg/Kg	≎	5	20
Selenium	0.464	J	0.309	U	mg/Kg	φ	NC	20

Method: 6010B - Metals (ICP) - DL

Lab Sample ID: 600-113214-5 MS Client Sample ID: 2015-NDA-11 0-0.5 **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 165519 Prep Batch: 165357 Spike Sample Sample MS MS %Rec.

Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Lead - DL 4440 63.8 5013 4 ₩ 905 75 - 125 mg/Kg

TestAmerica Houston

TestAmerica Job ID: 600-113214-1

Client Sample ID: 2015-C2L-C01D 0-0.5

Client: Golder Associates Inc.

Lab Sample ID: 600-113214-30 MS

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP) - DL (Continued)

Lab Sample ID: 600-113214	1-5 MSD					C	Client S	ample l	D: 2015-N	DA-11	0-0.5
Matrix: Solid									Prep Typ	e: Tot	al/NA
Analysis Batch: 165519									Prep Ba	tch: 16	5357
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Lead - DL	4440		61.5	4927	4	mg/Kg	₩	800	75 - 125	2	20
	Matrix: Solid Analysis Batch: 165519 Analyte	Analysis Batch: 165519 Sample Analyte Result	Matrix: Solid Analysis Batch: 165519 Sample Sample Analyte Result Qualifier	Matrix: Solid Analysis Batch: 165519 Sample Sample Spike Analyte Result Qualifier Added	Matrix: Solid Analysis Batch: 165519 Sample Sample Spike MSD Analyte Result Qualifier Added Result	Matrix: Solid Analysis Batch: 165519 Sample Sample Spike MSD MSD Analyte Result Qualifier Added Result Qualifier	Matrix: Solid Analysis Batch: 165519 Sample Sample Spike MSD MSD Analyte Result Qualifier Added Result Qualifier Unit	Matrix: Solid Analysis Batch: 165519 Sample Sample Spike MSD MSD Analyte Result Qualifier Added Result Qualifier Unit D	Matrix: Solid Analysis Batch: 165519 Sample Sample Spike MSD MSD Analyte Result Qualifier Added Result Qualifier Unit D %Rec	Matrix: Solid Analysis Batch: 165519 Sample Sample Spike MSD MSD Frep Bate Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits	Matrix: Solid Analysis Batch: 165519 Sample Sample Spike MSD MSD Prep Batch: 16 Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD

Lab Sample ID: 600-113214 Matrix: Solid Analysis Batch: 165519		Sample	DU	DU	CI	ient Sample	ID: 2015-NDA-11 Prep Type: To Prep Batch: 1	tal/NA
Analyte Lead - DL	Result 4440	Qualifier	Result 3596	Qualifier F	Unit mg/Kg	— D —	RPD 21	Limit 20

Matrix: Solid									Prep Type: Total/NA
Analysis Batch: 165519									Prep Batch: 165524
-	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Lead - DL	46.2		59.1	204.4	N1	mg/Kg	₩	268	75 - 125

Lab Sample ID: 600-113214 Matrix: Solid Analysis Batch: 165519	4-30 MSD					Clien	t San	ple ID:	2015-C2L Prep Ty Prep Ba	pe: Tot	al/NA
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Lead - DL	46.2		59.6	119.7	N2	mg/Kg	\	123	75 - 125	52	20

Lab Sample ID: 600-11321	4-30 DU				Clien	t Sample	ID: 2015-C2L-C01D Prep Type: Tot	
Analysis Batch: 165519				5			Prep Batch: 1	65524
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Lead - DL	46.2		44.07		mg/Kg	₩		20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-11321 Matrix: Solid Analysis Batch: 164679	4-34 DU				Clie	ent Sample ID	: 2015-FWCS-6A Prep Type: Tot	
_	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Moisture	17				%			20
Percent Solids	83		82		%		0.7	20

Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-1

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method	
Antimony	2.50	0.232	mg/Kg	6010B	
Antimony	0.0500	0.00630	mg/L	6010B	
Arsenic	1.00	0.218	mg/Kg	6010B	
Arsenic	0.0100	0.00328	mg/L	6010B	
Cadmium	0.250	0.0256	mg/Kg	6010B	
Cadmium	0.00500	0.000350	mg/L	6010B	
Lead	0.500	0.105	mg/Kg	6010B	
Lead	0.0100	0.00290	mg/L	6010B	
Selenium	2.00	0.259	mg/Kg	6010B	
Selenium	0.0400	0.00417	mg/L	6010B	

General Chemistry

Analyte	MC		Units	Method
Percent Moisture		.0 1.0	%	Moisture
Percent Solids	1	.0 1.0) %	Moisture

QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-1

Metals

Prep Batch: 165216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113112-D-7-F DU	Duplicate	Total/NA	Water	3010A	
600-113112-D-7-G MS	Matrix Spike	Total/NA	Water	3010A	
600-113112-D-7-H MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
600-113214-36	Equipment Blank2 Auger	Total/NA	Water	3010A	
600-113214-37	Equipment Blank2 Probe	Total/NA	Water	3010A	
600-113214-38	Equipment Blank2 Hand Shovel	Total/NA	Water	3010A	
LCS 600-165216/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 600-165216/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 165321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113112-D-7-F DU	Duplicate	Total/NA	Water	6010B	165216
600-113112-D-7-G MS	Matrix Spike	Total/NA	Water	6010B	165216
600-113112-D-7-H MSD	Matrix Spike Duplicate	Total/NA	Water	6010B	165216
600-113214-36	Equipment Blank2 Auger	Total/NA	Water	6010B	165216
600-113214-37	Equipment Blank2 Probe	Total/NA	Water	6010B	165216
600-113214-38	Equipment Blank2 Hand Shovel	Total/NA	Water	6010B	165216
LCS 600-165216/2-A	Lab Control Sample	Total/NA	Water	6010B	165216
MB 600-165216/1-A	Method Blank	Total/NA	Water	6010B	165216

Prep Batch: 165357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113214-1 - DL2	2015-FFTA-08A 0-0.5	Total/NA	Solid	3050B	_
600-113214-1	2015-FFTA-08A 0-0.5	Total/NA	Solid	3050B	
600-113214-5 - DL	2015-NDA-11 0-0.5	Total/NA	Solid	3050B	
600-113214-5 DU	2015-NDA-11 0-0.5	Total/NA	Solid	3050B	
600-113214-5 DU - DL	2015-NDA-11 0-0.5	Total/NA	Solid	3050B	
600-113214-5 MS	2015-NDA-11 0-0.5	Total/NA	Solid	3050B	
600-113214-5 MS - DL	2015-NDA-11 0-0.5	Total/NA	Solid	3050B	
600-113214-5 MSD - DL	2015-NDA-11 0-0.5	Total/NA	Solid	3050B	
600-113214-5 MSD	2015-NDA-11 0-0.5	Total/NA	Solid	3050B	
600-113214-8 - DL	DUP-07	Total/NA	Solid	3050B	
600-113214-9 - DL	2015-NDA-12 0-0.5	Total/NA	Solid	3050B	
LCSSRM 600-165357/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-165357/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 165417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113214-12 - DL	2015-NDA-13 0-0.5	Total/NA	Solid	3050B	
600-113214-15 - DL	ECO-11A 0-0.5	Total/NA	Solid	3050B	
600-113214-15	ECO-11A 0-0.5	Total/NA	Solid	3050B	
600-113214-18	ECO-11B 0-0.5	Total/NA	Solid	3050B	
600-113214-18 - DL	ECO-11B 0-0.5	Total/NA	Solid	3050B	
600-113214-21	ECO-11C 0-0.5	Total/NA	Solid	3050B	
600-113214-21 - DL	ECO-11C 0-0.5	Total/NA	Solid	3050B	
600-113214-24	ECO-11D 0-0.5	Total/NA	Solid	3050B	
600-113214-24 - DL	ECO-11D 0-0.5	Total/NA	Solid	3050B	
600-113214-27 - DL	2015-C2L-06D 0-0.5	Total/NA	Solid	3050B	
600-113214-30	2015-C2L-C01D 0-0.5	Total/NA	Solid	3050B	
600-113214-30 DU	2015-C2L-C01D 0-0.5	Total/NA	Solid	3050B	
600-113214-30 MS	2015-C2L-C01D 0-0.5	Total/NA	Solid	3050B	

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6/26/2015

QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-1

Metals (Continued)

Prep Batch: 165417 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113214-30 MSD	2015-C2L-C01D 0-0.5	Total/NA	Solid	3050B	
600-113214-32	DUP-09	Total/NA	Solid	3050B	
600-113214-33	2015-FWCS-5A 0-0.5	Total/NA	Solid	3050B	
600-113214-33 - DL	2015-FWCS-5A 0-0.5	Total/NA	Solid	3050B	
600-113214-34	2015-FWCS-6A 0-0.5	Total/NA	Solid	3050B	
600-113214-34 - DL	2015-FWCS-6A 0-0.5	Total/NA	Solid	3050B	
600-113214-35 - DL	2015-FWCS-7A 0-0.5	Total/NA	Solid	3050B	
600-113214-35	2015-FWCS-7A 0-0.5	Total/NA	Solid	3050B	
LCSSRM 600-165417/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-165417/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 165419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113214-1	2015-FFTA-08A 0-0.5	Total/NA	Solid	6010B	165357
600-113214-5 DU	2015-NDA-11 0-0.5	Total/NA	Solid	6010B	165357
600-113214-5 MS	2015-NDA-11 0-0.5	Total/NA	Solid	6010B	165357
600-113214-5 MSD	2015-NDA-11 0-0.5	Total/NA	Solid	6010B	165357
600-113214-15	ECO-11A 0-0.5	Total/NA	Solid	6010B	165417
600-113214-18	ECO-11B 0-0.5	Total/NA	Solid	6010B	165417
600-113214-21	ECO-11C 0-0.5	Total/NA	Solid	6010B	165417
600-113214-24	ECO-11D 0-0.5	Total/NA	Solid	6010B	165417
600-113214-30	2015-C2L-C01D 0-0.5	Total/NA	Solid	6010B	165417
600-113214-30 DU	2015-C2L-C01D 0-0.5	Total/NA	Solid	6010B	165417
600-113214-30 MS	2015-C2L-C01D 0-0.5	Total/NA	Solid	6010B	165417
600-113214-30 MSD	2015-C2L-C01D 0-0.5	Total/NA	Solid	6010B	165417
600-113214-32	DUP-09	Total/NA	Solid	6010B	165417
600-113214-33	2015-FWCS-5A 0-0.5	Total/NA	Solid	6010B	165417
600-113214-34	2015-FWCS-6A 0-0.5	Total/NA	Solid	6010B	165417
600-113214-35	2015-FWCS-7A 0-0.5	Total/NA	Solid	6010B	165417
LCSSRM 600-165357/2-A	Lab Control Sample	Total/NA	Solid	6010B	165357
LCSSRM 600-165417/2-A	Lab Control Sample	Total/NA	Solid	6010B	165417
MB 600-165357/1-A	Method Blank	Total/NA	Solid	6010B	165357
MB 600-165417/1-A	Method Blank	Total/NA	Solid	6010B	165417

Analysis Batch: 165519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113214-1 - DL2	2015-FFTA-08A 0-0.5	Total/NA	Solid	6010B	165357
600-113214-5 - DL	2015-NDA-11 0-0.5	Total/NA	Solid	6010B	165357
600-113214-5 DU - DL	2015-NDA-11 0-0.5	Total/NA	Solid	6010B	165357
600-113214-5 MS - DL	2015-NDA-11 0-0.5	Total/NA	Solid	6010B	165357
600-113214-5 MSD - DL	2015-NDA-11 0-0.5	Total/NA	Solid	6010B	165357
600-113214-8 - DL	DUP-07	Total/NA	Solid	6010B	165357
600-113214-9 - DL	2015-NDA-12 0-0.5	Total/NA	Solid	6010B	165357
600-113214-12 - DL	2015-NDA-13 0-0.5	Total/NA	Solid	6010B	165417
600-113214-15 - DL	ECO-11A 0-0.5	Total/NA	Solid	6010B	165417
600-113214-18 - DL	ECO-11B 0-0.5	Total/NA	Solid	6010B	165417
600-113214-21 - DL	ECO-11C 0-0.5	Total/NA	Solid	6010B	165417
600-113214-24 - DL	ECO-11D 0-0.5	Total/NA	Solid	6010B	165417
600-113214-27 - DL	2015-C2L-06D 0-0.5	Total/NA	Solid	6010B	165417
600-113214-30 DU	2015-C2L-C01D 0-0.5	Total/NA	Solid	6010B	165524
600-113214-30 DU - DL	2015-C2L-C01D 0-0.5	Total/NA	Solid	6010B	165524

TestAmerica Houston

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QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-1

Metals (Continued)

Analysis Batch: 165519 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113214-30 MS - DL	2015-C2L-C01D 0-0.5	Total/NA	Solid	6010B	165524
600-113214-30 MSD - DL	2015-C2L-C01D 0-0.5	Total/NA	Solid	6010B	165524
600-113214-33 - DL	2015-FWCS-5A 0-0.5	Total/NA	Solid	6010B	165417
600-113214-34 - DL	2015-FWCS-6A 0-0.5	Total/NA	Solid	6010B	165417
600-113214-35 - DL	2015-FWCS-7A 0-0.5	Total/NA	Solid	6010B	165417
LCSSRM 600-165524/2-A	Lab Control Sample	Total/NA	Solid	6010B	165524
MB 600-165524/1-A	Method Blank	Total/NA	Solid	6010B	165524

Prep Batch: 165524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113214-30 DU - DL	2015-C2L-C01D 0-0.5	Total/NA	Solid	3050B	_
600-113214-30 DU	2015-C2L-C01D 0-0.5	Total/NA	Solid	3050B	
600-113214-30 MS - DL	2015-C2L-C01D 0-0.5	Total/NA	Solid	3050B	
600-113214-30 MSD - DL	2015-C2L-C01D 0-0.5	Total/NA	Solid	3050B	
LCSSRM 600-165524/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-165524/1-A	Method Blank	Total/NA	Solid	3050B	

General Chemistry

Analysis Batch: 164679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113214-1	2015-FFTA-08A 0-0.5	Total/NA	Solid	Moisture	_
600-113214-5	2015-NDA-11 0-0.5	Total/NA	Solid	Moisture	
600-113214-5 MS	2015-NDA-11 0-0.5	Total/NA	Solid	Moisture	
600-113214-5 MSD	2015-NDA-11 0-0.5	Total/NA	Solid	Moisture	
600-113214-8	DUP-07	Total/NA	Solid	Moisture	
600-113214-9	2015-NDA-12 0-0.5	Total/NA	Solid	Moisture	
600-113214-12	2015-NDA-13 0-0.5	Total/NA	Solid	Moisture	
600-113214-15	ECO-11A 0-0.5	Total/NA	Solid	Moisture	
600-113214-18	ECO-11B 0-0.5	Total/NA	Solid	Moisture	
600-113214-21	ECO-11C 0-0.5	Total/NA	Solid	Moisture	
600-113214-24	ECO-11D 0-0.5	Total/NA	Solid	Moisture	
600-113214-27	2015-C2L-06D 0-0.5	Total/NA	Solid	Moisture	
600-113214-30	2015-C2L-C01D 0-0.5	Total/NA	Solid	Moisture	
600-113214-30 MS	2015-C2L-C01D 0-0.5	Total/NA	Solid	Moisture	
600-113214-30 MSD	2015-C2L-C01D 0-0.5	Total/NA	Solid	Moisture	
600-113214-32	DUP-09	Total/NA	Solid	Moisture	
600-113214-33	2015-FWCS-5A 0-0.5	Total/NA	Solid	Moisture	
600-113214-34	2015-FWCS-6A 0-0.5	Total/NA	Solid	Moisture	
600-113214-34 DU	2015-FWCS-6A 0-0.5	Total/NA	Solid	Moisture	
600-113214-35	2015-FWCS-7A 0-0.5	Total/NA	Solid	Moisture	

TestAmerica Houston

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Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-FFTA-08A 0-0.5

Date Collected: 06/11/15 10:35
Date Received: 06/12/15 09:57

Lab Sample ID: 600-113214-1

Matrix: Solid

Percent Solids: 67.8

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	165357	06/23/15 17:19	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	165419	06/24/15 15:08	DCL	TAL HOU
Total/NA	Prep	3050B	DL2		1.04 g	50 mL	165357	06/23/15 17:19	NER	TAL HOU
Total/NA	Analysis	6010B	DL2	10	1.04 g	50 mL	165519	06/25/15 14:45	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

Client Sample ID: 2015-NDA-11 0-0.5 Lab Sample ID: 600-113214-5

Date Collected: 06/11/15 09:25
Date Received: 06/12/15 09:57
Matrix: Solid
Percent Solids: 75.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.09 g	50 mL	165357	06/23/15 17:19	NER	TAL HOU
Total/NA	Analysis	6010B	DL	10	1.09 g	50 mL	165519	06/25/15 13:08	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

Client Sample ID: DUP-07 Lab Sample ID: 600-113214-8

Date Collected: 06/11/15 00:00 Matrix: Solid
Date Received: 06/12/15 09:57 Percent Solids: 72.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.09 g	50 mL	165357	06/23/15 17:19	NER	TAL HOU
Total/NA	Analysis	6010B	DL	10	1.09 g	50 mL	165519	06/25/15 13:24	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	M.IB	TAL HOU

Client Sample ID: 2015-NDA-12 0-0.5 Lab Sample ID: 600-113214-9

Date Collected: 06/11/15 11:10 Matrix: Solid
Date Received: 06/12/15 09:57 Percent Solids: 75.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.06 g	50 mL	165357	06/23/15 17:19	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.06 g	50 mL	165519	06/25/15 13:26	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

Client Sample ID: 2015-NDA-13 0-0.5 Lab Sample ID: 600-113214-12

Date Collected: 06/11/15 10:00 Matrix: Solid
Date Received: 06/12/15 09:57 Percent Solids: 82.1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.02 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B	DL	10	1.02 g	50 mL	165519	06/25/15 13:28	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

TestAmerica Houston

2

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: ECO-11A 0-0.5

Date Collected: 06/11/15 14:10 Date Received: 06/12/15 09:57 Lab Sample ID: 600-113214-15

Matrix: Solid
Percent Solids: 73.2

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.10 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.10 g	50 mL	165419	06/24/15 16:05	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.10 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.10 g	50 mL	165519	06/25/15 13:31	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

Client Sample ID: ECO-11B 0-0.5

Date Collected: 06/11/15 14:35 Date Received: 06/12/15 09:57 Lab Sample ID: 600-113214-18 Matrix: Solid

Percent Solids: 77.2

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	165419	06/24/15 16:08	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.03 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.03 g	50 mL	165519	06/25/15 13:33	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

Client Sample ID: ECO-11C 0-0.5

Date Collected: 06/11/15 14:25

Date Received: 06/12/15 09:57

Lab Sample ID: 600-113214-21

Matrix: Solid Percent Solids: 77.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 a	50 mL	165417	06/24/15 11:42	NER	TAL HOU
	- 1			4	3				—	
Total/NA	Analysis	6010B		ı	1.05 g	50 mL	165419	06/24/15 16:10	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.05 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.05 g	50 mL	165519	06/25/15 13:36	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

Client Sample ID: ECO-11D 0-0.5

Date Collected: 06/11/15 14:50

Date Received: 06/12/15 09:57

Lab Sample ID: 600-113214-24

Matrix: Solid Percent Solids: 80.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.02 g	50 mL	165419	06/24/15 16:19	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.02 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.02 g	50 mL	165519	06/25/15 13:38	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

TestAmerica Houston

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-C2L-06D 0-0.5

Date Collected: 06/11/15 11:40 Date Received: 06/12/15 09:57

Lab Sample ID: 600-113214-27

Matrix: Solid Percent Solids: 78.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.03 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.03 g	50 mL	165519	06/25/15 13:40	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

Client Sample ID: 2015-C2L-C01D 0-0.5 Lab Sample ID: 600-113214-30

Date Collected: 06/11/15 15:35 **Matrix: Solid** Date Received: 06/12/15 09:57 Percent Solids: 77.6

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.05 g	50 mL	165419	06/24/15 16:24	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

Client Sample ID: DUP-09 Lab Sample ID: 600-113214-32

Date Collected: 06/11/15 00:00 **Matrix: Solid** Date Received: 06/12/15 09:57 Percent Solids: 79.8

Prep Ty	Batch pe Type	n Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	·	3050B			1.02 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	A Analy	sis 6010B		1	1.02 g	50 mL	165419	06/24/15 16:34	DCL	TAL HOU
Total/NA	A Analy	sis Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

Lab Sample ID: 600-113214-33 Client Sample ID: 2015-FWCS-5A 0-0.5

Date Collected: 06/11/15 16:35 **Matrix: Solid** Date Received: 06/12/15 09:57 Percent Solids: 82.7

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.07 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.07 g	50 mL	165419	06/24/15 16:36	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.07 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B	DL	10	1.07 g	50 mL	165519	06/25/15 13:45	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

Client Sample ID: 2015-FWCS-6A 0-0.5 Lab Sample ID: 600-113214-34

Date Collected: 06/11/15 16:30 **Matrix: Solid** Date Received: 06/12/15 09:57 Percent Solids: 82.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.02 g	50 mL	165419	06/24/15 16:39	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.02 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.02 g	50 mL	165519	06/25/15 13:54	DCL	TAL HOU

TestAmerica Houston

Page 31 of 40

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-FWCS-6A 0-0.5

Date Collected: 06/11/15 16:30

Date Received: 06/12/15 09:57

Lab Sample ID: 600-113214-34

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

Client Sample ID: 2015-FWCS-7A 0-0.5 Lab Sample ID: 600-113214-35

Date Collected: 06/11/15 16:25 Date Received: 06/12/15 09:57

Matrix: Solid Percent Solids: 79.1

Lab Sample ID: 600-113214-36

Lab Sample ID: 600-113214-37

Matrix: Water

Matrix: Water

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	165419	06/24/15 16:41	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.03 g	50 mL	165417	06/24/15 11:42	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.03 g	50 mL	165519	06/25/15 13:56	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			164679	06/15/15 17:42	MJB	TAL HOU

Client Sample ID: Equipment Blank2 Auger

Date Collected: 06/11/15 10:10

Date Received: 06/12/15 09:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	165216	06/22/15 13:30	NER	TAL HOU
Total/NA	Analysis	6010B		1	50 mL	50 mL	165321	06/23/15 14:30	DCL	TAL HOU

Client Sample ID: Equipment Blank2 Probe

Date Collected: 06/11/15 10:10

Date Received: 06/12/15 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	165216	06/22/15 13:30	NER	TAL HOU
Total/NA	Analysis	6010B		1	50 mL	50 mL	165321	06/23/15 14:32	DCL	TAL HOU

Client Sample ID: Equipment Blank2 Hand Shovel

Date Collected: 06/11/15 16:15

Date Received: 06/12/15 09:57

Client Sample	D: Equ	uipment Blank2 Hand S	Lab Sample ID: 600-113214-38						
Total/NA	Analysis	6010B	1	50 mL	50 mL	165321	06/23/15 14:32	DCL	TAL HOU
Total/NA	Prep	3010A		50 mL	50 mL	165216	06/22/15 13:30		TAL HOU

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	165216	06/22/15 13:30	NER	TAL HOU
Total/NA	Analysis	6010B		1	50 mL	50 mL	165321	06/23/15 14:39	DCL	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TestAmerica Houston

Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-1

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223	10-31-15
The fellowing analytes					
The following analytes	s are included in this repo	rt, but certification is	not offered by the go	overning authority:	
Analysis Method	s are included in this repo	rt, but certification is Matrix	not offered by the go	,	
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Method of Shipment:

Special Instructions/QC Requirements:

Deliverable Requested: I, II, III, IV, Other (specify)

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Date/Time.

Cooler Temperature(s) °C and Other Remarks

Received by:

Company

Company dev.

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TestAmerica Houston

TestAmerica Houston															-	7 × 1	ひんごくとくいう	
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Phone (713) 690-4444 Fax (713) 690-5646							_					=						
Client Information	Sampler:	スツいち りゃい		Lab F Upte	Lab PM. Upton, Cathy L	y.L									600-36 600-36	COC No: 600-36678-12035.1		
Crient Contact Anne Faeth-Boyd	Phone (5,2)	285 71n	1 12	E-Mari	E-Mait 600-113	@testa	i g	8-1-	3214	Chain Chain	600-113214 Chain of Custody	tody		i	Page.	1 of A		_
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Phone: 636-724-9191	PO#. Purchase Order Requ	ednested			6) 30 1. 1. (t		q5 'e)s						G - Amehior	Pick	R - Na2SS2SO3 S - H2SO4 T - TSP Dodecabudate	
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Refinquished by.

Custody Seal No.:

Custody Seals Intact: Δ Yes Δ No

Date/Time:

Method of Shipment

Months

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Project# 60006523 SSOW#.

Project Name Exide Recycling Center, Frisco TX Exide Recycling Center, Frisco TX

faeth@golder ∞m

Phone: 636-724-9191

State, Zip: MO, 63301 St. Charles

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Special Instructions/Note:

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6316 Rothway Street

Phone (713) 690-4444 Fax (713) 690-5646 Houston, TX 77040

Client Information

Anne Faeth-Boyd

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(AT Requested (days): Due Date Requested:

Address: \$20 South Main Street Suite 100

Solder Associates Inc.

N - None
O - Ashaloz
P - NaZO-SS
Q - NaZSO3
R - NaZSE03
R - NaZSE03
R - NaZSE04
T - TSP Dodecahydrate
U - Acetone
V - MC-AA
W - ph 4-5
Z - other (specify)

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Sample Identification		22-NDA-17 0-0.5				E-3-11A 0.5-2	ECO-11A 2-4	E(0-1113, 0-0.5	5.0 -11.B 0.5-2	4-t Q11-072	5.0-0 711-03-8	Eco-11C 0.5-2	Possible Hazard Identification Non-Hazard Flammable Skin Irritant Polson B	i		ReInquished by:	Relinquished by:	Rehnquished by
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Custody Seal No.

Custody Seals Intact

△ Yes △ No

Chain of Custody Record

Sustody Record

0 - Ashaco P - NazO4S P - NazSSO3 R - NazSSSO3 S - H2SO4 T - TSP Dodecahydrate V - Acetone V - McAA W - Ph 4-5 Z - other (specify) Special Instructions/Note: Months Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client — Disposal By Lab — Archive For ______ Month 600-36678-12035.1 7 reservation Codes Page. 3 of MS | MS () つてエ H - Ascorbic Acid -マ シ A - HCL
B - NaOH
C - Zh Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor 7 ice , - Di Water K - EDTA (L - EDA Help Archive For Total Mumber of confainers Date/Time Method of Shipment 方文 80109 80109 Analysis Requested Cooler Temperature(s) °C and Other Remarks: Accordence Special Instructions/QC Requirements: 010B - (MOD) 8010B- Vs' Cq' bp' 26' 2P 8260B - (MOD) Target Compound List E-Mail: cathy.upton@testamericainc.com 2010B - (MOD) 2010B- V2, Cd, Pb, Se, Sb Received by: X Lab PM⁻ Upton, Cathy L Perform MS/MSD (Yes or No) Time: z Ż Preservation Code: (W=water, S=solid, O=wasterod, Solid Company Company Type (C≈comp, G=grab) Sample 3688 O O Ü O Ö Ü Ö മ Ü O ග 0)& 5 10 Days Purchase Order Requested 公子 1450 (6)5 Sample 93 3 とうか 335 Į Date: Due Date Requested: TAT Requested (days) - Jaknowa 232 51116 ころ Sample Date の言う らえる 6 6 6 5 Date/Time. 6 11 163 Project #. 60006523 SSOW# Date/Time. \bar{c} Poison B 3 -St 0-05 0.5.7 5.0-0 2015-021-069 6.5.2 4 Skin Imitant Deliverable Requested 1, II, III, IV, Other (specify) S.5.0 ららり ナーの 010 *○* る ナー人 から~これ-063 Custody Seal No. Jac - 157-500 クシメ ひっくりりり 20 - 02 2015-Aucs 2015-021--757-☐ Non-Hazard ☐Flammable Project Name, Exide Recycling Center, Frisco TX Exide Recycling Center, Frisco TX 820 South Main Street Suite 100 Possible Hazard Identification FC0 - (1) 0)1 についこう E(0-(1) Empty Kit Relinquished by Custody Seals Intact Client Information Sample Identification Golder Associates Inc 85 Δ Yes Δ No afaeth@golder com 5 Anne Faeth-Boyd Phone. 636-724-9191 elinquished by slinguished by: State, Zip. MO, 63301 elinquished by St. Charles

TestAmerica Houston

6310 Rothway Street Houston, TX 77040 Phone (713) 690-444 Fax (713) 690-5646

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6/26/2015

Chain of Custody Record

かが スカート・オースしかんだいがったし かいかんか じゅしゅし

N - None
O - AANDOZ
P - NAZOGS
Q - NAZOSO3
R - NAZOSO3
R - NAZOSO3
R - NAZOSO3
R - NAZOSO3
V - NCADNe
V - MCAA
W - ph 4-5
Z - other (specify) Special Instructions/Note: Company Months Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Month Page: Tof H 600-36678-12035.1 reservation Codes H - Ascorbic Acid J - DI Water K - EDTA L - EDA Archive For grenistroo to redmuli ištoī Date/Time: Method of Shipment Analysis Requested Cooler Temperature(s) °C and Other Remarks: 3 Special Instructions/QC Requirements e010B - (WOD) e010B- ∀e' Cq' bP' 2°' 2P 500 P 8260B - (MOD) Target Compound List Lab PWr Upton, Cathy L E-Mair cathy upton@testamericainc.com 6010B - (MOD) 6010B- V2' Cq' bp' 89' 8P eceived by 5 8260B - Target Compound List (QV no eeY) CISM\SM mione? Z Preservation Code: (W=water, S=solid, O=wasta/oil, Matrix Solid Water Solid Solid Solid Solid Solid Solid Solid Solid Solid Company Type (C=comp, G=grab) Sample Radiological **名**呢 9)为 ტ ტ Ġ ഗ ഗ Ġ ഗ ശ Ġ Ġ G O 10 Days سيلي STALL SONE XI PO# Purchase Order Requested 649 Sample 55 () () 000) <u>5</u> Date/Time of CII S IAT Requested (days): Jinknown (332) Due Date Requested: Clilis Sample Date <u>で</u> こ さ GITTES S1110 22 = 19 Project# 60006523 Poison B Hend Shovel 5000 500 なと Anger Skin Irritant Deliverable Requested I, II, III, IV, Other (specify) Edupart Riole 2 Edistront Blook 2 Custody Seal No.: 2015-FWCS-7A といったとろって Frank Alak 2 Possible Hazard Identification
Non-Hazard Frammable Exide Recycling Center, Frisco TX Exide Recycling Center, Frisco TX 820 South Main Street Suite 100 Empty Kit Relinquished by: Custody Seals Intact: △ Yes △ No Client Information Sample Identification Golder Associates Inc afaeth@golder.com Anne Faeth-Boyd

TestAmerica Houston

Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646 , 6310 Rothway Street

Page 37 of 40

Phone: 636-724-9191

State, Zlp. MO, 63301

St. Charles

6/26/2015

elinguished by

Relinquished by elinquished by: TestAmerica-Houston

Loc: 600 113214

Sample

ecklist

San	ıple	9.0	klist	THE	LEADER IN E	NVIRONMENTAL TESTIN	G
JOB NUMBER:			Date/Time Received: CLIENT:	(70)	des	•	
UNPACKED BY:			CARRIER/DRIVER:		FS		
Custody Seal Present:	DAES TRO		Number of Coolers Re	eceived:	7		
Cooler ID RW CF = correction factor Samples received on ice LABORATORY PRESE Base samples are>pH 1 pH paper Lot # HCC	RVATION OF SAMP 2: YES NO	N N N N N N N N N N N N N N N N N N N	_	Therm ID	Them CF	Corrected Temp (°C) 3 3 9	
VOA headspace accept		ES (JNO BINA				
	and the state of t					YES NO	<u>.</u>
Did samples meet the l	aboratory's standard co	nditic	ns of sample acceptability	upon receip	ot?		
COMMENTS:							
		<u></u> -					{
		7				, , , , , , , , , , , , , , , , , , ,	
)					
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ł						`	~

Upton, Cathy

From: Marlow, Abby [Abby_Marlow@golder.com]

Sent: Tuesday, June 16, 2015 6:14 PM

To: Upton, Cathy

Subject: RE: TestAmerica Sample Login Confirmation files from 600-113214 Exide Recycling Center, Frisco TX

Follow Up Flag: Follow up

Flag Status: Red

Hey Cathy,

We have one issue and it was a COC issue. 2015-C2L-01D is actually supposed to be 2015-C2L-C01D and the 0.5-2 is only 0.5-1. Can you please correct this and sorry for the issue.

Thank you

Abby Marlow | Staff Environmental Scientist | Golder Associates Inc.

500 Century Plaza Drive, Suite 190, Houston, Texas, USA 77073

T: +1 (281) 821-6868 | D: +1 (281) 821 6833 | F: +1 (281) 821-6870 | E: Abby_Marlow@golder.com | www.golder.com

Work Safe, Home Safe

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Please consider the environment before printing this email.

From: Upton, Cathy [mailto:cathy.upton@testamericainc.com]

Sent: Monday, June 15, 2015 8:52 AM

To: Faeth-Boyd, Anne; Marlow, Abby; Forthaus, Brett; Higginbotham, Christina; Thomas, Jim

Subject: TestAmerica Sample Login Confirmation files from 600-113214 Exide Recycling Center, Frisco TX

Hello,

Attached, please find the Sample Confirmation files for job 600-113214; Exide Recycling Center, Frisco TX

Please feel free to contact me if you have any questions.

Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

CATHY L UPTON

Project Manager I

TestAmerica Houston

THE LEADER IN ENVIRONMENTAL TESTING

Tel: 713.690.4444 www.testamericainc.com

Reference: [250474] Attachments: 3 1 01 1

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Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 600-113214-1

Login Number: 113214 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Creator. Cranton, Tonnine 3		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.3 0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-113214-3

Client Project/Site: Exide Recycling Center, Frisco TX

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 8/3/2015 6:26:44 PM

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

····· Links ·····

Review your project results through
Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

estAmerica 300 fb. 000-113214

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Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data nackage	is for TestAmerica	Houston job number	r 600-11321 <i>4-</i> 3 an	d consists of:

$\overline{\mathbf{V}}$	R1	- Field	chain-c	f-custody	docume	entation
-------------------------	----	---------	---------	-----------	--------	----------

- ☑ R2 Sample identification cross-reference;
- ☑ R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☑ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

Official Title (printed)

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton	ami	8/3/2015
Name (printed)	Signature	Date
Project Manager I		

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/3/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113214-3
Reviewer Name:	Cathy Linton		

# ¹ A ²	Description	Yes	No	NA ³	NR⁴	ER# ⁵
	custody (C-O-C)					
	es meet the laboratory's standard conditions of sample acceptability upon receipt?	Х				
	epartures from standard conditions described in an exception report?	Х				
	nd quality control (QC) identification					
	d sample ID numbers cross-referenced to the laboratory ID numbers?	Х				
	oratory ID numbers cross-referenced to the corresponding QC data?	Х				
3 Ol Test repor						
	amples prepared and analyzed within holding times?	Х				
	those results < MQL, were all other raw values bracketed by calibration standards?	Х				
	ulations checked by a peer or supervisor?	Х				
Were all a	nalyte identifications checked by a peer or supervisor?	Х				
Were sam	ple detection limits reported for all analytes not detected?	Х				
Were all re	sults for soil and sediment samples reported on a dry weight basis?	Х				
Were % m	oisture (or solids) reported for all soil and sediment samples?	Х				
Were bulk	soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Χ		
If required	for the project, are TICs reported?			Χ		
	recovery data					
	ogates added prior to extraction?			Χ		
	ogate percent recoveries in all samples within the laboratory QC limits?			Χ		
	rts/summary forms for blank samples					
	opriate type(s) of blanks analyzed?	Х				
	ks analyzed at the appropriate frequency?	Х				
	nod blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
procedures		Х				
1	k concentrations < MQL?	X				
	y control samples (LCS):					
	OCs included in the LCS?	Х				
	LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
	s analyzed at the required frequency?	X				
	(and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
	letectability check sample data document the laboratory's capability to detect the COCs at the MDL used	<u> </u>				
	e the SDLs?	Х				
	CSD RPD within QC limits?	<u> </u>		Х		
				^		
	ke (MS) and matrix spike duplicate (MSD) data	Х				
	project/method specified analytes included in the MS and MSD?					
	MSD analyzed at the appropriate frequency?	Х	V			D070
	(and MSD, if applicable) %Rs within the laboratory QC limits?	V	Χ			R07C
	MSD RPDs within laboratory QC limits?	Х				
	duplicate data	\ ,				
	opriate analytical duplicates analyzed for each matrix?	X				
	ytical duplicates analyzed at the appropriate frequency?	X				
	s or relative standard deviations within the laboratory QC limits?	Х				
	uantitation limits (MQLs):					
	QLs for each method analyte included in the laboratory data package?	Х				
	Ls correspond to the concentration of the lowest non-zero calibration standard?	Х				
	sted MQLs and DCSs included in the laboratory data package?	Х				
	blems/anomalies					
Are all kno	wn problems/anomalies/special conditions noted in this LRC and ER?	Х				
Was applic	cable and available technology used to lower the SDL to minimize the matrix interference effects on the					
sample res			Х			R10B
	ratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and	ı				
	ssociated with this laboratory data package?	Х				
	tified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required repo		tems			

. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/3/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113214-3
Reviewer Name:	Cathy Upton		

# ¹ A ²	Description	Yes	No	NA ³	NR ⁴	ER#
1 OI	Initial calibration (ICAL)					
	Were response factors and/or relative response factors for each analyte within QC limits?	Х				
	Were percent RSDs or correlation coefficient criteria met?	Х				
	Was the number of standards recommended in the method used for all analytes?	Х				
	Were all points generated between the lowest and highest standard used to calculate the curve?	Х				
	Are ICAL data available for all instruments used?	X				
	Has the initial calibration curve been verified using an appropriate second source standard?	X				
	That the limital cambration curve been verified using an appropriate second source standard.					
S2 OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
01	Was the CCV analyzed at the method-required frequency?	Х				
	Were percent differences for each analyte within the method-required QC limits?	X				
		X				
	Was the ICAL curve verified for each analyte?		-			
	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
3 0	Mass spectral tuning			.,		
	Was the appropriate compound for the method used for tuning?			Х		
	Were ion abundance data within the method-required QC limits?			Х		
64 0	Internal standards (IS)					
	Were IS area counts and retention times within the method-required QC limits?			Χ		
55 OI	Raw data (NELAC Section 5.5.10)					
	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
	Were data associated with manual integrations flagged on the raw data?	Х				
6 0	Dual column confirmation					
	Did dual column confirmation results meet the method-required QC?			Χ		
37 O	Tentatively identified compounds (TICs)					
	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Χ		
S8 I	Interference Check Sample (ICS) results					
	Were percent recoveries within method QC limits?	Х				
S9 I	Serial dilutions, post digestion spikes, and method of standard additions					
	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	Х				
S10 OI	Method detection limit (MDL) studies					
	Was a MDL study performed for each reported analyte?	Х				
	Is the MDL either adjusted or supported by the analysis of DCSs?	X				
11	Proficiency test reports					
)	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х				
212 0	Standards documentation	^				
012		V				
242 01	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х				
13 0	Compound/analyte identification procedures	V	-			
344 101	Are the procedures for compound/analyte identification documented?	Х				
514 01	Demonstration of analyst competency (DOC)					
	Was DOC conducted consistent with NELAC Chapter 5?	X				
1-	Is documentation of the analyst's competency up-to-date and on file?	Х				
15 OI	Verification/validation documentation for methods (NELAC Chapter 5)					
	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Χ				
616 OI	Laboratory standard operating procedures (SOPs)					
	Are laboratory SOPs current and on file for each method performed?	Х				
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required	report(s). I	tems			
	identified by the letter "S" should be retained and made available upon request for the appropriate retention period	d.				
2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
3.	NA = Not applicable;					
-	NR = Not reviewed;					

- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Page 5 of 24 8/3/2015

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/3/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-113214-3
Reviewer Name:	Cathy Upton		

ER # ¹	Description
R07C	Method 6010B: 600-115500-A-8-C MS/MSD ^5 failed the recovery criteria for the following analyte(s): Lead. Matrix interference is suspected due to the high concentration of lead in the parent sample.
R10B	Method 6010B: The following sample was diluted to bring the concentration of target analytes within the calibration range: ECO-11C 0.5-2 (600-113214-22). Elevated reporting limits (RLs) are provided.
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
	identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3.	NA = Not applicable;
4.	NR = Not reviewed;
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Matrix: Solid

Method: SW-846 6010B or 6010C

 Prep Method:
 SW-846 3050B

 Date Analyzed:
 5/13/2015

 Job #:
 600-109337

 TALS Batch:
 162296

 Units:
 mg/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Ag	Thermo6500	0.119	0.200	0.220	0.4
Al	SPECTRO1	0.300	0.500	0.718	25
As	Thermo6500	0.218	0.500	0.480	1
В	SPECTRO1	0.386	0.600	0.698	20
Ba	Thermo6500	0.030	0.030	0.040	1
Be	Thermo6500	0.015	0.020	0.020	0.25
Ca	SPECTRO1	0.864	2.500	7.426	100
Cd	Thermo6500	0.026	0.050	0.045	0.25
Co	Thermo6500	0.068	0.100	0.105	0.5
Cr	Thermo6500	0.051	0.100	0.110	0.5
Cu	Thermo6500	0.174	0.500	0.425	0.5
Fe	Thermo6500	2.530	4.000	3.915	20
K	Thermo6500	11.000	12.000	13.360	100
Li	SPECTRO1	0.008	0.010	0.062	10
Mg	Thermo6500	1.920	3.000	3.705	100
Mn	Thermo6500	0.038	0.050	0.055	1.5
Мо	Thermo6500	0.136	0.350	0.325	0.5
Na	Thermo6500	0.886	2.400	2.520	100
Ni	Thermo6500	0.117	0.150	0.140	1
Pb	Thermo6500	0.105	0.200	0.195	0.5
Sb	Thermo6500	0.232	0.450	0.410	2.5
Se	Thermo6500	0.259	0.500	0.550	2
Si	SPECTRO1	0.117	0.270	6.900	10
Sn	SPECTRO1	0.087	0.150	0.117	1
Sr	SPECTRO1	0.003	0.005	0.042	0.25
Ti	Thermo6500	0.015	0.030	0.020	0.5
TI	Thermo6500	0.277	0.700	0.580	1.5
V	Thermo6500	0.079	0.150	0.145	0.5
Zn	SPECTRO1	0.108	0.200	0.198	1.5

DCS = Detection Check Standard MQL = Method Quantitation Limit

Case Narrative

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-3

Job ID: 600-113214-3

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-113214-3

Comments

No additional comments.

Receipt

The samples were received on $6/12/2015\ 9:57\ AM$; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were $0.3^{\circ}\ C$ and $0.9^{\circ}\ C$.

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Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-113214-22	ECO-11C 0.5-2	Solid	06/11/15 14:25	06/12/15 09:57

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Client Sample Results

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: ECO-11C 0.5-2

TestAmerica Job ID: 600-113214-3

Lab Sample ID: 600-113214-22

Matrix: Solid

Date Collected: 06/11/15 14:25 Date Received: 06/12/15 09:57

General Chemistry Analyte Result Qualifier SDL Unit D Prepared Analyzed Dil Fac MQL (Adj) 1.0 % 07/31/15 10:09 **Percent Moisture** 26 H 1.0 1.0 % 07/31/15 10:09 **Percent Solids** 74 H 1.0

Lab Sample ID: 600-113214-22 Client Sample ID: ECO-11C 0.5-2

Date Collected: 06/11/15 14:25 **Matrix: Solid**

Date Received: 06/12/15 09:57 Percent Solids: 74.4

Method: 6010B - Metals (ICP) -				_			
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	16.8	6.72	1.46 mg/Kg	<u> </u>	07/31/15 11:32	08/03/15 12:19	5
Lead	17.2	3.36	0.706 mg/Kg	₩	07/31/15 11:32	08/03/15 12:19	5

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-3

Qualifiers

Metals

Qualifier	Qualifier Description
NI4	MS MSD: Spike recovery exceeds upper or lower or

MS, MSD: Spike recovery exceeds upper or lower control limits. U Analyte was not detected at or above the SDL.

General Chemistry

Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this repo	rt.
--------------	--	-----

¤ Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid **CNF** Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration MDA Minimum detectable activity **EDL Estimated Detection Limit**

MDC Minimum detectable concentration

MDL Method Detection Limit ML Minimum Level (Dioxin) NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

Quality Control QC **RER** Relative error ratio

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF **TEQ** Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 600-113214-3

Client Sample ID: Method Blank

07/31/15 11:32 08/03/15 10:44

Prep Type: Total/NA

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-168312/1-A

Analysis Batch: 168450

Matrix: Solid

Analyte

Arsenic

Lead - DL

Lead

0.105 U

146

							Prep Batch:	168312
MB	MB							
Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
0.218	U	1.00	0.218	mg/Kg	 _	07/31/15 11:32	08/03/15 10:44	1

0.105 mg/Kg

Lab Sample ID: LCS 600-168312/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 168450 Prep Batch: 168312** LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Arsenic 113 109.8 mg/Kg 97 78 - 122 90.1 85.19 mg/Kg Lead 95 79 - 121

0.500

Method: 6010B - Metals (ICP) - DL

Lab Sample ID: 600-115500-A-8-C MS ^5 **Client Sample ID: Matrix Spike Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 168450 Prep Batch: 168312** Sample Sample Spike MS MS %Rec.

Result Qualifier Added Limits **Analyte** Result Qualifier Unit D %Rec Arsenic - DL 13.5 62.9 71.62 ₩ 92 75 - 125 mg/Kg Lead - DL 146 62.9 82.81 N1 mg/Kg -101 75 - 125

Lab Sample ID: 600-115500-A-8-D MSD ^5 **Client Sample ID: Matrix Spike Duplicate Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 168450 Prep Batch: 168312** Sample Sample Spike MSD MSD %Rec. **RPD** Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit D ₩ Arsenic - DL 60.5 67.98 13.5 mg/Kg 90 75 - 125 5 20

Lab Sample ID: 600-115500-A-8-B DU ^5 **Client Sample ID: Duplicate Matrix: Solid** Prep Type: Total/NA

80.47 N1

mg/Kg

-109

75 - 125

60.5

Analysis Batch: 168450 Prep Batch: 168312 DU DU Sample Sample **RPD**

Analyte Result Qualifier Result Qualifier Unit D RPD Limit ₩ Arsenic - DL 13.5 13.64 mg/Kg 20 ά Lead - DL 146 178.1 mg/Kg 20 20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-113214-22 DU Client Sample ID: ECO-11C 0.5-2 **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 168295										
_	Sample	Sample	DU	DU					RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit	
Percent Moisture	26	Н	 26		%			0	20	
Percent Solids	74	Н	74		%			0	20	

TestAmerica Houston

Page 13 of 24

Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-3

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method	
Arsenic	1.00	0.218	mg/Kg	6010B	
Lead	0.500	0.105	mg/Kg	6010B	

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

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QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-3

Metals

Prep Batch: 168312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113214-22 - DL	ECO-11C 0.5-2	Total/NA	Solid	3050B	
600-115500-A-8-B DU	Duplicate	Total/NA	Solid	3050B	
600-115500-A-8-B DU ^5 - D	Duplicate	Total/NA	Solid	3050B	
600-115500-A-8-C MS ^5 - D	Matrix Spike	Total/NA	Solid	3050B	
600-115500-A-8-D MSD ^5 -	Matrix Spike Duplicate	Total/NA	Solid	3050B	
LCS 600-168312/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-168312/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 168450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113214-22 - DL	ECO-11C 0.5-2	Total/NA	Solid	6010B	168312
600-115500-A-8-B DU	Duplicate	Total/NA	Solid	6010B	168312
600-115500-A-8-B DU ^5 - D	Duplicate	Total/NA	Solid	6010B	168312
600-115500-A-8-С MS ^5 - С	Matrix Spike	Total/NA	Solid	6010B	168312
600-115500-A-8-D MSD ^5 -	Matrix Spike Duplicate	Total/NA	Solid	6010B	168312
LCS 600-168312/2-A	Lab Control Sample	Total/NA	Solid	6010B	168312
MB 600-168312/1-A	Method Blank	Total/NA	Solid	6010B	168312

General Chemistry

Analysis Batch: 168295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-113214-22	ECO-11C 0.5-2	Total/NA	Solid	Moisture	
600-113214-22 DU	ECO-11C 0.5-2	Total/NA	Solid	Moisture	

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Lab Chronicle

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: ECO-11C 0.5-2

TestAmerica Job ID: 600-113214-3

Lab Sample ID: 600-113214-22

Matrix: Solid

Date Collected: 06/11/15 14:25 Date Received: 06/12/15 09:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			168295	07/31/15 10:09	MJB	TAL HOU

Client Sample ID: ECO-11C 0.5-2 Lab Sample ID: 600-113214-22

Date Collected: 06/11/15 14:25 **Matrix: Solid**

Date Received: 06/12/15 09:57 Percent Solids: 74.4

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.00 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.00 g	50 mL	168450	08/03/15 12:19	DCL	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-113214-3

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223	10-31-15
The fellowing analytes					
The following analytes	s are included in this repo	rt, but certification is	not offered by the go	overning authority:	
Analysis Method	s are included in this repo	rt, but certification is Matrix	not offered by the go	,	
,	·	·	Analyt	,	

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O. Ashao2
P. Na204S
Q. Na2803
R. Na282803
S. H2SO4
T. TISP Dodecallydrate
U. Acetone
W. - InCAA
W. - ph 4-5
Z. - other (specify) Lolubii 04M/SM; bioti Special Instructions/Note: this included Сотрапу Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Monte 600-36678-12035.1 <u>5</u> Preservation Codes G - Amchlor H - Ascorbic Acid 是 2 Hold 1017 Fold F-MeOH Page. Page Archive For Total Number of containers Date/Time. Method of Shipment: 90109 600-113214 Chain of Custody Analysis Requested Cooler Temperature(s) °C and Other Remarks Special Instructions/QC Requirements: 2010B - (MOD) 2010B- Vs' Cq' bp' 26' 2P からか 8560B - (MOD) Target Compound List e010B - (MOD) e010B- Ve' Cq' bp' 80' 2P Lab PM.
Upton, Cathy L
E-Mail
cathy upton@testamen... Received by: ¥ Chain of Custody Record 3260B - Target Compound List <u>X</u> z elettelitered Sample (Yes of No) z Z z z Z Z z z Company dev. 3 Preservation Code: (W=water, S=solid, O=waste/oli, Matrix Solid Company Type (C=comp, Sample G=grab) Radiological ტ ტ O Ō O Ó ტ O ტ g Ö Þ 11 1/ CON (FI 885° 914 (288) 10 Days \mathcal{E} Po #. Purchase Order Requested 0925 1035 Sample وی همسیر مسیدی مسیدی مسیدی) Date TAT Requested (days): Unknown Due Date Requested: 11115 Sample Date GIIIES Date/Time. Project # 60006523 SSOW#. Jate/Time ه . 0 Poison B 0-0.5 2.5.7 すって 5.5.0 3-0.5 かんしん 0-0.5 <u>+</u> ナント Skin Irritant Deliverable Requested: I, II, IV, Other (specify) 一下でするの Custody Seal No. Phone (713) 690-4444 Fax (713) 690-5646 2015-FFF4-28A 1年1年108年 Dup - 08 40- UN 2015-NDA-CI としていると というという 2015-NDA-11 1) - ACIM-SIEC 2015 - NOA - 11 Possible Hazard Identification Exide Recycling Center, Frisco TX Exide Recycling Center, Frisco TX 1 7 200 My Compression of the Co **TestAmerica Houston** 320 South Main Street Suite 100 impty Kit Relinquished by Custody Seals Intact: △ Yes △ No Client Information Sample Identification Solder Associates Inc 6310-Rothway Street Houston, TX 77040 afaeth@golder com nne Faeth-Boyd 35 15 <u>8</u> Phone: |636-724-9191 telinquished by. State, Zip: MO, 63301 St. Charles

631¢ Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646

TestAmerica Houston

TestAmerica The color of the co

Client Information	Sampler.	de. Upi	Lab PM. Upton, Cathy L			Carner Tra	Carner Tracking No(s)*		COC No: 600-36678-12035.1	5.1
Client Contact: Anne Faeth-Boyd	ف	3878 E-M	ail: @notqu.yr	E-Mail: cathy.upton@testamericainc.com	ic com	· · ·			Page:	4
Company. Golder Associates Inc.					Analysis Requested	quested	/	:	Job#.	
Address 820 South Main Street Suite 100	Due Date Requested:			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	A CONTRACTOR	7	To V		סו	:Sa:
Gry: St. Charles	TAT Requested (days):			1	ő -		- 1			M - None N - None O - AsNaO2
State, Zip: MO, 63301	10 Days								D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3 B - Na2SO3
Phone: 636-724-9191	Po# Purchase Order Requested		(6	qs 'es				<u> </u>		S - H2SO4 T - TSP Dodecahydrate
Email: afaeth@golder.com	,# OM		(e)y	· · · · · ·					1- loe J - Di Water	U - Acetone V - MCAA
Project Name Exide Recycling Center, Frisco TX	Project # 60006523		/O 58	ро				enistr	L-EDA	w - pn 4-5 Z - other (speafy)
Site. Exide Recycling Center, Frisco TX	SSOW#.		X):081	ritelM (901	۸۶	100 10	Other	
	Sample Date Time G	Sample Matrix Type (w-water, S-sold, C-comp, C-astron)	benetilit bleif VISIM myotiet fegret - 80658	60108 - (MOD)	82668 - (MOD) ·	80109	80109	- 19d∭µN ikiojT		Special Instructions/Note:
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2.0-0 6)-ACN-SIEZ De	6/11/15 1000	G Solid	z	X		X				
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	7	G Solid	Z	-				- - - - - - - - - - - - - - - - - - -	Hod	
E(0-114 0-0.5	6/14/18 rule	Solid S	z	×		X	×	200		
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ECO-11A 2-4	~	Solid	z	->			ج-		Flord	
	6 (15 M35	Solid	z	X		×	×			
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FLO - 11B 2-4		Solid	z			~	->		-0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -	
٦	51113	G Solid	z	×		×				
ECO-11(C 0:5-2	C	G 48	Z	→		- -}	~~	áa.	Held	
Possible Hazard Identification Non-Hazard — Flammable — Skin Irritant — Polson B	son B Unknown Radiological	ogical	Samp	le Disposal (Retum To Cl	A fee may be a	assessed if sar Disposal By Lab	samples	are retained lon	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Mont	oonth) Months
	,		Specia	al Instructions	Special Instructions/QC Requirements	nts:				
Empty Kit Relinquished by:	Date		<u>Ti</u> me:	0		Metho	Method of Shipment	1		
	Date/Time: $\zeta(u)\mathcal{O}$	Company \$	S.	Received	3			73	957	Company
	Date/Time	Company	<u></u>	Received by:			Date/Time	ne:		Company
Relinquished by 70	Date/Time.	Company	8	Received by.	 		Date/Time:	ne:		Сопрапу
Custody Seals Infact: Custody Seal No:			8	oler Temperatur	Cooler Temperature(s) °C and Other Remarks	етапка				
	13 15 15 15 15 15 15 15 15									

Chain of Custody Record

Phone (713) 690-4444 Fax (713) 690-5646

Houston, TX 77040

6310 Rothway Street

TestAmerica Houston

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0 - Ashaco P - NazO4S P - NazSSO3 R - NazSSSO3 S - H2SO4 T - TSP Dodecahydrate V - Acetone V - McAA W - Ph 4-5 Z - other (specify) Special Instructions/Note: Months Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client — Disposal By Lab — Archive For ______ Month COC No: 600-36678-12035.1 7 reservation Codes Page. 3 of MS | MS () つてエ H - Ascorbic Acid -マ シ A - HCL
B - NaOH
C - Zh Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor 7 ice , - Di Water K - EDTA (L - EDA Help Archive For Total Mumber of confainers Method of Shipment 方文 80109 80109 Analysis Requested Accordence Special Instructions/QC Requirements: 010B - (MOD) 8010B- Vs' Cq' bp' 26' 2P 8260B - (MOD) Target Compound List E-Mail: cathy.upton@testamericainc.com 2010B - (MOD) 2010B- V2, Cd, Pb, Se, Sb X Lab PM⁻ Upton, Cathy L 8260B - Target Compound List Perform MS/MSD (Yes or No) Time: z Ż Preservation Code: (W=water, S=solid, O=wasterod, Solid Company Type (C≈comp, G=grab) Sample 3688 O O Ü O Ö Ü Ö മ Ü O ග 0)81 5 10 Days Purchase Order Requested 公子 1450 (6)5 Sample 93 3 とうか 335 Į Date: Due Date Requested: TAT Requested (days) - Jaknowa 232 51116 ころ Sample Date の言う らえる 6 6 6 5 Date/Time. Project #. 60006523 SSOW# \bar{c} Poison B 3 -St 0-05 0.5.7 5.0-0 2015-021-069 6.5.2 4 Skin Irritant Deliverable Requested 1, II, III, IV, Other (specify) S.5.0 ららり ナーの 010 の る ナー人 から~これ-063 Jac - 157-500 クシメ ひっくりりり 20 - 02 2015-Aucs 2015-021--757-☐ Non-Hazard ☐Flammable Project Name, Exide Recycling Center, Frisco TX Exide Recycling Center, Frisco TX 820 South Main Street Suite 100 Possible Hazard Identification FC0 - (1) 0)1 についこう E(0-(1) Empty Kit Relinquished by Client Information Sample Identification Golder Associates Inc 85 afaeth@golder com 5 Anne Faeth-Boyd Phone. 636-724-9191 elinquished by State, Zip. MO, 63301 St. Charles

elinquished by. 8/3/2015

elinquished by:

Date/Time

Cooler Temperature(s) °C and Other Remarks:

14

Received by:

Date/Time.

Custody Seal No.

Custody Seals Intact

Δ Yes Δ No

Company

Page 20 of 24

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Month Analysis Requested 3 e010B - (WOD) e010B- ∀e' Cq' bP' 2°' 2P 500 P 8260B - (MOD) Target Compound List Lab PWr Upton, Cathy L E-Mair cathy upton@testamericainc.com 6010B - (MOD) 6010B- V2' Cq' bp' 89' 8P 5 8260B - Target Compound List (QV no eeY) CISM\SM mione? Z Preservation Code: (W=water, S=solid, O=wasta/oil, Matrix Solid Water Solid Solid Solid Solid Solid Solid Solid Solid Solid Type (C=comp, G=grab) Sample Radiological **名**呢 9)为 ტ ტ Ġ ഗ ഗ Ġ ഗ ശ Ġ Ġ G

Sample

Sample Date

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Special Instructions/Note:

TestAmerica Houston

Chain of Custody Record

STALL SONE XI

(332)

, 6310 Rothway Street

Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646

Client Information

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Page: Tof H 600-36678-12035.1

reservation Codes

N - None
O - AANDOZ
P - NAZOGS
Q - NAZOSO3
R - NAZOSO3
R - NAZOSO3
R - NAZOSO3
R - NAZOSO3
V - NCADNe
V - MCAA
W - ph 4-5
Z - other (specify)

H - Ascorbic Acid

10 Days

IAT Requested (days):

Due Date Requested:

820 South Main Street Suite 100

Golder Associates Inc

Anne Faeth-Boyd

PO# Purchase Order Requested

Project# 60006523

Exide Recycling Center, Frisco TX Exide Recycling Center, Frisco TX

afaeth@golder.com

Phone: 636-724-9191

State, Zlp. MO, 63301

St. Charles

J - DI Water K - EDTA L - EDA

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Sample Identification Page 21 of 24

8/3/2015

elinguished by

Custody Seal No.:

Custody Seals Intact: △ Yes △ No

Company

Date/Time:

Cooler Temperature(s) °C and Other Remarks:

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Сопрапу Company

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Date/Time of CII S

Jinknown

Poison B

Skin Irritant

Deliverable Requested I, II, III, IV, Other (specify)

Empty Kit Relinquished by:

Relinquished by telinquished by:

Possible Hazard Identification
Non-Hazard Frammable

Months

Archive For

Method of Shipment

Special Instructions/QC Requirements

TestAmerica-Houston

Loc: 600 113214

TestAmerico:5

Sample

ecklist

Jan	ibie a	.GNIDE	Int	LEADER IN E	NVIRONMENTAL TESTING
	The second secon	Date/Time Received:			
JOB NUMBER:		CLIENT:	40	des	
UNPACKED BY:		CARRIER/DRIVER:		FE	
Custody Seal Present:	ARE TATO	Number of Coolers Re	eceived:	5	
Caoler ID	Temp Blank Trip Blar	Observed Temp	Therm ID	Them CF	Corrected Temp
RW.	Y/NY/	N 0.3 N 0.9	680	0	0.3
	YINYI	N S			
	Y N Y I	n 6215			
CF = correction factor	Y / N Y /	N	<u> </u>	<u> </u>	
Samples received on ice LABORATORY PRESE Base samples are>pH 1 pH paper Lot # HCS VOA headspace accepts	RVATION OF SAMPLE 2: YES NO	Acid preserved are<	NQ ::	∏ YES	□NO
Did samples meet the la	aboratory's standard condi	tions of sample acceptability	y upon recel	pt?	YES NO
COMMENTS:					
,					

Upton, Cathy

From: Faeth-Boyd, Anne [Anne_Faeth-Boyd@golder.com]

Sent: Sunday, July 19, 2015 11:42 PM

To: Upton, Cathy

Cc: Thomas, Jim; Higginbotham, Christina

Subject: please run 5 hold samples

Follow Up Flag: Follow up Flag Status: Red

Cathy,

Can we please run the following hold samples:

ECO-11C (0.5-2) – arsenic and lead 2015-CUFT-16B (0.5-2) - lead D-11C (2-4) - arsenic 2015-MW-17D (2-4) – antimony, arsenic, and lead 2015-SCC-16B (0.5-2) – lead

Thanks, Anne

Anne Faeth-Boyd, R.G., P.E. | Senior Engineer | Golder Associates Inc. 820 South Main Street, Suite 100, St. Charles, Missouri, USA 63301
T: +1 (636) 724-9191 | F: +1 (636) 724-9323 | C: +1 314 503-5179 | E: Anne_Faeth-Boyd@golder.com | www.golder.com

Work Safe, Home Safe

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Please consider the environment before printing this email.

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Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 600-113214-3

Login Number: 113214 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Answer	Comment
N/A	Lab does not accept radioactive samples.
True	
True	0.3 0.9
True	
N/A	Check done at department level as required.
	True True True True True True True True

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Data Usability Summary

Test America Work Orders: 600-115590-1, 600-115554-1, 600-

115500-1

Sample Dates: July 27, 28, and 29, 2015 **Project No.:** 1302086

Laboratory: Test America (TLAP Certification Client: Exide Technologies Inc.

T104704223)

Work Orders: Work Orders: 600-115590-1, 600-115554-1, 600-115500-1

Intended Use Affected Property Assessment Report (APAR) Addendum

Site: Exide Former Operating Plant (FOP), 7471 5th Street, Frisco, TX

1.0 TESTS/ METHODS

Total Metals by SW-846 6010B - Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP) Percent moisture/percent solids (general chemistry)

2.0 SAMPLES

32 soil samples, two field duplicates, and one field MS/MSD pair. See Table 1 for a complete cross-referenced listing of samples.

Golder completed a review of the above chemical analysis data for conformance with the requirements of the Texas Risk Reduction Program (TRRP) guidance document, Review and Reporting of COC Concentration Data (RGG-366/TRRP-13 Revised May 2010) and for adherence to project objectives. The results of the review are discussed in this data usability summary (DUS).

Golder completed the review using the following laboratory and project submittals:

- Laboratory reportable data as defined in TRRP-13;
- Laboratory review checklists (LRC) with the associated exception reports;
- Laboratory Electronic Data Deliverable (EDD); and
- Project field notes from the sampling event.

The review of the reportable data included the quality control (QC) parameters listed below, as required per TRRP-13, using the applicable analytical method and project requirements:

- Data Completeness
- Chain-of-Custody Procedures
- Sample Condition Holding Time, Preservation, and Containers
- Field Procedures
- Results Reporting Procedures





Data Usability Summary Test America Work Orders: 600-115590-1, 600-115554-1, 600-115500-1

- Laboratory and Field QC Blanks
- Laboratory Control Spike and Matrix Spike Recoveries
- Surrogate Recoveries
- Laboratory and Field Duplicate Precision

Additionally, Golder used the LRC to evaluate the following QC parameters:

- Method Quantitation Limits (MQLs)
- Method Detection Limits (MDLs)
- Instrument Tuning, Calibration, and Performance
- Internal Standards

Criteria used for this data usability review are as follows:

- Inorganics: 70-130% spike recovery (and not less than 30% or data is rejected) and +MQL difference or 30% RPD (for laboratory duplicates) as recommended in TRRP-13; and
- Soil Samples: + 3x MQL difference (if either result is less than 5x MQL) or 50% RPD (for field duplicates) as recommended in TRRP-13.

If an item was found outside of the review criteria, the reviewer applied a data qualifier (DQ) and bias code to the results for the affected samples in accordance with TRRP-13. A list of all qualified results and definitions of the qualifier and bias codes are given in Table 2.

GLOSSARY OF TERMS

The following definitions apply for terms related to analyte reporting limits:

MDL (Method Detection Limit) – the minimum concentration of an analyte that the laboratory can measure and report with 99% confidence that the analyte concentration is greater than zero. The MDL is determined by the laboratory for each analyte in a given reagent matrix (water or soil) generally using the procedures specified in 40 CFR Part 136, Appendix B. It is a measure of the concentration an instrument can detect or 'see' in a given reagent matrix. TRRP-13 requires that the laboratory routinely check the MDL for reasonableness.

<u>SDL</u> (Sample Detection Limit) – the MDL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and taking into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can detect or 'see' in a given sample. For TRRP, non-detects are reported using the SDL. This term was originally called the SQL (Sample Quantitation Limit) before the TRRP rule revisions effective March 19, 2007.





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<u>Unadjusted MQL (Method Quantitation Limit)</u> – the lowest non-zero concentration standard in the laboratory's initial calibration curve calculated using the normal aliquot sizes and final volumes prescribed in the analytical method. The unadjusted MQL is reported by the laboratory for each analyte in a given matrix (water or soil). It is a measure of the concentration an instrument can accurately measure in a typical sample. Per TRRP, the unadjusted MQLs should be below the Levels of Required Performance (LORPs) for purposes of assessment as well as demonstration of conformance with critical Protective Concentration Levels (PCLs).

<u>MQL</u> – the unadjusted MQL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and takes into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can accurately measure in a given sample. Analytes with concentrations above the SDL but below the MQL, though present in the sample, may not be accurately measured and are thus flagged as estimated (J).

LABORATORY CERTIFICATION

At the time the laboratory data were generated for this project, the laboratory was NELAC accredited under the Texas Laboratory Accreditation Program (TLAP) for the matrices, methods and parameters of analysis requested on the chain-of-custody forms. A copy of the applicable pages of the laboratory's National Environmental Laboratory Accreditation Program (NELAP) certificate valid during the period in which the laboratory generated the data in this report is also included in Appendix C to the Supplement to the Affected Property Assessment Report.

USABILITY SUMMARY

- 1. Usability of Unqualified Non-Detects Non-detects are reported at the sample detection limit (SDL) as required per TRRP. Additionally, according to the LRC, an MDL study was performed for each analyte and the MDLs were checked for reasonableness for each applicable analyte. The levels of required performance (LORPs) have been established by Golder/PBW as the Residential Assessment Levels (RALs), which are the minimum of the TRRP residential Tier 1 TotSoilComb and Tier 1, 2 or 3 GWSoilIng PCLs for a 30-acre source area. As needed per TRRP, the unadjusted MQL stated by the laboratory is at or below the LORP for each applicable analyte, and thus the analytical methods are appropriate and the results can be used to demonstrate conformance with the criteria.
- 2. Usability of Qualified Data There are no major QC deficiencies, and thus all data is usable as qualified for the intended use. As shown in Table 2, the reviewer qualified some detects as estimated (J) due to minor QC deficiencies. Detects that are biased high can be used; however, the reported concentration may be high. Detects that are estimated may be either low or high. Results with a laboratory J-flag (i.e., at a concentration between the SDL and MQL) should be considered estimates. The actual value is not expected to exceed the sample MQL.



Reviewer: Christina Higginbotham 8/20/15

QUALITY CONTROL PARAMETERS AND OUTCOMES

Data Completeness

The laboratory data packages contain all necessary data (i.e., the laboratory reportable data per TRRP-13) and the EDD contain all sample results in acceptable format.

Chain-of-Custody

Proper sample custody procedures were used, which confirms that the integrity of the samples was maintained. Additionally, the information on the custody records is complete and agrees with that in the field notes and laboratory reports, with the following exceptions:

- Trip Blanks were listed on the chain-of-custody for 600-115500, but were not present in the cooler. Since no VOCs were analyzed, this does not present an issue.
- IDs on the sample container did not match the chain-of-custody for 600-115554 (the chain-of-custody indicated ECO-18 2-3.5' and the label indicated ECO-18 2-4'). In this case, the records were logged in per the chain-of-custody.
- A number of deeper interval samples were archived at the laboratory pending results of shallow interval samples.

Sample Condition

Samples were collected in appropriate containers, properly preserved in the field, and prepared and analyzed within the holding times as required in the analytical methods, which ensures that the samples were not affected by analyte degradation. Although temperatures were marginally outside of 2-6 °C in some cases, sample integrity is not believed to be affected:

- 600-115590-1, the temperature of the cooler at receipt was 3.1°C.
- 600-115554-1, the temperature of the cooler at receipt was 1.4°C.
- 600-115500-1, the temperature of the cooler at receipt was 0.5°C and 0.8°C.

Field Procedures

The samples were collected and placed immediately into sterilized jars provided by the laboratory and then into a cooler with ice for overnight delivery to the laboratory.

Two site-specific MS/MSDs and two field duplicate samples were analyzed with the investigative samples.





Data Usability Summary Test America Work Orders: 600-115590-1, 600-115554-1, 600-115500-1

Results Reporting Procedures

The hardcopy analytical results include a Result, MQL (adjusted), and SDL. The EDD includes the MDL, SDL (under the SQL column per previously used terminology) and the MQL, which is not adjusted for sample specific factors.

Results are reported in mg/kg with dry-weight correction for the metals. Non-detects are reported using the SDL as specified per TRRP and detects between the SDL and MQL are reported with a laboratory J-flag. The concentration reported for detects between the SDL and MQL is below the calibration range and thus is considered estimated.

MQLs- The LORPs have been established by Golder/PBW as the Residential Assessment Levels (RALs), which are the minimum of the TRRP residential Tier 1 Tier 1 TotSoil_{Comb} and Tier 1, 2 or 3 GWSoil_{Ing} PCLs for a 30-acre source area. The Unadjusted MQLs for the laboratory are at or below the LORPs for each applicable analyte.

MDLs- According to the LRC, an MDL study was performed for each analyte, and the MDLs were checked for reasonableness and either adjusted or supported by the analysis of detectability check standards (DCS) for each applicable analyte as required per TRRP-13. Results for the DCS are included in the data packages.

Laboratory Blanks

Results for samples prepared in the same QC batch as a contaminated method blank may be affected by laboratory contamination. No analytes were detected in the laboratory blanks.

Field QC Blanks

No field QC blanks were collected as part of these data packages.

Laboratory Control Sample

The laboratory prepared one laboratory control sample (LCS) for each analytical batch and reported recoveries for all of the analytes for each test. The LCS recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on a sample, free of matrix effects, except for the following:

■ 600-115500-1, antimony had slightly low LCS recoveries of 61% and 51.6% which is slightly below TRRP criteria of 70-130%. Samples in the associated batch 168312 and 168365 are qualified in Table 2 (detected = JL, non-detected=UJL).



Matrix Spike Recovery

The laboratory prepared one or more matrix spike (MS) and matrix spike duplicate (MSD) with each analytical batch. MS/MSD recoveries are reported for the same analytes as the LCS for MS/MSD prepared using designated samples from the site for job package 115500-1, which includes two MS/MSDs for Total Metals, as shown in Table 1. The lab also selected site samples as MS/MSDs for job packages 115554-1 and 115590-1.

PDS outcomes are given on the LRC for each job package; however PDS data are not reportable data per TRRP-13. According to the LRC, the PDS met method requirements, which indicates good accuracy for the analysis technique on the given sample matrix.

The MS/MSD recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on a sample free of matrix effects, except as follows:

QC Batch	Lab Sample ID	MS/MSD ID	Analyte	Parent Amount (mg/kg)	Spike Amount for MS/MSD (mg/kg)	MS % Recovery	MSD % Recovery	Qual
168496	600-115590- 10	2014-C2L- C01-A	Lead	718	47.0, NA	-139	NA	-
168496	600-115590- 10	2014-C2L- C01-A	Lead-DL	701	47.0, NA	-136	NA	-
168365	600-115554- 6	ECO-18 (0- 0.5)	Lead-DL	218	69.1	657	845	-
168312	115500-8	G-5B (0.5-2)	Antimony	0.283 U	62.9	25	22	UJL
168312	115500-19	G-6D (0.5-2)	Antimony	0.283 U	63.9	33	36	UJL
168312	115500-8	G-5B (0.5-2)	Lead (DL)	146	62.9	-101	-109	-
168312	115500-19	G-5D (0.5-2)	Lead (DL)	157	63.9	217	611	-

NA - Not available.

In sample 115590-10, 115554-6, 115500-8, 15500-19, the lead spike amount is sufficiently less than the amount in the unspiked parent sample; thus, the data are considered inconclusive and the MS/MSD recovery check was waived. MS/MSD recoveries were not evaluated in cases where the laboratory selected samples were unrelated to the site.

For the low MS/MSD recovery for antimony, although antimony is non-detect, the recoveries are slightly below 30% (in one case) and above 30% in the other case, and within laboratory control limits in both cases. The non-detect data is accepted as estimated with a low bias for samples in the same preparation batch from same matrix.

Surrogate Recovery

Since organic analyses were not requested for these data packages, surrogate recoveries were not evaluated.



Laboratory Duplicate Precision

The laboratory prepared one or more Matrix Spike Duplicate (MSD) with each analytical batch for each test. Additionally, the laboratory prepared one Matrix Duplicate (MD) with each metals analytical batch. RPDs are reported for the same analytes as the LCS for MSD/MD prepared using a sample from the site, which includes one MSD and MD for Total Metals.

The MSD and MD RPDs are within the TRRP recommended criteria, which indicates good precision for the preparation and analysis technique for the given sample matrix, except as follows:

QC Batch	Lab Sample ID	MS/MSD ID	Analyte	Parent Amount (mg/kg)	MSD RPD	MD RPD	Qual
168496	600-115590- 10	2014-C2L- C01-A	Lead	718	NR	16	-
168496	600-115590- 10	2014-C2L- C01-A	Lead (DL)	701	NR	16	-
168365	600-115554-6	ECO-18 (0- 0.5)	Lead (DL)	218	16	33	J (parent)
168312	115500-8	G-5B (0.5-2)	Antimony	0.283 U	16	NC	-
168312	115500-19	G-6D (0.5-2)	Antimony	0.283 U	4	NC	-
168312	115500-19	G-6D (0.5-2)	Lead (DL)	157	56	137	J (batch)

Where MSD RPDs were acceptable and MD RPDs were only marginally above criteria, a batch effect was not indicated and the parent sample (only) was qualified as estimated.

Field Duplicate Precision

Two field duplicates were collected with the samples. Results are summarized in Table 3. The RPDs (or the absolute difference between results for concentrations <5x MQL and for non-detects) are within the TRRP criteria, which indicates good precision for the sampling, preparation, and analysis technique on the given sample matrix.

Instrument Tuning

According to the LRC, instrument tuning met method requirements for the samples, which indicates the GC/MS instrument was properly set up to identify analytes.

Instrument Calibration

According to the LRC, initial and continuing calibration data met method requirements for all reported results, which indicates the instruments were properly calibrated to measure analyte concentrations.

Instrument Performance

According to the LRC, the serial dilution and ICP interference check samples met method requirements, which indicates that no significant matrix interference exists.





Internal Standards

According to the LRC, area counts and retention times were within method requirements.



TABLE 1

CROSS REFERENCE OF FIFLD SAMPLE IDENTIFICATIONS AND LABORATORY IDENTIFICATIONS

CROSS REFERENCE OF FIELD SAMPLE IDENTIFICATIONS AND LABORATORY IDENTIFICATIONS									
Lab Sample ID	Field Sample ID	Prep Batch/ Analysis Batch	Sample Date	Matrix	Comments				
600-115500-1	B3RA-D (0-0.5)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-2	F-4A (0-0.5)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-3	F-4B (0-0.5)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-4	F-4C (0-0.5)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-5	F-4D (0-0.5)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-6	F-4E (0.5-2)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-7	G-5A (0.5-2)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-8	G-5B (0.5-2)	168450 and 168138 / 168312	07/27/2015	Soil	site-specific MS/MSD (lab designated)				
600-115500-9	G-5C (0.5-2)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-10	G-5D (0.5-2)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-11	G-6A (0.5-2)	168450 and 168138 / 168312	07/27/2015	Soil	DUP-3				
600-115500-17	G-6B (0-0.5)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-18	G-6C (0-0.5)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-19	G-6D (0.5-2)	168450 and 168138 / 168312	07/27/2015	Soil	site-specific MS/MSD (field designated)				
600-115500-20	2015-SCC-16E (0-0.5)	168450 and 168138 / 168312	07/27/2015	Soil	DUP-1				
600-115500-21	2015-SCC-16F (0-0.5)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-22	2015-SCC-16G (0-0.5)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-23	2015-CUFT-16D (0-0.5)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-24	SCC-5D (2-4)	168450 and 168138 / 168312	07/27/2015	Soil					
600-115500-25	DUP-1	168450 and 168138 / 168365	07/27/2015	Soil	parent sample 2015 SCC-16E				
600-115500-27	DUP-3	168450 and 168138 / 168365	07/27/2015	Soil	parent sample G-6A				
600-115554-1	ECO-13 (0-0.5)	168554, 168234 / 168365	7/28/2015	Soil					
600-115554-2	ECO-14 (0-0.5)	168554, 168234 / 168365	7/28/2015	Soil					
600-115554-3	ECO-15 (0-0.5)	168554, 168234 / 168365	7/28/2015	Soil					
600-115554-4	ECO-16 (0-0.5)	168554, 168234 / 168365	7/28/2015	Soil					
600-115554-5	ECO-17 (0-0.5)	168554, 168234 / 168365	7/28/2015	Soil					
600-115554-6	ECO-18 (0-0.5)	168554, 168234 / 168365	7/28/2015	Soil					
600-115554-7	ECO-19 (0-0.5)	168554, 168234 / 168365	7/28/2015	Soil					
		168647, 168554 /	07/29/2015	Soil					
600-115590-1	2015-C2L-06G (0-0.5)	168496 168647, 168554 /	07/29/2015	Soil					
600-115590-4	2015-C2L-06H (0.5-1)	168496 168647, 168554 /	07/29/2015	Soil					
600-115590-7	2015-C2L-06K (0-0.5)	168496 168647, 168554 /	07/29/2015	Soil					
600-115590-10	2015-C2L-06J (0-0.5)	168496 168647, 168554 /	07/29/2015	Soil					
600-115590-13	D-11 F (0-0.5)	168496 168647, 168554 /	07/29/2015	Soil					
600-115590-16	E-15B (0.0-5)	168496	22,72010	55/1					

TABLE 2 - QUALIFIED DATA

Lab Sample ID	Field Sample ID	Analyte	Result	Units	Qualifer	Explanation
600-115500-1	B3RA-D (0-0.5)	Cadmium	0.152	mg/Kg	J	Estimated concentration between SDL and MQL
600-115500-1	B3RA-D (0-0.5)	Antimony	< 0.262	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-1	B3RA-D (0-0.5)	Lead	30.7	mg/Kg	J	MSD/MD RPD above criteria
600-115500-2	F-4A (0-0.5)	Antimony	< 0.289	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-2	F-4A (0-0.5)	Lead	178	mg/Kg	J	MSD/MD RPD above criteria
600-115500-3	F-4B (0-0.5)	Antimony	< 0.295	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-3	F-4B (0-0.5)	Lead	18.3	mg/Kg	J	MSD/MD RPD above criteria
600-115500-4	F-4C (0-0.5)	Antimony	< 0.285	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-4	F-4C (0-0.5)	Lead	69.5	mg/Kg	J	MSD/MD RPD above criteria
600-115500-5	F-4D (0-0.5)	Lead	20.8	mg/Kg	J	MSD/MD RPD above criteria
600-115500-5	F-4D (0-0.5)	Antimony	< 0.297	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-6	F-4E (0.5-2)	Antimony	<0.280	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-6	F-4E (0.5-2)	Lead	25.1	mg/Kg	J	MSD/MD RPD above criteria
600-115500-7	G-5A (0.5-2)	Selenium	0.339	mg/Kg	J	Estimated concentration between SDL and MQL
600-115500-7	G-5A (0.5-2)	Lead	176	mg/Kg	J	MSD/MD RPD above criteria
600-115500-7	G-5A (0.5-2)	Antimony	<0.286	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-8	G-5B (0.5-2)	Antimony	<0.283	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-8	G-5B (0.5-2)	Lead	146	mg/Kg	J	MSD/MD RPD above criteria
600-115500-9	G-5C (0.5-2)	Selenium	0.323	mg/Kg	J	Estimated concentration between SDL and MQL
600-115500-9	G-5C (0.5-2)	Lead	193	mg/Kg	J.	MSD/MD RPD above criteria
600-115500-9	G-5C (0.5-2)	Antimony	<0.278	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-10	G-5D (0.5-2)	Antimony	<0.298	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-10	G-5D (0.5-2)	Lead	153	mg/Kg	J	MSD/MD RPD above criteria
600-115500-11	G-6A (0.5-2)	Lead	41.5	mg/Kg	J.	MSD/MD RPD above criteria
600-115500-11	G-6A (0.5-2)	Antimony	<0.273	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-17	G-6B (0-0.5)	Antimony	< 0.269	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-17	G-6B (0-0.5)	Lead	102	mg/Kg	J	MSD/MD RPD above criteria
600-115500-18	G-6C (0-0.5)	Lead	33.3	mg/Kg	J	MSD/MD RPD above criteria
600-115500-18	G-6C (0-0.5)	Antimony	<0.263	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-19	G-6D (0.5-2)	Antimony	< 0.285	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-19	G-6D (0.5-2)	Lead	157	mg/Kg	J	MSD/MD RPD above criteria
600-115500-20	2015-SCC-16E (0-0.5)	Lead	215	mg/Kg	J	MSD/MD RPD above criteria
600-115500-20	2015-SCC-16E (0-0.5)	Antimony	< 0.257	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-21	2015-SCC-16F (0-0.5)	Antimony	< 0.257	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-21	2015-SCC-16F (0-0.5)	Lead	104	mg/Kg	J	MSD/MD RPD above criteria
600-115500-21	2015-SCC-16G (0-0.5)	Lead	282	mg/Kg	J	MSD/MD RPD above criteria
000-113300-22	2013-300-100 (0-0.3)	LCdd	202	mg/kg	,	Estimated concentration between SDL and MQ; low LCS recovery; low MS/MSD
600-115500-22	2015-SCC-16G (0-0.5)	Antimony	0.671	mg/Kg	JL	recovery
600-115500-22	2015-3CC-16G (0-0.5) 2015-CUFT-16D (0-0.5)	Antimony	<0.256	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
600-115500-23	2015-CUFT-16D (0-0.5)	Lead	114	mg/Kg	I I	MSD/MD RPD above criteria
600-115500-23	SCC-5D (2-4)	Lead	637	mg/Kg	J	MSD/MD RPD above criteria
600-115500-24	SCC-5D (2-4)	Cadmium	0.160	mg/Kg	J	Estimated concentration between SDL and MQL
600-115500-24	SCC-5D (2-4)	Antimony	<0.256	mg/Kg	UJL	low LCS recovery; low MS/MSD recovery
000-110000-24	300-3D (2-4)	Antimony	<0.200	my/ky	UJL	Estimated concentration between SDL and MQL; low LCS recovery; low MS/MSD
600-115500-25	DUP-1	Antimony	0.920	ma/Va	1	recovery
600-115500-25	DUP-3		<0.275	mg/Kg	JL UJL	low LCS recovery; low MS/MSD recovery
	ECO-18 (0-0.5)	Antimony	<0.275 218	mg/Kg	J	MD RPD above criteria
600-115554-6 Note:	ECU-18 (U-U.5)	Lead	218	mg/Kg	l J	IMD KYD ADOVE CITELIA

Note:

Detected results between the SDL and MQL (i.e., results with a laboratory J-flag) have been included in the above table since the reported concentration is below the calibration range.

J Estimated data; The analyte was detected and identified. The associated numerical value (i.e., the reported sample concentration) is the approximate concentration of the analyte in the sample.

NJ Tentatively identified, estimated data; The analysis indicates the presence of the analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.

NS Not selected; Another result (from a secondary dilution, different analytical method, re-sampling, etc.) is selected for use based on QC outcomes and/or reported concentrations.

R Rejected data; The data is unusable. Serious QC deficiencies make it impossible to verify the absence or presence of this analyte.

U Not detected; The analyte was not detected >5x (10x for common contaminants) the level in an associated blank and thus should be considered not detected above the level of the associated numerical value (i.e., the reported sample concentration).

UJ Estimated data; The analyte was not detected above the reported sample detection limit (SDL). The numerical value of the SDL is estimated and may be inaccurate.

H Bias in sample result is likely to be high

L Bias in sample result is likely to be low

TABLE 3 - FIELD DUPLICATE PRECISION CALCULATIONS

Duplicate and Parent Sample Field Identification	Analyte	Sample Result	Duplicate Result	RPD ^a	Accept or Reject	Qualifier Added
	antimony	0.257 U	0.920 J	NC	А	-
DUP-01 / 2015 SCC-16E	cadmium	0.487	0.543	10.9	А	-
	selenium	0.287 U	0.287 U	NC	А	-
	antimony	0.273 U	0.275 U	NC	А	-
DUP-03 / G-6A	cadmium	0.842	0.671	22.6	А	-
	selenium	0.305 U	0.307 U	NC	A	-

 $^{^{}a}$ RPD = ((SR - DR)*200)/(SR + DR)

A - Acceptable Data

NA - Not Analyzed
The RPD test (<50%) applies if both
results are greater than 5x MQL.
Otherwise, the absolute difference test (<
3x MQL) applies.
NC - Not calculated if one or both results
were nnon-detect

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-115500-1

Client Project/Site: Exide Recycling Center, Frisco TX

For:

Golder Associates Inc. 820 South Main Street Suite 100 St. Charles, Missouri 63301

Attn: Anne Faeth-Boyd

Authorized for release by: 8/4/2015 5:54:37 PM

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

·····LINKS ·······

Review your project results through

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Have a Question?



Visit us at:www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-115500-1 and consists of:

- ☑ R1 Field chain-of-custody documentation;
- ☑ R2 Sample identification cross-reference;
- ☑ R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☑ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

Official Title (printed)

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Nicole Boyken, for Cathy Upton	Micole M. Boyken	8/4/2015
Name (printed)	Signature	Date
Project Manager I		

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/4/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-115500-1
Reviewer Name:	Nicole Boyken, for Cathy Unton		

# ¹ A ²	Description	Yes	No	NA ³	NR⁴	ER#
	f-custody (C-O-C)					
	ples meet the laboratory's standard conditions of sample acceptability upon receipt?	Χ				
	departures from standard conditions described in an exception report?	Χ				
	and quality control (QC) identification					
	eld sample ID numbers cross-referenced to the laboratory ID numbers?	Χ				
Are all la	boratory ID numbers cross-referenced to the corresponding QC data?	Χ				
3 OI Test rep	orts					
Were all	samples prepared and analyzed within holding times?	Χ				
Other that	an those results < MQL, were all other raw values bracketed by calibration standards?	Χ				
Were ca	lculations checked by a peer or supervisor?	Х				
Were all	analyte identifications checked by a peer or supervisor?	Χ				
Were sa	mple detection limits reported for all analytes not detected?	Χ				
Were all	results for soil and sediment samples reported on a dry weight basis?	Х				
	moisture (or solids) reported for all soil and sediment samples?	Х				
	lk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Χ		
	ed for the project, are TICs reported?			Х		
	te recovery data					
	rrogates added prior to extraction?			Χ		
	rrogate percent recoveries in all samples within the laboratory QC limits?			Х		
	orts/summary forms for blank samples					
	propriate type(s) of blanks analyzed?	Х				
	anks analyzed at the appropriate frequency?	X				
	ethod blanks taken through the entire analytical process, including preparation and, if applicable, cleanup	<u> </u>				
procedur		Х				
1	ank concentrations < MQL?	X				
	ory control samples (LCS):	^				
	COCs included in the LCS?	Х				
		X				
	ch LCS taken through the entire analytical procedure, including prep and cleanup steps?					
	CSs analyzed at the required frequency?	X	-			
	CS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Х	-			
	e detectability check sample data document the laboratory's capability to detect the COCs at the MDL used	.,				
	ate the SDLs?	Х				
	LCSD RPD within QC limits?			Χ		
	pike (MS) and matrix spike duplicate (MSD) data	<u> </u>				
	e project/method specified analytes included in the MS and MSD?	Х				
	S/MSD analyzed at the appropriate frequency?	Х				
	S (and MSD, if applicable) %Rs within the laboratory QC limits?		Х			R07C
	S/MSD RPDs within laboratory QC limits?		Х			R07D
	al duplicate data					
	propriate analytical duplicates analyzed for each matrix?	Χ				
	alytical duplicates analyzed at the appropriate frequency?	Χ				
	PDs or relative standard deviations within the laboratory QC limits?		Χ			R08C
	quantitation limits (MQLs):					
Are the N	MQLs for each method analyte included in the laboratory data package?	Χ				
Do the M	IQLs correspond to the concentration of the lowest non-zero calibration standard?	Χ				
Are unac	djusted MQLs and DCSs included in the laboratory data package?	Χ				
10 OI Other pr	roblems/anomalies					
Are all kr	nown problems/anomalies/special conditions noted in this LRC and ER?	Х				
	blicable and available technology used to lower the SDL to minimize the matrix interference effects on the					
sample r			Х			R10B
	poratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and		<u> </u>			
	associated with this laboratory data package?	X				
	entified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required repr		tome			

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/4/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-115500-1
Reviewer Name:	Nicole Boyken, for Cathy Upton		

<i>μ</i> 1	A ²	Description	Vac	N-	NI A 3	ND41	ER# ⁵
#		Description (ICAL)	Yes	No	NA ³	NK T	ER#°
S1		Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	Х				
-	<u> </u>						
S2		Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
	_	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
S3		Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			Χ		
S4		Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	Х				
S5		Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
	_	Were data associated with manual integrations flagged on the raw data?	Х				
S6	_	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			Χ		
S7		Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Χ		
S8		Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	Х				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	Х				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	Х				
		Is the MDL either adjusted or supported by the analysis of DCSs?	Х				
S11		Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х				
S13	_	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	Х				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	Х				
		Is documentation of the analyst's competency up-to-date and on file?	Х				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		· · · · · · · · · · · · · · · · · · ·					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16		Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	Х				
		Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required		tems		ı I	
		identified by the letter "S" should be retained and made available upon request for the appropriate retention period					
		O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);	••				
		NA = Not applicable;					
	:3						
		NR = Not reviewed;					

Page 5 of 47 8/4/2015

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/4/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-115500-1
Reviewer Name:	Nicole Boyken, for Cathy Upton		

ER # ¹	Description
R07C	Method 6010B: 600-115500-19 MS/MSD and 600-115500-8 MS/MSD failed the recovery criteria for the following analyte(s): Antimony, Lead. Matrix interference is suspected.
R07D	Method 6010B: 600-115500-19 MSD failed the RPD criteria for the following analyte(s): Lead.
R08C	Method 6010B: 600-115500-19 DU failed the RPD criteria for the following analyte(s): Arsenic, Cadmium, Lead.
	Method 6010B: 600-115554-A-6-B DU failed the RPD criteria for the following analyte(s): Antimony, Cadmium, Selenium.
R10B	Method 6010B: The following samples were diluted due to bring the concentration of target analytes within calibration range: B3RA-D (0-0.5) (600-115500-1), F-4A (0-0.5) (600-115500-2), F-4B (0-0.5) (600-115500-3), F-4C (0-0.5) (600-115500-4), F-4D (0-0.5) (600-115500-5), F-4E (0.5-2) (600-115500-6), G-5A (0.5-2) (600-115500-7), G-5B (0.5-2) (600-115500-8), G-5C (0.5-2) (600-115500-9), G-5D (0.5-2) (600-115500-10), G-6A (0.5-2) (600-115500-11), G-6B (0-0.5) (600-115500-17), G-6C (0-0.5) (600-115500-18), G-6D (0.5-2) (600-115500-19), G-6D (0.
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
	identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3.	NA = Not applicable;
4. 5	NR = Not reviewed; EP# - Exception Papart identification number (an Exception Papart should be completed for an item if "NP" or "No" is checked)
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Matrix: Solid

Method: SW-846 6010B or 6010C

SW-846 3050B Prep Method: Date Analyzed: 5/13/2015 Job #: 600-109337 TALS Batch: 162296 Units: mg/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Ag	Thermo6500	0.119	0.200	0.220	0.4
AI	SPECTRO1	0.300	0.500	0.718	25
As	Thermo6500	0.218	0.500	0.480	1
В	SPECTRO1	0.386	0.600	0.698	20
Ba	Thermo6500	0.030	0.030	0.040	1
Be	Thermo6500	0.015	0.020	0.020	0.25
Ca	SPECTRO1	0.864	2.500	7.426	100
Cd	Thermo6500	0.026	0.050	0.045	0.25
Со	Thermo6500	0.068	0.100	0.105	0.5
Cr	Thermo6500	0.051	0.100	0.110	0.5
Cu	Thermo6500	0.174	0.500	0.425	0.5
Fe	Thermo6500	2.530	4.000	3.915	20
K	Thermo6500	11.000	12.000	13.360	100
Li	SPECTRO1	0.008	0.010	0.062	10
Mg	Thermo6500	1.920	3.000	3.705	100
Mn	Thermo6500	0.038	0.050	0.055	1.5
Mo	Thermo6500	0.136	0.350	0.325	0.5
Na	Thermo6500	0.886	2.400	2.520	100
Ni	Thermo6500	0.117	0.150	0.140	1
Pb	Thermo6500	0.105	0.200	0.195	0.5
Sb	Thermo6500	0.232	0.450	0.410	2.5
Se	Thermo6500	0.259	0.500	0.550	2
Si	SPECTRO1	0.117	0.270	6.900	10
Sn	SPECTRO1	0.087	0.150	0.117	1
Sr	SPECTRO1	0.003	0.005	0.042	0.25
Ті	Thermo6500	0.015	0.030	0.020	0.5
TI	Thermo6500	0.277	0.700	0.580	1.5
V	Thermo6500	0.079	0.150	0.145	0.5
Zn	SPECTRO1	0.108	0.200	0.198	1.5

Case Narrative

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115500-1

Job ID: 600-115500-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-115500-1

Comments

No additional comments.

Receipt

The samples were received on 7/28/2015 10:07 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.5° C and 0.8° C.

Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115500-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX TestAmerica Job ID: 600-115500-1

Lab Sample ID	Client Sample ID	Matrix	Collected Received
600-115500-1	B3RA-D (0-0.5)	Solid	07/27/15 08:10 07/28/15 10:07
600-115500-2	F-4A (0-0.5)	Solid	07/27/15 13:40 07/28/15 10:07
600-115500-3	F-4B (0-0.5)	Solid	07/27/15 13:38 07/28/15 10:07
600-115500-4	F-4C (0-0.5)	Solid	07/27/15 13:27 07/28/15 10:07
600-115500-5	F-4D (0-0.5)	Solid	07/27/15 13:27 07/28/15 10:07
600-115500-6	F-4E (0.5-2)	Solid	07/27/15 13:20 07/28/15 10:07
600-115500-7	G-5A (0.5-2)	Solid	07/27/15 11:12 07/28/15 10:07
600-115500-8	G-5B (0.5-2)	Solid	07/27/15 10:44 07/28/15 10:07
600-115500-9	G-5C (0.5-2)	Solid	07/27/15 11:00 07/28/15 10:07
600-115500-10	G-5D (0.5-2)	Solid	07/27/15 11:11 07/28/15 10:07
600-115500-11	G-6A (0.5-2)	Solid	07/27/15 14:43 07/28/15 10:07
600-115500-17	G-6B (0-0.5)	Solid	07/27/15 14:50 07/28/15 10:07
600-115500-18	G-6C (0-0.5)	Solid	07/27/15 14:28 07/28/15 10:07
600-115500-19	G-6D (0.5-2)	Solid	07/27/15 14:34 07/28/15 10:07
600-115500-20	2015-SCC-16E (0-0.5)	Solid	07/27/15 09:12 07/28/15 10:07
600-115500-21	2015-SCC-16F (0-0.5)	Solid	07/27/15 09:25 07/28/15 10:07
600-115500-22	2015-SCC-16G (0-0.5)	Solid	07/27/15 08:50 07/28/15 10:07
600-115500-23	2015-CUFT-16D (0-0.5)	Solid	07/27/15 09:58 07/28/15 10:07
600-115500-24	SCC-5D (2-4)	Solid	07/27/15 07:45 07/28/15 10:07
600-115500-25	DUP-1	Solid	07/27/15 00:00 07/28/15 10:07
600-115500-27	DUP-3	Solid	07/27/15 00:00 07/28/15 10:07

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Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: B3RA-D (0-0.5)

Lab Sample ID: 600-115500-1

Matrix: Solid

Date Collected: 07/27/15 08:10 Date Received: 07/28/15 10:07

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15	1.0	1.0 %			07/29/15 17:21	1
Percent Solids	85	1.0	1.0 %			07/29/15 17:21	1

Client Sample ID: B3RA-D (0-0.5)

Lab Sample ID: 600-115500-1

Date Collected: 07/27/15 08:10 Matrix: Solid

Date Received: 07/28/15 10:07 Percent Solids: 85.3

Method: 6010B - Metals (IC Analyte	•	Qualifier	MQL (Adi)	eni	Unit	D	Prepared	Analyzed	Dil Fac
									DII Fac
Antimony	0.262	U	2.82	0.262	mg/Kg	₩	07/31/15 11:32	08/03/15 10:51	1
Cadmium	0.152	J	0.282	0.0289	mg/Kg	₩	07/31/15 11:32	08/03/15 10:51	1
Selenium	0.292	U	2.26	0.292	mg/Kg	☼	07/31/15 11:32	08/03/15 10:51	1
Method: 6010B - Metals (IC	P) - DL								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.54		2.26	0.492	mg/Kg	<u></u>	07/31/15 11:32	08/03/15 12:22	2
Lead	30.7		1.13	0.237	mg/Kg	₩	07/31/15 11:32	08/03/15 12:22	2

Client Sample ID: F-4A (0-0.5)

Lab Sample ID: 600-115500-2

Date Collected: 07/27/15 13:40 Matrix: Solid

Date Received: 07/28/15 10:07

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Uni	it D	Prepared	Analyzed	Dil Fac
Percent Moisture	21	1.0	1.0 %			07/29/15 17:21	1
Percent Solids	79	1.0	1.0 %			07/29/15 17:21	1

Client Sample ID: F-4A (0-0.5)

Date Collected: 07/27/15 13:40

Lab Sample ID: 600-115500-2

Matrix: Solid

Date Received: 07/28/15 10:07

Percent Solids: 78.6

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.289	U	3.12	0.289	mg/Kg	<u></u>	07/31/15 11:32	08/03/15 10:54	1
Cadmium	1.90		0.312	0.0319	mg/Kg	≎	07/31/15 11:32	08/03/15 10:54	1
Selenium	0.323	U	2.49	0.323	mg/Kg	₩	07/31/15 11:32	08/03/15 10:54	1
 Method: 6010B - Metals (ICP) - D	L								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.4		6.24	1.36	mg/Kg	<u>₩</u>	07/31/15 11:32	08/03/15 12:24	5
Lead	178		3.12	0.655	mg/Kg	₩	07/31/15 11:32	08/03/15 12:24	5

Client Sample ID: F-4B (0-0.5)

Date Collected: 07/27/15 13:38

Lab Sample ID: 600-115500-3

Matrix: Solid

Date Collected: 07/27/15 13:38 Date Received: 07/28/15 10:07

General Chemistry Analyte	Result Quali	ifier MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21	1.0	1.0	%			07/29/15 17:21	1
Percent Solids	79	1.0	1.0	%			07/29/15 17:21	1

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: F-4B (0-0.5)

Date Collected: 07/27/15 13:38 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-3

Matrix: Solid

Percent Solids: 78.8

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.295	U	3.17	0.295	mg/Kg	<u>₩</u>	07/31/15 11:32	08/03/15 10:56	1
Cadmium	0.597		0.317	0.0325	mg/Kg	₩	07/31/15 11:32	08/03/15 10:56	1
Selenium	0.329	U	2.54	0.329	mg/Kg	₩	07/31/15 11:32	08/03/15 10:56	1

Method: 6010B - Metals (ICP) -	DL						
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.1	6.35	1.38 mg/k	√g ÿ	07/31/15 11:32	08/03/15 12:26	5
Lead	18.3	3.17	0.667 mg/k	⟨ g ⇔	07/31/15 11:32	08/03/15 12:26	5

Client Sample ID: F-4C (0-0.5)

Date Collected: 07/27/15 13:27

Lab Sample ID: 600-115500-4 **Matrix: Solid**

Date Received: 07/28/15 10:07

General Chemistry Analyte	/ Result Qualifie	er MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22	1.0	1.0	%			07/29/15 17:21	1
Percent Solids	78	1.0	1.0	%			07/29/15 17:21	1

Client Sample ID: F-4C (0-0.5)

Date Collected: 07/27/15 13:27

Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-4 **Matrix: Solid**

Percent Solids: 78.3

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.285	U	3.07	0.285	mg/Kg	<u> </u>	07/31/15 11:32	08/03/15 10:59	1
Cadmium	0.847		0.307	0.0314	mg/Kg	☼	07/31/15 11:32	08/03/15 10:59	1
Selenium	0.318	U	2.46	0.318	mg/Kg	₩	07/31/15 11:32	08/03/15 10:59	1

Method: 6010B - Metals (ICP) - DL									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13.4		6.14	1.34	mg/Kg	\	07/31/15 11:32	08/03/15 12:29	5
Lead	69.5		3.07	0.645	mg/Kg	₩	07/31/15 11:32	08/03/15 12:29	5

Client Sample ID: F-4D (0-0.5)

Date Collected: 07/27/15 13:27 Date Received: 07/28/15 10:07 Lab Sample ID: 600-115500-5

Matrix: Solid

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	27	1.0	1.0 %			07/29/15 17:21	1
Percent Solids	73	1.0	1.0 %			07/29/15 17:21	1

Client Sample ID: F-4D (0-0.5) Lab Sample ID: 600-115500-5 Date Collected: 07/27/15 13:27 **Matrix: Solid**

Date Received: 07/28/15 10:07 Percent Solids: 72.9

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.297	U	3.20	0.297	mg/Kg	\	07/31/15 11:32	08/03/15 11:01	1
Cadmium	0.763		0.320	0.0328	mg/Kg	₩	07/31/15 11:32	08/03/15 11:01	1
Selenium	0.332	U	2.56	0.332	mg/Kg	₩	07/31/15 11:32	08/03/15 11:01	1

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: F-4D (0-0.5) Lab Sample ID: 600-115500-5

Percent Solids: 72.9

Date Collected: 07/27/15 13:27 **Matrix: Solid** Date Received: 07/28/15 10:07

Method: 6010B - Metals (ICP) - DL Analyte		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.6		6.41	1.40	mg/Kg	\	07/31/15 11:32	08/03/15 12:31	5
Lead	20.8		3.20	0.673	mg/Kg	₩	07/31/15 11:32	08/03/15 12:31	5

Lab Sample ID: 600-115500-6 Client Sample ID: F-4E (0.5-2)

Date Collected: 07/27/15 13:20 Date Received: 07/28/15 10:07

Matrix: Solid

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24	1.0	1.0 %			07/29/15 17:21	1
Percent Solids	76	1.0	1.0 %			07/29/15 17:21	1

Client Sample ID: F-4E (0.5-2) Lab Sample ID: 600-115500-6

Date Collected: 07/27/15 13:20 **Matrix: Solid** Date Received: 07/28/15 10:07 Percent Solids: 76.1

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.280	U	3.01	0.280	mg/Kg	₩	07/31/15 11:32	08/03/15 11:04	1
Cadmium	0.663		0.301	0.0309	mg/Kg	≎	07/31/15 11:32	08/03/15 11:04	1
Selenium	0.312	U	2.41	0.312	mg/Kg	₽	07/31/15 11:32	08/03/15 11:04	1

Method: 6010B - Metals (ICP) - DI Analyte	- Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.3	6.03	1.31	mg/Kg	<u> </u>	07/31/15 11:32	08/03/15 12:33	- 5
Lead	25.1	3.01	0.633	mg/Kg	☼	07/31/15 11:32	08/03/15 12:33	5

Client Sample ID: G-5A (0.5-2) Lab Sample ID: 600-115500-7 **Matrix: Solid**

Date Collected: 07/27/15 11:12 Date Received: 07/28/15 10:07

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20	1.0	1.0 %			07/29/15 17:21	1
Percent Solids	80	1.0	1.0 %			07/29/15 17:21	1

Lab Sample ID: 600-115500-7 Client Sample ID: G-5A (0.5-2)

Date Collected: 07/27/15 11:12 **Matrix: Solid** Date Received: 07/28/15 10:07 Percent Solids: 80.2

Method: 6010B - Metals (ICP) Analyte	Posult	Qualifier	MQL (Adi)	eni	Unit	n	Prepared	Analvzed	Dil Fac
Allalyte	- INGSUIL	Qualifier	WIGE (Auj)	JDL	OTITE				Dillac
Antimony	0.286	U	3.09	0.286	mg/Kg	₩	07/31/15 11:32	08/03/15 11:06	1
Cadmium	1.99		0.309	0.0316	mg/Kg	₩	07/31/15 11:32	08/03/15 11:06	1
Selenium	0.339	J	2.47	0.320	mg/Kg	₽	07/31/15 11:32	08/03/15 11:06	1
Method: 6010B - Metals (ICP) - I	DL								

Method: 6010B - Metals (ICP) -	DL							
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13.5	6.17	1.35	mg/Kg		07/31/15 11:32	08/03/15 12:35	5
Lead	176	3.09	0.648	mg/Kg	₩	07/31/15 11:32	08/03/15 12:35	5

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115500-1

Client Sample ID: G-5B (0.5-2)

Date Collected: 07/27/15 10:44 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-8

Matrix: Solid

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20	1.0	1.0	%			07/29/15 17:21	
Percent Solids	80	1.0	1.0	%			07/29/15 17:21	1
_								

Lab Sample ID: 600-115500-8 Client Sample ID: G-5B (0.5-2)

Date Collected: 07/27/15 10:44 Date Received: 07/28/15 10:07

Matrix: Solid Percent Solids: 79.5

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.283	U	3.05	0.283	mg/Kg	₩	07/31/15 11:32	08/03/15 11:16	1
Cadmium	1.25		0.305	0.0313	mg/Kg	☼	07/31/15 11:32	08/03/15 11:16	1
Selenium	0.316	U	2.44	0.316	mg/Kg	₩	07/31/15 11:32	08/03/15 11:16	1
Method: 6010B - Metals (ICP) -	DL								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13.5		6.10	1.33	mg/Kg	₩	07/31/15 11:32	08/03/15 12:38	5
Lead	146		3.05	0.641	mg/Kg	₩	07/31/15 11:32	08/03/15 12:38	5

Client Sample ID: G-5C (0.5-2) Lab Sample ID: 600-115500-9

Date Collected: 07/27/15 11:00 **Matrix: Solid**

Date Received: 07/28/15 10:07

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21	1.0	1.0 %			07/29/15 17:21	1
Percent Solids	79	1.0	1.0 %			07/29/15 17:21	1

Client Sample ID: G-5C (0.5-2) Lab Sample ID: 600-115500-9

Date Collected: 07/27/15 11:00

Matrix: Solid Date Received: 07/28/15 10:07 Percent Solids: 78.9

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.278	U	2.99	0.278	mg/Kg	≎	07/31/15 11:32	08/03/15 11:26	1
Cadmium	1.78		0.299	0.0306	mg/Kg	₩	07/31/15 11:32	08/03/15 11:26	1
Selenium	0.323	J	2.39	0.310	mg/Kg	₩	07/31/15 11:32	08/03/15 11:26	1
Method: 6010B - Metals (ICP)) - DL								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13.8		5.98	1.30	mg/Kg	<u> </u>	07/31/15 11:32	08/03/15 12:54	5
Lead	193		2.99	0.628	mg/Kg	☆	07/31/15 11:32	08/03/15 12:54	5

Client Sample ID: G-5D (0.5-2) Lab Sample ID: 600-115500-10 Date Collected: 07/27/15 11:11 **Matrix: Solid**

Date Received: 07/28/15 10:07

General Chemistry Analyte	Result Qualifie	er MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22	1.0	1.0	%			07/29/15 17:21	1
Percent Solids	78	1.0	1.0	%			07/29/15 17:21	1

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: G-5D (0.5-2)

Date Collected: 07/27/15 11:11 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-10

Matrix: Solid

Percent Solids: 78.0

			Prepared	Analyzed	Dil Fac
3.21	0.298 mg/Kg	<u> </u>	07/31/15 11:32	08/03/15 11:28	1
0.321	0.0328 mg/Kg	₩	07/31/15 11:32	08/03/15 11:28	1
2.57	0.332 mg/Kg	☼	07/31/15 11:32	08/03/15 11:28	1
	0.321	0.321 0.0328 mg/Kg	0.321 0.0328 mg/Kg	0.321 0.0328 mg/Kg © 07/31/15 11:32	0.321 0.0328 mg/Kg © 07/31/15 11:32 08/03/15 11:28

Method: 6010B - Metals (ICP) - DL SDL Unit Analyte Result Qualifier MQL (Adi) Prepared Analyzed Dil Fac 6.41 1.40 mg/Kg Arsenic 14.6 153 3.21 0.674 mg/Kg © 07/31/15 11:32 08/03/15 12:56 Lead

Client Sample ID: G-6A (0.5-2)

Date Collected: 07/27/15 14:43

Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-11

Matrix: Solid

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18	1.0	1.0 %			07/29/15 17:21	1
Percent Solids	82	1.0	1.0 %			07/29/15 17:21	1

Client Sample ID: G-6A (0.5-2)

Date Collected: 07/27/15 14:43 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-11 **Matrix: Solid**

Percent Solids: 81.6

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.273	U	2.95	0.273	mg/Kg	<u> </u>	07/31/15 11:32	08/03/15 11:31	1
Cadmium	0.842		0.295	0.0302	mg/Kg	₩	07/31/15 11:32	08/03/15 11:31	1
Selenium	0.305	U	2.36	0.305	mg/Kg	₩	07/31/15 11:32	08/03/15 11:31	1

Analyte Result Qualifier SDL Unit Prepared MQL (Adj) Analyzed © 07/31/15 11:32 08/03/15 12:58 Arsenic 16.3 5.89 1.28 mg/Kg © 07/31/15 11:32 08/03/15 12:58 0.619 mg/Kg Lead 41.5 2.95

Client Sample ID: G-6B (0-0.5)

Date Collected: 07/27/15 14:50

Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-17 **Matrix: Solid**

General Chemistry Analyte	Result Q	ualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19		1.0	1.0	%			07/29/15 17:21	1
Percent Solids	81		1.0	1.0	%			07/29/15 17:21	1

Client Sample ID: G-6B (0-0.5)

Date Collected: 07/27/15 14:50 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-17 **Matrix: Solid**

Percent Solids: 81.2

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.269	U	2.90	0.269	mg/Kg	₩	07/31/15 11:32	08/03/15 11:33	1
Cadmium	1.63		0.290	0.0297	mg/Kg	₩	07/31/15 11:32	08/03/15 11:33	1
Selenium	0.301	U	2.32	0.301	mg/Kg	₩	07/31/15 11:32	08/03/15 11:33	1

Client Sample ID: G-6B (0-0.5)

Date Collected: 07/27/15 14:50 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-17

Matrix: Solid

Percent Solids: 81.2

Method: 6010B - Metals (ICP) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.9		5.81	1.27	mg/Kg	\	07/31/15 11:32	08/03/15 13:00	5
Lead	102		2.90	0.610	mg/Kg	₽	07/31/15 11:32	08/03/15 13:00	5

Client Sample ID: G-6C (0-0.5) Lab Sample ID: 600-115500-18

Date Collected: 07/27/15 14:28

Date Received: 07/28/15 10:07

Matrix: Solid

General Chemistry Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac **Percent Moisture** 18 1.0 1.0 % 07/29/15 17:21 **Percent Solids** 82 1.0 1.0 % 07/29/15 17:21

Client Sample ID: G-6C (0-0.5) Lab Sample ID: 600-115500-18

Date Collected: 07/27/15 14:28 Date Received: 07/28/15 10:07

Matrix: Solid Percent Solids: 81.8

Method: 6010B - Metals (ICP) Analyte

Result Qualifier SDL Unit Dil Fac MQL (Adj) Prepared Analyzed 0.263 mg/Kg 07/31/15 11:32 08/03/15 11:36 Antimony 0.263 U 2.83 0.283 0.0290 mg/Kg 07/31/15 11:32 08/03/15 11:36 0.385 Cadmium 0.293 U 0.293 mg/Kg 07/31/15 11:32 08/03/15 11:36 Selenium 2.26

Method: 6010B - Metals (ICP) - DL MQL (Adj) Analyte SDL Unit Result Qualifier Prepared Analyzed Dil Fac 07/31/15 11:32 08/03/15 13:03 2.26 0.494 mg/Kg 2 **Arsenic** 10.0 Lead 33.3 1.13 0.238 mg/Kg 07/31/15 11:32 08/03/15 13:03

Client Sample ID: G-6D (0.5-2) Lab Sample ID: 600-115500-19

Date Collected: 07/27/15 14:34

Date Received: 07/28/15 10:07

Matrix: Solid

General Chemistry								
Analyte	Result Qualifie	r MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23	1.0	1.0	%			07/29/15 17:21	1
Percent Solids	77	1.0	1.0	%			07/29/15 17:21	1

Client Sample ID: G-6D (0.5-2) Lab Sample ID: 600-115500-19

Date Collected: 07/27/15 14:34

Date Received: 07/28/15 10:07

Matrix: Solid Percent Solids: 77.4

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.285	U	3.07	0.285	mg/Kg	₩	07/31/15 11:32	08/03/15 11:39	1
Cadmium	0.855		0.307	0.0315	mg/Kg	₩	07/31/15 11:32	08/03/15 11:39	1
Selenium	0.319	U	2.46	0.319	mg/Kg	₩	07/31/15 11:32	08/03/15 11:39	1

Method: 6010B - Metals (ICP)	- DL							
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11.7	6.15	1.34	mg/Kg		07/31/15 11:32	08/03/15 13:05	5
Lead	157	3.07	0.646	mg/Kg	₽	07/31/15 11:32	08/03/15 13:05	5

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-SCC-16E (0-0.5)

Lab Sample ID: 600-115500-20 Date Collected: 07/27/15 09:12

Matrix: Solid

Date Received: 07/28/15 10:07

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13	1.0	1.0 %			07/29/15 17:21	1
Percent Solids	87	1.0	1.0 %			07/29/15 17:21	1

Client Sample ID: 2015-SCC-16E (0-0.5) Lab Sample ID: 600-115500-20

Date Collected: 07/27/15 09:12

Matrix: Solid

© 07/31/15 11:32 08/03/15 11:58

Percent Solids: 86.8 Date Received: 07/28/15 10:07

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.257	U	2.77	0.257	mg/Kg		07/31/15 11:32	08/03/15 11:55	1
Cadmium	0.487		0.277	0.0284	mg/Kg	₽	07/31/15 11:32	08/03/15 11:55	1
Selenium	0.287	U	2.22	0.287	mg/Kg	≎	07/31/15 11:32	08/03/15 11:55	1

Method: 6010B - Metals (ICP) - I	DL							
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11.2	5.54	1.21	mg/Kg	₩	07/31/15 11:32	08/03/15 13:21	5
Lead	215	2.77	0.582	mg/Kg	₽	07/31/15 11:32	08/03/15 13:21	5

Client Sample ID: 2015-SCC-16F (0-0.5)

Lab Sample ID: 600-115500-21

Date Collected: 07/27/15 09:25 **Matrix: Solid**

Date Received: 07/28/15 10:07

Date Received: 07/28/15 10:07

Selenium

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D Prepared	Analyzed	Dil Fac
Percent Moisture	17	1.0	1.0 %		07/29/15 17:21	1
Percent Solids	83	1.0	1.0 %		07/29/15 17:21	1

Client Sample ID: 2015-SCC-16F (0-0.5) Lab Sample ID: 600-115500-21

Date Collected: 07/27/15 09:25 **Matrix: Solid**

0.286 U

Date Received: 07/28/15 10:07	Received: 07/28/15 10:07								ds: 82.9	
Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac	
Antimony	0.257	U	2.77	0.257	mg/Kg	<u></u>	07/31/15 11:32	08/03/15 11:58	1	
Cadmium	0.597		0.277	0.0283	mg/Kg	≎	07/31/15 11:32	08/03/15 11:58	1	

2.21

0.286 mg/Kg

 Method: 6010B - Metals (ICP) - DL									
Analyte		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11.2		5.53	1.21	mg/Kg	\	07/31/15 11:32	08/03/15 13:23	5
Lead	104		2.77	0.581	mg/Kg	₩	07/31/15 11:32	08/03/15 13:23	5

Client Sample ID: 2015-SCC-16G (0-0.5) Lab Sample ID: 600-115500-22

Date Collected: 07/27/15 08:50 **Matrix: Solid**

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13	1.0	1.0	%			07/29/15 17:21	1
Percent Solids	87	1.0	1.0	%			07/29/15 17:21	1

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-SCC-16G (0-0.5)

Date Collected: 07/27/15 08:50

Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-22

Matrix: Solid

Percent Solids: 86.8

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.671	J	2.80	0.260	mg/Kg	<u></u>	07/31/15 11:32	08/03/15 12:00	1
Cadmium	1.45		0.280	0.0286	mg/Kg	☼	07/31/15 11:32	08/03/15 12:00	1
Selenium	0.290	U	2.24	0.290	mg/Kg	≎	07/31/15 11:32	08/03/15 12:00	1

Method: 6010B - Metals (ICP) - DL SDL Unit Analyte Result Qualifier MQL (Adj) Prepared Analyzed Dil Fac 2.24 ☼ 07/31/15 11:32 08/03/15 13:25 Arsenic 0.488 mg/Kg <u>11.0</u> 282 1.12 0.235 mg/Kg 07/31/15 11:32 08/03/15 13:25 Lead

Client Sample ID: 2015-CUFT-16D (0-0.5)

Date Collected: 07/27/15 09:58 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-23 Matrix: Solid

General Chemistry Analyte Result Qualifier MQL (Adi) SDL Unit Prepared Analyzed Dil Fac **Percent Moisture** 18 1.0 1.0 % 07/29/15 17:21 **Percent Solids** 1.0 1.0 % 07/29/15 17:21 82

Client Sample ID: 2015-CUFT-16D (0-0.5)

Date Collected: 07/27/15 09:58 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-23 **Matrix: Solid**

Percent Solids: 82.3

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.256	U	2.76	0.256	mg/Kg	₩	07/31/15 11:32	08/03/15 12:03	1
Cadmium	0.828		0.276	0.0283	mg/Kg	☆	07/31/15 11:32	08/03/15 12:03	1
Selenium	0.286	U	2.21	0.286	mg/Kg	₽	07/31/15 11:32	08/03/15 12:03	1

Method: 6010B - Metals (ICP) - DL Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11.9		5.52	1.20	mg/Kg	\	07/31/15 11:32	08/03/15 13:27	5
Lead	114		2.76	0.580	mg/Kg	₩	07/31/15 11:32	08/03/15 13:27	5

Client Sample ID: SCC-5D (2-4)

Date Collected: 07/27/15 07:45

Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-24

Matrix: Solid

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13	1.0	1.0 %			07/29/15 17:21	1
Percent Solids	87	1.0	1.0 %			07/29/15 17:21	1

Client Sample ID: SCC-5D (2-4)

Date Collected: 07/27/15 07:45

Lab Sample ID: 600-115500-24 Matrix: Solid Date Received: 07/28/15 10:07 Percent Solids: 87.0

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.256	U	2.76	0.256	mg/Kg		07/31/15 11:32	08/03/15 12:05	1
Arsenic	2.54		1.11	0.241	mg/Kg	₽	07/31/15 11:32	08/03/15 12:05	1
Cadmium	0.160	J	0.276	0.0283	mg/Kg	☼	07/31/15 11:32	08/03/15 12:05	1

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: SCC-5D (2-4)

Date Collected: 07/27/15 07:45

Lab Sample ID: 600-115500-24 Date Received: 07/28/15 10:07

Percent Solids: 87.0

Matrix: Solid

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	637		0.553	0.116	mg/Kg	\	07/31/15 11:32	08/03/15 12:05	1
Selenium	0.286	U	2.21	0.286	mg/Kg	\$	07/31/15 11:32	08/03/15 12:05	1

Client Sample ID: DUP-1 Lab Sample ID: 600-115500-25

Date Collected: 07/27/15 00:00 Date Received: 07/28/15 10:07

Matrix: Solid

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11	1.0	1.0 %			07/29/15 17:21	1
Percent Solids	89	1.0	1.0 %			07/29/15 17:21	1

Client Sample ID: DUP-1 Lab Sample ID: 600-115500-25

Date Collected: 07/27/15 00:00 Date Received: 07/28/15 10:07

Matrix: Solid Percent Solids: 89.3

Method: 6010B - Metals (ICP) Analyte Result Qualifier SDL Unit Dil Fac MQL (Adj) Prepared Analyzed 0.257 mg/Kg **Antimony** 0.920 J 2.77 0.277 0.0284 mg/Kg © 07/31/15 17:33 08/03/15 13:34 **Cadmium** 0.543 2.22 0.287 mg/Kg ☼ 07/31/15 17:33 08/03/15 13:34 Selenium 0.287 U

Method: 6010B - Metals (ICP) - D Analyte	L Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12.2	5.55	1.21	mg/Kg	\	07/31/15 17:33	08/03/15 14:58	5
Lead	580	2.77	0.582	mg/Kg	☼	07/31/15 17:33	08/03/15 14:58	5

Lab Sample ID: 600-115500-27 **Client Sample ID: DUP-3**

Date Collected: 07/27/15 00:00 Date Received: 07/28/15 10:07

Matrix: Solid

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19	1.0	1.0 %			07/29/15 17:21	1
Percent Solids	81	1.0	1.0 %			07/29/15 17:21	1

Client Sample ID: DUP-3 Lab Sample ID: 600-115500-27

Date Collected: 07/27/15 00:00 Date Received: 07/28/15 10:07

Matrix: Solid Percent Solids: 81.0

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.275	U	2.97	0.275	mg/Kg	₩	07/31/15 17:33	08/03/15 13:36	1
Cadmium	0.671		0.297	0.0304	mg/Kg	₩	07/31/15 17:33	08/03/15 13:36	1
Selenium	0.307	U	2.37	0.307	mg/Kg	₩	07/31/15 17:33	08/03/15 13:36	1
-									

Method: 6010B - Metals (ICP) -	DL							
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.6	5.94	1.29	mg/Kg		07/31/15 17:33	08/03/15 15:00	5
Lead	26.0	2.97	0.623	mg/Kg	₽	07/31/15 17:33	08/03/15 15:00	5

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 600-115500-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
F	Duplicate RPD exceeds the control limit
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
N2	RPD of the MS and MSD exceeds the control limits

Glossary

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-168312/1-A

Lab Sample ID: LCS 600-168312/2-A

Analysis Batch: 168450

Matrix: Solid

Matrix: Solid

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 168312

	IVID	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		07/31/15 11:32	08/03/15 10:44	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		07/31/15 11:32	08/03/15 10:44	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		07/31/15 11:32	08/03/15 10:44	1
Lead	0.105	Ü	0.500	0.105	mg/Kg		07/31/15 11:32	08/03/15 10:44	1
Selenium	0.259	U	2.00	0.259	mg/Kg		07/31/15 11:32	08/03/15 10:44	1

MD MD

Sample Sample

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168312

Analysis Batch: 168450 LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 94.0 56.95 mg/Kg 61 50 - 150 Antimony Arsenic 113 109.8 mg/Kg 97 78 - 122 Cadmium 67.5 65.99 mg/Kg 98 81 - 119 Lead 90.1 85.19 mg/Kg 95 79 - 121 Selenium 156 149.4 mg/Kg 96 80 - 120

MS MS

Lab Sample ID: 600-115500-8 MS

Matrix: Solid

Analysis Batch: 168450

Client Sample ID: G-5B (0.5-2)

Prep Type: Total/NA

Prep Batch: 168312 %Rec

	Gampio	oup.o	Opino						70.100.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	0.283	U	62.9	15.49	N1	mg/Kg	₩	25	75 - 125	
Cadmium	1.25		31.4	29.97		mg/Kg	₩	91	75 - 125	
Selenium	0.316	U	62.9	54.36		mg/Kg	₩	86	75 - 125	

Snike

Lab Sample ID: 600-115500-8 MSD

Matrix: Solid

Analysis Batch: 168450

Client Sample ID: G-5B (0.5-2) Prep Type: Total/NA

Prep Batch: 168312

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.283	U	60.5	13.23	N1	mg/Kg	-	22	75 - 125	16	20
Cadmium	1.25		30.2	29.48		mg/Kg	₩	93	75 - 125	2	20
Selenium	0.316	U	60.5	53.10		mg/Kg	₩	88	75 - 125	2	20

Lab Sample ID: 600-115500-19 MS

Matrix: Solid

Analysis Batch: 168450

Client Sample ID: G-6D (0.5-2) Prep Type: Total/NA

Prep Batch: 168312

	Sample	Sample	Бріке	INI2	M2				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	0.285	U	63.9	21.07	N1	mg/Kg	<u> </u>	33	75 - 125	
Cadmium	0.855		32.0	32.58		mg/Kg	≎	99	75 - 125	
Selenium	0.319	U	63.9	59.70		mg/Kg	☆	93	75 - 125	

Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP) (Continued)

Sample Sample

0.285 U

0.319 U

0.855

Result Qualifier

MD MD

Lab Sample ID: 600-115500-19 MSD

Matrix: Solid

Analyte

Antimony

Cadmium

Selenium

Analysis Batch: 168450

Client Sample ID: G-6D (0.5-2)

75 - 125

Prep Type: Total/NA **Prep Batch: 168312**

%Rec. **RPD** %Rec Limits RPD Limit 36 75 - 125 4 20 75 - 125 20 112 6

Lab Sample ID: 600-115500-8 DU Client Sample ID: G-5B (0.5-2)

Spike

Added

60.3

30.2

60.3

Matrix: Solid

Analysis Batch: 168450

Prep Type: Total/NA **Prep Batch: 168312**

Unit

mg/Kg

mg/Kg

mg/Kg

D

₩

₩

☼

98

MSD MSD

21.85 N1

34.62

59.02

Result Qualifier

Sample Sample DU DU **RPD** Analyte Result Qualifier Result Qualifier D RPD Limit Unit Ø 0.283 U 0.283 U NC Antimony mg/Kg 20 ☼ Cadmium 1.25 1.422 mg/Kg 13 20 ₩ Selenium 0.316 U 0.316 U mg/Kg NC 20

Lab Sample ID: 600-115500-19 DU Client Sample ID: G-6D (0.5-2)

Matrix: Solid

Analysis Batch: 168450

Prep Type: Total/NA **Prep Batch: 168312** Sample Sample DU DU **RPD**

Result Qualifier Result Qualifier **RPD** Limit Analyte Unit D ☼ Antimony 0.285 U 0.8466 J mg/Kg NC 20 mg/Kg ₩ Cadmium 0.855 4.136 F 131 20 ť 0.319 U mg/Kg Selenium 0.316 U NC 20

Lab Sample ID: MB 600-168365/1-A

Matrix: Solid

Analysis Batch: 168450

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 168365

	INIB	INIR							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		07/31/15 17:33	08/03/15 13:30	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		07/31/15 17:33	08/03/15 13:30	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		07/31/15 17:33	08/03/15 13:30	1
Lead	0.105	U	0.500	0.105	mg/Kg		07/31/15 17:33	08/03/15 13:30	1
Selenium	0.259	U	2.00	0.259	mg/Kg		07/31/15 17:33	08/03/15 13:30	1

Lab Sample ID: LCSSRM 600-168365/2-A **Client Sample ID: Lab Control Sample**

Matrix: Solid

Analysis Batch: 168450

Prep Type: Total/NA **Prep Batch: 168365**

	Spike	LCSSRM LCSSRM			%Rec.
Analyte	Added	Result Qualifier	Unit D	%Rec	Limits
Antimony	94.0	48.55	mg/Kg	51.6	1.1 - 213. 8
Arsenic	113	105.7	mg/Kg	93.5	78.2 - 122. 1
Cadmium	67.5	61.63	mg/Kg	91.3	82.2 - 117. 8
Lead	90.1	81.68	mg/Kg	90.7	81.7 - 118. 8
Selenium	156	142.5	mg/Kg	91.3	77.6 - 121. 8

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Client Sample ID: Matrix Spike

Client Sample ID: Duplicate

Client Sample ID: G-5B (0.5-2)

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID:	600-115541-A-6-C	MS
Matrix: Solid		

Matrix: Solid Analysis Batch: 168450									Prep Ba	e: Total/NA tch: 168365
	•	Sample	Spike	_	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	0.230	U	46.7	41.12		mg/Kg		88	75 - 125	
Arsenic	1.23		46.7	51.31		mg/Kg		107	75 - 125	
Cadmium	0.376		23.4	24.85		mg/Kg		105	75 - 125	
Lead	0.208	J	46.7	46.63		mg/Kg		99	75 - 125	
Selenium	0.256	U	46.7	49.81		mg/Kg		107	75 - 125	

Lab Sample ID: 600-115541-A-6-B DU

Matrix: Solid

Prep Type: Total/NA **Analysis Batch: 168450 Prep Batch: 168365** Sample Sample DU DU

Analyte	Result	Qualitier	Result	Qualifier	Unit	D	RPD	Limit
Antimony	0.230	U	0.230	U	mg/Kg		NC	20
Arsenic	1.23		1.158		mg/Kg		6	20
Cadmium	0.376		0.3663		mg/Kg		3	20
Lead	0.208	J	0.1980	J	mg/Kg		5	20
Selenium	0.256	U	0.256	U	mg/Kg		NC	20

Lab Sample ID: 600-115554-A-6-B DU

Client Sample ID: Duplicate Matrix: Solid Prep Type: Total/NA **Analysis Batch: 168450 Prep Batch: 168365** Sample Sample DU DU

		- · · · · · · · · · · · · · · · · · · ·							
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RP	D I	Limit
Antimony	0.954	J	0.4579	J	mg/Kg	\		0	20
Arsenic	27.0		23.56		mg/Kg	₩	1	4	20
Cadmium	1.74		2.297	F	mg/Kg	≎	2	7	20
Selenium	1.14	j	0.5143	J	mg/Kg	*	7	6	20

Method: 6010B - Metals (ICP) - DL

Lab Sample ID: 600-115500-8 MS

Analysis Batch: 168450									Prep Type: Total/N Prep Batch: 16831	
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic - DL	13.5		62.9	71.62		mg/Kg	<u></u>	92	75 - 125	_
Lead - DI	146		62.9	82 81	N1	ma/Ka	₩	-101	75 - 125	

Lab Sample ID: 600-115500-8 MSD		Client Sample ID: G-5B (0.5-2)
Matrix: Solid		Prep Type: Total/NA
Analysis Batch: 168450		Prep Batch: 168312
Sample Sample S _l	Spike MSD MS	SD %Rec. RPD

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic - DL	13.5		60.5	67.98		mg/Kg	₩	90	75 - 125	5	20
Lead - DL	146		60.5	80.47	N1	mg/Kg	₩	-109	75 - 125	3	20

Client Sample ID: G-6D (0.5-2)

Prep Type: Total/NA

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP) - DL (Continued)

Lab Sample ID: 600-115500-19 MS	
---------------------------------	--

Matrix: Solid

Analysis Batch: 168450		Sample	Sample	Spike	MS	MS				%Rec.	atcn: 168312
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	Arsenic - DL	11.7		63.9	76.23		mg/Kg	-	101	75 - 125	
	Lead - DL	157		63.9	296.0	N1	mg/Kg	≎	217	75 ₋ 125	

Lab Sample ID: 600-115500-19 MSD Client Sample ID: G-6D (0.5-2) **Matrix: Solid Prep Type: Total/NA Prep Batch: 168312**

Analysis Batch: 168450 MSD MSD Sample Sample Spike %Rec.

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic - DL	11.7		60.3	77.81		mg/Kg	<u> </u>	110	75 - 125	2	20
Lead - DL	157		60.3	525.6	N1 N2	mg/Kg	₩	611	75 - 125	56	20

Lab Sample ID: 600-115500-8 DU Client Sample ID: G-5B (0.5-2) Matrix: Solid Prep Type: Total/NA

Analysis Batch: 168450

Prep Batch: 168312 DU DU Sample Sample **RPD** Analyte **Result Qualifier** Result Qualifier Unit D RPD Limit ₩ Arsenic - DL 13.5 13.64 mg/Kg 20 Lead - DL 146 178.1 mg/Kg 20 20

Lab Sample ID: 600-115500-19 DU Client Sample ID: G-6D (0.5-2) Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 168450							Prep Batch: 10	68312
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Arsenic - DL	11.7		14.71		mg/Kg	- -		20
Lead - DL	157		847.5	F	mg/Kg	₩	137	20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-115500-6 DU Client Sample ID: F-4E (0.5-2) **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 168138

, , , , , , , , , , , , , , , , , , , ,	Sample	Sample	DU	DU				RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit	
Percent Moisture	24		24		%		 2	20	
Percent Solids	76		76		%		0.6	20	

Lab Sample ID: 600-115500-21 DU Client Sample ID: 2015-SCC-16F (0-0.5) **Prep Type: Total/NA**

Matrix: Solid

Analysis Batch: 168138									
-	Sample	Sample	DU	DU				RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit	
Percent Moisture	17		 18		%		 5	20	
Percent Solids	83		82		%		1	20	

Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115500-1

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method	
Antimony	2.50	0.232	mg/Kg	6010B	
Arsenic	1.00	0.218	mg/Kg	6010B	
Cadmium	0.250	0.0256	mg/Kg	6010B	
Lead	0.500	0.105	mg/Kg	6010B	
Selenium	2.00	0.259	mg/Kg	6010B	

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

- 1-1-15 000 445500 4

2

3

4

10

11

12

14

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115500-1

Metals

Prep Batch: 168312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115500-1	B3RA-D (0-0.5)	Total/NA	Solid	3050B	
600-115500-1 - DL	B3RA-D (0-0.5)	Total/NA	Solid	3050B	
600-115500-2 - DL	F-4A (0-0.5)	Total/NA	Solid	3050B	
600-115500-2	F-4A (0-0.5)	Total/NA	Solid	3050B	
600-115500-3 - DL	F-4B (0-0.5)	Total/NA	Solid	3050B	
600-115500-3	F-4B (0-0.5)	Total/NA	Solid	3050B	
600-115500-4 - DL	F-4C (0-0.5)	Total/NA	Solid	3050B	
600-115500-4	F-4C (0-0.5)	Total/NA	Solid	3050B	
600-115500-5 - DL	F-4D (0-0.5)	Total/NA	Solid	3050B	
600-115500-5	F-4D (0-0.5)	Total/NA	Solid	3050B	
600-115500-6 - DL	F-4E (0.5-2)	Total/NA	Solid	3050B	
600-115500-6	F-4E (0.5-2)	Total/NA	Solid	3050B	
600-115500-7	G-5A (0.5-2)	Total/NA	Solid	3050B	
600-115500-7 - DL	G-5A (0.5-2)	Total/NA	Solid	3050B	
600-115500-8 - DL	G-5B (0.5-2)	Total/NA	Solid	3050B	
600-115500-8	G-5B (0.5-2)	Total/NA	Solid	3050B	
600-115500-8 DU - DL	G-5B (0.5-2)	Total/NA	Solid	3050B	
600-115500-8 DU	G-5B (0.5-2)	Total/NA	Solid	3050B	
600-115500-8 MS - DL	G-5B (0.5-2)	Total/NA	Solid	3050B	
600-115500-8 MS	G-5B (0.5-2)	Total/NA	Solid	3050B	
600-115500-8 MSD	G-5B (0.5-2)	Total/NA	Solid	3050B	
600-115500-8 MSD - DL	G-5B (0.5-2)	Total/NA	Solid	3050B	
600-115500-9	G-5C (0.5-2)	Total/NA	Solid	3050B	
600-115500-9 - DL	G-5C (0.5-2)	Total/NA	Solid	3050B	
600-115500-10 - DL	G-5D (0.5-2)	Total/NA	Solid	3050B	
600-115500-10	G-5D (0.5-2)	Total/NA	Solid	3050B	
600-115500-11 - DL	G-6A (0.5-2)	Total/NA	Solid	3050B	
600-115500-11	G-6A (0.5-2)	Total/NA	Solid	3050B	
600-115500-17 - DL	G-6B (0-0.5)	Total/NA	Solid	3050B	
600-115500-17	G-6B (0-0.5)	Total/NA	Solid	3050B	
600-115500-18 - DL	G-6C (0-0.5)	Total/NA	Solid	3050B	
600-115500-18	G-6C (0-0.5)	Total/NA	Solid	3050B	
600-115500-19 - DL	G-6D (0.5-2)	Total/NA	Solid	3050B	
600-115500-19	G-6D (0.5-2)	Total/NA	Solid	3050B	
600-115500-19 DU - DL	G-6D (0.5-2)	Total/NA	Solid	3050B	
600-115500-19 DU	G-6D (0.5-2)	Total/NA	Solid	3050B	
600-115500-19 MS	G-6D (0.5-2)	Total/NA	Solid	3050B	
600-115500-19 MS - DL	G-6D (0.5-2)	Total/NA	Solid	3050B	
600-115500-19 MSD	G-6D (0.5-2)	Total/NA	Solid	3050B	
600-115500-19 MSD - DL	G-6D (0.5-2)	Total/NA	Solid	3050B	
600-115500-20 - DL	2015-SCC-16E (0-0.5)	Total/NA	Solid	3050B	
600-115500-20	2015-SCC-16E (0-0.5)	Total/NA	Solid	3050B	
600-115500-21	2015-SCC-16F (0-0.5)	Total/NA	Solid	3050B	
600-115500-21 - DL	2015-SCC-16F (0-0.5)	Total/NA	Solid	3050B	
600-115500-22 - DL	2015-SCC-16G (0-0.5)	Total/NA	Solid	3050B	
600-115500-22	2015-SCC-16G (0-0.5)	Total/NA	Solid	3050B	
600-115500-23	2015-CUFT-16D (0-0.5)	Total/NA	Solid	3050B	
600-115500-23 - DL	2015-CUFT-16D (0-0.5)	Total/NA	Solid	3050B	
600-115500-24	SCC-5D (2-4)	Total/NA	Solid	3050B	
LCS 600-168312/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-168312/1-A	Method Blank	Total/NA	Solid	3050B	

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Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115500-1

Metals (Continued)

Prep Batch: 168365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115500-25 - DL	DUP-1	Total/NA	Solid	3050B	
600-115500-25	DUP-1	Total/NA	Solid	3050B	
600-115500-27	DUP-3	Total/NA	Solid	3050B	
600-115500-27 - DL	DUP-3	Total/NA	Solid	3050B	
600-115541-A-6-B DU	Duplicate	Total/NA	Solid	3050B	
600-115541-A-6-C MS	Matrix Spike	Total/NA	Solid	3050B	
600-115554-A-6-B DU	Duplicate	Total/NA	Solid	3050B	
LCSSRM 600-168365/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-168365/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 168450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115500-1	B3RA-D (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-1 - DL	B3RA-D (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-2	F-4A (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-2 - DL	F-4A (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-3	F-4B (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-3 - DL	F-4B (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-4	F-4C (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-4 - DL	F-4C (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-5	F-4D (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-5 - DL	F-4D (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-6	F-4E (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-6 - DL	F-4E (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-7	G-5A (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-7 - DL	G-5A (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-8	G-5B (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-8 - DL	G-5B (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-8 DU	G-5B (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-8 DU - DL	G-5B (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-8 MS	G-5B (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-8 MS - DL	G-5B (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-8 MSD	G-5B (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-8 MSD - DL	G-5B (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-9	G-5C (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-9 - DL	G-5C (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-10	G-5D (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-10 - DL	G-5D (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-11	G-6A (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-11 - DL	G-6A (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-17	G-6B (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-17 - DL	G-6B (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-18	G-6C (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-18 - DL	G-6C (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-19	G-6D (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-19 - DL	G-6D (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-19 DU	G-6D (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-19 DU - DL	G-6D (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-19 MS	G-6D (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-19 MS - DL	G-6D (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-19 MSD	G-6D (0.5-2)	Total/NA	Solid	6010B	168312

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Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115500-1

Metals (Continued)

Analysis Batch: 168450 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115500-19 MSD - DL	G-6D (0.5-2)	Total/NA	Solid	6010B	168312
600-115500-20	2015-SCC-16E (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-20 - DL	2015-SCC-16E (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-21	2015-SCC-16F (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-21 - DL	2015-SCC-16F (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-22	2015-SCC-16G (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-22 - DL	2015-SCC-16G (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-23	2015-CUFT-16D (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-23 - DL	2015-CUFT-16D (0-0.5)	Total/NA	Solid	6010B	168312
600-115500-24	SCC-5D (2-4)	Total/NA	Solid	6010B	168312
600-115500-25	DUP-1	Total/NA	Solid	6010B	168365
600-115500-25 - DL	DUP-1	Total/NA	Solid	6010B	168365
600-115500-27	DUP-3	Total/NA	Solid	6010B	168365
600-115500-27 - DL	DUP-3	Total/NA	Solid	6010B	168365
600-115541-A-6-B DU	Duplicate	Total/NA	Solid	6010B	168365
600-115541-A-6-C MS	Matrix Spike	Total/NA	Solid	6010B	168365
600-115554-A-6-B DU	Duplicate	Total/NA	Solid	6010B	168365
LCS 600-168312/2-A	Lab Control Sample	Total/NA	Solid	6010B	168312
LCSSRM 600-168365/2-A	Lab Control Sample	Total/NA	Solid	6010B	168365
MB 600-168312/1-A	Method Blank	Total/NA	Solid	6010B	168312
MB 600-168365/1-A	Method Blank	Total/NA	Solid	6010B	168365

General Chemistry

Analysis Batch: 168138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115500-1	B3RA-D (0-0.5)	Total/NA	Solid	Moisture	
600-115500-2	F-4A (0-0.5)	Total/NA	Solid	Moisture	
600-115500-3	F-4B (0-0.5)	Total/NA	Solid	Moisture	
600-115500-4	F-4C (0-0.5)	Total/NA	Solid	Moisture	
600-115500-5	F-4D (0-0.5)	Total/NA	Solid	Moisture	
600-115500-6	F-4E (0.5-2)	Total/NA	Solid	Moisture	
600-115500-6 DU	F-4E (0.5-2)	Total/NA	Solid	Moisture	
600-115500-7	G-5A (0.5-2)	Total/NA	Solid	Moisture	
600-115500-8	G-5B (0.5-2)	Total/NA	Solid	Moisture	
600-115500-9	G-5C (0.5-2)	Total/NA	Solid	Moisture	
600-115500-10	G-5D (0.5-2)	Total/NA	Solid	Moisture	
600-115500-11	G-6A (0.5-2)	Total/NA	Solid	Moisture	
600-115500-17	G-6B (0-0.5)	Total/NA	Solid	Moisture	
600-115500-18	G-6C (0-0.5)	Total/NA	Solid	Moisture	
600-115500-19	G-6D (0.5-2)	Total/NA	Solid	Moisture	
600-115500-19 MS	G-6D (0.5-2)	Total/NA	Solid	Moisture	
600-115500-19 MSD	G-6D (0.5-2)	Total/NA	Solid	Moisture	
600-115500-20	2015-SCC-16E (0-0.5)	Total/NA	Solid	Moisture	
600-115500-21	2015-SCC-16F (0-0.5)	Total/NA	Solid	Moisture	
600-115500-21 DU	2015-SCC-16F (0-0.5)	Total/NA	Solid	Moisture	
600-115500-22	2015-SCC-16G (0-0.5)	Total/NA	Solid	Moisture	
600-115500-23	2015-CUFT-16D (0-0.5)	Total/NA	Solid	Moisture	
600-115500-24	SCC-5D (2-4)	Total/NA	Solid	Moisture	
600-115500-25	DUP-1	Total/NA	Solid	Moisture	

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Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115500-1

General Chemistry (Continued)

Analysis Batch: 168138 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115500-27	DUP-3	Total/NA	Solid	Moisture	

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Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: B3RA-D (0-0.5)

Lab Sample ID: 600-115500-1 Date Collected: 07/27/15 08:10 Matrix: Solid

Date Received: 07/28/15 10:07

Dil Initial Batch Batch **Batch** Final Prepared Method Number **Prep Type** Type Run **Factor** Amount Amount or Analyzed Analyst Lab Total/NA Analysis Moisture 168138 07/29/15 17:21 MJB TAL HOU

Client Sample ID: B3RA-D (0-0.5) Lab Sample ID: 600-115500-1

Date Collected: 07/27/15 08:10 **Matrix: Solid** Date Received: 07/28/15 10:07 Percent Solids: 85.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	168450	08/03/15 10:51	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.04 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	2	1.04 g	50 mL	168450	08/03/15 12:22	DCL	TAL HOU

Client Sample ID: F-4A (0-0.5) Lab Sample ID: 600-115500-2

Date Collected: 07/27/15 13:40 Matrix: Solid Date Received: 07/28/15 10:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			168138	07/29/15 17:21	MJB	TAL HOU

Client Sample ID: F-4A (0-0.5) Lab Sample ID: 600-115500-2

Date Collected: 07/27/15 13:40 **Matrix: Solid** Date Received: 07/28/15 10:07 Percent Solids: 78.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.02 g	50 mL	168450	08/03/15 10:54	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.02 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.02 g	50 mL	168450	08/03/15 12:24	DCL	TAL HOU

Lab Sample ID: 600-115500-3 Client Sample ID: F-4B (0-0.5)

Date Collected: 07/27/15 13:38 **Matrix: Solid** Date Received: 07/28/15 10:07

Dil Batch **Batch** Initial Final Batch Prepared Prep Type Method Amount **Amount** Number or Analyzed Type Run **Factor** Analyst Lab 07/29/15 17:21 MJB Total/NA Analysis Moisture 168138 TAL HOU

Client Sample ID: F-4B (0-0.5) Lab Sample ID: 600-115500-3

Date Collected: 07/27/15 13:38 Matrix: Solid Date Received: 07/28/15 10:07 Percent Solids: 78.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.00 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: F-4B (0-0.5)

Date Collected: 07/27/15 13:38 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-3

Matrix: Solid Percent Solids: 78.8

Matrix: Solid

Percent Solids: 78.3

Matrix: Solid

Matrix: Solid

Percent Solids: 72.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	6010B		1	1.00 g	50 mL	168450	08/03/15 10:56	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.00 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.00 g	50 mL	168450	08/03/15 12:26	DCL	TAL HOU

Client Sample ID: F-4C (0-0.5) Lab Sample ID: 600-115500-4

Date Collected: 07/27/15 13:27

Date Received: 07/28/15 10:07

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			168138	07/29/15 17:21	MJB	TAL HOU

Client Sample ID: F-4C (0-0.5) Lab Sample ID: 600-115500-4 **Matrix: Solid**

Date Collected: 07/27/15 13:27

Date Received: 07/28/15 10:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	168450	08/03/15 10:59	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.04 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.04 g	50 mL	168450	08/03/15 12:29	DCL	TAL HOU

Client Sample ID: F-4D (0-0.5) Lab Sample ID: 600-115500-5

Date Collected: 07/27/15 13:27

Date Received: 07/28/15 10:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	Moisture					168138	07/29/15 17:21	MJB	TAL HOU	

Client Sample ID: F-4D (0-0.5) Lab Sample ID: 600-115500-5

Date Collected: 07/27/15 13:27

Date Received: 07/28/15 10:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.07 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.07 g	50 mL	168450	08/03/15 11:01	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.07 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.07 g	50 mL	168450	08/03/15 12:31	DCL	TAL HOU

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: F-4E (0.5-2) Lab Sample ID: 600-115500-6

Date Collected: 07/27/15 13:20 **Matrix: Solid**

Date Received: 07/28/15 10:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			168138	07/29/15 17:21	MJB	TAL HOU

Client Sample ID: F-4E (0.5-2) Lab Sample ID: 600-115500-6

Date Collected: 07/27/15 13:20 Date Received: 07/28/15 10:07

Matrix: Solid Percent Solids: 76.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA Total/NA	Prep Analysis	3050B 6010B		1	1.09 g 1.09 g	50 mL 50 mL	168312 168450	07/31/15 11:32 08/03/15 11:04	NER DCL	TAL HOU
Total/NA Total/NA	Prep Analysis	3050B 6010B	DL DL	5	1.09 g 1.09 g	50 mL 50 mL	168312 168450	07/31/15 11:32 08/03/15 12:33		TAL HOU TAL HOU

Lab Sample ID: 600-115500-7 Client Sample ID: G-5A (0.5-2)

Date Collected: 07/27/15 11:12 Date Received: 07/28/15 10:07

Batch **Batch** Dil Initial Final **Batch** Prepared Method Amount Number **Prep Type Amount** or Analyzed Type Run **Factor** Analyst Lab Total/NA Analysis 168138 07/29/15 17:21 MJB TAL HOU Moisture

Client Sample ID: G-5A (0.5-2) Lab Sample ID: 600-115500-7

Date Collected: 07/27/15 11:12

Matrix: Solid Date Received: 07/28/15 10:07 Percent Solids: 80.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B		-	1.01 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.01 g	50 mL	168450	08/03/15 11:06	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.01 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.01 g	50 mL	168450	08/03/15 12:35	DCL	TAL HOU

Client Sample ID: G-5B (0.5-2) Lab Sample ID: 600-115500-8

Date Collected: 07/27/15 10:44 Date Received: 07/28/15 10:07

Batch **Batch** Dil Initial Final Batch Prepared **Prep Type** Method Amount Amount Number or Analyzed Type Run Factor Analyst Lab Total/NA Analysis Moisture 168138 07/29/15 17:21 MJB TAL HOU

Client Sample ID: G-5B (0.5-2) Lab Sample ID: 600-115500-8 Date Collected: 07/27/15 10:44 **Matrix: Solid** Date Received: 07/28/15 10:07 Percent Solids: 79.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU

TestAmerica Houston

Matrix: Solid

Matrix: Solid

Lab Chronicle

Client: Golder Associates Inc.

Date Collected: 07/27/15 10:44

Date Received: 07/28/15 10:07

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: G-5B (0.5-2)

TestAmerica Job ID: 600-115500-1

Lab Sample ID: 600-115500-8

Matrix: Solid Percent Solids: 79.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	6010B		1	1.03 g	50 mL	168450	08/03/15 11:16	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.03 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.03 g	50 mL	168450	08/03/15 12:38	DCL	TAL HOU

Client Sample ID: G-5C (0.5-2) Lab Sample ID: 600-115500-9

Date Collected: 07/27/15 11:00 **Matrix: Solid**

Date Received: 07/28/15 10:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			168138	07/29/15 17:21	MJB	TAL HOU

Client Sample ID: G-5C (0.5-2) Lab Sample ID: 600-115500-9

Date Collected: 07/27/15 11:00 **Matrix: Solid** Date Received: 07/28/15 10:07 Percent Solids: 78.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	168450	08/03/15 11:26	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.06 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.06 g	50 mL	168450	08/03/15 12:54	DCL	TAL HOU

Client Sample ID: G-5D (0.5-2) Lab Sample ID: 600-115500-10

Date Collected: 07/27/15 11:11 Date Received: 07/28/15 10:07

_											
	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	Moisture		1			168138	07/29/15 17:21	MJB	TAL HOU	

Client Sample ID: G-5D (0.5-2) Lab Sample ID: 600-115500-10

Date Collected: 07/27/15 11:11 **Matrix: Solid** Date Received: 07/28/15 10:07 Percent Solids: 78.0

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.00 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.00 g	50 mL	168450	08/03/15 11:28	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.00 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.00 a	50 mL	168450	08/03/15 12:56	DCL	TAL HOU

TestAmerica Houston

Page 33 of 47

Matrix: Solid

8/4/2015

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: G-6A (0.5-2)

Date Collected: 07/27/15 14:43 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-11

Matrix: Solid

Dil Initial Batch **Batch** Final Batch Prepared **Prep Type** Type Method Run **Factor** Amount Amount Number or Analyzed **Analyst** Total/NA Analysis Moisture 168138 07/29/15 17:21 MJB TAL HOU

Client Sample ID: G-6A (0.5-2) Lab Sample ID: 600-115500-11

Date Collected: 07/27/15 14:43 Date Received: 07/28/15 10:07

Matrix: Solid Percent Solids: 81.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	168450	08/03/15 11:31	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.04 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.04 g	50 mL	168450	08/03/15 12:58	DCL	TAL HOU

Lab Sample ID: 600-115500-17 Client Sample ID: G-6B (0-0.5) Date Collected: 07/27/15 14:50 **Matrix: Solid**

Date Received: 07/28/15 10:07

Batch **Batch** Dil Initial Final **Batch Prepared** Method Number Amount **Amount** or Analyzed **Prep Type** Type Run **Factor** Analyst Lab Total/NA Analysis 168138 07/29/15 17:21 MJB TAL HOU Moisture

Client Sample ID: G-6B (0-0.5) Lab Sample ID: 600-115500-17

Date Collected: 07/27/15 14:50

Matrix: Solid Date Received: 07/28/15 10:07 Percent Solids: 81.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	168450	08/03/15 11:33	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.06 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.06 g	50 mL	168450	08/03/15 13:00	DCL	TAL HOU

Client Sample ID: G-6C (0-0.5) Lab Sample ID: 600-115500-18

Date Collected: 07/27/15 14:28 Date Received: 07/28/15 10:07

Batch Dil Initial Final Batch Prepared Batch **Prep Type** Method Number or Analyzed Type Run Factor Amount Amount **Analyst** Lab Total/NA 168138 07/29/15 17:21 MJB TAL HOU Analysis Moisture

Client Sample ID: G-6C (0-0.5) Lab Sample ID: 600-115500-18

Date Collected: 07/27/15 14:28

Matrix: Solid Date Received: 07/28/15 10:07 Percent Solids: 81.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.08 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU

TestAmerica Houston

Matrix: Solid

Lab Chronicle

Client: Golder Associates Inc.

Date Collected: 07/27/15 14:28

Date Received: 07/28/15 10:07

Client Sample ID: G-6C (0-0.5)

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115500-1

Lab Sample ID: 600-115500-18

Lab Sample ID: 600-115500-19

Lab Sample ID: 600-115500-19

Lab Sample ID: 600-115500-20

Matrix: Solid Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010B		1	1.08 g	50 mL	168450	08/03/15 11:36	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.08 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	2	1.08 g	50 mL	168450	08/03/15 13:03	DCL	TAL HOU

Client Sample ID: G-6D (0.5-2)

Date Collected: 07/27/15 14:34

Date Received: 07/28/15 10:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			168138	07/29/15 17:21	MJB	TAL HOU

Client Sample ID: G-6D (0.5-2)

Date Collected: 07/27/15 14:34

Matrix: Solid Date Received: 07/28/15 10:07 Percent Solids: 77.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B		,	1.05 g	50 mL	168312	07/31/15 11:32		TAL HOU
Total/NA	Analysis	6010B		1	1.05 g	50 mL	168450	08/03/15 11:39		TAL HOU
Total/NA Total/NA	Prep Analysis	3050B 6010B	DL DL	5	1.05 g 1.05 g	50 mL 50 mL	168312 168450	07/31/15 11:32 08/03/15 13:05		TAL HOU TAL HOU

Client Sample ID: 2015-SCC-16E (0-0.5)

Date Collected: 07/27/15 09:12

Date Received: 07/28/15 10:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	Moisture					168138	07/29/15 17:21	MJB	TAL HOU	

Client Sample ID: 2015-SCC-16E (0-0.5)

Date Collected: 07/27/15 09:12

Date Received: 07/28/15 10:07

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	168450	08/03/15 11:55	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.04 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.04 g	50 mL	168450	08/03/15 13:21	DCL	TAL HOU

Matrix: Solid

Matrix: Solid

Percent Solids: 86.8

Matrix: Solid

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-SCC-16F (0-0.5)

Date Collected: 07/27/15 09:25

Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-21

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			168138	07/29/15 17:21	MJB	TAL HOU

Client Sample ID: 2015-SCC-16F (0-0.5)

Date Collected: 07/27/15 09:25 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-21 Matrix: Solid

Percent Solids: 82.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA Total/NA	Prep Analysis	3050B 6010B			1.09 g 1.09 a	50 mL 50 mL	168312 168450	07/31/15 11:32 08/03/15 11:58		TAL HOU
Total/NA	Prep	3050B	DL	ı	1.09 g	50 mL	168312	07/31/15 11:32		TAL HOU
Total/NA	Analysis	6010B	DL	5	1.09 g	50 mL	168450	08/03/15 13:23	DCL	TAL HOU

Client Sample ID: 2015-SCC-16G (0-0.5)

Date Collected: 07/27/15 08:50

Lab Sample ID: 600-115500-22 **Matrix: Solid**

Date Received: 07/28/15 10:07

Batch **Batch** Dil Initial Final **Batch Prepared** Method Amount Number **Prep Type** Amount or Analyzed Type Run Factor Analyst I ab 07/29/15 17:21 Total/NA Analysis 168138 MJB TAL HOU Moisture

Client Sample ID: 2015-SCC-16G (0-0.5)

Date Collected: 07/27/15 08:50 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-22 Matrix: Solid

Percent Solids: 86.8

Initial Batch **Batch** Dil Final Batch **Prepared** Prep Type Method Amount Amount Number or Analyzed Type Run **Factor** Analyst Lab Total/NA Prep 3050B 1.03 g 50 mL 168312 07/31/15 11:32 NER TAL HOU Total/NA Analysis 6010B 1 1.03 g 50 mL 168450 08/03/15 12:00 DCL TAL HOU Total/NA Prep 3050B DL 50 mL 168312 07/31/15 11:32 NER TAL HOU 1.03 g Total/NA Analysis 6010B DL 2 1.03 g 50 mL 168450 08/03/15 13:25 DCL TAL HOU

Client Sample ID: 2015-CUFT-16D (0-0.5)

Date Collected: 07/27/15 09:58

Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-23

Matrix: Solid

		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Typ	е	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA		Analysis	Moisture		1			168138	07/29/15 17:21	MJB	TAL HOU

Client Sample ID: 2015-CUFT-16D (0-0.5)

Date Collected: 07/27/15 09:58

Lab Sample ID: 600-115500-23 **Matrix: Solid**

Percent Solids: 82.3

Date Received: 07/28/15 10:07 Batch Batch Dil Initial Final Batch **Prepared Prep Type**

Method Number Type Run Amount Amount or Analyzed Factor Analyst Lab Total/NA 3050B 1.10 g 168312 07/31/15 11:32 NER TAL HOU Prep 50 mL

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-CUFT-16D (0-0.5)

Date Collected: 07/27/15 09:58 Date Received: 07/28/15 10:07

Lab Sample ID: 600-115500-23

Matrix: Solid Percent Solids: 82.3

Matrix: Solid

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010B		1	1.10 g	50 mL	168450	08/03/15 12:03	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.10 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.10 g	50 mL	168450	08/03/15 13:27	DCL	TAL HOU

Client Sample ID: SCC-5D (2-4) Lab Sample ID: 600-115500-24

Date Collected: 07/27/15 07:45

Date Received: 07/28/15 10:07

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			168138	07/29/15 17:21	MJB	TAL HOU

Client Sample ID: SCC-5D (2-4) Lab Sample ID: 600-115500-24

Date Collected: 07/27/15 07:45

Matrix: Solid Date Received: 07/28/15 10:07 Percent Solids: 87.0

Duna Tuma	Batch	Batch	D	Dil	Initial	Final	Batch	Prepared	A = l = 4	Lab
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	168312	07/31/15 11:32	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	168450	08/03/15 12:05	DCL	TAL HOU

Client Sample ID: DUP-1 Lab Sample ID: 600-115500-25

Date Collected: 07/27/15 00:00

Date Received: 07/28/15 10:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture					168138	07/29/15 17:21	MJB	TAL HOU

Client Sample ID: DUP-1 Lab Sample ID: 600-115500-25

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Date Collected: 07/27/15	00:00					Matrix: Solid
Date Received: 07/28/15	10:07					Percent Solids: 89.3
Batch	Batch	Dil	Initial	Final	Batch	Prepared

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	50 mL	168365	07/31/15 17:33	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.01 g	50 mL	168450	08/03/15 13:34	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.01 g	50 mL	168365	07/31/15 17:33	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.01 g	50 mL	168450	08/03/15 14:58	DCL	TAL HOU

Client Sample ID: DUP-3 Lab Sample ID: 600-115500-27

Date Collected: 07/27/15 00:00

Date Received: 07/28/15 10:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			168138	07/29/15 17:21	MJB	TAL HOU

TestAmerica Houston

Matrix: Solid

Lab Chronicle

Client: Golder Associates Inc.

Client Sample ID: DUP-3
Date Collected: 07/27/15 00:00

Date Received: 07/28/15 10:07

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115500-1

Lab Sample ID: 600-115500-27

Matrix: Solid

Percent Solids: 81.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	168365	07/31/15 17:33	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	168450	08/03/15 13:36	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.04 g	50 mL	168365	07/31/15 17:33	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.04 g	50 mL	168450	08/03/15 15:00	DCL	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115500-1

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223	10-31-15
The following analyte:	s are included in this repo	rt, but certification is r	not offered by the go	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	е	
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Chain of Custody Record

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Y / N Y / N Y / N Y / N CF = correction (action CF = correction factor Samples received on ice? NO LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO Base samples are > pH 12: YES NO Acid preserved are < pH 2 pH paper Lot # VOA headspace acceptable (5-6mm): YES NO NA Did samples meet the laboratory's standard conditions of sample acceptability upon				
Y / N Y / N Y / N Y / N CF = correction factor Samples received on ice? SES NO LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO Base samples are>pH 12: YES NO Acid preserved are <ph #="" (5-6mm):="" 2="" acceptability="" acceptable="" conditions="" did="" headspace="" laboratory's="" lot="" meet="" na="" no="" of="" paper="" ph="" sample="" samples="" standard="" td="" the="" upon<="" voa="" yes=""><td></td><td></td><td>·</td><td></td></ph>			·	
CF = correction factor Samples received on ice? SES NO LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO Base samples are > pH 12: YES NO Acid preserved are < pH 2 pH paper Lot # VOA headspace acceptable (5-6mm): YES NO NA Did samples meet the laboratory's standard conditions of sample acceptability upo			~~	<u> </u>
Samples received on ice? SES NO LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO Base samples are>pH 12: SYES NO Acid preserved are <ph #="" (5-6mm):="" 2="" acceptability="" acceptable="" conditions="" did="" headspace="" laboratory's="" lot="" meet="" na="" no="" of="" paper="" ph="" sample="" samples="" standard="" syes="" td="" the="" upon<="" voa=""><td></td><td></td><td></td><td></td></ph>				
LABORATORY PRESERVATION OF SAMPLES REQUIRED: NO Base samples are>pH 12: YES NO Acid preserved are <ph #="" (5-6mm):="" 2="" acceptability="" acceptable="" conditions="" did="" headspace="" laboratory's="" lot="" meet="" na="" no="" of="" paper="" ph="" sample="" samples="" standard="" td="" the="" upon<="" voa="" yes=""><td></td><td></td><td></td><td></td></ph>				
VOA headspace acceptable (5-6mm): YES NO NA Did samples meet the laboratory's standard conditions of sample acceptability upo		ИО) NO	ŊŌ
Did samples meet the laboratory's standard conditions of sample acceptability upo				
comments: Trip Blanks not in	YES Pon receipt?	<u> </u>	YES	YES
COMMENTS: ILLD PROMICE MAY	2000 6 6	T_	100	[00]
	1 (18161 PM)	O	M	
	on COC			
		_		

11S-SA-WI-013

Pev 3 (07/01/2014

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 600-115500-1

Login Number: 115500 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

Creator. Crafton, Tollinie 5		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5 0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Trip blanks on COC not received
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-115554-1

Client Project/Site: Exide Recycling Center, Frisco TX

For:

Golder Associates Inc. 820 South Main Street Suite 100 St. Charles, Missouri 63301

Attn: Anne Faeth-Boyd



Authorized for release by: 8/7/2015 11:53:52 AM Donnie Combs, Project Management Assistant I (713)690-4444 donnie.combs@testamericainc.com

Designee for

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

····· Links ·····

Review your project results through

Total Access

Have a Question?



Visit us at:www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

This data package is for	TestAmerica Houston	job number 600-115554-1	and consists of:
. 0		•	

☑ R1 - Field chain-of-custody documentation;

☑ R2 - Sample identification cross-reference;

☑ R3 - Test reports (analytical data sheets) for each environmental sample that includes:

- a. Items consistent with NELAC Chapter 5,
- b. dilution factors,
- c. preparation methods,
- d. cleanup methods, and
- e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☐ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

Official Title (printed)

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Donnie Combs, for Cathy Upton	Donnie Comba	8/6/2015
Name (printed)	Signature	Date
Project Manager I		

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/6/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-115554-1
Reviewer Name:	Donnie Combs. for Cathy Unton		

#1 A2	Description	Yes	No	NA^3	NR^4	ER# ⁵
	Chain-of-custody (C-O-C)					
•	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Х				
	Were all departures from standard conditions described in an exception report?	Х				
	Sample and quality control (QC) identification					
	Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	Х				
	Are all laboratory ID numbers cross-referenced to the corresponding QC data?	Х				
	Test reports					
	Were all samples prepared and analyzed within holding times?	Х				
	Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
	Were calculations checked by a peer or supervisor?	X				
	Were all analyte identifications checked by a peer or supervisor?	X				
	Were sample detection limits reported for all analytes not detected?	X				
	Were all results for soil and sediment samples reported on a dry weight basis?	X				
	Were % moisture (or solids) reported for all soil and sediment samples?	X				
	, , ,	^		V		
	Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	-		X		
	If required for the project, are TICs reported?	-		Χ		
	Surrogate recovery data	ļ				
	Were surrogates added prior to extraction?			X		
	Were surrogate percent recoveries in all samples within the laboratory QC limits?	1		Х		
	Test reports/summary forms for blank samples					
	Were appropriate type(s) of blanks analyzed?	Х				
	Were blanks analyzed at the appropriate frequency?	Х				
	Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
	procedures?	Χ				
	Were blank concentrations < MQL?	Χ				
6 OI	Laboratory control samples (LCS):					
	Were all COCs included in the LCS?	Χ				
	Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Х				
	Were LCSs analyzed at the required frequency?	Χ				
	Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Χ				
	Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used					
	to calculate the SDLs?	Х				
	Was the LCSD RPD within QC limits?			Χ		
7 OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
	Were the project/method specified analytes included in the MS and MSD?	Х				
	Were MS/MSD analyzed at the appropriate frequency?	Х				
	Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		Х			R07C
	Were MS/MSD RPDs within laboratory QC limits?	Х				
8 OI	Analytical duplicate data					
	Were appropriate analytical duplicates analyzed for each matrix?	Х				
	Were analytical duplicates analyzed at the appropriate frequency?	X				
	Were RPDs or relative standard deviations within the laboratory QC limits?		Х			R08C
	Method quantitation limits (MQLs):	1			'	
	Are the MQLs for each method analyte included in the laboratory data package?	Х				
	Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
	Are unadjusted MQLs and DCSs included in the laboratory data package?	X			-	
	Other problems/anomalies	^				
	•	V				
	Are all known problems/anomalies/special conditions noted in this LRC and ER?	Х			-	
	Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the					D.4.6.
	sample results?		Х		<u> </u>	R10B
	Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and					
	methods associated with this laboratory data package?	Х				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/6/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-115554-1
Reviewer Name:	Donnie Combs, for Cathy Upton		

1بر	A 2	Page of the control o	- V-	I N	NIA3	ND41	ED#2
#	A ²	Description	Yes	No	NA ³	NK.	ER#5
S1	Oi	Initial calibration (ICAL)	V				
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
	1	Has the initial calibration curve been verified using an appropriate second source standard?	X				
00							
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
	1_	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
S3		Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			Х		
		Were ion abundance data within the method-required QC limits?			Χ		
S4		Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			Χ		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
		Were data associated with manual integrations flagged on the raw data?	Х				
S6	0	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			Χ		
S7	0	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Χ		
S8	I	Interference Check Sample (ICS) results					
	-	Were percent recoveries within method QC limits?	Х				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
	•	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	Х				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	Х				
		Is the MDL either adjusted or supported by the analysis of DCSs?	Х				
S11	OI	Proficiency test reports					
	_	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х				
S12	_	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х				
S13	OI	Compound/analyte identification procedures					
	1	Are the procedures for compound/analyte identification documented?	X				
S14	ΟI	Demonstration of analyst competency (DOC)					
l	1	Was DOC conducted consistent with NELAC Chapter 5?	Х				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	ΟI	Verification/validation documentation for methods (NELAC Chapter 5)					
0.0	O.	Vermouter variation assumentation for methods (NEEAS Shapter 6)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	ΟI	Laboratory standard operating procedures (SOPs)	^				
310	Oi	Are laboratory SOPs current and on file for each method performed?	X			-	
	1	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required re		tomo			
	1.			terns			
	2	identified by the letter "S" should be retained and made available upon request for the appropriate retention period.					
		O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
		NA = Not applicable;					
		NR = Not reviewed;					
	5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No	" is checl	red).			

Page 5 of 28 8/7/2015

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/6/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-115554-1
Reviewer Name:	Donnie Combs, for Cathy Upton		

ER # ¹	Description
R07C	Method 6010B: 600-115554-6 MS/MSD failed the recovery criteria for the following analyte(s): Lead. Matrix interference is suspected.
R08C	Method 6010B: 600-115554-6 DU failed the RPD criteria for the following analyte: Lead.
IDIOR	Method 6010B: The following samples was diluted to bring the concentration of the target anlytes within calibration range: 600-115554-1, 600-115554-2, 600-115554-3, 600-115554-4, 600-115554-5, 600-115554-6 and 600-115554-7. Elevated reporting limits (RLs) are provided.
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
	identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3.	NA = Not applicable;
4.	NR = Not reviewed;
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Matrix: Solid

Method: SW-846 6010B or 6010C

SW-846 3050B Prep Method: Date Analyzed: 5/13/2015 Job #: 600-109337 TALS Batch: 162296 Units: mg/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Ag	Thermo6500	0.119	0.200	0.220	0.4
Al	SPECTRO1	0.300	0.500	0.718	25
As	Thermo6500	0.218	0.500	0.480	1
В	SPECTRO1	0.386	0.600	0.698	20
Ва	Thermo6500	0.030	0.030	0.040	1
Be	Thermo6500	0.015	0.020	0.020	0.25
Ca	SPECTRO1	0.864	2.500	7.426	100
Cd	Thermo6500	0.026	0.050	0.045	0.25
Co	Thermo6500	0.068	0.100	0.105	0.5
Cr	Thermo6500	0.051	0.100	0.110	0.5
Cu	Thermo6500	0.174	0.500	0.425	0.5
Fe	Thermo6500	2.530	4.000	3.915	20
K	Thermo6500	11.000	12.000	13.360	100
Li	SPECTRO1	0.008	0.010	0.062	10
Mg	Thermo6500	1.920	3.000	3.705	100
Mn	Thermo6500	0.038	0.050	0.055	1.5
Мо	Thermo6500	0.136	0.350	0.325	0.5
Na	Thermo6500	0.886	2.400	2.520	100
Ni	Thermo6500	0.117	0.150	0.140	1
Pb	Thermo6500	0.105	0.200	0.195	0.5
Sb	Thermo6500	0.232	0.450	0.410	2.5
Se	Thermo6500	0.259	0.500	0.550	2
Si	SPECTRO1	0.117	0.270	6.900	10
Sn	SPECTRO1	0.087	0.150	0.117	1
Sr	SPECTRO1	0.003	0.005	0.042	0.25
Ti	Thermo6500	0.015	0.030	0.020	0.5
TI	Thermo6500	0.277	0.700	0.580	1.5
V	Thermo6500	0.079	0.150	0.145	0.5
Zn	SPECTRO1	0.108	0.200	0.198	1.5

Case Narrative

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115554-1

Job ID: 600-115554-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-115554-1

Comments

No additional comments.

Receipt

The samples were received on 7/29/2015 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

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Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115554-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115554-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-115554-1	ECO-13 (0-0.5)	Solid	07/28/15 07:46	07/29/15 09:45
600-115554-2	ECO-14 (0-0.5)	Solid	07/28/15 08:15	07/29/15 09:45
600-115554-3	ECO-15 (0-0.5)	Solid	07/28/15 09:45	07/29/15 09:45
600-115554-4	ECO-16 (0-0.5)	Solid	07/28/15 10:00	07/29/15 09:45
600-115554-5	ECO-17 (0-0.5)	Solid	07/28/15 12:30	07/29/15 09:45
600-115554-6	ECO-18 (0-0.5)	Solid	07/28/15 13:26	07/29/15 09:45
600-115554-7	ECO-19 (0-0.5)	Solid	07/28/15 10:45	07/29/15 09:45

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Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: ECO-13 (0-0.5) Lab Sample ID: 600-115554-1

Date Collected: 07/28/15 07:46 Matrix: Solid

Date Received: 07/29/15 09:45

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25	1.0	1.0 %			07/30/15 15:26	1
Percent Solids	75	1.0	1.0 %			07/30/15 15:26	1

Client Sample ID: ECO-13 (0-0.5) Lab Sample ID: 600-115554-1 Date Collected: 07/28/15 07:46 **Matrix: Solid**

Date Received: 07/29/15 09:45 Percent Solids: 75.3

Method: 6010B - Metals (ICP) - DL SDL Unit Analyte MQL (Adj) D Prepared Dil Fac Result Qualifier Analyzed Arsenic 6.09 1.33 mg/Kg 07/31/15 17:33 08/04/15 14:56 **19.4** 6.09 Lead 180 1.28 mg/Kg 07/31/15 17:33 08/04/15 17:15 10

Client Sample ID: ECO-14 (0-0.5) Lab Sample ID: 600-115554-2 Date Collected: 07/28/15 08:15 Matrix: Solid

Date Received: 07/29/15 09:45

General Chemistry Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac **Percent Moisture** 1.0 1.0 % 07/30/15 15:26 19 07/30/15 15:26 **Percent Solids** 81 1.0 1.0 %

Lab Sample ID: 600-115554-2 Client Sample ID: ECO-14 (0-0.5)

Date Collected: 07/28/15 08:15 **Matrix: Solid** Date Received: 07/29/15 09:45 Percent Solids: 80.7

Method: 6010B - Metals (ICP) - DL SDL Unit Analyte Result Qualifier MQL (Adj) D Prepared Analyzed Dil Fac 5.85 1.27 mg/Kg 07/31/15 17:33 08/04/15 14:59 Arsenic 22.7 2 92 0.614 mg/Kg 07/31/15 17:33 08/04/15 14:59 Lead 2450

Client Sample ID: ECO-15 (0-0.5) Lab Sample ID: 600-115554-3 Matrix: Solid

Date Collected: 07/28/15 09:45 Date Received: 07/29/15 09:45

General Chemistry Result Qualifier SDL Unit Analyte MQL (Adj) D Prepared Analyzed Dil Fac 1.0 % 07/30/15 15:26 **Percent Moisture** 16 1.0 **Percent Solids** 1.0 1.0 % 07/30/15 15:26 84

Client Sample ID: ECO-15 (0-0.5) Lab Sample ID: 600-115554-3 Date Collected: 07/28/15 09:45

Matrix: Solid Date Received: 07/29/15 09:45 Percent Solids: 83.6

Method: 6010B - Metals (ICP) - DL SDL Unit Analyte Result Qualifier MQL (Adj) D Prepared Analyzed Dil Fac ₩ mg/Kg 07/31/15 17:33 08/04/15 15:01 Arsenic 13.9 5.69 1.24 5 2.85 0.598 mg/Kg 07/31/15 17:33 08/04/15 15:01 Lead 115

Project/Site: Exide Recycling Center, Frisco TX

Oli - -- 1 O - --- - 1 D - F O O 4 O (0 O F)

Lab Sample ID: 600-115554-4

Matrix: Solid

Client Sample ID: ECO-16 (0-0.5)

Date Collected: 07/28/15 10:00 Date Received: 07/29/15 09:45

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19	1.0	1.0	%			07/30/15 15:26	1
Percent Solids	81	1.0	1.0	%			07/30/15 15:26	1

Client Sample ID: ECO-16 (0-0.5)

Lab Sample ID: 600-115554-4

Date Collected: 07/28/15 10:00 Date Received: 07/29/15 09:45

Matrix: Solid Percent Solids: 81.0

Method: 6010B - Metals (ICP) - DL	_							
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13.9	5.99	1.31	mg/Kg		07/31/15 17:33	08/04/15 15:03	5
Lead	219	3.00	0.629	mg/Kg	☼	07/31/15 17:33	08/04/15 15:03	5

Client Sample ID: ECO-17 (0-0.5)

Date Collected: 07/28/15 12:30

Lab Sample ID: 600-115554-5

Matrix: Solid

Date Collected: 07/28/15 12:30 Date Received: 07/29/15 09:45

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21		1.0	1.0	%			07/30/15 17:39	1
Percent Solids	79		1.0	1.0	%			07/30/15 17:39	1

Client Sample ID: ECO-17 (0-0.5)

Date Collected: 07/28/15 12:30

Lab Sample ID: 600-115554-5

Matrix: Solid

Date Received: 07/29/15 09:45

 Method: 6010B - Metals (ICP) - DL
 Result Qualifier
 MQL (Adj)
 SDL Unit
 D Prepared
 Analyzed Analyzed
 Dil Fac

 Lead
 196
 3.02
 0.634
 mg/Kg
 □ 07/31/15 17:33
 08/04/15 15:05
 5

Client Sample ID: ECO-18 (0-0.5)

Lab Sample ID: 600-115554-6

Date Collected: 07/28/15 13:26 Date Received: 07/29/15 09:45

 General Chemistry
 Analyte
 Result Percent Moisture
 Qualifier MQL (Adj)
 SDL Unit NO 1.0
 D Prepared No 1.0
 Analyzed No 1.0
 D No 1.0
 Prepared No 1.0
 Analyzed No 1.0
 D No 1.0
 Prepared No 1.0
 Analyzed No 1.0
 D No 1.0
 Percent Moisture 31 1.0 1.0 % 07/30/15 17:39 1
Percent Solids 69 1.0 1.0 % 07/30/15 17:39 1

Client Sample ID: ECO-18 (0-0.5) Lab Sample ID: 600-115554-6

Date Collected: 07/28/15 13:26 Matrix: Solid
Date Received: 07/29/15 09:45 Percent Solids: 68.9

Method: 6010B - Metals (ICP) -	DL						
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Lead	218	6.91	1.45 mg/Kg	<u></u>	07/31/15 17:33	08/04/15 15:08	10

Percent Solids: 78.9

Matrix: Solid

Client Sample Results

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115554-1

Client Sample ID: ECO-19 (0-0.5)

Date Collected: 07/28/15 10:45 Date Received: 07/29/15 09:45 Lab Sample ID: 600-115554-7

Matrix: Solid

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20		1.0	1.0	%			07/30/15 17:39	1
Percent Solids	80		1.0	1.0	%			07/30/15 17:39	1

Client Sample ID: ECO-19 (0-0.5)

Lab Sample ID: 600-115554-7

Date Collected: 07/28/15 10:45 Date Received: 07/29/15 09:45

Matrix: Solid
Percent Solids: 80.2

Method: 6010B - Metals (ICP) Result Qualifier Analyte Dil Fac MQL (Adj) SDL Unit Prepared Analyzed **Arsenic** 15.8 6.00 1.31 mg/Kg 5 Lead 1190 3.00 0.630 mg/Kg © 07/31/15 17:33 08/04/15 15:17 5

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 600-115554-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
F	Duplicate RPD exceeds the control limit
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
U	Analyte was not detected at or above the SDL.

Glossary

TEF

TEQ

Ciossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
a	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

TestAmerica Job ID: 600-115554-1

Client Sample ID: Method Blank

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample

Client Sample ID: Matrix Spike

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 168365

Prep Type: Total/NA **Prep Batch: 168365**

Prep Type: Total/NA **Prep Batch: 168365**

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-168365/1-A **Matrix: Solid**

Analysis Batch: 168450

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.218	U	1.00	0.218	mg/Kg		07/31/15 17:33	08/03/15 13:30	1
Lead	0.105	U	0.500	0.105	mg/Kg		07/31/15 17:33	08/03/15 13:30	1

Lab Sample ID: MB 600-168365/1-A

Matrix: Solid

Analysis Batch: 168554

MB MB

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.218	U	1.00	0.218	mg/Kg		07/31/15 17:33	08/04/15 14:43	1
Lead	0.105	U	0.500	0.105	mg/Kg		07/31/15 17:33	08/04/15 14:43	1

Lab Sample ID: LCSSRM 600-168365/2-A

Matrix: Solid

Analysis Batch: 168450

-	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic		105.7		mg/Kg	_	93.5	78.2 - 122. 1	
Lead	90.1	81.68		mg/Kg		90.7	81.7 - 118. 8	

Lab Sample ID: LCSSRM 600-168365/2-A **Matrix: Solid**

Analysis Batch: 168554							Prep Ba	tch: 168365
	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	113	105.2		mg/Kg		93.1	78.2 - 122.	
							1	
Lead	90.1	83.37		mg/Kg		92.5	81.7 - 118.	
							Q	

Lab Sample ID: 600-115541-A-6-C MS

Matrix: Solid

Analysis Batch: 168450	Sample	Sample	Spike	MS	MS				Prep Batc %Rec.	:h: 168365
Analyte	•	Qualifier	Added	_	Qualifier	Unit	D	%Rec	Limits	
Arsenic	1.23		46.7	51.31		mg/Kg		107	75 - 125	
Lead	0.208	J	46.7	46.63		mg/Kg		99	75 - 125	

Lab Sample ID: 600-115541-A-6-B DU

Matrix: Solid

Analysis Batch: 168450							Prep B	atch: 1	68365
	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Arsenic	1.23		1.158		mg/Kg			6	20
Lead	0.208	J	0.1980	J	mg/Kg			5	20

QC Sample Results

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115554-1

Client Sample ID: ECO-18 (0-0.5)

Client Sample ID: ECO-18 (0-0.5)

Client Sample ID: ECO-18 (0-0.5)

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Method: 6010B - Metals (ICP) - DL

Lab Sample ID: 600-115554-6 MS

Matrix: Solid

Analysis Batch: 168554

							•	Prep Type: Total/NA
								Prep Batch: 168365
Sample	Sample	Spike	MS	MS				%Rec.
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits

Analyte 109.0 ₩ Arsenic - DL 26.6 71.1 mg/Kg 116 75 - 125 Lead - DL 218 71.1 685.7 N1 mg/Kg 657 75 - 125

Lab Sample ID: 600-115554-6 MSD **Matrix: Solid**

Analysis Batch: 168554									Prep Ba	atch: 16	68365
_	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic - DL	26.6		69.1	98.96		mg/Kg	-	105	75 - 125	10	20
Lead - DL	218		69.1	802.3	N1	ma/Ka	₩	845	75 - 125	16	20

Lab Sample ID: 600-115554-6 DU

Matrix: Solid

Analysis Ratch: 168554

Analysis batch: 100554							Prep Batch: 1	00303
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Arsenic - DL	26.6		24.52		mg/Kg	- -		20
Lead - DL	218		157.0	F	mg/Kg	₩	33	20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-115561-A-4 DU

Matrix: Solid

Analysis Batch: 168234										
-	Sample	Sample	DU	DU					RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit	
Percent Moisture	24		 22		%		 	9	20	
Percent Solids	76		78		%			3	20	

Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115554-1

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method	
Arsenic	1.00	0.218	mg/Kg	6010B	
Lead	0.500	0.105	mg/Kg	6010B	

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX TestAmerica Job ID: 600-115554-1

Metals

Prep Batch: 168365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115541-A-6-B DU	Duplicate	Total/NA	Solid	3050B	_
600-115541-A-6-C MS	Matrix Spike	Total/NA	Solid	3050B	
600-115554-1 - DL	ECO-13 (0-0.5)	Total/NA	Solid	3050B	
600-115554-2 - DL	ECO-14 (0-0.5)	Total/NA	Solid	3050B	
600-115554-3 - DL	ECO-15 (0-0.5)	Total/NA	Solid	3050B	
600-115554-4 - DL	ECO-16 (0-0.5)	Total/NA	Solid	3050B	
600-115554-5 - DL	ECO-17 (0-0.5)	Total/NA	Solid	3050B	
600-115554-6 - DL	ECO-18 (0-0.5)	Total/NA	Solid	3050B	
600-115554-6 DU - DL	ECO-18 (0-0.5)	Total/NA	Solid	3050B	
600-115554-6 MS - DL	ECO-18 (0-0.5)	Total/NA	Solid	3050B	
600-115554-6 MSD - DL	ECO-18 (0-0.5)	Total/NA	Solid	3050B	
600-115554-7	ECO-19 (0-0.5)	Total/NA	Solid	3050B	
LCSSRM 600-168365/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-168365/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 168450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115541-A-6-B DU	Duplicate	Total/NA	Solid	6010B	168365
600-115541-A-6-C MS	Matrix Spike	Total/NA	Solid	6010B	168365
LCSSRM 600-168365/2-A	Lab Control Sample	Total/NA	Solid	6010B	168365
MB 600-168365/1-A	Method Blank	Total/NA	Solid	6010B	168365

Analysis Batch: 168554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115554-1 - DL	ECO-13 (0-0.5)	Total/NA	Solid	6010B	168365
600-115554-1 - DL	ECO-13 (0-0.5)	Total/NA	Solid	6010B	168365
600-115554-2 - DL	ECO-14 (0-0.5)	Total/NA	Solid	6010B	168365
600-115554-3 - DL	ECO-15 (0-0.5)	Total/NA	Solid	6010B	168365
600-115554-4 - DL	ECO-16 (0-0.5)	Total/NA	Solid	6010B	168365
600-115554-5 - DL	ECO-17 (0-0.5)	Total/NA	Solid	6010B	168365
600-115554-6 - DL	ECO-18 (0-0.5)	Total/NA	Solid	6010B	168365
600-115554-6 DU - DL	ECO-18 (0-0.5)	Total/NA	Solid	6010B	168365
600-115554-6 MS - DL	ECO-18 (0-0.5)	Total/NA	Solid	6010B	168365
600-115554-6 MSD - DL	ECO-18 (0-0.5)	Total/NA	Solid	6010B	168365
600-115554-7	ECO-19 (0-0.5)	Total/NA	Solid	6010B	168365
LCSSRM 600-168365/2-A	Lab Control Sample	Total/NA	Solid	6010B	168365
MB 600-168365/1-A	Method Blank	Total/NA	Solid	6010B	168365

General Chemistry

Analysis Batch: 168234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115554-1	ECO-13 (0-0.5)	Total/NA	Solid	Moisture	_
600-115554-2	ECO-14 (0-0.5)	Total/NA	Solid	Moisture	
600-115554-3	ECO-15 (0-0.5)	Total/NA	Solid	Moisture	
600-115554-4	ECO-16 (0-0.5)	Total/NA	Solid	Moisture	
600-115554-5	ECO-17 (0-0.5)	Total/NA	Solid	Moisture	
600-115554-6	ECO-18 (0-0.5)	Total/NA	Solid	Moisture	
600-115554-6 MS	ECO-18 (0-0.5)	Total/NA	Solid	Moisture	
600-115554-6 MSD	ECO-18 (0-0.5)	Total/NA	Solid	Moisture	

TestAmerica Houston

8/7/2015

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QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115554-1

General Chemistry (Continued)

Analysis Batch: 168234 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115554-7	ECO-19 (0-0.5)	Total/NA	Solid	Moisture	
600-115561-A-4 DU	Duplicate	Total/NA	Solid	Moisture	

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Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: ECO-13 (0-0.5) Lab Sample ID: 600-115554-1 Matrix: Solid

Date Collected: 07/28/15 07:46 Date Received: 07/29/15 09:45

Dil Batch **Batch** Initial Final **Batch Prepared** Number **Prep Type** Method Run Factor Amount Amount or Analyzed Type Analyst Lab Total/NA Analysis Moisture 168234 07/30/15 15:26 MJB TAL HOU

Client Sample ID: ECO-13 (0-0.5) Lab Sample ID: 600-115554-1

Date Collected: 07/28/15 07:46 Date Received: 07/29/15 09:45

Batch Batch Dil Initial Final Batch **Prepared Prep Type** Type Method Run Factor Amount Amount Number or Analyzed Analyst Lab 3050B $\overline{\mathsf{DL}}$ 168365 TAL HOU Total/NA Prep 50 mL 07/31/15 17:33 NER 1.09 g Total/NA 6010B DL 5 168554 TAL HOU Analysis 1.09 g 50 mL 08/04/15 14:56 DCI Total/NA 3050B DΙ 1.09 g 50 mL 168365 07/31/15 17:33 NER TAL HOU Prep 168554 Total/NA Analysis 6010B DΙ 10 1.09 g 50 mL 08/04/15 17:15 DCL TAL HOU

Client Sample ID: ECO-14 (0-0.5) Lab Sample ID: 600-115554-2

Date Collected: 07/28/15 08:15 Date Received: 07/29/15 09:45

Dil Batch Batch Initial Final **Batch Prepared Prep Type** Type Method Run **Factor** Amount Amount Number or Analyzed Analyst Lab 168234 07/30/15 15:26 MJB TAL HOU Total/NA Analysis Moisture

Client Sample ID: ECO-14 (0-0.5) Lab Sample ID: 600-115554-2 Date Collected: 07/28/15 08:15 **Matrix: Solid**

Date Received: 07/29/15 09:45

Ratch Ratch Dil Initial Final Batch **Prepared Prep Type** Type Method Run Factor Amount Amount Number or Analyzed **Analyst** Lab Total/NA Prep 3050B $\overline{\mathsf{DL}}$ 1.06 g 50 mL 168365 07/31/15 17:33 NER TAL HOU Total/NA 6010B DL 5 168554 08/04/15 14:59 DCL TAL HOU Analysis 1.06 g 50 mL

Client Sample ID: ECO-15 (0-0.5) Lab Sample ID: 600-115554-3

Date Collected: 07/28/15 09:45 Date Received: 07/29/15 09:45

Batch Batch Dil Initial Final **Batch** Prepared Prep Type Method Run Factor Amount Amount Number or Analyzed **Analyst** Type Lab Total/NA Analysis Moisture 1 168234 07/30/15 15:26 MJB TAL HOU

Client Sample ID: ECO-15 (0-0.5) Lab Sample ID: 600-115554-3

Date Collected: 07/28/15 09:45 Date Received: 07/29/15 09:45

Batch Batch Dil Initial Final Batch **Prepared** Method Amount Amount Number **Prep Type** Type Run **Factor** or Analyzed Analyst Lab Total/NA Prep 3050B DL 1.05 g 50 mL 168365 07/31/15 17:33 NER TAL HOU Total/NA Analysis 6010B DL 5 1.05 g 50 mL 168554 08/04/15 15:01 DCL TAL HOU

TestAmerica Houston

Matrix: Solid

Matrix: Solid

Percent Solids: 75.3





Matrix: Solid

Percent Solids: 80.7

Matrix: Solid

Percent Solids: 83.6

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: ECO-16 (0-0.5)

Date Collected: 07/28/15 10:00 Date Received: 07/29/15 09:45 Lab Sample ID: 600-115554-4

. Matrix: Solid

Dil Initial Batch **Batch** Final Batch Prepared **Prep Type** Type Method Run **Factor** Amount Amount Number or Analyzed **Analyst** Lab Total/NA Analysis Moisture 168234 07/30/15 15:26 MJB TAL HOU

Client Sample ID: ECO-16 (0-0.5)

Lab Sample ID: 600-115554-4

Date Collected: 07/28/15 10:00 Date Received: 07/29/15 09:45 Matrix: Solid
Percent Solids: 81.0

Dil Initial Batch Batch Final **Batch Prepared** Prep Type Type Method **Factor** Amount Amount Number or Analyzed Run Analyst Lab 3050B DL Prep TAL HOU Total/NA 1.03 g 50 mL 168365 07/31/15 17:33 NFR Total/NA Analysis 6010B DL 5 1.03 g 50 mL 168554 08/04/15 15:03 DCL TAL HOU

Client Sample ID: ECO-17 (0-0.5)

Lab Sample ID: 600-115554-5

Date Collected: 07/28/15 12:30

Matrix: Solid

Date Received: 07/29/15 09:45

Batch **Batch** Dil Initial Final **Batch** Prepared Method Run Factor Amount Number or Analyzed **Prep Type** Type Amount **Analyst** Lab MJB TAL HOU Total/NA Analysis 168234 07/30/15 17:39 Moisture

Client Sample ID: ECO-17 (0-0.5)

Lab Sample ID: 600-115554-5

Date Collected: 07/28/15 12:30 Date Received: 07/29/15 09:45 Matrix: Solid
Percent Solids: 78.9

TAL HOU

Batch Batch Dil Initial Final Batch **Prepared Prep Type** Type Method Run **Factor** Amount Amount Number or Analyzed **Analyst** Lab 1.05 g Total/NA Prep 3050B DL 50 mL 168365 07/31/15 17:33 NER TAL HOU

Client Sample ID: ECO-18 (0-0.5)

Lab Sample ID: 600-115554-6

1.05 g

50 mL

168554

5

Date Collected: 07/28/15 13:26

Analysis

Total/NA

6010B

Matrix: Solid

08/04/15 15:05 DCL

Date Received: 07/29/15 09:45

Dil Initial Final Batch Batch Batch **Prepared** Method Amount Amount Number or Analyzed Prep Type Type Run Factor Analyst Lab Total/NA Analysis Moisture 168234 07/30/15 17:39 MJB TAL HOU 1

Client Sample ID: ECO-18 (0-0.5)

Lab Sample ID: 600-115554-6

Date Collected: 07/28/15 13:26
Date Received: 07/29/15 09:45

DL

Matrix: Solid Percent Solids: 68.9

Batch **Batch** Dil Initial Final **Batch** Prepared **Prep Type** Method Amount **Amount** Number Type Run **Factor** or Analyzed Analyst Lab Total/NA 3050B DL 1.05 g 50 mL 168365 07/31/15 17:33 NER TAL HOU Prep DL Total/NA 6010B 10 50 mL 168554 08/04/15 15:08 DCL TAL HOU Analysis 1.05 g

TestAmerica Houston

Lab Chronicle

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: ECO-19 (0-0.5)

TestAmerica Job ID: 600-115554-1

Lab Sample ID: 600-115554-7

Date Collected: 07/28/15 10:45 **Matrix: Solid**

Date Received: 07/29/15 09:45

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			168234	07/30/15 17:39	MJB	TAL HOU

Client Sample ID: ECO-19 (0-0.5) Lab Sample ID: 600-115554-7

Date Collected: 07/28/15 10:45

Matrix: Solid Date Received: 07/29/15 09:45 Percent Solids: 80.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	168365	07/31/15 17:33	NER	TAL HOU
Total/NA	Analysis	6010B		5	1.04 g	50 mL	168554	08/04/15 15:17	DCL	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115554-1

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223	10-31-15
The following analyte:	s are included in this repo	rt, but certification is r	not offered by the go	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	е	
Moisture		Solid	Percei	nt Moisture	

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	Chain of Custody Record		
ਤੋਂ est ਕੇਸ਼ਤerica Houston	6310 Rothway Street	Houston, TX 77040	Phone (713) 690-4444 Fax (713) 690-5646

Client Contact: Phone: Phone: Phone: 2 id - 30 f - 1 Company: Company: Golder Associates Inc. Bus Date Requested: Date Date Requested: Company: Trat Requested: Trat Requested: Trat Requested: Company: Trat Requested: Company: Company:	-304-1326		E-Mait cathy.upton@testamericainc.com		Page: Page-2-af42	of 3
	equested:	loatry.uor	Incolessamentaling com			
	iquestad:	-				
		53.			Preservation Codes:	36
	ted (days):				A - HOC B - NaOH	M - Hexare N - None
	S		600-115554 Chain of Custody	stody	D - Nitte Acid	P - Na2048 Q - Na2SO3
	086	. (e	98 '05		6 - America 6 - America 7 H - Ascorbic Acid	S - H2SO4 T - TSP Dodecatydrate
		110.2			i - Ice J - Di Watar	U - Acatoina V - MCAA
une: Project # ecycling Center, Frisco TX 60006523		J(12)			K-EDIA L-EDA	w - pn 4-5 Z - cther (specify)
		dwes	8		offer.	
	,	Watrix (a, Moieture B (GOM) - E		Tedifying (
Sample Identification	Sample ((BT-Tissue,	10109			Special Instructions/Note:
$\frac{1}{2}$	\S	Solid			25 L &	700
(SO-0) to-0	18	Solid			1 4 Cld	X Only
5,	T!	Solid		75.	P & &	As or
(5.00) 9)-00	100 Sec	Solid	N N N N N N N N N N N N N N N N N N N		104	As only
	1230	Solid			da do al	λ
	1326	Solid			in ple oni	~
E(0-19 (0-0.5)	1045	Solid			がより	ts any
0) 81-0		Salid			all po out	7
E(0-18 10-0.5) MSD	1320	Solid	N X		S ad	dy.
SM (1-1) SI-0)	l osko	Solid			国女、他は	本的故地
I WSW (2-4) MSD I	T 19560	Solid			P HD	A 1245
			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	assessed if samples are n	etained longer than 1 if	nonth) (
Normacalu Deliverable Requested: I, III, IV, Other (specify)			Special Instructions/QC Requirements:	ts:		
Empty Kif Relinquished by:	Date:	Time:	٠	Method of Shipment:	Lesses	
Reinquished by Angel Desterning	-4- Itan3	Company	Received by 1 10 6	多り	15 345	
		Company	Received by:	Date/Time:		Сотрепу
Relinquished by:		Company	Received by:	Date/Time:		Сотрапу
Custody Seals Infact. Custody Seal No.:			Cooler Temperature(s) ³ C and Other Remarks:	parks:		

THE LEADER IN FRANKCOMMENTAL IT STIES

Chain of Custody Record

Phone (713) 690-4444 Fax (713) 690-5646

Houston, TX 77040 6310 Rothway Street

TestAmerica Houston

& PL+Bron & Plot Account P Pat the Sal を下すたの 7 Pathson P.+Brown 分配充品 VN-ROW. PATR MI M Premiu A Plo onli N - Norse
O - Ashalo2
P - Na204S
Q - Na2803
R - Na282603
S - H2504
T - TSP Doccarbyc
U - Acetone
U - Acetone
W - Ph 4-5
Z - other (specify) Special Instructions/Note K Semple Disposal (A fee may be assessed if samples are retained longer than 1 month)
Return To Client
Disposal By Lab
Mont ompany COC No: 600-37671-12289.3 T T Page 3 of 12 2 で 全 7 D - Nitric Acid E - NaH\$04 F - MsOH G - Amorition H - Ascorbic Acid DER lethod of Shipment: RAEX propied of propied for Date/Time: Analysis Requested Coder Temperature(s) °C and Other Remarks: Special Instructions/QC Requirements Lab PM: Upton; Cathy L E-Mail: cathy.upton@testamericainc.com Received by: 1010R - (MOD) 2010B- V2' CQ' 5P' 29' 2P Company La Pio? Solid 다 당 당 Piles Sign 몽양 Sold (whwater Prooted, Ortestado BT-Tissus Solid Solid 1 Сотрапу Company (A. Waylow Radiological Type (C≃comp, G=grab) Sample 160% Phone 314-304-1326 0752 CSIS 820 Sample Set 24D 0818 SS 622 00 Time 8 Sday Shik Date: Poison B (女 Unknown TAT Requested (days): Detertime: 3-15 Due Date Requested: Po#. Exide1302086 Wo#. Sample Date Project #: 60006523 SSOW#: 1/28 Date/Time: Skin Imfant 2-20 Deliversible Requested: I. II, III, IV, Other (specify) 0.5-2) (0,5-2) (2-4) 5-50 (5-4)0.5-7 (b-2) (5-4)(5.4) Custody Seals Infact Custody Seal No. てより言言へ Exide Recycling Center, Prisco TX Possible Hazard Identification 820 South Main Street Suite 100 F(0-13 100 - 124-919 ECO - 14 元の一元 F10-14 F(0, 15 FCD - 16 EC0-17 F(0-15 <u>9-034</u> Empty Kit Relinquished by: Mindulehed by: M Client information Sample Identification Golder Associates Inc. afaeth@golder.com Project Name: une Faeth-Boyd elinquished by: elinquished by: St. Charles State, Zip: MO, 63:301

		•
sample	Receipt	Checklist

	Loc: 600 115554	Date/Time Received:	Alexander Alexan	
JOB NUMBER:		CLIENT:	Goldes	- '15 JUL 29 (
UNPACKED BY.		CARRIERIDRIVER:	FE	
Custody Seal Present	NYES INO	Number of Coolers R	Received.	on Contraction
Cooder ID		T U	Therm Them CF	Corrected Temp
Base samples are>ph	SERVATION OF SAMPLE H12: YES NO	S REQUIRED· [Acid preserved ar	ĴNO □YES re <ph 2.="" th="" □yeŝ<=""><td></td></ph>	
pH paper Lot#				
VOA headspace acci	eptable (5-6mm): 🔲 YES	NO [] NA		
Did samples meet t	ne faboratory's standard cond	ditions of sample acceptal	bility upon receipt?	YES NO
COMMENTS:	ECO-18 C4hor	label	and (3	3,5)
l l				

HS-SA-WI-013

1 ov 3; faltifi 2014

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 600-115554-1

Login Number: 115554 List Source: TestAmerica Houston

List Number: 1

Creator: Crafton, Tommie S

oroaton, romano o		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-115590-1

Client Project/Site: Exide Recycling Center, Frisco TX

For:

Golder Associates Inc. 820 South Main Street Suite 100 St. Charles, Missouri 63301

Attn: Anne Faeth-Boyd

Donnie Comba

Authorized for release by: 8/7/2015 3:42:32 PM

Donnie Combs, Project Management Assistant I (713)690-4444

donnie.combs@testamericainc.com

Designee for

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

This data package is for	TestAmerica Houston	iob number 600-1	115590-1 and consists of:

☑ R1 - Field chain-of-custody documentation;

☑ R2 - Sample identification cross-reference;

☑ R3 - Test reports (analytical data sheets) for each environmental sample that includes:

- a. Items consistent with NELAC Chapter 5,
- b. dilution factors,
- c. preparation methods,
- d. cleanup methods, and
- e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☐ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

Official Title (printed)

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Donnie Combs, for Cathy Upton	Donnie Comba	8/6/2015
Name (printed)	Signature	Date
Project Manager I		

Page 3 of 25

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/6/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-115590-1
Reviewer Name:	Donnie Combs. for Cathy Unton		

# ¹ A ²	Description	Yes	No	NA ³	NR⁴	ER# ⁵
	custody (C-O-C)					
	es meet the laboratory's standard conditions of sample acceptability upon receipt?	Х				
	epartures from standard conditions described in an exception report?	Х				
	nd quality control (QC) identification					
	d sample ID numbers cross-referenced to the laboratory ID numbers?	Х				
	pratory ID numbers cross-referenced to the corresponding QC data?	Х				
3 OI Test repo						
	amples prepared and analyzed within holding times?	Х				
	those results < MQL, were all other raw values bracketed by calibration standards?	Х				
	ulations checked by a peer or supervisor?	Х				
	nalyte identifications checked by a peer or supervisor?	Х				
Were sam	ple detection limits reported for all analytes not detected?	Х				
Were all re	esults for soil and sediment samples reported on a dry weight basis?	Х				
	oisture (or solids) reported for all soil and sediment samples?	Х				
Were bulk	soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Χ		
If required	for the project, are TICs reported?			Χ		
4 O Surrogate	recovery data					
Were surre	ogates added prior to extraction?			Х		
	ogate percent recoveries in all samples within the laboratory QC limits?			Χ		
5 OI Test repo	rts/summary forms for blank samples					
	opriate type(s) of blanks analyzed?	Х				
	ks analyzed at the appropriate frequency?	Х				
	nod blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
procedure		Х				
	k concentrations < MQL?	Х				
	y control samples (LCS):					
	OCs included in the LCS?	Х				
	LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
	s analyzed at the required frequency?	X				
	(and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
	detectability check sample data document the laboratory's capability to detect the COCs at the MDL used					
	e the SDLs?	Х				
	CSD RPD within QC limits?	<u> </u>		Х		
		-				
	ke (MS) and matrix spike duplicate (MSD) data	Х				
	project/method specified analytes included in the MS and MSD?					
	MSD analyzed at the appropriate frequency?	Х	V			D070
	(and MSD, if applicable) %Rs within the laboratory QC limits?	<u> </u>	Χ	· ·		R07C
	MSD RPDs within laboratory QC limits?			Х		
	duplicate data	\ ,				
	opriate analytical duplicates analyzed for each matrix?	X				
	ytical duplicates analyzed at the appropriate frequency?	X				
	os or relative standard deviations within the laboratory QC limits?	Х				
	uantitation limits (MQLs):					
	QLs for each method analyte included in the laboratory data package?	Х				
	ALs correspond to the concentration of the lowest non-zero calibration standard?	Х				
	isted MQLs and DCSs included in the laboratory data package?	Х				
	blems/anomalies					
Are all kno	wn problems/anomalies/special conditions noted in this LRC and ER?	Х				
	cable and available technology used to lower the SDL to minimize the matrix interference effects on the					
sample res	sults?		Х			R10B
	ratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and	ı				
	ssociated with this laboratory data package?	Х				
	tified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required repo	ort(s) I	tems			

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/6/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-115590-1
Reviewer Name:	Donnie Combs. for Cathy Upton		

# ¹	A ²	Description	Yes	No	NA ³	NP ⁴	ER# ⁵
# S1		Initial calibration (ICAL)	res	NO	IVA	INIX	ER#
31	Oi	, ,					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X	<u> </u>			
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
	1	Has the initial calibration curve been verified using an appropriate second source standard?	Х				
•		to Male and a contraction and Marchae and Marchae (IOV and IOOV) and I are discolar and Marchae I have (OOD)					
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):		<u> </u>			
		Was the CCV analyzed at the method-required frequency?	X	<u> </u>			
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
	_	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
33		Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?		<u> </u>	Χ		
		Were ion abundance data within the method-required QC limits?		<u> </u>	Χ		
S4		Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			Χ		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
		Were data associated with manual integrations flagged on the raw data?	Х				
S6	0	Dual column confirmation					
	•	Did dual column confirmation results meet the method-required QC?			Χ		
S 7	0	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Χ		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	Х				
S9	l	Serial dilutions, post digestion spikes, and method of standard additions					
	1	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	Х				
S10	ΟI	Method detection limit (MDL) studies					
	١٠.	Was a MDL study performed for each reported analyte?	Х				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
211	О	Proficiency test reports					
<u> </u>		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
212	_	Standards documentation	^				
J 1 Z	Oi	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х				
242		, , , , , , , , , , , , , , , , , , , ,	^				
513	Oi	Compound/analyte identification procedures					
24.4		Are the procedures for compound/analyte identification documented?	X	ļ			
514	Oi	Demonstration of analyst competency (DOC)		ļ			
		Was DOC conducted consistent with NELAC Chapter 5?	X				
	101	Is documentation of the analyst's competency up-to-date and on file?	Х				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
			.,				
	T	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Х	<u> </u>			
S16	OI	Laboratory standard operating procedures (SOPs)		<u> </u>			
		Are laboratory SOPs current and on file for each method performed?	Х	<u> </u>			
	1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required in		Items			
		identified by the letter "S" should be retained and made available upon request for the appropriate retention period					
	2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
	3.	NA = Not applicable;					
	4.	NR = Not reviewed;					
	5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No	o" is checl	ked).			

Page 5 of 25 8/7/2015

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	8/6/2015
Project Name:	Exide Recycling Center, Frisco TX	Laboratory Job Number:	600-115590-1
Reviewer Name:	Donnie Combs, for Cathy Upton		

ER# ¹	Description
R07C	Method 6010B: 600-115590-10 MS failed the recovery criteria for the following analyte(s): Lead. Matrix interference is suspected due to the high concentration of this analyte in the parent sample
R10B	Method 6010B: The following samples was diluted to bring the target analytes within calibration range: 2015-C2L-06G (0-0.5) (600-115590-1), 2015-C2L-06H (0.5-1) (600-115590-4), 2015-C2L-06K (0-0.5) (600-115590-7), 2015-C2L-06J (0-0.5) (600-115590-10), D-11 F (0-0.5) (600-115590-13), E-15B (0.0-5) (600-115590-16), (600-115590-A-10-B DU) and (600-115590-A-10-C MS). Elevated reporting limits (RLs) are provided.
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
	identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3.	NA = Not applicable;
4.	NR = Not reviewed;
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Matrix: Solid

Method: SW-846 6010B or 6010C

 Prep Method:
 SW-846 3050B

 Date Analyzed:
 5/13/2015

 Job #:
 600-109337

 TALS Batch:
 162296

 Units:
 mg/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Ag	Thermo6500	0.119	0.200	0.220	0.4
Al	SPECTRO1	0.300	0.500	0.718	25
As	Thermo6500	0.218	0.500	0.480	1
В	SPECTRO1	0.386	0.600	0.698	20
Ва	Thermo6500	0.030	0.030	0.040	1
Be	Thermo6500	0.015	0.020	0.020	0.25
Ca	SPECTRO1	0.864	2.500	7.426	100
Cd	Thermo6500	0.026	0.050	0.045	0.25
Co	Thermo6500	0.068	0.100	0.105	0.5
Cr	Thermo6500	0.051	0.100	0.110	0.5
Cu	Thermo6500	0.174	0.500	0.425	0.5
Fe	Thermo6500	2.530	4.000	3.915	20
K	Thermo6500	11.000	12.000	13.360	100
Li	SPECTRO1	0.008	0.010	0.062	10
Mg	Thermo6500	1.920	3.000	3.705	100
Mn	Thermo6500	0.038	0.050	0.055	1.5
Mo	Thermo6500	0.136	0.350	0.325	0.5
Na	Thermo6500	0.886	2.400	2.520	100
Ni	Thermo6500	0.117	0.150	0.140	1
Pb	Thermo6500	0.105	0.200	0.195	0.5
Sb	Thermo6500	0.232	0.450	0.410	2.5
Se	Thermo6500	0.259	0.500	0.550	2
Si	SPECTRO1	0.117	0.270	6.900	10
Sn	SPECTRO1	0.087	0.150	0.117	1
Sr	SPECTRO1	0.003	0.005	0.042	0.25
Ti	Thermo6500	0.015	0.030	0.020	0.5
TI	Thermo6500	0.277	0.700	0.580	1.5
V	Thermo6500	0.079	0.150	0.145	0.5
Zn	SPECTRO1	0.108	0.200	0.198	1.5

DCS = Detection Check Standard MQL = Method Quantitation Limit

Page 1 of 1

Case Narrative

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115590-1

Job ID: 600-115590-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-115590-1

Comments

No additional comments.

Receipt

The samples were received on 7/30/2015 9:56 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1° C.

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Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115590-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115590-1

Lab Sample ID	Client Sample ID	Matrix	Collected Received
600-115590-1	2015-C2L-06G (0-0.5)	Solid	07/29/15 07:45 07/30/15 09:56
600-115590-4	2015-C2L-06H (0.5-1)	Solid	07/29/15 07:30 07/30/15 09:56
600-115590-7	2015-C2L-06K (0-0.5)	Solid	07/29/15 08:25 07/30/15 09:56
600-115590-10	2015-C2L-06J (0-0.5)	Solid	07/29/15 08:00 07/30/15 09:56
600-115590-13	D-11 F (0-0.5)	Solid	07/29/15 08:55 07/30/15 09:56
600-115590-16	E-15B (0.0-5)	Solid	07/29/15 15:15 07/30/15 09:56

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Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Dil Fac

Percent Solids: 79.6

Analyzed

Dil Fac

Percent Solids: 82.8

Analyzed

Client Sample ID: 2015-C2L-06G (0-0.5)

Date Collected: 07/29/15 07:45

Date Received: 07/30/15 09:56

Lab Sample ID: 600-115590-1 Matrix: Solid

General Chemistry Analyte Result Qualifier SDL Unit Dil Fac MQL (Adj) D Prepared Analyzed **Percent Moisture** 1.0 1.0 % 07/31/15 10:09 17 1.0 1.0 % 07/31/15 10:09 **Percent Solids** 83

Client Sample ID: 2015-C2L-06G (0-0.5) Lab Sample ID: 600-115590-1

MQL (Adj)

1.12

Result Qualifier

Result Qualifier

149

32.4

SDL Unit

0.235 mg/Kg

SDL Unit

0.251 mg/Kg

D

Prepared

Prepared

08/03/15 17:01 08/05/15 11:03

Lab Sample ID: 600-115590-4

Lab Sample ID: 600-115590-4

08/03/15 17:01 08/05/15 11:06

Lab Sample ID: 600-115590-7

Lab Sample ID: 600-115590-7

Date Collected: 07/29/15 07:45

Date Received: 07/30/15 09:56

Method: 6010B - Metals (ICP) - DL Analyte

Client Sample ID: 2015-C2L-06H (0.5-1)

Date Collected: 07/29/15 07:30 Date Received: 07/30/15 09:56

General Chemistry Analyte

Lead

Lead

Result Qualifier MQL (Adi) SDL Unit D Prepared Analyzed Dil Fac **Percent Moisture** 20 10 1.0 % 07/31/15 10:09 **Percent Solids** 80 1.0 1.0 % 07/31/15 10:09

MQL (Adi)

1.20

Client Sample ID: 2015-C2L-06H (0.5-1)

Date Collected: 07/29/15 07:30

Date Received: 07/30/15 09:56

Method: 6010B - Metals (ICP) - DL

Analyte

Client Sample ID: 2015-C2L-06K (0-0.5)

Date Collected: 07/29/15 08:25

Date Received: 07/30/15 09:56

General Chemistry Analyte SDL Unit Result Qualifier MQL (Adj) D Prepared Analyzed Dil Fac 1.0 % 07/31/15 10:09 **Percent Moisture** 6.7 1.0 **Percent Solids** 1.0 07/31/15 10:09 93 1.0

Client Sample ID: 2015-C2L-06K (0-0.5)

Date Collected: 07/29/15 08:25

Date Received: 07/30/15 09:56

Method: 6010B - Metals (ICP) - DL

Analyte

Result Qualifier Lead 1360

MQL (Adj) 2.53

SDL Unit 0.531 mg/Kg

Prepared 08/03/15 17:01 08/05/15 11:08

Analyzed

Dil Fac

Percent Solids: 93.3

Matrix: Solid

TestAmerica Houston

TestAmerica Job ID: 600-115590-1

Client Sample ID: 2015-C2L-06J (0-0.5)

Lab Sample ID: 600-115590-10 Date Collected: 07/29/15 08:00

Matrix: Solid

Date Received: 07/30/15 09:56

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1.4	1.0	1.0	%			07/31/15 10:09	1
Percent Solids	99	1.0	1.0	%			07/31/15 10:09	1

Client Sample ID: 2015-C2L-06J (0-0.5) Lab Sample ID: 600-115590-10

Date Collected: 07/29/15 08:00 Date Received: 07/30/15 09:56

Matrix: Solid Percent Solids: 98.6

Method: 6010B - Metals (ICP) Result Qualifier Analyte MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac ₩ Selenium 2.55 1.91 0.248 mg/Kg 08/03/15 17:01 08/04/15 14:33 Method: 6010B - Metals (ICP) - DL

Analyte Result Qualifier MQL (Adj) SDL Unit D **Prepared** Analyzed Dil Fac 08/03/15 17:01 08/05/15 11:10 **Arsenic** 13.5 4.78 1.04 mg/Kg

Client Sample ID: D-11 F (0-0.5) Lab Sample ID: 600-115590-13 Date Collected: 07/29/15 08:55

Date Received: 07/30/15 09:56

Matrix: Solid

General Chemistry Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac **Percent Moisture** 21 1.0 1.0 % 07/31/15 10:09 1.0 1.0 % 07/31/15 10:09 **Percent Solids** 79

Client Sample ID: D-11 F (0-0.5) Lab Sample ID: 600-115590-13 Date Collected: 07/29/15 08:55 **Matrix: Solid** Date Received: 07/30/15 09:56 Percent Solids: 79.5

Method: 6010B - Metals (ICP) - DL Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac 08/03/15 17:01 08/05/15 11:17 Arsenic 9.98 5.99 1.31 mg/Kg

Client Sample ID: E-15B (0.0-5) Lab Sample ID: 600-115590-16

Date Collected: 07/29/15 15:15 Date Received: 07/30/15 09:56

General Chemistry Analyte Result Qualifier SDL Unit D Analyzed Dil Fac MQL (Adj) Prepared % **Percent Moisture** 14 1.0 1.0 07/31/15 10:09

Percent Solids 86 1.0 1.0 07/31/15 10:09

Client Sample ID: E-15B (0.0-5) Lab Sample ID: 600-115590-16 Date Collected: 07/29/15 15:15 **Matrix: Solid** Date Received: 07/30/15 09:56 Percent Solids: 86.3

Method: 6010B - Metals (ICP) - DL Analyte Result Qualifier MQL (Adj) SDI Unit D Dil Fac Prepared Analyzed 08/03/15 17:01 08/05/15 11:19 Arsenic 15.5 11.4 2.48 mg/Kg

Matrix: Solid

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 600-115590-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not
U	applicable. Analyte was not detected at or above the SDL.

Glossary

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

TestAmerica Houston

TestAmerica Job ID: 600-115590-1

Client Sample ID: Method Blank

08/03/15 17:01 08/04/15 14:15

Client Sample ID: Lab Control Sample

Client Sample ID: 2015-C2L-06J (0-0.5)

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: 2015-C2L-06J (0-0.5)

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-168496/1-A **Matrix: Solid**

Analysis Batch: 168554

Analyte Arsenic Lead

Selenium

0.259 U

							Prep Batch:	100490
MB	MB							
Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
0.218	U	1.00	0.218	mg/Kg		08/03/15 17:01	08/04/15 14:15	1
0.105	U	0.500	0.105	mg/Kg		08/03/15 17:01	08/04/15 14:15	1

0.259 mg/Kg

Lab Sample ID: LCSSRM 600-168496/2-A

Matrix: Solid Analysis Ratch: 168554

Analysis Batch: 168554	Spike	LCSSRM	LCSSRM					tch: 168496
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	
Arsenic	113	108.6		mg/Kg		96.1	78.2 - 122.	
							1	
Lead	90.1	90.05		mg/Kg		99.9	81.7 - 118.	
							8	
Selenium	156	146.9		mg/Kg		94.2	77.6 - 121.	
							8	

2.00

Lab Sample ID: 600-115590-10 MS

Matrix: Solid

Analysis Batch: 168554	Sample	Sample	Spike	MS	MS				Prep Batch: 16849	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Lead	718		47.0	652.7	4	mg/Kg	₩	-139	75 - 125	
Selenium	2.55		47.0	50.10		mg/Kg	₩	101	75 - 125	

Lab Sample ID: 600-115625-A-7-C MS

Matrix: Solid

Analysis Batch: 168554	Sample	Sample	Spike	MS	MS				Prep Batch: 168496 %Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Arsenic	2.10		49.5	50.77		mg/Kg	₩	98	75 - 125
Lead	7.90		49.5	59.33		mg/Kg	₩	104	75 - 125
Selenium	0.256	U	49.5	47.77		mg/Kg	₩	97	75 ₋ 125

Lab Sample ID: 600-115625-A-7-D MSD

Matrix: Solid

Analysis Batch: 168554									Prep Ba	atch: 16	8496
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	2.10		50.4	50.59		mg/Kg	₩	96	75 - 125	0	20
Lead	7.90		50.4	60.38		mg/Kg	₩	104	75 - 125	2	20
Selenium	0.256	U	50.4	47.88		mg/Kg	₽	95	75 ₋ 125	0	20

Lab Sample ID: 600-115590-10 DU

Matrix: Solid							Prep Type	e: Tot	al/NA
Analysis Batch: 168554							Prep Bat	ch: 16	8496
-	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Lead	718		 611.7		mg/Kg	\		16	20
Selenium	2.55		2.153		mg/Kg	☼		17	20

TestAmerica Houston

QC Sample Results

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115590-1

Method: 6010B - Metals (ICP) - DL

Lab Sample ID: 600-115590-10 MS Client Sample ID: 2015-C2L-06J (0-0.5) **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 168647

Prep Batch: 168496 Sample Sample Spike MS MS %Rec. Analyte **Result Qualifier** Added Result Qualifier Unit D %Rec Limits ₩ Arsenic - DL 13.5 47.0 63.08 mg/Kg 106 75 - 125 Lead - DL 701 47.0 636.9 4 mg/Kg -136 75 - 125

Lab Sample ID: 600-115590-10 DU Client Sample ID: 2015-C2L-06J (0-0.5) **Matrix: Solid**

Analysis Batch: 168647

Prep Batch: 168496 DU DU Sample Sample **RPD** Analyte Result Qualifier Result Qualifier Unit D **RPD** Limit ₩ Arsenic - DL 13.5 15.35 mg/Kg 13 20 Lead - DL 701 599.1 mg/Kg ∜ 16 20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-115590-13 DU **Client Sample ID: D-11 F (0-0.5) Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 168295

DU DU RPD Sample Sample **Analyte** Result Qualifier Result Qualifier Unit D RPD Limit Percent Moisture 21 20 % 2 20 Percent Solids 79 80 % 0.6 20

Prep Type: Total/NA

Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115590-1

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method	
Arsenic	1.00	0.218	mg/Kg	6010B	
Lead	0.500	0.105	mg/Kg	6010B	
Selenium	2.00	0.259	mg/Kg	6010B	

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center, Frisco TX TestAmerica Job ID: 600-115590-1

Metals

Prep Batch: 168496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115590-1 - DL	2015-C2L-06G (0-0.5)	Total/NA	Solid	3050B	_
600-115590-4 - DL	2015-C2L-06H (0.5-1)	Total/NA	Solid	3050B	
600-115590-7 - DL	2015-C2L-06K (0-0.5)	Total/NA	Solid	3050B	
600-115590-10	2015-C2L-06J (0-0.5)	Total/NA	Solid	3050B	
600-115590-10 - DL	2015-C2L-06J (0-0.5)	Total/NA	Solid	3050B	
600-115590-10 DU - DL	2015-C2L-06J (0-0.5)	Total/NA	Solid	3050B	
600-115590-10 DU	2015-C2L-06J (0-0.5)	Total/NA	Solid	3050B	
600-115590-10 MS	2015-C2L-06J (0-0.5)	Total/NA	Solid	3050B	
600-115590-10 MS - DL	2015-C2L-06J (0-0.5)	Total/NA	Solid	3050B	
600-115590-13 - DL	D-11 F (0-0.5)	Total/NA	Solid	3050B	
600-115590-16 - DL	E-15B (0.0-5)	Total/NA	Solid	3050B	
600-115625-A-7-C MS	Matrix Spike	Total/NA	Solid	3050B	
600-115625-A-7-D MSD	Matrix Spike Duplicate	Total/NA	Solid	3050B	
LCSSRM 600-168496/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-168496/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 168554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115590-10	2015-C2L-06J (0-0.5)	Total/NA	Solid	6010B	168496
600-115590-10 DU	2015-C2L-06J (0-0.5)	Total/NA	Solid	6010B	168496
600-115590-10 MS	2015-C2L-06J (0-0.5)	Total/NA	Solid	6010B	168496
600-115625-A-7-C MS	Matrix Spike	Total/NA	Solid	6010B	168496
600-115625-A-7-D MSD	Matrix Spike Duplicate	Total/NA	Solid	6010B	168496
LCSSRM 600-168496/2-A	Lab Control Sample	Total/NA	Solid	6010B	168496
MB 600-168496/1-A	Method Blank	Total/NA	Solid	6010B	168496

Analysis Batch: 168647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115590-1 - DL	2015-C2L-06G (0-0.5)	Total/NA	Solid	6010B	168496
600-115590-4 - DL	2015-C2L-06H (0.5-1)	Total/NA	Solid	6010B	168496
600-115590-7 - DL	2015-C2L-06K (0-0.5)	Total/NA	Solid	6010B	168496
600-115590-10 - DL	2015-C2L-06J (0-0.5)	Total/NA	Solid	6010B	168496
600-115590-10 DU - DL	2015-C2L-06J (0-0.5)	Total/NA	Solid	6010B	168496
600-115590-10 MS - DL	2015-C2L-06J (0-0.5)	Total/NA	Solid	6010B	168496
600-115590-13 - DL	D-11 F (0-0.5)	Total/NA	Solid	6010B	168496
600-115590-16 - DL	E-15B (0.0-5)	Total/NA	Solid	6010B	168496

General Chemistry

Analysis Batch: 168295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-115590-1	2015-C2L-06G (0-0.5)	Total/NA	Solid	Moisture	_
600-115590-4	2015-C2L-06H (0.5-1)	Total/NA	Solid	Moisture	
600-115590-7	2015-C2L-06K (0-0.5)	Total/NA	Solid	Moisture	
600-115590-10	2015-C2L-06J (0-0.5)	Total/NA	Solid	Moisture	
600-115590-13	D-11 F (0-0.5)	Total/NA	Solid	Moisture	
600-115590-13 DU	D-11 F (0-0.5)	Total/NA	Solid	Moisture	
600-115590-16	E-15B (0.0-5)	Total/NA	Solid	Moisture	

TestAmerica Houston

Page 17 of 25

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-C2L-06G (0-0.5)

Date Collected: 07/29/15 07:45

Date Received: 07/30/15 09:56

Lab Sample ID: 600-115590-1

Matrix: Solid

Dil Initial Batch **Batch** Final Batch Prepared Number Method Amount **Prep Type** Type Run Factor Amount or Analyzed Analyst Lab Total/NA Analysis Moisture 168295 07/31/15 10:09 MJB TAL HOU

Client Sample ID: 2015-C2L-06G (0-0.5) Lab Sample ID: 600-115590-1

Date Collected: 07/29/15 07:45 Date Received: 07/30/15 09:56

Matrix: Solid

Percent Solids: 82.8

Matrix: Solid

Matrix: Solid

Batch Batch Dil Initial Final Batch **Prepared Prep Type** Type Method Run Factor Amount Amount Number or Analyzed Analyst Lab 3050B DL 168496 TAL HOU Total/NA Prep 1.08 g 50 mL 08/03/15 17:01 NER Total/NA Analysis 6010B DL 2 1.08 g 50 mL 168647 08/05/15 11:03 DCL TAL HOU

Client Sample ID: 2015-C2L-06H (0.5-1) Lab Sample ID: 600-115590-4

Date Collected: 07/29/15 07:30

Date Received: 07/30/15 09:56

Dil Batch **Batch** Initial Final **Batch** Prepared Method Amount Amount Number or Analyzed **Prep Type** Type Run **Factor** Analyst Lab 07/31/15 10:09 MJB TAL HOU Total/NA Analysis Moisture 1 168295

Client Sample ID: 2015-C2L-06H (0.5-1) Lab Sample ID: 600-115590-4

Date Received: 07/30/15 09:56

Date Collected: 07/29/15 07:30 **Matrix: Solid** Percent Solids: 79.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.05 g	50 mL	168496	08/03/15 17:01	NER	TAL HOU
Total/NA	Analysis	6010B	DL	2	1.05 g	50 mL	168647	08/05/15 11:06	DCL	TAL HOU

Lab Sample ID: 600-115590-7 Client Sample ID: 2015-C2L-06K (0-0.5)

Date Collected: 07/29/15 08:25

Date Received: 07/30/15 09:56

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1		-	168295	07/31/15 10:09	MJB	TAL HOU

Lab Sample ID: 600-115590-7 Client Sample ID: 2015-C2L-06K (0-0.5)

Date Collected: 07/29/15 08:25 **Matrix: Solid** Date Received: 07/30/15 09:56 Percent Solids: 93.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.06 g	50 mL	168496	08/03/15 17:01	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.06 g	50 mL	168647	08/05/15 11:08	DCL	TAL HOU

TestAmerica Houston

Client: Golder Associates Inc.

Date Received: 07/30/15 09:56

Project/Site: Exide Recycling Center, Frisco TX

Client Sample ID: 2015-C2L-06J (0-0.5)

Date Collected: 07/29/15 08:00

Lab Sample ID: 600-115590-10

Matrix: Solid

Dil Initial Batch Batch Final Batch Prepared **Prep Type** Type Method Run **Factor** Amount Amount Number or Analyzed Analyst Total/NA Analysis Moisture 168295 07/31/15 10:09 MJB TAL HOU

Client Sample ID: 2015-C2L-06J (0-0.5) Lab Sample ID: 600-115590-10

Date Collected: 07/29/15 08:00 Date Received: 07/30/15 09:56

Matrix: Solid Percent Solids: 98.6

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	168496	08/03/15 17:01	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	168554	08/04/15 14:33	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.06 g	50 mL	168496	08/03/15 17:01	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.06 g	50 mL	168647	08/05/15 11:10	DCL	TAL HOU

Lab Sample ID: 600-115590-13 **Client Sample ID: D-11 F (0-0.5)** Date Collected: 07/29/15 08:55 **Matrix: Solid**

Date Received: 07/30/15 09:56

Batch **Batch** Dil Initial Final **Batch** Prepared Method Amount Number **Prep Type Amount** or Analyzed Type Run **Factor** Analyst Lab Total/NA Analysis 168295 07/31/15 10:09 MJB TAL HOU Moisture

Client Sample ID: D-11 F (0-0.5) Lab Sample ID: 600-115590-13

Date Collected: 07/29/15 08:55 **Matrix: Solid** Date Received: 07/30/15 09:56 Percent Solids: 79.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.05 g	50 mL	168496	08/03/15 17:01	NER	TAL HOU
Total/NA	Analysis	6010B	DL	5	1.05 g	50 mL	168647	08/05/15 11:17	DCL	TAL HOU

Client Sample ID: E-15B (0.0-5) Lab Sample ID: 600-115590-16

Date Collected: 07/29/15 15:15

Date Received: 07/30/15 09:56

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			168295	07/31/15 10:09	MJB	TAL HOU

Client Sample ID: E-15B (0.0-5) Lab Sample ID: 600-115590-16

	The state of the s
Date Collected: 07/29/15 15:15	Matrix: Solid
Date Received: 07/30/15 09:56	Percent Solids: 86.3
_	

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.02 g	50 mL	168496	08/03/15 17:01	NER	TAL HOU
Total/NA	Analysis	6010B	DL	10	1.02 g	50 mL	168647	08/05/15 11:19	DCL	TAL HOU

TestAmerica Houston

Matrix: Solid

Lab Chronicle

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

TestAmerica Job ID: 600-115590-1

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223	10-31-15
The following analytes	s are included in this repo	rt, but certification is	s not offered by the g	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	te	
Moisture		Solid	Perce	nt Moisture	
Moisture		Solid	Perce	nt Solids	

TestAmerica Job ID: 600-115590-1

THE LEADER IN EVENTONMENTAL TESTINE

Chain of Custody Record

Phone (713) 690-4444 Fax (713) 690-5646

TestAmerica Houston

6310 Rothway Street Houston, TX 77040

- Contraction	100

な市で表 D. AaNaO2
P. Na2O4S
G. Na2SO3
R. Na2SSO3
S. H2SO4
T. TSP Dodecatyctrate
U. Acatone
W. - MCAA
X. - ph 4-5
Z. - other (specify) を包含 を下る数 やも多 かちな か下いる女 Special Instructions/Note Months Company company Sample Disposal (A fee may be assessed if samples are retained longer than 1 mdnth)

Return To Client Disposal By Lab Mon Special Instructions/QC Requirements: Ph ordin Ph ontu PB CAIT 600-37671-12289.5 Page 5.of 12 1 Of Po ordy Plane de アングイン Po Galu Pla colly th critical 00 [7 cnla D - Nitric Add E - NaHSO4 F - MeOH G - Amchior H - Ascorbic Add 짇 i - lœ J - Di Water K - EDTA helhod of Shipment, FLUEX Total Muriber of containing Date/Time: 069911-009 Analysis Requested Cooler Temperature(s) *C and Other Remarks Lab PM: Upton, Cathy Ł E-Mail: cathy upton@testamericainc.com Received by: Received by: 区 × メメ メメ X 14 <u>=</u> Company (Wewater, Serolki, Oewante/oll, BT+Tlasura, Seld Solid Solid Solid Solid Solid Solid 잃 Solid 띯 Solid APAÍE) Соптрапу INTER A MONTH Radiofogical Type (C=comp, G=grab) Sample 10310-724-9191 Sample 948 L570 12121 88 **分に** <u>25</u> 03 818 おこ QZS 222 Sday Date: Unknown (AT Requested (days): Due Date Requested: Po#. Exide1302086 Wo#: Sample Date 2/162/12 Date/Time: Project #: 60006523 SSOW#: Poison B Date/Time: Date/Time: JOH (-5-1 HB) -- OLH (2.5-4) #C 7-2-7 2515-122-06 K W.5-2 -07 K (0-6.5) 015-121-0(01/1614) 10.5.2 (V, O, O, び込 Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify) 工000十 17-10-11 Custody Seal No. 2015-171-NAG -(11 - OleG 2015-12L-026 - Flammable Exide Recycling Center, Frisco TX 320 South Main Street, Suite 100 5 Possible Hazard Identification
Non-Hazard Plammab - (2L B 124-919 Empty Kit Refinquished by: Custody Seals Intact
A Yes A No Client Information sample Identification **3older Associates Inc.** 2015 2015 2015 2018 faeth@golder.com 2015 2015 Client Contact: Anne Faeth-Boyd fing lished by: elinquished by: clty: St. Charles State, Zip: MO, 63301

Chain of Custody Record

Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646

TestAmerica Houston

6310 Rothway Street

Test American International

			1,000		_	Camer Tracking No(s)		COC No.	
Client Information	Sampler.	Maylor		Jy L)	(a) a	<u></u>	600-36678-12035.1	
	Phone: 3/4-304-1326			E-Mail. cathy.upton@testamericainc.com	:com		4 11	Page 2 of 2	
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Email: afaeth@golder.com	#OM,		M 10	15					
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11S-SA WI-013

Tay 3: 07/01/2014

Client: Golder Associates Inc.

Job Number: 600-115590-1

Login Number: 115590 List Source: TestAmerica Houston

List Number: 1

Creator: Jackson, Falynn E

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 66mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required



Sample Dates: May 13, 2014 Project No.: 1302086

Laboratory: Test America (TLAP Certification Client: Exide Technologies Inc.

T104704223)

Work Orders: Work Orders: 92036-1

Intended Use Affected Property Assessment Report (APAR) Addendum

Site: Exide Former Operating Plant (FOP), 7471 5th Street, Frisco, TX

1.0 TESTS/ METHODS

Total Metals by SW-846 6010B - Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP) Percent moisture/percent solids (general chemistry)

2.0 SAMPLES

2 soil samples and 1 equipment rinsate blank. See Table 1 for a complete cross-referenced listing of samples.

Golder completed a review of the above chemical analysis data for conformance with the requirements of the Texas Risk Reduction Program (TRRP) guidance document, Review and Reporting of COC Concentration Data (RGG-366/TRRP-13 Revised May 2010) and for adherence to project objectives. The results of the review are discussed in this data usability summary (DUS).

Golder completed the review using the following laboratory and project submittals:

- Laboratory reportable data as defined in TRRP-13;
- Laboratory review checklists (LRC) with the associated exception reports;
- Laboratory Electronic Data Deliverable (EDD); and
- Project field notes from the sampling event.

The review of the reportable data included the quality control (QC) parameters listed below, as required per TRRP-13, using the applicable analytical method and project requirements:

- Data Completeness
- Chain-of-Custody Procedures
- Sample Condition Holding Time, Preservation, and Containers
- Field Procedures
- Results Reporting Procedures
- Laboratory and Field QC Blanks





- Laboratory Control Spike and Matrix Spike Recoveries
- Surrogate Recoveries
- Laboratory and Field Duplicate Precision

Additionally, Golder used the LRC to evaluate the following QC parameters:

- Method Quantitation Limits (MQLs)
- Method Detection Limits (MDLs)
- Instrument Tuning, Calibration, and Performance
- Internal Standards

Criteria used for this data usability review are as follows:

- Inorganics: 70-130% spike recovery (and not less than 30% or data is rejected) and +MQL difference or 30% RPD (for laboratory duplicates) as recommended in TRRP-13; and
- Organics: 60-140% spike recovery (and not less than 10% or data is rejected) and ± MQL difference or 30% RPD (for laboratory duplicates) as recommended in TRRP-13
- <u>Soil Samples</u>: + 3x MQL difference (if either result is less than 5x MQL) or 50% RPD (for field duplicates) as recommended in TRRP-13.
- Aqueous Samples: ± 2x MQL difference (if either result is less than 5x MQL) or 30% RPD (for field duplicates) as recommended in TRRP-13

If an item was found outside of the review criteria, the reviewer applied a data qualifier (DQ) and bias code to the results for the affected samples in accordance with TRRP-13. A list of all qualified results and definitions of the qualifier and bias codes are given in Table 2.

GLOSSARY OF TERMS

The following definitions apply for terms related to analyte reporting limits:

MDL (Method Detection Limit) – the minimum concentration of an analyte that the laboratory can measure and report with 99% confidence that the analyte concentration is greater than zero. The MDL is determined by the laboratory for each analyte in a given reagent matrix (water or soil) generally using the procedures specified in 40 CFR Part 136, Appendix B. It is a measure of the concentration an instrument can detect or 'see' in a given reagent matrix. TRRP-13 requires that the laboratory routinely check the MDL for reasonableness.

<u>SDL</u> (Sample Detection Limit) – the MDL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and taking into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can detect or 'see' in a given sample. For TRRP, non-detects





are reported using the SDL. This term was originally called the SQL (Sample Quantitation Limit) before the TRRP rule revisions effective March 19, 2007.

<u>Unadjusted MQL (Method Quantitation Limit)</u> – the lowest non-zero concentration standard in the laboratory's initial calibration curve calculated using the normal aliquot sizes and final volumes prescribed in the analytical method. The unadjusted MQL is reported by the laboratory for each analyte in a given matrix (water or soil). It is a measure of the concentration an instrument can accurately measure in a typical sample. Per TRRP, the unadjusted MQLs should be below the Levels of Required Performance (LORPs) for purposes of assessment as well as demonstration of conformance with critical Protective Concentration Levels (PCLs).

<u>MQL</u> – the unadjusted MQL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and takes into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can accurately measure in a given sample. Analytes with concentrations above the SDL but below the MQL, though present in the sample, may not be accurately measured and are thus flagged as estimated (J).

LABORATORY CERTIFICATION

At the time the laboratory data were generated for this project, the laboratory was NELAC accredited under the Texas Laboratory Accreditation Program (TLAP) for the matrices, methods and parameters of analysis requested on the chain-of-custody forms. A copy of the applicable pages of the laboratory's National Environmental Laboratory Accreditation Program (NELAP) certificate valid during the period in which the laboratory generated the data in this report is also included in Appendix C to the Supplement to the Affected Property Assessment Report.

USABILITY SUMMARY

- 1. Usability of Unqualified Non-Detects Non-detects are reported at the sample detection limit (SDL) as required per TRRP. Additionally, according to the LRC, an MDL study was performed for each analyte and the MDLs were checked for reasonableness for each applicable analyte. The levels of required performance (LORPs) have been established by Golder/PBW as the Residential Assessment Levels (RALs), which are the minimum of the TRRP residential Tier 1 Tot Soil Comb and Tier 1, 2 or 3 GW Soil Ing PCLs for a 30-acre source area. As needed per TRRP, the unadjusted MQL stated by the laboratory is at or below the LORP for each applicable analyte, and thus the analytical methods are appropriate and the results can be used to demonstrate conformance with the criteria.
- Usability of Qualified Data There are no major QC deficiencies, and thus all data is usable as qualified for the intended use. As shown in Table 2, the reviewer qualified some detects as estimated (J) due to minor QC deficiencies. Detects that are biased high



can be used; however, the reported concentration may be high. Detects that are estimated may be either low or high. Results with a laboratory J-flag (i.e., at a concentration between the SDL and MQL) should be considered estimates. The actual value is not expected to exceed the sample MQL.

Reviewer: Jie Xu 8/26/15

QUALITY CONTROL PARAMETERS AND OUTCOMES

Data Completeness

The laboratory data packages contain all necessary data (i.e., the laboratory reportable data per TRRP-13) and the EDD contain all sample results in acceptable format.

Chain-of-Custody

Proper sample custody procedures were used, which confirms that the integrity of the samples was maintained. Additionally, the information on the custody records is complete and agrees with that in the field notes and laboratory reports, with the following exceptions:

A number of deeper interval samples were archived at the laboratory pending results of shallow interval samples.

Sample Condition

Samples were collected in appropriate containers, properly preserved in the field, and prepared and analyzed within the holding times as required in the analytical methods, which ensures that the samples were not affected by analyte degradation:

■ For 600-92036-1, the temperatures of the coolers at receipt were 2.2°C.

Field Procedures

The samples were collected and placed immediately into sterilized jars provided by the laboratory and then into a cooler with ice for overnight delivery to the laboratory.

Results Reporting Procedures

The hardcopy analytical results include a Result, MQL (adjusted), and SDL. The EDD includes the MDL, SDL (under the SQL column per previously used terminology) and the MQL, which is not adjusted for sample specific factors.

Results are reported in mg/kg with dry-weight correction for the metals. Non-detects are reported using the SDL as specified per TRRP and detects between the SDL and MQL are reported with a laboratory J-





flag. The concentration reported for detects between the SDL and MQL is below the calibration range and thus is considered estimated.

MQLs- The LORPs have been established by Golder/PBW as the Residential Assessment Levels (RALs), which are the minimum of the TRRP residential Tier 1 Tier 1 Tot Soil Comb and Tier 1, 2 or 3 GW Soil Ing PCLs for a 30-acre source area. The Unadjusted MQLs for the laboratory are at or below the LORPs for each applicable analyte.

MDLs- According to the LRC, an MDL study was performed for each analyte, and the MDLs were checked for reasonableness and either adjusted or supported by the analysis of detectability check standards (DCS) for each applicable analyte as required per TRRP-13. Results for the DCS are included in the data packages.

Laboratory Blanks

Results for samples prepared in the same QC batch as a contaminated method blank may be affected by laboratory contamination. No analytes were detected in the laboratory blanks.

Field QC Blanks

One equipment rinsate blank was collected to document sufficient field decontamination procedures for soil sampling devices. Results for samples collected with a contaminated rinsate blank may be affected by field contamination. No analytes were detected in the equipment rinsate blank.

Laboratory Control Sample

The laboratory prepared one laboratory control sample (LCS) for each analytical batch and reported recoveries for all of the analytes for each test. The LCS recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on a sample, free of matrix effects.

Matrix Spike Recovery

The laboratory prepared one or more matrix spike (MS) and matrix spike duplicate (MSD) with each analytical batch. MS/MSD recoveries are reported for the same analytes as the LCS for MS/MSD prepared using designated samples from the site as shown in Table 1. The lab also selected unrelated samples as MS/MSDs for several job packages. In these cases, MS/MSD recoveries were not evaluated. In cases where the spiking amount is sufficiently less than the amount in the unspiked parent sample, the data were considered inconclusive and the MS/MSD recovery check was waived.





PDS outcomes are given on the LRC for each job package; however PDS data are not reportable data per TRRP-13. According to the LRC, the PDS met method requirements, which indicates good accuracy for the analysis technique on the given sample matrix.

The MS/MSD recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on a sample free of matrix effects, except as follows:

QC Batch	Lab Sample ID	MS/MSD ID	Analyte	Parent Amount (mg/kg)	Spike Amount for MS/MSD (mg/kg)	MS % Recovery	MSD % Recovery	Qual
164854	600-92036-1	2014-SCC- 16 (0-0.5)	Lead	358	59.2, 61.0	413	-21	J

NA - Not available.

Samples qualified only if both MS and MSD were outside of criteria of approximately 70-130%

In all cases where the spike amount is less than four times the result in the unspiked parent sample, the data are considered inconclusive and the MS/MSD recovery check is waived.

Surrogate Recovery

No surrogate recovery data was requested in the lab report.

Laboratory Duplicate Precision

The laboratory prepared one or more Matrix Spike Duplicate (MSD) with each analytical batch for each test. Additionally, the laboratory prepared one Matrix Duplicate (MD) with each metals analytical batch. RPDs are reported for the same analytes as the LCS for MSD/MD prepared using a sample from the site, which includes one MSD and MD for Total Metals.

The MSD and MD RPDs are within the TRRP recommended criteria, which indicates good precision for the preparation and analysis technique for the given sample matrix.

Field Duplicate Precision

No field duplicates were collected with the samples.

Instrument Tuning

According to the LRC, instrument tuning met method requirements for the samples, which indicates the GC/MS instrument was properly set up to identify analytes.

Instrument Calibration

According to the LRC, initial and continuing calibration data met method requirements for all reported results, which indicates the instruments were properly calibrated to measure analyte concentrations.



Instrument Performance

According to the LRC, the serial dilution and ICP interference check samples met method requirements, which indicates that no significant matrix interference exists.

Internal Standards

According to the LRC, area counts and retention times were within method requirements.



TABLE 1 CROSS REFERENCE OF FIELD SAMPLE IDENTIFICATIONS AND LABORATORY IDENTIFICATIONS

Lab Sample ID	Field Sample ID	Sample Date	Matrix	Comments
600-92036-1	2014-SCC-16 (0-0.5)	5/13/2014	Soil	
600-92036-3	2014-CUFT-19 (0-0.5)	5/13/2014	Soil	
600-92036-5	rinse blank-spoon	5/13/2014	Water	

TABLE 2 - QUALIFIED DATA

Lab Sa	mple ID	Field Sample ID	Analyte	Result	Units	Qualifer	Explanation
600-92036-	1	2014-SCC-16 (0-0.5)	Lead	358	mg/Kg		MS/MSD recoveries and MSD/MD RPDs outside of criteria

Note:

Detected results between the SDL and MQL (i.e., results with a laboratory J-flag) have been included in the above table since the reported concentration is below the calibration range.

J Estimated data; The analyte was detected and identified. The associated numerical value (i.e., the reported sample concentration) is the approximate concentration of the analyte in the sample.

NJ Tentatively identified, estimated data; The analysis indicates the presence of the analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.

NS Not selected; Another result (from a secondary dilution, different analytical method, re-sampling, etc.) is selected for use based on QC outcomes and/or reported concentrations.

R Rejected data; The data is unusable. Serious QC deficiencies make it impossible to verify the absence or presence of this analyte.

U Not detected; The analyte was not detected >5x (10x for common contaminants) the level in an associated blank and thus should be considered not detected above the level of the associated numerical value (i.e., the reported sample concentration).

UJ Estimated data; The analyte was not detected above the reported sample detection limit (SDL). The numerical value of the SDL is estimated and may be inaccurate.

H Bias in sample result is likely to be high

L Bias in sample result is likely to be low

TABLE 3 - FIELD DUPLICATE PRECISION CALCULATIONS

Duplicate and Parent Sample Field Identification	Lab Package	Analyte	Sample Result	Duplicate Result	RPD ^a	Accept or Reject	Qualifier Added

 a RPD = ((SR - DR)*200)/(SR + DR)

A - Acceptable Data

NA - Not Analyzed
The RPD test (<50%) applies if both
results are greater than 5x MQL.
Otherwise, the absolute difference test (<
3x MQL) applies.
NC - Not calculated if one or both results
were nnon-detect

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-92036-1

Client Project/Site: Exide Recycling Center, Frisco TX Projec

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 5/19/2014 11:32:06 AM

Cathy Upton, Project Management Assistant II (713)690-4444

cathy.upton@testamericainc.com

Designee for

Dean Joiner, Project Manager II (713)690-4444

dean.joiner@testamericainc.com

.....LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-92036-1 and consists of:

- ☑ R1 Field chain-of-custody documentation;
- ☑ R2 Sample identification cross-reference;
- ☑ R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☑ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton 5/16/2014
Name (printed) Signature Date

Project Management Asst II

Official Title (printed)

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	5/16/2014
Project Name:	Exide Recycling Center, Frisco TX Projec	Laboratory Job Number:	600-92036-1
Reviewer Name:	Dean A Joiner		

# ¹ A ²	Description	Yes	No	NA ³	NR ⁴	ER
	nain-of-custody (C-O-C)					
	d samples meet the laboratory's standard conditions of sample acceptability upon receipt?		Χ			R01A
W	ere all departures from standard conditions described in an exception report?	Χ				
	ample and quality control (QC) identification					
	e all field sample ID numbers cross-referenced to the laboratory ID numbers?	Χ				
Ar	e all laboratory ID numbers cross-referenced to the corresponding QC data?	Χ				
R3 OI Te	est reports					
W	ere all samples prepared and analyzed within holding times?	Χ				
Ot	ther than those results < MQL, were all other raw values bracketed by calibration standards?	Χ				
W	ere calculations checked by a peer or supervisor?	Χ				
W	ere all analyte identifications checked by a peer or supervisor?	Χ				
W	ere sample detection limits reported for all analytes not detected?	Х				
W	ere all results for soil and sediment samples reported on a dry weight basis?	Х				
W	ere % moisture (or solids) reported for all soil and sediment samples?	Χ				
W	ere bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Х		
	required for the project, are TICs reported?			Х		
	urrogate recovery data					
	ere surrogates added prior to extraction?			Х		
	ere surrogate percent recoveries in all samples within the laboratory QC limits?			Х		
5 OI Te	est reports/summary forms for blank samples					
	ere appropriate type(s) of blanks analyzed?	Χ				
	ere blanks analyzed at the appropriate frequency?	Χ				
W	ere method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup	1				
	ocedures?	Х				
W	ere blank concentrations < MQL?	Х				
6 OI La	aboratory control samples (LCS):					
	ere all COCs included in the LCS?	Х				
W	as each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Х				
	ere LCSs analyzed at the required frequency?	Х				
	ere LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Х				
	pes the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used					
	calculate the SDLs?	Х				
	as the LCSD RPD within QC limits?			Х		
	atrix spike (MS) and matrix spike duplicate (MSD) data					
	ere the project/method specified analytes included in the MS and MSD?	Х				
	ere MS/MSD analyzed at the appropriate frequency?	X				
	ere MS (and MSD, if applicable) %Rs within the laboratory QC limits?		Х			R070
	ere MS/MSD RPDs within laboratory QC limits?		X			R07
	nalytical duplicate data		, ·			
	ere appropriate analytical duplicates analyzed for each matrix?	Х				
	ere analytical duplicates analyzed at the appropriate frequency?	X				
	ere RPDs or relative standard deviations within the laboratory QC limits?	 ^`	Х			R080
	ethod quantitation limits (MQLs):					11001
	re the MQLs for each method analyte included in the laboratory data package?	Х				
	the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X	1	1		
	re unadjusted MQLs and DCSs included in the laboratory data package?	X				
	ther problems/anomalies	+^				
	re all known problems/anomalies/special conditions noted in this LRC and ER?	Х	-	-		-
		 ^	-	-		
	as applicable and available technology used to lower the SDL to minimize the matrix interference effects on the					
	imple results?	X	 		-	<u> </u>
	the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and					
	ethods associated with this laboratory data package? ems identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required repr	X				L

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	5/16/2014
Project Name:	Exide Recycling Center, Frisco TX Projec	Laboratory Job Number:	600-92036-1
Reviewer Name:	Dean A Joiner		

# ¹	A ²	Description	Yes	No	NA^3	NP ⁴	ER# ⁵
# S1		Initial calibration (ICAL)	res	140	IVA	141/	LI\#
<u> </u>	U	· ,	Х	1			
		Were response factors and/or relative response factors for each analyte within QC limits? Were percent RSDs or correlation coefficient criteria met?	X	1			
		'	X	1			
		Was the number of standards recommended in the method used for all analytes?		1			
		Were all points generated between the lowest and highest standard used to calculate the curve?	X	1			
		Are ICAL data available for all instruments used?	X	-			
	1	Has the initial calibration curve been verified using an appropriate second source standard?	Х				
••	١						
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):		<u> </u>			
		Was the CCV analyzed at the method-required frequency?	X	<u> </u>			
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
	_	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
33		Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			Χ		
		Were ion abundance data within the method-required QC limits?			Χ		
34		Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			Χ		
3 5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
		Were data associated with manual integrations flagged on the raw data?	Х				
36	0	Dual column confirmation					
	•	Did dual column confirmation results meet the method-required QC?			Χ		
3 7	0	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Χ		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	Х				
S9	l	Serial dilutions, post digestion spikes, and method of standard additions					
	1	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		Х			S09A
S10	OI	Method detection limit (MDL) studies		Ť			000/1
	١٠.	Was a MDL study performed for each reported analyte?	Х	1			
		Is the MDL either adjusted or supported by the analysis of DCSs?	X	1			
211	О	Proficiency test reports		+			
,,,		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X	+			
212		Standards documentation	^	-			
712	Oi	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х	-			
242		, , , , , , , , , , , , , , , , , , , ,	^	╂			
513	Oi	Compound/analyte identification procedures	V	╂			
24.4		Are the procedures for compound/analyte identification documented?	X	╂			
514	Oi	Demonstration of analyst competency (DOC)		-			
		Was DOC conducted consistent with NELAC Chapter 5?	X	1			
24.5	lo:	Is documentation of the analyst's competency up-to-date and on file?	Х	1			
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)		1			
			.,				
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X	1			
S16	OI	Laboratory standard operating procedures (SOPs)		1			
		Are laboratory SOPs current and on file for each method performed?	X				
	1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required r		Items			
		identified by the letter "S" should be retained and made available upon request for the appropriate retention period.					
	2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
	3.	NA = Not applicable;					
	4.	NR = Not reviewed;					
	5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No	" is chec	ked).			

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Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	5/16/2014
Project Name:	Exide Recycling Center, Frisco TX Projec	Laboratory Job Number:	600-92036-1
Reviewer Name:	Dean A Joiner		

ER # ¹	Description						
R07C	Method 6010B: Due to the high concentration of Lead, samples 600-92036-1 MS/MSD could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) was within acceptance limits.						
R07D	Method 6010B: Due to the high concentration of Lead, samples 600-92036-1 MS/MSD could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) was within acceptance limits.						
R08C	Method 6010B: 600-92036-1 DU failed the RPD criteria for the following analyte(s): Lead. Non-homogeneity is suspected.						
S09A	Method 6010B: The serial dilution performed for the following sample(s) associated with batch 134378 was outside control limits for lead: 600-92036-1 SD.						
R01A	The following sample(s) was placed on HOLD by the client on 05/14/14: 2014-CUFT-19 (0.5-1) (600-92036-4), 2014-SCC-16 (0.5-1) (600-92036-2). See attached email.						
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.						
2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);						
3.	NA = Not applicable;						
4.	NR = Not reviewed;						
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).						

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Detection Check Standard

Matrix: Soil 6010B Method: Preparation: 3050 Date Analyzed: 3/28/2014 Date Prepared: 3/27/2014 Instrument: Thermo 6500 130577p, 130672 TALS Batches:

Prep/Reagent Factor = 50 Units: mg/kg

A b -t	MDI	DOC 0-11	Manager d Daniel	MOL
Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.299654	0.5	0.36	25
Antimony	0.231553	0.45	0.31	2.5
Arsenic	0.217923	0.5	0.57	1
Barium	0.011322	0.03	0.03	1
Beryllium	0.014513	0.02	0.02	0.25
Boron	0.385535	0.6	0.49	20
Cadmium	0.025642	0.05	0.045	0.25
Calcium	0.86399	1.5	2.07	100
Chromium	0.050606	0.1	0.11	0.5
Cobalt	0.067622	0.1	0.105	0.5
Copper	0.173703	0.5	0.535	0.5
Iron	2.534007	4	4.035	20
Lead	0.104832	0.2	0.18	0.5
Selenium	0.258884	0.5	0.505	2
Manganese	0.038111	0.05	0.05	1.5
Molybdenum	0.136448	0.35	0.325	0.5
Nickel	0.116599	0.15	0.145	1
Silver	0.118848	0.2	0.22	0.5
Sodium	0.885548	2.4	2.13	100
Thallium	0.276988	0.7	0.615	1.5
Tin	0.08729	0.15	0.13	1
Titanium	0.014529	0.03	0.035	0.5
Vanadium	0.079068	0.15	0.165	0.5
Zinc	0.108432	0.2	0.285	1.5

Detection Check Standard

Matrix: Water 200.7/6010 Method: Preparation: 200.7P/3010 Date Analyzed: 3/28/2014 Date Prepared: 3/27/2014 Instrument: Thermo6500 130582p, 130672 TALs Batches: Units: mg/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.006	0.02	0.0029	0.5
Antimony	0.0063	0.01	0.012	0.05
Arsenic	0.0033	0.01	0.0083	0.01
Barium	0.0022	0.005	0.0051	0.02
Beryllium	0.00134	0.002	0.0039	0.005
Boron	0.0077	0.02	0.0201	0.2
Cadmium	0.00073	0.001	0.001	0.005
Calcium	0.022	0.05	0.042	1
Chromium	0.0016	0.002	0.0035	0.01
Cobalt	0.00063	0.001	0.001	0.01
Copper	0.0014	0.002	0.0021	0.01
Iron	0.087	0.1	0.1009	0.4
Lithium	0.0024	0.005	0.0045	0.2
Lead	0.0029	0.005	0.004	0.01
Selenium	0.0042	0.01	0.01	0.04
Manganese	0.00084	0.002	0.0021	0.01
Molybdenum	0.0027	0.005	0.005	0.01
Nickel	0.00179	0.005	0.0047	0.01
Silver	0.0012	0.0025	0.0024	0.01
Silicon	0.00779	0.02	0.016	0.2
Sodium	0.02	0.05	0.0469	1
Strontium	0.0005	0.001	0.001	0.005
Thallium	0.0078	0.02	0.0205	0.03
Tin	0.0028	0.005	0.0046	0.01
Titanium	0.0011	0.002	0.0019	0.01
Vanadium	0.0017	0.002	0.0046	0.01
Zinc	0.0022	0.005	0.0049	0.01

Case Narrative

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-92036-1

Job ID: 600-92036-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-92036-1

Comments

No additional comments.

Receipt

The samples were received on 5/14/2014 7:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

Except:

The following sample(s) was placed on HOLD by the client on 05/14/14: 2014-CUFT-19 (0.5-1) (600-92036-4), 2014-SCC-16 (0.5-1) (600-92036-2). See attached email.

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Method Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-92036-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-92036-1

Lab Sample ID Client Sample ID		Matrix	Collected	Received	
600-92036-1	2014-SCC-16 (0-0.5)	Solid	05/13/14 17:56	05/14/14 07:00	
600-92036-3	2014-CUFT-19 (0-0.5)	Solid	05/13/14 18:32	05/14/14 07:00	
600-92036-5	rinse blank- spoon	Water	05/13/14 19:03	05/14/14 07:00	

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Client Sample Results

Client: Golder Associates Inc.

Date Collected: 05/13/14 17:56

Project/Site: Exide Recycling Center, Frisco TX Projec

Client Sample ID: 2014-SCC-16 (0-0.5)

TestAmerica Job ID: 600-92036-1

Lab Sample ID: 600-92036-1

05/14/14 12:53

Matrix: Solid Percent Solids: 80.4

Date Collected: 00/10/14 17:00	matrix. Cona
Date Received: 05/14/14 07:00	Percent Solids: 80.4
Г	
Method: 6010B - Metals (ICP)	

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	358		0.604	0.127	mg/Kg	₩	05/14/14 12:28	05/14/14 17:09	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20		1.0	1.0	%			05/14/14 12:53	1
Percent Solids	80		1.0	1.0	%			05/14/14 12:53	1

Client Sample ID: 2014-CUFT-19 (0-0.5) Lab Sample ID: 600-92036-3

Date Collected: 05/13/14 18:32 **Matrix: Solid** Date Received: 05/14/14 07:00 Percent Solids: 88.3

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	232		0.561	0.118	mg/Kg	*	05/14/14 12:28	05/14/14 17:17	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12		1.0	1.0	%			05/14/14 12:53	1

Lab Sample ID: 600-92036-5 Client Sample ID: rinse blank- spoon

1.0

1.0 %

Date Collected: 05/13/14 19:03 Matrix: Water

Date Received: 05/14/14 07:00

Percent Solids

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00290	U	0.0100	0.00290	mg/L		05/15/14 08:30	05/15/14 15:37	1

Definitions/Glossary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX Projec

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 600-92036-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
F	Duplicate RPD exceeds the control limit
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
N2	RPD of the MS and MSD exceeds the control limits

Glossary

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX Projec

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-134378/1-A Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 134441 Prep Batch: 134378

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SDL Unit Result Qualifier MQL (Adj) D Prepared Dil Fac Analyte Analyzed 05/14/14 12:28 Lead 0.105 U 0.500 0.105 mg/Kg 05/14/14 16:59

Lab Sample ID: LCSSRM 600-134378/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 134441

Spike LCSSRM LCSSRM Analyte Added Result Qualifier Unit %Rec Limits Lead 115 107.4 mg/Kg 93.4 81.8 - 119.

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Lab Sample ID: 600-92036-1 MS

Client Sample ID: 2014-SCC-16 (0-0.5) **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 134378 Analysis Batch: 134441 Sample Sample Spike MS MS %Rec.

Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits 59.2 602.3 4 Lead 358 413 75 - 125 mg/Kg

Lab Sample ID: 600-92036-1 MSD Client Sample ID: 2014-SCC-16 (0-0.5)

Matrix: Solid

Prep Type: Total/NA Analysis Batch: 134441 Prep Batch: 134378

%Rec. RPD

Prep Batch: 134378

Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Limits RPD Limit Analyte D Unit %Rec Lead 358 61.0 344.9 4 N2 -21 75 - 125 mg/Kg

Client Sample ID: 2014-SCC-16 (0-0.5) Lab Sample ID: 600-92036-1 DU

Matrix: Solid Prep Type: Total/NA Analysis Batch: 134441 Prep Batch: 134378

DU DU Sample Sample **RPD** Result Qualifier Analyte Result Qualifier Unit D RPD Limit Lead 358 977.2 F mg/Kg 20

Client Sample ID: Method Blank Lab Sample ID: MB 600-134453/1-A

Matrix: Water

Prep Type: Total/NA Analysis Batch: 134493 Prep Batch: 134453

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Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac Lead 0.00290 U 0.0100 0.00290 mg/L 05/15/14 08:30 05/15/14 15:27

Lab Sample ID: LCS 600-134453/2-A **Client Sample ID: Lab Control Sample Matrix: Water**

Prep Type: Total/NA Analysis Batch: 134493 Prep Batch: 134453

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Lead 1.00 1.045 mg/L 105 80 - 120

QC Sample Results

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-92036-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-91988-B-1-C MS

Matrix: Water

Analysis Batch: 134493

Client Sample ID: Matrix Spike Prep Type: Total/NA

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 134453

Spike Result Qualifier Added Limits Analyte Result Qualifier D %Rec Unit 1.00 98 75 - 125 Lead 0.00290 U 0.9771 mg/L

Lab Sample ID: 600-91988-B-1-B DU

Matrix: Water

Analysis Batch: 134493

Sample Sample

Client Sample ID: Duplicate Prep Type: Total/NA **Prep Batch: 134453**

MS MS

Sample Sample DU DU Result Qualifier **RPD** Limit Analyte Result Qualifier Unit Lead 0.00290 U 0.00290 U mg/L 20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-91959-F-1 DU

Matrix: Solid

Analysis Batch: 134381

Sample Sample DU DU RPD Analyte Result Qualifier Result Qualifier Unit Limit Percent Moisture 57 % 57 0.1 20 % 0.1 Percent Solids 43 43 20

Unadjusted Detection Limits

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-92036-1

Method: 6010B - Metals (ICP)

lyte	MQL	MDL	Units	Method	
d	0.500	0.105	mg/Kg	6010B	
d	0.0100	0.00290	mg/L	6010B	

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

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QC Association Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-92036-1

Metals

Prep Batch: 134378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-92036-1	2014-SCC-16 (0-0.5)	Total/NA	Solid	3050B	_
600-92036-1 DU	2014-SCC-16 (0-0.5)	Total/NA	Solid	3050B	
600-92036-1 MS	2014-SCC-16 (0-0.5)	Total/NA	Solid	3050B	
600-92036-1 MSD	2014-SCC-16 (0-0.5)	Total/NA	Solid	3050B	
600-92036-3	2014-CUFT-19 (0-0.5)	Total/NA	Solid	3050B	
LCSSRM 600-134378/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-134378/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 134441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-92036-1	2014-SCC-16 (0-0.5)	Total/NA	Solid	6010B	134378
600-92036-1 DU	2014-SCC-16 (0-0.5)	Total/NA	Solid	6010B	134378
600-92036-1 MS	2014-SCC-16 (0-0.5)	Total/NA	Solid	6010B	134378
600-92036-1 MSD	2014-SCC-16 (0-0.5)	Total/NA	Solid	6010B	134378
600-92036-3	2014-CUFT-19 (0-0.5)	Total/NA	Solid	6010B	134378
LCSSRM 600-134378/2-A	Lab Control Sample	Total/NA	Solid	6010B	134378
MB 600-134378/1-A	Method Blank	Total/NA	Solid	6010B	134378

Prep Batch: 134453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-91988-B-1-B DU	Duplicate	Total/NA	Water	3010A	_
600-91988-B-1-C MS	Matrix Spike	Total/NA	Water	3010A	
600-92036-5	rinse blank- spoon	Total/NA	Water	3010A	
LCS 600-134453/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 600-134453/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 134493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-91988-B-1-B DU	Duplicate	Total/NA	Water	6010B	134453
600-91988-B-1-C MS	Matrix Spike	Total/NA	Water	6010B	134453
600-92036-5	rinse blank- spoon	Total/NA	Water	6010B	134453
LCS 600-134453/2-A	Lab Control Sample	Total/NA	Water	6010B	134453
MB 600-134453/1-A	Method Blank	Total/NA	Water	6010B	134453

General Chemistry

Analysis Batch: 134381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-91959-F-1 DU	Duplicate	Total/NA	Solid	Moisture	
600-92036-1	2014-SCC-16 (0-0.5)	Total/NA	Solid	Moisture	
600-92036-3	2014-CUFT-19 (0-0.5)	Total/NA	Solid	Moisture	

TestAmerica Houston

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Lab Chronicle

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-92036-1

Client Sample ID: 2014-SCC-16 (0-0.5) Lab Sample ID: 600-92036-1

Date Collected: 05/13/14 17:56

Matrix: Solid Percent Solids: 80.4

Date Received: 05/14/14 07:00

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	134378	05/14/14 12:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	134441	05/14/14 17:09	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			134381	05/14/14 12:53	AYS	TAL HOU

Client Sample ID: 2014-CUFT-19 (0-0.5)

Lab Sample ID: 600-92036-3

Date Collected: 05/13/14 18:32 Date Received: 05/14/14 07:00

Matrix: Solid Percent Solids: 88.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	50 mL	134378	05/14/14 12:28	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.01 g	50 mL	134441	05/14/14 17:17	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			134381	05/14/14 12:53	AYS	TAL HOU

Client Sample ID: rinse blank- spoon

Lab Sample ID: 600-92036-5

Date Collected: 05/13/14 19:03

Matrix: Water

Date Received: 05/14/14 07:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	134453	05/15/14 08:30	NER	TAL HOU
Total/NA	Analysis	6010B		1	50 mL	50 mL	134493	05/15/14 15:37	DCL	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Golder Associates Inc.

Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-92036-1

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	Program		Certification ID	Expiration Date		
Texas	NELAP		6	T104704223	10-31-14		
The following analytes	are included in this report, bu	it certification is not offer	ered by the governing a	authority:			
Analysis Method	Prep Method	Matrix	Analyt	•			
Analysis Method Moisture	Prep Method		Analyt	•			

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Custody Record

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Matrix

Preservatives Containers &

Special Instructions/ Conditions of Receipt

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Chain of

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt

	Drinking Water? Yes ☐ NO ▼ THE LEA	ADER IN ENVIRONMENTAL TESTING
TAL-4124 (1007)		
	Project Manager	Date
Colle Associetà	つるいながれていることものため	han 5-13-14 2/8310
	Telephone Number (Area Code)/Fax Number	Lab Number
のってきている。	JARA DO 5-16-160 - 751-821-62-62	Page of
City State Zip Code	Site Contact Lab Contact	Analysis (Attach list if
		more space is needed)
10 10 10 10 10 10 10 10 10 10 10 10 10 1		

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Sample Receipt Checklist

UNPA	CKED	BY:		·			Date/T	ime Receiv	ed:				
	Loc: 6	800					CLIEN	T:	_ (Solder	-		
JOF	920						CARR	IER/DRIVE	R: FEDE	Ex F.O.	·	'idMAY id	, m
Cus			ໍ່ລ t :	YES	□NO		Numbe	er of Cooler	s Receive	ed:/			
Temp	erature	e of the	e sam	549 ples(s): emp. Blank a	- and/or SC =	San	nple Co		METER	CORRECTIO	ON FACTO	PR: -0.1	William .
Cod	oler ID	6/	B										
Te	emp	TB SC) 2	.3	TB SC	TB SC	TB SC		TB SC	TB SC	TB SC	TB SC	TB SC	
1	rected emp		2										
Base Lot #	sample	es are	>pH 1	eRVATION (2: YES able: YES	NO NO		Acid p	oreserved a		☐ YE	s □NC	□ № □1	NA
Dic	d sampl	es mee	t the la	aboratory's st	andard cond	litions	s of sam	ple acceptab	ility upon r	eceipt?		YES NO	
	COM	MENT	S:	Kusi	4 24	′ /	42.	TAT					

HS-SA-WI-013

Rev. 2; 05/07/2014

Upton, Cathy

From: Marlow, Abby [Abby_Marlow@golder.com]

Sent: Wednesday, May 14, 2014 10:32 AM

To: Upton, Cathy
Cc: Faeth-Boyd, Anne

Subject: Golder Exide samples 5.14.14

Follow Up Flag: Follow up Flag Status: Red

Hey Cathy,

We shipped a cooler of samples to the Houston Test America Lab and it included 4 samples. The four samples were 2014-SCC-16 (0-0.5), 2014-SCC-16 (0.5-1), 2014-CUFT-18 (0-0.5), and 2014-CUFT-18 (0.5-1). The 2014-CUFT-18 (0.5-1.0) and 2014-SCC-16 (0.5-1) need to be put on hold. Also can you please change the 2014-CUFT-18 sample both (0-0.5) and (0.5-1) to 2014-CUFT-19.

Thank you

Abby Marlow | Environmental Scientist | Golder Associates Inc.
500 Century Plaza Drive, Suite 190, Houston, Texas, USA 77073
T: +1 (281) 821-6868 | D: +1 (281) 821 6868 | F: +1 (281) 821-6870 | E: Abby Marlow@golder.com | www.golder.com

Work Safe, Home Safe

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Please consider the environment before printing this email.

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Login Sample Receipt Checklist

Client: Golder Associates Inc. Job Number: 600-92036-1

Login Number: 92036 List Source: TestAmerica Houston

List Number: 1

Creator: Lopez, Sandro R

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a urvey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
he cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
he cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
here are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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Test America Work Orders: 600-85473-1, 600-85473-2, 600-85473-3

Sample Dates: January 10 & 13, 2013 **Project No.:** 1302086

Laboratory: Test America (TLAP Certification Client: Exide Technologies Inc.

T104704223)

Work Orders: Work Orders: 600-85473-1, 600-85473-2, 600-85473-3

Intended Use Affected Property Assessment Report (APAR) Addendum

Site: Exide Former Operating Plant (FOP), 7471 5th Street, Frisco, TX

TESTS/ METHODS

Polychlorinated Biphenyls (PCBs) by SW-846 8082 - Gas Chromatography (GC)

Total Metals by SW-846 6010B - Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP)

SAMPLES

32 soil samples, 2 field duplicates, 2 equipment rinsate blanks, 2 field MS/MSD pairs. See Table 1 for a complete cross-referenced listing of samples.

Golder completed a review of the above chemical analysis data for conformance with the requirements of the Texas Risk Reduction Program (TRRP) guidance document, Review and Reporting of COC Concentration Data (RGG-366/TRRP-13 Revised May 2010) and for adherence to project objectives. The results of the review are discussed in this data usability summary (DUS).

Golder completed the review using the following laboratory and project submittals:

- Laboratory reportable data as defined in TRRP-13;
- Laboratory review checklists (LRC) with the associated exception reports;
- Laboratory Electronic Data Deliverable (EDD); and
- Project field notes from the sampling event.

The review of the reportable data included the quality control (QC) parameters listed below, as required per TRRP-13, using the applicable analytical method and project requirements:

- Data Completeness
- Chain-of-Custody Procedures
- Sample Condition Holding Time, Preservation, and Containers
- Field Procedures
- Results Reporting Procedures





Test America Work Orders: 600-85473-1, 600-85473-2, 600-85473-3

- Laboratory and Field QC Blanks
- Laboratory Control Spike and Matrix Spike Recoveries
- Surrogate Recoveries
- Laboratory and Field Duplicate Precision

Additionally, Golder used the LRC to evaluate the following QC parameters:

- Method Quantitation Limits (MQLs)
- Method Detection Limits (MDLs)
- Instrument Tuning, Calibration, and Performance
- Internal Standards

Criteria used for this data usability review are as follows:

- Inorganics: 70-130% spike recovery (and not less than 30% or data is rejected) and +MQL difference or 30% RPD (for laboratory duplicates) as recommended in TRRP-13;
- Organics: 60-140% spike recovery (and not less than 10% or data is rejected) and +MQL difference or 40% RPD (for laboratory duplicates) as recommended in TRRP-13; and
- Soil Samples: + 3x MQL difference (if either result is less than 5x MQL) or 50% RPD (for field duplicates) as recommended in TRRP-13.

If an item was found outside of the review criteria, the reviewer applied a data qualifier (DQ) and bias code to the results for the affected samples in accordance with TRRP-13. A list of all qualified results and definitions of the qualifier and bias codes are given in Table 2.

GLOSSARY OF TERMS

The following definitions apply for terms related to analyte reporting limits:

MDL (Method Detection Limit) – the minimum concentration of an analyte that the laboratory can measure and report with 99% confidence that the analyte concentration is greater than zero. The MDL is determined by the laboratory for each analyte in a given reagent matrix (water or soil) generally using the procedures specified in 40 CFR Part 136, Appendix B. It is a measure of the concentration an instrument can detect or 'see' in a given reagent matrix. TRRP-13 requires that the laboratory routinely check the MDL for reasonableness.

<u>SDL</u> (Sample Detection Limit) – the MDL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and taking into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can detect or 'see' in a given sample. For TRRP, non-detects





Test America Work Orders: 600-85473-1, 600-85473-2, 600-85473-3

are reported using the SDL. This term was originally called the SQL (Sample Quantitation Limit) before the TRRP rule revisions effective March 19, 2007.

<u>Unadjusted MQL (Method Quantitation Limit)</u> – the lowest non-zero concentration standard in the laboratory's initial calibration curve calculated using the normal aliquot sizes and final volumes prescribed in the analytical method. The unadjusted MQL is reported by the laboratory for each analyte in a given matrix (water or soil). It is a measure of the concentration an instrument can accurately measure in a typical sample. Per TRRP, the Unadjusted MQLs should be below the Levels of Required Performance (LORPs) for purposes of assessment as well as demonstration of conformance with critical Protective Concentration Levels (PCLs).

<u>MQL</u> – the unadjusted MQL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and takes into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can accurately measure in a given sample. Analytes with concentrations above the SDL but below the MQL, though present in the sample, may not be accurately measured and are thus flagged as estimated (J).

LABORATORY CERTIFICATION

At the time the laboratory data were generated for this project, the laboratory was NELAC accredited under the Texas Laboratory Accreditation Program (TLAP) for the matrices, methods and parameters of analysis requested on the chain-of-custody forms. A copy of the applicable pages of the laboratory's National Environmental Laboratory Accreditation Program (NELAP) certificate valid during the period in which the laboratory generated the data in this report is also included in Appendix C to the Supplement to the Affected Property Assessment Report

USABILITY SUMMARY

- 1. Usability of Unqualified Non-Detects Non-detects are reported at the sample detection limit (SDL) as required per TRRP. Additionally, according to the LRC, an MDL study was performed for each analyte and the MDLs were checked for reasonableness for each applicable analyte. The levels of required performance (LORPs) have been established by Golder/PBW as the Residential Assessment Levels (RALs), which are the minimum of the TRRP residential Tier 1 Tot Soil Comb and Tier 1, 2 or 3 GW Soil Ing PCLs for a 30-acre source area. As needed per TRRP, the Unadjusted MQL stated by the laboratory is at or below the LORP for each applicable analyte, and thus the analytical methods are appropriate and the results can be used to demonstrate conformance with the criteria.
- Usability of Qualified Data There are no major QC deficiencies, and thus all data is usable as qualified for the intended use. As shown in Table 2, the reviewer qualified some detects as estimated (J) due to minor QC deficiencies. Detects that are biased high can be used; however, the reported concentration may be high. Detects that are



Test America Work Orders: 600-85473-1, 600-85473-2, 600-85473-3

estimated may be either low or high. Results with a laboratory J-flag (i.e., at a concentration between the SDL and MQL) should be considered estimates. The actual value is not expected to exceed the sample MQL.

Reviewer: Jing Song Xi 8/25/2015

QUALITY CONTROL PARAMETERS AND OUTCOMES

Data Completeness

The laboratory data packages contain all necessary data (i.e., the laboratory reportable data per TRRP-13) and the EDD contain all sample results in acceptable format. Minor revisions have been made for work orders 600-85473-1. All revisions are detailed in the laboratory narrative.

Chain-of-Custody

Proper sample custody procedures were used, which confirms that the integrity of the samples was maintained. Additionally, the information on the custody records is complete and agrees with that in the field notes and laboratory reports, except as follows:

Minor instances of container labels not matching information listed on the COC. These inconsistencies have been addressed by the laboratory and do not affect sample results.

Sample Condition

Samples were collected in appropriate containers, properly preserved in the field, and prepared and analyzed within the holding times as required in the analytical methods, which ensures that the samples were not affected by analyte degradation:

For 600-85473, the temperatures of the coolers at receipt were 2.2°C and 3.0°C.

Field Procedures

The samples were collected and placed immediately into sterilized jars provided by the laboratory and then into a cooler with ice for overnight delivery to the laboratory.

Two field duplicates were collected with the 32 investigative samples. Two site-specific MS/MSD samples were collected. Two equipment rinsate blanks were collected with the samples.

Results Reporting Procedures

The hardcopy analytical results include a Result, MQL (adjusted), and SDL. The EDD includes the MDL, SDL (under the SQL column per previously used terminology) and the MQL, which is not adjusted for sample specific factors.



Data Usability Summary

Test America Work Orders: 600-85473-1, 600-85473-2, 600-85473-3

Results are reported in mg/kg with dry-weight correction for the metals. Non-detects are reported using the SDL as specified per TRRP and detects between the SDL and MQL are reported with a laboratory J-flag. The concentration reported for detects between the SDL and MQL is below the calibration range and thus is considered estimated.

MQLs- The LORPs have been established by Golder/PBW as the Residential Assessment Levels (RALs), which are the minimum of the TRRP residential Tier 1 Tier 1 Tot Soil Comb and Tier 1, 2 or 3 GW Soil Ing PCLs for a 30-acre source area. The Unadjusted MQLs for the laboratory are at or below the LORPs for each applicable analyte.

MDLs- According to the LRC, an MDL study was performed for each analyte, and the MDLs were checked for reasonableness and either adjusted or supported by the analysis of detectability check standards (DCS) for each applicable analyte as required per TRRP-13. Results for the DCS are included in the data packages.

Laboratory Blanks

Results for samples prepared in the same QC batch as a contaminated method blank may be affected by laboratory contamination. There were no detections in the laboratory blanks.

Field QC Blanks

Two equipment rinsate blanks were collected to document sufficient field decontamination procedures for soil sampling devices. No analytes were detected in the field QC blanks. Results for samples collected with a contaminated rinsate blank may be affected by field contamination. However, analytes were not detected in the rinsate blanks, and thus there is no effect on data quality.

Laboratory Control Sample

The laboratory prepared one laboratory control sample (LCS) for each analytical batch and reported recoveries for all of the analytes for each test. The LCS recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on a sample, free of matrix effects.

Matrix Spike Recovery

The laboratory prepared one or more matrix spike (MS) and matrix spike duplicate (MSD) with each analytical batch plus a Post Digestion Spike (PDS) with each metals analytical batch. MS/MSD recoveries are reported for the same analytes as the LCS for MS/MSD prepared using a sample from the site, which includes 2 MS/MSD for Total Metals, as shown in Table 1.



Data Usability Summary

Test America Work Orders: 600-85473-1, 600-85473-2, 600-85473-3

PDS outcomes are given on the LRC for each job package; however PDS data are not reportable data per TRRP-13. According to the LRC, the PDS met method requirements, which indicates good accuracy for the analysis technique on the given sample matrix.

The MS/MSD recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on a sample free of matrix effects, except as follows:

QC Batch	Lab Sample ID	MS/MSD ID	Analyte	Parent Amount (mg/kg)	Spike Amount for MS/MSD (mg/kg)	MS % Recovery	MSD % Recovery	Qual
125089	600-85473- 16	ECO-10A (0-0.5)	Antimony	0.263	56.8, 57.3	47	43	JL
125124	600-85473- 34	2013- FWFS-5A (0-2)	Antimony	0.275	57.7, 57.2	35	34	JL
125124	600-85473- 34	2013- FWFS-5A (0-2)	Lead	100	57.7, 57.2	-43	-46	JL
125124	600-85473- 36	2013-BSB- 8A (8-10)	Antimony	26.8	60.1, 61.8	-9	2	JL
125124	600-85473- 36	2013-BSB- 8A (8-10)	Cadmium	11.4	30.0, 30.9	60	70	JL
125124	600-85473- 36	2013-BSB- 8A (8-10)	Lead	14800	60.1, 61.8	-23109	-17640	-

NA - Not available.

In all cases where the spike amount is less than four times the result in the unspiked parent sample, the data are considered inconclusive and the MS/MSD recovery check is waived. Note that the PDS recoveries and the recoveries for the remaining MS/MSD are within the criteria.

Surrogate Recovery

Surrogate recoveries were within acceptable criteria for PCB analyses.

Laboratory Duplicate Precision

The laboratory prepared one or more Matrix Spike Duplicate (MSD) with each analytical batch for each test. Additionally, the laboratory prepared one Matrix Duplicate (MD) with each metals and pH analytical batch. RPDs are reported for the same analytes as the LCS for MSD/MD prepared using a sample from the site, which includes 2 MSD and MD for Total Metals, as shown in Table 1.

The MSD and MD RPDs are within the TRRP recommended criteria, which indicates good precision for the preparation and analysis technique for the given sample matrix, except as follows:

QC Batch	Lab Sample ID	MS/MSD ID	Analyte	Parent Amount (mg/kg)	MSD RPD	MD RPD	Qual
125124	600-85473-16	ECO-10A (0- 0.5)	Cadmium	0.409	8	73	J





Data Usability Summary

Test America Work Orders: 600-85473-1, 600-85473-2, 600-85473-3

125124	600-85473-16	ECO-10A (0- 0.5)	Lead	21.4	1	93	J
125124	600-85473-34	2013-FWFS- 5A (0-2)	Lead	100	2	74	J
125124	600-85473-36	2013-BSB-8A (8-10)	Lead	14800	191	22	J

Field Duplicate Precision

Two field duplicates were collected with the samples and analyzed for cadmium and lead. Results are summarized in Table 3. The RPDs (or the absolute difference between results for concentrations <5x MQL and for non-detects) are within the TRRP criteria, which indicates good precision for the sampling, preparation, and analysis technique on the given sample matrix, except as follows:

- The results for Total lead are outside the criteria for the pair collected at 2013-FWFS-5A (0-2).
- The results for Total cadmium and Total lead are outside the criteria for the pair collected at 2013-BSB-8A (8-10).

Instrument Tuning

According to the LRC, instrument tuning met method requirements for the samples, which indicates the GC/MS instrument was properly set up to identify analytes.

Instrument Calibration

According to the LRC, initial and continuing calibration data met method requirements for all reported results, which indicates the instruments were properly calibrated to measure analyte concentrations.

Instrument Performance

According to the LRC, the serial dilution and ICP interference check samples met method requirements, which indicates that no significant matrix interference exists, except as follows:

The interference check standard solution associated with batch 123111 showed results for lead at a level greater than 2 times the LOD. Since this analyte was not detected in the field sample, no corrective action was required.

Internal Standards

According to the LRC, area counts and retention times were within method requirements.



TABLE 1
CROSS REFERENCE OF FIELD SAMPLE IDENTIFICATIONS AND LABORATORY IDENTIFICATIONS

CICO	ISS REFERENCE OF FIELD S	IKATOK	TIDENTITICATIONS		
Lab Sample ID	Field Sample ID	Prep Batch/ Analysis Batch	Sample Date	Matrix	Comments
		105000/105011			
(00 05 472 1	MANA 22/2012 FINES ED (1.2)	125089/125211	1/10/2014	Soil	
	MW-33/2013-FWFS-5B (1-2)	128791/128837	4/40/0044	0 "	
	MW-33/2013-FWFS-5B (2-4)	127810/127873	1/10/2014	Soil	
	MW-33/2013-FWFS-5B (4-5)	125089/125211	1/10/2014	Soil	
600-85473-4	F-5D (0-0.25)	125089/125211	1/10/2014	Soil	
	F-5D (1)	405000/405044	1/10/2014	Soil	Not reported
	F-5E (0-0.25)	125089/125211	1/10/2014	Soil	
	F-5E (1)	405000/405044	1/10/2014	Soil	Not reported
600-85473-8	F-5B (0-0.25)	125089/125211	1/10/2014	Soil	
600-85473-9	F-5B (1)		1/10/2014	Soil	Not reported
	F-5A (0-0.25)	125089/125211	1/10/2014	Soil	
	F-5A (1)	127810/127873	1/10/2014	Soil	
	F-5C (0-0.25)	125089/125211	1/10/2014	Soil	
	F-5C (1)		1/10/2014	Soil	Not reported
	SRB-VS-9E (0-0.5)	125089/125211	1/10/2014	Soil	
	SRB-VS-11A (0-0.5)	125089/125211	1/10/2014	Soil	
600-85473-16	ECO-10A (0-0.5)	125089/125211	1/10/2014	Soil	
600-85473-17	ECO-4A (0-0.5)	125089/125211	1/10/2014	Soil	
600-85473-18	ECO-4A (0.5-2)		1/10/2014	Soil	Not reported
	E-11D (0-0.5)	125089/125211	1/10/2014	Soil	
600-85473-20	2013-NT-01 (0-0.5)	125089/125211	1/10/2014	Soil	
600-85473-21	2013-NT-01 (0.2-2)	125089/125211	1/10/2014	Soil	
600-85473-22	E-12A (0-0.5)	125089/125211	1/10/2014	Soil	
		125089/125211	1/10/2014	Soil	
600-85473-23	2013-NT-02 (0-0.5)	128791/128837	1710/2014	3011	
600-85473-24	2013-NT-02 (0.5-2)	125089/125211	1/10/2014	Soil	
600-85473-25	E-13A (0-0.5)	125089/125211	1/10/2014	Soil	
600-85473-26	E-14A (0-0.5)	125089/125211	1/10/2014	Soil	
		125237/125450	1/10/2014	Water	Rinsate Blank for PCBs associated
600-85473-27	Rinse Blank Geo	125065/125111	1/10/2014	water	with lab report J85389
600-85473-28	MW-27E (0-1)	125124/125111	1/13/2014	Soil	
600-85473-29	MW-27E (1-2)	127810/127873	1/13/2014	Soil	
600-85473-30	MW-27E (2-3)		1/13/2014	Soil	Not reported
600-85473-31	MW-29A (0-0.5)	125124/125111	1/13/2014	Soil	•
600-85473-32	Dup-10	125124/125111	1/13/2014	Soil	Duplicate of 2013-FWFS-5A (0-2)
600-85473-33	Dup-11	125124/125111	1/13/2014	Soil	Duplicate of 2013-BSB-8A (8-10)
	2013-FWFS-5A (0-2)	125124/125111	1/13/2014	Soil	site-specific MS/MSD
	2013-FWFS-5A (2-4)		1/13/2014	Soil	Not reported
	2013-BSB-8A (8-10)	125124/125111	1/13/2014	Soil	site-specific MS/MSD
600-85473-37	2013-FWCS-12A (2-2.7)	125124/125111	1/13/2014	Soil	,
600-85473-38	2013-MW-17B (0-0.5)	125124/125111	1/13/2014	Soil	
	SCC-10B (0-0.5)	125124/125111	1/13/2014	Soil	
	Rinse Blank Geo	125065/125111	1/13/2014	Water	Rinsate Blank
	ECO-4B (0-0.5)	125124/125111	1/13/2014	Soil	
	ECO-4B (0.5-2)		1/13/2014	Soil	Not reported
	(0.0 _/	1	.,, 2011	5511	

TABLE 2 - QUALIFIED DATA

Lab Sample ID	Field Sample ID	Analyte	Result	Units	Qualifer	Explanation
600-85473-15	SRB-VS-11A (0-0.5)	Antimony	0.602	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Antimony	<0.263	mg/kg	UJL	Matrix Spike recovery below specifications, >30%
		Cadmium	0.409	mg/kg	J	Lab duplicate RPD outside specifications and analyte concentration >5x MQL
600-85473-16	ECO-10A (0-0.5)	Lead	21.4	mg/kg	J	Lab duplicate RPD outside specifications and analyte concentration >5x MQL
		Cadmium	1.58	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85473-28	MW-27E (0-1)	Lead	298	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Cadmium	1.27	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85473-31	MW-29A (0-0.5)	Lead	171	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Cadmium	28.3	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85473-32	DUP-10	Lead	1130	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Cadmium	0.2	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85473-33	DUP-11	Lead	59.2	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Antimony	<0.275	mg/kg	UJL	Matrix Spike recovery below specifications, >30%
		Cadmium	0.529	mg/kg	JL	Matrix Spike recovery below specifications, >30%
						Matrix Spike recovery below specifications, >30%, Lab duplicate RPD outside
600-85473-34	2013-FWFS-5A (0-2)	Lead	100	mg/kg	JL	specifications and analyte concentration >5x MQL
						Matrix Spike recovery below specifications, >30%, Lab duplicate RPD outside
600-85473-36	2013-BSB-8A (8-10)	Lead	14800	mg/kg	JL	specifications and analyte concentration >5x MQL
600-85473-37	2013-FWCS-12A (2-2.7)	Lead	106	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Antimony	32.4	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Cadmium	5.19	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85473-38	2013-MW-17B (0-0.5)	Lead	6830	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Antimony	1.69	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Cadmium	1.85	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85473-39	SCC-10B (0-0.5)	Lead	333	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Cadmium	1.21	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85473-41	ECO-4B (0-0.5)	Lead	201	mg/kg	JL	Matrix Spike recovery below specifications, >30%

Note:

Detected results between the SDL and MQL (i.e., results with a laboratory J-flag) have been included in the above table since the reported concentration is below the calibration range.

NJ Tentatively identified, estimated data; The analysis indicates the presence of the analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.

NS Not selected; Another result (from a secondary dilution, different analytical method, re-sampling, etc.) is selected for use based on QC outcomes and/or reported concentrations.

U Not detected; The analyte was not detected >5x (10x for common contaminants) the level in an associated blank and thus should be considered not detected above the level of the associated numerical value (i.e., the reported sample concentration).

UJ Estimated data; The analyte was not detected above the reported sample detection limit (SDL). The numerical value of the SDL is estimated and may be inaccurate.

L Bias in sample result is likely to be low

J Estimated data; The analyte was detected and identified. The associated numerical value (i.e., the reported sample concentration) is the approximate concentration of the analyte in the sample.

R Rejected data; The data is unusable. Serious QC deficiencies make it impossible to verify the absence or presence of this analyte.

H Bias in sample result is likely to be high

TABLE 3 - FIELD DUPLICATE PRECISION CALCULATIONS

Duplicate and Parent Sample Field Identification	Analyte	Sample Result	Duplicate Result	RPD ^a	Accept or Reject	Qualifier Added
DUP-10 / 2013-FWFS-5A (0-2)	cadmium	0.529	28.3	192.7	Α	J
DUF-10 / 2013-FWF3-5A (0-2)	lead	100	1130	167.5	Α	J
DUP-11 / 2013-BSB-8A (8-10)	lead	14800	59.2	198.4	Α	J

 a RPD = ((SR - DR)*200)/(SR + DR)

A - Acceptable Data

NA - Not Analyzed
The RPD test (<50%) applies if both results are greater than 5x MQL.
Otherwise, the absolute difference test (< 3x MQL) applies.



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-85473-1

Client Project/Site: Exide Recycling Center

Revision: 5

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 6/11/2015 6:13:04 PM

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

·····LINKS ·······

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-85473-1 and consists of:

☑ R1 - Field chain-of-custody documentation;

☑ R2 - Sample identification cross-reference;

☑ R3 - Test reports (analytical data sheets) for each environmental sample that includes:

- a. Items consistent with NELAC Chapter 5,
- b. dilution factors,
- c. preparation methods,
- d. cleanup methods, and
- e. if required for the project, tentatively identified compounds (TICs).
- ☑ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☑ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

 Cathy Upton
 4/21/2014

 Name (printed)
 Signature
 Date

Project Management Asst II

Official Title (printed)

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	3/26/2014
Project Name:	Exide Recycling Center	Laboratory Job Number:	600-85473-1
Reviewer Name:	Dean A Joiner		

				_		
# ¹ A ²	Description	Yes	No	NA ³	NR⁴	ER#
	hain-of-custody (C-O-C)					
	id samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Х				
	Vere all departures from standard conditions described in an exception report?	Х				
	ample and quality control (QC) identification					
	re all field sample ID numbers cross-referenced to the laboratory ID numbers?	Х				
Α	re all laboratory ID numbers cross-referenced to the corresponding QC data?	Х				
3 OI T	est reports					
	Vere all samples prepared and analyzed within holding times?	Х				
0	other than those results < MQL, were all other raw values bracketed by calibration standards?	Х				
V	Vere calculations checked by a peer or supervisor?	Х				
V	Vere all analyte identifications checked by a peer or supervisor?	Х				
V	Vere sample detection limits reported for all analytes not detected?	Х				
V	Vere all results for soil and sediment samples reported on a dry weight basis?	Х				
V	Vere % moisture (or solids) reported for all soil and sediment samples?	Х				
V	Vere bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Χ		
If	required for the project, are TICs reported?			Χ		
	urrogate recovery data					
	Vere surrogates added prior to extraction?	Х				
	Vere surrogate percent recoveries in all samples within the laboratory QC limits?	Х				
5 OI T	est reports/summary forms for blank samples					
	Vere appropriate type(s) of blanks analyzed?	Х				
	Vere blanks analyzed at the appropriate frequency?	Х				
_	Vere method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
	rocedures?	Х				
	Vere blank concentrations < MQL?	X				
	aboratory control samples (LCS):					
	Vere all COCs included in the LCS?		Х			R06A
	Vas each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Х	^			1100/1
	Vere LCSs analyzed at the required frequency?	X				
	Vere LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
_	loes the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used					
	o calculate the SDLs?	Х				
	Vas the LCSD RPD within QC limits?	<u> </u>		Х		
		<u> </u>		^		
	latrix spike (MS) and matrix spike duplicate (MSD) data	Х				
	Vere the project/method specified analytes included in the MS and MSD?					
	Vere MS/MSD analyzed at the appropriate frequency?	Х	V			D070
	Vere MS (and MSD, if applicable) %Rs within the laboratory QC limits?	<u> </u>	X			R07C
	Vere MS/MSD RPDs within laboratory QC limits?		Х			R07D
	nalytical duplicate data	L				
	Vere appropriate analytical duplicates analyzed for each matrix?	X				
	Vere analytical duplicates analyzed at the appropriate frequency?	X				
	Vere RPDs or relative standard deviations within the laboratory QC limits?	Х				
	lethod quantitation limits (MQLs):					
	re the MQLs for each method analyte included in the laboratory data package?	Х				
	to the MQLs correspond to the concentration of the lowest non-zero calibration standard?	Х				
	re unadjusted MQLs and DCSs included in the laboratory data package?	Х				
	ther problems/anomalies					
Α	re all known problems/anomalies/special conditions noted in this LRC and ER?	Х				
	Vas applicable and available technology used to lower the SDL to minimize the matrix interference effects on the					
Sa	ample results?	<u>L</u>	Х			R10B
	s the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and	I				
	nethods associated with this laboratory data package?	Х				
	ems identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required repo	ort(s). I	tems			

. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	3/26/2014
Project Name:	Exide Recycling Center	Laboratory Job Number:	600-85473-1
Reviewer Name:	Dean A Joiner		

# ¹	A^2	Description	Yes	No	NA ³	NR ⁴	ER#
1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	Х				
		Were percent RSDs or correlation coefficient criteria met?	Х				
		Was the number of standards recommended in the method used for all analytes?	Х				
		Were all points generated between the lowest and highest standard used to calculate the curve?	Х				
		Are ICAL data available for all instruments used?	Х				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
2		Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	Х				
		Were percent differences for each analyte within the method-required QC limits?	Х				
		Was the ICAL curve verified for each analyte?	Х				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
3		Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?		1	Х		
		Were ion abundance data within the method-required QC limits?			Х		
4		Internal standards (IS)					
-		Were IS area counts and retention times within the method-required QC limits?			Χ		
5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
		Were data associated with manual integrations flagged on the raw data?	Х				
6		Dual column confirmation					
	_	Did dual column confirmation results meet the method-required QC?	Х				
7		Tentatively identified compounds (TICs)					
,,		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Х		
8		Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?		Х			S08A
S 9		Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			Х		
10		Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	Х				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
11		Proficiency test reports	^				
,,,		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х				
:12		Standards documentation	^				
14		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х			\vdash	
313 I		Compound/analyte identification procedures	^	1			
		Are the procedures for compound/analyte identification documented?	Х	1			
14		Demonstration of analyst competency (DOC)		1			
		Was DOC conducted consistent with NELAC Chapter 5?	Х				
		Is documentation of the analyst's competency up-to-date and on file?	X	1			
315		Verification/validation documentation for methods (NELAC Chapter 5)	^				
	JI	To modulo in Tamaduo in documentation for methods (MEEAO offapter 3)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	Х				
16		Laboratory standard operating procedures (SOPs)	^				
		Are laboratory SOPs current and on file for each method performed?	Х				
		Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required		tomo			
		identified by the letter "S" should be retained and made available upon request for the appropriate retention period		101115			
			u.				
		O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
		NA = Not applicable;					
	4.	NR = Not reviewed;					

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	3/26/2014
Project Name:	Exide Recycling Center	Laboratory Job Number:	600-85473-1
Reviewer Name:	Dean A Joiner		

ER # ¹	Description
R07C	Method 8082: Since Aroclors are multi-component analytes, it is not possible to include all seven Aroclors of interest into the LCS. The only two Aroclors that were spiked into the LCS were Aroclors 1016 and 1260. Since these two Aroclors essentially contain all analytes found in the other five individual Aroclors of interest, the recovery of Aroclors 1016 and 1260 in the LCS will be representative of the recovery of the other five Aroclors.
R07C	Method 6010B: 600-85473-16 MS/MSD failed the recovery criteria for the following analyte(s): Antimony. Matrix interference is suspected. Method 6010B: 600-85473-34 MS/MSD failed the recovery criteria for the following analyte(s): Antimony, Lead. Matrix interference is suspected. Method 6010B: 600-85473-36 MS failed the recovery criteria for the following analyte(s): Antimony, Arsenic, Cadmium, Lead. Matrix interference is suspected. Method 6010B: 600-85473-36 MSD failed the recovery criteria for the following analyte(s): Antimony, Cadmium, Lead. Matrix interference is suspected.
R07D	Method 6010B: 600-85473-36 MSD failed the RPD criteria for the following analyte(s): Antimony, Lead. Matrix interference is suspected.
R08C	Method 6010B: 600-85473-16 DU failed the RPD criteria for the following analyte(s): Cadmium, Lead. Matrix interference is suspected. Method 6010B: 600-85473-34 DU failed the RPD criteria for the following analyte(s): Lead. Matrix interference is suspected. Method 6010B: 600-85473-36 DU failed the RPD criteria for the following analyte(s): Antimony, Lead. Matrix interference is suspected.
R10B	Method 6010B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: 600-85473-3, 600-85473 36, 600-85473-36 DU, 600-85473-36 MS, 600-85473-36 MSD, and 600-85473-38. Elevated reporting limits (RLs) are provided.
S08A	Method 6010B: The interference check standard solution (ICSA) associated with batch 125111 showed results for Lead at a level greater than 2 times the limit of detection (LOD). Since this analyte was not detected in the client sample, no corrective action was required.
2. 3.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; FR# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Detection Check Standard

 Matrix:
 Soil

 Method:
 6010B

 Preparation:
 3050

 Date Analyzed:
 7/2/2013

 Date Prepared:
 7/2/2013

 Instrument:
 Thermo 6500

 TALS Batches:
 109822, 109690

Prep/Reagent Factor = 50 Units: mg/kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.299654	0.5	1.67	25
Antimony	0.231553	0.45	0.495	2.5
Arsenic	0.217923	0.5	0.465	1
Barium	0.011322	0.03	0.03	1
Beryllium	0.014513	0.02	0.02	0.25
Boron	0.385535	0.6	0.695	20
Cadmium	0.025642	0.05	0.05	0.25
Calcium	0.86399	1.5	3.42	100
Chromium	0.050606	0.1	0.06	0.5
Cobalt	0.067622	0.1	0.105	0.5
Copper	0.173703	0.5	0.525	0.5
Iron	2.534007	4	3.58	20
Lead	0.104832	0.2	0.205	0.5
Selenium	0.258884	0.5	0.495	2
Manganese	0.038111	0.05	0.02	1.5
Molybdenum	0.136448	0.35	0.34	0.5
Nickel	0.116599	0.15	0.145	1
Silver	0.118848	0.2	0.18	0.5
Sodium	0.885548	2.4	1.805	100
Strontium	0.00252	0.005	1.01	0.25
Thallium	0.276988	0.7	0.655	1.5
Tin	0.08729	0.15	0.12	1
Titanium	0.014529	0.03	0.05	0.5
Vanadium	0.079068	0.15	0.145	0.5
Zinc	0.108432	0.2	0.345	1.5

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Detection Check Standard

Matrix: Water Method: 200.7/6010 Preparation: 200.7P/3010 Date Analyzed: 7/2/2013 Date Prepared: 7/2/2013 Instrument: Thermo 6500 109822, 109666 TALs Batches: Units: mg/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.006	0.02	0.0335	0.5
Antimony	0.0063	0.01	0.0105	0.05
Arsenic	0.0033	0.01	0.0071	0.01
Barium	0.0022	0.005	0.0051	0.02
Beryllium	0.00134	0.002	0.0039	0.005
Boron	0.0077	0.02	0.0216	0.2
Cadmium	0.00073	0.001	0.0011	0.005
Calcium	0.022	0.05	0.0796	1
Chromium	0.0016	0.002	0.0031	0.01
Cobalt	0.00063	0.001	0.001	0.01
Copper	0.0014	0.002	0.0017	0.01
Iron	0.087	0.1	0.0874	0.4
Lithium	0.0024	0.005	0.0042	0.2
Lead	0.0029	0.005	0.004	0.01
Selenium	0.0042	0.01	0.0091	0.04
Manganese	0.00084	0.002	0.0013	0.01
Molybdenum	0.0027	0.005	0.0048	0.01
Nickel	0.00179	0.005	0.0047	0.01
Silver	0.0012	0.0025	0.0017	0.01
Sodium	0.02	0.05	0.0416	1
Strontium	0.0005	0.001	0.0009	0.005
Thallium	0.0078	0.02	0.0205	0.03
Tin	0.0028	0.005	0.0047	0.01
Titanium	0.0011	0.002	0.0019	0.01
Vanadium	0.0017	0.002	0.0044	0.01
Zinc	0.0022	0.005	0.0071	0.01

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Detection Check Standard

 Matrix:
 Water

 Method:
 8082

 Preparation:
 3510

 Date Analyzed:
 7/9-10/2013

 Date Prepared:
 7/3,9/2013

TALs Batches: 600-109918/7-a,600-110312/3,4,5,6,7,8-a

Units: ug/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Aroclor 1016	0.27	0.5	0.496	0.5
Aroclor 1221	0.22	0.5	0.323	0.5
Aroclor 1232	0.06	0.5	0.288	0.5
Aroclor 1242	0.27	0.5	0.422	0.5
Aroclor 1248	0.1	0.5	0.484	0.5
Aroclor 1254	0.07	0.5	0.37	0.5
Aroclor 1260	0.17	0.5	0.565	0.5
Aroclor 1262	0.5	0.5	0.521	0.5

Case Narrative

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85473-1

Job ID: 600-85473-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-85473-1

Comments

The report was revised on 03/05/14 to report total metals for samples 15, 34, 38 and 39, replacing the final report generated on 01/22/14. The report was revised on 04/21/14 to report all 5 metals for samples 14, 16, 23, and 41, replacing the final report generated on 03/26/14. The report was revised on 05/09/14 to report As and Se for samples 20, 21, 23 and 24 per client request, replacing the final report generated on 04/21/14. See attached email. The report was revised on 06/11/15 to include arsenic in samples 25 and 26, replacing the final report generated on 05/09/14.

Receipt

The samples were received on 1/14/2014 10:21 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.2° C and 3.3° C.

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Method Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85473-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85473-1

Lab Sample ID	Client Sample ID	Matrix	Collected Received
600-85473-1	MW-33/2013-FWFS-5B (1-2)	Solid	01/10/14 16:00 01/14/14 10:2
600-85473-3	MW-33/2013-FWFS-5B (4-5)	Solid	01/10/14 16:04 01/14/14 10:2
600-85473-4	F-5D (0.0-0.25)	Solid	01/10/14 13:38 01/14/14 10:2
600-85473-6	F-5E (0-0.25)	Solid	01/10/14 13:42 01/14/14 10:2
600-85473-8	F-5B (0-0.25)	Solid	01/10/14 13:47 01/14/14 10:2
600-85473-10	F-5A (0-0.25)	Solid	01/10/14 13:49 01/14/14 10:2
600-85473-12	F-5C (0-0.25)	Solid	01/10/14 13:51 01/14/14 10:2
600-85473-14	SRB-VS-9E (0-0.5)	Solid	01/10/14 14:08 01/14/14 10:2
600-85473-15	SRB-VS-11A (0-0.5)	Solid	01/10/14 14:16 01/14/14 10:2
600-85473-16	ECO-10A (0-0.5)	Solid	01/10/14 14:43 01/14/14 10:2
600-85473-17	ECO-4A (0-0.5)	Solid	01/10/14 15:10 01/14/14 10:2
600-85473-19	E-11D (0-0.5)	Solid	01/10/14 15:45 01/14/14 10:2
600-85473-20	2013-NT-01 (0-0.5)	Solid	01/10/14 15:58 01/14/14 10:2
600-85473-21	2013-NT-01 (0.5-2)	Solid	01/10/14 15:59 01/14/14 10:2
600-85473-22	E-12A (0-0.5)	Solid	01/10/14 16:01 01/14/14 10:2
600-85473-23	2013-NT-02 (0-0.5)	Solid	01/10/14 16:15 01/14/14 10:2
600-85473-24	2013-NT-02 (0.5-2))	Solid	01/10/14 16:16 01/14/14 10:2
600-85473-25	E-13A (0-0.5)	Solid	01/10/14 16:22 01/14/14 10:2
600-85473-26	E-14A (0-0.5)	Solid	01/10/14 16:30 01/14/14 10:2
600-85473-27	RINSE BLANK GEO	Water	01/10/14 08:30 01/14/14 10:2
600-85473-28	MW-27E (0-1)	Solid	01/13/14 08:42 01/14/14 10:2
600-85473-31	MW-29A (0-0.5)	Solid	01/13/14 08:52 01/14/14 10:2
600-85473-32	DUP-10	Solid	01/13/14 00:00 01/14/14 10:2
600-85473-33	DUP-11	Solid	01/13/14 00:00 01/14/14 10:2
600-85473-34	2013-FWFS-SA (0-2)	Solid	01/13/14 09:12 01/14/14 10:2
600-85473-36	2013-BSB-8A (8-10)	Solid	01/13/14 09:50 01/14/14 10:2
600-85473-37	2013-FWCS-12A (2-2.7)	Solid	01/13/14 11:05 01/14/14 10:2
600-85473-38	2013-MW-17B (0-0.5)	Solid	01/13/14 11:51 01/14/14 10:2
600-85473-39	SCC-10B (0-0.5)	Solid	01/13/14 12:04 01/14/14 10:2
600-85473-40	RINSE BLANK GEO	Water	01/13/14 13:15 01/14/14 10:2
600-85473-41	ECO04B (0-0.5)	Solid	01/13/14 13:48 01/14/14 10:2

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Client Sample Results

Client: Golder Associates Inc.
Project/Site: Exide Recycling Center

Client Sample ID: MW-33/201

General Chemistry

Percent Moisture

Analyte

TestAmerica Job ID: 600-85473-1

Client Sample ID: MW-33/20 Date Collected: 01/10/14 16:00	13-FWF	S-5B (1-	-2)			ı	_ab Sample	Matrix	c: Solid
Date Received: 01/14/14 10:21								Percent Solid	ls: 81.2
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	40.5		0.291	0.0298		\		01/17/14 13:56	1
Lead	1420		0.581		mg/Kg	☼	01/16/14 10:03	01/17/14 13:56	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19		1.0	1.0	%	— –		01/15/14 15:56	1
Percent Solids	81		1.0	1.0				01/15/14 15:56	1
Client Sample ID: MW-33/20	13-FWF	S-5B (4-	-5)				_ab Sample	D: 600-85	5473-3
Date Collected: 01/10/14 16:04		(-	,						c: Solid
Date Received: 01/14/14 10:21								Percent Solid	
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	7.20		0.334	0.0343	mg/Kg	₩	01/16/14 10:03	01/17/14 14:05	1
Method: 6010B - Metals (ICP) - I	DL								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	10200		13.4	2.80	mg/Kg	\	01/16/14 10:03	01/17/14 16:12	20
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	27		1.0	1.0	%			01/15/14 15:56	1
Percent Solids	73		1.0	1.0	%			01/15/14 15:56	1
Client Sample ID: F-5D (0.0-	-0.25)						_ab Sample	D: 600-85	5473-4
Date Collected: 01/10/14 13:38	•						•		c: Solid
Date Received: 01/14/14 10:21								Percent Solid	
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.07		0.329	0.0338	mg/Kg	₩	01/16/14 10:03	01/17/14 14:08	1
_Lead 	101		0.659	0.138	mg/Kg	₩	01/16/14 10:03	01/17/14 14:08	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24		1.0	1.0	%			01/15/14 15:56	1
Percent Solids	76		1.0	1.0	%			01/15/14 15:56	1
Client Sample ID: F-5E (0-0.	.25)					ı	_ab Sample	D: 600-85	5473-6
Date Collected: 01/10/14 13:42									c: Solid
Date Received: 01/14/14 10:21								Percent Solid	ls: 68.8
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	2.14	-	0.336	0.0345	mg/Kg	<u></u>	01/16/14 10:03	01/17/14 14:10	1
Lead	161		0.673	0 4 4 4	mg/Kg	144	01/16/14 10:03		1

TestAmerica Houston

Analyzed

01/15/14 15:56

Prepared

MQL (Adj)

1.0

SDL Unit

1.0 %

Result Qualifier

31

Dil Fac

TestAmerica Houston

Percent Solids: 80.9

Analyzed

Prepared

01/16/14 10:03 01/17/14 14:20

MQL (Adj)

3.00

SDL Unit

mg/Kg

0.278

Result Qualifier

0.278 U

Date Collected: 01/10/14 14:08

Date Received: 01/14/14 10:21

Method: 6010B - Metals (ICP)

Analyte

Antimony

Matrix: Solid

Dil Fac

Client Sample Results

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/10/14 14:08

Date Received: 01/14/14 10:21

Client Sample ID: SRB-VS-9E (0-0.5)

TestAmerica Job ID: 600-85473-1

Lab Sample ID: 600-85473-14

Matrix: Solid

Percent Solids: 80.9

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.26		1.20	0.262	mg/Kg	<u> </u>	01/16/14 10:03	01/17/14 14:20	1
Cadmium	0.210	J	0.300	0.0308	mg/Kg	₩	01/16/14 10:03	01/17/14 14:20	1
Lead	31.0		0.600	0.126	mg/Kg	₽	01/16/14 10:03	01/17/14 14:20	1
Selenium	0.311	U	2.40	0.311	mg/Kg	≎	01/16/14 10:03	01/17/14 14:20	1

General Chemistry Analyte	Result Quali	ifier MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19	1.0	1.0	%			01/15/14 15:56	1
Percent Solids	81	1.0	1.0	%			01/15/14 15:56	1

Client Sample ID: SRB-VS-11A (0-0.5) Lab Sample ID: 600-85473-15

Date Collected: 01/10/14 14:16 **Matrix: Solid** Date Received: 01/14/14 10:21 Percent Solids: 83.0

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDI	Unit	D	Prepared	Analvzed	Dil Fac
Antimony	0.602 J	- (2 () (3)) -		mg/Kg			01/17/14 14:22	1
Arsenic	11.4	1.12		mg/Kg	☼	01/16/14 10:03	01/17/14 14:22	1
Cadmium	1.44	0.279	0.0286	mg/Kg	₽	01/16/14 10:03	01/17/14 14:22	1
Lead	273	0.558	0.117	mg/Kg	ф.	01/16/14 10:03	01/17/14 14:22	1
Selenium	0.491 J	2.23	0.289	mg/Kg	☼	01/16/14 10:03	01/17/14 14:22	1

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17	1.0	1.0 %			01/15/14 15:56	1
Percent Solids	83	1.0	1.0 %			01/15/14 15:56	1

Client Sample ID: ECO-10A (0-0.5) Lab Sample ID: 600-85473-16

Date Collected: 01/10/14 14:43 **Matrix: Solid** Date Received: 01/14/14 10:21 Percent Solids: 85.5

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.263	U	2.84	0.263	mg/Kg	<u> </u>	01/16/14 10:03	01/17/14 14:24	1
Arsenic	6.76		1.14	0.248	mg/Kg	☼	01/16/14 10:03	01/17/14 14:24	1
Cadmium	0.409		0.284	0.0291	mg/Kg	☼	01/16/14 10:03	01/17/14 14:24	1
Lead	21.4		0.568	0.119	mg/Kg	₽	01/16/14 10:03	01/17/14 14:24	1
Selenium	0.534	J	2.27	0.294	mg/Kg	₩	01/16/14 10:03	01/17/14 14:24	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15	1.0	1.0 %			01/15/14 15:56	1
Percent Solids	85	1.0	1.0 %			01/15/14 15:56	1

Lab Sample ID: 600-85473-17 Client Sample ID: ECO-4A (0-0.5)

Date Collected: 01/10/14 15:10 **Matrix: Solid** Date Received: 01/14/14 10:21 Percent Solids: 80.5

Method: 6010B - Metals (ICP)				_			
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.64	0.308	0.0316 mg/Kg	<u>₩</u>	01/16/14 10:03	01/17/14 14:41	1

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: ECO-4A (0-0.5)

Date Collected: 01/10/14 15:10

Date Received: 01/14/14 10:21

Lab Sample ID: 600-85473-17

Matrix: Solid

Percent Solids: 80.5

Method: 6010B - Metals (ICP) (Continued)									
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac		
Lead	245	0.615	0.129 mg/Kg	₩	01/16/14 10:03	01/17/14 14:41	1		

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20	1.0	1.0 %			01/15/14 15:56	1
Percent Solids	80	1.0	1.0 %			01/15/14 15:56	1

Client Sample ID: E-11D (0-0.5) Lab Sample ID: 600-85473-19

Date Collected: 01/10/14 15:45 **Matrix: Solid** Date Received: 01/14/14 10:21 Percent Solids: 75.2

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.22	0.305	0.0313	mg/Kg	₩	01/16/14 10:03	01/17/14 14:44	1
Lead	152	0.610	0.128	mg/Kg	₩	01/16/14 10:03	01/17/14 14:44	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25	1.0	1.0 %			01/15/14 15:56	1
Percent Solids	75	1.0	1.0 %			01/15/14 15:56	1

Lab Sample ID: 600-85473-20 Client Sample ID: 2013-NT-01 (0-0.5)

Date Collected: 01/10/14 15:58 **Matrix: Solid** Date Received: 01/14/14 10:21 Percent Solids: 76.6

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15.9	1.27	0.276	mg/Kg	<u> </u>	01/16/14 10:03	01/17/14 14:46	1
Cadmium	0.571	0.317	0.0325	mg/Kg	₩	01/16/14 10:03	01/17/14 14:46	1
Lead	19.5	0.634	0.133	mg/Kg	₽	01/16/14 10:03	01/17/14 14:46	1
Selenium	0.328 U	2.54	0.328	mg/Kg	\$	01/16/14 10:03	01/17/14 14:46	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23	1.0	1.0	%			01/15/14 15:56	1
Percent Solids	77	1.0	1.0	%			01/15/14 15:56	1

Client Sample ID: 2013-NT-01 (0.5-2) Lab Sample ID: 600-85473-21

Date Collected: 01/10/14 15:59 **Matrix: Solid** Date Received: 01/14/14 10:21 Percent Solids: 74.6

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.4		1.30	0.283	mg/Kg	<u> </u>	01/16/14 10:03	01/17/14 14:48	1
Cadmium	0.618		0.325	0.0334	mg/Kg	₩	01/16/14 10:03	01/17/14 14:48	1
Lead	18.5		0.650	0.136	mg/Kg	₩	01/16/14 10:03	01/17/14 14:48	1
Selenium	0.546	J	2.60	0.337	mg/Kg	☼	01/16/14 10:03	01/17/14 14:48	1

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Un	it D	Prepared	Analyzed	Dil Fac
Percent Moisture	25	1.0	1.0 %			01/15/14 15:56	1

TestAmerica Houston

Client Sample Results

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85473-1

Lab Sample ID: 600-85473-21

Client Sample ID: 2013-NT-01 (0.5-2) Date Collected: 01/10/14 15:59 Matrix: Solid

Date Received: 01/14/14 10:21

General Chemistry (Continued)								
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75	1.0	1.0	%			01/15/14 15:56	1

Client Sample ID: E-12A (0-0.5) Lab Sample ID: 600-85473-22 Date Collected: 01/10/14 16:01 **Matrix: Solid**

Date Received: 01/14/14 10:21 Percent Solids: 77.4

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.54		0.302	0.0310	mg/Kg	<u></u>	01/16/14 10:03	01/17/14 14:51	1
Lead	201		0.604	0.127	mg/Kg	₩	01/16/14 10:03	01/17/14 14:51	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23		1.0	1.0	%			01/15/14 15:56	1
Percent Solids	77		1.0	1.0	%			01/15/14 15:56	1

Client Sample ID: 2013-NT-02 (0-0.5) Lab Sample ID: 600-85473-23

Date Collected: 01/10/14 16:15 Matrix: Solid

Date Received: 01/14/14 10:21 Percent Solids: 75.7

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.13	J	3.21	0.297	mg/Kg	<u> </u>	01/16/14 10:03	01/17/14 14:53	1
Arsenic	14.9		1.28	0.280	mg/Kg	☼	01/16/14 10:03	01/17/14 14:53	1
Cadmium	4.89		0.321	0.0329	mg/Kg	☼	01/16/14 10:03	01/17/14 14:53	1
Lead	837		0.641	0.134	mg/Kg	₽	01/16/14 10:03	01/17/14 14:53	1
Selenium	0.654	J	2.57	0.332	mg/Kg	₩	01/16/14 10:03	01/17/14 14:53	1

Result Qualifier Analyte MQL (Adj) SDL Unit Prepared Analyzed Dil Fac **Percent Moisture** 24 1.0 % 01/15/14 15:56 1.0 1.0 % 01/15/14 15:56 **Percent Solids 76** 1.0

Client Sample ID: 2013-NT-02 (0.5-2)) Lab Sample ID: 600-85473-24 Date Collected: 01/10/14 16:16 **Matrix: Solid** Date Received: 01/14/14 10:21 Percent Solids: 77.1

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.1	1.20	0.262	mg/Kg	₩	01/16/14 10:03	01/17/14 14:56	1
Cadmium	0.354	0.300	0.0308	mg/Kg	₩	01/16/14 10:03	01/17/14 14:56	1
Lead	21.2	0.600	0.126	mg/Kg	₩	01/16/14 10:03	01/17/14 14:56	1
Selenium	0.324 J	2.40	0.311	ma/Ka		01/16/14 10:03	01/17/14 14:56	1

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23	1.0	1.0 %			01/15/14 15:56	1
Percent Solids	77	1.0	1.0 %			01/15/14 15:56	1

TestAmerica Houston

Client Sample Results

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: E-13A (0-0.5)

Date Collected: 01/10/14 16:22

Date Received: 01/14/14 10:21

TestAmerica Job ID: 600-85473-1

Lab Sample ID: 600-85473-25

Matrix: Solid

Percent Solids: 76.7

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13.8	1.23	0.268	mg/Kg	<u> </u>	01/16/14 10:03	01/17/14 14:58	1
Cadmium	0.492	0.307	0.0315	mg/Kg	☼	01/16/14 10:03	01/17/14 14:58	1
Lead	44.4	0.615	0.129	mg/Kg	₩	01/16/14 10:03	01/17/14 14:58	1

General Chemistry Analyte	Result Qualif	ier MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23	1.0	1.0	%			01/15/14 15:56	1
Percent Solids	77	1.0	1.0	%			01/15/14 15:56	1

Client Sample ID: E-14A (0-0.5)

Lab Sample ID: 600-85473-26 Date Collected: 01/10/14 16:30 **Matrix: Solid** Date Received: 01/14/14 10:21 Percent Solids: 71.8

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	19.0		1.34	0.292	mg/Kg	<u></u>	01/16/14 10:03	01/17/14 15:07	1
Cadmium	1.84		0.335	0.0344	mg/Kg	≎	01/16/14 10:03	01/17/14 15:07	1
Lead	349		0.670	0.140	mg/Kg	₩	01/16/14 10:03	01/17/14 15:07	1
General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	28		1.0	1.0	%			01/15/14 15:56	1
Percent Solids	72		1.0	1.0	%			01/15/14 15:56	1

Client Sample ID: RINSE BLANK GEO

Lab Sample ID: 600-85473-27 Date Collected: 01/10/14 08:30 **Matrix: Water** Date Received: 01/14/14 10:21

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.000270	U	0.000500	0.000270	mg/L		01/17/14 14:01	01/20/14 15:39	1
PCB-1221	0.000220	U	0.000500	0.000220	mg/L		01/17/14 14:01	01/20/14 15:39	1
PCB-1232	0.0000600	U	0.000500	0.0000600	mg/L		01/17/14 14:01	01/20/14 15:39	1
PCB-1242	0.0000800	U	0.000500	0.0000800	mg/L		01/17/14 14:01	01/20/14 15:39	1
PCB-1248	0.000100	U	0.000500	0.000100	mg/L		01/17/14 14:01	01/20/14 15:39	1
PCB-1254	0.0000700	U	0.000500	0.0000700	mg/L		01/17/14 14:01	01/20/14 15:39	1
PCB-1260	0.000170	U	0.000500	0.000170	mg/L		01/17/14 14:01	01/20/14 15:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		35 - 133				01/17/14 14:01	01/20/14 15:39	1
DCB Decachlorobiphenyl	36		28 - 174				01/17/14 14:01	01/20/14 15:39	1
Method: 6010B - Metals (I	CP)								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.000350	U	0.00500	0.000350	mg/L		01/15/14 16:45	01/16/14 16:14	1
Lead	0.00290	U ^	0.0100	0.00290	mg/L		01/15/14 16:45	01/16/14 16:14	1

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: MW-27E (0-1)

Method: 6010B - Metals (ICP)

Lab Sample ID: 600-85473-28

Date Collected: 01/13/14 08:42	Matrix: Solid
Date Received: 01/14/14 10:21	Percent Solids: 77.1

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.58		0.312	0.0320	mg/Kg	<u> </u>	01/16/14 13:47	01/17/14 12:49	1
Lead	298		0.623	0.131	mg/Kg	☼	01/16/14 13:47	01/17/14 12:49	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23		1.0	1.0	%			01/15/14 15:56	1
Percent Solids	77		1.0	1.0	%			01/15/14 15:56	1

Client Sample ID: MW-29A (0-0.5) Lab Sample ID: 600-85473-31

Date Collected: 01/13/14 08:52 **Matrix: Solid** Date Received: 01/14/14 10:21 Percent Solids: 76.6

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.27		0.308	0.0316	mg/Kg	<u></u>	01/16/14 13:47	01/17/14 12:51	1
Lead	171		0.616	0.129	mg/Kg	₩	01/16/14 13:47	01/17/14 12:51	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23		1.0	1.0	%			01/15/14 15:56	1

Percent Solids 77 1.0 1.0 % 01/15/14 15:56 **Client Sample ID: DUP-10** Lab Sample ID: 600-85473-32

Date Collected: 01/13/14 00:00 **Matrix: Solid** Percent Solids: 76.6 Date Received: 01/14/14 10:21

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	28.3		0.299	0.0307	mg/Kg	<u> </u>	01/16/14 13:47	01/17/14 12:54	1
Lead	1130		0.599	0.126	mg/Kg	☼	01/16/14 13:47	01/17/14 12:54	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23		1.0	1.0	%			01/15/14 15:56	1
Percent Solids	77		1.0	1.0	%			01/15/14 15:56	1

Client Sample ID: DUP-11 Lab Sample ID: 600-85473-33 Date Collected: 01/13/14 00:00 **Matrix: Solid**

Date Received: 01/14/14 10:21 Percent Solids: 87.4

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL		D	Prepared	Analyzed	Dil Fac
Cadmium	0.200 J	0.278	0.0285	mg/Kg	æ	01/16/14 13:47	01/17/14 13:03	1
Lead	59.2	0.555	0.116	mg/Kg	₩	01/16/14 13:47	01/17/14 13:03	1
General Chemistry	Result Qualifier	MOL (Adi)	SDI	Unit	D	Prenared	Analyzed	Dil Fac

1.0 % **Percent Moisture** 13 1.0 01/15/14 15:56 1.0 1.0 % 01/15/14 15:56 **Percent Solids 87**

Client Sample Results

Client: Golder Associates Inc. Project/Site: Exide Recycling Center Client Sample ID: 2013-FWFS-SA (0-2)

Date Collected: 01/13/14 09:12 Date Received: 01/14/14 10:21

TestAmerica Job ID: 600-85473-1

Lab Sample ID: 600-85473-34

Matrix: Solid
Percent Solids: 80.2

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.275	U	2.97	0.275	mg/Kg	<u></u>	01/16/14 13:47	01/17/14 13:05	1
Arsenic	11.4		1.19	0.259	mg/Kg	☼	01/16/14 13:47	01/17/14 13:05	1
Cadmium	0.529		0.297	0.0305	mg/Kg	☼	01/16/14 13:47	01/17/14 13:05	1
Lead	100		0.594	0.125	mg/Kg		01/16/14 13:47	01/17/14 13:05	1
Selenium	0.308	U	2.38	0.308	mg/Kg	≎	01/16/14 13:47	01/17/14 13:05	1
Selenium	0.308	U	2.38	0.308	mg/Kg	Q.	01/16/14 13:47	01/17/14 13:05	

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20	1.0	1.0	%			01/15/14 15:56	1
Percent Solids	80	1.0	1.0	%			01/15/14 15:56	1

Client Sample ID: 2013-BSB-8A (8-10)

Date Collected: 01/13/14 09:50

Date Received: 01/14/14 10:21

Lab	Sample	ID:	600-854	73-3
	•			

Matrix: Solid Percent Solids: 77.1

Method: 6010B - Metals (ICP) - DL Analyte Lead		Qualifier	MQL (Adj)		Unit mg/Kg	D <u>□</u>	Prepared 01/16/14 13:47	Analyzed 01/17/14 16:00	Dil Fac
General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23		1.0	1.0	%			01/15/14 15:56	1
Percent Solids	77		1.0	1.0	%			01/15/14 15:56	1

Client Sample ID: 2013-FWCS-12A (2-2.7)

Date Collected: 01/13/14 11:05 Date Received: 01/14/14 10:21

Lab Sample	ID:	600-85473-37	
		Matrix: Solic	

Percent Solids: 76.5

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	106		0.641	0.134	mg/Kg	<u> </u>	01/16/14 13:47	01/17/14 13:25	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24		1.0	1.0	%			01/15/14 15:56	1

1.0

1.0 %

Client Sample ID: 2013-MW-17B (0-0.5)

76

Date Collected: 01/13/14 11:51 Date Received: 01/14/14 10:21

Percent Solids

Matrix: Solid Percent Solids: 80.3

01/15/14 15:56

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	32.4	2.96		mg/Kg	<u> </u>		01/17/14 13:34	1
Arsenic	36.7	1.19	0.258	mg/Kg	☼	01/16/14 13:47	01/17/14 13:34	1
Cadmium	5.19	0.296	0.0304	mg/Kg	☼	01/16/14 13:47	01/17/14 13:34	1
Selenium	1.35 J	2.37	0.307	mg/Kg	₽	01/16/14 13:47	01/17/14 13:34	1

Method: 6010B - Metals (ICP) -	DL						
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Lead	6830	11.9	2.49 mg/Kg	\	01/16/14 13:47	01/17/14 16:09	20

TestAmerica Houston

Client Sample Results

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: 2013-MW-17B (0-0.5)

TestAmerica Job ID: 600-85473-1

Lab Sample ID: 600-85473-38

Matrix: Solid

Date Collected: 01/13/14 11:51 Date Received: 01/14/14 10:21

General Chem Analyte	-	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20		1.0	1.0	%			01/15/14 15:56	1
Percent Solids	80		1.0	1.0	%			01/15/14 15:56	1

Client Sample ID: SCC-10B (0-0.5) Lab Sample ID: 600-85473-39

Date Collected: 01/13/14 12:04 Date Received: 01/14/14 10:21

Matrix: Solid Percent Solids: 77.0

Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.69 J	3.01	0.278	mg/Kg	<u> </u>	01/16/14 13:47	01/17/14 13:37	1
Arsenic	14.0	1.20	0.262	mg/Kg	☼	01/16/14 13:47	01/17/14 13:37	1
Cadmium	1.85	0.301	0.0308	mg/Kg	☼	01/16/14 13:47	01/17/14 13:37	1
Lead	333	0.601	0.126	mg/Kg	₽	01/16/14 13:47	01/17/14 13:37	1
Selenium	0.601 J	2.40	0.311	mg/Kg	₩	01/16/14 13:47	01/17/14 13:37	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23	1.0	1.0 %			01/15/14 15:56	1
Percent Solids	77	1.0	1.0 %			01/15/14 15:56	1

Client Sample ID: RINSE BLANK GEO Lab Sample ID: 600-85473-40 **Matrix: Water**

Date Collected: 01/13/14 13:15 Date Received: 01/14/14 10:21

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.000350	U	0.00500	0.000350	mg/L		01/15/14 16:45	01/16/14 16:21	1
Lead	0.00290	U ^	0.0100	0.00290	mg/L		01/15/14 16:45	01/16/14 16:21	1

Client Sample ID: ECO04B (0-0.5) Lab Sample ID: 600-85473-41 Date Collected: 01/13/14 13:48

Date Received: 01/14/14 10:21

Matrix: Solid Percent Solids: 74.8

Analyte	Result Qualifie	r MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.752 J	3.19	0.295	mg/Kg	<u> </u>	01/16/14 13:47	01/17/14 13:39	1
Arsenic	31.5	1.27	0.278	mg/Kg	₩	01/16/14 13:47	01/17/14 13:39	1
Cadmium	1.21	0.319	0.0327	mg/Kg	₽	01/16/14 13:47	01/17/14 13:39	1
Lead	201	0.637	0.134	mg/Kg	\$	01/16/14 13:47	01/17/14 13:39	1
Selenium	0.573 J	2.55	0.330	mg/Kg	₩	01/16/14 13:47	01/17/14 13:39	1

Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25	1.0	1.0 %			01/15/14 15:56	1
Percent Solids	75	1.0	1.0 %			01/15/14 15:56	1

TestAmerica Houston

Definitions/Glossary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85473-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
П	Analyte was not detected at or above the SDI

Metals

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
F	Duplicate RPD exceeds the control limit
N	MS, MSD: Spike recovery is outside acceptance limits.
٨	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
N	RPD of the MS and MSD exceeds the control limits

Glossary

TEF

TEQ

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Surrogate Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85473-1

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Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water Prep Type: Total/NA

			Percent	t Surrogate Recovery (Acceptance Limits)
		TCX1	DCB1	
Lab Sample ID	Client Sample ID	(35-133)	(28-174)	
600-85473-27	RINSE BLANK GEO	81	36	
LCS 600-125237/3-A	Lab Control Sample	73	58	
MB 600-125237/1-A	Method Blank	72	57	
Surrogate Legend				
TCX = Tetrachloro-m-:	xylene			
DCB = DCB Decachlo	robiphenyl			

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13

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 600-125237/1-A **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA Analysis Batch: 125450 Prep Batch: 125237

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.000270	U	0.000500	0.000270	mg/L		01/17/14 14:01	01/20/14 12:22	1
PCB-1221	0.000220	U	0.000500	0.000220	mg/L		01/17/14 14:01	01/20/14 12:22	1
PCB-1232	0.0000600	U	0.000500	0.0000600	mg/L		01/17/14 14:01	01/20/14 12:22	1
PCB-1242	0.0000800	U	0.000500	0.0000800	mg/L		01/17/14 14:01	01/20/14 12:22	1
PCB-1248	0.000100	U	0.000500	0.000100	mg/L		01/17/14 14:01	01/20/14 12:22	1
PCB-1254	0.0000700	U	0.000500	0.0000700	mg/L		01/17/14 14:01	01/20/14 12:22	1
PCB-1260	0.000170	U	0.000500	0.000170	mg/L		01/17/14 14:01	01/20/14 12:22	1

	MB MB				
Surrogate	%Recovery Qua	alifier Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72	35 - 133	01/17/14 14:01	01/20/14 12:22	1
DCB Decachlorobiphenyl	57	28 - 174	01/17/14 14:01	01/20/14 12:22	1

Lab Sample ID: LCS 600-125237/3-A

Matrix: Water

Analysis Batch: 125450	0	100 100				Prep Batch: 125237
	Spike	LCS LCS				%Rec.
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.0200	0.01503	mg/L		75	53 - 119
PCB-1260	0.0200	0.01407	mg/L		70	22 - 144

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	73		35 - 133
DCB Decachlorobiphenyl	58		28 - 174

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-125065/1-A **Client Sample ID: Method Blank Matrix: Water Prep Type: Total/NA** Analysis Batch: 125111 **Prep Batch: 125065**

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00630	U	0.0500	0.00630	mg/L		01/15/14 16:45	01/16/14 15:55	1
Arsenic	0.00328	U	0.0100	0.00328	mg/L		01/15/14 16:45	01/16/14 15:55	1
Cadmium	0.000350	U	0.00500	0.000350	mg/L		01/15/14 16:45	01/16/14 15:55	1
Lead	0.00290	U ^	0.0100	0.00290	mg/L		01/15/14 16:45	01/16/14 15:55	1
Selenium	0.00417	U	0.0400	0.00417	mg/L		01/15/14 16:45	01/16/14 15:55	1
Selenium	0.00417	U	0.0400	0.00417	mg/L		01/15/14 16:45	01/16/14 15:55	1

Lab Sample ID: LCS 600-125065/2-A				Clie	nt Sar	nple ID	: Lab Control Sample
Matrix: Water							Prep Type: Total/NA
Analysis Batch: 125111							Prep Batch: 125065
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Antimony	1.00	1.106		mg/L		111	80 - 120
Arsenic	1.00	1.035		mg/L		104	80 - 120
Cadmium	0.500	0.5196		mg/L		104	80 - 120
Lead	1.00	1.045	٨	mg/L		105	80 - 120
Selenium	1.00	1.028		mg/L		103	80 - 120

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 600-125089/1-A

Matrix: Solid

Analysis Batch: 125211

MB MB

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125089

	IVID	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		01/16/14 10:03	01/17/14 13:42	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		01/16/14 10:03	01/17/14 13:42	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		01/16/14 10:03	01/17/14 13:42	1
Lead	0.105	Ü	0.500	0.105	mg/Kg		01/16/14 10:03	01/17/14 13:42	1
Selenium	0.259	U	2.00	0.259	mg/Kg		01/16/14 10:03	01/17/14 13:42	1

Lab Sample ID: LCSSRM 600-125089/2-A

Matrix: Solid

Analysis Batch: 125211

Spike LCSSRM LCSSRM

Analyte

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 125089

%Rec.

Added Result Qualifier Unit D %Rec Limits

	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	88.2	66.67		mg/Kg		75.6	45.4 - 231. 3	
Arsenic	99.6	95.92		mg/Kg		96.3	80.8 - 119. 5	
Cadmium	182	168.8		mg/Kg		92.7	81.9 - 118. 1	
Lead	115	109.8		mg/Kg		95.5	81.8 ₋ 119. 1	
Selenium	150	136.7		mg/Kg		91.1	77.3 - 122. 7	

Lab Sample ID: 600-85473-16 MS

Matrix: Solid

Analysis Batch: 125211

Sample Sample Spike MS MS

Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits

Added Result Qualifier Unit D %Rec Limits

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Antimony	0.263	U	56.8	26.68	N	mg/Kg	<u> </u>	47	75 - 125		
Arsenic	6.76		56.8	67.64		mg/Kg	₩	107	75 - 125		
Cadmium	0.409		28.4	30.67		mg/Kg	₩	107	75 - 125		
Lead	21.4		56.8	67.69		mg/Kg	₩.	81	75 - 125		
Selenium	0.534	J	56.8	54.08		mg/Kg	₩	94	75 - 125		
_											

Lab Sample ID: 600-85473-16 MSD

Matrix: Solid

Analysis Batch: 125211

Sample Sample Sample Spike MSD MSD WSD %Rec RPD

Alialysis Dalcii. 1232 i i									Fieb Do	ALCII. 12	1000
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.263	U	57.3	24.70	N	mg/Kg	<u> </u>	43	75 - 125	8	20
Arsenic	6.76		57.3	66.18		mg/Kg	☼	104	75 - 125	2	20
Cadmium	0.409		28.7	30.88		mg/Kg	₩	106	75 - 125	1	20
Lead	21.4		57.3	67.04		mg/Kg	₩	80	75 - 125	1	20
Selenium	0.534	J	57.3	55.03		mg/Kg	☼	95	75 - 125	2	20

Lab Sample ID: 600-85473-16 DU

Matrix: Solid

Analysis Batch: 125211

Sample Sample

DU DU

RPD

Analysis Batch: 125211

Client Sample ID: ECO-10A (0-0.5)

Prep Type: Total/NA

Prep Batch: 125089

RPD

SampleSampleDUDURPDAnalyteResult AntimonyQualifierResult QualifierQualifier Mesult QualifierUnit Mesult
TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-85473-16 DU Client Sample ID: ECO-10A (0-0.5)

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 125211 Prep Batch: 125089**

DU DU Sample Sample **RPD** Result Qualifier Result Qualifier RPD Analyte Unit D Limit ₩ Arsenic 6.76 5.630 mg/Kg 20 18 Ö Cadmium 0.409 0.1912 J mg/Kg 73 20 7.778 F ₩ Lead 21.4 mg/Kg 93 20 ť Selenium 0.534 J 0.291 U mg/Kg NC 20

Lab Sample ID: MB 600-125124/1-A Client Sample ID: Method Blank

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 125211 Prep Batch: 125124**

MB MB Analyte Result Qualifier SDL Unit D Prepared Analyzed Dil Fac MQL (Adj) Antimony 0.232 U 0.232 mg/Kg 01/16/14 13:47 01/17/14 12:04 2.50 0.218 U 01/16/14 13:47 01/17/14 12:04 Arsenic 1.00 0.218 mg/Kg Cadmium 0.0256 U 0.250 0.0256 mg/Kg 01/16/14 13:47 01/17/14 12:04 0.105 U 0.500 0.105 mg/Kg Lead 01/16/14 13:47 01/17/14 12:04 Selenium 0.259 U 2.00 0.259 mg/Kg 01/16/14 13:47 01/17/14 12:04

Lab Sample ID: LCSSRM 600-125124/2-A **Client Sample ID: Lab Control Sample**

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 125211 Prep Batch: 125124**

	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	88.2	70.92		mg/Kg		80.4	45.4 - 231.	
Arsenic	99.6	98.87		mg/Kg		99.3	3 80.8 - 119. 5	
Cadmium	182	175.4		mg/Kg		96.4	81.9 - 118.	
Lead	115	114.7		mg/Kg		99.7	1 81.8 - 119. 1	
Selenium	150	141.5		mg/Kg		94.3	77.3 - 122. 7	

Lab Sample ID: 600-85473-34 MS Client Sample ID: 2013-FWFS-SA (0-2) **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 125211

0.308 U

Prep Batch: 125124 Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Analyte Unit D %Rec Limits ₩ 0.275 U 57.7 Antimony 20.13 N mg/Kg 35 75 - 125 mg/Kg ₩ Arsenic 11.4 57.7 66.75 96 75 - 125₩ 0.529 98 Cadmium 28.9 28.91 mg/Kg 75 - 125 Ö Lead 100 57.7 75.64 N mg/Kg -43 75 - 125 ₩

Lab Sample ID: 600-85473-34 MSD Client Sample ID: 2013-FWFS-SA (0-2)

49.92

mg/Kg

57.7

Matrix: Solid

Selenium

Prep Type: Total/NA **Analysis Batch: 125211 Prep Batch: 125124** Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Result Qualifier **Analyte** Unit D %Rec Limits **RPD** Limit Ö 0.275 U 57.2 Antimony 19.33 N mg/Kg 34 75 - 125 4 20 Arsenic 11.4 57.2 61.85 mg/Kg 88 75 - 125 20

TestAmerica Houston

75 - 125

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-85473-34 MSD Client Sample ID: 2013-FWFS-SA (0-2) **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 125211 Prep Batch: 125124**

MSD MSD Sample Sample Spike **RPD** %Rec. Result Qualifier Added Result Qualifier Limits RPD Analyte Unit D %Rec Limit mg/Kg ₩ Cadmium 0.529 28.6 28.10 96 75 - 125 3 20 ₩ Lead 100 57.2 73.98 N mg/Kg -46 75 - 125 2 20 mg/Kg Selenium 0.308 U 57.2 49.32 86 75 - 125 20

Lab Sample ID: 600-85473-36 MS Client Sample ID: 2013-BSB-8A (8-10) **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 125211 Prep Batch: 125124**

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits ☼ Antimony 26.8 60.1 21.16 N mg/Kg -9 75 - 125 Arsenic 23.3 60.1 67.64 N ₩ 74 75 - 125 mg/Kg ₩ 75 - 125 30.0 Cadmium 11.4 29.52 N mg/Kg 60 Lead 14000 E 60.1 85.84 4 mg/Kg -2310 75 - 125 9 Selenium 0.733 J 60.1 51.38 mg/Kg 84 75 - 125

Client Sample ID: 2013-BSB-8A (8-10) Lab Sample ID: 600-85473-36 MSD **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 125211 **Prep Batch: 125124**

Sample Sample Spike MSD MSD %Rec. **RPD** Analyte Result Qualifier Added Limits RPD Limit Result Qualifier Unit D %Rec Antimony 26.8 61.8 27.79 Ö 2 75 - 125 27 20 mg/Kg ₩ Arsenic 23.3 61.8 71.92 79 75 - 125 20 mg/Kg 6 Ö Cadmium 11.4 30.9 33.12 N mg/Kg 70 75 - 125 12 20 61.8 54.90 75 - 125 Selenium 0.733 J mg/Kg 88

Lab Sample ID: 600-85473-34 DU Client Sample ID: 2013-FWFS-SA (0-2) **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 125211 **Prep Batch: 125124**

	Sample	Sample	DU	DU			•	RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Antimony	0.275	U	0.265	U	mg/Kg	\(\phi\)	NC	20
Arsenic	11.4		11.80		mg/Kg	₩	3	20
Cadmium	0.529		0.5378		mg/Kg	☼	2	20
Lead	100		217.5	F	mg/Kg	₩	74	20
Selenium	0.308	U	0.296	U	mg/Kg	☼	NC	20

Lab Sample ID: 600-85473-36 DU Client Sample ID: 2013-BSB-8A (8-10) **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 125211 Prep Batch: 125124

_	Sample	Sample	DU	DU			•	RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Antimony	26.8		20.83	F	mg/Kg	\		20
Arsenic	23.3		19.33		mg/Kg	☼	18	20
Cadmium	11.4		10.80		mg/Kg	☼	6	20
Selenium	0.733	J	0.7534	J	mg/Kg	₩	3	20

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

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Method: 6010B - Metals (ICP) - DL

Lab Sample ID: 600-85473-36 MSD Client Sample ID: 2013-BSB-8A (8-10) **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 125211 Prep Batch: 125124 Sample Sample Spike MSD MSD %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit

Lead - DL 61.8 14800 3947 4 N mg/Kg 75 - 125 -1764 191 0

Lab Sample ID: 600-85473-36 DU Client Sample ID: 2013-BSB-8A (8-10) Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 125211

Prep Batch: 125124 DU DU RPD Sample Sample **Analyte** Result Qualifier Result Qualifier Unit D **RPD** Limit Lead - DL 11860 F ₩ 14800 mg/Kg 22 20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-85473-1 DU Client Sample ID: MW-33/2013-FWFS-5B (1-2) Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 125061

DU DU **RPD** Sample Sample Result Qualifier Result Qualifier Analyte Unit **RPD** Limit % Percent Moisture 19 20 19 Percent Solids 81 81 % 0.3

Lab Sample ID: 600-85473-17 DU Client Sample ID: ECO-4A (0-0.5) Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 125061

DU DU RPD Sample Sample Result Qualifier RPD Analyte Result Qualifier Unit Limit 20 20 % 20 Percent Moisture 0.2 Percent Solids 80 80 % 0.05 20

Lab Sample ID: 600-85473-31 DU Client Sample ID: MW-29A (0-0.5) Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 125061

-	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Moisture	23		23		%		 1	20
Percent Solids	77		77		%		0.4	20

Unadjusted Detection Limits

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85473-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	MQL	MDL	Units	Method
PCB-1016	0.000500	0.000270	mg/L	8082
PCB-1221	0.000500	0.000220	mg/L	8082
PCB-1232	0.000500	0.0000600	mg/L	8082
PCB-1242	0.000500	0.0000800	mg/L	8082
PCB-1248	0.000500	0.000100	mg/L	8082
PCB-1254	0.000500	0.0000700	mg/L	8082
PCB-1260	0.000500	0.000170	mg/L	8082

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method	
Antimony	2.50	0.232	mg/Kg	6010B	
Arsenic	1.00	0.218	mg/Kg	6010B	
Cadmium	0.250	0.0256	mg/Kg	6010B	
Cadmium	0.00500	0.000350	mg/L	6010B	
Lead	0.500	0.105	mg/Kg	6010B	
Lead	0.0100	0.00290	mg/L	6010B	
Selenium	2.00	0.259	mg/Kg	6010B	

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

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QC Association Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85473-1

GC Semi VOA

Prep	Batch: 1	25237
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85473-27	RINSE BLANK GEO	Total/NA	Water	3510C	
LCS 600-125237/3-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-125237/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 125450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85473-27	RINSE BLANK GEO	Total/NA	Water	8082	125237
LCS 600-125237/3-A	Lab Control Sample	Total/NA	Water	8082	125237
MB 600-125237/1-A	Method Blank	Total/NA	Water	8082	125237

Metals

Prep Batch: 125065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85473-27	RINSE BLANK GEO	Total/NA	Water	3010A	<u> </u>
600-85473-40	RINSE BLANK GEO	Total/NA	Water	3010A	
LCS 600-125065/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 600-125065/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 125089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85473-1	MW-33/2013-FWFS-5B (1-2)	Total/NA	Solid	3050B	
600-85473-3	MW-33/2013-FWFS-5B (4-5)	Total/NA	Solid	3050B	
600-85473-3 - DL	MW-33/2013-FWFS-5B (4-5)	Total/NA	Solid	3050B	
600-85473-4	F-5D (0.0-0.25)	Total/NA	Solid	3050B	
600-85473-6	F-5E (0-0.25)	Total/NA	Solid	3050B	
600-85473-8	F-5B (0-0.25)	Total/NA	Solid	3050B	
600-85473-10	F-5A (0-0.25)	Total/NA	Solid	3050B	
600-85473-12	F-5C (0-0.25)	Total/NA	Solid	3050B	
600-85473-14	SRB-VS-9E (0-0.5)	Total/NA	Solid	3050B	
600-85473-15	SRB-VS-11A (0-0.5)	Total/NA	Solid	3050B	
600-85473-16	ECO-10A (0-0.5)	Total/NA	Solid	3050B	
600-85473-16 DU	ECO-10A (0-0.5)	Total/NA	Solid	3050B	
600-85473-16 MS	ECO-10A (0-0.5)	Total/NA	Solid	3050B	
600-85473-16 MSD	ECO-10A (0-0.5)	Total/NA	Solid	3050B	
600-85473-17	ECO-4A (0-0.5)	Total/NA	Solid	3050B	
600-85473-19	E-11D (0-0.5)	Total/NA	Solid	3050B	
600-85473-20	2013-NT-01 (0-0.5)	Total/NA	Solid	3050B	
600-85473-21	2013-NT-01 (0.5-2)	Total/NA	Solid	3050B	
600-85473-22	E-12A (0-0.5)	Total/NA	Solid	3050B	
600-85473-23	2013-NT-02 (0-0.5)	Total/NA	Solid	3050B	
600-85473-24	2013-NT-02 (0.5-2))	Total/NA	Solid	3050B	
600-85473-25	E-13A (0-0.5)	Total/NA	Solid	3050B	
600-85473-26	E-14A (0-0.5)	Total/NA	Solid	3050B	
LCSSRM 600-125089/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-125089/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 125111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85473-27	RINSE BLANK GEO	Total/NA	Water	6010B	125065

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QC Association Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85473-1

Metals (Continued)

Analysis Batch: 125111 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85473-40	RINSE BLANK GEO	Total/NA	Water	6010B	125065
LCS 600-125065/2-A	Lab Control Sample	Total/NA	Water	6010B	125065
MB 600-125065/1-A	Method Blank	Total/NA	Water	6010B	125065

Prep Batch: 125124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85473-28	MW-27E (0-1)	Total/NA	Solid	3050B	
600-85473-31	MW-29A (0-0.5)	Total/NA	Solid	3050B	
600-85473-32	DUP-10	Total/NA	Solid	3050B	
600-85473-33	DUP-11	Total/NA	Solid	3050B	
600-85473-34	2013-FWFS-SA (0-2)	Total/NA	Solid	3050B	
600-85473-34 DU	2013-FWFS-SA (0-2)	Total/NA	Solid	3050B	
600-85473-34 MS	2013-FWFS-SA (0-2)	Total/NA	Solid	3050B	
600-85473-34 MSD	2013-FWFS-SA (0-2)	Total/NA	Solid	3050B	
600-85473-36 - DL	2013-BSB-8A (8-10)	Total/NA	Solid	3050B	
600-85473-36 DU - DL	2013-BSB-8A (8-10)	Total/NA	Solid	3050B	
600-85473-36 DU	2013-BSB-8A (8-10)	Total/NA	Solid	3050B	
600-85473-36 MS	2013-BSB-8A (8-10)	Total/NA	Solid	3050B	
600-85473-36 MSD - DL	2013-BSB-8A (8-10)	Total/NA	Solid	3050B	
600-85473-36 MSD	2013-BSB-8A (8-10)	Total/NA	Solid	3050B	
600-85473-37	2013-FWCS-12A (2-2.7)	Total/NA	Solid	3050B	
600-85473-38 - DL	2013-MW-17B (0-0.5)	Total/NA	Solid	3050B	
600-85473-38	2013-MW-17B (0-0.5)	Total/NA	Solid	3050B	
600-85473-39	SCC-10B (0-0.5)	Total/NA	Solid	3050B	
600-85473-41	ECO04B (0-0.5)	Total/NA	Solid	3050B	
LCSSRM 600-125124/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-125124/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 125211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85473-1	MW-33/2013-FWFS-5B (1-2)	Total/NA	Solid	6010B	125089
600-85473-3	MW-33/2013-FWFS-5B (4-5)	Total/NA	Solid	6010B	125089
600-85473-3 - DL	MW-33/2013-FWFS-5B (4-5)	Total/NA	Solid	6010B	125089
600-85473-4	F-5D (0.0-0.25)	Total/NA	Solid	6010B	125089
600-85473-6	F-5E (0-0.25)	Total/NA	Solid	6010B	125089
600-85473-8	F-5B (0-0.25)	Total/NA	Solid	6010B	125089
600-85473-10	F-5A (0-0.25)	Total/NA	Solid	6010B	125089
600-85473-12	F-5C (0-0.25)	Total/NA	Solid	6010B	125089
600-85473-14	SRB-VS-9E (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-15	SRB-VS-11A (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-16	ECO-10A (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-16 DU	ECO-10A (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-16 MS	ECO-10A (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-16 MSD	ECO-10A (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-17	ECO-4A (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-19	E-11D (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-20	2013-NT-01 (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-21	2013-NT-01 (0.5-2)	Total/NA	Solid	6010B	125089
600-85473-22	E-12A (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-23	2013-NT-02 (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-24	2013-NT-02 (0.5-2))	Total/NA	Solid	6010B	125089

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Client: Golder Associates Inc.

TestAmerica Job ID: 600-85473-1

Metals (Continued)

Analysis Batch: 125211 (Continued)

Project/Site: Exide Recycling Center

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85473-25	E-13A (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-26	E-14A (0-0.5)	Total/NA	Solid	6010B	125089
600-85473-28	MW-27E (0-1)	Total/NA	Solid	6010B	125124
600-85473-31	MW-29A (0-0.5)	Total/NA	Solid	6010B	125124
600-85473-32	DUP-10	Total/NA	Solid	6010B	125124
600-85473-33	DUP-11	Total/NA	Solid	6010B	125124
600-85473-34	2013-FWFS-SA (0-2)	Total/NA	Solid	6010B	125124
600-85473-34 DU	2013-FWFS-SA (0-2)	Total/NA	Solid	6010B	125124
600-85473-34 MS	2013-FWFS-SA (0-2)	Total/NA	Solid	6010B	125124
600-85473-34 MSD	2013-FWFS-SA (0-2)	Total/NA	Solid	6010B	125124
600-85473-36 - DL	2013-BSB-8A (8-10)	Total/NA	Solid	6010B	125124
600-85473-36 DU	2013-BSB-8A (8-10)	Total/NA	Solid	6010B	125124
600-85473-36 DU - DL	2013-BSB-8A (8-10)	Total/NA	Solid	6010B	125124
600-85473-36 MS	2013-BSB-8A (8-10)	Total/NA	Solid	6010B	125124
600-85473-36 MSD	2013-BSB-8A (8-10)	Total/NA	Solid	6010B	125124
600-85473-36 MSD - DL	2013-BSB-8A (8-10)	Total/NA	Solid	6010B	125124
600-85473-37	2013-FWCS-12A (2-2.7)	Total/NA	Solid	6010B	125124
600-85473-38	2013-MW-17B (0-0.5)	Total/NA	Solid	6010B	125124
600-85473-38 - DL	2013-MW-17B (0-0.5)	Total/NA	Solid	6010B	125124
600-85473-39	SCC-10B (0-0.5)	Total/NA	Solid	6010B	125124
600-85473-41	ECO04B (0-0.5)	Total/NA	Solid	6010B	125124
LCSSRM 600-125089/2-A	Lab Control Sample	Total/NA	Solid	6010B	125089
LCSSRM 600-125124/2-A	Lab Control Sample	Total/NA	Solid	6010B	125124
MB 600-125089/1-A	Method Blank	Total/NA	Solid	6010B	125089
MB 600-125124/1-A	Method Blank	Total/NA	Solid	6010B	125124

General Chemistry

Analysis Batch: 125061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
600-85473-1	MW-33/2013-FWFS-5B (1-2)	Total/NA	Solid	Moisture	
600-85473-1 DU	MW-33/2013-FWFS-5B (1-2)	Total/NA	Solid	Moisture	
600-85473-3	MW-33/2013-FWFS-5B (4-5)	Total/NA	Solid	Moisture	
600-85473-4	F-5D (0.0-0.25)	Total/NA	Solid	Moisture	
600-85473-6	F-5E (0-0.25)	Total/NA	Solid	Moisture	
600-85473-8	F-5B (0-0.25)	Total/NA	Solid	Moisture	
600-85473-10	F-5A (0-0.25)	Total/NA	Solid	Moisture	
600-85473-12	F-5C (0-0.25)	Total/NA	Solid	Moisture	
600-85473-14	SRB-VS-9E (0-0.5)	Total/NA	Solid	Moisture	
600-85473-15	SRB-VS-11A (0-0.5)	Total/NA	Solid	Moisture	
600-85473-16	ECO-10A (0-0.5)	Total/NA	Solid	Moisture	
600-85473-17	ECO-4A (0-0.5)	Total/NA	Solid	Moisture	
600-85473-17 DU	ECO-4A (0-0.5)	Total/NA	Solid	Moisture	
600-85473-19	E-11D (0-0.5)	Total/NA	Solid	Moisture	
600-85473-20	2013-NT-01 (0-0.5)	Total/NA	Solid	Moisture	
600-85473-21	2013-NT-01 (0.5-2)	Total/NA	Solid	Moisture	
600-85473-22	E-12A (0-0.5)	Total/NA	Solid	Moisture	
600-85473-23	2013-NT-02 (0-0.5)	Total/NA	Solid	Moisture	
600-85473-24	2013-NT-02 (0.5-2))	Total/NA	Solid	Moisture	
600-85473-25	E-13A (0-0.5)	Total/NA	Solid	Moisture	

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QC Association Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85473-1

General Chemistry (Continued)

Analysis Batch: 125061 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85473-26	E-14A (0-0.5)	Total/NA	Solid	Moisture	
600-85473-28	MW-27E (0-1)	Total/NA	Solid	Moisture	
600-85473-31	MW-29A (0-0.5)	Total/NA	Solid	Moisture	
600-85473-31 DU	MW-29A (0-0.5)	Total/NA	Solid	Moisture	
600-85473-32	DUP-10	Total/NA	Solid	Moisture	
600-85473-33	DUP-11	Total/NA	Solid	Moisture	
600-85473-34	2013-FWFS-SA (0-2)	Total/NA	Solid	Moisture	
600-85473-34 MS	2013-FWFS-SA (0-2)	Total/NA	Solid	Moisture	
600-85473-34 MSD	2013-FWFS-SA (0-2)	Total/NA	Solid	Moisture	
600-85473-36	2013-BSB-8A (8-10)	Total/NA	Solid	Moisture	
600-85473-36 MS	2013-BSB-8A (8-10)	Total/NA	Solid	Moisture	
600-85473-36 MSD	2013-BSB-8A (8-10)	Total/NA	Solid	Moisture	
600-85473-37	2013-FWCS-12A (2-2.7)	Total/NA	Solid	Moisture	
600-85473-38	2013-MW-17B (0-0.5)	Total/NA	Solid	Moisture	
600-85473-39	SCC-10B (0-0.5)	Total/NA	Solid	Moisture	
600-85473-41	ECO04B (0-0.5)	Total/NA	Solid	Moisture	

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: MW-33/2013-FWFS-5B (1-2)

Date Collected: 01/10/14 16:00 Date Received: 01/14/14 10:21

Lab Sample ID: 600-85473-1

Matrix: Solid Percent Solids: 81.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	125211	01/17/14 13:56	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: MW-33/2013-FWFS-5B (4-5)

Date Collected: 01/10/14 16:04 Date Received: 01/14/14 10:21

Date Collected: 01/10/14 13:38

Lab Sample ID: 600-85473-3 **Matrix: Solid**

Percent Solids: 73.4

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.02 g	50 mL	125211	01/17/14 14:05	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.02 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B	DL	20	1.02 g	50 mL	125211	01/17/14 16:12	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: F-5D (0.0-0.25) Lab Sample ID: 600-85473-4

Matrix: Solid

Date Received: 01/14/14 10:21 Percent Solids: 75.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.00 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.00 g	50 mL	125211	01/17/14 14:08	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: F-5E (0-0.25) Lab Sample ID: 600-85473-6 Date Collected: 01/10/14 13:42 **Matrix: Solid** Date Received: 01/14/14 10:21 Percent Solids: 68.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.08 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.08 g	50 mL	125211	01/17/14 14:10	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: F-5B (0-0.25) Lab Sample ID: 600-85473-8

Date Collected: 01/10/14 13:47 **Matrix: Solid** Percent Solids: 73.2 Date Received: 01/14/14 10:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	125211	01/17/14 14:13	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: F-5A (0-0.25)

Lab Sample ID: 600-85473-10

Matrix: Solid

 Date Collected: 01/10/14 13:49
 Matrix: Solid

 Date Received: 01/14/14 10:21
 Percent Solids: 72.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.09 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.09 g	50 mL	125211	01/17/14 14:15	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: F-5C (0-0.25)

Lab Sample ID: 600-85473-12

 Date Collected: 01/10/14 13:51
 Matrix: Solid

 Date Received: 01/14/14 10:21
 Percent Solids: 70.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.08 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.08 g	50 mL	125211	01/17/14 14:17	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: SRB-VS-9E (0-0.5)

Lab Sample ID: 600-85473-14

Date Collected: 01/10/14 14:08 Matrix: Solid
Date Received: 01/14/14 10:21 Percent Solids: 80.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	125211	01/17/14 14:20	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: SRB-VS-11A (0-0.5)

Lab Sample ID: 600-85473-15

Date Collected: 01/10/14 14:16

Date Received: 01/14/14 10:21

Matrix: Solid
Percent Solids: 83.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.08 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.08 g	50 mL	125211	01/17/14 14:22	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: ECO-10A (0-0.5)

Lab Sample ID: 600-85473-16

Date Collected: 01/10/14 14:43 Matrix: Solid
Date Received: 01/14/14 10:21 Percent Solids: 85.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	125211	01/17/14 14:24	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: ECO-4A (0-0.5)

Date Collected: 01/10/14 15:10

Date Received: 01/14/14 10:21

Lab Sample ID: 600-85473-17

Matrix: Solid Percent Solids: 80.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.01 g	50 mL	125211	01/17/14 14:41	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: E-11D (0-0.5) Lab Sample ID: 600-85473-19

Date Collected: 01/10/14 15:45

Date Received: 01/14/14 10:21

Matrix: Solid

Percent Solids: 75.2

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.09 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.09 g	50 mL	125211	01/17/14 14:44	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Lab Sample ID: 600-85473-20 Client Sample ID: 2013-NT-01 (0-0.5)

Date Collected: 01/10/14 15:58

Matrix: Solid

Date Received: 01/14/14 10:21 Percent Solids: 76.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	125211	01/17/14 14:46	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Lab Sample ID: 600-85473-21 Client Sample ID: 2013-NT-01 (0.5-2)

Date Collected: 01/10/14 15:59

Matrix: Solid Date Received: 01/14/14 10:21 Percent Solids: 74.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	125211	01/17/14 14:48	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: E-12A (0-0.5) Lab Sample ID: 600-85473-22

Date Colle Date Rece

•	,	•
Matrix: Solid		lected: 01/10/14 16:01
Percent Solids: 77.4		eived: 01/14/14 10:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.07 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.07 g	50 mL	125211	01/17/14 14:51	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: 2013-NT-02 (0-0.5)

Date Collected: 01/10/14 16:15 Date Received: 01/14/14 10:21

Lab Sample ID: 600-85473-23

Matrix: Solid Percent Solids: 75.7

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	125211	01/17/14 14:53	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: 2013-NT-02 (0.5-2)) Lab Sample ID: 600-85473-24

Date Collected: 01/10/14 16:16 Date Received: 01/14/14 10:21

Matrix: Solid Percent Solids: 77.1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.08 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.08 g	50 mL	125211	01/17/14 14:56	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Lab Sample ID: 600-85473-25 Client Sample ID: E-13A (0-0.5)

Date Collected: 01/10/14 16:22

Matrix: Solid

Date Received: 01/14/14 10:21 Percent Solids: 76.7

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	125211	01/17/14 14:58	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: E-14A (0-0.5) Lab Sample ID: 600-85473-26

Date Collected: 01/10/14 16:30

Matrix: Solid Percent Solids: 71.8

Date Received: 01/14/14 10:21 Ratch Dil Initial Einal

	Datcii	Datcii		ווט	IIIIIIai	ГШаі	Datcii	Frepareu		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	125089	01/16/14 10:03	TWR	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	125211	01/17/14 15:07	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Lab Sample ID: 600-85473-27 Client Sample ID: RINSE BLANK GEO **Matrix: Water**

Date Collected: 01/10/14 08:30 Date Received: 01/14/14 10:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C		-	125 mL	5.0 mL	125237	01/17/14 14:01	LMB	TAL HOU
Total/NA	Analysis	8082		1	125 mL	5.0 mL	125450	01/20/14 15:39	JAL	TAL HOU
Total/NA	Prep	3010A			50 mL	50 mL	125065	01/15/14 16:45	NER	TAL HOU
Total/NA	Analysis	6010B		1	50 mL	50 mL	125111	01/16/14 16:14	DCL	TAL HOU

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: MW-27E (0-1)

Date Collected: 01/13/14 08:42

Date Received: 01/14/14 10:21

Lab Sample ID: 600-85473-28

Matrix: Solid Percent Solids: 77.1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	125124	01/16/14 13:47	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	125211	01/17/14 12:49	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: MW-29A (0-0.5) Lab Sample ID: 600-85473-31

Date Collected: 01/13/14 08:52

Date Received: 01/14/14 10:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	125124	01/16/14 13:47	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	125211	01/17/14 12:51	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: DUP-10 Lab Sample ID: 600-85473-32 **Matrix: Solid**

Date Collected: 01/13/14 00:00

Date Received: 01/14/14 10:21

Dil Initial Final Batch Batch **Batch** Prepared **Prep Type** Type Method Run **Factor Amount** Amount Number or Analyzed Analyst Lab TAL HOU Total/NA 3050B 01/16/14 13:47 NER Prep 1.09 g 50 mL 125124 Total/NA Analysis 6010B 50 mL 125211 01/17/14 12:54 DCL TAL HOU 1 1.09 g 01/15/14 15:56 AYS TAL HOU Total/NA Analysis Moisture 1 125061

Client Sample ID: DUP-11 Lab Sample ID: 600-85473-33 **Matrix: Solid**

Date Collected: 01/13/14 00:00

Date Received: 01/14/14 10:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	125124	01/16/14 13:47	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	125211	01/17/14 13:03	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: 2013-FWFS-SA (0-2) Lab Sample ID: 600-85473-34

Date Collected: 01/13/14 09:12 **Matrix: Solid** Date Received: 01/14/14 10:21 Percent Solids: 80.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	50 mL	125124	01/16/14 13:47	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.05 g	50 mL	125211	01/17/14 13:05	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

TestAmerica Houston

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Matrix: Solid

Percent Solids: 76.6

Percent Solids: 76.6

Percent Solids: 87.4

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: 2013-BSB-8A (8-10)

Date Collected: 01/13/14 09:50 Date Received: 01/14/14 10:21 Lab Sample ID: 600-85473-36

Matrix: Solid
Percent Solids: 77.1

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.07 g	50 mL	125124	01/16/14 13:47	NER	TAL HOU
Total/NA	Analysis	6010B	DL	20	1.07 g	50 mL	125211	01/17/14 16:00	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: 2013-FWCS-12A (2-2.7)

Lab Sample ID: 600-85473-37

 Date Collected: 01/13/14 11:05
 Matrix: Solid

 Date Received: 01/14/14 10:21
 Percent Solids: 76.5

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	50 mL	125124	01/16/14 13:47	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.02 g	50 mL	125211	01/17/14 13:25	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: 2013-MW-17B (0-0.5)

Lab Sample ID: 600-85473-38

Date Collected: 01/13/14 11:51

Matrix: Solid
Date Received: 01/14/14 10:21

Percent Solids: 80.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	50 mL	125124	01/16/14 13:47	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.05 g	50 mL	125211	01/17/14 13:34	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.05 g	50 mL	125124	01/16/14 13:47	NER	TAL HOU
Total/NA	Analysis	6010B	DL	20	1.05 g	50 mL	125211	01/17/14 16:09	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: SCC-10B (0-0.5)

Lab Sample ID: 600-85473-39

Date Collected: 01/13/14 12:04 Matrix: Solid
Date Received: 01/14/14 10:21 Percent Solids: 77.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.08 g	50 mL	125124	01/16/14 13:47	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.08 g	50 mL	125211	01/17/14 13:37	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: RINSE BLANK GEO Lab Sample ID: 600-85473-40

Date Collected: 01/13/14 13:15

Matrix: Water

Date Received: 01/14/14 10:21

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	125065	01/15/14 16:45	NER	TAL HOU
Total/NA	Analysis	6010B		1	50 mL	50 mL	125111	01/16/14 16:21	DCL	TAL HOU

TestAmerica Houston

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Lab Chronicle

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/13/14 13:48

Date Received: 01/14/14 10:21

Client Sample ID: ECO04B (0-0.5)

TestAmerica Job ID: 600-85473-1

Lab Sample ID: 600-85473-41

Matrix: Solid

Percent Solids: 74.8

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	50 mL	125124	01/16/14 13:47	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.05 g	50 mL	125211	01/17/14 13:39	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Certification Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85473-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-15
Louisiana	NELAP	6	30643	06-30-15 *
Oklahoma	State Program	6	1309	08-31-15
Texas	NELAP	6	T104704223	10-31-15
USDA	Federal		P330-14-00192	06-06-17
Utah	NELAP	8	TX00083	11-30-15

^{*} Certification renewal pending - certification considered valid.

Date/Time:

Cooler Temperature(s) °C and Other Remarks:

Received by:

100

Custody Seal No.

OCustody Seals Intact: △ Yes △ No

TestAmerica Houston

iouston, TX 77040		Dab PM:	Carrier Tracking No(s):	
Client Information	Chit's street	Janes Geon A		
Olient Contact:	Phone: 0 :- 20 11 11	E-Mail:		E00-85473 Chain
Christina Higginbotham	-112-808-11Q	dean.joiner@testamericainc.com		
Company:				F # qof

3310 Rothway Street				Chain of Custody Record	of C	ısto	dy I	Sec.	ord								Property of the Control of the Contr	
iouston, TX 77040 Cliant Information	*** **********************************			Lab PM	ab PM:			1			Carrier	Carrier Tracking No(s):	No(s):					
Cifent Contact Christina Higginbotham		3-808	8144	E-Mail: dean,	E-Mail: dean.joiner@testamericainc.com	estame	ricainc	E OS	 - 					छ ।	0.854	EDD-85473 Chain of Custody	ıstody	
Gompany: Golder Associates Inc.								Ana	Analysis Requested	Requ	este	_				9302051 # qor	0,80	
Address:	Due Date Requested:					_	-	_	-	_		-			_	Preservation Codes:	odes:	<u> </u>
500 Century Plaza Drive Suite 190																A-HCL	М - Нехапе	
City: Houston	TAT Requested (days):	s): 5 WD TRRP	ك					n(ça)								B - NaOH C - Zn Acetate	N - None O - AsNaO2	200,000
State, Zip: T.X, 77073				Î				89J G0								D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3 P N2S2SO3	
Phone: 281-821-6868(Tel) 281-821-6870(Fax)	Po #. Purchase Order Requested	Sequested	; ;		(6	ield bi		01 HG								G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate	
Email: Christina_Higginbotham@golder.com	#OM				(oN			ld for							SI	I - foe J - DI Water	U - Acetone V - MCAA	
Project Name: Exide Recycling Center, Frisco TX Project	Project #. 60004831				io se										enistr	L-EDA	vv - pri 4-5 Z - other (specify)	
SIREMOE-FROM	SSOW#:				Y) ağı				ete	⊕Sʻqc					100 10	Other:		
Sample identification	Sample Date	Sample (Sample Type (C=comp,	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Perform MS/W	8250B - Target	8270C_LL - (MC 520C_LL - (MC	E2001_XT	9056_28D - Sulf 6010B - Cd,Pb	6010B - As,Cd,F	Moisture	8082 PCB			Total Number	Special II	Special Instructions/Note:	
a¢		X	Preservation Code:	on Code:	Ž	z	z	z	z	z	z	z		-	X			
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18133 2013-FURS-513 (2-4)	01/10/14	1,091	ပ	Solid	-											Kow		
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F-5A (0-0.78)	Or he int	1349 0	Solid	*		2, 52 2, 23	
F-54 (1)	4)/01/10	0 QSE1	Solid			55	
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	ssed if samples are I	etained longer than 1 i	nonth)
Non-Hazard Flammable Skin Initant Poison B Unknown	Poison B Unkno	wn Radiological	1	Return To Client bisp	Disposal By Lab	Archive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:			i i
Empty Kit Relinquished by:		Date:		Time:	Method of Shipment	·Dan	
Reinquished by JANZEN	OnterTime: Of 113 / Lt	1500	Company	Company Received by McCML		Date/Time: 3/14 1500	The Real R
Commission of the Commission o	Date/Time- 26		Company	Received hv.	Date/Time-	<u>و</u>	Company

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TestAmerica Houston

Chain of Custody Record

6310 Rothway Street

6310 Rothway Street Houston TX 77040		chain of Custody Record		
1 Musicili, 17 (17) 040 Phone (713) 690-4444 Fax (713) 690-5646			Carrier Tracking No(s):	COCNO
Client Information	Sampler CHRIS TRENING	Lab PM: Joiner, Dean A	Callel (taching tac(s).	600-25571-9015.1
Client Contact: Christina Higginbotham	Phone: 817-808-8144	E-Mait: dean.joiner@testamericainc.com		Page: 3
Çompany: Golder Associates Inc.		nalysis	Requested	380-C0 €1
Address: 500 Century Plaza Drive Suite 190	Due Date Requested:			Preservation Codes:
Gity: Houston	TAT Requested (days): 5 WD TRRP	(ड्या		
State, Zip: FX, 77073				D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 E - MeOH R - Na2SSSO3
Phone: 281-821-6868(Tel) 281-821-6870(Fax)	Port Purchase Order Requested	islJ br		
Email: Christina_Higginbotham@golder.com	WO #:	inodwi 1s: ≟(○N	SJ	I - Ice J - DI Water Z - EDITA
Project Name: Exide Recycling Center, Frisco TX Project	Project #. 60004831	es o Set Co Set Co	Q.	N-EDIA L-EDA
Sile ExiDE-FRISCO	SSOW#;	ISD (Y Compo DD) Tar I Metho I Metho		Other:
	Sample	Matrix (Watrix (Watrix (Watrix (Watrix (Watrix) (Watrix) (Watrix (Watrix) (Watrix) (Watrix (Watrix) (Watrix	82 PCB	
Sample Identification	Sample Date Time G≃grab) BT-TISSUR, A=≠ Preservation Code:	2 8 2 XX 2 8 8 5 XX 2 8 XX	9	Special Instructions/Note:
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	+	Solid		
SE-13A 34 (0-0.5)	01/10/14 1622 G	Solid		
C-17A (0-0.5)	04,0114 1630 G	X l l l l pios		
RIVE BLAKE GRO	0/10/14 0830 G	Solid	X	
(1-0) 3TE WM	6/13/14 0842 G	X Solid		72
MW-27E (1-2)	onlisting liberts o	Solid	传 · 文章	How
MW-27E (2-3)	o/13/14 0थीं G	Solid		HON
NW-29A (000,5)	ON13/14 0852 G	Solid	22	
DVP-10	न्याय ८	Solid		
1 DUP-11	01/13/14 - G	Solid	×	
Possible Hazard Identification Non-Hazard Hammable Skin Initant Po	Poison B Unknown Radiological	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For Mon	ssessed if samples are retained long	onger than 1 month) -orMonths
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:		
Empty Kit Relinquished by:		ime:	Method of Shipment:	
Relinquished by Comban (NOVZON) Remoushed by (1)		Company Received by: MCCON	2 Date/Time; 3	T Scompany (Company)
Remainished by.	13/14 1700	2	Date/Time:	Company
Oustody Seals Intact: Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		
1				

Chain of Custody Record

TestAmerica Houston 6310 Rothway Street Houston, TX 77040	Ch	Chain of Custody Record		
Phone (713) 690-4444 Fax (713) 690-5646	1		Carrier Tracking No(s):	COC No.
Client Information Client Contact Client Contact	Phone: Or Made - 8144	JOINER, Deall A E-Mail Jean icher@tectamericaine com		Page: C
Calibulia rugginoutanii Canpany:	5 000		l dota	100 to 5 to
Golder Associates Inc.	Due Date Requested:	Alialysis Neduc	Sico	Preservation Codes:
500 Century Plaza Drive Suite 190				A-HCL M-Hexane
CR; Heuston	TAT Requested (days): 5 WD TRRP	(silu		
State, Zip: TX, 77073		oo reer		E - Natric Acid P - Na2O4S E - Natro Acid Q - Na2SO3 E - Mach
Phone: 281-821⊱6868(Tel) 281-821-6870(Fax)	Po # Purchase Order Requested	i de Llet		G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate
Emait. Christina_Higginbotham@golder.com	WOA	te	SJ	1 - Ice J - Di Water
Project Name: Exide Recycling Center, Frisco TX Project	Project #. 60004831	es of Jund Li get Co H List		L-EDA
SHE CHOCK-CLISCO	SSOW#:	Compoormoo D) Tar (Co (Co (Co (Co (Co (Co (Co (Co (Co (Co		Other:
	Sample Type Sample (C=comp,	Matrix (**-water, was profile and Filtered Farget	oleture oleture	
Semple Identification	Sample Date G=grab) BT-Tissue, A-F Preservation Code:	09 Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z)8 Z	Special Instructions/Note:
2013-FWES-SA(0-2)	os 5 2/68 41/5/10	Solid		
2013-FWES -SA(02)MS	8413/14 0912 6 80	Solid		
SA (os 0 7160 41/21/10	Solid		
2013-FW PS-5A (2-11)	04(3)14 0413 G So	Solid	, ,	FOR
2013-1352-24 (4-10)	01/13/14 19950 G So	Solid	×	
2013-13513-8A (19-10)MS	61/13/14 0950 G So	Solid	×	
2013-BSB-BA (8-10)MSH	01/13/14 0950 G So	Solid	×	
2013-FWC5-12A (2-2.7)	01/13/14 1/05 G So	Solid	×	
2013-MW 1713 (0-0.5)	ŋ	Solid	- 4.4	
SU-108 (0-1 2)	01/13/14 1204 G SO	Solid	3 3 2	
EINSE BLANK GED	1315 0	Solid		
on Skin Imitant	Poison B Unknown Radiological	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For Won	assessed if samples are retained long	onger than 1 month) -or Months
ssted: I, II, III, IV, Other (specify)		Requireme		
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Remodulished by MANA THE PARTY OF THE PARTY	3/14 1700		Date/Time:	Company
Reducished by:	Date/Tinhe: Company		Date/Time:	Company
Custody Seals Intact Custody Seal No.: △ Yes △ No		Cooler Temperature(s) °C and Other Remarks:		

Chain of Custody Record

TestAmerica <u>Hous</u>ton 6310 Rothway Street

Hearton, TX 77040 Client Information	MINOUITY (MENING		Joiner, Dean A				Carrier	Carrier Tracking No(s)	;(s	SOC NO.	COC NO:	
Client Contact Christina Higginbotham	Phone: 87909 8144		E-Mail: dean.joiner@testamericainc.com	stamericai	inc.com					Page: Page	'n	
Company: Golder Associates Inc.					Analysis	E .	Requested			Job #:	30208	99
Address: 500 Century Plaza Drive Suite 190	Due Date Requested:									Pres		;se:
Gity: Houston	TAT Requested (days): 5 WD TRRP				nlts)				-	(600	A - ncL B - NaOH C - Zn Acetate	M - nexalle N - None O - AsNaO2
State, Zip: TX, 77073			· · · ·		105 res							P - Na2O4S Q - Na2SO3 R - Na2SSSO3
Phone: 281-821-6868(Tel) 281-821-6870(Fax)	PO#. Purchase Order Requested		(0	isiJ br	01 H91	_				ΘÌ		S - H2SO4 T - TSP Dodecahydrate
Email: Christina_Higginbotham@golder.com	WO #:		(QN		Tof bl							U - Acetone V - MCAA
Project Name: Exide Recycling Center, Frisco TX Project	Project #: 60004831		10 Se	oo jeg								vv - pri 4-5 Z - other (specify)
SIE: EXIDE- FUSU	SSOW#:		r) ası	ısT (O		eje;	eS,dc			oo to Other:	L.	
· Semple Identification	Sample Date Time G=	Sample Matrix Type S=solid, (C=comp, C=rissue A=kir)	Field Filtered Perform MS/N 8260B - Target	8270C_LL - (MC	6001 - 8001_XT 6001 - 8001_XT	9066_28D - Sun	6010B - As,Cd,I	8082 PCB		redmüN lstoT	Special Ins	Special Instructions/Note:
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Possible Hazard Identification Non-Hazard Flammable Skin Initant	Poison B Unknown Radiological	logical	Samp	le Disposal (A i Retum To Client	Il (A fee m. Client	iay be as ∏	assessed if san	samples Lab	are retain	tained longer	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Retum To Client Disposal By Lab Mon	onth) Months
ested: I, II, III, IV, Other (specify)			Specia	Special Instructions/QC Requirements	ns/QC Rec	quirement	16					
Empty Kit Relinquished by:	Date:		Time:	<				Method of Shipment:	oment ,			
Reinquished by: ON SKUA MIDEN Reinquished by:	14 150			Received by:		3	3		Date/Time: Date/Time:	त्रीप	925	Company
1/ Company supply of the party supply	Date/Time:	Company	1	Received by:				Ä	Date/Time:	-		Company
Custody Seals Intact: Custody Seal No.:			Ŝ	Cooler Temperature(s) °C and Other Remarks:	ture(s) °C and	J Other Ren	arks:	-				
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Upton, Cathy

From: Upton, Cathy

Sent: Tuesday, March 04, 2014 3:13 PM

To: Upton, Cathy

Subject: FW: Additional Metals in Soil

Dean,

We would like to report all five metals for the samples listed below. Do you think we could get revised reports for these by Wednesday?

Location ID	Sample ID	lab sample id	Date Sampled	Antimony	Arsenic	Cadı
2013-SL-C15	2013-SL-C15 (0-6)	600-84633-7	2013-12-19	NA	NA	2.10
MW-42	MW-42 (0.5-2)	600-85318-20	2014-01-08	NA	13.9	1.82
MW-27B	MW-27B (0-2)	600-85318-24	2014-01-09	NA	NA	9.85
D-11A	D11A (0-0.5)	600-85318-30	2014-01-09	NA	27.2	1.77
2013-BSA-2A	2013-BSA-2A(0-2)	600-85318-36	2014-01-09	NA	34.9	16.5
ECO-2A	ECO-2A (0-0.5)	600-85389-18	2014-01-09	NA	NA	3.29
ECO-8A	ECO-8A (0-0.5)	600-85389-20	2014-01-09	NA	NA	5.65
2013-AD-3	2013-AD-03 (0-0.5)	600-85389-23	2014-01-09	NA	NA	1.51
SCC-5B	SCC-5B (0-0.5)	600-85389-29	2014-01-10	NA	NA	2.48
2013-CUFT-10B	2013-CUFT-10B (0-0.5)	600-85389-63	2014-01-10	NA	NA	2.19
SRB-VS-11A	SRB-VS-11A (0-0.5)	600-85473-15	2014-01-10	NA	NA	1.44
2013-FWFS-5A	2013-FWFS-5A (0-2)	600-85473-34	2014-01-13	NA	NA	0.52
2013-MW-17B	2013-MW-17B (0-0.5)	600-85473-38	2014-01-13	NA	NA	5.19
SCC-10B	SCC-10B (0-0.5)	600-85473-39	2014-01-13	NA	NA	1.85
2013-C2L-06	2013-C2L-06 (0-0.5)	600-85636-21	2014-01-14	NA	22.6	3.68
ECO-7D	ECO-7D (0-0.5)	600-85636-39	2014-01-14	NA	15.1	2.30

Thanks, Anne

> Page 47 of 51 6/11/2015

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Anne Faeth-Boyd, R.G., P.E. | Senior Project Engineer | Golder Associates Inc.
820 South Main Street, Suite 100, St. Charles, Missouri, USA 63301
T: +1 (636) 724-9191 | F: +1 (636) 724-9323 | C: +1 314 503-5179 | E: Anne Faeth-Boyd@golder.com | www.golder.com

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Upton, Cathy

From: Faeth-Boyd, Anne [Anne_Faeth-Boyd@golder.com]

Sent: Thursday, March 27, 2014 3:52 PM

To: Upton, Cathy

Cc: Joiner, Dean; Higginbotham, Christina; Forthaus, Brett; Thomas, Jim

Subject: Additional Metals Reporting

Follow Up Flag: Follow up Flag Status: Blue

Cathy,

Could you please send revised reports to include all five metals (lead, cadmium, arsenic, antimony, selenium) for the following samples:

2013-AD-03 (0.5-2)	600-85389-24	2014-01-09
2013-C2L-06 (1-2)	600-85636-22	2014-01-14
2013-CUFT-5B (0-0.5)	600-85389-36	2014-01-10
2013-NT-02 (0-0.5)	600-85473-23	2014-01-10
2013-SDA-4B (0-0.5)	600-85389-28	2014-01-10
E-11C (0-0.5)	600-85318-29	2014-01-09
ECO-10A (0-0.5)	600-85473-16	2014-01-10
ECO-1A (0-0.5)	600-85389-16	2014-01-09
ECO-2A (0-0.5)	600-85389-18	2014-01-09
ECO-4B (0-0.5)	600-85473-41	2014-01-13
SRB-VS-9E (0-0.5)	600-85473-14	2014-01-10

Thanks, Anne

Anne Faeth-Boyd, R.G., P.E. | Senior Project Engineer | Golder Associates Inc.
820 South Main Street, Suite 100, St. Charles, Missouri, USA 63301
T: +1 (636) 724-9191 | F: +1 (636) 724-9323 | C: +1 314 503-5179 | E: Anne Faeth-Boyd@golder.com | www.golder.com

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Upton, Cathy

From: Higginbotham, Christina [Christina_Higginbotham@golder.com]

Sent: Tuesday, May 06, 2014 5:02 PM

To: Upton, Cathy; Joiner, Dean

Cc: Thomas, Jim; Faeth-Boyd, Anne

Subject: Exide discrepancies - metals reporting

Follow Up Flag: Follow up Flag Status: Red
Cathy and Dean,

The below revisions are being requested so the final laboratory reports are consistent with tabulated data that was already submitted.

It appears that some metals noted below were reported in an earlier package, and removed for the later data packages. We would like the specified data (see highlights) turned back "on" please.

Please let us know estimated time for these revisions, or if you have any questions regarding this request.

Thanks, Christina

600-85636 REVISION

				Sb	As	Cd	Pb	Se		
2013-STB-4A	2013-STB-4A (2-4)	600-85636-1	201	4-01-13	NA	NA	NA	1540	NA	REPORT CADMIUM (confirm Cd concentrat
600-85318			,							

REVISIONS 2013-C2L-03 2013-C2L-03-(0-0.5) 600-85318-33 2014-01-09 12.2 0.651 79.5 0.330 U REPORT ARSENIC AND SELENIUM 0.652 b D-12A D12A (0-0.5) 600-85318-31 2014-01-09 NA 10.9 80.2 < 0.324 U REV 4 (3/18) reports Cd, Pb only. Report dat reported As, Cd, Pb, Se REPORT ARSENIC AND SELENIUM MW-41 MW-41 (0.5-2) 600-85318-18 2014-01-08 10.1 0.810 92.5 < 0.338 U REV 4 (3/18) reports Cd, Pb only. Report da reported As, Cd, Pb, Se. REPORT ARSENIC AND SELENIUM 0.474 MW-41 MW-41 (0-0.5) 600-85318-17 2014-01-08 NA 18.4 REV 4 (3/18) reports Cd, Pb only. Report da REPORT ARSENIC AND SELENIUM REV 4 (3/18) reports Cd, Pb only. Report da 600-85318-21 MW-42 DUP-6 2014-01-08 NA 7.39 0.385 15.0 < 0.311 U reported As, Cd, Pb, Se. REPORT ARSENIC AND SELENIUM REV 4 (3/18) reports Cd, Pb only. Report da reported As, Cd, Pb, Se. MW-42 MW-42 (0-0.5) 600-85318-19 2014-01-08 14.2

									REPORT ARSENIC AND SELENIUM
600-85473 RE	VISIONS								
2013-NT-01	2013-NT-01 (0.2-2)	600-85473-21	2014-01-10	NA	14.4	0.618	18.5	0.546 J	Report from 1/22 has results for As and S only lists Pb and Cd, 4/21 only lists Cd and REPORT ARSENIC AND SELENIUM, also p interval to "0.5-2" instead of "0.2-2".
2013-NT-01	2013-NT-01 (0-0.5)	600-85473-20	2014-01-10	NA	15.9	0.571	19.5	< 0.328 U	Report from 1/22 reports As and Se. Rev 4/21 does not. REPORT ARSENIC AND SELENIUM
2013-NT-02	2013-NT-02 (0.5-2)	600-85473-24	2014-01-10	NA	14.1	0.354	21.2	0.324 J	Report from 1/22 reports As and Se. Rev 4/21 does not. REPORT ARSENIC AND SELENIUM
2013-NT-02	2013-NT-02 (0-0.5)	600-85473-23	2014-01-10	NA	14.9	4.89	837	0.654 J	Report from 1/22 reports As and Se. Rev. 4/21 does not. REPORT ARSENIC AND SELENIUM

600-85389 REVISIO	ON							
2013-WMU14-1A (5-7)	600-85389-12	1/9/2014	na	na	5.14 J	17000	na	REPORT CADMIUM (confirm Cd concentratio
DUP-7	600-85389-14	1/9/2014	na	na	na	10500	na	REPORT CADMIUM (if 85389-12 is confirmed

Christina Higginbotham, P.G. | Remediation Project Manager | Golder Associates Inc. 500 Century Plaza Drive, Suite 190, Houston, Texas, USA 77073

T: +1 (281) 821-6868 | F: +1 (281) 821-6870 | C: +1 (281) 620-7835 | E: CHigginbotham@golder.com | www.golder.com

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Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 600-85473-1

Login Number: 85473 List Source: TestAmerica Houston

List Number: 1

Creator: Capps, Dana R

ordator. Suppo, Build R		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2/3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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Data Usability Summary

Test America Work Orders: 600-85389-1, 600-85389-2, 600-85389-

3, 600-85389-4

Sample Dates: January 9 & 10, 2014 **Project No.:** 1302086

Laboratory: Test America (TLAP Certification Client: Exide Technologies Inc.

T104704223)

Work Orders: Work Orders: 600-85389-1, 600-85389-2, 600-85389-3, 600-85389-4

Intended Use Affected Property Assessment Report (APAR) Addendum

Site: Exide Former Operating Plant (FOP), 7471 5th Street, Frisco, TX

TESTS/ METHODS

Polychlorinated Biphenyls (PCBs) by SW-846 8082 - Gas Chromatography (GC)

Total Metals by SW-846 6010B - Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP)

SAMPLES

36 soil samples (one of which was subjected to Synthetic Precipitation Leaching Procedure (SPLP)), 3 field duplicates, 1 equipment rinsate blank, 4 field MS/MSD pairs. See Table 1 for a complete cross-referenced listing of samples.

Golder completed a review of the above chemical analysis data for conformance with the requirements of the Texas Risk Reduction Program (TRRP) guidance document, Review and Reporting of COC Concentration Data (RGG-366/TRRP-13 Revised May 2010) and for adherence to project objectives. The results of the review are discussed in this data usability summary (DUS).

Golder completed the review using the following laboratory and project submittals:

- Laboratory reportable data as defined in TRRP-13;
- Laboratory review checklists (LRC) with the associated exception reports;
- Laboratory Electronic Data Deliverable (EDD); and
- Project field notes from the sampling event.

The review of the reportable data included the quality control (QC) parameters listed below, as required per TRRP-13, using the applicable analytical method and project requirements:

- Data Completeness
- Chain-of-Custody Procedures
- Sample Condition Holding Time, Preservation, and Containers
- Field Procedures





Data Usability Summary
Test America Work Orders: 600-85389-1, 600-85389-2, 600-85389-3, 600-85389-4

- Results Reporting Procedures
- Laboratory and Field QC Blanks
- Laboratory Control Spike and Matrix Spike Recoveries
- Surrogate Recoveries
- Laboratory and Field Duplicate Precision

Additionally, Golder used the LRC to evaluate the following QC parameters:

- Method Quantitation Limits (MQLs)
- Method Detection Limits (MDLs)
- Instrument Tuning, Calibration, and Performance
- Internal Standards

Criteria used for this data usability review are as follows:

- Inorganics: 70-130% spike recovery (and not less than 30% or data is rejected) and +MQL difference or 30% RPD (for laboratory duplicates) as recommended in TRRP-13;
- Organics: 60-140% spike recovery (and not less than 30% or data is rejected) and +MQL difference or 40% RPD (for laboratory duplicates) as recommended in TRRP-13; and
- Soil Samples: + 3x MQL difference (if either result is less than 5x MQL) or 50% RPD (for field duplicates) as recommended in TRRP-13.

If an item was found outside of the review criteria, the reviewer applied a data qualifier (DQ) and bias code to the results for the affected samples in accordance with TRRP-13. A list of all qualified results and definitions of the qualifier and bias codes are given in Table 2.

GLOSSARY OF TERMS

The following definitions apply for terms related to analyte reporting limits:

MDL (Method Detection Limit) – the minimum concentration of an analyte that the laboratory can measure and report with 99% confidence that the analyte concentration is greater than zero. The MDL is determined by the laboratory for each analyte in a given reagent matrix (water or soil) generally using the procedures specified in 40 CFR Part 136, Appendix B. It is a measure of the concentration an instrument can detect or 'see' in a given reagent matrix. TRRP-13 requires that the laboratory routinely check the MDL for reasonableness.

<u>SDL</u> (Sample Detection Limit) – the MDL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and taking into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can detect or 'see' in a given sample. For TRRP, non-detects





Data Usability Summary Test America Work Orders: 600-85389-1, 600-85389-2, 600-85389-3, 600-85389-4

are reported using the SDL. This term was originally called the SQL (Sample Quantitation Limit) before the TRRP rule revisions effective March 19, 2007.

<u>Unadjusted MQL (Method Quantitation Limit)</u> – the lowest non-zero concentration standard in the laboratory's initial calibration curve calculated using the normal aliquot sizes and final volumes prescribed in the analytical method. The unadjusted MQL is reported by the laboratory for each analyte in a given matrix (water or soil). It is a measure of the concentration an instrument can accurately measure in a typical sample. Per TRRP, the Unadjusted MQLs should be below the Levels of Required Performance (LORPs) for purposes of assessment as well as demonstration of conformance with critical Protective Concentration Levels (PCLs).

<u>MQL</u> – the unadjusted MQL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and takes into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can accurately measure in a given sample. Analytes with concentrations above the SDL but below the MQL, though present in the sample, may not be accurately measured and are thus flagged as estimated (J).

LABORATORY CERTIFICATION

At the time the laboratory data were generated for this project, the laboratory was NELAC accredited under the Texas Laboratory Accreditation Program (TLAP) for the matrices, methods and parameters of analysis requested on the chain-of-custody forms. A copy of the applicable pages of the laboratory's National Environmental Laboratory Accreditation Program (NELAP) certificate valid during the period in which the laboratory generated the data in this report is also included in Appendix C to the Supplement to the Affected Property Assessment Report.

USABILITY SUMMARY

- 1. Usability of Unqualified Non-Detects Non-detects are reported at the sample detection limit (SDL) as required per TRRP. Additionally, according to the LRC, an MDL study was performed for each analyte and the MDLs were checked for reasonableness for each applicable analyte. The levels of required performance (LORPs) have been established by Golder/PBW as the Residential Assessment Levels (RALs), which are the minimum of the TRRP residential Tier 1 Tot Soil Comb and Tier 1, 2 or 3 GW Soil Ing PCLs for a 30-acre source area. As needed per TRRP, the Unadjusted MQL stated by the laboratory is at or below the LORP for each applicable analyte, and thus the analytical methods are appropriate and the results can be used to demonstrate conformance with the criteria.
- 2. Usability of Qualified Data There are no major QC deficiencies, and thus all data is usable as qualified for the intended use. As shown in Table 2, the reviewer qualified some detects as estimated (J) due to minor QC deficiencies. Detects that are biased high can be used; however, the reported concentration may be high. Detects that are





Data Usability Summary

Test America Work Orders: 600-85389-1, 600-85389-2, 600-85389-

3, 600-85389-4

estimated may be either low or high. Results with a laboratory J-flag (i.e., at a concentration between the SDL and MQL) should be considered estimates. The actual value is not expected to exceed the sample MQL.

Reviewer: Jing Song Xi 8/25/2015

QUALITY CONTROL PARAMETERS AND OUTCOMES

Data Completeness

The laboratory data packages contain all necessary data (i.e., the laboratory reportable data per TRRP-13) and the EDD contain all sample results in acceptable format. Minor revisions were required for work orders 600-85389-4. Minor revisions have been made for work order 600-85389-1 on 6/8/2015. All revisions are detailed in the laboratory narrative.

Chain-of-Custody

Proper sample custody procedures were used, which confirms that the integrity of the samples was maintained. Additionally, the information on the custody records is complete and agrees with that in the field notes and laboratory reports, except as follows:

Minor instances of containers not matching information listed on the COC. These inconsistencies have been addressed by the laboratory and do not affect sample results.

Sample Condition

Samples were collected in appropriate containers, properly preserved in the field, and prepared and analyzed within the holding times as required in the analytical methods, which ensures that the samples were not affected by analyte degradation:

■ For 600-85389, the temperatures of the coolers at receipt were 1.5°C and 2.0°C.

Field Procedures

The samples were collected and placed immediately into sterilized jars provided by the laboratory and then into a cooler with ice for overnight delivery to the laboratory.

Three field duplicates were collected with the 36 investigative samples. Four site-specific MS/MSD samples were collected. One equipment rinsate blank was collected with the samples.

Results Reporting Procedures

The hardcopy analytical results include a Result, MQL (adjusted), and SDL. The EDD includes the MDL, SDL (under the SQL column per previously used terminology) and the MQL, which is not adjusted for sample specific factors.





Data Usability Summary

Test America Work Orders: 600-85389-1, 600-85389-2, 600-85389-

3, 600-85389-4

Results are reported in mg/kg with dry-weight correction for the metals. Non-detects are reported using the SDL as specified per TRRP and detects between the SDL and MQL are reported with a laboratory J-flag. The concentration reported for detects between the SDL and MQL is below the calibration range and thus is considered estimated.

MQLs- The LORPs have been established by Golder/PBW as the Resident Assessment Levels (RALs), which are the minimum of the TRRP residential Tier 1 Tier 1 Tot Soil Comb and Tier 1, 2 or 3 GW Soil Ing PCLs for a 30-acre source area. The Unadjusted MQLs for the laboratory are at or below the LORPs for each applicable analyte.

MDLs- According to the LRC, an MDL study was performed for each analyte, and the MDLs were checked for reasonableness and either adjusted or supported by the analysis of detectability check standards (DCS) for each applicable analyte as required per TRRP-13. Results for the DCS are included in the data packages.

Laboratory Blanks

Results for samples prepared in the same QC batch as a contaminated method blank may be affected by laboratory contamination. There were no detections in laboratory blanks in this work order, except for the following:

- The method blank for QC Batch 124919 contained cadmium above the MDL. All samples in the associated preparation batch have detections greater than 5x MDL, therefore, no qualifications are needed.
- The method blank for QC Batch 127929 contained lead above the MDL. All samples in the associated preparation batch have detections greater than 5x MDL, therefore, no qualifications are needed.

Field QC Blanks

One equipment rinsate blank was collected to document sufficient field decontamination procedures for soil sampling devices. Results for samples collected with a contaminated rinsate blank may be affected by field contamination. However, no analytes were detected in the rinsate blanks, and thus there is no effect on data quality.

Laboratory Control Sample

The laboratory prepared one laboratory control sample (LCS) for each analytical batch and reported recoveries for all of the analytes for each test. The LCS recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on a sample, free of matrix effects, except for the following:



Data Usability Summary Test America Work Orders: 600-85389-1, 600-85389-2, 600-85389-3, 600-85389-4

For Method 8082, aroclors are multi-component analytes and it is impossible to include all seven aroclors of interest into the LCS according to the laboratory. Only aroclors 1016 and 1260 were spiked into the LCS. As these two aroclors contain essentially all analytes found in the other five aroclors of interest, the recovery of these two aroclors in the LCS was taken to be representative of the recovery of the other five aroclors. Aroclors 1016 and 1260 recovered within specified limits.

Matrix Spike Recovery

The laboratory prepared one or more matrix spike (MS) and matrix spike duplicate (MSD) with each analytical batch plus a Post Digestion Spike (PDS) with each metals analytical batch. MS/MSD recoveries are reported for the same analytes as the LCS for MS/MSD prepared using a sample from the site, which includes 4 MS/MSD for Total Metals, as shown in Table 1.

PDS outcomes are given on the LRC for each job package; however PDS data are not reportable data per TRRP-13. According to the LRC, the PDS met method requirements, which indicates good accuracy for the analysis technique on the given sample matrix.

The MS/MSD recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on a sample free of matrix effects, except as follows:

QC Batch	Lab Sample ID	MS/MSD ID	Analyte	Parent Amount (mg/kg)	Spike Amount for MS/MSD (mg/kg)	MS % Recovery	MSD % Recovery	Qual
124919	600-85389- 12	2013- WMU14-1A (5-7)	Antimony	73.3	66.0, 66.6	-67	-62	JL
124919	600-85389- 12	2013- WMU14-1A (5-7)	Arsenic	52.6	66.0, 66.6	37	39	JL
124919	600-85389- 12	2013- WMU14-1A (5-7)	Lead	15500	66.0, 66.6	-23248	-23042	-
124919	600-85389- 13	MW-30A (2- 4)	Antimony	1.55	58.2, 55.4	39	35	JL
124919	600-85389- 13	MW-30A (2- 4)	Lead	52.4	58.2, 55.4	63	30	JL
127810	600-85389- 19	ECO-2A (0.5-2)	Antimony	0.284 U	58.9, 58.3	44	42	UJL
124939	600-85389- 30	SCC-5A (0- 0.5)	Antimony	0.278	59.6, 64.3	39	40	JL
124939	600-85389- 45	2013-CUFT- 6C (2-4)	Antimony	0.306	64.3, 66.8	38	38	JL

NA – Not available.

In all cases where the spike amount is less than four times the result in the unspiked parent sample (such as for lead in batch 124919), the data are considered inconclusive and the MS/MSD recovery check is waived.



Data Usability Summary

Test America Work Orders: 600-85389-1, 600-85389-2, 600-85389-

3, 600-85389-4

Surrogate Recovery

Surrogate recoveries were within acceptable limits for PCBs.

Laboratory Duplicate Precision

The laboratory prepared one or more Matrix Spike Duplicate (MSD) with each analytical batch for each test. Additionally, the laboratory prepared one Matrix Duplicate (MD) with each metals and pH analytical batch. RPDs are reported for the same analytes as the LCS for MSD/MD prepared using a sample from the site, which includes 4 MSD and MD for Total Metals, as shown in Table 1.

The MSD and MD RPDs are within the TRRP recommended criteria, which indicates good precision for the preparation and analysis technique for the given sample matrix, except as follows:

QC Batch	Lab Sample ID	MS/MSD ID	Analyte	Parent Amount (mg/kg)	MSD RPD	MD RPD	Qual
124919	600-85389-12	2013-WMU14- 1A (5-7)	Cadmium	5.14	0	46	J
124919	600-85389-13	MW-30A (2-4)	Cadmium	1.15	4	92	J
124919	600-85389-13	MW-30A (2-4)	Lead	52.4	5	101	J
127810	600-8539-19	ECO-2A (0.5- 2)	Selenium	0.410 J	3	45	J
124939	600-85389-45	SCC-5A (0- 0.5)	Cadmium	0.760	18	85	J
124939	600-85389-45	SCC-5A (0- 0.5)	Lead	20.3	8	40	J

Field Duplicate Precision

Three field duplicates were collected with the samples and analyzed for cadmium and lead. Results are summarized in Table 3. The RPDs (or the absolute difference between results for concentrations <5x MQL and for non-detects) are within the TRRP criteria, which indicates good precision for the sampling, preparation, and analysis technique on the given sample matrix, except as follows:

- The results for Total lead are outside the criteria for the pair collected at 2013-WMU14-1A (5-7).
- The results for Total lead are outside the criteria for the pair collected at MW-30A (2-4).

Instrument Tuning

According to the LRC, instrument tuning met method requirements for the samples, which indicates the

GC/MS instrument was properly set up to identify analytes.





Data Usability Summary Test America Work Orders: 600-85389-1, 600-85389-2, 600-85389-3, 600-85389-4

Instrument Calibration

According to the LRC, initial and continuing calibration data met method requirements for all reported results, which indicates the instruments were properly calibrated to measure analyte concentrations.

Instrument Performance

According to the LRC, the serial dilution and ICP interference check samples met method requirements, which indicates that no significant matrix interference exists, except as follows:

■ The interference check standard solution associated with batch 125051 showed results for lead at a level greater than 2 times the LOD. Since this analyte was not detected in the field sample, no qualification was required.

Internal Standards

According to the LRC, area counts and retention times were within method requirements.



TABLE 1
CROSS REFERENCE OF FIELD SAMPLE IDENTIFICATIONS AND LABORATORY IDENTIFICATIONS

Lab Sample ID	Field Sample ID	Prep Batch/ Analysis Batch	Sample Date		Comments
600-85389-1	MW-44 (0-0.5)	124919/125010	1/9/2014	Soil	
600-85389-2	MW-44 (0.5-2)		1/9/2014	Soil	Not reported
600-85389-3	MW-44 (2-4)	127010/127072	1/9/2014	Soil Soil	Not reported
600-85389-4 600-85389-5	2013-AD-1A (0.5-2) 2013-AD-1A (0-0.5)	127810/127873 124919/125010	1/9/2014 1/9/2014	Soil	
600-85389-6	2013-AD-1A (0-0.5)	124919/123010	1/9/2014	Soil	Not reported
600-85389-7	2013-FOP-1A (0-0.5)	124919/125010	1/9/2014	Soil	Not reported
600-85389-8	2013-AD-5 (0-0.5)	124919/125010	1/9/2014	Soil	
600-85389-9	2013-AD-5 (0.5-2)	127810/127873	1/9/2014	Soil	
600-85389-10	2013-AD-5 (2-4)		1/9/2014	Soil	Not reported
600-85389-11	2013-WMU14-1A (0.9-2)	124919/125083	1/9/2014	Soil	
600-85389-12	2013-WMU14-1A (5-7)	124919/125083	1/9/2014	Soil	site-specific MS/MSD
600-85389-13	MW-30A (2-4)	124919/125010	1/9/2014	Soil	site-specific MS/MSD
600-85389-14	DUP 7	124919/125083	1/9/2014	Soil	Duplicate of 2013-WMU14-1A (5-7)
600-85389-15	DUP 8	124919/125010	1/9/2014	Soil	Duplicate of MW-30A (2-4)
600-85389-16	ECO-1A (0-0.5)	124919/125010	1/9/2014	Soil	
600-85389-17	ECO-1A (0.5-2)		1/9/2014	Soil	Not reported
600-85389-18	ECO-2A (0-0.5)	124919/125010	1/9/2014	Soil	
600-85389-19	ECO-2A (0.5-2)	127810/127873	1/9/2014	Soil	site-specific MS/MSD
600-85389-20	ECO-8A (0-0.5)	124919/125010	1/9/2014	Soil	
(00 05000 04	0040 004 00 (0 0 5)	124919/125010	1/9/2014	Soil	
600-85389-21	2013-SDA-3B (0-0.5)	128791/128837	1/10/2014	Motor	Discate Diank
600-85389-22	RINSE BLANK-CME	124862/125051 125018/125110	1/10/2014	Water	Rinsate Blank
600-85389-23	2013-AD-03 (0-0.5)	128791/128837	1/9/2014	Soil	
600-85389-24	2013-AD-03 (0-0.5)	127929/127997	1/9/2014	Soil	
600-85389-25	2013-AD-03 (0.5-2)	121727/12177/	1/9/2014	Soil	Not reported
600-85389-26	MW-36 (0-2)	124919/125010	1/10/2014	Soil	Not reported
600-85389-27	MW-35 (1-3)	124939/125010	1/10/2014	Soil	
600-85389-28	2013-SDA-4B (0-0.5)	124939/125010	1/10/2014	Soil	
	(4.4.4)	124939/125010			
600-85389-29	SCC-5B (0-0.5)	128791/128837	1/10/2014	Soil	
600-85389-30	SCC-5A (0-0.5)	124939/125010	1/10/2014	Soil	
		124838/125027	1/10/2014	Soil	
600-85389-31	2013-CUFT-14 (0-2)	124939/125010	1/10/2014	3011	
600-85389-32	2013-CUFT-14 (2-4)		1/10/2014	Soil	Not reported
600-85389-33	2013-CUFT-11 (0-0.5)	124939/125010	1/10/2014	Soil	
600-85389-34	2013-CUFT-11 (0.5-2)		1/10/2014	Soil	Not reported
600-85389-35	2013-CUFT-11 (2-4)	101000/105010	1/10/2014	Soil	Not reported
(00.05000.0/	0040 01157 5D (0.0.5)	124939/125010	1/10/2014	Soil	
600-85389-36	2013-CUFT-5B (0-0.5)	128791/128837	1/10/2014	C - !!	
600-85389-37 600-85389-38	2013-CUFT-5A (0-0.5) 2013-CUFT-5D (0-0.5)	124939/125010	1/10/2014 1/10/2014	Soil Soil	Not reported
600-85389-39	2013-CUFT-5D (0-0.5)	124939/125010	1/10/2014	Soil	Not reported
600-85389-40	2013-CUFT-5D (4-6)	124737/123010	1/10/2014	Soil	Not reported
600-85389-41	2013-CUFT-5D (6-8)		1/10/2014	Soil	Not reported
600-85389-42	2013-CUFT-5D (8-10)		1/10/2014	Soil	Not reported
600-85389-43	2013-CUFT-6A (0-0.5)	124939/125010	1/10/2014	Soil	Not reported
600-85389-44	2013-CUFT-6C (0-0.5)		1/10/2014	Soil	Not reported
600-85389-45	2013-CUFT-6C (2-4)	124939/125010	1/10/2014	Soil	site-specific MS/MSD
600-85389-46	2013-CUFT-6C (4-6)		1/10/2014	Soil	Not reported
600-85389-47	2013-CUFT-6C (6-8)		1/10/2014	Soil	Not reported
600-85389-48	2013-CUFT-6C (8-10)		1/10/2014	Soil	Not reported
600-85389-49	DUP 9	124939/125010	1/10/2014	Soil	Duplicate of 2013-CUFT-6C (2-4)
600-85389-50	2013-CUFT-6B (0-0.5)	124939/125010	1/10/2014	Soil	
600-85389-51	2013-CUFT-5C (0-0.5)	124939/125010	1/10/2014	Soil	
600-85389-52	2013-CUFT-7B (0-0.5)	125018/125110	1/10/2014	Soil	
600-85389-53	2013-CUFT-7B (2-4)	124939/125010	1/10/2014	Soil	Niet or
600-85389-54	2013-CUFT-7B (4-6)		1/10/2014	Soil	Not reported
600-85389-55	2013-CUFT-7B (6-8)		1/10/2014	Soil	Not reported
600-85389-56 600-85389-57	2013-CUFT-7B (8-10) 2013-CUFT-10D (0-0.5)		1/10/2014 1/10/2014	Soil Soil	Not reported Not reported
600-85389-57	2013-CUFT-10D (0-0.5)	124939/125010	1/10/2014	Soil	мог геропеа
600-85389-58	2013-CUFT-10D (2-4)	124737/123010	1/10/2014	Soil	Not reported
600-85389-60	2013-CUFT-10D (4-6)		1/10/2014	Soil	Not reported
600-85389-61	2013-CUFT-10D (8-10)		1/10/2014	Soil	Not reported
600-85389-62	2013-CUFT-10A (0-0.5)	124939/125010	1/10/2014	Soil	
600-85389-63	2013-CUFT-10B (0-0.5)	124939/125010	1/10/2014	Soil	
600-85389-64	2013-CUFT-10C (0-0.5)	124939/125010	1/10/2014	Soil	
	. ()				

TABLE 2 - QUALIFIED DATA

Lab Sample ID	Field Sample ID	Analyte	Result	Units	Qualifer	Explanation
600-85389-1	MW-44 (0-0.5)	Lead	38.6	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85389-4	2013-AD-1A (0.5-2)	Antimony	<0.258	mg/kg	UJL	Matrix Spike recovery below specifications, >30%
600-85389-5	2013-AD-1A (0-0.5)	Lead	452	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85389-7	2013-FOP-1A (0-0.5)	Lead	85.1	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85389-8	2013-AD-5 (0-0.5)	Lead	2320	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85389-9	2013-AD-5 (0.5-2)	Antimony	8.15	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Lead	35500	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Cadmium	5.14	mg/kg	J	Matrix duplicate outside specifications
600-85389-11	2013-WMU14-1A (0.9-2)	Lead	17000	mg/kg	J	Field duplicate outside specifications
						Matrix Spike recovery below specifications, >30%, field duplicate outside
600-85389-13	MW-30A (2-4)	Lead	52.4	mg/kg	JL	specifications
600-85389-14	DUP-7	Lead	10500	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85389-15	DUP-8	Lead	28.9	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85389-16	ECO-1A (0-0.5)	Lead	151	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Antimony	1.46	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Arsenic	16.3	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85389-18	ECO-2A (0-0.5)	Lead	303	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Antimony	< 0.284	mg/kg	UJL	Matrix Spike recovery below specifications, >30%
600-85389-19	ECO-2A (0.5-2)	Selenium	0.41	mg/kg	J	Matrix duplicate outside specifications
		Antimony	6.70	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85389-20	ECO-8A (0-0.5)	Lead	1090	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85389-21	2013-SDA-3B (0-0.5)	Lead	1000	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85389-26	MW-36 (0-2)	Lead	3120	mg/kg	JL	Matrix Spike recovery below specifications, >30%
600-85389-29	SCC-5B (0-0.5)	Antimony	3.11	mg/kg	JL	Matrix Spike recovery below specifications, >30%
		Cadmium	0.76	mg/kg	J	Matrix duplicate outside specifications
600-85389-45	2013-CUFT-6C (2-4)	Lead	20.3	mg/kg	J	Matrix duplicate outside specifications
600-85389-63	2013-CUFT-10B (0-0.5)	Antimony	1.19	mg/kg	JL	Matrix Spike recovery below specifications, >30%

Note:

Detected results between the SDL and MQL (i.e., results with a laboratory J-flag) have been included in the above table since the reported concentration is below the calibration range.

J Estimated data; The analyte was detected and identified. The associated numerical value (i.e., the reported sample concentration) is the approximate concentration of the analyte in the sample.

NJ Tentatively identified, estimated data; The analysis indicates the presence of the analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.

NS Not selected; Another result (from a secondary dilution, different analytical method, re-sampling, etc.) is selected for use based on QC outcomes and/or reported concentrations.

R Rejected data; The data is unusable. Serious QC deficiencies make it impossible to verify the absence or presence of this analyte.

U Not detected; The analyte was not detected >5x (10x for common contaminants) the level in an associated blank and thus should be considered not detected above the level of the associated numerical value (i.e., the reported sample concentration).

UJ Estimated data; The analyte was not detected above the reported sample detection limit (SDL). The numerical value of the SDL is estimated and may be inaccurate.

H Bias in sample result is likely to be high

L Bias in sample result is likely to be low

TABLE 3 - FIELD DUPLICATE PRECISION CALCULATIONS

Duplicate and Parent Sample Field Identification	Analyte	Sample Result	Duplicate Result	RPD ^a	Accept or Reject	Qualifier Added
DUP-7 / 2013-WMU14-1A (5-7)	lead	17000	10500	47.3	А	J
DUP-8 / MW-30A (2-4)	lead	52.4	28.9	57.8	А	J
DUP-9 / 2013-CUFT-6C (2-4)	cadmium	0.760	0.888	15.5	А	-
DUP-9 / 2013-CUF1-0C (2-4)	lead	20.3	21.6	6.2	А	-

 $^{^{}a}$ RPD = ((SR - DR)*200)/(SR + DR)

A - Acceptable Data

NA - Not Analyzed
The RPD test (<50%) applies if both
results are greater than 5x MQL.
Otherwise, the absolute difference test (<
3x MQL) applies.



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-85389-1

Client Project/Site: Exide Recycling Center

Revision: 5

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 6/8/2015 7:15:19 PM

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

·····LINKS ·······

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-85389-1 and consists of:

- ☑ R1 Field chain-of-custody documentation;
- ☑ R2 Sample identification cross-reference;
- ☑ R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- ☑ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☑ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton 3/5/2014
Name (printed) Signature Date

Project Management Asst II

Official Title (printed)

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Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	3/5/2014
Project Name:	Exide Recycling Center	Laboratory Job Number:	600-85389-1
Reviewer Name:	Dean A Joiner		

# ¹ A ²	Description	Yes	No	NA ³	NR ⁴	ER
	custody (C-O-C)					
	es meet the laboratory's standard conditions of sample acceptability upon receipt?		Χ			R01A
	epartures from standard conditions described in an exception report?	Х				
	nd quality control (QC) identification					
	d sample ID numbers cross-referenced to the laboratory ID numbers?	Х				
Are all lab	oratory ID numbers cross-referenced to the corresponding QC data?	Х				
R3 OI Test repo	rts					
Were all s	amples prepared and analyzed within holding times?	Х				
Other than	n those results < MQL, were all other raw values bracketed by calibration standards?	Х				
Were calc	ulations checked by a peer or supervisor?	Х				
Were all a	nalyte identifications checked by a peer or supervisor?	Х				
Were sam	ple detection limits reported for all analytes not detected?	Х				
Were all re	esults for soil and sediment samples reported on a dry weight basis?	Х				
Were % m	noisture (or solids) reported for all soil and sediment samples?	Х				
Were bulk	soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Χ		
	for the project, are TICs reported?			Χ		
	e recovery data					
	ogates added prior to extraction?	Х				
	ogate percent recoveries in all samples within the laboratory QC limits?	Х				
	rts/summary forms for blank samples					
	ropriate type(s) of blanks analyzed?	Х				
	iks analyzed at the appropriate frequency?	Х				
	hod blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
procedure		Х				
	sk concentrations < MQL?	X				R05[
	ry control samples (LCS):					11001
	COCs included in the LCS?		Х			R06/
	LCS taken through the entire analytical procedure, including prep and cleanup steps?	Х				100/
	S analyzed at the required frequency?	X				
	s analyzed at the required frequency: (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		_ ^				
	detectability check sample data document the laboratory's capability to detect the COCs at the MDL used the SDLs?	Х				
	CSD RPD within QC limits?	_ ^		V		
			-	Х		
	ike (MS) and matrix spike duplicate (MSD) data	V				
	project/method specified analytes included in the MS and MSD?	X				
	MSD analyzed at the appropriate frequency?	Х				D076
	(and MSD, if applicable) %Rs within the laboratory QC limits?		X			R070
	MSD RPDs within laboratory QC limits?		Х			R07
	duplicate data	L				
	ropriate analytical duplicates analyzed for each matrix?	X				
	lytical duplicates analyzed at the appropriate frequency?	Х	,,			Des
	Os or relative standard deviations within the laboratory QC limits?	<u> </u>	Х			R080
	uantitation limits (MQLs):					
	QLs for each method analyte included in the laboratory data package?	Х				
	QLs correspond to the concentration of the lowest non-zero calibration standard?	Х				
	usted MQLs and DCSs included in the laboratory data package?	Х				
	blems/anomalies					
Are all kno	own problems/anomalies/special conditions noted in this LRC and ER?	Х				
Was appli	cable and available technology used to lower the SDL to minimize the matrix interference effects on the					
sample re	sults?	Х				
	oratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and	ı				
	associated with this laboratory data package?	Х				
	ntified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required repo	ort(s) I	tems			

- . Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:		LRC Date:	3/5/2014		
Project Name:	Exide Recycling Center	Laboratory Job Number:	600-85389-1		
Reviewer Name:	Dean A Joiner				

# ¹	A ²	Description	Yes	No	NA ³	NR⁴	ER#
1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	Х				
		Were percent RSDs or correlation coefficient criteria met?	Х				
		Was the number of standards recommended in the method used for all analytes?	Х				
		Were all points generated between the lowest and highest standard used to calculate the curve?	Х				
		Are ICAL data available for all instruments used?	Х				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
		3 - 11 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -					
2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	Х				
		Were percent differences for each analyte within the method-required QC limits?	Х				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
3		Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?		1	Х		
		Were ion abundance data within the method-required QC limits?			X		
4	0	Internal standards (IS)					
<u> </u>	_	Were IS area counts and retention times within the method-required QC limits?		1	Х		
35		Raw data (NELAC Section 5.5.10)					
	, O	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X	1			
		Were data associated with manual integrations flagged on the raw data?	X				
66	0	Dual column confirmation	^				
,,,	_		X				
`7	_	Did dual column confirmation results meet the method-required QC? Tentatively identified compounds (TICs)	^				
S 7	0	, , ,			Х		
S8	li .	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks? Interference Check Sample (ICS) results					
90	-	Were percent recoveries within method QC limits?		Х			S08A
S9	Ti .	Serial dilutions, post digestion spikes, and method of standard additions		^			3007
99	ļ!	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		Х			S09A
10		Method detection limit (MDL) studies		^			309P
טוט			V				
		Was a MDL study performed for each reported analyte?	X				
	101	Is the MDL either adjusted or supported by the analysis of DCSs?	Х				
511	OI	Proficiency test reports					
140		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х		-		
12	UI	Standards documentation			-		
140	I C :	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
513	OI	Compound/analyte identification procedures		ļ	1		
	<u>.</u>	Are the procedures for compound/analyte identification documented?	Х	ļ	1		
14	OI	Demonstration of analyst competency (DOC)		ļ	1		
		Was DOC conducted consistent with NELAC Chapter 5?	X		<u> </u>		
	10:	Is documentation of the analyst's competency up-to-date and on file?	Х		<u> </u>		
315	OI	Verification/validation documentation for methods (NELAC Chapter 5)			<u> </u>		
	T	Are all the methods used to generate the data documented, verified, and validated, where applicable?	Х				
16	Ol	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X	<u> </u>			
	1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required		tems	6		
		identified by the letter "S" should be retained and made available upon request for the appropriate retention period	d.				
		O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
		NA = Not applicable;					
	4.	NR = Not reviewed;					
	_	ED . E . C . D . C . C . C . C . D . L . L . L . L . L . L . L . L . L		1\			

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	3/5/2014
Project Name:	Exide Recycling Center	Laboratory Job Number:	600-85389-1
Reviewer Name:	Dean A Joiner		

ER # ¹	Description
R01A	The following samples were listed on the Chain of Custody (COC); however, no samples were received: 2013-AD-03 (0.5-2) (600-85389-24), 2013-AD-03 (0-0.5) (600-85389-23), 2013-AD-03 (2-4) (600-85389-25).
R05D	Method 6010B: The method blank for batch 124919 contained Cadmium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.
R06A	Method 8082: Since Aroclors are multi-component analytes, it is not possible to include all seven Aroclors of interest into the LCS. The only two Aroclors that were spiked into the LCS were Aroclors 1016 and 1260. Since these two Aroclors essentially contain all analytes found in the other five individual Aroclors of interest, the recovery of Aroclors 1016 and 1260 in the LCS will be representative of the recovery of the other five Aroclors.
R07C	Method 6010B: 600-85389-12 MS/MSD failed the recovery criteria for the following analyte(s): Antimony, Arsenic, Lead. Matrix interference is suspected. Method 6010B: 600-85389-13 MS/MSD failed the recovery criteria for the following analyte(s): Antimony, Lead. Matrix interference is suspected. Method 6010B: 600-85389-30 MS/MSD failed the recovery criteria for the following analyte(s): Antimony. Matrix interference is suspected. Method 6010B: 600-85389-45 MS/MSD failed the recovery criteria for the following analyte(s): Antimony. Matrix interference is suspected. Method 6010B: Due to the high concentration of lead, the matrix spike / matrix spike duplicate (MS/MSD) for batch 125110 could not be
R07D	evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria. Method 6010B: 600-85389-13 MSD failed the RPD criteria for the following analyte(s): Lead. Matrix interference is suspected.
R08C	Method 6010B: 600-85389-12 DU failed the RPD criteria for the following analyte(s): Arsenic and Cadmium. Non homogeneity of the sample is suspected. Method 6010B: 600-85389-13 DU failed the RPD criteria for the following analyte(s): Cadmium and Lead. Non homogeneity of the sample is suspected.
	Method 6010B: 600-85389-45 DU failed the RPD criteria for the following analyte(s): Cadmium and Lead. Non homogeneity of the sample is suspected.
S08A	Method 6010B: The interference check standard solution (ICSA) associated with batch 125051 showed results for arsenic, cadmium and lead at a level greater than 2 times the limit of detection (LOD). Since the interfering analytes were not detected in the client samples, no corrective action was required.
S09A	Method 6010B: The serial dilution performed for the following sample(s) associated with batch 124919 was outside control limits for Antimony: 600-85389-12 SD
1. 2. 3. 4. 5.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Detection Check Standard

Matrix: Soil 6010B Method: Preparation: 3050 Date Analyzed: 12/30/2013 Date Prepared: 12/27/2013 Instrument: Thermo 6500 123949, 123775p TALS Batches:

Prep/Reagent Factor = 50 Units: mg/kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.299654	0.5	0.36	25
Antimony	0.231553	0.45	0.5	2.5
Arsenic	0.217923	0.5	0.53	1
Barium	0.011322	0.03	0.04	1
Beryllium	0.014513	0.02	0.015	0.25
Boron	0.385535	0.6	0.56	20
Cadmium	0.025642	0.05	0.05	0.25
Calcium	0.86399	1.5	2.185	100
Chromium	0.050606	0.1	0.135	0.5
Cobalt	0.067622	0.1	0.09	0.5
Copper	0.173703	0.5	0.64	0.5
Iron	2.534007	4	3.76	20
Lead	0.104832	0.2	0.215	0.5
Selenium	0.258884	0.5	0.465	2
Manganese	0.038111	0.05	0.085	1.5
Molybdenum	0.136448	0.35	0.38	0.5
Nickel	0.116599	0.15	0.2	1
Silver	0.118848	0.2	0.15	0.5
Sodium	0.885548	2.4	3.135	100
Thallium	0.276988	0.7	0.73	1.5
Tin	0.08729	0.15	0.19	1
Titanium	0.014529	0.03	0.01	0.5
Vanadium	0.079068	0.15	0.125	0.5
Zinc	0.108432	0.2	0.305	1.5

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Detection Check Standard

Matrix: Water Method: 200.7/6010 200.7P/3010 Preparation: Date Analyzed: 12/31/2013 Date Prepared: 12/27/2013 Instrument: Spectro01 TALs Batches: 124030, 123788p Units: mg/L

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.006	0.02	0.028176	0.5
Antimony	0.0063	0.01	0.010016	0.05
Arsenic	0.0033	0.01	0.008253	0.01
Barium	0.0022	0.005	0.004098	0.02
Beryllium	0.00134	0.002	0.004019	0.005
Boron	0.0077	0.02	0.019829	0.2
Cadmium	0.00073	0.001	0.001	0.005
Calcium	0.022	0.05	0.060829	1
Chromium	0.0016	0.002	0.003835	0.01
Cobalt	0.00063	0.001	0.000965	0.01
Copper	0.0014	0.002	0.002451	0.01
Iron	0.087	0.1	0.002258	0.4
Lithium	0.0024	0.005	0.006107	0.2
Lead	0.0029	0.005	0.005478	0.01
Selenium	0.0042	0.01	0.009953	0.04
Manganese	0.00084	0.002	0.001988	0.01
Molybdenum	0.0027	0.005	0.005867	0.01
Nickel	0.00179	0.005	0.005669	0.01
Silver	0.0012	0.0025	0.001901	0.01
Sodium	0.02	0.05	0.088115	1
Strontium	0.0005	0.001	0.000897	0.005
Thallium	0.0078	0.02	0.021503	0.03
Tin	0.0028	0.005	0.005708	0.01
Titanium	0.0011	0.002	0.001905	0.01
Vanadium	0.0017	0.002	0.003578	0.01
Zinc	0.0022	0.005	0.004189	0.01

Matrix: Soil 8082 Method: Preparation: 3550 Date Analyzed: 7/18/2013 Date Prepared: 7/18/2013

600-111090/2,4,5,6,7,8,9-a TALs Batches:

Units: mg/kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Aroclor 1016	1.6	8.3	7.03	16.7
Aroclor 1221	8.63	16.67	12.33	16.7
Aroclor 1232	6.7	16.67	10.76	16.7
Aroclor 1242	1.6	16.67	9.59	16.7
Aroclor 1248	2.49	16.67	11.92	16.7
Aroclor 1254	2.21	16.67	10.54	16.7
Aroclor 1262	13.5	16.67	14.13	16.7
Aroclor 1260	13.5	8.3	9.16	16.7

Case Narrative

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

Job ID: 600-85389-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-85389-1

Comments

This report was revised February 14, 2014 updating the TRRP check list adding a MS/MSD reference for metals, replacing the final report generated on 01/20/14. The report was again revised on 03/05/14 to report total metals for samples 18, 20, 23, 29 and 63 replacing the final report generated on 02/14/14. The report was revised on 03/25/14 to update the RPD for 8082 LCS/LCSD, replacing the final report generated on 03/05/14. The report was again revised on 05/09/14 to report cadmium for samples 12 and 14 per client request, replacing the final report generated on 03/25/14. See attached email. The report was revised on 06/08/15 to include Antimony for sample 30, replacing the final report generated on 05/09/14.

Receipt

The samples were received on 1/11/2014 11:47 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.5° C and 2.0° C.

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Method Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

Lab Sample ID	Client Sample ID	Matrix	Collected Rece	eived
600-85389-1	MW-44 (0-0.5)	Solid	01/09/14 12:45 01/11/1	4 11:47
600-85389-5	2013-AD-1A (0-0.5)	Solid	01/09/14 13:42 01/11/1	4 11:47
600-85389-7	2013-FOP-1A (0-0.5)	Solid	01/09/14 13:58 01/11/1	4 11:47
600-85389-8	2013-AD-5 (0-0.5)	Solid	01/09/14 14:12 01/11/1	4 11:47
600-85389-11	2013-WMU14-1A (0.9-2)	Solid	01/09/14 14:40 01/11/1	4 11:47
600-85389-12	2013-WMU14-1A (5-7)	Solid	01/09/14 14:44 01/11/1	4 11:47
600-85389-13	MW-30A (2-4)	Solid	01/09/14 15:08 01/11/1	4 11:47
600-85389-14	DUP 7	Solid	01/09/14 00:00 01/11/1	4 11:47
600-85389-15	DUP 8	Solid	01/09/14 00:00 01/11/1	4 11:47
600-85389-20	ECO-8A (0-0.5)	Solid	01/09/14 15:59 01/11/1	4 11:47
600-85389-21	2013-SDA-3B (0-0.5)	Solid	01/09/14 16:05 01/11/1	4 11:47
600-85389-22	RINSE BLANK-CME	Water	01/09/14 08:25 01/11/1	4 11:47
600-85389-23	2013-AD-03 (0-0.5)	Solid	01/09/14 13:10 01/10/1	4 10:31
600-85389-26	MW-36 (0-2)	Solid	01/10/14 09:00 01/11/1	4 11:47
600-85389-27	MW-35 (1-3)	Solid	01/10/14 10:00 01/11/1	4 11:47
600-85389-29	SCC-5B (0-0.5)	Solid	01/10/14 08:51 01/11/1	4 11:47
600-85389-30	SCC-5A (0-0.5)	Solid	01/10/14 08:59 01/11/1	4 11:47
600-85389-31	2013-CUFT-14 (0-2)	Solid	01/10/14 09:13 01/11/1	4 11:47
600-85389-33	2013-CUFT-11 (0-0.5)	Solid	01/10/14 09:18 01/11/1	4 11:47
600-85389-37	2013-CUFT-5A (0-0.5)	Solid	01/10/14 09:43 01/11/1	4 11:47
600-85389-39	2013-CUFT-5D (2-4)	Solid	01/10/14 09:53 01/11/1	4 11:47
600-85389-43	2013-CUFT-6A (0-0.5)	Solid	01/10/14 10:14 01/11/1	4 11:47
600-85389-45	2013-CUFT-6C (2-4)	Solid	01/10/14 10:23 01/11/1	4 11:47
600-85389-49	DUP 9	Solid	01/10/14 00:00 01/11/1	4 11:47
600-85389-50	2013-CUFT-6B (0-0.5)	Solid	01/10/14 10:41 01/11/1	4 11:47
600-85389-51	2013-CUFT-5C (0-0.5)	Solid	01/10/14 10:51 01/11/1	4 11:47
600-85389-52	2013-CUFT-7B (0-0.5)	Solid	01/10/14 11:08 01/11/1	4 11:47
600-85389-53	2013-CUFT-7B (2-4)	Solid	01/10/14 11:09 01/11/1	4 11:47
600-85389-58	2013-CUFT-10D (2-4)	Solid	01/10/14 11:26 01/11/1	4 11:47
600-85389-62	2013-CUFT-10A (0-0.5)	Solid	01/10/14 11:41 01/11/1	4 11:47
600-85389-63	2013-CUFT-10B (0-0.5)	Solid	01/10/14 11:48 01/11/1	4 11:47
600-85389-64	2013-CUFT-10C (0-0.5)	Solid	01/10/14 11:55 01/11/1	4 11:47

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Client Sample ID: MW-44 (0-0.5) Lab Sample ID: 600-85389-1

Date Collected: 01/09/14 12:45 **Matrix: Solid**

Date Received: 01/11/14 11:47 Percent Solids: 76.7

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.689	b	0.316	0.0324	mg/Kg	₩	01/14/14 12:46	01/15/14 13:30	1
Lead	38.6		0.633	0.133	mg/Kg	☆	01/14/14 12:46	01/15/14 13:30	1
General Chemistry									

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23	1.0	1.0 %			01/13/14 13:24	1
Percent Solids	77	1.0	1.0 %			01/13/14 13:24	1

Client Sample ID: 2013-AD-1A (0-0.5) Lab Sample ID: 600-85389-5

Date Collected: 01/09/14 13:42 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 70.2

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.22	b	0.353	0.0362	mg/Kg	<u> </u>	01/14/14 12:46	01/15/14 13:32	1
Lead	452		0.705	0.148	mg/Kg	≎	01/14/14 12:46	01/15/14 13:32	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	30		1.0	1.0	%			01/13/14 13:24	1
Percent Solids	70		1.0	1.0	%			01/13/14 13:24	1

Lab Sample ID: 600-85389-7 Client Sample ID: 2013-FOP-1A (0-0.5) Date Collected: 01/09/14 13:58 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 81.3

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	85.1		0.609	0.128	mg/Kg	<u></u>	01/14/14 12:46	01/15/14 13:34	1
□ .									

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19	1.0	1.0 %			01/13/14 13:24	1
Percent Solids	81	1.0	1.0 %			01/13/14 13:24	1

Client Sample ID: 2013-AD-5 (0-0.5) Lab Sample ID: 600-85389-8 Date Collected: 01/09/14 14:12 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 82.3

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	7.39	b	0.287	0.0294	mg/Kg	\	01/14/14 12:46	01/15/14 13:37	1
Lead	2320		0.573	0.120	mg/Kg	≎	01/14/14 12:46	01/15/14 13:37	1

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18	1.0	1.0 %			01/13/14 13:24	1
Percent Solids	82	1.0	1.0 %			01/13/14 13:24	1

Client: Golder Associates Inc. Project/Site: Exide Recycling Cer	nter		_				TestAmerica	Job ID: 600-8	35389-1
Client Sample ID: 2013-W Date Collected: 01/09/14 14:40 Date Received: 01/11/14 11:47	MU14-1A (0).9-2)				La	•	ID: 600-853 Matrix Percent Solid	c: Solid
Method: 6010B - Metals (ICP)									
Analyte Lead	Result Q	Qualifier	MQL (Adj) 11.5		Unit mg/Kg	— D	Prepared 01/14/14 12:46	Analyzed 01/16/14 08:42	Dil Fac
General Chemistry Analyte	Result Q	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19		1.0	1.0				01/13/14 13:24	1
Percent Solids	81		1.0	1.0	%			01/13/14 13:24	1
Client Sample ID: 2013-W	MU14-1A (5	5-7)				La	b Sample	ID: 600-853	
Date Collected: 01/09/14 14:44 Date Received: 01/11/14 11:47							l	Matrix Percent Solic	c: Solid ds: 72.8
Method: 6010B - Metals (ICP)									
Analyte	Result Q	-	MQL (Adj)		Unit	— D	Prepared 01/14/14 12:46	Analyzed	Dil Fac
Cadmium	5.14 b)	0.324	0.0332	mg/Kg	×	01/14/14 12:46	01/15/14 13:00	1
Method: 6010B - Metals (ICP) Analyte	- DL Result Q	Jualifiar	MQL (Adj)	eni	Unit	D	Prepared	Analyzed	Dil Fac
Lead	17000	quaiiilei	13.0	_	mg/Kg	— ¤	01/14/14 12:46	01/16/14 08:44	20
Conoral Chamiatry									
General Chemistry Analyte	Result Q	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	27		1.0	1.0	%			01/13/14 13:24	1
Percent Solids	73		1.0	1.0	%			01/13/14 13:24	1
Client Sample ID: MW-30A	A (2-4)					La	b Sample	ID: 600-853	389-13
Date Collected: 01/09/14 15:08 Date Received: 01/11/14 11:47								Matrix Percent Solid	c: Solid ds: 85.1
Method: 6010B - Metals (ICP)	Decell 0	N 1167	MOL (A.1)	001	11-24	_	Duranana	Anabasad	Bu E.
Analyte Lead	Result Q	Qualifier	MQL (Adj) 0.571	_	Unit mg/Kg	— D <u>₩</u>	Prepared 01/14/14 12:46	Analyzed 01/15/14 13:42	Dil Fac
					0 0				
General Chemistry Analyte	Result Q	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15	****	1.0	1.0				01/13/14 13:24	1
Percent Solids	85		1.0	1.0	%			01/13/14 13:24	1
Client Sample ID: DUP 7						La	b Sample	ID: 600-853	389-14
Date Collected: 01/09/14 00:00 Date Received: 01/11/14 11:47							- 1	Matrix Percent Solic	c: Solid ds: 67.1
Method: 6010B - Metals (ICP)									
Analyte	Result Q	<u> </u>	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.51 b)	0.342	0.0350	mg/Kg	₩	01/14/14 12:46	01/15/14 13:59	1
Method: 6010B - Metals (ICP) Analyte	- DL Result Q	Jualifier	MQL (Adj)	eni	Unit	D	Prepared	Analyzed	Dil Fac
Lead	10500	guaiiiidi	13.7		mg/Kg		01/14/14 12:46	-	20
T. Control of the Con									
General Chemistry Analyte	Result Q	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

Client Sample ID: DUP 7 Lab Sample ID: 600-85389-14 Date Collected: 01/09/14 00:00

Matrix: Solid

Date Received: 01/11/14 11:47

General Chemistry (Continued)							
Analyte	Result Qualifier	MQL (Adj)	SDL Ur	nit D	Prepared	Analyzed	Dil Fac
Percent Solids	67	1.0	1.0 %	,		01/13/14 13:24	1

Lab Sample ID: 600-85389-15 **Client Sample ID: DUP 8** Date Collected: 01/09/14 00:00 **Matrix: Solid**

Date Received: 01/11/14 11:47 Percent Solids: 77.5

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	28.9		0.609	0.128	mg/Kg	\	01/14/14 12:46	01/15/14 14:02	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23		1.0	1.0	%			01/13/14 13:24	1
Percent Solids	77		1.0	1.0	%			01/13/14 13:24	1

Client Sample ID: ECO-8A (0-0.5) Lab Sample ID: 600-85389-20 Date Collected: 01/09/14 15:59 **Matrix: Solid**

Date Received: 01/11/14 11:47 Percent Solids: 78.3

Method: 6010B - Metals (I Analyte	CP) Result Qualific	er MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	6.70	2.93	0.271	mg/Kg	<u></u>	01/14/14 12:46	01/15/14 14:12	1
Arsenic	13.1	1.17	0.255	mg/Kg	☼	01/14/14 12:46	01/15/14 14:12	1
Cadmium	5.65 b	0.293	0.0300	mg/Kg	☼	01/14/14 12:46	01/15/14 14:12	1
Lead	1090	0.586	0.123	mg/Kg	.	01/14/14 12:46	01/15/14 14:12	1
Selenium	0.486 J	2.34	0.303	mg/Kg	☼	01/14/14 12:46	01/15/14 14:12	1

General Chemistry Analyte	Result C	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22		1.0	1.0	%			01/13/14 13:24	1
Percent Solids	78		1.0	1.0	%			01/13/14 13:24	1

Client Sample ID: 2013-SDA-3B (0-0.5) Lab Sample ID: 600-85389-21

Date Collected: 01/09/14 16:05 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 83.2

	ethod: 6010B - Metals (ICP)	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cad	dmium	4.02	b	0.292	0.0299	mg/Kg	<u></u>	01/14/14 12:46	01/15/14 14:14	1
Lea	ad	1000		0.583	0.122	mg/Kg	₩	01/14/14 12:46	01/15/14 14:14	1
Ge	neral Chemistry									

Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17	1.0	1.0	%			01/13/14 13:24	1
Percent Solids	83	1.0	1.0	%			01/13/14 13:24	1

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

Client Sample ID: RINSE BLANK-CME

Date Collected: 01/09/14 08:25 Date Received: 01/11/14 11:47 Lab Sample ID: 600-85389-22 **Matrix: Water**

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.000350	U ^	0.00500	0.000350	mg/L		01/13/14 16:05	01/15/14 13:00	1
Lead	0.00290	U ^	0.0100	0.00290	mg/L		01/13/14 16:05	01/15/14 13:00	1

Client Sample ID: 2013-AD-03 (0-0.5) Lab Sample ID: 600-85389-23

Date Collected: 01/09/14 13:10 Date Received: 01/10/14 10:31

Matrix: Solid Percent Solids: 89.7

Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.92	2.63	0.244	mg/Kg	<u> </u>	01/15/14 12:30	01/16/14 10:09	1
Arsenic	11.0	1.05	0.229	mg/Kg	☼	01/15/14 12:30	01/16/14 10:09	1
Cadmium	1.51	0.263	0.0270	mg/Kg	☼	01/15/14 12:30	01/16/14 10:09	1
_ead	734	0.526	0.110	mg/Kg	₩.	01/15/14 12:30	01/16/14 10:09	1
Selenium	0.295 J	2.10	0.272	mg/Kg	₽	01/15/14 12:30	01/16/14 10:09	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10	1.0	1.0	%			01/15/14 15:56	1
Percent Solids	90	1.0	1.0	%			01/15/14 15:56	1
_								

Client Sample ID: MW-36 (0-2) Lab Sample ID: 600-85389-26 Date Collected: 01/10/14 09:00 **Matrix: Solid**

Date Received: 01/11/14 11:47 Percent Solids: 72.3

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	2.74	b	0.333	0.0341	mg/Kg	<u> </u>	01/14/14 12:46	01/15/14 14:17	1
Lead	3120		0.665	0.139	mg/Kg	☼	01/14/14 12:46	01/15/14 14:17	1
General Chemistry	D	Our lift an	MOL (A.II)	001	1124	_	D	Amahamad	D!! E

Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	28	1.0	1.0	%			01/13/14 13:24	1
Percent Solids	72	1.0	1.0	%			01/13/14 13:24	1

Lab Sample ID: 600-85389-27 Client Sample ID: MW-35 (1-3) Date Collected: 01/10/14 10:00 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 73.3

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adi)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	40.0	0.335	0.0343		\	01/14/14 14:21		1
Lead	3300	0.669	0.140	mg/Kg	₽	01/14/14 14:21	01/15/14 14:31	1

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	27	1.0	1.0 %			01/13/14 13:24	1
Percent Solids	73	1.0	1.0 %			01/13/14 13:24	1

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/10/14 08:51

Date Received: 01/11/14 11:47

Client Sample ID: SCC-5B (0-0.5)

TestAmerica Job ID: 600-85389-1

Matrix: Solid Percent Solids: 79.4

Lab Sample	ID:	600	-8	538	39-	29
		_	_		_	

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.11	2.89	0.267	mg/Kg	<u> </u>	01/14/14 14:21	01/15/14 14:36	1
Arsenic	11.1	1.16	0.252	mg/Kg	☼	01/14/14 14:21	01/15/14 14:36	1
Cadmium	2.48	0.289	0.0296	mg/Kg	☼	01/14/14 14:21	01/15/14 14:36	1
Lead	1400	0.578	0.121	mg/Kg	φ.	01/14/14 14:21	01/15/14 14:36	1
Selenium	0.299 U	2.31	0.299	mg/Kg	₩	01/14/14 14:21	01/15/14 14:36	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21	1.0	1.0 %			01/13/14 13:24	1
Percent Solids	79	1.0	1.0 %			01/13/14 13:24	1

Client Sample ID: SCC-5A (0-0.5)

DCB Decachlorobiphenyl

Lab Sample ID: 600-85389-30 Date Collected: 01/10/14 08:59 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 77.0

Method: 6010B - Metals (ICP Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.278 U	3.01	0.278	mg/Kg	<u>₩</u>	01/14/14 14:21	01/15/14 14:38	1
Cadmium	0.258 J	0.301	0.0308	mg/Kg	≎	01/14/14 14:21	01/15/14 14:38	1
Lead	29.8	0.601	0.126	mg/Kg	☆	01/14/14 14:21	01/15/14 14:38	1
Ganaral Chamistry								

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23	1.0	1.0 %			01/13/14 13:24	1
Percent Solids	77	1.0	1.0 %			01/13/14 13:24	1

Lab Sample ID: 600-85389-31 **Client Sample ID: 2013-CUFT-14 (0-2)**

Date Collected: 01/10/14 09:13 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 85.1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.00188	U	0.0196	0.00188	mg/Kg	₩	01/13/14 14:23	01/14/14 17:19	1
PCB-1221	0.0101	U	0.0196	0.0101	mg/Kg	₽	01/13/14 14:23	01/14/14 17:19	1
PCB-1232	0.00786	U	0.0196	0.00786	mg/Kg	☼	01/13/14 14:23	01/14/14 17:19	1
PCB-1242	0.00145	U	0.0196	0.00145	mg/Kg	₽	01/13/14 14:23	01/14/14 17:19	1
PCB-1248	0.00292	U	0.0196	0.00292	mg/Kg	☼	01/13/14 14:23	01/14/14 17:19	1
PCB-1254	0.00259	U	0.0196	0.00259	mg/Kg	₽	01/13/14 14:23	01/14/14 17:19	1
PCB-1260	0.0158	U	0.0196	0.0158	mg/Kg	☆	01/13/14 14:23	01/14/14 17:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	118		58 - 164				01/13/14 14:23	01/14/14 17:19	1

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.240 J	0.280	0.0287	mg/Kg	\	01/14/14 14:21	01/15/14 14:48	1
Lead	14.7	0.559	0.117	mg/Kg	☼	01/14/14 14:21	01/15/14 14:48	1

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TestAmerica Houston

01/13/14 14:23 01/14/14 17:19

Client Sample ID: 2013-CUFT-14 (0-2)

Date Collected: 01/10/14 09:13 Date Received: 01/11/14 11:47 Lab Sample ID: 600-85389-31

Matrix: Solid

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fa
Percent Moisture	15	1.0	1.0 %			01/13/14 13:24	
Percent Solids	85	1.0	1.0 %			01/13/14 13:24	

Client Sample ID: 2013-CUFT-11 (0-0.5)

Lab Sample ID: 600-85389-33

Date Collected: 01/10/14 09:18

Matrix: Solid

Date Received: 01/11/14 11:47 Percent Solids: 73.7

A	Method: 6010B - Metals (ICP) nalyte ead	Result	Qualifier	MQL (Adj) 0.634		Unit mg/Kg	D <u>₩</u>	Prepared 01/14/14 14:21	Analyzed 01/15/14 14:57	Dil Fac
	General Chemistry	Popult	Qualifier	MQL (Adj)	eni	Unit	D	Prepared	Analvzed	Dil Fac
- 4	inalyte	Resuit	Qualifier	MQL (Auj)	SDL	Ullit		Prepareu	Allalyzeu	DII Fac
P	ercent Moisture	26		1.0	1.0	%			01/15/14 15:56	1
P	ercent Solids	74		1.0	1.0	%			01/15/14 15:56	1

Client Sample ID: 2013-CUFT-5A (0-0.5)

Lab Sample ID: 600-85389-37

Date Collected: 01/10/14 09:43

. Matrix: Solid

Date Received: 01/11/14 11:47 Percent Solids: 76.2

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.492	0.328	0.0336	mg/Kg	₩	01/14/14 14:21	01/15/14 15:02	1
_Lead _	87.8	0.656	0.138	mg/Kg	₩	01/14/14 14:21	01/15/14 15:02	1

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24		1.0	1.0	%			01/13/14 13:24	1
Percent Solids	76		1.0	1.0	%			01/13/14 13:24	1

Client Sample ID: 2013-CUFT-5D (2-4)

Date Collected: 01/10/14 09:53

Lab Sample ID: 600-85389-39

Matrix: Solid

Date Received: 01/11/14 11:47 Percent Solids: 74.0

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.564	0.310	0.0318	mg/Kg	<u> </u>	01/14/14 14:21	01/15/14 15:05	1
Lead	20.0	0.620	0.130	mg/Kg	☼	01/14/14 14:21	01/15/14 15:05	1
General Chemistry	Popult Qualifier	MOL (Adi)	eni	Unit	D	Dropored	Analyzad	Dil Ess

Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26	1.0	1.0	%			01/13/14 13:24	1
Percent Solids	74	1.0	1.0	%			01/13/14 13:24	1

Client Sample ID: 2013-CUFT-6A (0-0.5)

Lab Sample ID: 600-85389-43

Date Collected: 01/10/14 10:14

Date Received: 01/11/14 11:47

Matrix: Solid
Percent Solids: 82.4

Method: 6010B - Metals (ICP)								
Analyte	Result Qua	alifier MQL (A	lj) SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	5.50	0.2	0.0299	mg/Kg	₩	01/14/14 14:21	01/15/14 15:07	1

TestAmerica Houston

Client Sample ID: 2013-CUFT-6A (0-0.5) Lab Sample ID: 600-85389-43

Date Collected: 01/10/14 10:14 **Matrix: Solid** Date Received: 01/11/14 11:47

Percent Solids: 82.4

Method: 6010B - Metals (ICP)	(Continued)							
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	603	0.583	0.122	mg/Kg	<u> </u>	01/14/14 14:21	01/15/14 15:07	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D Prepared	Analyzed	Dil Fac
Percent Moisture	18	1.0	1.0 %		01/13/14 13:24	1
Percent Solids	82	1.0	1.0 %		01/13/14 13:24	1

Client Sample ID: 2013-CUFT-6C (2-4) Lab Sample ID: 600-85389-45

Date Collected: 01/10/14 10:23 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 74.9

Method: 6010B - Metals (ICP)									
Analyte	Result C	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.760		0.330	0.0339	mg/Kg	\	01/14/14 14:21	01/15/14 15:10	1
Lead	20.3		0.661	0.139	mg/Kg	₩	01/14/14 14:21	01/15/14 15:10	1

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25		1.0	1.0	%			01/13/14 13:24	1
Percent Solids	75		1.0	1.0	%			01/13/14 13:24	1

Client Sample ID: DUP 9 Lab Sample ID: 600-85389-49

Matrix: Solid Date Collected: 01/10/14 00:00 Date Received: 01/11/14 11:47 Percent Solids: 72.8

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.888	0.315	0.0323	mg/Kg	☆	01/14/14 14:21	01/15/14 15:20	1
Lead	21.6	0.630	0.132	mg/Kg	₩	01/14/14 14:21	01/15/14 15:20	1
General Chemistry								

Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	27	1.0	1.0 %			01/13/14 13:24	1
Percent Solids	73	1.0	1.0 %			01/13/14 13:24	1

Client Sample ID: 2013-CUFT-6B (0-0.5) Lab Sample ID: 600-85389-50 Date Collected: 01/10/14 10:41 **Matrix: Solid**

Date Received: 01/11/14 11:47 Percent Solids: 73.5

Method: 6010B - Metals (ICP)								
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.624	0.312	0.0320	mg/Kg		01/14/14 14:21	01/15/14 15:29	1
Lead	26.5	0.624	0.131	mg/Kg	₩	01/14/14 14:21	01/15/14 15:29	1

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	27	1.0	1.0 %			01/13/14 13:24	1
Percent Solids	73	1.0	1.0 %			01/13/14 13:24	1

TestAmerica Job ID: 600-85389-1

Client Sample ID: 2013-CUFT-5C (0-0.5)

Date Collected: 01/10/14 10:51 Date Received: 01/11/14 11:47

Lab Sample ID: 600-85389-51

Matrix: Solid

Percent Solids: 75.0

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.719	0.324	0.0332	mg/Kg	<u> </u>	01/14/14 14:21	01/15/14 15:32	1
Lead	60.0	0.648	0.136	mg/Kg	☼	01/14/14 14:21	01/15/14 15:32	1

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25		1.0	1.0	%			01/13/14 13:24	1
Percent Solids	75		1.0	1.0	%			01/13/14 13:24	1

Client Sample ID: 2013-CUFT-7B (0-0.5) Lab Sample ID: 600-85389-52

Date Collected: 01/10/14 11:08 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 72.3

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.545		0.332	0.0341	mg/Kg	<u>₩</u>	01/15/14 12:30	01/16/14 10:11	1
Lead	48.0		0.665	0.139	mg/Kg	₩	01/15/14 12:30	01/16/14 10:11	1
General Chemistry	Danult	O	MOL (Adi)	CD!	1124		Duamanad	Anahmad	D:: F
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	28		1.0	1.0	%			01/15/14 15:56	

011 4 0 1 10 0040 01	IET -D (0 4)				1 -1 0 1	ID 000 0 0	
Percent Solids	72	1.0	1.0	%		01/15/14 15:56	1
Percent Moisture	28	1.0	1.0	%		01/15/14 15:56	1
		(3/	_				

Client Sample ID: 2013-CUFT-7B (2-4) Lab Sample ID: 600-85389-53 Date Collected: 01/10/14 11:09 **Matrix: Solid**

Date Received: 01/11/14 11:47 Percent Solids: 77.2 Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.730		0.317	0.0326	mg/Kg	<u> </u>	01/14/14 14:21	01/15/14 15:34	1
Lead	41.8		0.635	0.133	mg/Kg	₩	01/14/14 14:21	01/15/14 15:34	1
General Chemistry Analyte	Posult	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analvzed	Dil Fac
		Qualifier					riepaieu		Dillac
Percent Moisture	23		1.0	1.0	%			01/13/14 13:24	1
Percent Solids	77		1.0	1.0	%			01/13/14 13:24	1

Client Sample ID: 2013-CUFT-10D (2-4) Lab Sample ID: 600-85389-58

Date Collected: 01/10/14 11:26 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 73.1

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.606		0.326	0.0334	mg/Kg	<u>₩</u>	01/14/14 14:21	01/15/14 15:36	1
Lead	16.6		0.652	0.137	mg/Kg	₩	01/14/14 14:21	01/15/14 15:36	1
General Chemistry	D 14	O I'd'	MOL (A.1)	0.01	1124	_	Danie and	A a la a d	D'I 5
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	27		1.0	1.0	%			01/13/14 13:24	1
Percent Solids	73		1.0	1.0	%			01/13/14 13:24	1

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

Percent Solids: 76.2

Client Sample ID: 2013-CUFT-10A (0-0.5)	Lab Sample ID: 600-85389-62
Date Collected: 01/10/14 11:41	Matrix: Solid
Date Received: 01/11/14 11:47	Percent Solids: 76.2

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adi)	SDL (Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.618	0.319	0.0327 r	mg/Kg	<u></u>	01/14/14 14:21	01/15/14 15:39	1
Lead	76.1	0.637	0.134 r	mg/Kg	₩	01/14/14 14:21	01/15/14 15:39	1

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24		1.0	1.0	%			01/13/14 13:24	1
Percent Solids	76		1.0	1.0	%			01/13/14 13:24	1

Lab Sample ID: 600-85389-63 Client Sample ID: 2013-CUFT-10B (0-0.5)

Date Collected: 01/10/14 11:48 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 74.9

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.19	J	3.09	0.286	mg/Kg	<u> </u>	01/14/14 14:21	01/15/14 15:41	1
Arsenic	11.1		1.24	0.269	mg/Kg	₩	01/14/14 14:21	01/15/14 15:41	1
Cadmium	2.19		0.309	0.0317	mg/Kg	₩	01/14/14 14:21	01/15/14 15:41	1
Lead	1290		0.618	0.130	mg/Kg	₩	01/14/14 14:21	01/15/14 15:41	1
Selenium	0.414	J	2.47	0.320	mg/Kg	₽	01/14/14 14:21	01/15/14 15:41	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25	1.0	1.0	%			01/13/14 13:24	1
Percent Solids	75	1.0	1.0	%			01/13/14 13:24	1

Client Sample ID: 2013-CUFT-10C (0-0.5) Lab Sample ID: 600-85389-64

Date Collected: 01/10/14 11:55 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 74.8

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.878	0.318	0.0326	mg/Kg	<u></u>	01/14/14 14:21	01/15/14 15:44	1
Lead	92.7	0.637	0.133	mg/Kg	₩	01/14/14 14:21	01/15/14 15:44	1
<u></u>								

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25	1.0	1.0 %			01/13/14 13:24	1
Percent Solids	75	1.0	1.0 %			01/13/14 13:24	1

Definitions/Glossary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

Qualifiers

GC Semi VOA

Qualitier	Qualifier Description
U	Analyte was not detected at or above the SDL.

Metals

Qualifier	Qualifier Description
b	The compound was found in the blank and sample
F	Duplicate RPD exceeds the control limit
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N	MS, MSD: Spike recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
U	Analyte was not detected at or above the SDL.
N	RPD of the MS and MSD exceeds the control limits
٨	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.

Glossary

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid Prep Type: Total/NA

			Surrogate Recovery (Acceptance Limits)	
		TCX2	DCB2	
Lab Sample ID	Client Sample ID	(58-164)	(70-164)	
600-85389-31	2013-CUFT-14 (0-2)	118	111	
LCS 600-124838/2-A	Lab Control Sample	83	106	
MB 600-124838/1-A	Method Blank	91	110	
Surrogate Legend				
TCX = Tetrachloro-m-	xylene			
DCB = DCB Decachlo	robiphenyl			

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 600-124838/1-A

Matrix: Solid

Analysis Batch: 125027

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 124838

	IVID	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.00160	U	0.0167	0.00160	mg/Kg		01/13/14 14:23	01/14/14 15:08	1
PCB-1221	0.00863	U	0.0167	0.00863	mg/Kg		01/13/14 14:23	01/14/14 15:08	1
PCB-1232	0.00670	U	0.0167	0.00670	mg/Kg		01/13/14 14:23	01/14/14 15:08	1
PCB-1242	0.00124	U	0.0167	0.00124	mg/Kg		01/13/14 14:23	01/14/14 15:08	1
PCB-1248	0.00249	U	0.0167	0.00249	mg/Kg		01/13/14 14:23	01/14/14 15:08	1
PCB-1254	0.00221	U	0.0167	0.00221	mg/Kg		01/13/14 14:23	01/14/14 15:08	1
PCB-1260	0.0135	U	0.0167	0.0135	mg/Kg		01/13/14 14:23	01/14/14 15:08	1

MB MB

MD MD

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		58 - 164	01/13/14 14:23	01/14/14 15:08	1
DCB Decachlorobiphenyl	110		70 - 164	01/13/14 14:23	01/14/14 15:08	1

Spike

Added

0.167

0.167

LCS LCS

0.1323

0.1460

Result Qualifier

Unit

mg/Kg

mg/Kg

Lab Sample ID: LCS 600-124838/2-A

Matrix: Solid

Analyte

PCB-1016

PCB-1260

Analysis Batch: 125027

Client Sample ID: Lab Control Sample Prep Type: Total/NA

88

Prep Batch: 124838

%Rec. D %Rec Limits

79

68 - 122 10 - 158

10

LCS LCS

Surrogate	%Recovery Qualifier	r Limits
Tetrachloro-m-xylene	83	58 - 164
DCB Decachlorobiphenyl	106	70 - 164

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-124862/1-A

Matrix: Water

Analysis Batch: 125051

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 124862

	MB	MR							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00630	U	0.0500	0.00630	mg/L		01/13/14 16:05	01/15/14 12:56	1
Arsenic	0.00328	U ^	0.0100	0.00328	mg/L		01/13/14 16:05	01/15/14 12:56	1
Cadmium	0.000350	U ^	0.00500	0.000350	mg/L		01/13/14 16:05	01/15/14 12:56	1
Lead	0.00290	U ^	0.0100	0.00290	mg/L		01/13/14 16:05	01/15/14 12:56	1
Selenium	0.00417	U	0.0400	0.00417	mg/L		01/13/14 16:05	01/15/14 12:56	1

Lab Sample ID: LCS 600-124862/2-A

Matrix: Water

Analysis Batch: 125051

Client Sample	D: L	.ab	Control	Sample
			Tuna. T	Coto I/NI A

Prep Type: Total/NA **Prep Batch: 124862**

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	1.00	1.005		mg/L		101	80 - 120	
Arsenic	1.00	0.9633	٨	mg/L		96	80 - 120	
Cadmium	0.500	0.4866	٨	mg/L		97	80 - 120	
Lead	1.00	1.008	^	mg/L		101	80 - 120	
Selenium	1.00	0.9649		mg/L		96	80 - 120	
Selenium	1.00	0.9649		mg/L			96	96 80 - 120

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 600-124919/1-A

Lab Sample ID: LCSSRM 600-124919/2-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 125010

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 124919

	MB	MR							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		01/14/14 12:46	01/15/14 12:51	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		01/14/14 12:46	01/15/14 12:51	1
Cadmium	0.03000	J	0.250	0.0256	mg/Kg		01/14/14 12:46	01/15/14 12:51	1
Lead	0.105	U	0.500	0.105	mg/Kg		01/14/14 12:46	01/15/14 12:51	1
Selenium	0.259	U	2.00	0.259	mg/Kg		01/14/14 12:46	01/15/14 12:51	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 124919

Analysis Batch: 125010 LCSSRM LCSSRM Spike %Rec. Analyte Added Result Qualifier Unit D %Rec Limits **Antimony** 88.2 101.7 mg/Kg 115.3 45.4 - 231. 99.6 99.60 100.0 80.8 - 119. Arsenic mg/Kg 5 Cadmium 190.9 104.9 81.9 - 118. 182 mg/Kg 100.7 81.8 - 119. Lead 115.8 115 mg/Kg 1 Selenium 150 147.1 mg/Kg 98.1 77.3 - 122. 7

Lab Sample ID: 600-85389-12 MS

Matrix: Solid

Analysis Batch: 125010

Client Sample ID: 2013-WMU14-1A (5-7)

Prep Type: Total/NA

Prep Batch: 124919

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	73.3		66.0	29.00	N	mg/Kg	<u> </u>	-67	75 - 125	
Arsenic	52.6		66.0	77.29	N	mg/Kg	₩	37	75 - 125	
Cadmium	5.14	b	33.0	34.10		mg/Kg	₩	88	75 - 125	
Lead	15500	E	66.0	132.8	4	mg/Kg	₩	-2324	75 - 125	
								8		
Selenium	0.434	J	66.0	58.10		mg/Kg	☼	87	75 ₋ 125	

Lab Sample ID: 600-85389-12 MSD

Matrix: Solid

Client Sample ID: 2013-WMU14-1A (5-7)

Prep Type: Total/NA

Analysis Batch: 125010									Prep Ba	Atcn: 12	24919
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	73.3		66.6	32.10	N	mg/Kg	₩	-62	75 - 125	10	20
Arsenic	52.6		66.6	78.57	N	mg/Kg	☼	39	75 - 125	2	20
Cadmium	5.14	b	33.3	33.95		mg/Kg	₩	86	75 - 125	0	20
Lead	15500	Ė	66.6	121.2	4	mg/Kg	≎	-2304	75 - 125	9	20
		_						2		_	
Selenium	0.434	J	66.6	58.33		mg/Kg	₩	87	75 ₋ 125	0	20

TestAmerica Houston

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Client Sample ID: MW-30A (2-4)

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Lab Sample ID: 600-85389-13 MS

Method: 6010B - Metals (ICP) (Continued)

Matrix: Solid Analysis Batch: 125010									Prep Type: Total/NA Prep Batch: 124919
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Antimony	1.55	J	58.2	24.49	N	mg/Kg	₩	39	75 - 125
Arsenic	8.87		58.2	61.35		mg/Kg	₩	90	75 - 125
Cadmium	1.15	b	29.1	29.13		mg/Kg	₩	96	75 - 125
Lead	52.4		58.2	89.21	N	mg/Kg	₩.	63	75 - 125
Selenium	0.295	U	58.2	49.34		mg/Kg	₩	85	75 - 125

Lab Sample ID: 600-85389-13 MSD Client Sample ID: MW-30A (2-4) **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 125010** Prep Batch: 124919 Sample Sample Spike MSD MSD %Rec. **RPD** Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit ₩ 1.55 J 55.4 21.12 N 35 75 - 125 15 20 Antimony mg/Kg ₩ Arsenic 8.87 55.4 60.23 mg/Kg 93 75 - 125 2 20 ☼ Cadmium 27.7 27.95 mg/Kg 97 75 - 125 20 1.15 b 4 Lead 55.4 69.10 N mg/Kg ₽ 30 75 - 125 20 52.4 25 Selenium 0.295 U 55.4 46.99 mg/Kg 85 75 - 125 20 5

Lab Sample ID: 600-85389-12 DU Client Sample ID: 2013-WMU14-1A (5-7) **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 124919

Analysis Batch: 125010 Sample Sample DU DU **RPD** Result Qualifier Result Qualifier **Analyte** Unit D RPD Limit Antimony 73.3 60.00 mg/Kg 20 20 Arsenic 52.6 42.82 F mg/Kg ₩ 21 20 ₩ 5.14 b 8.174 F mg/Kg 20 Cadmium 46 0.3904 J Selenium 0.434 J mg/Kg 20

Lab Sample ID: 600-85389-13 DU Client Sample ID: MW-30A (2-4)

Matrix: Solid

Prep Type: Total/NA Analysis Batch: 125010 **Prep Batch: 124919**

	Sample	Sample	DU	DU			•	RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit	
Antimony	1.55	J	0.254	U	mg/Kg	- -	NC	20	
Arsenic	8.87		8.996		mg/Kg	₽	1	20	
Cadmium	1.15	b	0.4284	F	mg/Kg	₽	92	20	
Lead	52.4		17.32	F	mg/Kg		101	20	
Selenium	0.295	U	0.284	U	mg/Kg	☼	NC	20	

Lab Sample ID: MB 600-124939/1-A **Client Sample ID: Method Blank Matrix: Solid** Prep Type: Total/NA

Prep Batch: 124939 **Analysis Batch: 125010** мв мв

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		01/14/14 14:21	01/15/14 14:26	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		01/14/14 14:21	01/15/14 14:26	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		01/14/14 14:21	01/15/14 14:26	1
Lead	0.105	U	0.500	0.105	mg/Kg		01/14/14 14:21	01/15/14 14:26	1
Selenium	0.259	U	2.00	0.259	mg/Kg		01/14/14 14:21	01/15/14 14:26	1

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Client Sample ID: SCC-5A (0-0.5)

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Lab Sample ID: 600-85389-30 MS

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 600-124939/2-A Matrix: Solid Analysis Batch: 125010				Clier	nt Sa	mple II	D: Lab Control Sample Prep Type: Total/NA Prep Batch: 124939
	Spike	LCSSRM	LCSSRM				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Antimony	88.2	76.41		mg/Kg		86.6	45.4 - 231. 3
Arsenic	99.6	93.75		mg/Kg		94.1	80.8 - 119. 5
Cadmium	182	178.7		mg/Kg		98.2	81.9 - 118. 1
Lead	115	102.8		mg/Kg		89.4	81.8 - 119. 1
Selenium	150	142.5		mg/Kg		95.0	77.3 - 1 <u>22</u> .

Matrix: Solid Analysis Batch: 125010		•							Prep Type: Total/ Prep Batch: 1249	
Analyte	•	Sample Qualifier	Spike Added	_	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Antimony	0.278	U	59.6	23.01	N1	mg/Kg	₩	39	75 - 125	
Arsenic	10.2		59.6	59.62		mg/Kg	₩	83	75 - 125	
Cadmium	0.258	J	29.8	29.29		mg/Kg	₩	97	75 - 125	
Lead	29.8		59.6	81.42		mg/Kg	₩	87	75 - 125	
Selenium	0.311	U	59.6	49.96		ma/Ka	₩	84	75 - 125	

Lab Sample ID: 600-85389-30 MSD									Client Sample ID: SCC-5A (0-0.5)							
Matrix: Solid									Prep Ty	pe: Tot	al/NA					
Analysis Batch: 125010									Prep Ba	atch: 12	24939					
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD					
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit					
Antimony	0.278	U	64.3	25.86	N1	mg/Kg		40	75 - 125	12	20					
Arsenic	10.2		64.3	65.88		mg/Kg	₽	87	75 - 125	10	20					
Cadmium	0.258	J	32.1	32.20		mg/Kg	☼	99	75 - 125	9	20					
Lead	29.8		64.3	84.01		mg/Kg	₽	84	75 - 125	3	20					
Selenium	0.311	U	64.3	55.00		mg/Kg	₩	86	75 - 125	10	20					

Lab Sample ID: 600-85389- Matrix: Solid Analysis Batch: 125010	45 MS					Cile	nt Sa	mpie it	D: 2013-CUFT-6C (2-4 Prep Type: Total/NA Prep Batch: 12493
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Antimony	0.306	U -	64.3	24.62	N	mg/Kg	<u>₩</u>	38	75 - 125
Arsenic	10.3		64.3	61.10		mg/Kg	☼	79	75 - 125
Cadmium	0.760		32.2	29.48		mg/Kg	☼	89	75 ₋ 125
Lead	20.3		64.3	75.04		mg/Kg		85	75 - 125
Selenium	0.342	U	64.3	50 40		ma/Ka	₽	78	75 - 125

Lab Sample ID: 600-85389-45 MSD						Clie	JFT-6C	(2-4)			
Matrix: Solid	Matrix: Solid								Prep Ty	pe: Tot	al/NA
Analysis Batch: 125010									Prep Ba	itch: 12	24939
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.306	U	66.8	25.47	N	mg/Kg	₩	38	75 - 125	3	20

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-85389-45 MSD Client Sample ID: 2013-CUFT-6C (2-4) Prep Type: Total/NA

Matrix: Solid Analysis Batch: 125010 Prep Batch: 124939

MSD MSD Sample Sample Spike **RPD** %Rec. Result Qualifier Result Qualifier Limits RPD Analyte Added Unit D %Rec Limit ₩ Arsenic 10.3 66.8 71.84 mg/Kg 92 75 - 125 20 16 Ö Cadmium 0.760 33.4 35.46 mg/Kg 104 75 - 125 18 20 Lead ₩ 20.3 66.8 81.59 mg/Kg 92 75 - 125 8 20 ť Selenium 0.342 U 66.8 60.50 mg/Kg 91 75 - 125 20

Lab Sample ID: 600-85389-30 DU Client Sample ID: SCC-5A (0-0.5)

Matrix: Solid

Lead

Selenium

Prep Type: Total/NA **Analysis Batch: 125010** Prep Batch: 124939

DU DU Sample Sample **RPD** Analyte Result Qualifier Result Qualifier D RPD Limit Unit ₩ Antimony 0.278 U 0.289 U NC 20 mg/Kg 9.757 Arsenic 10.2 mg/Kg 5 20 ά Cadmium 0.258 J 0.2622 J mg/Kg 1 20

Lab Sample ID: 600-85389-45 DU Client Sample ID: 2013-CUFT-6C (2-4)

24.66

0.323 U

mg/Kg

mg/Kg

ť

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 125010** Prep Batch: 124939

Sample Sample DU DU **RPD Analyte** Result Qualifier Result Qualifier Unit D **RPD** Limit 77 Antimony 0.306 U 0.284 U mg/Kg NC 20 ₿ Arsenic 10.3 12.35 mg/Kg 18 20 Cadmium 0.760 1.892 F mg/Kg ά 20 20.3 30.35 F 40 20 Lead mg/Kg Selenium 0.342 U 0.317 U mg/Kg NC 20

Lab Sample ID: MB 600-125018/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 125110

29.8

0.311 U

	MB	MR							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		01/15/14 12:30	01/16/14 09:51	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		01/15/14 12:30	01/16/14 09:51	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		01/15/14 12:30	01/16/14 09:51	1
Lead	0.105	U	0.500	0.105	mg/Kg		01/15/14 12:30	01/16/14 09:51	1
Selenium	0.259	U	2.00	0.259	mg/Kg		01/15/14 12:30	01/16/14 09:51	1

Lab Sample ID: LCSSRM 600-125018/2-A **Client Sample ID: Lab Control Sample**

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 125110 Prep Batch: 125018**

	S	pike LCSS	RM LCSSRM			%Rec.	
Analyte	Ad	lded Re	ult Qualifier	Unit [%Rec	Limits	
Antimony		88.2 59	.66	mg/Kg	67.6	45.4 - 231.	
Arsenic		99.6 98	.49	mg/Kg	98.9	80.8 - 119.	
Cadmium		182 17	8.7	mg/Kg	98.2	5 81.9 - 118.	
						1	

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NC

Prep Batch: 125018

QC Sample Results

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

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Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 600-125018/2-A Matrix: Solid Analysis Batch: 125110				Client	Sai	mple II	D: Lab Contr Prep Type Prep Bato	•
•	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Lead	115	110.8		mg/Kg	_	96.3	81.8 - 119.	
							1	
Selenium	150	144.7		mg/Kg		96.5	77.3 - 122.	

Method: 6010B - Metals (ICP) - DL

La	Lab Sample ID: 600-85389-12 DU					Client Sample ID: 2013-WMU14-1A (5-7)							
Ma	atrix: Solid						Prep Type: Tot	al/NA					
Ar	alysis Batch: 125083						Prep Batch: 12	24919					
	Sample	Sample	DU	DU				RPD					
An	alyte Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit					
Lea	ad - DL 17000		14430		mg/Kg	- -		20					

Method: Moisture - Percent Moisture

Lab Sample ID: 600-85 Matrix: Solid Analysis Batch: 12480					Clie	ent Sample	e ID: 2013-FOP-1A(Prep Type: Tot	,
		Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Moisture	19		19		%			20
Percent Solids	81		81		%		0.8	20

Lab Sample ID: 600-85389-20 DU Matrix: Solid Analysis Batch: 124801							ple ID: ECO-8A (Prep Type: Tot	•
	•	Sample		DU		_		RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Moisture	22		22		%		0.7	20
Percent Solids	78		78		%		0.2	20

Lab Sample ID: 600-85389-39 DU Matrix: Solid	Client Sample ID: 2013-CUFT-5D (2-4) Prep Type: Total/NA
Analysis Batch: 124801	

, , , , , , , , , , , , , , , , , , , ,	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Moisture	26		27		%		 3	20
Percent Solids	74		73		%		1	20

Lab Sample ID: 600-85389-64 DU	Client Sample ID: 2013-CUFT-10C (0-0.5)
Matrix: Solid	Prep Type: Total/NA
Analysis Batch: 124801	

•	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Moisture	25		31		%		 20	20
Percent Solids	75		69		%		8	20

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Unadjusted Detection Limits

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	MQL	MDL	Units	Method
PCB-1016	0.0167	0.00160	mg/Kg	8082
PCB-1221	0.0167	0.00863	mg/Kg	8082
PCB-1232	0.0167	0.00670	mg/Kg	8082
PCB-1242	0.0167	0.00124	mg/Kg	8082
PCB-1248	0.0167	0.00249	mg/Kg	8082
PCB-1254	0.0167	0.00221	mg/Kg	8082
PCB-1260	0.0167	0.0135	mg/Kg	8082

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method	
Antimony	2.50	0.232	mg/Kg	6010B	
Arsenic	1.00	0.218	mg/Kg	6010B	
Cadmium	0.250	0.0256	mg/Kg	6010B	
Cadmium	0.00500	0.000350	mg/L	6010B	
Lead	0.500	0.105	mg/Kg	6010B	
Lead	0.0100	0.00290	mg/L	6010B	
Selenium	2.00	0.259	mg/Kg	6010B	

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

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QC Association Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

GC Semi VOA

Pre	p Batc	h: 12	4838
	p Date		. +000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-31	2013-CUFT-14 (0-2)	Total/NA	Solid	3546	
LCS 600-124838/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 600-124838/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 125027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-31	2013-CUFT-14 (0-2)	Total/NA	Solid	8082	124838
LCS 600-124838/2-A	Lab Control Sample	Total/NA	Solid	8082	124838
MB 600-124838/1-A	Method Blank	Total/NA	Solid	8082	124838

Metals

Prep Batch: 124862

Lab Sample ID 600-85389-22	Client Sample ID RINSE BLANK-CME	Prep Type Total/NA	Matrix Water	Method 3010A	Prep Batch
LCS 600-124862/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 600-124862/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 124919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-1	MW-44 (0-0.5)	Total/NA	Solid	3050B	_
600-85389-5	2013-AD-1A (0-0.5)	Total/NA	Solid	3050B	
600-85389-7	2013-FOP-1A (0-0.5)	Total/NA	Solid	3050B	
600-85389-8	2013-AD-5 (0-0.5)	Total/NA	Solid	3050B	
600-85389-11 - DL	2013-WMU14-1A (0.9-2)	Total/NA	Solid	3050B	
600-85389-12 - DL	2013-WMU14-1A (5-7)	Total/NA	Solid	3050B	
600-85389-12	2013-WMU14-1A (5-7)	Total/NA	Solid	3050B	
600-85389-12 DU	2013-WMU14-1A (5-7)	Total/NA	Solid	3050B	
600-85389-12 DU - DL	2013-WMU14-1A (5-7)	Total/NA	Solid	3050B	
600-85389-12 MS	2013-WMU14-1A (5-7)	Total/NA	Solid	3050B	
600-85389-12 MSD	2013-WMU14-1A (5-7)	Total/NA	Solid	3050B	
600-85389-13	MW-30A (2-4)	Total/NA	Solid	3050B	
600-85389-13 DU	MW-30A (2-4)	Total/NA	Solid	3050B	
600-85389-13 MS	MW-30A (2-4)	Total/NA	Solid	3050B	
600-85389-13 MSD	MW-30A (2-4)	Total/NA	Solid	3050B	
600-85389-14 - DL	DUP 7	Total/NA	Solid	3050B	
600-85389-14	DUP 7	Total/NA	Solid	3050B	
600-85389-15	DUP 8	Total/NA	Solid	3050B	
600-85389-20	ECO-8A (0-0.5)	Total/NA	Solid	3050B	
600-85389-21	2013-SDA-3B (0-0.5)	Total/NA	Solid	3050B	
600-85389-26	MW-36 (0-2)	Total/NA	Solid	3050B	
LCSSRM 600-124919/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-124919/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 124939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-27	MW-35 (1-3)	Total/NA	Solid	3050B	
600-85389-29	SCC-5B (0-0.5)	Total/NA	Solid	3050B	
600-85389-30	SCC-5A (0-0.5)	Total/NA	Solid	3050B	
600-85389-30 DU	SCC-5A (0-0.5)	Total/NA	Solid	3050B	

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QC Association Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

Metals (Continued)

Prep Batch: 124939 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-30 MS	SCC-5A (0-0.5)	Total/NA	Solid	3050B	
600-85389-30 MSD	SCC-5A (0-0.5)	Total/NA	Solid	3050B	
600-85389-31	2013-CUFT-14 (0-2)	Total/NA	Solid	3050B	
600-85389-33	2013-CUFT-11 (0-0.5)	Total/NA	Solid	3050B	
600-85389-37	2013-CUFT-5A (0-0.5)	Total/NA	Solid	3050B	
600-85389-39	2013-CUFT-5D (2-4)	Total/NA	Solid	3050B	
600-85389-43	2013-CUFT-6A (0-0.5)	Total/NA	Solid	3050B	
600-85389-45	2013-CUFT-6C (2-4)	Total/NA	Solid	3050B	
600-85389-45 DU	2013-CUFT-6C (2-4)	Total/NA	Solid	3050B	
600-85389-45 MS	2013-CUFT-6C (2-4)	Total/NA	Solid	3050B	
600-85389-45 MSD	2013-CUFT-6C (2-4)	Total/NA	Solid	3050B	
600-85389-49	DUP 9	Total/NA	Solid	3050B	
600-85389-50	2013-CUFT-6B (0-0.5)	Total/NA	Solid	3050B	
600-85389-51	2013-CUFT-5C (0-0.5)	Total/NA	Solid	3050B	
600-85389-53	2013-CUFT-7B (2-4)	Total/NA	Solid	3050B	
600-85389-58	2013-CUFT-10D (2-4)	Total/NA	Solid	3050B	
600-85389-62	2013-CUFT-10A (0-0.5)	Total/NA	Solid	3050B	
600-85389-63	2013-CUFT-10B (0-0.5)	Total/NA	Solid	3050B	
600-85389-64	2013-CUFT-10C (0-0.5)	Total/NA	Solid	3050B	
LCSSRM 600-124939/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-124939/1-A	Method Blank	Total/NA	Solid	3050B	

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-1	MW-44 (0-0.5)	Total/NA	Solid	6010B	124919
600-85389-5	2013-AD-1A (0-0.5)	Total/NA	Solid	6010B	124919
600-85389-7	2013-FOP-1A (0-0.5)	Total/NA	Solid	6010B	124919
600-85389-8	2013-AD-5 (0-0.5)	Total/NA	Solid	6010B	124919
600-85389-12	2013-WMU14-1A (5-7)	Total/NA	Solid	6010B	124919
600-85389-12 DU	2013-WMU14-1A (5-7)	Total/NA	Solid	6010B	124919
600-85389-12 MS	2013-WMU14-1A (5-7)	Total/NA	Solid	6010B	124919
600-85389-12 MSD	2013-WMU14-1A (5-7)	Total/NA	Solid	6010B	124919
600-85389-13	MW-30A (2-4)	Total/NA	Solid	6010B	124919
600-85389-13 DU	MW-30A (2-4)	Total/NA	Solid	6010B	124919
600-85389-13 MS	MW-30A (2-4)	Total/NA	Solid	6010B	124919
600-85389-13 MSD	MW-30A (2-4)	Total/NA	Solid	6010B	124919
600-85389-14	DUP 7	Total/NA	Solid	6010B	124919
600-85389-15	DUP 8	Total/NA	Solid	6010B	124919
600-85389-20	ECO-8A (0-0.5)	Total/NA	Solid	6010B	124919
600-85389-21	2013-SDA-3B (0-0.5)	Total/NA	Solid	6010B	124919
600-85389-26	MW-36 (0-2)	Total/NA	Solid	6010B	124919
600-85389-27	MW-35 (1-3)	Total/NA	Solid	6010B	124939
600-85389-29	SCC-5B (0-0.5)	Total/NA	Solid	6010B	124939
600-85389-30	SCC-5A (0-0.5)	Total/NA	Solid	6010B	124939
600-85389-30 DU	SCC-5A (0-0.5)	Total/NA	Solid	6010B	124939
600-85389-30 MS	SCC-5A (0-0.5)	Total/NA	Solid	6010B	124939
600-85389-30 MSD	SCC-5A (0-0.5)	Total/NA	Solid	6010B	124939
600-85389-31	2013-CUFT-14 (0-2)	Total/NA	Solid	6010B	124939
600-85389-33	2013-CUFT-11 (0-0.5)	Total/NA	Solid	6010B	124939
600-85389-37	2013-CUFT-5A (0-0.5)	Total/NA	Solid	6010B	124939
600-85389-39	2013-CUFT-5D (2-4)	Total/NA	Solid	6010B	124939

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Metals (Continued)

Analysis Batch: 125010 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-43	2013-CUFT-6A (0-0.5)	Total/NA	Solid	6010B	124939
600-85389-45	2013-CUFT-6C (2-4)	Total/NA	Solid	6010B	124939
600-85389-45 DU	2013-CUFT-6C (2-4)	Total/NA	Solid	6010B	124939
600-85389-45 MS	2013-CUFT-6C (2-4)	Total/NA	Solid	6010B	124939
600-85389-45 MSD	2013-CUFT-6C (2-4)	Total/NA	Solid	6010B	124939
600-85389-49	DUP 9	Total/NA	Solid	6010B	124939
600-85389-50	2013-CUFT-6B (0-0.5)	Total/NA	Solid	6010B	124939
600-85389-51	2013-CUFT-5C (0-0.5)	Total/NA	Solid	6010B	124939
600-85389-53	2013-CUFT-7B (2-4)	Total/NA	Solid	6010B	124939
600-85389-58	2013-CUFT-10D (2-4)	Total/NA	Solid	6010B	124939
600-85389-62	2013-CUFT-10A (0-0.5)	Total/NA	Solid	6010B	124939
600-85389-63	2013-CUFT-10B (0-0.5)	Total/NA	Solid	6010B	124939
600-85389-64	2013-CUFT-10C (0-0.5)	Total/NA	Solid	6010B	124939
LCSSRM 600-124919/2-A	Lab Control Sample	Total/NA	Solid	6010B	124919
LCSSRM 600-124939/2-A	Lab Control Sample	Total/NA	Solid	6010B	124939
MB 600-124919/1-A	Method Blank	Total/NA	Solid	6010B	124919
MB 600-124939/1-A	Method Blank	Total/NA	Solid	6010B	124939

Prep Batch: 125018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-23	2013-AD-03 (0-0.5)	Total/NA	Solid	3050B	
600-85389-52	2013-CUFT-7B (0-0.5)	Total/NA	Solid	3050B	
LCSSRM 600-125018/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-125018/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 125051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-22	RINSE BLANK-CME	Total/NA	Water	6010B	124862
LCS 600-124862/2-A	Lab Control Sample	Total/NA	Water	6010B	124862
MB 600-124862/1-A	Method Blank	Total/NA	Water	6010B	124862

Analysis Batch: 125083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-11 - DL	2013-WMU14-1A (0.9-2)	Total/NA	Solid	6010B	124919
600-85389-12 - DL	2013-WMU14-1A (5-7)	Total/NA	Solid	6010B	124919
600-85389-12 DU - DL	2013-WMU14-1A (5-7)	Total/NA	Solid	6010B	124919
600-85389-14 - DL	DUP 7	Total/NA	Solid	6010B	124919

Analysis Batch: 125110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-23	2013-AD-03 (0-0.5)	Total/NA	Solid	6010B	125018
600-85389-52	2013-CUFT-7B (0-0.5)	Total/NA	Solid	6010B	125018
LCSSRM 600-125018/2-A	Lab Control Sample	Total/NA	Solid	6010B	125018
MB 600-125018/1-A	Method Blank	Total/NA	Solid	6010B	125018

General Chemistry

Analysis Batch: 124801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-1	MW-44 (0-0.5)	Total/NA	Solid	Moisture	

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QC Association Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

General Chemistry (Continued)

Analysis Batch: 124801 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-5	2013-AD-1A (0-0.5)	Total/NA	Solid	Moisture	
600-85389-7	2013-FOP-1A (0-0.5)	Total/NA	Solid	Moisture	
600-85389-7 DU	2013-FOP-1A (0-0.5)	Total/NA	Solid	Moisture	
600-85389-8	2013-AD-5 (0-0.5)	Total/NA	Solid	Moisture	
600-85389-11	2013-WMU14-1A (0.9-2)	Total/NA	Solid	Moisture	
600-85389-12	2013-WMU14-1A (5-7)	Total/NA	Solid	Moisture	
600-85389-12 MS	2013-WMU14-1A (5-7)	Total/NA	Solid	Moisture	
600-85389-12 MSD	2013-WMU14-1A (5-7)	Total/NA	Solid	Moisture	
600-85389-13	MW-30A (2-4)	Total/NA	Solid	Moisture	
600-85389-13 MS	MW-30A (2-4)	Total/NA	Solid	Moisture	
600-85389-13 MSD	MW-30A (2-4)	Total/NA	Solid	Moisture	
600-85389-14	DUP 7	Total/NA	Solid	Moisture	
600-85389-15	DUP 8	Total/NA	Solid	Moisture	
600-85389-20	ECO-8A (0-0.5)	Total/NA	Solid	Moisture	
600-85389-20 DU	ECO-8A (0-0.5)	Total/NA	Solid	Moisture	
600-85389-21	2013-SDA-3B (0-0.5)	Total/NA	Solid	Moisture	
600-85389-26	MW-36 (0-2)	Total/NA	Solid	Moisture	
600-85389-27	MW-35 (1-3)	Total/NA	Solid	Moisture	
600-85389-29	SCC-5B (0-0.5)	Total/NA	Solid	Moisture	
600-85389-30	SCC-5A (0-0.5)	Total/NA	Solid	Moisture	
600-85389-31	2013-CUFT-14 (0-2)	Total/NA	Solid	Moisture	
600-85389-37	2013-CUFT-5A (0-0.5)	Total/NA	Solid	Moisture	
600-85389-39	2013-CUFT-5D (2-4)	Total/NA	Solid	Moisture	
600-85389-39 DU	2013-CUFT-5D (2-4)	Total/NA	Solid	Moisture	
600-85389-43	2013-CUFT-6A (0-0.5)	Total/NA	Solid	Moisture	
600-85389-45	2013-CUFT-6C (2-4)	Total/NA	Solid	Moisture	
600-85389-45 MS	2013-CUFT-6C (2-4)	Total/NA	Solid	Moisture	
600-85389-45 MSD	2013-CUFT-6C (2-4)	Total/NA	Solid	Moisture	
600-85389-49	DUP 9	Total/NA	Solid	Moisture	
600-85389-50	2013-CUFT-6B (0-0.5)	Total/NA	Solid	Moisture	
600-85389-51	2013-CUFT-5C (0-0.5)	Total/NA	Solid	Moisture	
600-85389-53	2013-CUFT-7B (2-4)	Total/NA	Solid	Moisture	
600-85389-58	2013-CUFT-10D (2-4)	Total/NA	Solid	Moisture	
600-85389-62	2013-CUFT-10A (0-0.5)	Total/NA	Solid	Moisture	
600-85389-63	2013-CUFT-10B (0-0.5)	Total/NA	Solid	Moisture	
600-85389-64	2013-CUFT-10C (0-0.5)	Total/NA	Solid	Moisture	
600-85389-64 DU	2013-CUFT-10C (0-0.5)	Total/NA	Solid	Moisture	

Analysis Batch: 125061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85389-23	2013-AD-03 (0-0.5)	Total/NA	Solid	Moisture	
600-85389-33	2013-CUFT-11 (0-0.5)	Total/NA	Solid	Moisture	
600-85389-52	2013-CUFT-7B (0-0.5)	Total/NA	Solid	Moisture	

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: MW-44 (0-0.5)

Date Collected: 01/09/14 12:45 Date Received: 01/11/14 11:47

Total/NA

Analysis

Moisture

Lab Sample ID: 600-85389-1

Matrix: Solid Percent Solids: 76.7

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	125010	01/15/14 13:30	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: 2013-AD-1A (0-0.5)

Date Collected: 01/09/14 13:42

Lab Sample ID: 600-85389-5

Matrix: Solid

Date Received: 01/11/14 11:47 Percent Solids: 70.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.01 g	50 mL	125010	01/15/14 13:32	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: 2013-FOP-1A (0-0.5)

Lab Sample ID: 600-85389-7

Date Collected: 01/09/14 13:58 Matrix: Solid
Date Received: 01/11/14 11:47 Percent Solids: 81.3

Batch Batch Dil Initial Final Batch Prepared Number **Prep Type** Type Method Run **Factor** Amount Amount or Analyzed Analyst Lab Total/NA 3050B 124919 01/14/14 12:46 NER TAL HOU Prep 1.01 g 50 mL Total/NA 6010B 50 mL 125010 01/15/14 13:34 DCL TAL HOU Analysis 1 1.01 g

Client Sample ID: 2013-AD-5 (0-0.5)

Lab Sample ID: 600-85389-8

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124801

01/13/14 13:24 AYS

Date Collected: 01/09/14 14:12 Matrix: Solid
Date Received: 01/11/14 11:47 Percent Solids: 82.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	125010	01/15/14 13:37	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: 2013-WMU14-1A (0.9-2)

Lab Sample ID: 600-85389-11

Date Collected: 01/09/14 14:40

Matrix: Solid
Date Received: 01/11/14 11:47

Matrix: Solid
Percent Solids: 80.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B	DL		1.08 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B	DL	20	1.08 g	50 mL	125083	01/16/14 08:42	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

TestAmerica Houston

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TAL HOU

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: 2013-WMU14-1A (5-7)

Date Collected: 01/09/14 14:44 Date Received: 01/11/14 11:47 Lab Sample ID: 600-85389-12

Matrix: Solid
Percent Solids: 72.8

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	125010	01/15/14 13:00	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.06 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B	DL	20	1.06 g	50 mL	125083	01/16/14 08:44	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: MW-30A (2-4)

Date Collected: 01/09/14 15:08

Date Received: 01/11/14 11:47

Lab Sample ID: 600-85389-13 Matrix: Solid

Percent Solids: 85.1

ĺ		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
	Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
	Total/NA	Prep	3050B			1.03 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
	Total/NA	Analysis	6010B		1	1.03 g	50 mL	125010	01/15/14 13:42	DCL	TAL HOU
	Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: DUP 7

Date Collected: 01/09/14 00:00

Date Received: 01/11/14 11:47

Lab Sample ID: 600-85389-14

Matrix: Solid

Percent Solids: 67.1

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.09 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.09 g	50 mL	125010	01/15/14 13:59	DCL	TAL HOU
Total/NA	Prep	3050B	DL		1.09 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B	DL	20	1.09 g	50 mL	125083	01/16/14 08:53	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: DUP 8

Date Collected: 01/09/14 00:00

Date Received: 01/11/14 11:47

Lab Sample ID: 600-85389-15

Matrix: Solid Percent Solids: 77.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	125010	01/15/14 14:02	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: ECO-8A (0-0.5)

Date Collected: 01/09/14 15:59

Date Received: 01/11/14 11:47

Lab Sample ID: 600-85389-20 Matrix: Solid

Percent Solids: 78.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.09 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.09 g	50 mL	125010	01/15/14 14:12	DCL	TAL HOU

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Lab Chronicle

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

Lab Sample ID: 600-85389-20

Client Sample ID: ECO-8A (0-0.5)

Date Collected: 01/09/14 15:59 Date Received: 01/11/14 11:47

Matrix: Solid

Batch Dil Initial Batch Batch Final Prepared **Prep Type** Type Method Run **Factor** Amount **Amount** Number or Analyzed **Analyst** Lab Total/NA Analysis Moisture 124801 01/13/14 13:24 AYS TAL HOU

Lab Sample ID: 600-85389-21 Client Sample ID: 2013-SDA-3B (0-0.5)

Date Collected: 01/09/14 16:05 Date Received: 01/11/14 11:47

Matrix: Solid Percent Solids: 83.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	125010	01/15/14 14:14	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Lab Sample ID: 600-85389-22 Client Sample ID: RINSE BLANK-CME **Matrix: Water**

Date Collected: 01/09/14 08:25 Date Received: 01/11/14 11:47

Batch Dil Initial Final Batch Batch Prepared **Prep Type** Type Method Run Factor Amount Amount Number or Analyzed **Analyst** Lab Prep Total/NA 3010A 50 mL 50 mL 124862 01/13/14 16:05 NER TAL HOU Total/NA Analysis 6010B 50 mL 125051 01/15/14 13:00 DCL TAL HOU 50 mL

Client Sample ID: 2013-AD-03 (0-0.5) Lab Sample ID: 600-85389-23

Date Collected: 01/09/14 13:10

Matrix: Solid Date Received: 01/10/14 10:31 Percent Solids: 89.7

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	125018	01/15/14 12:30	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	125110	01/16/14 10:09	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: MW-36 (0-2) Lab Sample ID: 600-85389-26

Date Collected: 01/10/14	Collected: 01/10/14 09:00							
Date Received: 01/11/14	11:47					Percent Solids: 72.3		
Ratch	Ratch	Dil	Initial	Final	Batch	Prenared		

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	125010	01/15/14 14:17	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: MW-35 (1-3)

Date Collected: 01/10/14 10:00

Date Received: 01/11/14 11:47

Lab Sample ID: 600-85389-27

Matrix: Solid Percent Solids: 73.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.02 g	50 mL	125010	01/15/14 14:31	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: SCC-5B (0-0.5)

Date Collected: 01/10/14 08:51

Date Received: 01/11/14 11:47

Lab Sample	ID: 600-85389-29
	Matrix: Solid

Percent Solids: 79.4

Γ		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep 7	Гуре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/l	NA	Prep	3050B			1.09 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/f	NA .	Analysis	6010B		1	1.09 g	50 mL	125010	01/15/14 14:36	DCL	TAL HOU
Total/l	NA .	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: SCC-5A (0-0.5) Lab Sample ID: 600-85389-30

Date Collected: 01/10/14 08:59

Date Received: 01/11/14 11:47

Matrix: Solid Percent Solids: 77.0

Dil Initial Batch Batch **Batch** Final Prepared **Prep Type** Type Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 3050B 01/14/14 14:21 NER Prep 1.08 g 50 mL 124939 TAL HOU Total/NA Analysis 6010B 50 mL 125010 01/15/14 14:38 DCL TAL HOU 1 1.08 g Total/NA 01/13/14 13:24 AYS TAL HOU Analysis Moisture 1 124801

Client Sample ID: 2013-CUFT-14 (0-2) Lab Sample ID: 600-85389-31

Date Collected: 01/10/14 09:13

Date Received: 01/11/14 11:47

Matrix: Solid Percent Solids: 85.1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.02 g	5.00 mL	124838	01/13/14 14:23	RLK	TAL HOU
Total/NA	Analysis	8082		1	15.02 g	5.00 mL	125027	01/14/14 17:19	JAL	TAL HOU
Total/NA	Prep	3050B			1.05 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.05 g	50 mL	125010	01/15/14 14:48	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: 2013-CUFT-11 (0-0.5) Lab Sample ID: 600-85389-33

Date Collected: 01/10/14 09:18

Matrix: Solid Date Received: 01/11/14 11:47 Percent Solids: 73.7

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.07 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.07 g	50 mL	125010	01/15/14 14:57	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: 2013-CUFT-5A (0-0.5)

Date Collected: 01/10/14 09:43

Total/NA

Date Received: 01/11/14 11:47

Analysis

Moisture

Lab Sample ID: 600-85389-37

01/13/14 13:24 AYS

124801

Matrix: Solid Percent Solids: 76.2

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.00 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.00 g	50 mL	125010	01/15/14 15:02	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: 2013-CUFT-5D (2-4) Lab Sample ID: 600-85389-39

Date Collected: 01/10/14 09:53

Matrix: Solid Date Received: 01/11/14 11:47 Percent Solids: 74.0

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.09 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.09 g	50 mL	125010	01/15/14 15:05	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: 2013-CUFT-6A (0-0.5) Lab Sample ID: 600-85389-43

Date Collected: 01/10/14 10:14

Matrix: Solid Date Received: 01/11/14 11:47 Percent Solids: 82.4

Batch Dil Initial Final Batch Batch Prepared **Prep Type** Type Method Run Factor **Amount** Amount Number or Analyzed Analyst Lab TAL HOU Total/NA 3050B 01/14/14 14:21 NER Prep 1.04 g 50 mL 124939 Total/NA Analysis 6010B 50 mL 125010 01/15/14 15:07 DCL TAL HOU 1 1.04 g

1

Client Sample ID: 2013-CUFT-6C (2-4) Lab Sample ID: 600-85389-45

Date Collected: 01/10/14 10:23 Matrix: Solid Date Received: 01/11/14 11:47 Percent Solids: 74.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.01 g	50 mL	125010	01/15/14 15:10	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: DUP 9 Lab Sample ID: 600-85389-49

Date Collected: 01/10/14 00:00 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 72.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.09 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.09 g	50 mL	125010	01/15/14 15:20	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

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TAL HOU

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: 2013-CUFT-6B (0-0.5)

Date Collected: 01/10/14 10:41 Date Received: 01/11/14 11:47

Lab Sample ID: 600-85389-50

Matrix: Solid Percent Solids: 73.5

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.09 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.09 g	50 mL	125010	01/15/14 15:29	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: 2013-CUFT-5C (0-0.5) Lab Sample ID: 600-85389-51

Date Collected: 01/10/14 10:51 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 75.0

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	125010	01/15/14 15:32	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: 2013-CUFT-7B (0-0.5) Lab Sample ID: 600-85389-52

Date Collected: 01/10/14 11:08 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 72.3

-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.04 g	50 mL	125018	01/15/14 12:30	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.04 g	50 mL	125110	01/16/14 10:11	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Lab Sample ID: 600-85389-53 Client Sample ID: 2013-CUFT-7B (2-4)

Date Collected: 01/10/14 11:09 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 77.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.02 g	50 mL	125010	01/15/14 15:34	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Lab Sample ID: 600-85389-58 Client Sample ID: 2013-CUFT-10D (2-4)

Date Collected: 01/10/14 11:26 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 73.1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.05 g	50 mL	125010	01/15/14 15:36	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Page 40 of 53

Lab Chronicle

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: 2013-CUFT-10A (0-0.5)

TestAmerica Job ID: 600-85389-1

Lab Sample ID: 600-85389-62

Matrix: Solid

Date Collected: 01/10/14 11:41 Date Received: 01/11/14 11:47 Percent Solids: 76.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	125010	01/15/14 15:39	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: 2013-CUFT-10B (0-0.5) Lab Sample ID: 600-85389-63

Date Collected: 01/10/14 11:48 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 74.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.08 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.08 g	50 mL	125010	01/15/14 15:41	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Client Sample ID: 2013-CUFT-10C (0-0.5) Lab Sample ID: 600-85389-64

Date Collected: 01/10/14 11:55 **Matrix: Solid** Date Received: 01/11/14 11:47 Percent Solids: 74.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	50 mL	124939	01/14/14 14:21	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.05 g	50 mL	125010	01/15/14 15:44	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 13:24	AYS	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85389-1

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
Texas	NELAP		6	T104704223	10-31-15
The following analytes	s are included in this repo	rt, but certification is	not offered by the g	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	e	
Moisture		Solid	Perce	nt Moisture	
Moisture		Solid	Perce	nt Solids	

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TestAmerice Houston 6310 Rothway Street Houston, TX 77040

Contract transmitter Contract Contr	Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646					!					
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TestAmerica-Housign 6310 Rothway Street

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lient Contact Thristina Higginbotham	Phone: 9/7/		7	E-Mail: dean.joiner@testamericainc.c)testamerica	inc.com					Page: Page	ge 4	
опрапу: solder Associates Inc.	9					Analysis	/sis Req	Requested			Job#:	#	
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TestAmerica Houston 6310 Rothway Street Houston, TX 77040

Phone (713) 690-4444 Fax (713) 690-5646					
Client Information	Sampler CMAK TREVINO		Dean A	Carrier Tracking No(s):	COC No: 600-25571-9015.1
Dient Contact Christina Higginbotham	Phone: 817-808-8144		E-Mail: dean.joiner@testamericainc.com	दे	Page: f
Company: Golder Associates Inc.			Analysis Requested		130206 130206
ddress: 500 Century Plaza Drive Suite 190	Due Date Requested:				Preservation Codes: A - HCl M - Hexane
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^э hone: 281-821-6868(TeI) 281-821-6870(Fax)	Po#: Purchase Order Requested		d List	I 0.	or Acid
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sie ENDE-FUSCO	SSOW#:		GOMPO DD) Tar DD) PAI I Metho I Metho	سيسنم	Other:
	Sample (C	Sample Matrix Type (W=water, S=solid)	d Filtered form MS/M DB - Target DC_LL - (MC DC_LC - (MC DC - Loca DC - Lo	al Number	
sample identification	Sample Date Time G	Preservation Code:	Z 82 Z 82 Z 72 Z 72 Z 90 Z 60 Z 60	Z 80	Special Instructions/Note:
2013-CMPT-50 (6-8)	01/10/14 0955	G Solid			MOUD
2013-CUPT-50 (8-10)	, 0956	G Solid			Mach
2013-WK-BA (0-05)	101F	G Solid	×.		
2013-CUR-60 (00.5)	lozz.	G Solid		- 38	HOLD
2013-CURT-60 (24)	1023	G Solid	×		
2015-CAPI-B (24) MS		G Solid	×	4 11-11	
2013-CMPT-6C (24) MSD		G Solid	×.		
2015-CMFT-6C (4-6)	Variation Jack	G Solid			ES
2013-CMAT-6((6-8)	1025	G Solid			Po2
2013- CUPTIBO (8-10)	1026	G Solid			1-1010
DUP 9	۲	G Solid			
Possible Hazàrd Identification □ Non-Hazard □ Flammable □ Skin Irritant □ Poi	Poison B Unknown Radiological	iological	Sample Disposal (A fee may be assess Return To Client Dispose	assessed if samples are retained longer Disposal By Lab Archive For	yer than 1 month) Months
Deliverable Requested: I, II, III, IV, Other (specify)		-	Special Instructions/QC Requirements:		
Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
relinquished by CAUSA	01 10/14 1530		Received by A COLC	Date/filme:	1530 Company
telinquished by:	Date/Time: •	Company	Received by: W M M	Date/Time:	141 COMPĂNY
kelinquished by:	Date/Time:	Company	Received by:	Date/Firite:	Company
Custody Seals Intact Custody Seal No.: A Yes A No			Cooler Temperature(s) °C and Other Remarks:		

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TestAmerica Houston 6310 Rothway Street Houston, TX 77040

Houston, 1X / 7040 Phone (713) 690-4444 Fax (713) 690-5646						>	Policy Market		
Client Information	Sampler: CHIVLLS	Devisor	Joiner, Dean A	ean A		Carner	Carner Tracking No(s):	<u> </u>	600-25571-9015.1
Client Contact: Christina Higginbotham	Phone: 817-20	817-808-8144	E-Mail: dean.join	E-Mail: dean.joiner@testamericainc	1c.com			क है	Page: O
Company: Golder Associates Inc.					Analysis	Requested		ەر	1802086
Address: 500 Century Plaza Drive Suite 190	Due Date Requested:			F. 1				- P	Preservation Codes: A - HCL M - Hexane
City: Houston	TAT Requested (days):	5 WD TRRP			ults)			O m	w .
State, Zip: TX, 77073					005 res			m m c	U - Nifric Acid P - Na2C4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2SOSO3
Phone: 281-821-6868(Tel) 281-821-6870(Fax)	PO#. Purchase Order Requested	quested	0)	nd List	TPH 10			πO	- Amchlor - Ascorbic Acid
Email: Christina_Higginbotham@golder.com	WO#			st	old for				J-Ice U-Acetone J-DI Water V-MCAA W-SPTA W-SP 4.5
oject	Project #: 60004831		سحيفس	ound L					
SINE DRINE-FRASCO	SSOW#:			Compo	l Meth	Pb,Se			Other:
		Sample Type Sample (C=comp,	ield Filtered	erform MS/N 260B - Target 270C_LL - (MC 270C_LL - (MC	X_1005 - Loca X_1006 - Loca 056_28D - Sul	010B - Cd,Pb 010B - As,Cd, loisture 082 PCB		otal Number	
	\bigvee_{i}	Preserva	\sim	z	z	z z		X	
2013-CUFT-68 (0-0.5)	DX ON PORTY 10	04)	Solid						
2013-(WFT-SC (0-0.5)	6	ි <u>ර</u> ් ි	Solid			*		 	
2013-CUPT-1B (D-0.5)		1106 G	Solid		2	*		2 2 3	
2013-WPT-713 (24)		105. G	Solid			×.		er en er	
2013-CMFT-7B (4-b)		(M)	Solid					7.	エマグ
7-7B (6		9	Solid						Horse
2013-LUPT-713 (8-10)		1112 6	Solid						Total Paris
2013-WET-IND (0-0,5)		125.	Solid						F&
2013- CMPY-100 (2-4)		126. e	Solid			×			
2013- (WPT-100 (H-6)		(127) G	Solid						ES
2013-CUPT-W (b&)	mas v	128 · G	Solid						HOLO
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B	₁ B ☐ Unknown	Radiological		Sample Disposal (A t	(A fee may be	e assessed if samples Disposal By Lab	are	Archive For	ger than 1 month) r Months
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:	าร/QC Requiren	nents:			
Empty Kît Relinquished by:	Date:	e:	Time:	е:		Me	Method of Shipment		
Relinquished by: JOSHUH JANCEN	Date/Tinge:	1530	Company Company	Received by:	\sqrt{CO}	کون	Date/Time:	7110	1530 Company
	Date/Time:		Company	Received by:		\geq	Date/Time:		Company
Relinquished by:	Date/Time:		Company	Received by:)	Date/Time!	-	Company
Custody Seals Intact Custody Seal No.: Δ Yes Δ No				Cooler Temperature	ure(s) °C and Other Remarks:	Remarks:			

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TestAmerica_Houston 6310 Rothway Street Houston, TX 77040

Phone (713) 690-4444 Fax (713) 690-5646			
Client Information	Sampler CMOS TOWNS	Lab PM: Joiner, Dean A	Carrier Tracking No(s): COC No: 600-25571-9015.1
Client Contact Christina Higginbotham	\cup	E-Mait: dean.joiner@testamericainc.com	Page:
Company: Golder Associates Inc.		nalysis	Requested Job# 1302086
Address: 500 Century Plaza Drive Suite 190	Due Date Requested:		Preservation Cod
City: Houston	TAT Requested (days): 5 WD TRRP		B. NaOH N. None C. Zn Acetate O. AsNaO2
State, Ztp: TX, 77073			E - Natio Acid P - Nazio-Asi E - NaHSO4 Q - Nazio-Os E - MeOH R - Nazio-Soo3
Phone: 281-821-6868(Tel) 281-821-6870(Fax)	PO# Purchase Order Requested	nd List	or ic Acid
Email: Christina_Higginbotham@golder.com	WO#.	No) st mpour	Z
Project Name: Exide Recycling Center, Frisco TX Project	Project #: 60004831	es or ound L get Co H List	L-EDA
END-1805(D	SSOW#:	(SD (NO Composition (NO Compos	of co Other
Comple Identification	Sample Type Sample (C=comp,	Waster of the control	otal Number
	Preserva	X Z Z Z Z Z Z Z	X
2013-CUPT-10D (8-10)	01/10/14 1129 6	Solid	For
2013-UNIT-104 (0-05)	51 10 14 141 G	Solid	
2013- (WFT-1015 (0-0.5)	0 841 M/0/10	Solid	
2013-CUPT 10C (0-05)	01/10/14/11/22 0	Solid	13. → 15. (A.)
	G	Solid	
	G	Solid	2.2
	ര	Solid	
	G	Solid	3 2 3
	G	Solid	
	G	Solid	
	G	Solid	3.21
Possible Hazard Identification Non-Hazard Flammable Skin Initant Poison B Deliverable Requested: I II III V Other (specify)	n B Unknown Radiological	Sample Disposal (A fee may be assessed in the second secon	assessed if samples are retained longer than 1 month) Disposal By Lab Archive For Months ants:
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinguished DY JANZEN	0114 1530	Company Die Received by M. Com.	Date/Time: 15.30 Company R
			Date/fine: 11 11 Company
J	Date/ Ime:		Date/Time: 1 1 Company
Custody Seals Intact: Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	5;

Upton, Cathy

From: Upton, Cathy

Sent: Tuesday, March 04, 2014 3:13 PM

To: Upton, Cathy

Subject: FW: Additional Metals in Soil

Dean,

We would like to report all five metals for the samples listed below. Do you think we could get revised reports for these by Wednesday?

Location ID	Sample ID	lab sample id	Date Sampled	Antimony	Arsenic	Cadı
2013-SL-C15	2013-SL-C15 (0-6)	600-84633-7	2013-12-19	NA	NA	2.10
MW-42	MW-42 (0.5-2)	600-85318-20	2014-01-08	NA	13.9	1.82
MW-27B	MW-27B (0-2)	600-85318-24	2014-01-09	NA	NA	9.85
D-11A	D11A (0-0.5)	600-85318-30	2014-01-09	NA	27.2	1.77
2013-BSA-2A	2013-BSA-2A(0-2)	600-85318-36	2014-01-09	NA	34.9	16.5
ECO-2A	ECO-2A (0-0.5)	600-85389-18	2014-01-09	NA	NA	3.29
ECO-8A	ECO-8A (0-0.5)	600-85389-20	2014-01-09	NA	NA	5.65
2013-AD-3	2013-AD-03 (0-0.5)	600-85389-23	2014-01-09	NA	NA	1.51
SCC-5B	SCC-5B (0-0.5)	600-85389-29	2014-01-10	NA	NA	2.48
2013-CUFT-10B	2013-CUFT-10B (0-0.5)	600-85389-63	2014-01-10	NA	NA	2.19
SRB-VS-11A	SRB-VS-11A (0-0.5)	600-85473-15	2014-01-10	NA	NA	1.44
2013-FWFS-5A	2013-FWFS-5A (0-2)	600-85473-34	2014-01-13	NA	NA	0.52
2013-MW-17B	2013-MW-17B (0-0.5)	600-85473-38	2014-01-13	NA	NA	5.19
SCC-10B	SCC-10B (0-0.5)	600-85473-39	2014-01-13	NA	NA	1.85
2013-C2L-06	2013-C2L-06 (0-0.5)	600-85636-21	2014-01-14	NA	22.6	3.68
ECO-7D	ECO-7D (0-0.5)	600-85636-39	2014-01-14	NA	15.1	2.30

Thanks, Anne

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Anne Faeth-Boyd, R.G., P.E. | Senior Project Engineer | Golder Associates Inc. 820 South Main Street, Suite 100, St. Charles, Missouri, USA 63301
T: +1 (636) 724-9191 | F: +1 (636) 724-9323 | C: +1 314 503-5179 | E: Anne Faeth-Boyd@golder.com | www.golder.com

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Upton, Cathy

From: Higginbotham, Christina [Christina_Higginbotham@golder.com]

Sent: Tuesday, May 06, 2014 5:02 PM Upton, Cathy; Joiner, Dean To: Cc: Thomas, Jim; Faeth-Boyd, Anne Subject: Exide discrepancies - metals reporting

Follow Up Flag: Follow up Flag Status: Red Cathy and Dean.

The below revisions are being requested so the final laboratory reports are consistent with tabulated data that was already submitted.

It appears that some metals noted below were reported in an earlier package, and removed for the later data packages. We would like the specified data (see highlights) turned back "on"

Please let us know estimated time for these revisions, or if you have any questions regarding this request.

Thanks Christina

600-85636 REVISION

						Sb	As	Cd	Pb	Se		
ſ	2013-STB-4A	2013-STB-4A (2-4)	600-856	36-1	201	4-01-13	NA	NA	NA	1540	NA	REPORT CADMIUM (confirm Cd concentrat

600-85318

2012 201 22	2010 001 00 (0 0 0)	500 00010 00		1	40.0	0.084			
2013-C2L-03	2013-C2L-03-(0-0.5)	600-85318-33	2014-01-09	NA	12.2	0.651	79.5	< 0.330 U	REPORT ARSENIC AND SELENIUM
D-12A	D12A (0-0.5)	600-85318-31	2014-01-09	NA	10.9	0.652 b	80.2	< 0.324 U	REV 4 (3/18) reports Cd, Pb only. Report dat
									reported As, Cd, Pb, Se
									REPORT ARSENIC AND SELENIUM
MW-41	MW-41 (0.5-2)	600-85318-18	2014-01-08	NA	10.1	0.810	92.5	< 0.338 U	REV 4 (3/18) reports Cd, Pb only. Report da reported As, Cd, Pb, Se.
									reported vis, ea, vis, se.
									REPORT ARSENIC AND SELENIUM
MW-41	MW-41 (0-0.5)	600-85318-17	2014-01-08	NA	8.00	0.474	18.4	< 0.323 U	REV 4 (3/18) reports Cd, Pb only. Report da reported As, Cd, Pb, Se.
									REPORT ARSENIC AND SELENIUM
MW-42	DUP-6	600-85318-21	2014-01-08	NA	7.39	0.385	15.0	< 0.311 U	REV 4 (3/18) reports Cd, Pb only. Report da reported As, Cd, Pb, Se.
									REPORT ARSENIC AND SELENIUM
MW-42	MW-42 (0-0.5)	600-85318-19	2014-01-08	NA	14.2	1.56	230	0.580 J	REV 4 (3/18) reports Cd, Pb only. Report da
									reported As, Cd, Pb, Se.
									REPORT ARSENIC AND SELENIUM

									REPORT ARSENIC AND SELENIUM
00-85473 RE	VISIONS								
2013-NT-01	2013-NT-01 (0.2-2)	600-85473-21	2014-01-10	NA	14.4	0.618	18.5	0.546 J	Report from 1/22 has results for As and Se only lists Pb and Cd, 4/21 only lists Cd and REPORT ARSENIC AND SELENIUM, also pli interval to "0.5-2" instead of "0.2-2".
2013-NT-01	2013-NT-01 (0-0.5)	600-85473-20	2014-01-10	NA	15.9	0.571	19.5	< 0.328 U	Report from 1/22 reports As and Se. Rev 3 4/21 does not. REPORT ARSENIC AND SELENIUM
2013-NT-02	2013-NT-02 (0.5-2)	600-85473-24	2014-01-10	NA	14.1	0.354	21.2	0.324 J	Report from 1/22 reports As and Se. Rev 3 4/21 does not. REPORT ARSENIC AND SELENIUM
2013-NT-02	2013-NT-02 (0-0.5)	600-85473-23	2014-01-10	NA	14.9	4.89	837	0.654 J	Report from 1/22 reports As and Se. Rev 3 4/21 does not.

600-85389 REVISION	ı							
2013-WMU14-1A (5-7)	600-85389-12	1/9/2014	na	na	5.14 J	17000	na	REPORT CADMIUM (confirm Cd concentratio
 DUP-7	600-85389-14	1/9/2014	na	na	na	10500	na	REPORT CADMILIM (if 85389-12 is confirmed

Christina Higginbotham, P.G. | Remediation Project Manager | Golder Associates Inc.
500 Century Plaza Drive, Suite 190, Houston, Texas, USA 77073
T: +1 (281) 821-6868 | F: +1 (281) 821-6870 | C: +1 (281) 620-7835 | E: CHigginbotham@golder.com | www.golder.com

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Login Sample Receipt Checklist

Client: Golder Associates Inc. Job Number: 600-85389-1

Login Number: 85389 List Source: TestAmerica Houston

List Number: 1

Creator: Capps, Dana R

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0/1.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required

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Test America Work Orders: 600-85318-1, 600-85318-2, 600-85318-

3, 600-85318-4

Sample Dates: January 8 & 9, 2014 Project No.: 1302086

Laboratory: Test America (Houston TLAP Client: Exide Technologies Inc.

Certification T104704223)

Work Orders: Work Orders: 600-85318-1, 600-85318-2, 600-85318-3, 600-85318-4

Intended Use Affected Property Assessment Report (APAR) Addendum

Site: Exide Former Operating Plant (FOP), 7471 5th Street, Frisco, TX

TESTS/ METHODS

Volatile Organic Compounds (VOCs) by SW-846 8260B – Gas Chromatography (GC)/Mass Spectrometry (MS)

Low Level Semivolatile Organic Compounds by SW-846 8270C - GC/MS

Texas Total Petroleum Hydrocarbons (TPH) by TX1005 - GC

Polychlorinated Biphenyls (PCBs) by SW-846 8082 – Gas Chromatography (GC)

Total Metals by SW-846 6010B - Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP)

SAMPLES

28 soil samples (1 of which was subjected to the Synthetic Precipitation Leaching Procedure (SPLP)), 1 field duplicate, 2 equipment rinsate blanks, 1 field blank, 1 trip blank, and 1 field MS/MSD pair. See Table 1 for a complete cross-referenced listing of samples. Thirteen additional soil samples were collected but archived by the laboratory for possible future analysis.

Golder completed a review of the above chemical analysis data for conformance with the requirements of the Texas Risk Reduction Program (TRRP) guidance document, Review and Reporting of COC Concentration Data (RGG-366/TRRP-13 Revised May 2010) and for adherence to project objectives. The results of the review are discussed in this data usability summary (DUS).

Golder completed the review using the following laboratory and project submittals:

- Laboratory reportable data as defined in TRRP-13;
- Laboratory review checklists (LRC) with the associated exception reports;
- Laboratory Electronic Data Deliverable (EDD); and
- Project field notes from the sampling event.



The review of the reportable data included the quality control (QC) parameters listed below, as required per TRRP-13, using the applicable analytical method and project requirements:

- Data Completeness
- Chain-of-Custody Procedures
- Sample Condition Holding Time, Preservation, and Containers
- Field Procedures
- Results Reporting Procedures
- Laboratory and Field QC Blanks
- Laboratory Control Spike and Matrix Spike Recoveries
- Surrogate Recoveries
- Laboratory and Field Duplicate Precision

Additionally, Golder used the LRC to evaluate the following QC parameters:

- Method Quantitation Limits (MQLs)
- Method Detection Limits (MDLs)
- Instrument Tuning, Calibration, and Performance
- Internal Standards

Criteria used for this data usability review are as follows:

- Organics: 60-140% spike recovery (and not less than 10% or data is rejected) and +MQL difference or 40% RPD (for laboratory duplicates) as recommended in TRRP-13;
- Inorganics: 70-130% spike recovery (and not less than 30% or data is rejected) and +MQL difference or 30% RPD (for laboratory duplicates) as recommended in TRRP-13; and
- Soil Samples: + 3x MQL difference (if either result is less than 5x MQL) or 50% RPD (for field duplicates) as recommended in TRRP-13.

If an item was found outside of the review criteria, the reviewer applied a data qualifier (DQ) and bias code to the results for the affected samples in accordance with TRRP-13. A list of all qualified results and definitions of the qualifier and bias codes are given in Table 2.

GLOSSARY OF TERMS

The following definitions apply for terms related to analyte reporting limits:

<u>MDL</u> (Method Detection Limit) – the minimum concentration of an analyte that the laboratory can measure and report with 99% confidence that the analyte concentration is greater than zero. The MDL is





Test America Work Orders: 600-85318-1, 600-85318-2, 600-85318-

3, 600-85318-4

determined by the laboratory for each analyte in a given reagent matrix (water or soil) generally using the procedures specified in 40 CFR Part 136, Appendix B. It is a measure of the concentration an instrument can detect or 'see' in a given reagent matrix. TRRP-13 requires that the laboratory routinely check the MDL for reasonableness.

<u>SDL</u> (Sample Detection Limit) – the MDL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and taking into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can detect or 'see' in a given sample. For TRRP, non-detects are reported using the SDL. This term was originally called the SQL (Sample Quantitation Limit) before the TRRP rule revisions effective March 19, 2007.

<u>Unadjusted MQL (Method Quantitation Limit)</u> – the lowest non-zero concentration standard in the laboratory's initial calibration curve calculated using the normal aliquot sizes and final volumes prescribed in the analytical method. The unadjusted MQL is reported by the laboratory for each analyte in a given matrix (water or soil). It is a measure of the concentration an instrument can accurately measure in a typical sample. Per TRRP, the Unadjusted MQLs should be below the Levels of Required Performance (LORPs) for purposes of assessment as well as demonstration of conformance with critical Protective Concentration Levels (PCLs).

<u>MQL</u> – the unadjusted MQL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and takes into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can accurately measure in a given sample. Analytes with concentrations above the SDL but below the MQL, though present in the sample, may not be accurately measured and are thus flagged as estimated (J).

LABORATORY CERTIFICATION

At the time the laboratory data were generated for this project, the laboratory was NELAC accredited under the Texas Laboratory Accreditation Program (TLAP) for the matrices, methods and parameters of analysis requested on the chain-of-custody forms. A copy of the applicable pages of the laboratory's National Environmental Laboratory Accreditation Program (NELAP) certificate valid during the period in which the laboratory generated the data in this report is also included in Appendix C to the Supplement to the Affected Property Assessment Report.



Test America Work Orders: 600-85318-1, 600-85318-2, 600-85318-3, 600-85318-4

USABILITY SUMMARY

- Usability of Unqualified Non-Detects Non-detects are reported at the sample detection limit (SDL) as required per TRRP. Additionally, according to the LRC, an MDL study was performed for each analyte and the MDLs were checked for reasonableness for each applicable analyte. The levels of required performance (LORPs) have been established by Golder/PBW as the Residential Assessment Levels (RALs), which are the minimum of the TRRP residential Tier 1 Tot Soil Comb and Tier 1, 2 or 3 GW Soil Ing PCLs for a 30-acre source area for metals, or 0.5 acre source area for organics. As needed per TRRP, the Unadjusted MQL stated by the laboratory is at or below the LORP for each applicable analyte, and thus the analytical methods are appropriate and the results can be used to demonstrate conformance with the criteria. The MQLs for some SVOCs, although the low-level method was used, did not meet LORPs for the following: 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-Nitroaniline, 2-Nitrophenol, 3,3'-Dichlorobenzidine, 3-Nitroaniline, 4,6-Dinitro-2-methylphenol, 4-Chloroaniline, 4-Nitroaniline, 4-Nitrophenol, Benzidine. Chlorophenyl-phenylether, Bis(2chloroethoxy)methane, Bis(2-chloroethyl) Ether, Bis(2-chloroisopropyl) Ether, N-Nitrosodimethylamine, N-Nitroso-di-n-propylamine, and Pentachlorophenol.
- 2. Usability of Qualified Data There are no major QC deficiencies, and thus all data is usable as qualified for the intended use. As shown in Table 2, the reviewer qualified some detects as estimated (J) due to minor QC deficiencies. Detects that are biased high can be used; however, the reported concentration may be high. Detects that are estimated may be either low or high. Results with a laboratory J-flag (i.e., at a concentration between the SDL and MQL) should be considered estimates. The actual value is not expected to exceed the sample MQL.

Reviewer: Jing Song Xi 8/25/15

QUALITY CONTROL PARAMETERS AND OUTCOMES

Data Completeness

The laboratory data packages contain all necessary data (i.e., the laboratory reportable data per TRRP-13) and the EDD contain all sample results in acceptable format. Minor revisions have been made for work orders 600-85318-1 and 600-85318-2. All revisions are detailed in the laboratory narratives.

Chain-of-Custody

Proper sample custody procedures were used, which confirms that the integrity of the samples was maintained. Additionally, the information on the custody records is complete and agrees with that in the field notes and laboratory reports, except as follows:

Minor instances of container labels not matching information listed on the COC, or samples being listed on the COC but not received by the laboratory. These inconsistencies have been addressed by the laboratory and do not affect sample results.





Test America Work Orders: 600-85318-1, 600-85318-2, 600-85318-

3, 600-85318-4

Sample Condition

Samples were collected in appropriate containers, properly preserved in the field, and prepared and analyzed within the holding times as required in the analytical methods, which ensures that the samples were not affected by analyte degradation:

■ For 600-85318, the temperatures of the coolers at receipt were 3.0°C and 3.9°C.

Field Procedures

The samples were collected and placed immediately into sterilized jars provided by the laboratory and then into a cooler with ice for overnight delivery to the laboratory.

1 field duplicate, 2 equipment rinsate blanks, 1 field blank, 1 trip blank, and 1 field MS/MSD pair were collected with the 28 investigative samples.

Results Reporting Procedures

The hardcopy analytical results include a Result, MQL (adjusted), and SDL. The EDD includes the MDL, SDL (under the SQL column per previously used terminology) and the MQL, which is not adjusted for sample specific factors.

Results are reported in mg/kg with dry-weight correction for the metals. Non-detects are reported using the SDL as specified per TRRP and detects between the SDL and MQL are reported with a laboratory J-flag. The concentration reported for detects between the SDL and MQL is below the calibration range and thus is considered estimated.

MQLs- The LORPs have been established by Golder/PBW as the Residential Assessment Levels (RALs), which are the minimum of the TRRP residential Tier 1 Tier 1 Tot Soil Comb and Tier 1, 2 or 3 GW Soil Ing PCLs for a 30-acre source area for metals or 0.5 acre source area for organics. The Unadjusted MQLs for the laboratory are at or below the LORPs for each applicable analyte, except for some SVOCs as previously stated.

MDLs- According to the LRC, an MDL study was performed for each analyte, and the MDLs were checked for reasonableness and either adjusted or supported by the analysis of detectability check standards (DCS) for each applicable analyte as required per TRRP-13. Results for the DCS are included in the data packages.

Laboratory Blanks – Results for samples prepared in the same QC batch as a contaminated method blank may be affected by laboratory contamination. Laboratory blanks did not exhibit analytes above the MDL, except as follows:





Data Usability Summary Test America Work Orde

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- Batch 124919 contained cadmium above the MDL. Cadmium concentrations in associated preparation batch samples -16 -30, -31 were greater than 5x the MB concentration; therefore no qualification was required.
- Batch 125242 contained toluene above the MDL. The toluene concentration in the preparation batch sample -08 was detected at <5x MB concentration and is qualified as undetected in Table 2.
- Batch 125220 contained butyl benzyl phthalate, diethyl phthalate, and di-n-butyl phthalate above the MDL. Diethyl phthalate, and di-n-butyl phthalate concentrations in the preparation batch samples -03 and -07 that were detected at <10x MB concentration are qualified as undetected in Table 2.
- Batch 124797 contained arsenic above the MDL. Arsenic was not detected in the associated preparation batch samples.

Field QC Blanks

Two equipment rinsate blanks were collected to document sufficient field decontamination procedures for soil sampling devices. Results for samples collected with a contaminated rinsate blank may be affected by field contamination. One field blank was collected to document if contamination is present in the surrounding air at time of sampling. A field blank with detected analytes may indicate the presence of contamination in the surrounding air not representative of the sample collected. No analytes were detected in the field QC blanks, except for the following:

Lab Package	Field Sample ID	Sample Date	Analyte	Blank Concentration
600-85318-23	Rinse Blank CME	1-9-2014	Cadmium	0.0006 J mg/L
600 05272 40	Dinas Blank ass	1-9-2014	Acetone	0.0149 mg/L
600-85272-40	Rinse Blank aeo	1-9-2014	Toluene	0.00227 J mg/L

Results for samples collected with a contaminated rinsate blank may be affected by field contamination. These samples were prepared in batches separate from the analysis of solids. Samples 600-85318-24, -25, -26, and -27 exhibited detections of some combination of the analytes mentioned above, however, a direct correlation cannot be made. Results for the above mentioned analytes are qualified as J in Table 2. No VOCs were detected in the trip blank.

Laboratory Control Sample

The laboratory prepared one laboratory control sample (LCS) for each analytical batch and reported recoveries for all of the analytes for each test. The LCS recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on a sample, free of matrix effects, except for the following:

■ Benzidine was recovered outside the TRRP specifications for preparation batch 125220. All associated samples in the preparation batch are qualified as UJ in Table 2.



Matrix Spike Recovery

The laboratory prepared one or more matrix spike (MS) and matrix spike duplicate (MSD) with each analytical batch plus a Post Digestion Spike (PDS) with each metals analytical batch. MS/MSD recoveries are reported for the same analytes as the LCS for MS/MSD prepared using a sample from the site, which includes 1 MS/MSD, as shown in Table 1.

PDS outcomes are given on the LRC for each job package; however PDS data are not reportable data per TRRP-13. According to the LRC, the PDS met method requirements, which indicates good accuracy for the analysis technique on the given sample matrix.

The MS/MSD recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on a sample free of matrix effects, except as follows:

QC Batch	Lab Sample ID	MS/MSD ID	Analyte	Parent Amount (mg/kg)	Spike Amount for MS/MSD (mg/kg)	MS % Recovery	MSD % Recovery	Qual
124836	600-85318- 14	MW-27D (0.5-2)	Antimony	2.05	63.9, 62.6	39	41	JL
124836	600-85318- 14	MW-27D (0.5-2)	Lead	315	63.9, 62.6	377	146	-
124836	600-85318- 20	MW-42 (0.5- 2)	Antimony	0.287	63.6, 61.9	26	24	JL
124836	600-85318- 20	MW-42 (0.5- 2)	Lead	241	63.6, 61.9	-253	-268	-
125018	600-85318- 36	2013-BSA- 2A (0-2)	Antimony	17.1	61.4, 60.2	24	18	JL
125018	600-85318- 36	2013-BSA- 2A (0-2)	Arsenic	34.9	61.4, 60.2	52	49	JL
125018	600-85318- 36	2013-BSA- 2A (0-2)	Lead	2880	61.4, 60.2	-1628	-2420	-

NA – Not available. The PDS for this batch was performed using another sample

In all cases where the spike amount is less than four times the result in the unspiked parent sample such as with lead, the data are considered inconclusive and the MS/MSD recovery check is waived.

Surrogate Recovery

Surrogate recoveries were within acceptable limits, except for the following:

- For Method 8270C, Sample 600-85318-3 recovered low for Phenol-d5. The laboratory's standard operating practice allows 1 base and 1 acid of the six surrogates used to be outside acceptance criteria without performing re-extraction/re-analysis according to the laboratory. Since only one compound was outside of control limits, qualification was not required per TRRP-13.
- For Method 8270C, samples 600-85318-1, 600-85318-8, 600-85318-24 required a dilution due to the nature of the sample matrix, therefore the surrogate spike concentration was reduced to a level where the recovery calculation does not provide



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useful information. Qualification was not performed due to the dilution of the surrogates out of the matrix.

■ For Method TX1005, Sample 600-85318-8 recovered high for o-Terphenyl. Evidence of matrix interference is present, therefore, re-extraction/re-analysis was not performed according to the laboratory. Since this is the only surrogate spike compound for this Method, this sample has been qualified accordingly as JH.

Laboratory Duplicate Precision

The laboratory prepared one or more Matrix Spike Duplicate (MSD) with each analytical batch for each test. Additionally, the laboratory prepared one Matrix Duplicate (MD) with each metals batch. RPDs are reported for the same analytes as the LCS for MSD/MD prepared using a sample from the site, which includes 1 MSD (and MD for Total Metals). Non-homogenous samples can impact the apparent method precision.

The MSD and MD RPDs are within the TRRP recommended criteria, which indicates good precision for the preparation and analysis technique for the given sample matrix, except as follows:

QC Batch	Lab Sample ID	MS/MSD ID	Analyte	Parent Amount (mg/kg)	MSD RPD	MD RPD	Qual
125018	600-85318-36	2013-BSA-2A (0-2)	Arsenic	34.9	4	82	J
125018	600-85318-36	2013-BSA-2A (0-2)	Selenium	1.07 J	1	35	J
124836	600-85318-20	MW-42 (0.5-2)	Cadmium	1.82	2	118	J
124836	600-85318-20	MW-42 (0.5-2)	Lead	241	7	166	J

Field Duplicate Precision

One field duplicate was collected with the samples and analyzed for arsenic, cadmium, lead and selenium. Results are summarized in Table 3. The RPDs (or the absolute difference between results for concentrations <5x MQL and for non-detects) are within the TRRP criteria, which indicates good precision for the sampling, preparation, and analysis technique on the given sample matrix, except as follows:

■ The results for Total arsenic, cadmium, and lead are outside the criteria for the pair collected at MW-42 (0.5-2). These results have been qualified as J accordingly in Table 2.

Instrument Tuning

According to the LRC, instrument tuning met method requirements for the samples, which indicates the GC/MS instrument was properly set up to identify analytes.





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Instrument Calibration

According to the LRC, initial and continuing calibration data met method requirements for all reported results, which indicates the instruments were properly calibrated to measure analyte concentrations, except for the following:

■ For Method 8270C, the continuing calibration verification (CCV) associated with batch 125471 recovered above the upper control limit for benzyl alcohol. The samples associated with this CCV were non-detect for the affected analyte and qualified as UJ in Table 2.

Instrument Performance

According to the LRC, the serial dilution and ICP interference check samples met method requirements, which indicates that no significant matrix interference exists, except as follows:

The interference check standard solution associated with batch 125051 showed results for arsenic, cadmium, and lead at a level greater than 2 times the LOD. Since this analyte was not detected in the field sample associated with the batch, no qualification was required.

Internal Standards

According to the LRC, area counts and retention times were within method requirements, except for the following:

■ For Method 8270C, various internal standards responses were outside of acceptance limits. Affected samples were reanalyzed (including dilutions) but sample matrix appeared to impact responses. Chrysene response was outside of the method required acceptance limit for MW-27A (0-2). Phenanthrene response was outside of the method required acceptance limit for 2013-MB-5 (10-12). These analytes have been qualified as JH accordingly on Table 2.



TABLE 1
CROSS REFERENCE OF FIELD SAMPLE IDENTIFICATIONS AND LABORATORY IDENTIFICATIONS

		AMPLE IDENTIFICATION Prep Batch/ Analysis			
Lab Sample ID	Field Sample ID	Batch	Sample Date	Matrix	Comments
		/105010			
600-85318-1	2013-FFTA-01 (0.25-2)	/125013 124920/125003	1/8/2014	Soil	
600-85318-2	2013-FFTA-02 (2-4)	121720/120000	1/8/2014 Soil		Not reported
	, ,	/125071			
		125220/125471	1/8/2014	Soil	
600-85318-3	2013-FFTA-03 (18-19)	124920/125003			
600-85318-4	2012 MD 2 (0 75 1 25)	/125071	1/8/2014	Soil	
600-85318-5	2013-MB-3 (0.75-1.25) 2013-MB-3 (1.25-2)	124836/124882 127810/127873	1/8/2014	Soil	
600-85318-6	2013-MB-3 (1:23-2)	127010/127073	1/8/2014	Soil	Not reported
		/125071	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
		125220/125471			
		124920/125003	1/8/2014	Soil	
		124836/124882			
600-85318-7	2013-MB-5 (0.5-5)	128791/128837			
		/125242 124920/125003	1/8/2014	Soil	
600-85318-8	2013-MB-5 (10-12)	124920/125003	1/8/2014	3011	
600-85318-9	2013-MB-5 (10-12)	127709/127767	1/8/2014	Soil	
600-85318-10	2013-MB-5 (18-20)		1/8/2014	Soil	Not reported
	, ,	/125071	1/0/2014	Call	•
600-85318-11	2013-MB-4 (0.83-1.33)	124836/124882	1/8/2014	Soil	
600-85318-12	2013-MB-4 (1.33-2)		1/8/2014	Soil	Not reported
600-85318-13	2013-MB-4 (2-4)	/	1/8/2014	Soil	Not reported
		/125071			
		125220/125471 124920/125003	1/8/2014	Soil	
600-85318-14	MW-27D (0.5-2)	124836/124882			
600-85318-15	MW-27D (0:3 2)	127709/127767	1/8/2014	Soil	
	· · · /	/125071			
		124982/125404	1/0/2014	Soil	
		124920/125003	1/8/2014	Soil	
600-85318-16	MW-27C (0-2)	124919/125010			
600-85318-17	MW-41 (0-0.5)	124836/124882	1/8/2014	Soil	
600-85318-18	MW-41 (0.5-2)	124836/124882	1/8/2014	Soil	
600-85318-19 600-85318-20	MW-42 (0-0.5) MW-42 (0.5-2)	124836/124882 124836/124882	1/8/2014 1/8/2014	Soil Soil	site-specific MS/MSD
600-85318-21	DUP-6	124836/124882	1/8/2014	Soil	Duplicate of MW-42 (0.5-2)
600-85318-22	Field Blank	/124815	1/8/2014	Water	Field Blank
600-85318-23	Rinse Blank - CME	124797/125051	1/9/2014	Water	Rinsate Blank
		/125071			
		124920/125003	1/9/2014	Soil	
600-85318-24	MW-27B (0-2)	124836/124882	1/0/0014	0 "	
600-85318-25	MW-27B (2-4)	127709/127767 /125071	1/9/2014	Soil	
		124920/125003	1/9/2014	Soil	
600-85318-26	MW-27A (0-2)	124836/124882	1/ // 2014	3011	
600-85318-27	MW-27A (2-4)	127810/127873	1/9/2014	Soil	
		124838/125030	1/9/2014	Soil	
600-85318-28	2013-NDA-1A (2-4)	127709/127767	1/9/2014	3011	
600-85318-29	E-11C (0-0.5)	124836/124882	1/9/2014	Soil	
600-85318-30	D-11A (0-0.5)	124919/125010	1/9/2014	Soil	
600-85318-31 600-85318-32	D-12A (0-0.5)	124919/125010 124836/124882	1/9/2014	Soil	
600-85318-32	D-13A (0-0.5) 2013-C2L-03 (0-0.5)	124836/124882	1/9/2014 1/9/2014	Soil Soil	
600-85318-34	2013-C2L-03 (0-0.5)	127030/124002	1/9/2014	Soil	Not reported
600-85318-35	2013-C2L-03 (4-5)		1/9/2014	Soil	Not reported
600-85318-36	2013-BSA-2A (0-2)	125018/125110	1/9/2014	Soil	
600-85318-37	2013-AD-04 (0-0.5)	124836/124882	1/9/2014	Soil	
600-85318-38	2013-AD-04 (0.5-2)		1/9/2014	Soil	Not reported
600-85318-39	2013-AD-04 (2-4)	40:5:5	1/9/2014	Soil	Not reported
		/124815			
		124914/125073 124950/124998	1/9/2014	Water	Rinsate Blank
600-85318-40	Rinse Blank - Geo	124797/125051			
600-85318-41	Trip Blank	/124815	1/9/2014	Water	Trip Blank
	,	2.5.5			p biain

TABLE 2 - QUALIFIED DATA

Lab Sample ID	Field Sample ID	Analyte	Result	Units	Qualifer	Explanation
600-85318-1	2013-FFTA-01 (0.25-2)	Benzidine	<0.458 U	mg/kg	UJ	Analyte recovered outside TRRP specifications for preparation batch
		Benzyl Alcohol	<0.0125 U	mg/kg	UJ	CCV recovered above upper control limit
600-85318-3	2013-FFTA-03 (18-19)	Diethyl Phthalate	0.262	mg/kg	<0.9509 U	Analyte detected at less than 10x method blank concentration
000-05510-5	2013-11 1A-03 (16-14)	Di-n Butyl Phthalate	0.0914 J	mg/kg	<0.254 U	Analyte detected at less than 10x method blank concentration
		Benzidine	<0.0193 U	mg/kg	UJ	Analyte recovered outside TRRP specifications for preparation batch
		Benzyl Alcohol	<0.0151 U	mg/kg	UJ	CCV recovered above upper control limit
600-85318-7	2013-MB-5 (0.5-5)	Diethyl Phthalate	0.263	mg/kg	<0.9509 U	Analyte detected at less than 10x method blank concentration
000-03310-7	2013-1016-3 (0.5-5)	Di-n Butyl Phthalate	0.0770 J	mg/kg	<0.254 U	Analyte detected at less than 10x method blank concentration
		Benzidine	<0.0234 U	mg/kg	UJ	Analyte recovered outside TRRP specifications for preparation batch
		Toluene	0.00313 J	mg/kg	<0.01169 U	Analyte detected at less than 5x method blank concentration
		Benzidine	<2.41 U	mg/kg	UJ	Analyte recovered outside TRRP specifications for preparation batch
		TPH	Various	mg/kg	JH	o-Terphenyl recovered outside TRRP specifications
600-85318-8	2013-MB-5 (10-12)	Phenanthrene	5.36	mg/kg	JH	ISTD recovered above TRRP specifications
		Antimony	<0.287 U	mg/kg	UJL	MS % recovery below TRRP specifications
		Arsenic	13.9	mg/kg	J	Field duplicate RPD above specifications
		Cadmium	1.82	mg/kg	J	Matrix and field duplicate RPD above specifications
600-85318-20	MW-42 (0.5-2)	Lead	241	mg/kg	J	Matrix and field duplicate RPD above specifications
		Antimony	6.99	mg/kg	JL	MS % recovery below TRRP specifications
600-85318-24	MW-27B (0-2)	Cadmium	9.85	mg/kg	J	Analyte detected in field QC blank
600-85318-25	MW-27B (2-4)	Cadmium	0.48	mg/kg	J	Analyte detected in field QC blank
		Cadmium	12	mg/kg	J	Analyte detected in field QC blank
600-85318-26	MW-27A (0-2)	Chrysene	0.0361 J	mg/kg	JH	ISTD recovered above TRRP specifications
600-85318-27	MW-27A (2-4)	Cadmium	0.547	mg/kg	J	Analyte detected in field QC blank
		Antimony	17.1	mg/kg	JL	MS % recovery below TRRP specifications
		Arsenic	34.9	mg/kg	J	Matrix duplicate RPD above specifications
600-85318-36	2013-BSA-2A (0-2)	Selenium	1.07	mg/kg	J	Matrix duplicate RPD above specifications

Note:

Detected results between the SDL and MQL (i.e., results with a laboratory J-flag) have been included in the above table since the reported concentration is below the calibration range.

J Estimated data; The analyte was detected and identified. The associated numerical value (i.e., the reported sample concentration) is the approximate concentration of the analyte in the sample.

NJ Tentatively identified, estimated data; The analysis indicates the presence of the analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.

NS Not selected; Another result (from a secondary dilution, different analytical method, re-sampling, etc.) is selected for use based on QC outcomes and/or reported concentrations.

R Rejected data; The data is unusable. Serious QC deficiencies make it impossible to verify the absence or presence of this analyte.

U Not detected; The analyte was not detected >5x (10x for common contaminants) the level in an associated blank and thus should be considered not detected above the level of the associated numerical value (i.e., the reported sample concentration).

UJ Estimated data; The analyte was not detected above the reported sample detection limit (SDL). The numerical value of the SDL is estimated and may be inaccurate.

H Bias in sample result is likely to be high

L Bias in sample result is likely to be low

TABLE 3 - FIELD DUPLICATE PRECISION CALCULATIONS

Duplicate and Parent Sample Field Identification	Analyte	Sample Result	Duplicate Result	RPD ^a	Accept or Reject	Qualifier Added
DUP-6 / MW-42 (0.5-2)	arsenic	13.9	7.39	61.2	Α	J
	cadmium	1.82	0.385	130.2	А	J
	lead	241	15	176.6	А	J
	selenium	0.502 J	0.311 U	-	Α	-

A - Acceptable Data

NA - Not Analyzed

The RPD test (<50%) applies if both results are greater than 5x MQL. Otherwise, the absolute difference test (< 3x MQL) applies.

 $^{^{}a}$ RPD = ((SR - DR)*200)/(SR + DR)

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-85318-1

Client Project/Site: Exide Recycling Center

Revision: 6

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 6/8/2015 7:34:47 PM

Cathy Upton, Project Manager I (713)690-4444

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-85318-1 and consists of:

- ☑ R1 Field chain-of-custody documentation;
- ☑ R2 Sample identification cross-reference;
- ☑ R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- ☑ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☑ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☑ R10 Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton 5/9/2014
Name (printed) Signature Date

Project Management Asst II

Official Title (printed)

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LLO

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	5/9/2014
Project Name:	Exide Recycling Center	Laboratory Job Number:	600-85318-1
Reviewer Name:	Cathy Unton		

# ¹ A ²	Description	Yes	No	NA ³	NR⁴	ER
	in-of-custody (C-O-C)					
	samples meet the laboratory's standard conditions of sample acceptability upon receipt?		Χ			R01A
	e all departures from standard conditions described in an exception report?	Х				
	ple and quality control (QC) identification					
	all field sample ID numbers cross-referenced to the laboratory ID numbers?	Χ				
	all laboratory ID numbers cross-referenced to the corresponding QC data?	Χ				
R3 OI Test	reports					
	e all samples prepared and analyzed within holding times?	Χ				
Othe	er than those results < MQL, were all other raw values bracketed by calibration standards?	Χ				
	e calculations checked by a peer or supervisor?	Χ				
	e all analyte identifications checked by a peer or supervisor?	Χ				
Were	e sample detection limits reported for all analytes not detected?	Χ				
Were	e all results for soil and sediment samples reported on a dry weight basis?	Χ				
	e % moisture (or solids) reported for all soil and sediment samples?	Χ				
Were	e bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Χ		
	quired for the project, are TICs reported?			Χ		
4 O Surro	ogate recovery data					
	e surrogates added prior to extraction?	Х				
Were	e surrogate percent recoveries in all samples within the laboratory QC limits?		Х			R04E
5 OI Test	reports/summary forms for blank samples					
Were	e appropriate type(s) of blanks analyzed?	Χ				
Were	e blanks analyzed at the appropriate frequency?	Х				
Were	e method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup					
	edures?	Χ				
Were	e blank concentrations < MQL?	Χ				R05E
6 OI Labo	oratory control samples (LCS):					
	e all COCs included in the LCS?		Х			R06/
Was	each LCS taken through the entire analytical procedure, including prep and cleanup steps?	Х				
	e LCSs analyzed at the required frequency?	Х				
	e LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	Х				
	s the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used					
	alculate the SDLs?	Х				
	the LCSD RPD within QC limits?			Х		
	rix spike (MS) and matrix spike duplicate (MSD) data					
	e the project/method specified analytes included in the MS and MSD?		Х			R07/
	e MS/MSD analyzed at the appropriate frequency?	Х				11077
	e MS (and MSD, if applicable) %Rs within the laboratory QC limits?	- ^`	Χ			R070
	e MS/MSD RPDs within laboratory QC limits?		Х			R07E
	lytical duplicate data	†	Ĥ			
	e appropriate analytical duplicates analyzed for each matrix?	Х	 			
	e analytical duplicates analyzed at the appropriate frequency?	X	 			
	e RPDs or relative standard deviations within the laboratory QC limits?	- ^ -	Χ			R080
	hod quantitation limits (MQLs):	†	Ĥ			
	the MQLs for each method analyte included in the laboratory data package?	Х	 			
	he MQLs correspond to the concentration of the lowest non-zero calibration standard?	X	1			
	unadjusted MQLs and DCSs included in the laboratory data package?	X	 			
	er problems/anomalies	_^				
	all known problems/anomalies/special conditions noted in this LRC and ER?	Х	-			
		<u> </u>	-			
	applicable and available technology used to lower the SDL to minimize the matrix interference effects on the		V			D405
	ple results?		Χ		-	R10E
	e laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and					
	nods associated with this laboratory data package? s identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required repr	X	<u> </u>			Щ.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	5/9/2014
Project Name:	Exide Recycling Center	Laboratory Job Number:	600-85318-1
Reviewer Name:	Cathy Linton		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER#
1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	Х				
		Were percent RSDs or correlation coefficient criteria met?	Х				
		Was the number of standards recommended in the method used for all analytes?	Х				
		Were all points generated between the lowest and highest standard used to calculate the curve?	Х				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
	1	The the final edibration curve been verified dening an appropriate decents beared standard.					
2	\circ	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
_		Was the CCV analyzed at the method-required frequency?	Х				
		Were percent differences for each analyte within the method-required QC limits?		Х			S02B
		Was the ICAL curve verified for each analyte?	Х	^			302D
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
-			^				
3	U	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
	10	Were ion abundance data within the method-required QC limits?	Х				
34		Internal standards (IS)		ļ.,	-		
		Were IS area counts and retention times within the method-required QC limits?		Х			S04A
55	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
		Were data associated with manual integrations flagged on the raw data?	Х				
66		Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	Х				
3 7	0	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Χ		
S 8	I	Interference Check Sample (ICS) results					
	-	Were percent recoveries within method QC limits?		Χ			S08A
3 9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	Х				
310	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	Х				
		Is the MDL either adjusted or supported by the analysis of DCSs?	Х				
311	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	Х				
312	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х				
313	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	Х				
314	ΟI	Demonstration of analyst competency (DOC)	,,				
	٠.	Was DOC conducted consistent with NELAC Chapter 5?	Х				
		Is documentation of the analyst's competency up-to-date and on file?	X	-	-		
315	ΟI	Verification/validation documentation for methods (NELAC Chapter 5)	^	1	1		
, 13	J.	Tormounding tangation documentation for methods (ALEAO offapter 3)					
		Are all the methods used to generate the data decumented werified, and validated where applicable?	Х				
146	O.	Are all the methods used to generate the data documented, verified, and validated, where applicable?	^				
010	UI	Laboratory standard operating procedures (SOPs)	- V	-	-	\vdash	
	1	Are laboratory SOPs current and on file for each method performed?	X	tor: -	<u> </u>		
	1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required		tems			
	_	identified by the letter "S" should be retained and made available upon request for the appropriate retention period	J.				
		O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);					
		NA = Not applicable;					
	4.	NR = Not reviewed;					
	_						

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	5/9/2014
Project Name:	Exide Recycling Center	Laboratory Job Number:	600-85318-1
Reviewer Name:	Cathy Upton		

ER # ¹	Description
	· ·
	The following sample(s) was listed on the Chain of Custody (COC); however, no sample(s) was received: . MW-27C(0-2) AND 2013-BSA-2A-(0-2) WERE NOT RECEIVED.
	The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): EXTRA SAMPLES:
R01A	2013-AD-03-(0-0.5): 1-4oz jar
KOTA	2013-AD-03-(0.5-2): 1-4oz jar 2013-AD-03-(2-4): 1-4oz jar
	JX: 2- 4oz jars
	2- 2oz jars
	Method 8270C LL: Six surrogates are used for this analysis. The laboratory's SOP allows 1 base and 1 acid of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. Samples 600-85318-3 was biased low for Phenol-d5. These results have been reported and qualified.
R04B	Method 8270C LL: Surrogate recovery for the following sample(s) was outside control limits: 600-85318-26, 600-85318-26 MSD. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.
KU4b	Method 8270C LL: The following sample(s) required a dilution due to the nature of the sample matrix: 600-85318-1, 600-85318-8, and 600-85318-24. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
	Method TX 1005: Surrogate recovery for the following sample(s) was outside control limits: 600-85318-8. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.
	Method 6010B: The method blank for batch 124797 contained Arsenic above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.
	Method 6010B: The method blank for batch 124919 contained Cadmium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.
R05D	Method 8260B: The method blank for batch 600-125242 contained toluene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.
	Method 8270C: The method blank for batch 125220 contained Butyl benzyl phthalate, Diethyl phthalate and Di-n-butyl phthalate above the method detection limit. Phthalates are recognized potential laboratory contaminants. These target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.
R06A/ R07A	Method 8082: Since Aroclors are multi-component analytes, it is not possible to include all seven Aroclors of interest into the spiking mix. The only two Aroclors that were spiked were Aroclors 1016 and 1260. Since these two Aroclors essentially contain all analytes found in the other five individual
	Aroclors of interest, the recovery of Aroclors 1016 and 1260 in the LCS will be representative of the recovery of the other five Aroclors.
	Method 6010B: 600-85318-36 MS and MSD failed the recovery criteria for the following analyte(s): Antimony, Arsenic, Cadmium, Lead. Matrix interference is suspected due to the high concentration of lead in the parent sample.
	Method 6010B: 600-85318-14 MS failed the recovery criteria for the following analyte(s): Antimony, Lead. Matrix interference is suspected.
R07C	Method 6010B: 600-85318-14 MSD failed the recovery criteria for the following analyte(s): Antimony, Cadmium, Lead. Matrix interference is suspected.
	Method 6010B: 600-85318-20 MS/MSD failed the recovery criteria for the following analyte(s): Lead. Matrix interference is suspected.
	Method 6010B: 600-85318-20 MSD failed the recovery criteria for the following analyte(s): Arsenic. Matrix interference is suspected.
	Method 8270C LL: The matrix spike (MS) and matrix spike duplicate (MSD) recoveries associated with batch 125453 were biased high for Benzi[g,h,i]perylene and the MSD was also biased high for Pyrene. Matrix interference is suspected.
	Davis 0 of 05

R07D	Method 6010B: 600-85318-14 MSD failed the RPD criteria for the following analyte(s): Lead. Non homogeneity of the sample is suspected. Method 6010B: 600-85318-36 MSD failed the RPD criteria for Lead due to the high concentration of this analyte in the parent sample. Method 8082: 600-85318-A-36-C MSD failed the RPD criteria for the following analyte(s): PCB-1260. Non homogeneity of the sample is suspected.
R08C	Method 6010B: 600-85318-14 DU failed the RPD criteria for the following analyte(s): Antimony. Non homogeneity of the sample is suspected. Method 6010B: 600-85318-36 DU failed the RPD criteria for the following analyte(s): Antimony, Arsenic, Selenium. Non homogeneity of the sample is suspected. Method 6010B: 600-85318-20 DU failed the RPD criteria for the following analyte(s): Cadmium and Lead. Non homogeneity of the sample is
R10B	suspected. Method 8270C LL: The following sample(s) was diluted due to the nature of the sample matrix: 600-85318-1, 600-85318-8, and 600-85318-24. Elevated reporting limits (RLs) are provided.
S02B	Method 8270C LL: The continuing calibration verification (CCV) associated with batch 125471 recovered above the upper control limit for Benzyl alcohol. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.
S04A	Method 8270C LL: Various Internal standards (ISTD) responses were outside of acceptance limits. Effected samples were re-analyzed (including dilutions) but matrix still seems to impact ISTD responses.
S08A	Method 6010B: The interference check standard solution (ICSA) associated with batch 125051 showed results for arsenic, cadmium and lead at a level greater than 2 times the limit of detection (LOD). Since the interfering analytes were not detected in the client samples, no corrective action was required.
1. 2. 3. 4. 5.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Case Narrative

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Job ID: 600-85318-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-85318-1

Comments

Report was revised to be in TRRP UDS format on 02/19/14, replacing the final report generated on 01/28/14. The report was revised again on 03/05/14 to add total metals to samples 20, 24, 30 and 36. This final report replaces the one generated on 02/19/14. The report was revised on 03/14/14 to update the TRRP checklist, replacing the final report generated on 03/05/14. The report was revised again on 03/18/14 to update the TRRP checklist for missing ms/msd information, replacing the final report generated on 03/14/14. The report was revised again on 05/09/14 to report As and Se in addition to other metals for samples 17, 18, 19, 21, 31 and 33 per client request. This replaces the final report generated on 03/18/14. See attached email. The report was revised on 06/08/15 to include Arsenic in sample 32, replacing the final report generated on 05/09/14.

Soil samples were received in bulk jars.

Receipt

The samples were received on 1/10/2014 10:31 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.0° C and 3.9° C.

Except:

The following sample(s) was listed on the Chain of Custody (COC); however, no sample(s) was received: . MW-27C(0-2) AND 2013-BSA-2A-(0-2) WERE NOT RECEIVED.

The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC):

EXTRA SAMPLES:

2013-AD-03-(0-0.5): 1-4oz jar 2013-AD-03-(0.5-2): 1-4oz jar 2013-AD-03-(2-4): 1-4oz jar

JX:

2-4oz jars

2- 2oz jars

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Method Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TCEQ = Texas Commission of Environmental Quality

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-85318-1	2013-FFTA-01 (0.25-2)	Solid	01/08/14 10:20	01/10/14 10:31
600-85318-3	2013-FFTA-03 (18-19)	Solid	01/08/14 10:45	01/10/14 10:31
600-85318-4	2013-MB-3 (0.75-1.25)	Solid	01/08/14 12:18	01/10/14 10:31
600-85318-7	2013-MB-5 (0.5-5)	Solid	01/08/14 13:20	01/10/14 10:31
600-85318-8	2013-MB-5 (10-12)	Solid	01/08/14 13:35	01/10/14 10:31
600-85318-11	2013-MB-4 (0.83-1.33)	Solid	01/08/14 15:15	01/10/14 10:31
600-85318-14	MW-27D (0.5-2)	Solid	01/08/14 15:45	01/10/14 10:31
600-85318-16	MW-27C (0-2)	Solid	01/08/14 16:20	01/10/14 10:31
600-85318-17	MW-41 (0-0.5)	Solid	01/08/14 13:40	01/10/14 10:31
600-85318-18	MW-41 (0.5-2)	Solid	01/08/14 13:45	01/10/14 10:31
600-85318-19	MW-42 (0-0.5)	Solid	01/08/14 15:40	01/10/14 10:31
600-85318-20	MW-42 (0.5-2)	Solid	01/08/14 15:45	01/10/14 10:31
600-85318-21	DUP-6	Solid	01/08/14 00:00	01/10/14 10:31
600-85318-22	FIELD BLANK	Water	01/08/14 17:19	01/10/14 10:31
600-85318-23	RINSE BLANK-CME	Water	01/09/14 08:50	01/10/14 10:31
600-85318-24	MW-27B (0-2)	Solid	01/09/14 08:55	01/10/14 10:31
600-85318-26	MW-27A (0-2)	Solid	01/09/14 09:25	01/10/14 10:31
600-85318-28	2013-NDA-1A(2-4)	Solid	01/09/14 10:15	01/10/14 10:31
600-85318-30	D11A (0-0.5)	Solid	01/09/14 10:35	01/10/14 10:31
600-85318-31	D12A (0-0.5)	Solid	01/09/14 10:50	01/10/14 10:31
600-85318-32	D13A (0-0.5)	Solid	01/09/14 11:04	01/10/14 10:31
600-85318-33	2013-C2L-03-(0-0.5)	Solid	01/09/14 11:26	01/10/14 10:31
600-85318-36	2013-BSA-2A(0-2)	Solid	01/09/14 12:50	01/10/14 10:31
600-85318-37	2013-AD-04 (0-0.5)	Solid	01/09/14 13:26	01/10/14 10:31
600-85318-40	RINSE BLANK aeo	Water	01/09/14 08:30	01/10/14 10:31
600-85318-41	TRIP BLANK	Water	01/09/14 00:00	01/10/14 10:31

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TestAmerica Job ID: 600-85318-1

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: 2013-FFTA-01 (0.25-2) Lab Sample ID: 600-85318-1

Date Collected: 01/08/14 10:20 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 78.5

Analyte	Result	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0111	J	0.0127	0.00212	mg/Kg	<u> </u>		01/14/14 15:28	1
Benzene	0.000803	U	0.00637	0.000803	mg/Kg	₽		01/14/14 15:28	1
Chlorobromomethane	0.00227	U	0.00637	0.00227	mg/Kg	₩		01/14/14 15:28	1
Bromoform	0.00175	U	0.00637	0.00175	mg/Kg	₽		01/14/14 15:28	1
Bromomethane	0.00106	U	0.0127	0.00106	mg/Kg	₩		01/14/14 15:28	1
2-Butanone (MEK)	0.00242	U	0.0127	0.00242	mg/Kg	₩		01/14/14 15:28	1
Carbon disulfide	0.000701	U	0.0127	0.000701	mg/Kg	\$		01/14/14 15:28	1
Carbon tetrachloride	0.00144	U	0.00637	0.00144	mg/Kg	≎		01/14/14 15:28	1
Dibromochloromethane	0.00120	U	0.00637	0.00120	mg/Kg	₽		01/14/14 15:28	1
Chlorobenzene	0.00122	U	0.00637	0.00122	mg/Kg	\$		01/14/14 15:28	1
Chloroethane	0.00178	U	0.0127	0.00178	mg/Kg	₩		01/14/14 15:28	1
Chloroform	0.000841	U	0.00637	0.000841	mg/Kg	₩		01/14/14 15:28	1
Chloromethane	0.00212	U	0.0127	0.00212	mg/Kg			01/14/14 15:28	1
1,1-Dichloroethane	0.00111	U	0.00637	0.00111	mg/Kg	₩		01/14/14 15:28	1
1,2-Dichloroethane	0.00115	U	0.00637	0.00115	mg/Kg	₩		01/14/14 15:28	1
1,1-Dichloroethene	0.00155	U	0.00637	0.00155	mg/Kg	ф		01/14/14 15:28	1
cis-1,2-Dichloroethene	0.00106	U	0.00637	0.00106	mg/Kg	₽		01/14/14 15:28	1
trans-1,2-Dichloroethene	0.00145	U	0.00637	0.00145	mg/Kg	₩		01/14/14 15:28	1
1,2-Dichloropropane	0.000905		0.00637	0.000905		ф		01/14/14 15:28	1
cis-1,3-Dichloropropene	0.000688	U	0.00637	0.000688	mg/Kg	₩		01/14/14 15:28	1
trans-1,3-Dichloropropene	0.000739	U	0.00637	0.000739		₩		01/14/14 15:28	1
Ethylbenzene	0.00130		0.00637	0.00130				01/14/14 15:28	1
2-Hexanone	0.00129	U	0.0127	0.00129		≎		01/14/14 15:28	1
Methylene Chloride	0.00279		0.0127	0.00279	0 0	≎		01/14/14 15:28	1
4-Methyl-2-pentanone (MIBK)	0.00187		0.0127	0.00187		 \$		01/14/14 15:28	1
Styrene	0.000905		0.00637	0.000905	0 0	≎		01/14/14 15:28	1
1,1,2,2-Tetrachloroethane	0.00111		0.00637	0.00111	0 0	≎		01/14/14 15:28	1
Tetrachloroethene	0.000905		0.00637	0.000905		 \$		01/14/14 15:28	1
Toluene	0.00176		0.00637	0.00176	0 0	₽		01/14/14 15:28	1
1,1,1-Trichloroethane	0.000943		0.00637	0.000943	0 0	₽		01/14/14 15:28	1
1,1,2-Trichloroethane	0.000930		0.00637	0.000930		 ф		01/14/14 15:28	· · · · · · · · 1
Trichloroethene	0.00178		0.00637	0.00178	0 0	₩		01/14/14 15:28	1
Vinyl acetate	0.00119		0.00637	0.00119		₩		01/14/14 15:28	1
Vinyl chloride	0.00115		0.0127	0.00115				01/14/14 15:28	· · · · · · · · 1
o-Xylene	0.00116		0.00637	0.00114		₩		01/14/14 15:28	1
m-Xylene & p-Xylene	0.00194		0.0127	0.00194	0 0	₩		01/14/14 15:28	1
Xylenes, Total	0.00144		0.00637	0.00144	0 0			01/14/14 15:28	· · · · · · · · 1
Bromodichloromethane	0.000841		0.00637	0.000841		₩		01/14/14 15:28	1
1,2-Dichloroethene, Total	0.00242		0.0127	0.00242		₩		01/14/14 15:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)			50 - 130			-	-	01/14/14 15:28	1
Dibromofluoromethane	81		68 - 140					01/14/14 15:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	76		50 - 130		01/14/14 15:28	1
Dibromofluoromethane	81		68 - 140		01/14/14 15:28	1
4-Bromofluorobenzene	104		57 - 140		01/14/14 15:28	1
1,2-Dichloroethane-d4 (Surr)	85		61 - 130		01/14/14 15:28	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0731	U	0.846	0.0731	mg/Kg	<u> </u>	01/17/14 13:18	01/22/14 21:55	20
Acenaphthylene	0.0508	U	0.846	0.0508	mg/Kg	₩	01/17/14 13:18	01/22/14 21:55	20

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Client Sample ID: 2013-FFTA-01 (0.25-2)

Lab Sample ID: 600-85318-1

Date Collected: 01/08/14 10:20

Matrix: Solid

Date Received: 01/10/14 10:31

Percent Solids: 78.5

nalyte	Result	Compour Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
nthracene	0.0650		0.846	0.0650		— ¯		01/22/14 21:55	2
enzidine	0.458		4.23		mg/Kg			01/22/14 21:55	2
enzo[a]anthracene	0.0701		0.846	0.0701		☆		01/22/14 21:55	2
enzo[a]pyrene	0.0818		0.846	0.0818	0 0	₩		01/22/14 21:55	2
enzo[b]fluoranthene	0.0873		0.846	0.0873				01/22/14 21:55	2
enzo[g,h,i]perylene	0.257		0.846		mg/Kg	₩		01/22/14 21:55	2
enzo[k]fluoranthene	0.0757		0.846	0.0757	0 0	₩		01/22/14 21:55	2
enzyl alcohol	0.296		0.846		mg/Kg			01/22/14 21:55	2
is(2-chloroethoxy)methane	0.0721		0.846	0.0721	0 0	₩		01/22/14 21:55	2
is(2-chloroethyl)ether	0.0838		0.846	0.0838	0 0	☼		01/22/14 21:55	2
is (2-Chloroisopropyl) ether	0.449		0.846		mg/Kg			01/22/14 21:55	2
is(2-ethylhexyl) phthalate	0.273		3.39		mg/Kg	₩		01/22/14 21:55	2
-Bromophenyl phenyl ether	0.144		0.846		mg/Kg	☼		01/22/14 21:55	2
utyl benzyl phthalate	0.314		3.39		mg/Kg			01/22/14 21:55	2
arbazole	0.158		0.846		mg/Kg	₽		01/22/14 21:55	2
-Chloroaniline	0.296		0.846		mg/Kg	₽		01/22/14 21:55	2
-Chloro-3-methylphenol	0.791		0.846		mg/Kg			01/22/14 21:55	2
-Chloronaphthalene	0.0614		0.846	0.0614	0 0	₽		01/22/14 21:55	2
-Chlorophenol	0.100		0.846		mg/Kg	₩		01/22/14 21:55	2
-Chlorophenyl phenyl ether	0.0914		0.846	0.0914	0 0			01/22/14 21:55	2
hrysene	0.0514		0.846	0.0518		₽		01/22/14 21:55	2
ibenz(a,h)anthracene	0.184		0.846		mg/Kg	₽		01/22/14 21:55	2
ibenzofuran	0.0904		0.846	0.0904				01/22/14 21:55	2
2-Dichlorobenzene	0.0304		0.846		mg/Kg	₽		01/22/14 21:55	2
,3-Dichlorobenzene	0.133		0.846	0.133		₽		01/22/14 21:55	2
.4-Dichlorobenzene	0.0762		0.846		mg/Kg			01/22/14 21:55	2
,3'-Dichlorobenzidine	0.516		0.846		mg/Kg	₽		01/22/14 21:55	2
4-Dichlorophenol	0.197		0.846		mg/Kg	₽		01/22/14 21:55	2
iethyl phthalate	0.197		3.39		mg/Kg			01/22/14 21:55	2
,4-Dimethylphenol	0.426		0.846		mg/Kg	₽		01/22/14 21:55	2
imethyl phthalate	0.430		3.39		mg/Kg	₽		01/22/14 21:55	2
i-n-butyl phthalate	0.248		3.39		mg/Kg			01/22/14 21:55	2
,6-Dinitro-2-methylphenol	0.132		0.846		mg/Kg	₽		01/22/14 21:55	2
,4-Dinitrophenol	0.233		5.08		mg/Kg	~ ☆		01/22/14 21:55	2
4-Dinitrotoluene	0.240		0.846		mg/Kg			01/22/14 21:55	2
,6-Dinitrotoluene	0.163				0 0	~ ☆	01/17/14 13:18		
	0.150		0.846 3.39		mg/Kg	≎	01/17/14 13:18		2
i-n-octyl phthalate					mg/Kg				2
luoranthene	0.158		0.846		mg/Kg	₩		01/22/14 21:55 01/22/14 21:55	2
luorene	0.120		0.846		mg/Kg				2
exachlorobenzene	0.0772		0.846	0.0772				01/22/14 21:55	
exachlorobutadiene	0.0975		0.846		mg/Kg	æ æ		01/22/14 21:55 01/22/14 21:55	2
exachlorocyclopentadiene	0.234		0.846		mg/Kg	:D:			2
exachloroethane	0.117		0.846		mg/Kg	. .		01/22/14 21:55	
ideno[1,2,3-cd]pyrene	0.178		0.846		mg/Kg	☆		01/22/14 21:55	2
ophorone	0.0508		0.846	0.0508		₩		01/22/14 21:55	2
-Methylnaphthalene	0.139		0.846		mg/Kg	:		01/22/14 21:55	2
-Methylphenol	0.164		0.846		mg/Kg	φ.		01/22/14 21:55	2
& 4 Methylphenol	0.355	J U	1.69 0.846	0.142 0.0685	mg/Kg	₽		01/22/14 21:55 01/22/14 21:55	2

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-1

Client Sample ID: 2013-FFTA-01 (0.25-2) Date Collected: 01/08/14 10:20 **Matrix: Solid**

Date Received: 01/10/14 10:31 Percent Solids: 78.5

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	0.248	U	0.846	0.248	mg/Kg	<u> </u>	01/17/14 13:18	01/22/14 21:55	20
3-Nitroaniline	0.363	U	0.846	0.363	mg/Kg		01/17/14 13:18	01/22/14 21:55	20
4-Nitroaniline	0.566	U	0.846	0.566	mg/Kg	☼	01/17/14 13:18	01/22/14 21:55	20
Nitrobenzene	0.150	U	0.846	0.150	mg/Kg		01/17/14 13:18	01/22/14 21:55	20
2-Nitrophenol	0.198	U	0.846	0.198	mg/Kg	☼	01/17/14 13:18	01/22/14 21:55	20
4-Nitrophenol	0.258	U	0.846	0.258	mg/Kg	☼	01/17/14 13:18	01/22/14 21:55	20
N-Nitrosodimethylamine	0.213	U	0.846	0.213	mg/Kg	φ.	01/17/14 13:18	01/22/14 21:55	20
N-Nitrosodi-n-propylamine	0.113	U	0.846	0.113	mg/Kg	☼	01/17/14 13:18	01/22/14 21:55	20
N-Nitrosodiphenylamine	0.0960	U	0.846	0.0960	mg/Kg	☼	01/17/14 13:18	01/22/14 21:55	20
Pentachlorophenol	0.203	U	8.48	0.203	mg/Kg	₩	01/17/14 13:18	01/22/14 21:55	20
Phenanthrene	0.251	U	0.846	0.251	mg/Kg	☼	01/17/14 13:18	01/22/14 21:55	20
Phenol	0.726	J	0.846	0.215	mg/Kg	☼	01/17/14 13:18	01/22/14 21:55	20
Pyrene	0.0929	U	0.846	0.0929	mg/Kg	₩	01/17/14 13:18	01/22/14 21:55	20
1,2,4-Trichlorobenzene	0.107	U	0.846	0.107	mg/Kg	☼	01/17/14 13:18	01/22/14 21:55	20
2,4,5-Trichlorophenol	0.508	U	0.846	0.508	mg/Kg	☼	01/17/14 13:18	01/22/14 21:55	20
2,4,6-Trichlorophenol	0.136	U	0.846	0.136	mg/Kg		01/17/14 13:18	01/22/14 21:55	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	X	38 - 127				01/17/14 13:18	01/22/14 21:55	20
2-Fluorophenol	0	Χ	25 - 132				01/17/14 13:18	01/22/14 21:55	20
Nitrobenzene-d5	0	Χ	10 - 155				01/17/14 13:18	01/22/14 21:55	20
Phenol-d5 (Surr)	0	X	27 - 123				01/17/14 13:18	01/22/14 21:55	20
Terphenyl-d14	0	Χ	53 - 134				01/17/14 13:18	01/22/14 21:55	20
2,4,6-Tribromophenol	0	X	10 - 148				01/17/14 13:18	01/22/14 21:55	20

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.83	U	12.7	4.83	mg/Kg	<u> </u>	01/14/14 12:54	01/14/14 16:07	1
>C12-C28	5.16	U	12.7	5.16	mg/Kg	☼	01/14/14 12:54	01/14/14 16:07	1
>C28-C35	5.16	U	12.7	5.16	mg/Kg	☼	01/14/14 12:54	01/14/14 16:07	1
C6-C35	9.51	U	12.7	9.51	mg/Kg		01/14/14 12:54	01/14/14 16:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl			70 - 130				01/14/14 12:54	01/14/14 16:07	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22	1.0	1.0 %			01/13/14 09:59	1
Percent Solids	78	1.0	1.0 %			01/13/14 09:59	1

Client Sample ID: 2013-FFTA-03 (18-19) Lab Sample ID: 600-85318-3 Date Collected: 01/08/14 10:45 **Matrix: Solid**

Date Received: 01/10/14 10:31 Percent Solids: 93.4

Method: 8260B - Volatile Analyte	•	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0290		0.0107	0.00178	mg/Kg	<u> </u>	-	01/15/14 20:16	1
Benzene	0.000675	U	0.00536	0.000675	mg/Kg	☼		01/15/14 20:16	1
Chlorobromomethane	0.00191	U	0.00536	0.00191	mg/Kg	₩		01/15/14 20:16	1
Bromoform	0.00147	U	0.00536	0.00147	mg/Kg			01/15/14 20:16	1
Bromomethane	0.000889	U	0.0107	0.000889	mg/Kg	₩		01/15/14 20:16	1

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/08/14 10:45

Date Received: 01/10/14 10:31

Client Sample ID: 2013-FFTA-03 (18-19)

TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-3

Matrix: Solid Percent Solids: 93.4

Method: 8260B - Volatile O Analyte	•	Qualifier	MQL (Adj)	•	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	0.00204	U	0.0107	0.00204	mg/Kg	- -		01/15/14 20:16	1
Carbon disulfide	0.000589	U	0.0107	0.000589	mg/Kg	ф.		01/15/14 20:16	1
Carbon tetrachloride	0.00121	U	0.00536	0.00121	mg/Kg	☼		01/15/14 20:16	1
Dibromochloromethane	0.00101	U	0.00536	0.00101	mg/Kg	₩		01/15/14 20:16	1
Chlorobenzene	0.00103	U	0.00536	0.00103	mg/Kg	₽		01/15/14 20:16	1
Chloroethane	0.00150	U	0.0107	0.00150	mg/Kg	₽		01/15/14 20:16	1
Chloroform	0.000707	U	0.00536	0.000707	mg/Kg	₽		01/15/14 20:16	1
Chloromethane	0.00178	U	0.0107	0.00178	mg/Kg	\$		01/15/14 20:16	1
1,1-Dichloroethane	0.000932	U	0.00536	0.000932	mg/Kg	₩		01/15/14 20:16	1
1,2-Dichloroethane	0.000964	U	0.00536	0.000964	mg/Kg	☼		01/15/14 20:16	1
1,1-Dichloroethene	0.00131	U	0.00536	0.00131	mg/Kg	\$		01/15/14 20:16	1
cis-1,2-Dichloroethene	0.000889	U	0.00536	0.000889	mg/Kg	₩		01/15/14 20:16	1
trans-1,2-Dichloroethene	0.00122	U	0.00536	0.00122	mg/Kg	☼		01/15/14 20:16	1
1,2-Dichloropropane	0.000761	U	0.00536	0.000761	mg/Kg	\$		01/15/14 20:16	1
cis-1,3-Dichloropropene	0.000578	U	0.00536	0.000578	mg/Kg	₩		01/15/14 20:16	1
trans-1,3-Dichloropropene	0.000621	U	0.00536	0.000621	mg/Kg	₩		01/15/14 20:16	1
Ethylbenzene	0.00109	U	0.00536	0.00109	mg/Kg	*		01/15/14 20:16	1
2-Hexanone	0.00108	U	0.0107	0.00108	mg/Kg	₩		01/15/14 20:16	1
Methylene Chloride	0.00366	J	0.0107	0.00235	mg/Kg	₩		01/15/14 20:16	1
4-Methyl-2-pentanone (MIBK)	0.00157	U	0.0107	0.00157	mg/Kg	\$		01/15/14 20:16	1
Styrene	0.000761	U	0.00536	0.000761	mg/Kg	₩		01/15/14 20:16	1
1,1,2,2-Tetrachloroethane	0.000932	U	0.00536	0.000932	mg/Kg	☼		01/15/14 20:16	1
Tetrachloroethene	0.000761	U	0.00536	0.000761	mg/Kg	\$		01/15/14 20:16	1
Toluene	0.00148	U	0.00536	0.00148	mg/Kg	☼		01/15/14 20:16	1
1,1,1-Trichloroethane	0.000793	U	0.00536	0.000793	mg/Kg	☼		01/15/14 20:16	1
1,1,2-Trichloroethane	0.000782	U	0.00536	0.000782	mg/Kg	\$		01/15/14 20:16	1
Trichloroethene	0.00150	U	0.00536	0.00150	mg/Kg	☼		01/15/14 20:16	1
Vinyl acetate	0.000996	U	0.00536	0.000996	mg/Kg	☼		01/15/14 20:16	1
Vinyl chloride	0.000964	U	0.0107	0.000964	mg/Kg	\$		01/15/14 20:16	1
o-Xylene	0.00121	U	0.00536	0.00121	mg/Kg	₩		01/15/14 20:16	1
m-Xylene & p-Xylene	0.00163	U	0.0107	0.00163	mg/Kg	₩		01/15/14 20:16	1
Xylenes, Total	0.00121	U	0.00536	0.00121	mg/Kg			01/15/14 20:16	1
Bromodichloromethane	0.000707	U	0.00536	0.000707	mg/Kg	₩		01/15/14 20:16	1
1,2-Dichloroethene, Total	0.00204	U	0.0107	0.00204	mg/Kg	₩		01/15/14 20:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	88		50 - 130			-		01/15/14 20:16	1
Dibromofluoromethane	85		68 - 140					01/15/14 20:16	1
4-Bromofluorobenzene	132		57 - 140					01/15/14 20:16	1
1,2-Dichloroethane-d4 (Surr)	90		61 - 130					01/15/14 20:16	1

Method: 8270C LL - Semive	olatile Organic C	Compour	nds by GCMS	S - Low L	.evels				
Analyte	Result (MQĽ (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.00308	U	0.0356	0.00308	mg/Kg	-	01/17/14 13:18	01/21/14 02:32	1
Acenaphthylene	0.00214 L	U	0.0356	0.00214	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	1
Anthracene	0.00274 L	U	0.0356	0.00274	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	1
Benzidine	0.0193 L	Ú	0.178	0.0193	mg/Kg	₽	01/17/14 13:18	01/21/14 02:32	1
Benzo[a]anthracene	0.00295 L	U	0.0356	0.00295	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	1
Benzo[a]pyrene	0.00344 L	U	0.0356	0.00344	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	1
Benzo[b]fluoranthene	0.00368 L	U	0.0356	0.00368	mg/Kg	₩.	01/17/14 13:18	01/21/14 02:32	1

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Client Sample ID: 2013-FFTA-03 (18-19)

Lab Sample ID: 600-85318-3

Date Collected: 01/08/14 10:45

Date Received: 01/10/14 10:31

Matrix: Solid
Percent Solids: 93.4

Method: 8270C LL - Semivola Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fa
Benzo[g,h,i]perylene	0.0108		0.0356	0.0108		— -		01/21/14 02:32	
Benzo[k]fluoranthene	0.00319		0.0356	0.00319		☼		01/21/14 02:32	
Benzyl alcohol	0.0125		0.0356	0.0125				01/21/14 02:32	
Bis(2-chloroethoxy)methane	0.00304		0.0356	0.00304		☼		01/21/14 02:32	
Bis(2-chloroethyl)ether	0.00353		0.0356	0.00353	0 0	☼		01/21/14 02:32	
bis (2-Chloroisopropyl) ether	0.0189		0.0356	0.0189				01/21/14 02:32	
Bis(2-ethylhexyl) phthalate	0.0326		0.143	0.0105		₽		01/21/14 02:32	
4-Bromophenyl phenyl ether	0.00607		0.0356	0.00607		₽		01/21/14 02:32	
Butyl benzyl phthalate	0.0132		0.143	0.0132				01/21/14 02:32	
Carbazole	0.00667		0.0356	0.00667		₩		01/21/14 02:32	
4-Chloroaniline	0.0124		0.0356	0.0124	0 0	 \$		01/21/14 02:32	
4-Chloro-3-methylphenol	0.0333		0.0356	0.0333	0 0			01/21/14 02:32	
• •	0.00259		0.0356	0.00259		₽		01/21/14 02:32	
2-Chloronaphthalene					0 0	~ ☆			
2-Chlorophenol	0.00421 0.00385		0.0356 0.0356	0.00421 0.00385	mg/Kg			01/21/14 02:32 01/21/14 02:32	
4-Chlorophenyl phenyl ether				0.00385		☆			
Chrysene	0.00218		0.0356		0 0			01/21/14 02:32	
Dibenz(a,h)anthracene	0.00776		0.0356	0.00776	. .			01/21/14 02:32	
Dibenzofuran	0.00381		0.0356	0.00381				01/21/14 02:32	
1,2-Dichlorobenzene	0.00646		0.0356	0.00646		φ.		01/21/14 02:32	
1,3-Dichlorobenzene	0.00329		0.0356	0.00329	mg/Kg	<u>.</u>		01/21/14 02:32	
1,4-Dichlorobenzene	0.00481		0.0356	0.00481	mg/Kg	φ.		01/21/14 02:32	
3,3'-Dichlorobenzidine	0.0217		0.0356	0.0217	0 0	☆		01/21/14 02:32	
2,4-Dichlorophenol	0.00827		0.0356	0.00827	mg/Kg			01/21/14 02:32	
Diethyl phthalate	0.262		0.143	0.0180		₽	01/17/14 13:18	01/21/14 02:32	
2,4-Dimethylphenol	0.0183	U	0.0356	0.0183		☼	01/17/14 13:18	01/21/14 02:32	
Dimethyl phthalate	0.0105	U	0.143	0.0105	0 0			01/21/14 02:32	
Di-n-butyl phthalate	0.0914	J b	0.143	0.00554	mg/Kg	₽	01/17/14 13:18	01/21/14 02:32	
4,6-Dinitro-2-methylphenol	0.0106	U	0.0356	0.0106	mg/Kg	₩	01/17/14 13:18	01/21/14 02:32	
2,4-Dinitrophenol	0.0101	U	0.214	0.0101	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	
2,4-Dinitrotoluene	0.00772	U	0.0356	0.00772	mg/Kg	₽	01/17/14 13:18	01/21/14 02:32	
2,6-Dinitrotoluene	0.00631	U	0.0356	0.00631	mg/Kg	₩	01/17/14 13:18	01/21/14 02:32	
Di-n-octyl phthalate	0.00406	U	0.143	0.00406	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	
Fluoranthene	0.00665	U	0.0356	0.00665	mg/Kg	₽	01/17/14 13:18	01/21/14 02:32	
Fluorene	0.00505	U	0.0356	0.00505	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	
Hexachlorobenzene	0.00325	U	0.0356	0.00325	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	
Hexachlorobutadiene	0.00411	U	0.0356	0.00411	mg/Kg	₽	01/17/14 13:18	01/21/14 02:32	
Hexachlorocyclopentadiene	0.00986	U	0.0356	0.00986	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	
Hexachloroethane	0.00494	U	0.0356	0.00494	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	
Indeno[1,2,3-cd]pyrene	0.00748	U	0.0356	0.00748	mg/Kg	φ.	01/17/14 13:18	01/21/14 02:32	
Isophorone	0.153		0.0356	0.00214	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	
2-Methylnaphthalene	0.0311	J	0.0356	0.00586		₽	01/17/14 13:18	01/21/14 02:32	
2-Methylphenol	0.00691		0.0356	0.00691		φ.		01/21/14 02:32	
3 & 4 Methylphenol	0.572		0.0713	0.00597		☆		01/21/14 02:32	
Naphthalene	0.0150	J	0.0356	0.00289		☼		01/21/14 02:32	
2-Nitroaniline	0.0105		0.0356	0.0105				01/21/14 02:32	
3-Nitroaniline	0.0153		0.0356	0.0103		₽		01/21/14 02:32	
					0 0	≎		01/21/14 02:32	
4-Nitroaniline	0.0238		0.0356	0.0238		······*			
Nitrobenzene 2-Nitrophenol	0.00633 0.00832		0.0356 0.0356	0.00633 0.00832		☆		01/21/14 02:32 01/21/14 02:32	

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Lab Sample ID: 600-85318-3

Client Sample ID: 2013-FFTA-03 (18-19)

Matrix: Solid

Date Collected: 01/08/14 10:45 Date Received: 01/10/14 10:31

Percent Solids: 93.4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	0.0109	U	0.0356	0.0109	mg/Kg	<u> </u>	01/17/14 13:18	01/21/14 02:32	1
N-Nitrosodimethylamine	0.00896	Ü	0.0356	0.00896	mg/Kg	φ.	01/17/14 13:18	01/21/14 02:32	1
N-Nitrosodi-n-propylamine	0.00475	U	0.0356	0.00475	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	1
N-Nitrosodiphenylamine	0.00404	U	0.0356	0.00404	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	1
Pentachlorophenol	0.00855	U	0.357	0.00855	mg/Kg	₽	01/17/14 13:18	01/21/14 02:32	1
Phenanthrene	0.0116	J	0.0356	0.0106	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	1
Phenol	0.247		0.0356	0.00907	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	1
Pyrene	0.00391	U	0.0356	0.00391	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	1
1,2,4-Trichlorobenzene	0.00449	U	0.0356	0.00449	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	1
2,4,5-Trichlorophenol	0.0214	U	0.0356	0.0214	mg/Kg	☼	01/17/14 13:18	01/21/14 02:32	1
2,4,6-Trichlorophenol	0.00573	U	0.0356	0.00573	mg/Kg		01/17/14 13:18	01/21/14 02:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	108		38 - 127				01/17/14 13:18	01/21/14 02:32	1
2-Fluorophenol	51		25 - 132				01/17/14 13:18	01/21/14 02:32	1
Nitrobenzene-d5	82		10 - 155				01/17/14 13:18	01/21/14 02:32	1
Phenol-d5 (Surr)	6	X	27 - 123				01/17/14 13:18	01/21/14 02:32	1
Terphenyl-d14	117		53 - 134				01/17/14 13:18	01/21/14 02:32	1
2,4,6-Tribromophenol	34		10 - 148				01/17/14 13:18	01/21/14 02:32	1
Method: TX 1005 - Texas -	Total Petroleui	m Hydroc	arbon (GC)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.04	U	10.6	4.04	mg/Kg	₩	01/14/14 12:54	01/14/14 16:41	1
. 040 000	4.32	11	10.6	1 32	mg/Kg	☆	01/14/14 12:54	01/14/14 16:41	1
>C12-C28	4.32	U	10.0	4.52	mg/rtg		01/14/14 12.54	01/14/14 10.41	

١	Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	C6-C12	4.04	U	10.6	4.04	mg/Kg	<u> </u>	01/14/14 12:54	01/14/14 16:41	1
	>C12-C28	4.32	U	10.6	4.32	mg/Kg	≎	01/14/14 12:54	01/14/14 16:41	1
	>C28-C35	4.32	U	10.6	4.32	mg/Kg	☼	01/14/14 12:54	01/14/14 16:41	1
	C6-C35	7.96	U	10.6	7.96	mg/Kg	₽	01/14/14 12:54	01/14/14 16:41	1
	Surrogoto	% Bookery		l imita				Branarad	Analyzad	Dil Ess

Surrogate	%Recovery Qualifie	r Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	96	70 - 130	01/14/14 12:54	01/14/14 16:41	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.6	1.0	1.0 %			01/13/14 09:59	1
Percent Solids	93	1.0	1.0 %			01/13/14 09:59	1

Client Sample ID: 2013-MB-3 (0.75-1.25) Lab Sample ID: 600-85318-4

Date Collected: 01/08/14 12:18 Matrix: Solid Date Received: 01/10/14 10:31 Percent Solids: 77.2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.306		0.0130	0.00215	mg/Kg	<u> </u>		01/15/14 20:41	1
Benzene	0.000816	U	0.00648	0.000816	mg/Kg	₩		01/15/14 20:41	1
Chlorobromomethane	0.00231	U	0.00648	0.00231	mg/Kg	₩		01/15/14 20:41	1
Bromoform	0.00178	U	0.00648	0.00178	mg/Kg			01/15/14 20:41	1
Bromomethane	0.00108	U	0.0130	0.00108	mg/Kg	₩		01/15/14 20:41	1
2-Butanone (MEK)	0.0392		0.0130	0.00246	mg/Kg	₩		01/15/14 20:41	1
Carbon disulfide	0.00168	J	0.0130	0.000713	mg/Kg			01/15/14 20:41	1
Carbon tetrachloride	0.00146	U	0.00648	0.00146	mg/Kg	₩		01/15/14 20:41	1
Dibromochloromethane	0.00122	U	0.00648	0.00122	mg/Kg	₩		01/15/14 20:41	1
Chlorobenzene	0.00124	U	0.00648	0.00124	ma/Ka			01/15/14 20:41	1

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Received: 01/10/14 10:31

Lead

Analyte

General Chemistry

Percent Moisture

Percent Solids

TestAmerica Job ID: 600-85318-1

3

Client Sample ID: 2013-MB-3 (0.75-1.25)
Date Collected: 01/08/14 12:18

Lab Sample ID: 600-85318-4 Matrix: Solid

Percent Solids: 77.2

Method: 8260B - Volatile Orga Analyte	•	Qualifier	MQL (Adj)	•	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	0.00181	U	0.0130	0.00181	mg/Kg			01/15/14 20:41	1
Chloroform	0.000855	U	0.00648	0.000855	mg/Kg	₩		01/15/14 20:41	1
Chloromethane	0.00215	U	0.0130	0.00215	mg/Kg			01/15/14 20:41	1
1,1-Dichloroethane	0.00113	U	0.00648	0.00113	mg/Kg	₩		01/15/14 20:41	1
1,2-Dichloroethane	0.00117	U	0.00648	0.00117	mg/Kg	☼		01/15/14 20:41	1
1,1-Dichloroethene	0.00158	U	0.00648	0.00158	mg/Kg			01/15/14 20:41	1
cis-1,2-Dichloroethene	0.00108	U	0.00648	0.00108	mg/Kg	₩		01/15/14 20:41	1
trans-1,2-Dichloroethene	0.00148	U	0.00648	0.00148	mg/Kg	₩		01/15/14 20:41	1
1,2-Dichloropropane	0.000920	U	0.00648	0.000920	mg/Kg			01/15/14 20:41	1
cis-1,3-Dichloropropene	0.000700	U	0.00648	0.000700	mg/Kg	₩		01/15/14 20:41	1
trans-1,3-Dichloropropene	0.000752	U	0.00648	0.000752	mg/Kg	₩		01/15/14 20:41	1
Ethylbenzene	0.00132	U	0.00648	0.00132	mg/Kg			01/15/14 20:41	1
2-Hexanone	0.00131	U	0.0130	0.00131	mg/Kg	₩		01/15/14 20:41	1
Methylene Chloride	0.00284	U	0.0130	0.00284	mg/Kg	₩		01/15/14 20:41	1
4-Methyl-2-pentanone (MIBK)	0.00191	U	0.0130	0.00191	mg/Kg			01/15/14 20:41	1
Styrene	0.000920	U	0.00648	0.000920	mg/Kg	₩		01/15/14 20:41	1
1,1,2,2-Tetrachloroethane	0.00113	U	0.00648	0.00113	mg/Kg	₩		01/15/14 20:41	1
Tetrachloroethene	0.000920	U	0.00648	0.000920	mg/Kg	\$		01/15/14 20:41	1
Toluene	0.00179	U	0.00648	0.00179	mg/Kg	₩		01/15/14 20:41	1
1,1,1-Trichloroethane	0.000959	U	0.00648	0.000959	mg/Kg	₩		01/15/14 20:41	1
1,1,2-Trichloroethane	0.000946	U	0.00648	0.000946	mg/Kg			01/15/14 20:41	1
Trichloroethene	0.00181	U	0.00648	0.00181	mg/Kg	₩		01/15/14 20:41	1
Vinyl acetate	0.00121	U	0.00648	0.00121	mg/Kg	₩		01/15/14 20:41	1
Vinyl chloride	0.00117	U	0.0130	0.00117	mg/Kg			01/15/14 20:41	1
o-Xylene	0.00146	U	0.00648	0.00146	mg/Kg	₩		01/15/14 20:41	1
m-Xylene & p-Xylene	0.00197	U	0.0130	0.00197	mg/Kg	₩		01/15/14 20:41	1
Xylenes, Total	0.00146	U	0.00648	0.00146	mg/Kg			01/15/14 20:41	1
Bromodichloromethane	0.000855	U	0.00648	0.000855	mg/Kg	₩		01/15/14 20:41	1
1,2-Dichloroethene, Total	0.00246	U	0.0130	0.00246	mg/Kg	₽		01/15/14 20:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		50 - 130					01/15/14 20:41	1
Dibromofluoromethane	93		68 - 140					01/15/14 20:41	1
4-Bromofluorobenzene	133		57 ₋ 140					01/15/14 20:41	1
1,2-Dichloroethane-d4 (Surr)	95		61 - 130					01/15/14 20:41	1
Method: 6010B - Metals (ICP)									
Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	2.19		0.306	0.0313	mg/Kg		01/13/14 14:19	01/14/14 08:28	1

TactA	marica	Houston

Analyzed

01/13/14 09:59

01/13/14 09:59

© 01/13/14 14:19 01/14/14 08:28

Prepared

0.611

1.0

1.0

MQL (Adj)

732

23

77

Result Qualifier

0.128 mg/Kg

SDL Unit

1.0 %

1.0 %

Dil Fac

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Client Sample ID: 2013-MB-5 (0.5-5)

Lab Sample ID: 600-85318-7

Analyte	Result	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.127		0.0130	0.00217		- \$		01/15/14 21:06	1
Benzene	0.000822	U	0.00652	0.000822	mg/Kg	₩		01/15/14 21:06	1
Chlorobromomethane	0.00232	U	0.00652	0.00232		₩		01/15/14 21:06	1
Bromoform	0.00179	U	0.00652	0.00179		₩		01/15/14 21:06	1
Bromomethane	0.00108	U	0.0130	0.00108		₩		01/15/14 21:06	1
2-Butanone (MEK)	0.0135		0.0130	0.00248		₩		01/15/14 21:06	1
Carbon disulfide	0.00180	J	0.0130	0.000717	mg/Kg			01/15/14 21:06	1
Carbon tetrachloride	0.00147	U	0.00652	0.00147	0 0	₩		01/15/14 21:06	1
Dibromochloromethane	0.00123	U	0.00652	0.00123		₩		01/15/14 21:06	1
Chlorobenzene	0.00125	U	0.00652	0.00125	mg/Kg	₽		01/15/14 21:06	1
Chloroethane	0.00183	U	0.0130	0.00183	mg/Kg	₩		01/15/14 21:06	1
Chloroform	0.000861	U	0.00652	0.000861	mg/Kg	₩		01/15/14 21:06	1
Chloromethane	0.00217	U	0.0130	0.00217	mg/Kg	₽		01/15/14 21:06	1
1,1-Dichloroethane	0.00113	U	0.00652	0.00113	0 0	₩		01/15/14 21:06	1
1,2-Dichloroethane	0.00117	U	0.00652	0.00117		₩		01/15/14 21:06	1
1,1-Dichloroethene	0.00159	U	0.00652	0.00159	mg/Kg	₽		01/15/14 21:06	1
cis-1,2-Dichloroethene	0.00108	U	0.00652	0.00108	mg/Kg	₩		01/15/14 21:06	1
trans-1,2-Dichloroethene	0.00149	U	0.00652	0.00149	mg/Kg	☼		01/15/14 21:06	1
1,2-Dichloropropane	0.000926	U	0.00652	0.000926	mg/Kg	☼		01/15/14 21:06	1
cis-1,3-Dichloropropene	0.000704	U	0.00652	0.000704	mg/Kg	₩		01/15/14 21:06	1
trans-1,3-Dichloropropene	0.000756	U	0.00652	0.000756	mg/Kg	₩		01/15/14 21:06	1
Ethylbenzene	0.00133	U	0.00652	0.00133	mg/Kg	₽		01/15/14 21:06	1
2-Hexanone	0.00132	U	0.0130	0.00132	mg/Kg	₩		01/15/14 21:06	1
Methylene Chloride	0.00505	J	0.0130	0.00286	mg/Kg	☼		01/15/14 21:06	1
4-Methyl-2-pentanone (MIBK)	0.00192	U	0.0130	0.00192	mg/Kg	₽		01/15/14 21:06	1
Styrene	0.000926	U	0.00652	0.000926	mg/Kg	☼		01/15/14 21:06	1
1,1,2,2-Tetrachloroethane	0.00113	U	0.00652	0.00113	mg/Kg	☼		01/15/14 21:06	1
Tetrachloroethene	0.000926	U	0.00652	0.000926	mg/Kg	\$		01/15/14 21:06	1
Toluene	0.00180	U	0.00652	0.00180	mg/Kg	☼		01/15/14 21:06	1
1,1,1-Trichloroethane	0.000965	U	0.00652	0.000965	mg/Kg	₩		01/15/14 21:06	1
1,1,2-Trichloroethane	0.000952	U	0.00652	0.000952	mg/Kg	☼		01/15/14 21:06	1
Trichloroethene	0.00183	U	0.00652	0.00183	mg/Kg	₩		01/15/14 21:06	1
Vinyl acetate	0.00121	U	0.00652	0.00121	mg/Kg	☼		01/15/14 21:06	1
Vinyl chloride	0.00117	U	0.0130	0.00117	mg/Kg	☼		01/15/14 21:06	1
o-Xylene	0.00147	U	0.00652	0.00147	mg/Kg	₩		01/15/14 21:06	1
m-Xylene & p-Xylene	0.00198	U	0.0130	0.00198	mg/Kg	☼		01/15/14 21:06	1
Xylenes, Total	0.00147	Ü	0.00652	0.00147	mg/Kg			01/15/14 21:06	1
Bromodichloromethane	0.000861	U	0.00652	0.000861	mg/Kg	₩		01/15/14 21:06	1
1,2-Dichloroethene, Total	0.00248	U	0.0130	0.00248	mg/Kg	₩		01/15/14 21:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		50 - 130					01/15/14 21:06	
Dibromofluoromethane	87		68 - 140					01/15/14 21:06	1
4-Bromofluorobenzene	138		57 ₋ 140					01/15/14 21:06	1
1,2-Dichloroethane-d4 (Surr)	90		61 - 130					01/15/14 21:06	1

Method: 8270C LL - Semivolat	ile Organic	Compour	nds by GCMS	S - Low L	.evels				
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.00374	U	0.0433	0.00374	mg/Kg	₩	01/17/14 13:18	01/21/14 02:59	1
Acenaphthylene	0.00259	U	0.0433	0.00259	mg/Kg	₩	01/17/14 13:18	01/21/14 02:59	1

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Client Sample ID: 2013-MB-5 (0.5-5)

Lab Sample ID: 600-85318-7

Date Collected: 01/08/14 13:20

Matrix: Solid

Date Received: 01/10/14 10:31

Matrix: Solids: 76.7

Analyte		Qualifier	MQL (Adj)	SDL		D	Prepared	Analyzed	Dil Fac
Anthracene	0.00332		0.0433	0.00332		₩.		01/21/14 02:59	
Benzidine	0.0234		0.216	0.0234		₿		01/21/14 02:59	•
Benzo[a]anthracene	0.00823	J	0.0433	0.00358	0 0	₩	01/17/14 13:18	01/21/14 02:59	,
Benzo[a]pyrene	0.00418	U	0.0433	0.00418	0 0		01/17/14 13:18	01/21/14 02:59	
Benzo[b]fluoranthene	0.00446	U	0.0433	0.00446	mg/Kg	₽	01/17/14 13:18	01/21/14 02:59	
Benzo[g,h,i]perylene	0.0132	U	0.0433	0.0132	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	•
Benzo[k]fluoranthene	0.00387	U	0.0433	0.00387	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	
Benzyl alcohol	0.0151	U	0.0433	0.0151	mg/Kg	₽	01/17/14 13:18	01/21/14 02:59	
Bis(2-chloroethoxy)methane	0.00368	U	0.0433	0.00368	mg/Kg	₩	01/17/14 13:18	01/21/14 02:59	
Bis(2-chloroethyl)ether	0.00428	U	0.0433	0.00428	mg/Kg	≎	01/17/14 13:18	01/21/14 02:59	
bis (2-Chloroisopropyl) ether	0.0229	Ü	0.0433	0.0229	mg/Kg	₽	01/17/14 13:18	01/21/14 02:59	
Bis(2-ethylhexyl) phthalate	0.0788	J	0.173	0.0139	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	
4-Bromophenyl phenyl ether	0.00737	U	0.0433	0.00737	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	
Butyl benzyl phthalate	0.0161	U	0.173	0.0161	mg/Kg		01/17/14 13:18	01/21/14 02:59	
Carbazole	0.0224	J	0.0433	0.00810	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	
4-Chloroaniline	0.0151	U	0.0433	0.0151	mg/Kg	₽	01/17/14 13:18	01/21/14 02:59	
4-Chloro-3-methylphenol	0.0404	U	0.0433	0.0404	mg/Kg		01/17/14 13:18	01/21/14 02:59	
2-Chloronaphthalene	0.00314	U	0.0433	0.00314	0 0	₽	01/17/14 13:18	01/21/14 02:59	
2-Chlorophenol	0.00511		0.0433	0.00511	0 0	₽		01/21/14 02:59	
4-Chlorophenyl phenyl ether	0.00467		0.0433	0.00467				01/21/14 02:59	
Chrysene	0.0183		0.0433	0.00265	0 0	☼		01/21/14 02:59	
Dibenz(a,h)anthracene	0.00942		0.0433	0.00200	0 0	₽		01/21/14 02:59	
Dibenzofuran	0.00462		0.0433	0.00462				01/21/14 02:59	
1,2-Dichlorobenzene	0.00784		0.0433	0.00784	0 0	₽		01/21/14 02:59	
1,3-Dichlorobenzene	0.00400		0.0433	0.00704	0 0	☆		01/21/14 02:59	
1,4-Dichlorobenzene	0.00584		0.0433	0.00584				01/21/14 02:59	
3,3'-Dichlorobenzidine	0.0264		0.0433	0.00364		₽		01/21/14 02:59	
	0.0100		0.0433	0.0100		₽		01/21/14 02:59	
2,4-Dichlorophenol			0.0433	0.0100	0 0	· · · · · · · .		01/21/14 02:59	
Diethyl phthalate	0.263					~			
2,4-Dimethylphenol	0.0223		0.0433	0.0223				01/21/14 02:59	
Dimethyl phthalate	0.0127		0.173	0.0127				01/21/14 02:59	
Di-n-butyl phthalate	0.0770		0.173	0.00672		₩		01/21/14 02:59	•
4,6-Dinitro-2-methylphenol	0.0129		0.0433	0.0129		☆		01/21/14 02:59	
2,4-Dinitrophenol	0.0122		0.259	0.0122		T - T		01/21/14 02:59	
2,4-Dinitrotoluene	0.00937		0.0433	0.00937		;;; ∴		01/21/14 02:59	
2,6-Dinitrotoluene	0.00765		0.0433	0.00765		₩.		01/21/14 02:59	
Di-n-octyl phthalate	0.00493		0.173	0.00493		::::::::::::::::::::::::::::::::::::::		01/21/14 02:59	
Fluoranthene	0.0184		0.0433	0.00807		₽.		01/21/14 02:59	
Fluorene	0.00612	U	0.0433	0.00612		₽	01/17/14 13:18	01/21/14 02:59	
Hexachlorobenzene	0.00394	U	0.0433	0.00394				01/21/14 02:59	
Hexachlorobutadiene	0.00498	U	0.0433	0.00498		☼	01/17/14 13:18	01/21/14 02:59	
Hexachlorocyclopentadiene	0.0120	U	0.0433	0.0120	mg/Kg	₩	01/17/14 13:18	01/21/14 02:59	
Hexachloroethane	0.00599	U	0.0433	0.00599	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	
Indeno[1,2,3-cd]pyrene	0.00908	U	0.0433	0.00908	mg/Kg	₽	01/17/14 13:18	01/21/14 02:59	
Isophorone	0.00259	U	0.0433	0.00259	mg/Kg	≎	01/17/14 13:18	01/21/14 02:59	
2-Methylnaphthalene	0.0887		0.0433	0.00711	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	
2-Methylphenol	0.00838	U	0.0433	0.00838	mg/Kg	₽	01/17/14 13:18	01/21/14 02:59	
3 & 4 Methylphenol	0.0929		0.0865	0.00724	mg/Kg	≎	01/17/14 13:18	01/21/14 02:59	
Naphthalene	0.0746		0.0433	0.00350	ma/Ka	₩	01/17/14 13:18	01/21/14 02:59	

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/08/14 13:20

Date Received: 01/10/14 10:31

Analyte

Client Sample ID: 2013-MB-5 (0.5-5)

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Result Qualifier

TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-7 Matrix: Solid

Percent Solids: 76.7

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	0.0127	U	0.0433	0.0127	mg/Kg	<u> </u>	01/17/14 13:18	01/21/14 02:59	1
3-Nitroaniline	0.0186	Ü	0.0433	0.0186	mg/Kg	φ.	01/17/14 13:18	01/21/14 02:59	1
4-Nitroaniline	0.0289	U	0.0433	0.0289	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	1
Nitrobenzene	0.00768	Ü	0.0433	0.00768	mg/Kg	φ.	01/17/14 13:18	01/21/14 02:59	1
2-Nitrophenol	0.0101	U	0.0433	0.0101	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	1
4-Nitrophenol	0.0132	U	0.0433	0.0132	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	1
N-Nitrosodimethylamine	0.0109	U	0.0433	0.0109	mg/Kg	₽	01/17/14 13:18	01/21/14 02:59	1
N-Nitrosodi-n-propylamine	0.00576	U	0.0433	0.00576	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	1
N-Nitrosodiphenylamine	0.00490	U	0.0433	0.00490	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	1
Pentachlorophenol	0.0104	U	0.433	0.0104	mg/Kg	₽	01/17/14 13:18	01/21/14 02:59	1
Phenanthrene	0.0321	J	0.0433	0.0128	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	1
Phenol	0.241		0.0433	0.0110	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	1
Pyrene	0.0181	J	0.0433	0.00475	mg/Kg	₩	01/17/14 13:18	01/21/14 02:59	1
1,2,4-Trichlorobenzene	0.00545	U	0.0433	0.00545	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	1
2,4,5-Trichlorophenol	0.0260	U	0.0433	0.0260	mg/Kg	☼	01/17/14 13:18	01/21/14 02:59	1
2,4,6-Trichlorophenol	0.00695	U	0.0433	0.00695	mg/Kg		01/17/14 13:18	01/21/14 02:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl			38 - 127				01/17/14 13:18	01/21/14 02:59	1
2-Fluorophenol	126		25 - 132				01/17/14 13:18	01/21/14 02:59	1
Nitrobenzene-d5	19		10 - 155				01/17/14 13:18	01/21/14 02:59	1
Phenol-d5 (Surr)	114		27 - 123				01/17/14 13:18	01/21/14 02:59	1
Terphenyl-d14	128		53 - 134				01/17/14 13:18	01/21/14 02:59	1
2,4,6-Tribromophenol	98		10 - 148				01/17/14 13:18	01/21/14 02:59	1

Allalyte	Result						•	Allalyzea	
C6-C12	4.95	U	13.0	4.95	mg/Kg	<u> </u>	01/14/14 12:54	01/14/14 17:17	1
>C12-C28	5.28	U	13.0	5.28	mg/Kg	₩	01/14/14 12:54	01/14/14 17:17	1
>C28-C35	5.28	U	13.0	5.28	mg/Kg	₩	01/14/14 12:54	01/14/14 17:17	1
C6-C35	9.74	U	13.0	9.74	mg/Kg		01/14/14 12:54	01/14/14 17:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	81		70 - 130				01/14/14 12:54	01/14/14 17:17	1
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
• •									
Cadmium	46.6		0.311	0.0319	mg/Kg	₩	01/13/14 14:19	01/14/14 08:52	1
			0.311	0.0319	mg/Kg	:¤	01/13/14 14:19	01/14/14 08:52	1
Cadmium	- DL	Qualifier	0.311 MQL (Adj)		mg/Kg Unit	Ð	01/13/14 14:19 Prepared	01/14/14 08:52 Analyzed	Dil Fac
Cadmium Method: 6010B - Metals (ICP)	- DL	Qualifier		SDL	Unit				Dil Fac 10
Cadmium Method: 6010B - Metals (ICP) - Analyte	- DL Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	
Method: 6010B - Metals (ICP) - Analyte Lead	Result 21200	Qualifier Qualifier	MQL (Adj)	SDL 1.30	Unit	D	Prepared	Analyzed	
Method: 6010B - Metals (ICP) - Analyte Lead General Chemistry	Result 21200	<u> </u>	MQL (Adj) 6.21	SDL 1.30	Unit mg/Kg	— D	Prepared 01/13/14 14:19	Analyzed 01/15/14 10:39	10
Method: 6010B - Metals (ICP) - Analyte Lead General Chemistry Analyte	Result 21200	<u> </u>	MQL (Adj) 6.21	SDL 1.30	Unit mg/Kg	— D	Prepared 01/13/14 14:19	Analyzed 01/15/14 10:39 Analyzed	10
Method: 6010B - Metals (ICP) - Analyte Lead General Chemistry Analyte Percent Moisture	- DL Result 21200 - Result 23	<u> </u>	MQL (Adj) 6.21 MQL (Adj) 1.0	SDL 1.30 SDL 1.0 1.0	Unit mg/Kg Unit % %	— D	Prepared 01/13/14 14:19	Analyzed 01/15/14 10:39 Analyzed 01/13/14 09:59	10

MQL (Adj)

SDL Unit

D

Prepared

Analyzed

TestAmerica Houston

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Dil Fac

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Client Sample ID: 2013-MB-5 (10-12)

Lab Sample ID: 600-85318-8

Date Collected: 01/08/14 13:35

Date Received: 01/10/14 10:31

Matrix: Solid
Percent Solids: 75.0

Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0671		0.0133	0.00221	mg/Kg	<u> </u>		01/17/14 12:32	
Benzene	0.000840	U	0.00667	0.000840	mg/Kg	☼		01/17/14 12:32	•
Chlorobromomethane	0.00237	U	0.00667	0.00237		₩		01/17/14 12:32	•
Bromoform	0.00183	U	0.00667	0.00183	mg/Kg	₽		01/17/14 12:32	
Bromomethane	0.00111	U	0.0133	0.00111	mg/Kg	₩		01/17/14 12:32	•
2-Butanone (MEK)	0.0101	J	0.0133	0.00253		₩		01/17/14 12:32	•
Carbon disulfide	0.000745	J	0.0133	0.000733	mg/Kg	☼		01/17/14 12:32	
Carbon tetrachloride	0.00151	U	0.00667	0.00151	mg/Kg	☼		01/17/14 12:32	•
Dibromochloromethane	0.00125	U	0.00667	0.00125	mg/Kg	☼		01/17/14 12:32	•
Chlorobenzene	0.00128	U	0.00667	0.00128	mg/Kg	₽		01/17/14 12:32	•
Chloroethane	0.00187	U	0.0133	0.00187	mg/Kg	₩		01/17/14 12:32	•
Chloroform	0.000880	U	0.00667	0.000880	mg/Kg	₩		01/17/14 12:32	•
Chloromethane	0.00221	U	0.0133	0.00221	mg/Kg	₩.		01/17/14 12:32	,
1,1-Dichloroethane	0.00116	U	0.00667	0.00116	mg/Kg	☼		01/17/14 12:32	
1,2-Dichloroethane	0.00120	U	0.00667	0.00120	mg/Kg	₩		01/17/14 12:32	
1,1-Dichloroethene	0.00163	U	0.00667	0.00163	mg/Kg			01/17/14 12:32	• • • • • • • •
cis-1,2-Dichloroethene	0.00111	U	0.00667	0.00111	mg/Kg	₩		01/17/14 12:32	
trans-1,2-Dichloroethene	0.00152	U	0.00667	0.00152	mg/Kg	₩		01/17/14 12:32	
1,2-Dichloropropane	0.000947	Ü	0.00667	0.000947	mg/Kg			01/17/14 12:32	
cis-1,3-Dichloropropene	0.000720	U	0.00667	0.000720		₩		01/17/14 12:32	
trans-1,3-Dichloropropene	0.000773	U	0.00667	0.000773	mg/Kg	₩		01/17/14 12:32	
Ethylbenzene	0.00136	U	0.00667	0.00136	mg/Kg			01/17/14 12:32	
2-Hexanone	0.00135	U	0.0133	0.00135	mg/Kg	₩		01/17/14 12:32	
Methylene Chloride	0.00549	J	0.0133	0.00292	mg/Kg	₩		01/17/14 12:32	
4-Methyl-2-pentanone (MIBK)	0.00196		0.0133	0.00196	mg/Kg			01/17/14 12:32	,
Styrene	0.000947		0.00667	0.000947		₩		01/17/14 12:32	
1,1,2,2-Tetrachloroethane	0.00116		0.00667	0.00116		₩		01/17/14 12:32	
Tetrachloroethene	0.000947		0.00667	0.000947				01/17/14 12:32	
Toluene	0.00313		0.00667	0.00184		₩		01/17/14 12:32	
1,1,1-Trichloroethane	0.000987		0.00667	0.000987		₩		01/17/14 12:32	
1,1,2-Trichloroethane	0.000973		0.00667	0.000973		 \$		01/17/14 12:32	
Trichloroethene	0.00187		0.00667	0.00187		₩		01/17/14 12:32	
Vinyl acetate	0.00124		0.00667	0.00124		₩		01/17/14 12:32	
Vinyl chloride	0.00120		0.0133	0.00120				01/17/14 12:32	
o-Xylene	0.00120		0.00667	0.00151		₩		01/17/14 12:32	,
m-Xylene & p-Xylene	0.00203		0.0133	0.00203	0 0	₩		01/17/14 12:32	
Xylenes, Total	0.00151		0.00667	0.00203				01/17/14 12:32	,
Bromodichloromethane	0.000880		0.00667	0.000131	0 0	₩		01/17/14 12:32	
1,2-Dichloroethene, Total	0.00253		0.0133	0.00253		☼		01/17/14 12:32	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Toluene-d8 (Surr)	96		50 - 130			=	<u> </u>	01/17/14 12:32	
Dibromofluoromethane	101		68 - 140					01/17/14 12:32	
4-Bromofluorobenzene	101		57 - 140					01/17/14 12:32	
1,2-Dichloroethane-d4 (Surr)	98		61 - 130					01/17/14 12:32	

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Dil Fac Analyzed 0.384 U Acenaphthene 4.45 0.384 mg/Kg 100 Acenaphthylene 0.267 U 4.45 0.267 mg/Kg ☼ 01/17/14 13:18 01/22/14 22:21 100

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Client Sample ID: 2013-MB-5 (10-12)

Lab Sample ID: 600-85318-8

Date Collected: 01/08/14 13:35

Date Received: 01/10/14 10:31

Matrix: Solid
Percent Solids: 75.0

Method: 8270C LL - Semivol Analyte	_	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fa
Anthracene	0.341		4.45		mg/Kg	— =	01/17/14 13:18		10
Benzidine	2.41		22.2		mg/Kg	· · · · · · · · · · · · · · · · · · ·	01/17/14 13:18		10
Benzo[a]anthracene	0.368		4.45		mg/Kg			01/22/14 22:21	10
Benzo[a]pyrene	0.300		4.45		mg/Kg	т Ф	01/17/14 13:18		10
Benzo[b]fluoranthene	0.429		4.45		mg/Kg			01/22/14 22:21	10
						☆			
Benzo[g,h,i]perylene	1.35		4.45		mg/Kg	☆		01/22/14 22:21	10
Benzo[k]fluoranthene	0.397		4.45		mg/Kg			01/22/14 22:21	10
Benzyl alcohol	1.55		4.45		mg/Kg	☆	01/17/14 13:18		10
Bis(2-chloroethoxy)methane	0.379		4.45		mg/Kg	₩ ₩		01/22/14 22:21	10
Bis(2-chloroethyl)ether	0.440		4.45		mg/Kg	<u>.</u> .	01/17/14 13:18		10
bis (2-Chloroisopropyl) ether	2.36		4.45		mg/Kg	₩.		01/22/14 22:21	10
Bis(2-ethylhexyl) phthalate	1.43		17.8		mg/Kg	.		01/22/14 22:21	10
4-Bromophenyl phenyl ether	0.757		4.45		mg/Kg			01/22/14 22:21	10
Butyl benzyl phthalate	1.65		17.8		mg/Kg	*		01/22/14 22:21	10
Carbazole	0.832		4.45		mg/Kg	₽	01/17/14 13:18		10
4-Chloroaniline	1.55	U	4.45	1.55	mg/Kg		01/17/14 13:18	01/22/14 22:21	10
4-Chloro-3-methylphenol	4.16	U	4.45		mg/Kg	₩	01/17/14 13:18	01/22/14 22:21	10
2-Chloronaphthalene	0.323	U	4.45	0.323	mg/Kg	≎	01/17/14 13:18	01/22/14 22:21	10
2-Chlorophenol	0.525	U	4.45		mg/Kg	≎	01/17/14 13:18	01/22/14 22:21	10
4-Chlorophenyl phenyl ether	0.480	U	4.45	0.480	mg/Kg	₽	01/17/14 13:18	01/22/14 22:21	10
Chrysene	0.272	U	4.45	0.272	mg/Kg	₩	01/17/14 13:18	01/22/14 22:21	10
Dibenz(a,h)anthracene	0.968	U	4.45	0.968	mg/Kg	₩	01/17/14 13:18	01/22/14 22:21	10
Dibenzofuran	6.33		4.45	0.475	mg/Kg	≎	01/17/14 13:18	01/22/14 22:21	10
1,2-Dichlorobenzene	0.805	U	4.45	0.805	mg/Kg	≎	01/17/14 13:18	01/22/14 22:21	10
1,3-Dichlorobenzene	0.411	U	4.45	0.411	mg/Kg	☆	01/17/14 13:18	01/22/14 22:21	10
1,4-Dichlorobenzene	0.600	U	4.45	0.600	mg/Kg	☆	01/17/14 13:18	01/22/14 22:21	10
3,3'-Dichlorobenzidine	2.71	U	4.45	2.71	mg/Kg	☆	01/17/14 13:18	01/22/14 22:21	10
2,4-Dichlorophenol	1.03	U	4.45	1.03	mg/Kg	₩	01/17/14 13:18	01/22/14 22:21	10
Diethyl phthalate	2.25	U	17.8	2.25	mg/Kg	☆	01/17/14 13:18	01/22/14 22:21	10
2,4-Dimethylphenol	2.29	U	4.45	2.29	mg/Kg	₽	01/17/14 13:18	01/22/14 22:21	10
Dimethyl phthalate	1.30	U	17.8	1.30	mg/Kg	₩	01/17/14 13:18	01/22/14 22:21	10
Di-n-butyl phthalate	0.691	U *	17.8		mg/Kg		01/17/14 13:18	01/22/14 22:21	10
4,6-Dinitro-2-methylphenol	1.33	U *	4.45		mg/Kg	≎	01/17/14 13:18	01/22/14 22:21	10
2,4-Dinitrophenol	1.26		26.7		mg/Kg	≎	01/17/14 13:18		10
2,4-Dinitrotoluene	0.963		4.45		mg/Kg	 \$	01/17/14 13:18		10
2,6-Dinitrotoluene	0.787		4.45		mg/Kg	₽	01/17/14 13:18		10
Di-n-octyl phthalate	0.507		17.8		mg/Kg	₩	01/17/14 13:18		10
Fluoranthene	0.829		4.45		mg/Kg		01/17/14 13:18		10
Fluorene	6.48	U	4.45		mg/Kg	₩	01/17/14 13:18		10
Hexachlorobenzene	0.405	11 *	4.45		mg/Kg	-875-	01/17/14 13:18		10
Hexachlorobutadiene					mg/Kg	· · · · · · · .	01/17/14 13:18		10
Hexachlorocyclopentadiene	0.512 1.23		4.45 4.45		mg/Kg	₩		01/22/14 22:21	10
• •						₽			
Hexachloroethane	0.616		4.45		mg/Kg		01/17/14 13:18		10
Indeno[1,2,3-cd]pyrene	0.933		4.45		mg/Kg	₩ ₩	01/17/14 13:18		10
Isophorone	0.267		4.45		mg/Kg	₽: **	01/17/14 13:18		10
2-Methylnaphthalene	3.19		4.45		mg/Kg			01/22/14 22:21	10
2-Methylphenol	0.861		4.45		mg/Kg		01/17/14 13:18		10
3 & 4 Methylphenol	0.744		8.89		mg/Kg	\	01/17/14 13:18		10
Naphthalene	0.360	U	4.45	0.360	mg/Kg	₩	01/17/14 13:18	01/22/14 22:21	10

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/08/14 13:35

Date Received: 01/10/14 10:31

Analyte

Percent Moisture

Percent Moisture

Percent Solids

Percent Solids

Client Sample ID: 2013-MB-5 (10-12)

TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-8

Matrix: Solid

Percent Solids: 75.0

Analyte	Result	Qualifier	MQL (Adj)	_	Unit	D	Prepared	Analyzed	Dil Fa
2-Nitroaniline	1.30	U	4.45	1.30	mg/Kg	<u> </u>	01/17/14 13:18	01/22/14 22:21	100
3-Nitroaniline	1.91	Ü	4.45	1.91	mg/Kg	φ.	01/17/14 13:18	01/22/14 22:21	100
4-Nitroaniline	2.97	U	4.45	2.97	mg/Kg	☼	01/17/14 13:18	01/22/14 22:21	100
Nitrobenzene	0.789	U	4.45	0.789	mg/Kg	₩.	01/17/14 13:18	01/22/14 22:21	100
2-Nitrophenol	1.04	U	4.45	1.04	mg/Kg	☼	01/17/14 13:18	01/22/14 22:21	100
4-Nitrophenol	1.35	U	4.45	1.35	mg/Kg	☼	01/17/14 13:18	01/22/14 22:21	100
N-Nitrosodimethylamine	1.12	U	4.45	1.12	mg/Kg	₽	01/17/14 13:18	01/22/14 22:21	10
N-Nitrosodi-n-propylamine	0.592	U	4.45	0.592	mg/Kg	☼	01/17/14 13:18	01/22/14 22:21	10
N-Nitrosodiphenylamine	0.504	U *	4.45	0.504	mg/Kg	☼	01/17/14 13:18	01/22/14 22:21	100
Pentachlorophenol	1.07	U *	44.5	1.07	mg/Kg	₽	01/17/14 13:18	01/22/14 22:21	100
Phenanthrene	5.36	*	4.45	1.32	mg/Kg	☼	01/17/14 13:18	01/22/14 22:21	100
Phenol	1.13	U	4.45	1.13	mg/Kg	☼	01/17/14 13:18	01/22/14 22:21	100
Pyrene	1.26	J	4.45	0.488	mg/Kg	₩	01/17/14 13:18	01/22/14 22:21	100
1,2,4-Trichlorobenzene	0.560	U	4.45	0.560	mg/Kg	☼	01/17/14 13:18	01/22/14 22:21	100
2,4,5-Trichlorophenol	2.67	U	4.45	2.67	mg/Kg	☼	01/17/14 13:18	01/22/14 22:21	100
2,4,6-Trichlorophenol	0.715	U	4.45	0.715	mg/Kg		01/17/14 13:18	01/22/14 22:21	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2-Fluorobiphenyl		X	38 - 127				01/17/14 13:18	01/22/14 22:21	10
2-Fluorophenol	0	X	25 - 132				01/17/14 13:18	01/22/14 22:21	10
Nitrobenzene-d5	0	Χ	10 - 155				01/17/14 13:18	01/22/14 22:21	10
Phenol-d5 (Surr)	0	X	27 - 123				01/17/14 13:18	01/22/14 22:21	10
Terphenyl-d14	0	Χ	53 - 134				01/17/14 13:18	01/22/14 22:21	10
2,4,6-Tribromophenol	0	X	10 - 148				01/17/14 13:18	01/22/14 22:21	10
Method: TX 1005 - Texas -	Total Petroleu	m Hydroc	arbon (GC)						
Analyte		Qualifier	MQL (Adj)	_	Unit	D	Prepared	Analyzed	Dil Fa
C6-C12	299		66.5		mg/Kg	₩	01/14/14 12:54	01/15/14 09:36	
>C12-C28	2410		66.5	27.0	mg/Kg	₩	01/14/14 12:54	01/15/14 09:36	
>C28-C35	334		66.5		mg/Kg	₩	01/14/14 12:54	01/15/14 09:36	
C6-C35	3050		66.5	49.7	mg/Kg	☼	01/14/14 12:54	01/15/14 09:36	
Surrogate	%Recovery		Limits				Prepared	Analyzed	Dil Fa
o-Terphenyl	218	X	70 - 130				01/14/14 12:54	01/15/14 09:36	
Method: 6010B - Metals (IC									
Analyte	Result	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fa
Cadmium	2.15		0.330	0.0339	mg/Kg	<u> </u>	01/13/14 14:19	01/14/14 08:55	
Lead	2390		0.660	0.138	mg/Kg	₩	01/13/14 14:19	01/14/14 08:55	
General Chemistry									
Amalusta	Desult	Ouglifier	MOL (Adi)	CDI	l lmit	ъ.	Droporod	A malumad	DII E

Analyzed

01/13/14 09:59

01/13/14 09:59

01/13/14 09:59

01/13/14 09:59

MQL (Adj)

1.0

1.0

1.0

1.0

SDL Unit

1.0 %

1.0 %

1.0 %

1.0 %

D

Prepared

Result Qualifier

25

25

75

75

Dil Fac

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/08/14 15:15

Date Received: 01/10/14 10:31

Analyte

Lead

Cadmium

Client Sample ID: 2013-MB-4 (0.83-1.33)

TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-11

Matrix: Solid

Percent Solids: 76.4

Analyte	Result	Qualifier	MQL (Adj)	SDL		D	Prepared	Analyzed	Dil Fa
Acetone	0.298		0.0131	0.00217	mg/Kg			01/15/14 21:55	
Benzene	0.000824	U	0.00654	0.000824	mg/Kg	₩		01/15/14 21:55	
Chlorobromomethane	0.00233	U	0.00654	0.00233	mg/Kg	₩		01/15/14 21:55	
Bromoform	0.00179	U	0.00654	0.00179	mg/Kg	₩		01/15/14 21:55	
Bromomethane	0.00109	U	0.0131	0.00109	mg/Kg	₩		01/15/14 21:55	
2-Butanone (MEK)	0.0358		0.0131	0.00249	mg/Kg	₩		01/15/14 21:55	
Carbon disulfide	0.00386	J	0.0131	0.000719	mg/Kg	₽		01/15/14 21:55	
Carbon tetrachloride	0.00148	U	0.00654	0.00148	mg/Kg	≎		01/15/14 21:55	
Dibromochloromethane	0.00123	U	0.00654	0.00123	mg/Kg	₩		01/15/14 21:55	
Chlorobenzene	0.00126	U	0.00654	0.00126	mg/Kg			01/15/14 21:55	
Chloroethane	0.00183	U	0.0131	0.00183	mg/Kg	☼		01/15/14 21:55	
Chloroform	0.000863	U	0.00654	0.000863	mg/Kg	☼		01/15/14 21:55	
Chloromethane	0.00217	U	0.0131	0.00217	mg/Kg	₩.		01/15/14 21:55	
1,1-Dichloroethane	0.00114	U	0.00654	0.00114	mg/Kg	☼		01/15/14 21:55	
1,2-Dichloroethane	0.00118	U	0.00654	0.00118	mg/Kg	₩		01/15/14 21:55	
1,1-Dichloroethene	0.00160	U	0.00654	0.00160	mg/Kg	₩		01/15/14 21:55	
cis-1,2-Dichloroethene	0.00109	U	0.00654	0.00109	mg/Kg	₩		01/15/14 21:55	
trans-1,2-Dichloroethene	0.00149	U	0.00654	0.00149	mg/Kg	₩		01/15/14 21:55	
1,2-Dichloropropane	0.000929	Ü	0.00654	0.000929		.		01/15/14 21:55	
cis-1,3-Dichloropropene	0.000706	U	0.00654	0.000706	mg/Kg	₩		01/15/14 21:55	
trans-1,3-Dichloropropene	0.000759	U	0.00654	0.000759	mg/Kg	₩		01/15/14 21:55	
Ethylbenzene	0.00133	U	0.00654	0.00133	mg/Kg	.		01/15/14 21:55	
2-Hexanone	0.00132	U	0.0131	0.00132	mg/Kg	₩		01/15/14 21:55	
Methylene Chloride	0.00286	U	0.0131	0.00286	mg/Kg	₩		01/15/14 21:55	
4-Methyl-2-pentanone (MIBK)	0.00192	Ü	0.0131	0.00192	mg/Kg	.		01/15/14 21:55	
Styrene	0.000929	U	0.00654	0.000929	mg/Kg	₩		01/15/14 21:55	
1,1,2,2-Tetrachloroethane	0.00114	U	0.00654	0.00114	mg/Kg	₩		01/15/14 21:55	
Tetrachloroethene	0.000929	Ü	0.00654	0.000929	mg/Kg	· · · · · · · · · · · · · · · · · · ·		01/15/14 21:55	
Toluene	0.00181	U	0.00654	0.00181	mg/Kg	₩		01/15/14 21:55	
1,1,1-Trichloroethane	0.000968	U	0.00654	0.000968		₩		01/15/14 21:55	
1,1,2-Trichloroethane	0.000955	U	0.00654	0.000955		· · · · · · · · · · · · · · · · · · ·		01/15/14 21:55	
Trichloroethene	0.00183	U	0.00654	0.00183		₩		01/15/14 21:55	
Vinyl acetate	0.00122	U	0.00654	0.00122		₩		01/15/14 21:55	
Vinyl chloride	0.00118	U	0.0131	0.00118				01/15/14 21:55	
o-Xylene	0.00148	U	0.00654	0.00148		₩		01/15/14 21:55	
m-Xylene & p-Xylene	0.00199		0.0131	0.00199		₩		01/15/14 21:55	
Xylenes, Total	0.00148		0.00654	0.00148				01/15/14 21:55	
Bromodichloromethane	0.000863		0.00654	0.000863		₩		01/15/14 21:55	
1,2-Dichloroethene, Total	0.00249		0.0131	0.00249		☼		01/15/14 21:55	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Toluene-d8 (Surr)	86	-	50 - 130			-		01/15/14 21:55	
Dibromofluoromethane	92		68 - 140					01/15/14 21:55	
4-Bromofluorobenzene	99		57 - 140					01/15/14 21:55	
1,2-Dichloroethane-d4 (Surr)	86		61 - 130					01/15/14 21:55	

TestAmerica Houston

Analyzed

Prepared

□ 01/13/14 14:19 □ 01/14/14 08:57

© 01/13/14 14:19 01/14/14 08:57

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MQL (Adj)

0.318

0.635

SDL Unit

0.0326 mg/Kg

0.133 mg/Kg

Result Qualifier

0.495

24.4

6/8/2015

Dil Fac

3

4

6

8

10

12

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24	1.0	1.0 %			01/13/14 09:59	1
Percent Solids	76	1.0	1.0 %			01/13/14 09:59	1

Client Sample ID: MW-27D (0.5-2)

Lab Sample ID: 600-85318-14

Date Collected: 01/08/14 15:45
Date Received: 01/10/14 10:31

Matrix: Solid
Percent Solids: 77.5

Method: 8260B - Volatile O Analyte		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0549		0.0129	0.00214	mg/Kg	- - -	<u> </u>	01/15/14 22:19	1
Benzene	0.000813	U	0.00645	0.000813	mg/Kg	₩		01/15/14 22:19	1
Chlorobromomethane	0.00230	U	0.00645	0.00230		₩		01/15/14 22:19	1
Bromoform	0.00177	U	0.00645	0.00177	mg/Kg	ф		01/15/14 22:19	1
Bromomethane	0.00107	U	0.0129	0.00107		₩		01/15/14 22:19	1
2-Butanone (MEK)	0.0165		0.0129	0.00245	mg/Kg	₩		01/15/14 22:19	1
Carbon disulfide	0.00364	J	0.0129	0.000710				01/15/14 22:19	1
Carbon tetrachloride	0.00146	U	0.00645	0.00146	mg/Kg	₩		01/15/14 22:19	1
Dibromochloromethane	0.00121	U	0.00645	0.00121	mg/Kg	₩		01/15/14 22:19	1
Chlorobenzene	0.00124	U	0.00645	0.00124	mg/Kg			01/15/14 22:19	1
Chloroethane	0.00181	U	0.0129	0.00181	0 0	₩		01/15/14 22:19	1
Chloroform	0.000852	U	0.00645	0.000852	0 0	₩		01/15/14 22:19	1
Chloromethane	0.00214	U	0.0129	0.00214	mg/Kg			01/15/14 22:19	1
1,1-Dichloroethane	0.00112	U	0.00645	0.00112		₩		01/15/14 22:19	1
1,2-Dichloroethane	0.00116	U	0.00645	0.00116		₩		01/15/14 22:19	1
1,1-Dichloroethene	0.00157	U	0.00645	0.00157	mg/Kg			01/15/14 22:19	1
cis-1,2-Dichloroethene	0.00107		0.00645	0.00107	0 0	₽		01/15/14 22:19	1
trans-1,2-Dichloroethene	0.00147	U	0.00645	0.00147	0 0	₽		01/15/14 22:19	1
1,2-Dichloropropane	0.000916	U	0.00645	0.000916				01/15/14 22:19	1
cis-1,3-Dichloropropene	0.000697		0.00645	0.000697		₽		01/15/14 22:19	1
trans-1,3-Dichloropropene	0.000748		0.00645	0.000748	0 0	₩		01/15/14 22:19	1
Ethylbenzene	0.00132	U	0.00645	0.00132				01/15/14 22:19	1
2-Hexanone	0.00130	U	0.0129	0.00130	mg/Kg	₩		01/15/14 22:19	1
Methylene Chloride	0.00932	J	0.0129	0.00283	0 0	₩		01/15/14 22:19	1
4-Methyl-2-pentanone (MIBK)	0.00190		0.0129	0.00190	mg/Kg			01/15/14 22:19	1
Styrene	0.000916	U	0.00645	0.000916		☼		01/15/14 22:19	1
1,1,2,2-Tetrachloroethane	0.00112	U	0.00645	0.00112	0 0	₩		01/15/14 22:19	1
Tetrachloroethene	0.000916	U	0.00645	0.000916	mg/Kg			01/15/14 22:19	1
Toluene	0.00197	J	0.00645	0.00178		☼		01/15/14 22:19	1
1,1,1-Trichloroethane	0.000955		0.00645	0.000955		₩		01/15/14 22:19	1
1,1,2-Trichloroethane	0.000942	U	0.00645	0.000942				01/15/14 22:19	1
Trichloroethene	0.00181	U	0.00645	0.00181		₩		01/15/14 22:19	1
Vinyl acetate	0.00120	U	0.00645	0.00120		₩		01/15/14 22:19	1
Vinyl chloride	0.00116		0.0129	0.00116				01/15/14 22:19	1
o-Xylene	0.00146	U	0.00645	0.00146		₩		01/15/14 22:19	1
m-Xylene & p-Xylene	0.00196	U	0.0129	0.00196	0 0	₩		01/15/14 22:19	1
Xylenes, Total	0.00146	U	0.00645	0.00146				01/15/14 22:19	1
Bromodichloromethane	0.000852		0.00645	0.000852		₩		01/15/14 22:19	1
1,2-Dichloroethene, Total	0.00245		0.0129	0.00245		☼		01/15/14 22:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		50 - 130			-		01/15/14 22:19	1
Dibromofluoromethane	88		68 - 140					01/15/14 22:19	1
4-Bromofluorobenzene	102		57 - 140					01/15/14 22:19	1
1,2-Dichloroethane-d4 (Surr)	77		61 - 130					01/15/14 22:19	1

TestAmerica Houston

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12

1 1

Client: Golder Associates Inc.

Date Received: 01/10/14 10:31

Method: 8260B - Volatile Organic Compounds (GC/MS)

Project/Site: Exide Recycling Center

TestAmerica Job ID: 600-85318-1

	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
Naphthalene	0.00347	U	0.0429	0.00347	mg/Kg	\	01/17/14 13:18	01/21/14 03:53	
2-Methylnaphthalene	0.00704	U	0.0429	0.00704	mg/Kg	≎	01/17/14 13:18	01/21/14 03:53	
1-Methylnaphthalene	0.00404	U	0.0429	0.00404	mg/Kg	☼	01/17/14 13:18	01/21/14 03:53	
Acenaphthylene	0.00257	U	0.0429	0.00257	mg/Kg	₽	01/17/14 13:18	01/21/14 03:53	
Acenaphthene	0.00370	U	0.0429	0.00370	mg/Kg	☆	01/17/14 13:18	01/21/14 03:53	
Fluorene	0.00607	U	0.0429	0.00607	mg/Kg	☆	01/17/14 13:18	01/21/14 03:53	
Phenanthrene	0.0127	U	0.0429	0.0127	mg/Kg	₩	01/17/14 13:18	01/21/14 03:53	
Anthracene	0.00329	U	0.0429	0.00329	mg/Kg	₩	01/17/14 13:18	01/21/14 03:53	
Fluoranthene	0.0155	J	0.0429	0.00799	mg/Kg	₩	01/17/14 13:18	01/21/14 03:53	
Pyrene	0.0166	J	0.0429	0.00470	mg/Kg	₽	01/17/14 13:18	01/21/14 03:53	
Benzo[a]anthracene	0.00355	U	0.0429	0.00355	mg/Kg	₩	01/17/14 13:18	01/21/14 03:53	
Chrysene	0.00262	U	0.0429	0.00262	mg/Kg	☼	01/17/14 13:18	01/21/14 03:53	
Benzo[b]fluoranthene	0.00442	U	0.0429	0.00442	mg/Kg	₽	01/17/14 13:18	01/21/14 03:53	
Benzo[k]fluoranthene	0.00383	U	0.0429	0.00383	mg/Kg	☼	01/17/14 13:18	01/21/14 03:53	
Benzo[a]pyrene	0.00414	U	0.0429	0.00414	mg/Kg	☼	01/17/14 13:18	01/21/14 03:53	
Indeno[1,2,3-cd]pyrene	0.00900	U	0.0429	0.00900	mg/Kg		01/17/14 13:18	01/21/14 03:53	
Dibenz(a,h)anthracene	0.00933	U	0.0429	0.00933	mg/Kg	≎	01/17/14 13:18	01/21/14 03:53	
Benzo[g,h,i]perylene	0.0130	U	0.0429	0.0130	mg/Kg	₽	01/17/14 13:18	01/21/14 03:53	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
2-Fluorophenol	55		25 - 132				01/17/14 13:18	01/21/14 03:53	
Nitrobenzene-d5	18		10 - 155				01/17/14 13:18	01/21/14 03:53	
2-Fluorobiphenyl	92		38 - 127				01/17/14 13:18	01/21/14 03:53	
2,4,6-Tribromophenol	59		10 - 148				01/17/14 13:18	01/21/14 03:53	
Terphenyl-d14	121		53 - 134				01/17/14 13:18	01/21/14 03:53	
Phenol-d5 (Surr)	121		27 - 123				01/17/14 13:18	01/21/14 03:53	
Method: TX 1005 - Texas - Tot	al Petroleui	m Hydroc	arbon (GC)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil F
C6-C12	4.87	U	12.8	4.87	mg/Kg	<u> </u>	01/14/14 12:54	01/14/14 18:25	
							04/44/44 40 54	04/44/444005	
>C12-C28	5.20	U	12.8	5.20	mg/Kg	₩	01/14/14 12:54	01/14/14 18:25	
	5.20 5.20		12.8 12.8		mg/Kg mg/Kg	₽		01/14/14 18:25 01/14/14 18:25	
>C28-C35		U		5.20			01/14/14 12:54		
>C28-C35 C6-C35	5.20	U	12.8	5.20	mg/Kg	₽	01/14/14 12:54	01/14/14 18:25	Dil F
>C28-C35 C6-C35 Surrogate	5.20 9.59	U	12.8 12.8	5.20	mg/Kg	₽	01/14/14 12:54 01/14/14 12:54 Prepared	01/14/14 18:25 01/14/14 18:25	Dil F
>C12-C28 >C28-C35 C6-C35 Surrogate o-Terphenyl Method: 6010B - Metals (ICP)	5.20 9.59 %Recovery	U	12.8 12.8 Limits	5.20	mg/Kg	₽	01/14/14 12:54 01/14/14 12:54 Prepared	01/14/14 18:25 01/14/14 18:25 <i>Analyzed</i>	Dil F
>C28-C35 C6-C35 Surrogate o-Terphenyl	5.20 9.59 %Recovery 97	U	12.8 12.8 Limits	5.20 9.59	mg/Kg mg/Kg	₽	01/14/14 12:54 01/14/14 12:54 Prepared 01/14/14 12:54 Prepared	01/14/14 18:25 01/14/14 18:25 Analyzed 01/14/14 18:25 Analyzed	Dil F
>C28-C35 C6-C35 Surrogate o-Terphenyl Method: 6010B - Metals (ICP) Analyte	5.20 9.59 %Recovery 97	U U Qualifier	12.8 12.8 Limits 70 - 130	5.20 9.59	mg/Kg mg/Kg	\$	01/14/14 12:54 01/14/14 12:54 Prepared 01/14/14 12:54	01/14/14 18:25 01/14/14 18:25 Analyzed 01/14/14 18:25 Analyzed	
>C28-C35 C6-C35 Surrogate o-Terphenyl Method: 6010B - Metals (ICP) Analyte Cadmium	5.20 9.59 %Recovery 97	U U Qualifier	12.8 12.8 <i>Limits</i> 70 - 130	5.20 9.59 SDL 0.0321	mg/Kg mg/Kg		01/14/14 12:54 01/14/14 12:54 Prepared 01/14/14 12:54 Prepared	01/14/14 18:25 01/14/14 18:25 Analyzed 01/14/14 18:25 Analyzed 01/14/14 08:31	
>C28-C35 C6-C35 Surrogate o-Terphenyl Method: 6010B - Metals (ICP) Analyte Cadmium Lead	5.20 9.59 %Recovery 97 Result 15.1	U U Qualifier	12.8 12.8 Limits 70 - 130 MQL (Adj) 0.313	5.20 9.59 SDL 0.0321	mg/Kg mg/Kg	* D	01/14/14 12:54 01/14/14 12:54 Prepared 01/14/14 12:54 Prepared 01/13/14 14:19	01/14/14 18:25 01/14/14 18:25 Analyzed 01/14/14 18:25 Analyzed 01/14/14 08:31	
>C28-C35 C6-C35 Surrogate o-Terphenyl Method: 6010B - Metals (ICP) Analyte Cadmium Lead General Chemistry	5.20 9.59 %Recovery 97 Result 15.1 315	U U Qualifier	12.8 12.8 Limits 70 - 130 MQL (Adj) 0.313	5.20 9.59 SDL 0.0321 0.131	mg/Kg mg/Kg Unit mg/Kg mg/Kg	* D	01/14/14 12:54 01/14/14 12:54 Prepared 01/14/14 12:54 Prepared 01/13/14 14:19	01/14/14 18:25 01/14/14 18:25 Analyzed 01/14/14 18:25 Analyzed 01/14/14 08:31	Dil F
>C28-C35 C6-C35 Surrogate o-Terphenyl Method: 6010B - Metals (ICP)	5.20 9.59 %Recovery 97 Result 15.1 315	U Qualifier Qualifier	12.8 12.8 <i>Limits</i> 70 - 130 MQL (Adj) 0.313 0.626	5.20 9.59 SDL 0.0321 0.131	mg/Kg mg/Kg Unit mg/Kg mg/Kg	— D	01/14/14 12:54 01/14/14 12:54 Prepared 01/14/14 12:54 Prepared 01/13/14 14:19 01/13/14 14:19	01/14/14 18:25 01/14/14 18:25 Analyzed 01/14/14 18:25 Analyzed 01/14/14 08:31 01/14/14 08:31	

Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Dil Fac Analyzed ₩ Acetone 0.00213 U 0.0128 0.00213 mg/Kg 01/15/14 22:43 ₩ Benzene 0.000808 U 0.00641 0.000808 mg/Kg 01/15/14 22:43

TestAmerica Houston

Percent Solids: 78.0

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/08/14 16:20

Date Received: 01/10/14 10:31

Client Sample ID: MW-27C (0-2)

TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-16

Matrix: Solid

Percent Solids: 78.0

Method: 8260B - Volatile O Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	0.00228	U	0.00641	0.00228	mg/Kg			01/15/14 22:43	1
Bromoform	0.00176	U	0.00641	0.00176	mg/Kg	Þ		01/15/14 22:43	1
Bromomethane	0.00106	U	0.0128	0.00106	mg/Kg	☼		01/15/14 22:43	1
2-Butanone (MEK)	0.00244	U	0.0128	0.00244	mg/Kg	☼		01/15/14 22:43	1
Carbon disulfide	0.000705	U	0.0128	0.000705	mg/Kg	≎		01/15/14 22:43	1
Carbon tetrachloride	0.00145	U	0.00641	0.00145	mg/Kg	☼		01/15/14 22:43	1
Dibromochloromethane	0.00120	U	0.00641	0.00120	mg/Kg	☼		01/15/14 22:43	1
Chlorobenzene	0.00123	U	0.00641	0.00123	mg/Kg	≎		01/15/14 22:43	1
Chloroethane	0.00179	U	0.0128	0.00179	mg/Kg	☼		01/15/14 22:43	1
Chloroform	0.000846	U	0.00641	0.000846	mg/Kg	₩		01/15/14 22:43	1
Chloromethane	0.00213	U	0.0128	0.00213	mg/Kg	≎		01/15/14 22:43	1
1,1-Dichloroethane	0.00112	U	0.00641	0.00112	mg/Kg	≎		01/15/14 22:43	1
1,2-Dichloroethane	0.00115	U	0.00641	0.00115	mg/Kg	₩		01/15/14 22:43	1
1,1-Dichloroethene	0.00156	U	0.00641	0.00156	mg/Kg			01/15/14 22:43	1
cis-1,2-Dichloroethene	0.00106	U	0.00641	0.00106	mg/Kg	₩		01/15/14 22:43	1
trans-1,2-Dichloroethene	0.00146	U	0.00641	0.00146	mg/Kg	₩		01/15/14 22:43	1
1,2-Dichloropropane	0.000910	U	0.00641	0.000910	mg/Kg	ф.		01/15/14 22:43	1
cis-1,3-Dichloropropene	0.000692	U	0.00641	0.000692	mg/Kg	☼		01/15/14 22:43	1
trans-1,3-Dichloropropene	0.000743	U	0.00641	0.000743	mg/Kg	☼		01/15/14 22:43	1
Ethylbenzene	0.00131	U	0.00641	0.00131	mg/Kg	\$		01/15/14 22:43	1
2-Hexanone	0.00129	U	0.0128	0.00129	mg/Kg	☼		01/15/14 22:43	1
Methylene Chloride	0.00281	U	0.0128	0.00281	mg/Kg	☼		01/15/14 22:43	1
4-Methyl-2-pentanone (MIBK)	0.00188	U	0.0128	0.00188	mg/Kg			01/15/14 22:43	1
Styrene	0.000910	U	0.00641	0.000910	mg/Kg	☼		01/15/14 22:43	1
1,1,2,2-Tetrachloroethane	0.00112	U	0.00641	0.00112	mg/Kg	☼		01/15/14 22:43	1
Tetrachloroethene	0.000910	U	0.00641	0.000910	mg/Kg			01/15/14 22:43	1
Toluene	0.00177	U	0.00641	0.00177	mg/Kg	₩		01/15/14 22:43	1
1,1,1-Trichloroethane	0.000949	U	0.00641	0.000949	mg/Kg	☼		01/15/14 22:43	1
1,1,2-Trichloroethane	0.000936	U	0.00641	0.000936	mg/Kg			01/15/14 22:43	1
Trichloroethene	0.00179	U	0.00641	0.00179	mg/Kg	≎		01/15/14 22:43	1
Vinyl acetate	0.00119	U	0.00641	0.00119	mg/Kg	≎		01/15/14 22:43	1
Vinyl chloride	0.00115	U	0.0128	0.00115	mg/Kg			01/15/14 22:43	1
o-Xylene	0.00145	U	0.00641	0.00145	mg/Kg	₩		01/15/14 22:43	1
m-Xylene & p-Xylene	0.00195	U	0.0128	0.00195		₽		01/15/14 22:43	1
Xylenes, Total	0.00145	U	0.00641	0.00145	mg/Kg	Φ.		01/15/14 22:43	1
Bromodichloromethane	0.000846	U	0.00641	0.000846	mg/Kg	₩		01/15/14 22:43	1
1,2-Dichloroethene, Total	0.00244	U	0.0128	0.00244	mg/Kg	₩		01/15/14 22:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		50 - 130			-		01/15/14 22:43	1
Dibromofluoromethane	89		68 - 140					01/15/14 22:43	1
4-Bromofluorobenzene	113		57 - 140					01/15/14 22:43	1
1,2-Dichloroethane-d4 (Surr)	81		61 - 130					01/15/14 22:43	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels											
	Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac	
	Naphthalene	0.00612	J	0.0424	0.00343	mg/Kg	\	01/15/14 08:14	01/17/14 12:30	1	
	2-Methylnaphthalene	0.00706	J	0.0424	0.00696	mg/Kg	₩	01/15/14 08:14	01/17/14 12:30	1	
	1-Methylnaphthalene	0.00399	U	0.0424	0.00399	mg/Kg	☼	01/15/14 08:14	01/17/14 12:30	1	
	Acenaphthylene	0.00254	U	0.0424	0.00254	mg/Kg	₩	01/15/14 08:14	01/17/14 12:30	1	

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Client Sample ID: MW-27C (0-2)

Lab Sample ID: 600-85318-16 Date Collected: 01/08/14 16:20 **Matrix: Solid**

Date Received: 01/10/14 10:31 Percent Solids: 78.0

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.00366	U	0.0424	0.00366	mg/Kg	₩	01/15/14 08:14	01/17/14 12:30	1
Fluorene	0.00600	U	0.0424	0.00600	mg/Kg	≎	01/15/14 08:14	01/17/14 12:30	1
Phenanthrene	0.0133	J	0.0424	0.0126	mg/Kg	₩	01/15/14 08:14	01/17/14 12:30	1
Anthracene	0.00824	J	0.0424	0.00325	mg/Kg	₩	01/15/14 08:14	01/17/14 12:30	1
Fluoranthene	0.00790	U	0.0424	0.00790	mg/Kg	₩	01/15/14 08:14	01/17/14 12:30	1
Pyrene	0.0106	J	0.0424	0.00465	mg/Kg	₩	01/15/14 08:14	01/17/14 12:30	1
Benzo[a]anthracene	0.0123	J	0.0424	0.00351	mg/Kg	₩	01/15/14 08:14	01/17/14 12:30	1
Chrysene	0.0297	J	0.0424	0.00259	mg/Kg	☆	01/15/14 08:14	01/17/14 12:30	1
Benzo[b]fluoranthene	0.0202	J	0.0424	0.00437	mg/Kg	₩	01/15/14 08:14	01/17/14 12:30	1
Benzo[k]fluoranthene	0.00379	U	0.0424	0.00379	mg/Kg	≎	01/15/14 08:14	01/17/14 12:30	1
Benzo[a]pyrene	0.0138	J	0.0424	0.00409	mg/Kg	≎	01/15/14 08:14	01/17/14 12:30	1
Indeno[1,2,3-cd]pyrene	0.00890	U	0.0424	0.00890	mg/Kg	.	01/15/14 08:14	01/17/14 12:30	1
Dibenz(a,h)anthracene	0.00923	U	0.0424	0.00923	mg/Kg	☆	01/15/14 08:14	01/17/14 12:30	1
Benzo[g,h,i]perylene	0.0129	U	0.0424	0.0129	mg/Kg	☼	01/15/14 08:14	01/17/14 12:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	123		25 - 132				01/15/14 08:14	01/17/14 12:30	1
Nitrobenzene-d5	110		10 - 155				01/15/14 08:14	01/17/14 12:30	1
2-Fluorobiphenyl	114		38 - 127				01/15/14 08:14	01/17/14 12:30	1
2,4,6-Tribromophenol	103		10 - 148				01/15/14 08:14	01/17/14 12:30	1
Terphenyl-d14	125		53 - 134				01/15/14 08:14	01/17/14 12:30	1
Phenol-d5 (Surr)	111		27 - 123				01/15/14 08:14	01/17/14 12:30	1
Method: TX 1005 - Texas - Tot	al Petroleui	m Hvdroc	arbon (GC)						
Method: TX 1005 - Texas - Tot Analyte		m Hydroc Qualifier	arbon (GC) MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier			Unit mg/Kg	_ D <u>⇔</u>		Analyzed 01/14/14 19:00	
Analyte	Result	Qualifier U	MQL (Adj)	4.87		- \$	01/14/14 12:54		1
Analyte C6-C12	Result 4.87	Qualifier U U	MQL (Adj) 12.8	4.87 5.20	mg/Kg	— ☆	01/14/14 12:54 01/14/14 12:54	01/14/14 19:00	1
Analyte C6-C12 >C12-C28	4.87 5.20	Qualifier U U U	MQL (Adj) 12.8 12.8	4.87 5.20 5.20	mg/Kg mg/Kg	— ☆	01/14/14 12:54 01/14/14 12:54 01/14/14 12:54	01/14/14 19:00 01/14/14 19:00	1 1 1
Analyte C6-C12 >C12-C28 >C28-C35	4.87 5.20 5.20	Qualifier U U U U	MQL (Adj) 12.8 12.8 12.8	4.87 5.20 5.20	mg/Kg mg/Kg mg/Kg	— * * *	01/14/14 12:54 01/14/14 12:54 01/14/14 12:54	01/14/14 19:00 01/14/14 19:00 01/14/14 19:00	Dil Fac
Analyte C6-C12 >C12-C28 >C28-C35 C6-C35	4.87 5.20 5.20 9.58	Qualifier U U U U	MQL (Adj) 12.8 12.8 12.8 12.8	4.87 5.20 5.20	mg/Kg mg/Kg mg/Kg	— * * *	01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 <i>Prepared</i>	01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 01/14/14 19:00	1 1 1 1 Dil Fac
Analyte C6-C12 >C12-C28 >C28-C35 C6-C35	8 4.87 5.20 5.20 9.58 %Recovery	Qualifier U U U U	MQL (Adj) 12.8 12.8 12.8 12.8 12.8	4.87 5.20 5.20	mg/Kg mg/Kg mg/Kg	— * * *	01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 <i>Prepared</i>	01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 Analyzed	1 1 1 1
Analyte C6-C12 >C12-C28 >C28-C35 C6-C35 Surrogate o-Terphenyl	Result 4.87 5.20 5.20 9.58	Qualifier U U U U	MQL (Adj) 12.8 12.8 12.8 12.8 12.8	4.87 5.20 5.20 9.58	mg/Kg mg/Kg mg/Kg	— * * *	01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 <i>Prepared</i>	01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 Analyzed	1 1 1 1 Dil Fac
Analyte C6-C12 >C12-C28 >C28-C35 C6-C35 Surrogate o-Terphenyl Method: 6010B - Metals (ICP)	Result 4.87 5.20 5.20 9.58	Qualifier U U U Qualifier	MQL (Adj) 12.8 12.8 12.8 12.8 12.8 70 - 130	4.87 5.20 5.20 9.58	mg/Kg mg/Kg mg/Kg mg/Kg	*	01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 Prepared 01/14/14 12:54 Prepared	01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 Analyzed 01/14/14 19:00	1 1 1 1 Dil Fac
Analyte C6-C12 >C12-C28 >C28-C35 C6-C35 Surrogate o-Terphenyl Method: 6010B - Metals (ICP) Analyte Cadmium	Result 4.87 5.20 5.20 9.58	Qualifier U U U Qualifier	MQL (Adj) 12.8 12.8 12.8 12.8 12.8 12.8 MQL (Adj)	4.87 5.20 5.20 9.58 SDL 0.0304	mg/Kg mg/Kg mg/Kg mg/Kg	**************************************	01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 Prepared 01/14/14 12:54 Prepared 01/14/14 12:46	01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 Analyzed 01/14/14 19:00 Analyzed	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Analyte C6-C12 >C12-C28 >C28-C35 C6-C35 Surrogate o-Terphenyl Method: 6010B - Metals (ICP) Analyte	Result 4.87 5.20 5.20 9.58	Qualifier U U U Qualifier	MQL (Adj) 12.8 12.8 12.8 12.8 Limits 70 - 130 MQL (Adj) 0.297	4.87 5.20 5.20 9.58 SDL 0.0304	mg/Kg mg/Kg mg/Kg mg/Kg	**************************************	01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 Prepared 01/14/14 12:54 Prepared 01/14/14 12:46	01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 Analyzed 01/14/14 19:00 Analyzed 01/15/14 13:22	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Analyte C6-C12 >C12-C28 >C28-C35 C6-C35 Surrogate o-Terphenyl Method: 6010B - Metals (ICP) Analyte Cadmium Lead General Chemistry	### Result 4.87 5.20 5.20 9.58 ### Recovery 100 Result 9.11 1830	Qualifier U U U Qualifier	MQL (Adj) 12.8 12.8 12.8 12.8 Limits 70 - 130 MQL (Adj) 0.297	4.87 5.20 5.20 9.58 SDL 0.0304 0.124	mg/Kg mg/Kg mg/Kg mg/Kg	**************************************	01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 Prepared 01/14/14 12:54 Prepared 01/14/14 12:46	01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 Analyzed 01/14/14 19:00 Analyzed 01/15/14 13:22	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Analyte C6-C12 >C12-C28 >C28-C35 C6-C35 Surrogate o-Terphenyl Method: 6010B - Metals (ICP) Analyte Cadmium Lead	### Result 4.87 5.20 5.20 9.58 ### Recovery 100 Result 9.11 1830	Qualifier U U U Qualifier Qualifier b	MQL (Adj) 12.8 12.8 12.8 12.8 12.8 MQL (Adj) 0.297 0.593	4.87 5.20 5.20 9.58 SDL 0.0304 0.124	mg/Kg mg/Kg mg/Kg mg/Kg Unit mg/Kg mg/Kg	— — — — — — — — — — — — — — — — — — —	01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 Prepared 01/14/14 12:54 Prepared 01/14/14 12:46 01/14/14 12:46	01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 01/14/14 19:00 Analyzed 01/14/14 19:00 Analyzed 01/15/14 13:22 01/15/14 13:22	1 1 1 1 Dil Fac

Date Collected: 01/08/14 13:40 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 76.4

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.00		1.25	0.272	mg/Kg		01/13/14 14:19	01/14/14 09:00	1
Cadmium	0.474		0.312	0.0320	mg/Kg	≎	01/13/14 14:19	01/14/14 09:00	1

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-17

Matrix: Solid

Percent Solids: 76.4

Clion	+ 600	nnla ID.	MW-41	(0 0 E)
Cilen	ι Sai	npie iu:	IVI VV -4 I	(0-0.5)

Date Collected: 01/08/14 13:40 Date Received: 01/10/14 10:31

Method: 6010B - Metals (ICP) (Continued)									
	Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Lead	18.4	0.624	0.131	mg/Kg		01/13/14 14:19	01/14/14 09:00	1
	Selenium	0.323 U	2.49	0.323	mg/Kg	≎	01/13/14 14:19	01/14/14 09:00	1

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24		1.0	1.0	%			01/13/14 09:59	1
Percent Solids	76		1.0	1.0	%			01/13/14 09:59	1

Client Sample ID: MW-41 (0.5-2)

Lab Sample ID: 600-85318-18

Date Collected: 01/08/14 13:45

Date Received: 01/10/14 10:31

Matrix: Solid
Percent Solids: 76.6

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10.1		1.31	0.285	mg/Kg	<u> </u>	01/13/14 14:19	01/14/14 09:02	1
Cadmium	0.810		0.327	0.0335	mg/Kg	₩	01/13/14 14:19	01/14/14 09:02	1
Lead	92.5		0.653	0.137	mg/Kg	₩	01/13/14 14:19	01/14/14 09:02	1
Selenium	0.338	U	2.61	0.338	mg/Kg	ф	01/13/14 14:19	01/14/14 09:02	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23	1.0	1.0 %			01/13/14 09:59	1
Percent Solids	77	1.0	1.0 %			01/13/14 09:59	1

Client Sample ID: MW-42 (0-0.5)

Date Collected: 01/08/14 15:40

Date Received: 01/10/14 10:31

Lab Sample ID: 600-85318-19

Matrix: Solid
Percent Solids: 72.7

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.2	1.26	0.275	mg/Kg	₩	01/13/14 14:19	01/14/14 09:05	1
Cadmium	1.56	0.315	0.0324	mg/Kg	☼	01/13/14 14:19	01/14/14 09:05	1
Lead	230	0.631	0.132	mg/Kg	≎	01/13/14 14:19	01/14/14 09:05	1
Selenium	0.580 J	2.52	0.327	mg/Kg	₽	01/13/14 14:19	01/14/14 09:05	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	27	1.0	1.0	%			01/13/14 09:59	1
Percent Solids	73	1.0	1.0	%			01/13/14 09:59	1

Client Sample ID: MW-42 (0.5-2)

Lab Sample ID: 600-85318-20

Date Collected: 01/08/14 15:45

Date Received: 01/10/14 10:31

Matrix: Solid
Percent Solids: 74.0

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.287	U	3.10	0.287	mg/Kg	<u> </u>	01/13/14 14:19	01/14/14 09:07	1
Arsenic	13.9		1.24	0.270	mg/Kg	☼	01/13/14 14:19	01/14/14 09:07	1
Cadmium	1.82		0.310	0.0318	mg/Kg	☼	01/13/14 14:19	01/14/14 09:07	1
Lead	241		0.620	0.130	mg/Kg	₩	01/13/14 14:19	01/14/14 09:07	1
Selenium	0.502	J	2.48	0.321	mg/Kg	₩	01/13/14 14:19	01/14/14 09:07	1

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26		1.0	1.0	%			01/13/14 09:59	1
Percent Solids	74		1.0	1.0	%			01/13/14 09:59	1

Client Sample ID: DUP-6 Lab Sample ID: 600-85318-21

Date Collected: 01/08/14 00:00 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 77.8

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.39	1.20	0.262	mg/Kg	<u> </u>	01/13/14 14:19	01/14/14 09:23	1
Cadmium	0.385	0.300	0.0308	mg/Kg	☼	01/13/14 14:19	01/14/14 09:23	1
Lead	15.0	0.601	0.126	mg/Kg	☼	01/13/14 14:19	01/14/14 09:23	1
Selenium	0.311 U	2.40	0.311	mg/Kg	φ.	01/13/14 14:19	01/14/14 09:23	1

General Chemistry Analyte	Result Qualifier	MQL (Adi)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Analyte		- INGE (Auj)			i repareu		
Percent Moisture	22	1.0	1.0 %			01/13/14 09:59	1
Percent Solids	78	1.0	1.0 %			01/13/14 09:59	1

Client Sample ID: FIELD BLANK Lab Sample ID: 600-85318-22

Date Collected: 01/08/14 17:19 **Matrix: Water** Date Received: 01/10/14 10:31

_				
Method: 8260B - Va	stile Or	manic Co	omnounde (GC/M

Method: 8260B - Volatile Organists		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.00227	U	0.0100	0.00227	mg/L			01/11/14 18:04	1
Benzene	0.000560	U	0.00500	0.000560	mg/L			01/11/14 18:04	1
Chlorobromomethane	0.000810	U	0.00500	0.000810	mg/L			01/11/14 18:04	1
Bromoform	0.000770	U	0.00500	0.000770	mg/L			01/11/14 18:04	1
Bromomethane	0.00215	U	0.0100	0.00215	mg/L			01/11/14 18:04	1
2-Butanone (MEK)	0.00157	U	0.0100	0.00157	mg/L			01/11/14 18:04	1
Carbon disulfide	0.00170	U	0.00500	0.00170	mg/L			01/11/14 18:04	1
Carbon tetrachloride	0.000920	U	0.00500	0.000920	mg/L			01/11/14 18:04	1
Dibromochloromethane	0.000920	U	0.00500	0.000920	mg/L			01/11/14 18:04	1
Chlorobenzene	0.000820	U	0.00500	0.000820	mg/L			01/11/14 18:04	1
Chloroethane	0.00173	U	0.0100	0.00173	mg/L			01/11/14 18:04	1
Chloroform	0.000820	U	0.00500	0.000820	mg/L			01/11/14 18:04	1
Chloromethane	0.000850	U	0.0100	0.000850	mg/L			01/11/14 18:04	1
1,1-Dichloroethane	0.000500	U	0.00500	0.000500	mg/L			01/11/14 18:04	1
1,2-Dichloroethane	0.00101	U	0.00500	0.00101	mg/L			01/11/14 18:04	1
1,1-Dichloroethene	0.000760	U	0.00500	0.000760	mg/L			01/11/14 18:04	1
cis-1,2-Dichloroethene	0.000560	U	0.00500	0.000560	mg/L			01/11/14 18:04	1
trans-1,2-Dichloroethene	0.000880	U	0.00500	0.000880	mg/L			01/11/14 18:04	1
1,2-Dichloropropane	0.00141	Ü	0.00500	0.00141	mg/L			01/11/14 18:04	1
cis-1,3-Dichloropropene	0.000970	U	0.00500	0.000970	mg/L			01/11/14 18:04	1
trans-1,3-Dichloropropene	0.000590	U	0.00500	0.000590	mg/L			01/11/14 18:04	1
Ethylbenzene	0.00129	Ü	0.00500	0.00129	mg/L			01/11/14 18:04	1
2-Hexanone	0.00142	U	0.0100	0.00142	mg/L			01/11/14 18:04	1
Methylene Chloride	0.00143	U	0.0100	0.00143	mg/L			01/11/14 18:04	1
4-Methyl-2-pentanone (MIBK)	0.00111	Ü	0.0100	0.00111	mg/L			01/11/14 18:04	1
Styrene	0.000560	U	0.00500	0.000560	mg/L			01/11/14 18:04	1
1,1,2,2-Tetrachloroethane	0.000800	U	0.00500	0.000800	-			01/11/14 18:04	1
Tetrachloroethene	0.00124	U	0.00500	0.00124	mg/L			01/11/14 18:04	1
Toluene	0.000550	U	0.00500	0.000550	-			01/11/14 18:04	1

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-22

Lab Sample ID: 600-85318-23

Matrix: Water

Client Sample ID: FIELD BLANK Date Collected: 01/08/14 17:19

Date Received: 01/10/14 10:31

Method: 8260B - Volatile O	rganic Compo	unds (GC	/MS) (Contir	nued)					
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.000980	U	0.00500	0.000980	mg/L			01/11/14 18:04	1
1,1,2-Trichloroethane	0.000530	U	0.00500	0.000530	mg/L			01/11/14 18:04	1
Trichloroethene	0.00158	U	0.00500	0.00158	mg/L			01/11/14 18:04	1
Vinyl acetate	0.000600	U	0.0100	0.000600	mg/L			01/11/14 18:04	1
Vinyl chloride	0.000850	U	0.00500	0.000850	mg/L			01/11/14 18:04	1
o-Xylene	0.000930	U	0.00500	0.000930	mg/L			01/11/14 18:04	1
m-Xylene & p-Xylene	0.00126	U	0.0100	0.00126	mg/L			01/11/14 18:04	1
Xylenes, Total	0.00198	U	0.00500	0.00198	mg/L			01/11/14 18:04	1
Bromodichloromethane	0.000760	U	0.00500	0.000760	mg/L			01/11/14 18:04	1
1,2-Dichloroethene, Total	0.000840	U	0.0100	0.000840	mg/L			01/11/14 18:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130			-		01/11/14 18:04	1
Dibromofluoromethane	88		62 - 130					01/11/14 18:04	1
4-Bromofluorobenzene	104		67 - 139					01/11/14 18:04	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134					01/11/14 18:04	1

Client Sample ID: RINSE BLANK-CME

Date Collected: 01/09/14 08:50

Date Received: 01/10/14 10:31

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00328	U ^	0.0100	0.00328	mg/L		01/13/14 09:01	01/15/14 12:52	1
Cadmium	0.000600	J ^	0.00500	0.000350	mg/L		01/13/14 09:01	01/15/14 12:52	1
Lead	0.00290	U ^	0.0100	0.00290	mg/L		01/13/14 09:01	01/15/14 12:52	1
Selenium	0.00417	U	0.0400	0.00417	mg/L		01/13/14 09:01	01/15/14 12:52	1

Client Sample ID: MW-27B (0-2) Lab Sample ID: 600-85318-24 Date Collected: 01/09/14 08:55 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 77.5

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.00214	U	0.0129	0.00214	mg/Kg	- -		01/15/14 23:08	1
Benzene	0.000959	J	0.00645	0.000813	mg/Kg	≎		01/15/14 23:08	1
Chlorobromomethane	0.00230	U	0.00645	0.00230	mg/Kg	☼		01/15/14 23:08	1
Bromoform	0.00177	U	0.00645	0.00177	mg/Kg			01/15/14 23:08	1
Bromomethane	0.00107	U	0.0129	0.00107	mg/Kg	₩		01/15/14 23:08	1
2-Butanone (MEK)	0.00245	U	0.0129	0.00245	mg/Kg	₩		01/15/14 23:08	1
Carbon disulfide	0.000710	U	0.0129	0.000710	mg/Kg			01/15/14 23:08	1
Carbon tetrachloride	0.00146	U	0.00645	0.00146	mg/Kg	☼		01/15/14 23:08	1
Dibromochloromethane	0.00121	U	0.00645	0.00121	mg/Kg	☼		01/15/14 23:08	1
Chlorobenzene	0.00124	U	0.00645	0.00124	mg/Kg			01/15/14 23:08	1
Chloroethane	0.00181	U	0.0129	0.00181	mg/Kg	☼		01/15/14 23:08	1
Chloroform	0.000852	U	0.00645	0.000852	mg/Kg	₩		01/15/14 23:08	1
Chloromethane	0.00214	U	0.0129	0.00214	mg/Kg	₩.		01/15/14 23:08	1
1,1-Dichloroethane	0.00112	U	0.00645	0.00112	mg/Kg	☼		01/15/14 23:08	1
1,2-Dichloroethane	0.00116	U	0.00645	0.00116	mg/Kg	☼		01/15/14 23:08	1
1,1-Dichloroethene	0.00157	U	0.00645	0.00157	mg/Kg			01/15/14 23:08	1

TestAmerica Houston

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Matrix: Water

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/09/14 08:55

Client Sample ID: MW-27B (0-2)

TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-24

Matrix: Solid

Percent Solids: 77.5

Date Received: 01/10/14 10:31	

Analyte	Result C	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.00107 U	J	0.00645	0.00107	mg/Kg	-		01/15/14 23:08	1
trans-1,2-Dichloroethene	0.00147 U	J	0.00645	0.00147	mg/Kg	₩		01/15/14 23:08	1
1,2-Dichloropropane	0.000916 U	j	0.00645	0.000916	mg/Kg	₽		01/15/14 23:08	1
cis-1,3-Dichloropropene	0.000697 U	J	0.00645	0.000697	mg/Kg	₩		01/15/14 23:08	1
trans-1,3-Dichloropropene	0.000748 U	J	0.00645	0.000748	mg/Kg	₽		01/15/14 23:08	1
Ethylbenzene	0.00132 U	j	0.00645	0.00132	mg/Kg	₩		01/15/14 23:08	1
2-Hexanone	0.00130 U	J	0.0129	0.00130	mg/Kg	₩		01/15/14 23:08	1
Methylene Chloride	0.00283 U	J	0.0129	0.00283	mg/Kg	₩		01/15/14 23:08	1
4-Methyl-2-pentanone (MIBK)	0.00190 U	j	0.0129	0.00190	mg/Kg	₩		01/15/14 23:08	1
Styrene	0.000916 U	J	0.00645	0.000916	mg/Kg	≎		01/15/14 23:08	1
1,1,2,2-Tetrachloroethane	0.00112 U	J	0.00645	0.00112	mg/Kg	₩		01/15/14 23:08	1
Tetrachloroethene	0.000916 U	j · · · · · · · · · · ·	0.00645	0.000916	mg/Kg			01/15/14 23:08	1
Toluene	0.00178 U	J	0.00645	0.00178	mg/Kg	≎		01/15/14 23:08	1
1,1,1-Trichloroethane	0.000955 U	J	0.00645	0.000955	mg/Kg	₩		01/15/14 23:08	1
1,1,2-Trichloroethane	0.000942 U	j	0.00645	0.000942	mg/Kg			01/15/14 23:08	1
Trichloroethene	0.00181 U	J	0.00645	0.00181	mg/Kg	₩		01/15/14 23:08	1
Vinyl acetate	0.00120 U	J	0.00645	0.00120	mg/Kg	₩		01/15/14 23:08	1
Vinyl chloride	0.00116 U	j	0.0129	0.00116	mg/Kg	₩		01/15/14 23:08	1
o-Xylene	0.00146 U	J	0.00645	0.00146	mg/Kg	₩		01/15/14 23:08	1
m-Xylene & p-Xylene	0.00196 U	J	0.0129	0.00196	mg/Kg	₩		01/15/14 23:08	1
Xylenes, Total	0.00146 U	j	0.00645	0.00146	mg/Kg	₩		01/15/14 23:08	1
Bromodichloromethane	0.000852 U	J	0.00645	0.000852	mg/Kg	≎		01/15/14 23:08	1
1,2-Dichloroethene, Total	0.00245 U	J	0.0129	0.00245	ma/Ka	₩		01/15/14 23:08	1

Surrogate	%Recovery Qualif	fier Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	87	50 - 130		01/15/14 23:08	1
Dibromofluoromethane	87	68 ₋ 140		01/15/14 23:08	1
4-Bromofluorobenzene	118	57 - 140		01/15/14 23:08	1
1,2-Dichloroethane-d4 (Surr)	78	61 - 130		01/15/14 23:08	1

Analyte	Result Qu	ualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0696 U		0.859	0.0696	mg/Kg	<u> </u>	01/17/14 13:18	01/22/14 22:46	20
2-Methylnaphthalene	0.141 U		0.859	0.141	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20
1-Methylnaphthalene	0.0809 U		0.859	0.0809	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20
Acenaphthylene	0.0516 U		0.859	0.0516	mg/Kg	₩.	01/17/14 13:18	01/22/14 22:46	20
Acenaphthene	0.0742 U		0.859	0.0742	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20
Fluorene	0.122 U		0.859	0.122	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20
Phenanthrene	0.255 U		0.859	0.255	mg/Kg	₩.	01/17/14 13:18	01/22/14 22:46	20
Anthracene	0.0660 U		0.859	0.0660	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20
Fluoranthene	0.160 U		0.859	0.160	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20
Pyrene	0.0943 U		0.859	0.0943	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20
Benzo[a]anthracene	0.0711 U		0.859	0.0711	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20
Chrysene	0.0526 U		0.859	0.0526	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20
Benzo[b]fluoranthene	0.0887 U		0.859	0.0887	mg/Kg	₩.	01/17/14 13:18	01/22/14 22:46	20
Benzo[k]fluoranthene	0.0768 U		0.859	0.0768	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20
Benzo[a]pyrene	0.0830 U		0.859	0.0830	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20
Indeno[1,2,3-cd]pyrene	0.180 U		0.859	0.180	mg/Kg	₩.	01/17/14 13:18	01/22/14 22:46	20
Dibenz(a,h)anthracene	0.187 U		0.859	0.187	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20
Benzo[g,h,i]perylene	0.261 U		0.859	0.261	mg/Kg	₩	01/17/14 13:18	01/22/14 22:46	20

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/09/14 08:55

Date Received: 01/10/14 10:31

o-Terphenyl

Client Sample ID: MW-27B (0-2)

TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-24

01/14/14 12:54 01/14/14 19:35

Matrix: Solid

Percent Solids: 77.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol		X	25 - 132	01/17/14 13:18	01/22/14 22:46	20
Nitrobenzene-d5	0	X	10 - 155	01/17/14 13:18	01/22/14 22:46	20
2-Fluorobiphenyl	0	X	38 - 127	01/17/14 13:18	01/22/14 22:46	20
2,4,6-Tribromophenol	0	X	10 - 148	01/17/14 13:18	01/22/14 22:46	20
Terphenyl-d14	0	X	53 - 134	01/17/14 13:18	01/22/14 22:46	20
Phenol-d5 (Surr)	0	X	27 - 123	01/17/14 13:18	01/22/14 22:46	20

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.87	U	12.8	4.87	mg/Kg	<u> </u>	01/14/14 12:54	01/14/14 19:35	1
>C12-C28	5.20	U	12.8	5.20	mg/Kg	☼	01/14/14 12:54	01/14/14 19:35	1
>C28-C35	5.20	U	12.8	5.20	mg/Kg	☼	01/14/14 12:54	01/14/14 19:35	1
C6-C35	9.59	U	12.8	9.59	mg/Kg		01/14/14 12:54	01/14/14 19:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
6.99		3.23	0.299	mg/Kg	<u> </u>	01/13/14 14:19	01/14/14 09:26	1
16.8		1.29	0.281	mg/Kg	₽	01/13/14 14:19	01/14/14 09:26	1
9.85		0.323	0.0331	mg/Kg	₽	01/13/14 14:19	01/14/14 09:26	1
2420		0.645	0.135	mg/Kg	φ.	01/13/14 14:19	01/14/14 09:26	1
0.536	J	2.58	0.334	mg/Kg	☼	01/13/14 14:19	01/14/14 09:26	1
	6.99 16.8 9.85 2420	16.8 9.85	6.99 3.23 16.8 1.29 9.85 0.323 2420 0.645	6.99 3.23 0.299 16.8 1.29 0.281 9.85 0.323 0.0331 2420 0.645 0.135	6.99 3.23 0.299 mg/Kg 16.8 1.29 0.281 mg/Kg 9.85 0.323 0.0331 mg/Kg 2420 0.645 0.135 mg/Kg	6.99 3.23 0.299 mg/Kg \$\tilde{\text{mg}}\$ 16.8 1.29 0.281 mg/Kg \$\tilde{\text{mg}}\$ 9.85 0.323 0.0331 mg/Kg \$\tilde{\text{mg}}\$ 2420 0.645 0.135 mg/Kg \$\tilde{\text{mg}}\$	6.99 3.23 0.299 mg/Kg © 01/13/14 14:19 16.8 1.29 0.281 mg/Kg © 01/13/14 14:19 9.85 0.323 0.0331 mg/Kg © 01/13/14 14:19 2420 0.645 0.135 mg/Kg © 01/13/14 14:19	6.99 3.23 0.299 mg/Kg Tol/13/14 14:19 01/14/14 09:26 16.8 1.29 0.281 mg/Kg 01/13/14 14:19 01/14/14 09:26 9.85 0.323 0.0331 mg/Kg 01/13/14 14:19 01/14/14 09:26 2420 0.645 0.135 mg/Kg 01/13/14 14:19 01/14/14 09:26

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General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23	1.0	1.0	%			01/13/14 09:59	1
Percent Solids	77	1.0	1.0	%			01/13/14 09:59	1

Client Sample ID: MW-27A (0-2)

Date Collected: 01/09/14 09:25

Date Received: 01/10/14 10:31

Lab Sample ID: 600-85318-26

Matrix: Solid
Percent Solids: 78.3

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.00415	J	0.0128	0.00212	mg/Kg			01/15/14 23:32	1
Benzene	0.000805	U	0.00639	0.000805	mg/Kg	₩		01/15/14 23:32	1
Chlorobromomethane	0.00227	U	0.00639	0.00227	mg/Kg	₩		01/15/14 23:32	1
Bromoform	0.00175	U	0.00639	0.00175	mg/Kg	☼		01/15/14 23:32	1
Bromomethane	0.00106	U	0.0128	0.00106	mg/Kg	₩		01/15/14 23:32	1
2-Butanone (MEK)	0.00243	U	0.0128	0.00243	mg/Kg	₩		01/15/14 23:32	1
Carbon disulfide	0.000703	U	0.0128	0.000703	mg/Kg	₽		01/15/14 23:32	1
Carbon tetrachloride	0.00144	U	0.00639	0.00144	mg/Kg	₩		01/15/14 23:32	1
Dibromochloromethane	0.00120	U	0.00639	0.00120	mg/Kg	₩		01/15/14 23:32	1
Chlorobenzene	0.00123	U	0.00639	0.00123	mg/Kg	₽		01/15/14 23:32	1
Chloroethane	0.00179	U	0.0128	0.00179	mg/Kg	₩		01/15/14 23:32	1
Chloroform	0.000843	U	0.00639	0.000843	mg/Kg	≎		01/15/14 23:32	1
Chloromethane	0.00212	U	0.0128	0.00212	mg/Kg	₽		01/15/14 23:32	1
1,1-Dichloroethane	0.00111	U	0.00639	0.00111	mg/Kg	₩		01/15/14 23:32	1
1,2-Dichloroethane	0.00115	U	0.00639	0.00115	mg/Kg	₽		01/15/14 23:32	1

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/09/14 09:25

Date Received: 01/10/14 10:31

Bromodichloromethane

1,2-Dichloroethene, Total

Client Sample ID: MW-27A (0-2)

TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-26

Matrix: Solid

Percent Solids: 78.3

01/15/14 23:32

01/15/14 23:32

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.00156	U	0.00639	0.00156	mg/Kg	<u> </u>		01/15/14 23:32	1
cis-1,2-Dichloroethene	0.00106	U	0.00639	0.00106	mg/Kg			01/15/14 23:32	1
trans-1,2-Dichloroethene	0.00146	U	0.00639	0.00146	mg/Kg	≎		01/15/14 23:32	1
1,2-Dichloropropane	0.000907	U	0.00639	0.000907	mg/Kg	ф.		01/15/14 23:32	1
cis-1,3-Dichloropropene	0.000690	U	0.00639	0.000690	mg/Kg	₩		01/15/14 23:32	1
trans-1,3-Dichloropropene	0.000741	U	0.00639	0.000741	mg/Kg	₩		01/15/14 23:32	1
Ethylbenzene	0.00130	U	0.00639	0.00130	mg/Kg	ф.		01/15/14 23:32	1
2-Hexanone	0.00129	U	0.0128	0.00129	mg/Kg	₩		01/15/14 23:32	1
Methylene Chloride	0.00280	U	0.0128	0.00280	mg/Kg	₩		01/15/14 23:32	1
4-Methyl-2-pentanone (MIBK)	0.00188	U	0.0128	0.00188	mg/Kg	₩		01/15/14 23:32	1
Styrene	0.000907	U	0.00639	0.000907	mg/Kg	₩		01/15/14 23:32	1
1,1,2,2-Tetrachloroethane	0.00111	U	0.00639	0.00111	mg/Kg	₩		01/15/14 23:32	1
Tetrachloroethene	0.000907	U	0.00639	0.000907	mg/Kg	₩.		01/15/14 23:32	1
Toluene	0.00176	U	0.00639	0.00176	mg/Kg	₩		01/15/14 23:32	1
1,1,1-Trichloroethane	0.000945	U	0.00639	0.000945	mg/Kg	☼		01/15/14 23:32	1
1,1,2-Trichloroethane	0.000933	U	0.00639	0.000933	mg/Kg	₩		01/15/14 23:32	1
Trichloroethene	0.00179	U	0.00639	0.00179	mg/Kg	₩		01/15/14 23:32	1
Vinyl acetate	0.00119	U	0.00639	0.00119	mg/Kg	₩		01/15/14 23:32	1
Vinyl chloride	0.00115	U	0.0128	0.00115	mg/Kg	₩		01/15/14 23:32	1
o-Xylene	0.00144	U	0.00639	0.00144	mg/Kg	☼		01/15/14 23:32	1
m-Xylene & p-Xylene	0.00194	U	0.0128	0.00194	mg/Kg	≎		01/15/14 23:32	1
Xylenes, Total	0.00144	U	0.00639	0.00144	mg/Kg	₽		01/15/14 23:32	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91	50 - 130		01/15/14 23:32	1
Dibromofluoromethane	90	68 - 140		01/15/14 23:32	1
4-Bromofluorobenzene	127	57 - 140		01/15/14 23:32	1
1,2-Dichloroethane-d4 (Surr)	81	61 - 130		01/15/14 23:32	1

0.00639

0.0128

0.000843 mg/Kg

0.00243 mg/Kg

0.000843 U

0.00243 U

Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0101 J	0.0424	0.00343	mg/Kg	☼	01/21/14 10:00	01/22/14 19:21	1
2-Methylnaphthalene	0.0146 J	0.0424	0.00696	mg/Kg	≎	01/21/14 10:00	01/22/14 19:21	1
1-Methylnaphthalene	0.00693 J	0.0424	0.00399	mg/Kg	≎	01/21/14 10:00	01/22/14 19:21	1
Acenaphthylene	0.00254 U	0.0424	0.00254	mg/Kg	₽	01/21/14 10:00	01/22/14 19:21	1
Acenaphthene	0.00366 U	0.0424	0.00366	mg/Kg	≎	01/21/14 10:00	01/22/14 19:21	1
Fluorene	0.00600 U	0.0424	0.00600	mg/Kg	≎	01/21/14 10:00	01/22/14 19:21	1
Phenanthrene	0.0148 J	0.0424	0.0126	mg/Kg	₽	01/21/14 10:00	01/22/14 19:21	1
Anthracene	0.00760 J	0.0424	0.00325	mg/Kg	≎	01/21/14 10:00	01/22/14 19:21	1
Fluoranthene	0.00790 U	0.0424	0.00790	mg/Kg	₩	01/21/14 10:00	01/22/14 19:21	1
Pyrene	0.00465 U*	0.0424	0.00465	mg/Kg	₽	01/21/14 10:00	01/22/14 19:21	1
Benzo[a]anthracene	0.0138 J*	0.0424	0.00351	mg/Kg	≎	01/21/14 10:00	01/22/14 19:21	1
Chrysene	0.0361 J*	0.0424	0.00259	mg/Kg	₩	01/21/14 10:00	01/22/14 19:21	1
Benzo[b]fluoranthene	0.00437 U*	0.0424	0.00437	mg/Kg	₽	01/21/14 10:00	01/22/14 19:21	1
Benzo[k]fluoranthene	0.00379 U*	0.0424	0.00379	mg/Kg	₩	01/21/14 10:00	01/22/14 19:21	1
Benzo[a]pyrene	0.00409 U*	0.0424	0.00409	mg/Kg	₩	01/21/14 10:00	01/22/14 19:21	1
Indeno[1,2,3-cd]pyrene	0.00890 U*	0.0424	0.00890	mg/Kg	₽	01/21/14 10:00	01/22/14 19:21	1
Dibenz(a,h)anthracene	0.00923 U*	0.0424	0.00923	mg/Kg	☼	01/21/14 10:00	01/22/14 19:21	1

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: MW-27A (0-2)

Date Collected: 01/09/14 09:25

Date Received: 01/10/14 10:31

General Chemistry

Analyte

TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-26

Matrix: Solid

Percent Solids: 78.3

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	0.0129	U *	0.0424	0.0129	mg/Kg	₩	01/21/14 10:00	01/22/14 19:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	76		25 - 132				01/21/14 10:00	01/22/14 19:21	1
Nitrobenzene-d5	103		10 - 155				01/21/14 10:00	01/22/14 19:21	1
2-Fluorobiphenyl	107		38 - 127				01/21/14 10:00	01/22/14 19:21	1
2,4,6-Tribromophenol	81		10 - 148				01/21/14 10:00	01/22/14 19:21	1
Terphenyl-d14	136	X *	53 - 134				01/21/14 10:00	01/22/14 19:21	1
Phenol-d5 (Surr)	98		27 - 123				01/21/14 10:00	01/22/14 19:21	1
Method: TX 1005 - Texa		•	• •			_			
Method: TX 1005 - Texa	s - Total Petroleui	m Hydroc	arbon (GC)						
Analyte		Qualifier	arbon (GC) MQL (Adj) 12.8		Unit ma/Ka	D ≅	Prepared 01/14/14 12:54	Analyzed 01/14/14 20:09	Dil Fac
Analyte C6-C12	4.85	Qualifier U	MQL (Adj) 12.8	4.85	mg/Kg		01/14/14 12:54	01/14/14 20:09	
Analyte	Result	Qualifier U U	MQL (Adj)	4.85 5.18	mg/Kg mg/Kg		01/14/14 12:54	01/14/14 20:09 01/14/14 20:09	1
Analyte C6-C12 >C12-C28	4.85 5.18	Qualifier U U U	MQL (Adj) 12.8 12.8	4.85 5.18 5.18	mg/Kg		01/14/14 12:54 01/14/14 12:54	01/14/14 20:09 01/14/14 20:09 01/14/14 20:09	1
Analyte C6-C12 >C12-C28 >C28-C35	Result 4.85 5.18 5.18	Qualifier U U U U	MQL (Adj) 12.8 12.8 12.8	4.85 5.18 5.18	mg/Kg mg/Kg mg/Kg		01/14/14 12:54 01/14/14 12:54 01/14/14 12:54	01/14/14 20:09 01/14/14 20:09 01/14/14 20:09	1 1 1
Analyte C6-C12 >C12-C28 >C28-C35 C6-C35	Result 4.85 5.18 5.18 9.54	Qualifier U U U U	MQL (Adj) 12.8 12.8 12.8 12.8	4.85 5.18 5.18	mg/Kg mg/Kg mg/Kg		01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 01/14/14 12:54	01/14/14 20:09 01/14/14 20:09 01/14/14 20:09 01/14/14 20:09	1 1 1
Analyte C6-C12 >C12-C28 >C28-C35 C6-C35 Surrogate	Result 4.85 5.18 5.18 9.54	Qualifier U U U U	MQL (Adj) 12.8 12.8 12.8 12.8 12.8	4.85 5.18 5.18	mg/Kg mg/Kg mg/Kg		01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 <i>Prepared</i>	01/14/14 20:09 01/14/14 20:09 01/14/14 20:09 01/14/14 20:09 Analyzed	1 1 1 1 Dil Fac
Analyte C6-C12 >C12-C28 >C28-C35 C6-C35 Surrogate o-Terphenyl	Result 4.85 5.18 5.18 9.54 %Recovery 95	Qualifier U U U U	MQL (Adj) 12.8 12.8 12.8 12.8 12.8	4.85 5.18 5.18 9.54	mg/Kg mg/Kg mg/Kg		01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 <i>Prepared</i>	01/14/14 20:09 01/14/14 20:09 01/14/14 20:09 01/14/14 20:09 Analyzed	1 1 1 1 Dil Fac
Analyte C6-C12 >C12-C28 >C28-C35 C6-C35 Surrogate o-Terphenyl Method: 6010B - Metals	Result 4.85 5.18 5.18 9.54 %Recovery 95	Qualifier U U U U Qualifier	MQL (Adj) 12.8 12.8 12.8 12.8 12.8 70 - 130	4.85 5.18 5.18 9.54	mg/Kg mg/Kg mg/Kg mg/Kg	* * * * * * * * * * * * * * * * * * *	01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 01/14/14 12:54 Prepared 01/14/14 12:54	01/14/14 20:09 01/14/14 20:09 01/14/14 20:09 01/14/14 20:09 Manalyzed 01/14/14 20:09	1 1 1 1 1 Dil Fac

 Percent Moisture
 22
 1.0
 1.0 %
 01/13/14 09:59
 1

 Percent Solids
 78
 1.0
 1.0 %
 01/13/14 09:59
 1

 Client Sample ID: 2013-NDA-1A(2-4)
 Lab Sample ID: 600-85318-28

SDL Unit

Prepared

Analyzed

Dil Fac

MQL (Adj)

Result Qualifier

Date Collected: 01/09/14 10:15

Date Received: 01/10/14 10:31

Matrix: Solid
Percent Solids: 81.6

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.00196	U	0.0204	0.00196	mg/Kg	<u>₩</u>	01/13/14 14:23	01/15/14 11:52	
PCB-1221	0.0105	U	0.0204	0.0105	mg/Kg	₩	01/13/14 14:23	01/15/14 11:52	
PCB-1232	0.00819	U	0.0204	0.00819	mg/Kg	☼	01/13/14 14:23	01/15/14 11:52	
PCB-1242	0.00152	U	0.0204	0.00152	mg/Kg	₩.	01/13/14 14:23	01/15/14 11:52	
PCB-1248	0.00304	U	0.0204	0.00304	mg/Kg	☼	01/13/14 14:23	01/15/14 11:52	•
PCB-1254	0.00270	U	0.0204	0.00270	mg/Kg	☼	01/13/14 14:23	01/15/14 11:52	
PCB-1260	0.0165	U	0.0204	0.0165	mg/Kg		01/13/14 14:23	01/15/14 11:52	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Tetrachloro-m-xylene	86	-	58 - 164				01/13/14 14:23	01/15/14 11:52	
DCB Decachlorobiphenyl	95		70 - 164				01/13/14 14:23	01/15/14 11:52	•
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
Percent Moisture	18		1.0	1.0	%			01/14/14 13:52	

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Client Sample ID: 2013-NDA-1A(2-4) Lab Sample ID: 600-85318-28

Date Collected: 01/09/14 10:15 Date Received: 01/10/14 10:31

Percent Moisture

Percent Solids

Matrix: Solid

General Chemistry (Continued) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D)	Prepared	Analyzed	Dil Fac
Percent Solids	82		1.0	1.0	%		_		01/14/14 13:52	1

Client Sample ID: D11A (0-0.5) Lab Sample ID: 600-85318-30 Date Collected: 01/09/14 10:35 **Matrix: Solid**

Date Received: 01/10/14 10:31 Percent Solids: 72.6

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.76	J	3.41	0.316	mg/Kg	<u> </u>	01/14/14 12:46	01/15/14 13:25	1
Arsenic	27.2		1.36	0.297	mg/Kg	☼	01/14/14 12:46	01/15/14 13:25	1
Cadmium	1.77	b	0.341	0.0350	mg/Kg	₩	01/14/14 12:46	01/15/14 13:25	1
Lead	257		0.682	0.143	mg/Kg	₽	01/14/14 12:46	01/15/14 13:25	1
Selenium	0.353	U	2.73	0.353	mg/Kg	☼	01/14/14 12:46	01/15/14 13:25	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac

Percent Moisture 1.0 1.0 % 01/15/14 15:56 27 **Percent Solids** 01/15/14 15:56 1.0 1.0 % **73** Client Sample ID: D12A (0-0.5) Lab Sample ID: 600-85318-31

Date Collected: 01/09/14 10:50 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 74.6

	Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Arsenic	10.9		1.25	0.273	mg/Kg	₩	01/14/14 12:46	01/15/14 13:27	1
	Cadmium	0.652	b	0.313	0.0321	mg/Kg	₽	01/14/14 12:46	01/15/14 13:27	1
	Lead	80.2		0.627	0.131	mg/Kg	₽	01/14/14 12:46	01/15/14 13:27	1
L	Selenium	0.324	U	2.51	0.324	mg/Kg	₩.	01/14/14 12:46	01/15/14 13:27	1

General Chemistry						
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D Pre	oared Analyzed	Dil Fac
Percent Moisture	25	1.0	1.0 %		01/15/14 15:56	1
Percent Solids	75	1.0	1.0 %		01/15/14 15:56	1

Client Sample ID: D13A (0-0.5) Lab Sample ID: 600-85318-32 Date Collected: 01/09/14 11:04 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 78.6

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14.0	1.21	0.264	mg/Kg	<u></u>	01/13/14 14:19	01/14/14 09:34	1
Cadmium	0.503	0.303	0.0311	mg/Kg	≎	01/13/14 14:19	01/14/14 09:34	1
Lead	67.3	0.606	0.127	mg/Kg	₩	01/13/14 14:19	01/14/14 09:34	1
General Chemistry	Result Qualifier	MQL (Adi)	SDL	Unit	D	Prepared	Analyzed	Dil Fac

1.0

1.0

1.0 %

1.0 %

21

79

TestAmerica Houston

01/13/14 09:59

01/13/14 09:59

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-33

Matrix: Solid

Percent Solids: 73.9

Client Sample ID: 2013-C2L-03-(0-0.5)
Sherit Sample 15: 2010-022-00-(0-0:0)
Data Callacted: 04/00/44 44:26

Date Collected: 01/09/14 11:26 Date Received: 01/10/14 10:31

Method: 6010B - Metals (ICP) Analyte	Result Qua	ıalifier MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12.2	1.28	0.278	mg/Kg	<u> </u>	01/13/14 14:19	01/14/14 09:36	1
Cadmium	0.651	0.319	0.0327	mg/Kg	☼	01/13/14 14:19	01/14/14 09:36	1
Lead	79.5	0.638	0.134	mg/Kg	☼	01/13/14 14:19	01/14/14 09:36	1
Selenium	0.330 U	2.55	0.330	mg/Kg		01/13/14 14:19	01/14/14 09:36	1

General Chemistry Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26	1.0	1.0	%			01/13/14 09:59	1
Percent Solids	74	1.0	1.0	%			01/13/14 09:59	1

Lab Sample ID: 600-85318-36 Client Sample ID: 2013-BSA-2A(0-2)

Date Collected: 01/09/14 12:50 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 80.6

Method: 6010B - Metals (ICP) Analyte	Result (Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	17.1		3.01	0.279	mg/Kg	<u> </u>	01/15/14 12:30	01/16/14 09:58	1
Arsenic	34.9		1.20	0.262	mg/Kg	☼	01/15/14 12:30	01/16/14 09:58	1
Cadmium	16.5		0.301	0.0309	mg/Kg	☼	01/15/14 12:30	01/16/14 09:58	1
Lead	2880		0.602	0.126	mg/Kg	₽	01/15/14 12:30	01/16/14 09:58	1
Selenium	1.07	J	2.41	0.312	mg/Kg	☼	01/15/14 12:30	01/16/14 09:58	1

General Chemistry							
Analyte	Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19	1.0	1.0 %			01/13/14 09:59	1
Percent Solids	81	1.0	1.0 %			01/13/14 09:59	1

Client Sample ID: 2013-AD-04 (0-0.5) Lab Sample ID: 600-85318-37

Date Collected: 01/09/14 13:26 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 79.2

Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.286	J	0.292	0.0300	mg/Kg	<u> </u>	01/13/14 14:19	01/14/14 09:38	1
Lead	31.9		0.585	0.123	mg/Kg	₩	01/13/14 14:19	01/14/14 09:38	1
General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac

Allalyte	Nesult Qualifier	WQL (Auj)	SDL (Ollit	 riepaieu	Allalyzeu	Diriac	
Percent Moisture	21	1.0	1.0	%		01/13/14 09:59	1	
Percent Solids	79	1.0	1.0	%		01/13/14 09:59	1	

Client Sample ID: RINSE BLANK aeo Lab Sample ID: 600-85318-40 Date Collected: 01/09/14 08:30 **Matrix: Water**

Date Received: 01/10/14 10:31

Method: 8260B - Volatile	Organic Compounds (GC	/MS)						
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0149	0.0100	0.00227	mg/L			01/11/14 18:27	1
Benzene	0.000560 U	0.00500	0.000560	mg/L			01/11/14 18:27	1
Chlorobromomethane	0.000810 U	0.00500	0.000810	mg/L			01/11/14 18:27	1
Bromoform	0.000770 U	0.00500	0.000770	mg/L			01/11/14 18:27	1

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-40

Matrix: Water

Client Sample ID: RINSE BLANK aeo

Date Collected: 01/09/14 08:30 Date Received: 01/10/14 10:31

Analyte	Result	Qualifier	MQL (Adj)	_	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.00215	U	0.0100	0.00215	mg/L			01/11/14 18:27	1
2-Butanone (MEK)	0.00157	U	0.0100	0.00157	mg/L			01/11/14 18:27	1
Carbon disulfide	0.00170	U	0.00500	0.00170	mg/L			01/11/14 18:27	1
Carbon tetrachloride	0.000920	U	0.00500	0.000920	mg/L			01/11/14 18:27	1
Dibromochloromethane	0.000920	U	0.00500	0.000920	mg/L			01/11/14 18:27	1
Chlorobenzene	0.000820	U	0.00500	0.000820	mg/L			01/11/14 18:27	1
Chloroethane	0.00173	U	0.0100	0.00173	mg/L			01/11/14 18:27	1
Chloroform	0.000820	U	0.00500	0.000820	mg/L			01/11/14 18:27	1
Chloromethane	0.000850	U	0.0100	0.000850	mg/L			01/11/14 18:27	1
1,1-Dichloroethane	0.000500	U	0.00500	0.000500	mg/L			01/11/14 18:27	1
1,2-Dichloroethane	0.00101	U	0.00500	0.00101	mg/L			01/11/14 18:27	1
1,1-Dichloroethene	0.000760	U	0.00500	0.000760	mg/L			01/11/14 18:27	1
cis-1,2-Dichloroethene	0.000560	U	0.00500	0.000560	mg/L			01/11/14 18:27	1
trans-1,2-Dichloroethene	0.000880	U	0.00500	0.000880	mg/L			01/11/14 18:27	1
1,2-Dichloropropane	0.00141		0.00500	0.00141	mg/L			01/11/14 18:27	1
cis-1,3-Dichloropropene	0.000970	U	0.00500	0.000970	_			01/11/14 18:27	1
trans-1,3-Dichloropropene	0.000590	U	0.00500	0.000590	-			01/11/14 18:27	1
Ethylbenzene	0.00129		0.00500	0.00129	ma/L			01/11/14 18:27	1
2-Hexanone	0.00142		0.0100	0.00142	•			01/11/14 18:27	1
Methylene Chloride	0.00143	U	0.0100	0.00143	ū			01/11/14 18:27	1
4-Methyl-2-pentanone (MIBK)	0.00111		0.0100	0.00111	-			01/11/14 18:27	1
Styrene	0.000560	U	0.00500	0.000560	-			01/11/14 18:27	1
1,1,2,2-Tetrachloroethane	0.000800		0.00500	0.000800	Ū			01/11/14 18:27	1
Tetrachloroethene	0.00124		0.00500	0.00124				01/11/14 18:27	1
Toluene	0.00227		0.00500	0.000550	•			01/11/14 18:27	1
1,1,1-Trichloroethane	0.000980		0.00500	0.000980	Ū			01/11/14 18:27	1
1,1,2-Trichloroethane	0.000530		0.00500	0.000530				01/11/14 18:27	1
Trichloroethene	0.00158		0.00500	0.00158	-			01/11/14 18:27	1
Vinyl acetate	0.000600		0.0100	0.000600	Ū			01/11/14 18:27	1
Vinyl chloride	0.000850		0.00500	0.000850	ū			01/11/14 18:27	1
o-Xylene	0.000930		0.00500	0.000930	_			01/11/14 18:27	1
m-Xylene & p-Xylene	0.00126		0.0100	0.00126	•			01/11/14 18:27	1
Xylenes, Total	0.00198		0.00500	0.00198	•			01/11/14 18:27	1
Bromodichloromethane	0.000760		0.00500	0.000760	-			01/11/14 18:27	. 1
1,2-Dichloroethene, Total	0.000840		0.0100	0.000840	U			01/11/14 18:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130			-		01/11/14 18:27	1
Dibromofluoromethane	87		62 - 130					01/11/14 18:27	1
4-Bromofluorobenzene	103		67 - 139					01/11/14 18:27	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134					01/11/14 18:27	1

Analyte	Result Qu	ualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.000120 U		0.000500	0.000120	mg/L		01/14/14 16:09	01/15/14 01:25	1
Acenaphthylene	0.000160 U		0.000500	0.000160	mg/L		01/14/14 16:09	01/15/14 01:25	1
Benzo[g,h,i]perylene	0.000350 U		0.000500	0.000350	mg/L		01/14/14 16:09	01/15/14 01:25	1
Phenanthrene	0.000290 U		0.000500	0.000290	mg/L		01/14/14 16:09	01/15/14 01:25	1
Benzo[k]fluoranthene	0.000160 U		0.000500	0.000160	mg/L		01/14/14 16:09	01/15/14 01:25	1
Benzo[a]pyrene	0.000130 U		0.000500	0.000130	mg/L		01/14/14 16:09	01/15/14 01:25	1

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: RINSE BLANK aeo

Lab Sample ID: 600-85318-40 Date Collected: 01/09/14 08:30 **Matrix: Water**

Date Received: 01/10/14 10:31

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.000440	U	0.000500	0.000440	mg/L		01/14/14 16:09	01/15/14 01:25	1
2-Methylnaphthalene	0.000140	U	0.000500	0.000140	mg/L		01/14/14 16:09	01/15/14 01:25	1
Pyrene	0.000330	U	0.000500	0.000330	mg/L		01/14/14 16:09	01/15/14 01:25	1
Dibenz(a,h)anthracene	0.000290	U	0.000500	0.000290	mg/L		01/14/14 16:09	01/15/14 01:25	1
Naphthalene	0.000160	U	0.000500	0.000160	mg/L		01/14/14 16:09	01/15/14 01:25	1
Fluoranthene	0.000310	U	0.000500	0.000310	mg/L		01/14/14 16:09	01/15/14 01:25	1
Benzo[a]anthracene	0.000250	U	0.000500	0.000250	mg/L		01/14/14 16:09	01/15/14 01:25	1
Indeno[1,2,3-cd]pyrene	0.000290	U	0.000500	0.000290	mg/L		01/14/14 16:09	01/15/14 01:25	1
Chrysene	0.000240	U	0.000500	0.000240	mg/L		01/14/14 16:09	01/15/14 01:25	1
Acenaphthene	0.000160	U	0.000500	0.000160	mg/L		01/14/14 16:09	01/15/14 01:25	1
Benzo[b]fluoranthene	0.000180	U	0.000500	0.000180	mg/L		01/14/14 16:09	01/15/14 01:25	1
1-Methylnaphthalene	0.000190	U	0.000500	0.000190	mg/L		01/14/14 16:09	01/15/14 01:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	91		33 - 141				01/14/14 16:09	01/15/14 01:25	1
Nitrobenzene-d5	80		47 - 120				01/14/14 16:09	01/15/14 01:25	1
2-Fluorophenol	38		18 - 120				01/14/14 16:09	01/15/14 01:25	1
2-Fluorobiphenyl	82		43 - 120				01/14/14 16:09	01/15/14 01:25	1
2,4,6-Tribromophenol	76		44 - 123				01/14/14 16:09	01/15/14 01:25	1
Phenol-d5 (Surr)	27		12 - 128				01/14/14 16:09	01/15/14 01:25	1

Method: TX 1005 - Te	exas - Total Petroleui	m Hydroc	arbon (GC)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.809	U	4.87	0.809	mg/L		01/14/14 15:16	01/15/14 04:47	1
>C12-C28	0.935	U	4.87	0.935	mg/L		01/14/14 15:16	01/15/14 04:47	1
>C28-C35	0.935	U	4.87	0.935	mg/L		01/14/14 15:16	01/15/14 04:47	1
C6-C35	1.52	U	4.87	1.52	mg/L		01/14/14 15:16	01/15/14 04:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	90	-	70 - 130				01/14/14 15:16	01/15/14 04:47	1

Method: 6010B - Metals (ICP)						_			
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00630	U	0.0500	0.00630	mg/L		01/13/14 09:01	01/15/14 12:54	1
Arsenic	0.00328	U ^	0.0100	0.00328	mg/L		01/13/14 09:01	01/15/14 12:54	1
Cadmium	0.000350	U ^	0.00500	0.000350	mg/L		01/13/14 09:01	01/15/14 12:54	1
Lead	0.00290	U ^	0.0100	0.00290	mg/L		01/13/14 09:01	01/15/14 12:54	1
Selenium	0.00417	U	0.0400	0.00417	mg/L		01/13/14 09:01	01/15/14 12:54	1

Lab Sample ID: 600-85318-41 **Client Sample ID: TRIP BLANK**

Date Collected: 01/09/14 00:00 **Matrix: Water** Date Received: 01/10/14 10:31

Method: 8260B - Volatile C	Organic Compou	ınds (GC	/MS)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.00227	U	0.0100	0.00227	mg/L			01/11/14 16:54	
Benzene	0.000560	U	0.00500	0.000560	mg/L			01/11/14 16:54	1
Chlorobromomethane	0.000810	U	0.00500	0.000810	mg/L			01/11/14 16:54	1
Bromoform	0.000770	U	0.00500	0.000770	mg/L			01/11/14 16:54	1
Bromomethane	0.00215	U	0.0100	0.00215	mg/L			01/11/14 16:54	1
2-Butanone (MEK)	0.00157	U	0.0100	0.00157	mg/L			01/11/14 16:54	1

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Client Sample ID: TRIP BLANK

Date Collected: 01/09/14 00:00 Date Received: 01/10/14 10:31

1,2-Dichloroethane-d4 (Surr)

Lab Sample ID: 600-85318-41

Matrix: Water

Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	0.00170	U	0.00500	0.00170	mg/L			01/11/14 16:54	1
Carbon tetrachloride	0.000920	U	0.00500	0.000920	mg/L			01/11/14 16:54	1
Dibromochloromethane	0.000920	U	0.00500	0.000920	mg/L			01/11/14 16:54	1
Chlorobenzene	0.000820	U	0.00500	0.000820	mg/L			01/11/14 16:54	1
Chloroethane	0.00173	U	0.0100	0.00173	mg/L			01/11/14 16:54	1
Chloroform	0.000820	U	0.00500	0.000820	mg/L			01/11/14 16:54	1
Chloromethane	0.000850	U	0.0100	0.000850	mg/L			01/11/14 16:54	1
1,1-Dichloroethane	0.000500	U	0.00500	0.000500	mg/L			01/11/14 16:54	1
1,2-Dichloroethane	0.00101	U	0.00500	0.00101	mg/L			01/11/14 16:54	1
1,1-Dichloroethene	0.000760	U	0.00500	0.000760	mg/L			01/11/14 16:54	1
cis-1,2-Dichloroethene	0.000560	U	0.00500	0.000560	mg/L			01/11/14 16:54	1
trans-1,2-Dichloroethene	0.000880	U	0.00500	0.000880	mg/L			01/11/14 16:54	1
1,2-Dichloropropane	0.00141	U	0.00500	0.00141	mg/L			01/11/14 16:54	1
cis-1,3-Dichloropropene	0.000970	U	0.00500	0.000970	mg/L			01/11/14 16:54	1
trans-1,3-Dichloropropene	0.000590	U	0.00500	0.000590	mg/L			01/11/14 16:54	1
Ethylbenzene	0.00129	U	0.00500	0.00129	mg/L			01/11/14 16:54	1
2-Hexanone	0.00142	U	0.0100	0.00142	mg/L			01/11/14 16:54	1
Methylene Chloride	0.00143	U	0.0100	0.00143	mg/L			01/11/14 16:54	1
4-Methyl-2-pentanone (MIBK)	0.00111	U	0.0100	0.00111	mg/L			01/11/14 16:54	1
Styrene	0.000560	U	0.00500	0.000560	mg/L			01/11/14 16:54	1
1,1,2,2-Tetrachloroethane	0.000800	U	0.00500	0.000800	mg/L			01/11/14 16:54	1
Tetrachloroethene	0.00124	U	0.00500	0.00124	mg/L			01/11/14 16:54	1
Toluene	0.000550	U	0.00500	0.000550	mg/L			01/11/14 16:54	1
1,1,1-Trichloroethane	0.000980	U	0.00500	0.000980	mg/L			01/11/14 16:54	1
1,1,2-Trichloroethane	0.000530	U	0.00500	0.000530	mg/L			01/11/14 16:54	1
Trichloroethene	0.00158	U	0.00500	0.00158	mg/L			01/11/14 16:54	1
Vinyl acetate	0.000600	U	0.0100	0.000600	mg/L			01/11/14 16:54	1
Vinyl chloride	0.000850	U	0.00500	0.000850	mg/L			01/11/14 16:54	1
o-Xylene	0.000930	U	0.00500	0.000930	mg/L			01/11/14 16:54	1
m-Xylene & p-Xylene	0.00126	U	0.0100	0.00126	mg/L			01/11/14 16:54	1
Xylenes, Total	0.00198	U	0.00500	0.00198	mg/L			01/11/14 16:54	1
Bromodichloromethane	0.000760	U	0.00500	0.000760	mg/L			01/11/14 16:54	1
1,2-Dichloroethene, Total	0.000840	U	0.0100	0.000840	mg/L			01/11/14 16:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130			-		01/11/14 16:54	1
Dibromofluoromethane	88		62 - 130					01/11/14 16:54	1
4-Bromofluorobenzene	104		67 - 139					01/11/14 16:54	1

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Definitions/Glossary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
b	The compound was found in the blank and sample

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
*	ISTD response or retention time outside acceptable limits
N	MS, MSD: Spike recovery is outside acceptance limits.
b	The compound was found in the blank and sample
N b	

GC Semi VOA

Qualifier

U	Analyte was not detected at or above the SDL.
X	Surrogate is outside control limits
Metals	
Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.
N	MS, MSD: Spike recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
N	RPD of the MS and MSD exceeds the control limits

b The compound was found in the blank and sample

Duplicate RPD exceeds the control limit

Qualifier Description

ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

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Definitions/Glossary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Glossary (Continued)

Abbreviation These commonly used abbreviations may or may not be present in this report.

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

		TOL	DBFM	BFB	ogate Recover 12DCE	• .
ab Sample ID	Client Sample ID	(50-130)	(68-140)	(57-140)	(61-130)	
00-85318-1	2013-FFTA-01 (0.25-2)	76	81	104	85	
00-85318-3	2013-FFTA-03 (18-19)	88	85	132	90	
00-85318-4	2013-MB-3 (0.75-1.25)	93	93	133	95	
00-85318-7	2013-MB-5 (0.5-5)	91	87	138	90	
00-85318-8	2013-MB-5 (10-12)	96	101	101	98	
00-85318-11	2013-MB-4 (0.83-1.33)	86	92	99	86	
0-85318-14	MW-27D (0.5-2)	91	88	102	77	
0-85318-16	MW-27C (0-2)	91	89	113	81	
00-85318-24	MW-27B (0-2)	87	87	118	78	
0-85318-26	MW-27A (0-2)	91	90	127	81	
CS 600-125013/3	Lab Control Sample	67	76	89	75	
CS 600-125071/3	Lab Control Sample	78	70	119	70	
CS 600-125242/4	Lab Control Sample	88	78	87	77	
IB 600-125013/4	Method Blank	68	83	97	85	
IB 600-125071/4	Method Blank	89	82	122	76	
IB 600-125242/3	Method Blank	69	72	97	70	

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane

BFB = 4-Bromofluorobenzene

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)					
		TOL	DBFM	BFB	12DCE			
Lab Sample ID	Client Sample ID	(70-130)	(62-130)	(67-139)	(50-134)			
600-85318-22	FIELD BLANK	100	88	104	85			
600-85318-40	RINSE BLANK aeo	99	87	103	85			
600-85318-41	TRIP BLANK	99	88	104	84			
LCS 600-124815/3	Lab Control Sample	99	89	99	78			
MB 600-124815/4	Method Blank	101	88	101	81			

Surrogate Legend

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane

BFB = 4-Bromofluorobenzene

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Solid Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)						
		FBP	2FP	NBZ	PHL	TPH	TBP		
Lab Sample ID	Client Sample ID	(38-127)	(25-132)	(10-155)	(27-123)	(53-134)	(10-148)		
600-85318-1	2013-FFTA-01 (0.25-2)	0 X	0 X	0 X	0 X	0 X	0 X		
600-85318-3	2013-FFTA-03 (18-19)	108	51	82	6 X	117	34		
600-85318-7	2013-MB-5 (0.5-5)	112	126	19	114	128	98		

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Solid Prep Type: Total/NA

						Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPH	TBP				
ab Sample ID	Client Sample ID	(38-127)	(25-132)	(10-155)	(27-123)	(53-134)	(10-148)				
00-85318-8	2013-MB-5 (10-12)	0 X	0 X	0 X	0 X	0 X	0 X				
00-85318-14	MW-27D (0.5-2)	92	55	18	121	121	59				
00-85318-16	MW-27C (0-2)	114	123	110	111	125	103				
00-85318-24	MW-27B (0-2)	0 X	0 X	0 X	0 X	0 X	0 X				
00-85318-26	MW-27A (0-2)	107	76	103	98	136 X *	81				
00-85318-26 MS	MW-27A (0-2)	88	82	89	92	121 *	89				
00-85318-26 MSD	MW-27A (0-2)	97	76	91	96	128 *	106				
CS 600-124982/2-A	Lab Control Sample	120	122	127	120	128	106				
S 600-125220/2-A	Lab Control Sample	77	78	76	81	79	70				
CS 600-125453/2-A	Lab Control Sample	92	81	90	98	115	80				
B 600-124982/1-A	Method Blank	114	113	117	111	124	37				
B 600-125220/1-A	Method Blank	68	72	69	64	74	30				
IB 600-125453/1-A	Method Blank	106	87	97	99	120	59				

Surrogate Legend

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

NBZ = Nitrobenzene-d5

PHL = Phenol-d5 (Surr)

TPH = Terphenyl-d14

TBP = 2,4,6-Tribromophenol

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)						
		TPH	NBZ	2FP	FBP	TBP	PHL		
Lab Sample ID	Client Sample ID	(33-141)	(47-120)	(18-120)	(43-120)	(44-123)	(12-128)		
600-85318-40	RINSE BLANK aeo	91	80	38	82	76	27		
LCS 600-124914/2-A	Lab Control Sample	100	99	74	95	97	66		
MB 600-124914/1-A	Method Blank	90	84	64	84	64	51		

Surrogate Legend

TPH = Terphenyl-d14

NBZ = Nitrobenzene-d5

2FP = 2-Fluorophenol

FBP = 2-Fluorobiphenyl

TBP = 2,4,6-Tribromophenol

PHL = Phenol-d5 (Surr)

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid Prep Type: Total/NA

_			Pe
		TCX2	DCB2
Lab Sample ID	Client Sample ID	(58-164)	(70-164)
600-85318-28	2013-NDA-1A(2-4)	86	95
600-85318-A-36-B MS	600-85318-A-36-B MS	93	121
600-85318-A-36-C MSD	600-85318-A-36-C MSD	88	115
LCS 600-124838/2-A	Lab Control Sample	83	106

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
		TCX2	DCB2					
Lab Sample ID	Client Sample ID	(58-164)	(70-164)					
MB 600-124838/1-A	Method Blank	91	110					
Surrogate Legend								
TCX = Tetrachloro-m-	xylene							
DCB = DCB Decachlo	probiphenyl							

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Solid Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		ОТРН	
Lab Sample ID	Client Sample ID	(70-130)	
600-85318-1	2013-FFTA-01 (0.25-2)	88	
600-85318-3	2013-FFTA-03 (18-19)	96	
600-85318-7	2013-MB-5 (0.5-5)	81	
600-85318-8	2013-MB-5 (10-12)	218 X	
600-85318-14	MW-27D (0.5-2)	97	
600-85318-16	MW-27C (0-2)	100	
600-85318-24	MW-27B (0-2)	97	
600-85318-26	MW-27A (0-2)	95	
LCS 600-124920/2-A	Lab Control Sample	109	
MB 600-124920/1-A	Method Blank	93	
Surrogate Legend			

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		ОТРН	
Lab Sample ID	Client Sample ID	(70-130)	
600-85318-40	RINSE BLANK aeo	90	
LCS 600-124950/2-A	Lab Control Sample	116	
MB 600-124950/1-A	Method Blank	102	
Surrogate Legend			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

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Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab	S	amp	е	ID:	MB	600	-1248	15/4
	-							

Matrix: Water

Surrogate

Toluene-d8 (Surr)

Dibromofluoromethane

4-Bromofluorobenzene

1,2-Dichloroethane-d4 (Surr)

Analysis Batch: 124815

Client Sample ID: Method Blank Prep Type: Total/NA

Analyte Acetone		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone									D u.c
	0.00227	U	0.0100	0.00227	mg/L			01/11/14 11:55	1
Benzene	0.000560	U	0.00500	0.000560	mg/L			01/11/14 11:55	1
Chlorobromomethane	0.000810	U	0.00500	0.000810	mg/L			01/11/14 11:55	1
Bromoform	0.000770	U	0.00500	0.000770	mg/L			01/11/14 11:55	1
Bromomethane	0.00215	U	0.0100	0.00215	mg/L			01/11/14 11:55	1
2-Butanone (MEK)	0.00157	U	0.0100	0.00157	mg/L			01/11/14 11:55	1
Carbon disulfide	0.00170	U	0.00500	0.00170	mg/L			01/11/14 11:55	1
Carbon tetrachloride	0.000920	U	0.00500	0.000920	mg/L			01/11/14 11:55	1
Dibromochloromethane	0.000920	U	0.00500	0.000920	mg/L			01/11/14 11:55	1
Chlorobenzene	0.000820	U	0.00500	0.000820	mg/L			01/11/14 11:55	1
Chloroethane	0.00173	U	0.0100	0.00173	mg/L			01/11/14 11:55	1
Chloroform	0.000820	U	0.00500	0.000820	mg/L			01/11/14 11:55	1
Chloromethane	0.000850	U	0.0100	0.000850	mg/L			01/11/14 11:55	1
1,1-Dichloroethane	0.000500	U	0.00500	0.000500	mg/L			01/11/14 11:55	1
1,2-Dichloroethane	0.00101	U	0.00500	0.00101	mg/L			01/11/14 11:55	1
1,1-Dichloroethene	0.000760	U	0.00500	0.000760	mg/L			01/11/14 11:55	1
cis-1,2-Dichloroethene	0.000560	U	0.00500	0.000560	mg/L			01/11/14 11:55	1
trans-1,2-Dichloroethene	0.000880	U	0.00500	0.000880	mg/L			01/11/14 11:55	1
1,2-Dichloropropane	0.00141	U	0.00500	0.00141	mg/L			01/11/14 11:55	1
cis-1,3-Dichloropropene	0.000970	U	0.00500	0.000970	mg/L			01/11/14 11:55	1
trans-1,3-Dichloropropene	0.000590	U	0.00500	0.000590	mg/L			01/11/14 11:55	1
Ethylbenzene	0.00129	U	0.00500	0.00129	mg/L			01/11/14 11:55	1
2-Hexanone	0.00142	U	0.0100	0.00142	mg/L			01/11/14 11:55	1
Methylene Chloride	0.00143	U	0.0100	0.00143	mg/L			01/11/14 11:55	1
4-Methyl-2-pentanone (MIBK)	0.00111	U	0.0100	0.00111				01/11/14 11:55	1
Styrene	0.000560	U	0.00500	0.000560	-			01/11/14 11:55	1
1,1,2,2-Tetrachloroethane	0.000800	U	0.00500	0.000800	-			01/11/14 11:55	1
Tetrachloroethene	0.00124	U	0.00500	0.00124	mg/L			01/11/14 11:55	1
Toluene	0.000550	U	0.00500	0.000550	-			01/11/14 11:55	1
1,1,1-Trichloroethane	0.000980	U	0.00500	0.000980	_			01/11/14 11:55	1
1,1,2-Trichloroethane	0.000530	Ü	0.00500	0.000530	mg/L			01/11/14 11:55	1
Trichloroethene	0.00158	U	0.00500	0.00158	mg/L			01/11/14 11:55	1
Vinyl acetate	0.000600	U	0.0100	0.000600	mg/L			01/11/14 11:55	1
Vinyl chloride	0.000850	U	0.00500	0.000850	mg/L			01/11/14 11:55	1
o-Xylene	0.000930	U	0.00500	0.000930	_			01/11/14 11:55	1
m-Xylene & p-Xylene	0.00126		0.0100	0.00126	•			01/11/14 11:55	1
Xylenes, Total	0.00198		0.00500	0.00198				01/11/14 11:55	1
Bromodichloromethane	0.000760		0.00500	0.000760	-			01/11/14 11:55	1
					-				
1,2-Dichloroethene, Total	0.000840	U	0.0100	0.000840	mg/L			01/11/14 11:55	1

TestAmerica Houston

Analyzed

01/11/14 11:55

01/11/14 11:55

01/11/14 11:55

01/11/14 11:55

Prepared

Limits

70 - 130

62 - 130

67 - 139

50 - 134

%Recovery Qualifier

101

101

81

88

Dil Fac

1

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QC Sample Results

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-124815/3

Matrix: Water

Analysis Batch: 124815

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Analyte	Spike	LCS	LCS Qualifier	Unit	D	%Rec	%Rec.
	Added	Result					Limits
Acetone	0.100	0.08884		mg/L		89	28 - 152
Benzene	0.0500	0.04907		mg/L		98	69 - 131
Chlorobromomethane	0.0500	0.05147		mg/L		103	60 - 141
Bromoform	0.0500	0.04099		mg/L		82	39 - 149
Bromomethane	0.0500	0.05474		mg/L		109	52 - 146
2-Butanone (MEK)	0.100	0.07429		mg/L		74	59 - 133
Carbon disulfide	0.0500	0.04410		mg/L		88	32 - 177
Carbon tetrachloride	0.0500	0.03961		mg/L		79	59 - 147
Dibromochloromethane	0.0500	0.04380		mg/L		88	58 - 132
Chlorobenzene	0.0500	0.04960		mg/L		99	60 - 136
Chloroethane	0.0500	0.05008		mg/L		100	56 - 144
Chloroform	0.0500	0.04577		mg/L		92	69 - 128
Chloromethane	0.0500	0.05169		mg/L		103	32 - 151
1,1-Dichloroethane	0.0500	0.04748		mg/L		95	66 - 126
1,2-Dichloroethane	0.0500	0.04184		mg/L		84	66 - 140
1,1-Dichloroethene	0.0500	0.04236		mg/L		85	59 - 145
cis-1,2-Dichloroethene	0.0500	0.04841		mg/L		97	69 - 129
trans-1,2-Dichloroethene	0.0500	0.04686		mg/L		94	70 - 132
1,2-Dichloropropane	0.0500	0.04924		mg/L		98	72 - 135
cis-1,3-Dichloropropene	0.0500	0.04840		mg/L		97	60 - 135
trans-1,3-Dichloropropene	0.0500	0.04567		mg/L		91	63 - 133
Ethylbenzene	0.0500	0.04788		mg/L		96	68 - 128
2-Hexanone	0.100	0.07234		mg/L		72	51 ₋ 130
Methylene Chloride	0.0500	0.04580		mg/L		92	62 - 134
4-Methyl-2-pentanone (MIBK)	0.100	0.07388		mg/L		74	56 - 142
Styrene	0.0500	0.04940		mg/L		99	68 - 133
1,1,2,2-Tetrachloroethane	0.0500	0.03996		mg/L		80	68 - 134
Tetrachloroethene	0.0500	0.04275		mg/L		85	70 - 150
Toluene	0.0500	0.04826		mg/L		97	67 - 130
1,1,1-Trichloroethane	0.0500	0.04239		mg/L		85	65 - 142
1,1,2-Trichloroethane	0.0500	0.04439		mg/L		89	68 - 130
Trichloroethene	0.0500	0.04626		mg/L		93	68 - 130
Vinyl acetate	0.100	0.09050		mg/L		90	58 ₋ 175
Vinyl chloride	0.0500	0.03610		mg/L		72	47 - 146
o-Xylene	0.0500	0.04777		mg/L		96	68 - 134
m-Xylene & p-Xylene	0.0500	0.04800		mg/L		96	67 - 132
Xylenes, Total	0.100	0.09577		mg/L		96	68 - 132
Bromodichloromethane	0.0500	0.04626		mg/L		93	73 - 130
1,2-Dichloroethene, Total	0.100	0.09527		mg/L		95	65 - 127

LCS LCS	
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Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130
Dibromofluoromethane	89		62 - 130
4-Bromofluorobenzene	99		67 - 139
1,2-Dichloroethane-d4 (Surr)	78		50 - 134

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Lab Sample ID: MB 600-125013/4

TestAmerica Job ID: 600-85318-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 125013

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.00166	U	0.0100	0.00166	mg/Kg			01/14/14 12:26	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			01/14/14 12:26	1
Chlorobromomethane	0.00178	U	0.00500	0.00178	mg/Kg			01/14/14 12:26	1
Bromoform	0.00137	U	0.00500	0.00137	mg/Kg			01/14/14 12:26	1
Bromomethane	0.000830	U	0.0100	0.000830	mg/Kg			01/14/14 12:26	1
2-Butanone (MEK)	0.00190	U	0.0100	0.00190	mg/Kg			01/14/14 12:26	1
Carbon disulfide	0.000550	U	0.0100	0.000550	mg/Kg			01/14/14 12:26	1
Carbon tetrachloride	0.00113	U	0.00500	0.00113	mg/Kg			01/14/14 12:26	1
Dibromochloromethane	0.000940	U	0.00500	0.000940	mg/Kg			01/14/14 12:26	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			01/14/14 12:26	1
Chloroethane	0.00140	U	0.0100	0.00140	mg/Kg			01/14/14 12:26	1
Chloroform	0.000660	U	0.00500	0.000660	mg/Kg			01/14/14 12:26	1
Chloromethane	0.00166	U	0.0100	0.00166	mg/Kg			01/14/14 12:26	1
1,1-Dichloroethane	0.000870	U	0.00500	0.000870	mg/Kg			01/14/14 12:26	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			01/14/14 12:26	1
1,1-Dichloroethene	0.00122	U	0.00500	0.00122	mg/Kg			01/14/14 12:26	1
cis-1,2-Dichloroethene	0.000830	U	0.00500	0.000830	mg/Kg			01/14/14 12:26	1
trans-1,2-Dichloroethene	0.00114	U	0.00500	0.00114	mg/Kg			01/14/14 12:26	1
1,2-Dichloropropane	0.000710	U	0.00500	0.000710	mg/Kg			01/14/14 12:26	1
cis-1,3-Dichloropropene	0.000540	U	0.00500	0.000540	mg/Kg			01/14/14 12:26	1
trans-1,3-Dichloropropene	0.000580	U	0.00500	0.000580	mg/Kg			01/14/14 12:26	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			01/14/14 12:26	1
2-Hexanone	0.00101	U	0.0100	0.00101	mg/Kg			01/14/14 12:26	1
Methylene Chloride	0.00219	U	0.0100	0.00219	mg/Kg			01/14/14 12:26	1
4-Methyl-2-pentanone (MIBK)	0.00147	U	0.0100	0.00147				01/14/14 12:26	1
Styrene	0.000710	U	0.00500	0.000710	mg/Kg			01/14/14 12:26	1
1,1,2,2-Tetrachloroethane	0.000870	U	0.00500	0.000870	mg/Kg			01/14/14 12:26	1
Tetrachloroethene	0.000710	U	0.00500	0.000710				01/14/14 12:26	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			01/14/14 12:26	1
1,1,1-Trichloroethane	0.000740	U	0.00500	0.000740	mg/Kg			01/14/14 12:26	1
1,1,2-Trichloroethane	0.000730	U	0.00500	0.000730	mg/Kg			01/14/14 12:26	1
Trichloroethene	0.00140	U	0.00500	0.00140	mg/Kg			01/14/14 12:26	1
Vinyl acetate	0.000930	U	0.00500	0.000930	mg/Kg			01/14/14 12:26	1
Vinyl chloride	0.000900	U	0.0100	0.000900	mg/Kg			01/14/14 12:26	1
o-Xylene	0.00113	U	0.00500	0.00113				01/14/14 12:26	1
m-Xylene & p-Xylene	0.00152	U	0.0100	0.00152	0 0			01/14/14 12:26	1
Xylenes, Total	0.00113	U	0.00500	0.00113				01/14/14 12:26	1
Bromodichloromethane	0.000660	U	0.00500	0.000660				01/14/14 12:26	1
1,2-Dichloroethene, Total	0.00190	U	0.0100	0.00190				01/14/14 12:26	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	68		50 - 130		01/14/14 12:26	1
Dibromofluoromethane	83		68 - 140		01/14/14 12:26	1
4-Bromofluorobenzene	97		57 - 140		01/14/14 12:26	1
1,2-Dichloroethane-d4 (Surr)	85		61 - 130		01/14/14 12:26	1

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-125013/3

Matrix: Solid

Analysis Batch: 125013

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Analysis Batch: 125013	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acetone	0.100	0.1349		mg/Kg		135	44 - 136
Benzene	0.0500	0.05464		mg/Kg		109	66 - 128
Chlorobromomethane	0.0500	0.04995		mg/Kg		100	60 - 140
Bromoform	0.0500	0.04483		mg/Kg		90	50 - 130
Bromomethane	0.0500	0.04230		mg/Kg		85	28 - 164
2-Butanone (MEK)	0.100	0.1193		mg/Kg		119	42 - 186
Carbon disulfide	0.0500	0.05146		mg/Kg		103	53 - 176
Carbon tetrachloride	0.0500	0.04599		mg/Kg		92	63 - 132
Dibromochloromethane	0.0500	0.04198		mg/Kg		84	63 - 125
Chlorobenzene	0.0500	0.04316		mg/Kg		86	67 - 126
Chloroethane	0.0500	0.04744		mg/Kg		95	30 - 136
Chloroform	0.0500	0.05352		mg/Kg		107	67 - 126
Chloromethane	0.0500	0.04545		mg/Kg		91	21 - 153
1,1-Dichloroethane	0.0500	0.05436		mg/Kg		109	64 - 130
1,2-Dichloroethane	0.0500	0.05906		mg/Kg		118	61 - 135
1,1-Dichloroethene	0.0500	0.04876		mg/Kg		98	40 - 157
cis-1,2-Dichloroethene	0.0500	0.05171		mg/Kg		103	62 - 130
trans-1,2-Dichloroethene	0.0500	0.05011		mg/Kg		100	65 - 130
1,2-Dichloropropane	0.0500	0.05673		mg/Kg		113	71 - 122
cis-1,3-Dichloropropene	0.0500	0.04731		mg/Kg		95	66 - 129
trans-1,3-Dichloropropene	0.0500	0.04686		mg/Kg		94	66 - 134
Ethylbenzene	0.0500	0.04270		mg/Kg		85	64 - 127
2-Hexanone	0.100	0.1074		mg/Kg		107	52 - 142
Methylene Chloride	0.0500	0.06166		mg/Kg		123	48 - 144
4-Methyl-2-pentanone (MIBK)	0.100	0.1237		mg/Kg		124	52 - 146
Styrene	0.0500	0.04396		mg/Kg		88	63 - 128
1,1,2,2-Tetrachloroethane	0.0500	0.04987		mg/Kg		100	59 - 134
Tetrachloroethene	0.0500	0.03543		mg/Kg		71	69 - 125
Toluene	0.0500	0.04311		mg/Kg		86	69 - 125
1,1,1-Trichloroethane	0.0500	0.05149		mg/Kg		103	70 - 127
1,1,2-Trichloroethane	0.0500	0.04353		mg/Kg		87	67 - 124
Trichloroethene	0.0500	0.04676		mg/Kg		94	70 - 136
Vinyl acetate	0.100	0.1183		mg/Kg		118	54 - 136
Vinyl chloride	0.0500	0.04434		mg/Kg		89	28 - 159
o-Xylene	0.0500	0.04513		mg/Kg		90	64 - 132
m-Xylene & p-Xylene	0.0500	0.04322		mg/Kg		86	65 - 128
Xylenes, Total	0.100	0.08835		mg/Kg		88	65 - 129
Bromodichloromethane	0.0500	0.05528		mg/Kg		111	68 - 121
1,2-Dichloroethene, Total	0.100	0.1018		mg/Kg		102	62 - 130

LCS

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	67		50 - 130
Dibromofluoromethane	76		68 - 140
4-Bromofluorobenzene	89		57 ₋ 140
1,2-Dichloroethane-d4 (Surr)	75		61 - 130

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-125071/4

Matrix: Solid

Analysis Batch: 125071

Client Sample ID: Method Blank

Prep Type: Total/NA

Ameliata		MB	MOL (4.45)	001	1114	_	D	A l	D'' F
Analyte	0.00166	Qualifier	MQL (Adj)	_	Unit	D	Prepared	Analyzed	Dil Fac
Acetone Benzene	0.00166	-	0.0100 0.00500	0.00166 0.000630				01/15/14 16:12	1
								01/15/14 16:12	-
Chlorobromomethane	0.00178		0.00500	0.00178				01/15/14 16:12	
Bromoform	0.00137		0.00500	0.00137				01/15/14 16:12	1
Bromomethane	0.000830		0.0100	0.000830	0 0			01/15/14 16:12	1
2-Butanone (MEK)	0.00190		0.0100	0.00190	0 0			01/15/14 16:12	
Carbon disulfide	0.000550		0.0100	0.000550				01/15/14 16:12	1
Carbon tetrachloride	0.00113		0.00500	0.00113	0 0			01/15/14 16:12	1
Dibromochloromethane	0.000940		0.00500	0.000940	0 0			01/15/14 16:12	
Chlorobenzene	0.000960		0.00500	0.000960				01/15/14 16:12	1
Chloroethane	0.00140		0.0100	0.00140				01/15/14 16:12	1
Chloroform	0.000660		0.00500	0.000660	0 0			01/15/14 16:12	1
Chloromethane	0.00166		0.0100	0.00166				01/15/14 16:12	1
1,1-Dichloroethane	0.000870	U	0.00500	0.000870	mg/Kg			01/15/14 16:12	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900				01/15/14 16:12	1
1,1-Dichloroethene	0.00122	U	0.00500	0.00122				01/15/14 16:12	1
cis-1,2-Dichloroethene	0.000830	U	0.00500	0.000830	mg/Kg			01/15/14 16:12	1
trans-1,2-Dichloroethene	0.00114	U	0.00500	0.00114	mg/Kg			01/15/14 16:12	1
1,2-Dichloropropane	0.000710	U	0.00500	0.000710	mg/Kg			01/15/14 16:12	1
cis-1,3-Dichloropropene	0.000540	U	0.00500	0.000540	mg/Kg			01/15/14 16:12	1
trans-1,3-Dichloropropene	0.000580	U	0.00500	0.000580	mg/Kg			01/15/14 16:12	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			01/15/14 16:12	1
2-Hexanone	0.00101	U	0.0100	0.00101	mg/Kg			01/15/14 16:12	1
Methylene Chloride	0.00219	U	0.0100	0.00219	mg/Kg			01/15/14 16:12	1
4-Methyl-2-pentanone (MIBK)	0.00147	U	0.0100	0.00147	mg/Kg			01/15/14 16:12	1
Styrene	0.000710	U	0.00500	0.000710	mg/Kg			01/15/14 16:12	1
1,1,2,2-Tetrachloroethane	0.000870	U	0.00500	0.000870				01/15/14 16:12	1
Tetrachloroethene	0.000710	U	0.00500	0.000710				01/15/14 16:12	1
Toluene	0.00138	U	0.00500	0.00138				01/15/14 16:12	1
1,1,1-Trichloroethane	0.000740	U	0.00500	0.000740				01/15/14 16:12	1
1,1,2-Trichloroethane	0.000730	U	0.00500	0.000730	mg/Kg			01/15/14 16:12	1
Trichloroethene	0.00140	U	0.00500	0.00140				01/15/14 16:12	1
Vinyl acetate	0.000930		0.00500	0.000930				01/15/14 16:12	1
Vinyl chloride	0.000900		0.0100	0.000900				01/15/14 16:12	1
o-Xylene	0.00113		0.00500	0.00113				01/15/14 16:12	1
m-Xylene & p-Xylene	0.00152		0.0100	0.00152	0 0			01/15/14 16:12	1
Xylenes, Total	0.00102		0.00500	0.00102	0 0			01/15/14 16:12	
Bromodichloromethane	0.000660		0.00500	0.000660				01/15/14 16:12	1
1,2-Dichloroethene, Total	0.00190		0.0100	0.00190				01/15/14 16:12	1
i, L Diomorocuiono, rotai	0.00130	•	0.0100	0.00130	1119/119			0 1/ 10/ 17 10.12	

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	89		50 - 130		01/15/14 16:12	1
Dibromofluoromethane	82		68 - 140		01/15/14 16:12	1
4-Bromofluorobenzene	122		57 - 140		01/15/14 16:12	1
1.2-Dichloroethane-d4 (Surr)	76		61 - 130		01/15/14 16:12	1

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

estAmerica Job ID. 000-655 16-

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-125071/3

Matrix: Solid

Analysis Batch: 125071

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acetone	0.100	0.1180		mg/Kg		118	44 - 136
Benzene	0.0500	0.04344		mg/Kg		87	66 - 128
Chlorobromomethane	0.0500	0.04129		mg/Kg		83	60 - 140
Bromoform	0.0500	0.05685		mg/Kg		114	50 - 130
Bromomethane	0.0500	0.03218		mg/Kg		64	28 - 164
2-Butanone (MEK)	0.100	0.1145		mg/Kg		114	42 - 186
Carbon disulfide	0.0500	0.04092		mg/Kg		82	53 - 176
Carbon tetrachloride	0.0500	0.04017		mg/Kg		80	63 - 132
Dibromochloromethane	0.0500	0.04628		mg/Kg		93	63 - 125
Chlorobenzene	0.0500	0.04449		mg/Kg		89	67 - 126
Chloroethane	0.0500	0.03442		mg/Kg		69	30 - 136
Chloroform	0.0500	0.04355		mg/Kg		87	67 - 126
Chloromethane	0.0500	0.03238		mg/Kg		65	21 - 153
1,1-Dichloroethane	0.0500	0.04422		mg/Kg		88	64 - 130
1,2-Dichloroethane	0.0500	0.04731		mg/Kg		95	61 - 135
1,1-Dichloroethene	0.0500	0.03993		mg/Kg		80	40 - 157
cis-1,2-Dichloroethene	0.0500	0.04296		mg/Kg		86	62 - 130
trans-1,2-Dichloroethene	0.0500	0.04015		mg/Kg		80	65 - 130
1,2-Dichloropropane	0.0500	0.04563		mg/Kg		91	71 - 122
cis-1,3-Dichloropropene	0.0500	0.04845		mg/Kg		97	66 - 129
trans-1,3-Dichloropropene	0.0500	0.04720		mg/Kg		94	66 - 134
Ethylbenzene	0.0500	0.04333		mg/Kg		87	64 - 127
2-Hexanone	0.100	0.1164		mg/Kg		116	52 - 142
Methylene Chloride	0.0500	0.04047		mg/Kg		81	48 - 144
4-Methyl-2-pentanone (MIBK)	0.100	0.1096		mg/Kg		110	52 - 146
Styrene	0.0500	0.04389		mg/Kg		88	63 - 128
1,1,2,2-Tetrachloroethane	0.0500	0.05551		mg/Kg		111	59 - 134
Tetrachloroethene	0.0500	0.04267		mg/Kg		85	69 - 125
Toluene	0.0500	0.04362		mg/Kg		87	69 - 125
1,1,1-Trichloroethane	0.0500	0.04211		mg/Kg		84	70 - 127
1,1,2-Trichloroethane	0.0500	0.04796		mg/Kg		96	67 - 124
Trichloroethene	0.0500	0.04069		mg/Kg		81	70 - 136
Vinyl acetate	0.100	0.09814		mg/Kg		98	54 - 136
Vinyl chloride	0.0500	0.03312		mg/Kg		66	28 - 159
o-Xylene	0.0500	0.04516		mg/Kg		90	64 - 132
m-Xylene & p-Xylene	0.0500	0.04343		mg/Kg		87	65 - 128
Xylenes, Total	0.100	0.08859		mg/Kg		89	65 - 129
Bromodichloromethane	0.0500	0.04857		mg/Kg		97	68 - 121
1,2-Dichloroethene, Total	0.100	0.08311		mg/Kg		83	62 - 130

LCS	LCS
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Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	78		50 - 130
Dibromofluoromethane	70		68 ₋ 140
4-Bromofluorobenzene	119		57 ₋ 140
1,2-Dichloroethane-d4 (Surr)	70		61 - 130

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

inenca 300 iD. 600-653 i6- i

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-125242/3

Matrix: Solid

Client Sample ID: Method Blank
Prep Type: Total/NA

Analysis Batch: 125242

•	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.00166	U	0.0100	0.00166	mg/Kg			01/17/14 09:21	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			01/17/14 09:21	1
Chlorobromomethane	0.00178	U	0.00500	0.00178	mg/Kg			01/17/14 09:21	1
Bromoform	0.00137	U	0.00500	0.00137	mg/Kg			01/17/14 09:21	1
Bromomethane	0.000830	U	0.0100	0.000830	mg/Kg			01/17/14 09:21	1
2-Butanone (MEK)	0.00190	U	0.0100	0.00190	mg/Kg			01/17/14 09:21	1
Carbon disulfide	0.000550	U	0.0100	0.000550	mg/Kg			01/17/14 09:21	1
Carbon tetrachloride	0.00113	U	0.00500	0.00113	mg/Kg			01/17/14 09:21	1
Dibromochloromethane	0.000940	U	0.00500	0.000940	mg/Kg			01/17/14 09:21	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			01/17/14 09:21	1
Chloroethane	0.00140	U	0.0100	0.00140	mg/Kg			01/17/14 09:21	1
Chloroform	0.000660	U	0.00500	0.000660	mg/Kg			01/17/14 09:21	1
Chloromethane	0.00166	U	0.0100	0.00166	mg/Kg			01/17/14 09:21	1
1,1-Dichloroethane	0.000870	U	0.00500	0.000870	mg/Kg			01/17/14 09:21	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			01/17/14 09:21	1
1,1-Dichloroethene	0.00122	U	0.00500	0.00122	mg/Kg			01/17/14 09:21	1
cis-1,2-Dichloroethene	0.000830	U	0.00500	0.000830	mg/Kg			01/17/14 09:21	1
trans-1,2-Dichloroethene	0.00114	U	0.00500	0.00114	mg/Kg			01/17/14 09:21	1
1,2-Dichloropropane	0.000710	U	0.00500	0.000710	mg/Kg			01/17/14 09:21	1
cis-1,3-Dichloropropene	0.000540	U	0.00500	0.000540	mg/Kg			01/17/14 09:21	1
trans-1,3-Dichloropropene	0.000580	U	0.00500	0.000580	mg/Kg			01/17/14 09:21	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			01/17/14 09:21	1
2-Hexanone	0.00101	U	0.0100	0.00101	mg/Kg			01/17/14 09:21	1
Methylene Chloride	0.00219	U	0.0100	0.00219	mg/Kg			01/17/14 09:21	1
4-Methyl-2-pentanone (MIBK)	0.00147	U	0.0100	0.00147	mg/Kg			01/17/14 09:21	1
Styrene	0.000710	U	0.00500	0.000710	mg/Kg			01/17/14 09:21	1
1,1,2,2-Tetrachloroethane	0.000870	U	0.00500	0.000870	mg/Kg			01/17/14 09:21	1
Tetrachloroethene	0.000710	U	0.00500	0.000710	mg/Kg			01/17/14 09:21	1
Toluene	0.002338	J	0.00500	0.00138	mg/Kg			01/17/14 09:21	1
1,1,1-Trichloroethane	0.000740	U	0.00500	0.000740	mg/Kg			01/17/14 09:21	1
1,1,2-Trichloroethane	0.000730	U	0.00500	0.000730	mg/Kg			01/17/14 09:21	1
Trichloroethene	0.00140	U	0.00500	0.00140	mg/Kg			01/17/14 09:21	1
Vinyl acetate	0.000930	U	0.00500	0.000930	mg/Kg			01/17/14 09:21	1
Vinyl chloride	0.000900	U	0.0100	0.000900	mg/Kg			01/17/14 09:21	1
o-Xylene	0.00113	U	0.00500	0.00113				01/17/14 09:21	1
m-Xylene & p-Xylene	0.00152	U	0.0100	0.00152	mg/Kg			01/17/14 09:21	1
Xylenes, Total	0.00113		0.00500	0.00113	mg/Kg			01/17/14 09:21	1
Bromodichloromethane	0.000660	U	0.00500	0.000660				01/17/14 09:21	1
1,2-Dichloroethene, Total	0.00190	U	0.0100	0.00190				01/17/14 09:21	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	69		50 - 130		01/17/14 09:21	1
Dibromofluoromethane	72		68 - 140		01/17/14 09:21	1
4-Bromofluorobenzene	97		57 - 140		01/17/14 09:21	1
1,2-Dichloroethane-d4 (Surr)	70		61 - 130		01/17/14 09:21	1

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-125242/4

Matrix: Solid

Analysis Batch: 125242

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acetone	0.100	0.08969		mg/Kg		90	44 - 136	
Benzene	0.0500	0.04565		mg/Kg		91	66 - 128	
Chlorobromomethane	0.0500	0.04215		mg/Kg		84	60 - 140	
Bromoform	0.0500	0.05340		mg/Kg		107	50 - 130	
Bromomethane	0.0500	0.03961		mg/Kg		79	28 - 164	
2-Butanone (MEK)	0.100	0.08400		mg/Kg		84	42 - 186	
Carbon disulfide	0.0500	0.04260		mg/Kg		85	53 - 176	
Carbon tetrachloride	0.0500	0.04011		mg/Kg		80	63 - 132	
Dibromochloromethane	0.0500	0.04838		mg/Kg		97	63 - 125	
Chlorobenzene	0.0500	0.04898		mg/Kg		98	67 - 126	
Chloroethane	0.0500	0.04154		mg/Kg		83	30 - 136	
Chloroform	0.0500	0.04591		mg/Kg		92	67 - 126	
Chloromethane	0.0500	0.03629		mg/Kg		73	21 - 153	
1,1-Dichloroethane	0.0500	0.04617		mg/Kg		92	64 - 130	
1,2-Dichloroethane	0.0500	0.04697		mg/Kg		94	61 - 135	
1,1-Dichloroethene	0.0500	0.04233		mg/Kg		85	40 - 157	
cis-1,2-Dichloroethene	0.0500	0.04427		mg/Kg		89	62 _ 130	
trans-1,2-Dichloroethene	0.0500	0.04145		mg/Kg		83	65 - 130	
1,2-Dichloropropane	0.0500	0.04721		mg/Kg		94	71 - 122	
cis-1,3-Dichloropropene	0.0500	0.05391		mg/Kg		108	66 - 129	
trans-1,3-Dichloropropene	0.0500	0.04994		mg/Kg		100	66 - 134	
Ethylbenzene	0.0500	0.04874		mg/Kg		97	64 - 127	
2-Hexanone	0.100	0.09630		mg/Kg		96	52 - 142	
Methylene Chloride	0.0500	0.04452		mg/Kg		89	48 - 144	
4-Methyl-2-pentanone (MIBK)	0.100	0.08713		mg/Kg		87	52 - 146	
Styrene	0.0500	0.04818		mg/Kg		96	63 - 128	
1,1,2,2-Tetrachloroethane	0.0500	0.05092		mg/Kg		102	59 ₋ 134	
Tetrachloroethene	0.0500	0.04189		mg/Kg		84	69 - 125	
Toluene	0.0500	0.05054		mg/Kg		101	69 - 125	
1,1,1-Trichloroethane	0.0500	0.04297		mg/Kg		86	70 - 127	
1,1,2-Trichloroethane	0.0500	0.04746		mg/Kg		95	67 - 124	
Trichloroethene	0.0500	0.04189		mg/Kg		84	70 - 136	
Vinyl acetate	0.100	0.08864		mg/Kg		89	54 - 136	
Vinyl chloride	0.0500	0.03688		mg/Kg		74	28 - 159	
o-Xylene	0.0500	0.05039		mg/Kg		101	64 - 132	
m-Xylene & p-Xylene	0.0500	0.04839		mg/Kg		97	65 - 128	
Xylenes, Total	0.100	0.09878		mg/Kg		99	65 - 129	
Bromodichloromethane	0.0500	0.04363		mg/Kg		87	68 - 121	
1,2-Dichloroethene, Total	0.100	0.08572		mg/Kg		86	62 - 130	

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	88		50 - 130
Dibromofluoromethane	78		68 ₋ 140
4-Bromofluorobenzene	87		57 - 140
1,2-Dichloroethane-d4 (Surr)	77		61 - 130

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Client Sample ID: Method Blank

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Lab Sample ID: MB 600-124914/1-A

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

0.000180 U

0.000190 U

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Matrix: Water Prep Type: Total/NA Analysis Batch: 125073 Prep Batch: 124914 MB MB Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac **Analyte** 0.000120 mg/L 01/14/14 11:33 01/14/14 19:18 Fluorene 0.000120 U 0.000500 Acenaphthylene 0.000160 U 0.000500 0.000160 mg/L 01/14/14 11:33 01/14/14 19:18 0.000500 0.000350 mg/L 01/14/14 11:33 01/14/14 19:18 Benzo[g,h,i]perylene 0.000350 U Phenanthrene 0.000290 U 0.000500 0.000290 mg/L 01/14/14 11:33 01/14/14 19:18 Benzo[k]fluoranthene 0.000160 U 0.000500 0.000160 mg/L 01/14/14 11:33 01/14/14 19:18 Benzo[a]pyrene 0.000130 U 0.000500 0.000130 mg/L 01/14/14 11:33 01/14/14 19:18 Anthracene 0.000440 U 0.000500 0.000440 mg/L 01/14/14 11:33 01/14/14 19:18 2-Methylnaphthalene 0.000140 U 0.000500 0.000140 mg/L 01/14/14 11:33 01/14/14 19:18 Pyrene 0.000330 U 0.000500 0.000330 mg/L 01/14/14 11:33 01/14/14 19:18

Dibenz(a,h)anthracene 0.000290 U 0.000500 0.000290 mg/L 01/14/14 11:33 01/14/14 19:18 Naphthalene 01/14/14 11:33 01/14/14 19:18 0.000160 U 0.000500 0.000160 mg/L Fluoranthene 0.000310 U 0.000500 0.000310 mg/L 01/14/14 11:33 01/14/14 19:18 Benzo[a]anthracene 0.000250 U 0.000500 0.000250 mg/L 01/14/14 11:33 01/14/14 19:18 0.000290 mg/L Indeno[1,2,3-cd]pyrene 0.000290 U 0.000500 01/14/14 11:33 01/14/14 19:18 Chrysene 0.000240 U 0.000500 0.000240 mg/L 01/14/14 11:33 01/14/14 19:18 0.000500 0.000160 mg/L 01/14/14 11:33 01/14/14 19:18 Acenaphthene 0.000160 U

0.000500

0.000500

MB MB Qualifier Surrogate %Recovery Limits Prepared Analyzed Dil Fac Nitrobenzene-d5 84 47 - 120 01/14/14 11:33 01/14/14 19:18 2-Fluorophenol 64 18 - 120 01/14/14 11:33 01/14/14 19:18 2-Fluorobiphenyl 84 43 - 120 01/14/14 11:33 01/14/14 19:18 90 33 - 141 Terphenyl-d14 01/14/14 11:33 01/14/14 19:18 2,4,6-Tribromophenol 64 44 - 123 01/14/14 11:33 01/14/14 19:18

12 - 128

0.000180 mg/L

0.000190 mg/L

Lab Sample ID: LCS 600-124914/2-A

Matrix: Water

Phenol-d5 (Surr)

Benzo[b]fluoranthene

1-Methylnaphthalene

Analysis Batch: 125073

Client Sample ID: Lab Control Sample Prep Type: Total/NA

01/14/14 11:33 01/14/14 19:18

01/14/14 11:33 01/14/14 19:18

01/14/14 11:33 01/14/14 19:18

Prep Batch: 124914

Analysis Batch. 123073	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Fluorene	0.00800	0.006367		mg/L		80	48 - 127
Acenaphthylene	0.00800	0.006226		mg/L		78	35 - 135
Benzo[g,h,i]perylene	0.00800	0.006708		mg/L		84	46 - 133
Phenanthrene	0.00800	0.006020		mg/L		75	52 - 121
Benzo[k]fluoranthene	0.00800	0.006078		mg/L		76	46 - 130
Benzo[a]pyrene	0.00800	0.007103		mg/L		89	50 - 124
Anthracene	0.00800	0.006701		mg/L		84	53 - 124
2-Methylnaphthalene	0.00800	0.006153		mg/L		77	40 - 121
Pyrene	0.00800	0.006628		mg/L		83	49 - 121
Dibenz(a,h)anthracene	0.00800	0.006705		mg/L		84	42 - 134
Naphthalene	0.00800	0.006255		mg/L		78	39 - 120
Fluoranthene	0.00800	0.006808		mg/L		85	53 - 127
Benzo[a]anthracene	0.00800	0.007000		mg/L		88	53 - 122
Indeno[1,2,3-cd]pyrene	0.00800	0.006413		mg/L		80	45 - 124
Chrysene	0.00800	0.006745		mg/L		84	49 - 124
Acenaphthene	0.00800	0.006037		mg/L		75	47 - 145

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

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Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-124 Matrix: Water Analysis Batch: 125073	1914/2-A	Spike	LCS	LCS	Clie	ent Sai	mple ID	Prep Type: 1 Prep Batch: %Rec.	otal/NA
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzo[b]fluoranthene		0.00800	0.007535		mg/L		94	53 - 131	
1-Methylnaphthalene		0.00800	0.006093		mg/L		76	45 - 124	
2	LCS LCS	. Santia							

Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5	99		47 - 120
2-Fluorophenol	74		18 - 120
2-Fluorobiphenyl	95		43 - 120
Terphenyl-d14	100		33 - 141
2,4,6-Tribromophenol	97		44 - 123
Phenol-d5 (Surr)	66		12 - 128
-			

Lab Sample ID: MB 600-1249 Matrix: Solid Analysis Batch: 125404	82/1-A MB	MD					•	le ID: Method Prep Type: To Prep Batch:	tal/NA
Analyte		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.00467	U	0.0330	0.00467	mg/Kg		01/15/14 08:14	01/17/14 11:37	1
Acenaphthylene	0.00198	U	0.0330	0.00198	mg/Kg		01/15/14 08:14	01/17/14 11:37	1
Benzo[g,h,i]perylene	0.0100	U	0.0330	0.0100	mg/Kg		01/15/14 08:14	01/17/14 11:37	1
Phenanthrene	0.00979	U	0.0330	0.00979	mg/Kg		01/15/14 08:14	01/17/14 11:37	1
Benzo[k]fluoranthene	0.00295	U	0.0330	0.00295	mg/Kg		01/15/14 08:14	01/17/14 11:37	1
Benzo[a]pyrene	0.00318	U	0.0330	0.00318	mg/Kg		01/15/14 08:14	01/17/14 11:37	1
Anthracene	0.00253	U	0.0330	0.00253	mg/Kg		01/15/14 08:14	01/17/14 11:37	1

Phenanthrene	0.00979 U	0.0330	0.00979 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
Benzo[k]fluoranthene	0.00295 U	0.0330	0.00295 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
Benzo[a]pyrene	0.00318 U	0.0330	0.00318 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
Anthracene	0.00253 U	0.0330	0.00253 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
2-Methylnaphthalene	0.00542 U	0.0330	0.00542 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
Pyrene	0.00362 U	0.0330	0.00362 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
Dibenz(a,h)anthracene	0.00718 U	0.0330	0.00718 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
Naphthalene	0.00267 U	0.0330	0.00267 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
Fluoranthene	0.00615 U	0.0330	0.00615 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
Benzo[a]anthracene	0.00273 U	0.0330	0.00273 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
Indeno[1,2,3-cd]pyrene	0.00692 U	0.0330	0.00692 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
Chrysene	0.00202 U	0.0330	0.00202 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
Acenaphthene	0.00285 U	0.0330	0.00285 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
Benzo[b]fluoranthene	0.00340 U	0.0330	0.00340 mg/Kg	01/15/14 08:14	01/17/14 11:37	1
1-Methylnaphthalene	0.00310 U	0.0330	0.00310 mg/Kg	01/15/14 08:14	01/17/14 11:37	1

	MB MB			
Surrogate	%Recovery Qualifier	Limits	Prepared Analy	zed Dil Fac
Nitrobenzene-d5	117	10 - 155	01/15/14 08:14 01/17/14	1 11:37 1
2-Fluorophenol	113	25 - 132	01/15/14 08:14 01/17/14	1 11:37 1
2-Fluorobiphenyl	114	38 - 127	01/15/14 08:14 01/17/14	1 11:37 1
Terphenyl-d14	124	53 - 134	01/15/14 08:14 01/17/14	1 11:37 1
2,4,6-Tribromophenol	37	10 - 148	01/15/14 08:14 01/17/14	<i>4</i> 11:37
Phenol-d5 (Surr)	111	27 - 123	01/15/14 08:14 01/17/14	1 11:37 1

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-124982/2-A

Matrix: Solid

Analysis Batch: 125404

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124982

Analysis batch. 125404	Spike	LCS L	cs			%Rec.
Analyte	Added	Result Q	ualifier U	nit D	%Rec	Limits
Fluorene	0.665	0.7878	m	g/Kg	118	52 - 130
Acenaphthylene	0.665	0.7906	m	g/Kg	119	57 ₋ 130
Benzo[g,h,i]perylene	0.665	0.8150	m	g/Kg	123	58 ₋ 150
Phenanthrene	0.665	0.7950	m	g/Kg	120	57 - 130
Benzo[k]fluoranthene	0.665	0.8866	m	g/Kg	133	56 - 136
Benzo[a]pyrene	0.665	0.8663	m	g/Kg	130	59 ₋ 130
Anthracene	0.665	0.8143	m	g/Kg	122	58 - 130
2-Methylnaphthalene	0.665	0.7985	m	g/Kg	120	51 - 130
Pyrene	0.665	0.8251	m	g/Kg	124	60 - 135
Dibenz(a,h)anthracene	0.665	0.7815	m	g/Kg	118	58 - 138
Naphthalene	0.665	0.7566	m	g/Kg	114	59 ₋ 130
Fluoranthene	0.665	0.8355	m	g/Kg	126	63 - 130
Benzo[a]anthracene	0.665	0.8417	m	g/Kg	127	61 - 132
Indeno[1,2,3-cd]pyrene	0.665	0.7055	m	g/Kg	106	56 - 150
Chrysene	0.665	0.8494	m	g/Kg	128	64 - 130
Acenaphthene	0.665	0.7836	m	g/Kg	118	58 - 130
Benzo[b]fluoranthene	0.665	0.8438	m	g/Kg	127	54 - 130
1-Methylnaphthalene	0.665	0.7705	m	g/Kg	116	51 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5	127		10 - 155
2-Fluorophenol	122		25 - 132
2-Fluorobiphenyl	120		38 - 127
Terphenyl-d14	128		53 - 134
2,4,6-Tribromophenol	106		10 - 148
Phenol-d5 (Surr)	120		27 - 123

Lab Sample ID: MB 600-125220/1-A

Matrix: Solid

Analysis Batch: 125471

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 125220

Analysis Baton: 120471								i icp Datoii.	LOLLO
_	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzidine	0.0180	U	0.167	0.0180	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
Benzyl alcohol	0.0117	U	0.0333	0.0117	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
Bis(2-chloroethoxy)methane	0.00284	U	0.0333	0.00284	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
Bis(2-chloroethyl)ether	0.00330	U	0.0333	0.00330	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
bis (2-Chloroisopropyl) ether	0.0177	U	0.0333	0.0177	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
Bis(2-ethylhexyl) phthalate	0.0107	U	0.133	0.0107	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
4-Bromophenyl phenyl ether	0.00568	U	0.0333	0.00568	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
Butyl benzyl phthalate	0.01363	J	0.133	0.0124	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
Carbazole	0.00624	U	0.0333	0.00624	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
4-Chloroaniline	0.0116	U	0.0333	0.0116	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
4-Chloro-3-methylphenol	0.0312	U	0.0333	0.0312	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
2-Chloronaphthalene	0.00242	U	0.0333	0.00242	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
2-Chlorophenol	0.00394	U	0.0333	0.00394	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
4-Chlorophenyl phenyl ether	0.00360	U	0.0333	0.00360	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
Dibenzofuran	0.00356	U	0.0333	0.00356	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
1,2-Dichlorobenzene	0.00604	U	0.0333	0.00604	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-125220/1-A

Matrix: Solid

Analysis Batch: 125471

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 125220

Analysis Batch: 125471		MD					Prep Batch:	125220
Analyte		MB Qualifier	MQL (Adj)	SDL	Unit	D Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	0.00308		0.0333	0.00308		•	18 01/20/14 19:49	1
1,4-Dichlorobenzene	0.00450	U	0.0333	0.00450		01/17/14 13	:18 01/20/14 19:49	1
3,3'-Dichlorobenzidine	0.0203	Ü	0.0333	0.0203	mg/Kg	01/17/14 13	:18 01/20/14 19:49	1
2,4-Dichlorophenol	0.00774	U	0.0333	0.00774		01/17/14 13	:18 01/20/14 19:49	1
Diethyl phthalate	0.09509	J	0.133	0.0169		01/17/14 13	:18 01/20/14 19:49	1
2,4-Dimethylphenol	0.0172	U	0.0333	0.0172		01/17/14 13	:18 01/20/14 19:49	1
Dimethyl phthalate	0.00978	U	0.133	0.00978		01/17/14 13	:18 01/20/14 19:49	1
Di-n-butyl phthalate	0.02540	J	0.133	0.00518		01/17/14 13	:18 01/20/14 19:49	1
4,6-Dinitro-2-methylphenol	0.00996	Ü	0.0333	0.00996	mg/Kg	01/17/14 13	:18 01/20/14 19:49	1
2,4-Dinitrophenol	0.00944	U	0.200	0.00944		01/17/14 13	:18 01/20/14 19:49	1
2,4-Dinitrotoluene	0.00722	U	0.0333	0.00722		01/17/14 13	:18 01/20/14 19:49	1
2,6-Dinitrotoluene	0.00590		0.0333	0.00590	mg/Kg	01/17/14 13	:18 01/20/14 19:49	1
Di-n-octyl phthalate	0.00380	U	0.133	0.00380		01/17/14 13	:18 01/20/14 19:49	1
Hexachlorobenzene	0.00304	U	0.0333	0.00304	mg/Kg	01/17/14 13	:18 01/20/14 19:49	1
Hexachlorobutadiene	0.00384		0.0333	0.00384		01/17/14 13	:18 01/20/14 19:49	1
Hexachlorocyclopentadiene	0.00922	U	0.0333	0.00922		01/17/14 13	:18 01/20/14 19:49	1
Hexachloroethane	0.00462		0.0333	0.00462			:18 01/20/14 19:49	1
Isophorone	0.00200		0.0333	0.00200			:18 01/20/14 19:49	1
2-Methylphenol	0.00646		0.0333	0.00646		01/17/14 13	:18 01/20/14 19:49	1
3 & 4 Methylphenol	0.00558		0.0667	0.00558	0 0		:18 01/20/14 19:49	1
2-Nitroaniline	0.00978		0.0333	0.00978	0 0		:18 01/20/14 19:49	1
3-Nitroaniline	0.0143		0.0333	0.0143			:18 01/20/14 19:49	1
4-Nitroaniline	0.0223		0.0333	0.0223			:18 01/20/14 19:49	1
Nitrobenzene	0.00592		0.0333	0.00592			:18 01/20/14 19:49	1
2-Nitrophenol	0.00778		0.0333	0.00778			:18 01/20/14 19:49	1
4-Nitrophenol	0.0102		0.0333	0.0102			:18 01/20/14 19:49	1
N-Nitrosodimethylamine	0.00838		0.0333	0.00838			:18 01/20/14 19:49	1
N-Nitrosodi-n-propylamine	0.00444		0.0333	0.00444			:18 01/20/14 19:49	1
N-Nitrosodiphenylamine	0.00378		0.0333	0.00378			:18 01/20/14 19:49	1
Pentachlorophenol	0.00800		0.334	0.00800			:18 01/20/14 19:49	1
Phenol	0.00848		0.0333	0.00848			:18 01/20/14 19:49	1
1,2,4-Trichlorobenzene	0.00420		0.0333	0.00420			:18 01/20/14 19:49	1
2,4,5-Trichlorophenol	0.0200		0.0333	0.0200			:18 01/20/14 19:49	1
2,4,6-Trichlorophenol	0.00536		0.0333	0.00536		01/17/14 13	:18 01/20/14 19:49	1
Fluorene	0.00472		0.0333	0.00472	0 0		:18 01/20/14 19:49	1
Acenaphthylene	0.00200		0.0333	0.00200		01/17/14 13	:18 01/20/14 19:49	1
Benzo[g,h,i]perylene	0.0101		0.0333	0.0101			:18 01/20/14 19:49	1
Phenanthrene	0.00990		0.0333	0.00990			:18 01/20/14 19:49	1
Benzo[k]fluoranthene	0.00298		0.0333	0.00298			:18 01/20/14 19:49	1
Benzo[a]pyrene	0.00322		0.0333	0.00322			:18 01/20/14 19:49	1
Anthracene	0.00256		0.0333	0.00256			:18 01/20/14 19:49	1
2-Methylnaphthalene	0.00548		0.0333	0.00548			:18 01/20/14 19:49	1
Pyrene	0.00366		0.0333	0.00366			:18 01/20/14 19:49	1
Dibenz(a,h)anthracene	0.00726		0.0333	0.00726			:18 01/20/14 19:49	1
Naphthalene	0.00270		0.0333	0.00720			:18 01/20/14 19:49	
Fluoranthene	0.00622		0.0333	0.00270			:18 01/20/14 19:49	1
Benzo[a]anthracene	0.00276		0.0333	0.00022			:18 01/20/14 19:49	1
Indeno[1,2,3-cd]pyrene	0.00700		0.0333	0.00270			:18 01/20/14 19:49	

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Spike

Added

3.33

MB MB

Lab Sample ID: MB 600-125220/1-A

Matrix: Solid

Surrogate

Nitrobenzene-d5

2-Fluorophenol

Terphenyl-d14

2-Fluorobiphenyl

Phenol-d5 (Surr)

2,4,6-Tribromophenol

Analysis Batch: 125471

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 125220

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.00204	U	0.0333	0.00204	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
Acenaphthene	0.00288	U	0.0333	0.00288	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
Benzo[b]fluoranthene	0.00344	U	0.0333	0.00344	mg/Kg		01/17/14 13:18	01/20/14 19:49	1
1-Methylnaphthalene	0.00314	U	0.0333	0.00314	mg/Kg		01/17/14 13:18	01/20/14 19:49	1

MB MB %Recovery Qualifier Prepared Limits Analyzed Dil Fac 69 01/17/14 13:18 01/20/14 19:49 10 - 155 72 25 - 132 01/17/14 13:18 01/20/14 19:49 68 38 - 127 01/17/14 13:18 01/20/14 19:49 74 53 - 134 01/17/14 13:18 01/20/14 19:49 30 10 - 148 01/17/14 13:18 01/20/14 19:49 64 27 - 123 01/17/14 13:18 01/20/14 19:49

Lab Sample ID: LCS 600-125220/2-A

Matrix: Solid

Analyte

Benzidine

Benzyl alcohol

Di-n-octyl phthalate

Hexachlorobenzene

Analysis Batch: 125471

Client Sample ID: Lab Control Sample

%Rec

39

Prep Type: Total/NA **Prep Batch: 125220**

%Rec. Limits

10 - 145

0.667 0.6353 mg/Kg 95 31 - 137 0.667 0.5066 mg/Kg 76 42 - 139 0.667 76 68 - 130 0.5044 mg/Kg 0.667 0.4332 mg/Kg 65 63 - 142 0.667 0.6094 91 68 - 133 mg/Kg

LCS LCS

1.296

Result Qualifier

Unit

mg/Kg

mg/Kg

mg/Kg

87

68

68 - 131

66 - 130

Bis(2-chloroethoxy)methane Bis(2-chloroethyl)ether bis (2-Chloroisopropyl) ether Bis(2-ethylhexyl) phthalate 72 4-Bromophenyl phenyl ether 0.667 0.4829 mg/Kg 69 - 130 mg/Kg Butyl benzyl phthalate 0.667 0.5929 89 70 - 130Carbazole 0.667 0.5852 mg/Kg 88 61 - 1494-Chloroaniline 0.667 0.4143 62 18 - 130 mg/Kg 75 4-Chloro-3-methylphenol 0.667 0.5005 51 - 130 mg/Kg 2-Chloronaphthalene 77 0.667 0.5161 mg/Kg 62 - 13079 2-Chlorophenol 0.667 0.5282 63 - 130mg/Kg 4-Chlorophenyl phenyl ether 0.667 0.5002 75 46 - 130 mg/Kg Dibenzofuran 0.667 0.5231 mg/Kg 78 51 - 1301,2-Dichlorobenzene 0.667 0.4887 mg/Kg 73 55 - 130 1.3-Dichlorobenzene 0.667 0.4753 mg/Kg 71 57 - 130 1,4-Dichlorobenzene 0.667 0.4531 mg/Kg 68 58 - 130 3,3'-Dichlorobenzidine 0.667 0.5417 81 10 - 150 mg/Kg 2,4-Dichlorophenol 0.667 0.5026 mg/Kg 75 38 - 130mg/Kg Diethyl phthalate 0.667 0.5703 86 59 - 130 75 2,4-Dimethylphenol 0.667 0.4974 mg/Kg 55 - 130 Dimethyl phthalate 0.667 0.5248 mg/Kg 79 68 - 130 Di-n-butyl phthalate 0.667 0.5866 88 70 - 130 mg/Kg 79 4,6-Dinitro-2-methylphenol 1.33 1.047 mg/Kg 10 - 130 70 2,4-Dinitrophenol 1.33 0.9387 24 - 143mg/Kg 2,4-Dinitrotoluene 0.667 0.5026 75 51 - 150 mg/Kg 47 - 130 77 2.6-Dinitrotoluene 0.667 0.5138 mg/Kg

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0.5830

0.4537

0.667

0.667

6/8/2015

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

estAmenca Job ID. 000-055 To-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID:	LCS	600-125220/2-A
Matrix: Solid		

Analysis Batch: 125471

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125220

Analysis Batch: 1254/1	Spike	LCS LCS			WRec.
Analyte	Added	Result Qualifier	Unit	D %Rec	Limits
Hexachlorobutadiene	0.667	0.4490	mg/Kg		62 - 130
Hexachlorocyclopentadiene	0.667	0.4301	mg/Kg	65	24 - 130
Hexachloroethane	0.667	0.4859	mg/Kg	73	68 - 130
Isophorone	0.667	0.5099	mg/Kg	76	67 - 130
2-Methylphenol	0.667	0.5347	mg/Kg	80	57 - 130
3 & 4 Methylphenol	0.667	0.5593	mg/Kg	84	46 - 130
2-Nitroaniline	0.667	0.5117	mg/Kg	77	67 - 150
3-Nitroaniline	0.667	0.4892	mg/Kg	73	24 - 150
4-Nitroaniline	0.667	0.5003	mg/Kg	75	45 - 160
Nitrobenzene	0.667	0.4802	mg/Kg	72	60 - 130
2-Nitrophenol	0.667	0.5539	mg/Kg	83	54 - 130
4-Nitrophenol	1.33	1.015	mg/Kg	76	36 - 149
N-Nitrosodimethylamine	0.667	0.4881	mg/Kg	73	54 - 130
N-Nitrosodi-n-propylamine	0.667	0.5284	mg/Kg	79	70 - 130
N-Nitrosodiphenylamine	0.667	0.5135	mg/Kg	77	70 - 130
Pentachlorophenol	1.33	0.8711	mg/Kg	65	43 - 130
Phenol	0.667	0.4584	mg/Kg	69	56 ₋ 130
1,2,4-Trichlorobenzene	0.667	0.4477	mg/Kg	67	55 ₋ 130
2,4,5-Trichlorophenol	0.667	0.5451	mg/Kg	82	56 - 130
2,4,6-Trichlorophenol	0.667	0.5172	mg/Kg	78	45 - 130
Fluorene	0.667	0.5171	mg/Kg	78	52 - 130
Acenaphthylene	0.667	0.5289	mg/Kg	79	57 ₋ 130
Benzo[g,h,i]perylene	0.667	0.5746	mg/Kg	86	58 - 150
Phenanthrene	0.667	0.5032	mg/Kg	75	57 ₋ 130
Benzo[k]fluoranthene	0.667	0.5204	mg/Kg	78	56 - 136
Benzo[a]pyrene	0.667	0.5856	mg/Kg	88	59 - 130
Anthracene	0.667	0.5160	mg/Kg	77	58 - 130
2-Methylnaphthalene	0.667	0.4902	mg/Kg	74	51 - 130
Pyrene	0.667	0.5191	mg/Kg	78	60 - 135
Dibenz(a,h)anthracene	0.667	0.5362	mg/Kg	80	58 - 138
Naphthalene	0.667	0.4776	mg/Kg	72	59 - 130
Fluoranthene	0.667	0.5172	mg/Kg	78	63 - 130
Benzo[a]anthracene	0.667	0.5639	mg/Kg	85	61 - 132
Indeno[1,2,3-cd]pyrene	0.667	0.5431	mg/Kg	81	56 - 150
Chrysene	0.667	0.5256	mg/Kg	79	64 - 130
Acenaphthene	0.667	0.5160	mg/Kg	77	58 - 130
Benzo[b]fluoranthene	0.667	0.5166	mg/Kg	77	54 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5	76		10 - 155
2-Fluorophenol	78		25 - 132
2-Fluorobiphenyl	77		38 - 127
Terphenyl-d14	79		53 - 134
2,4,6-Tribromophenol	70		10 - 148
Phenol-d5 (Surr)	81		27 - 123

1-Methylnaphthalene

TestAmerica Houston

76

51 - 130

mg/Kg

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0.667

0.5040

6/8/2015

3

4

6

8

10

12

14

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-125453/1-A **Client Sample ID: Method Blank Matrix: Solid Prep Type: Total/NA Analysis Batch: 125638 Prep Batch: 125453**

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.00472	U	0.0333	0.00472	mg/Kg		01/21/14 10:00	01/22/14 16:21	
Acenaphthylene	0.00200	U	0.0333	0.00200	mg/Kg		01/21/14 10:00	01/22/14 16:21	•
Benzo[g,h,i]perylene	0.0101	U	0.0333	0.0101	mg/Kg		01/21/14 10:00	01/22/14 16:21	•
Phenanthrene	0.00990	U	0.0333	0.00990	mg/Kg		01/21/14 10:00	01/22/14 16:21	
Benzo[k]fluoranthene	0.00298	U	0.0333	0.00298	mg/Kg		01/21/14 10:00	01/22/14 16:21	•
Benzo[a]pyrene	0.00322	U	0.0333	0.00322	mg/Kg		01/21/14 10:00	01/22/14 16:21	•
Anthracene	0.00256	U	0.0333	0.00256	mg/Kg		01/21/14 10:00	01/22/14 16:21	•
2-Methylnaphthalene	0.00548	U	0.0333	0.00548	mg/Kg		01/21/14 10:00	01/22/14 16:21	•
Pyrene	0.00366	U	0.0333	0.00366	mg/Kg		01/21/14 10:00	01/22/14 16:21	
Dibenz(a,h)anthracene	0.00726	U	0.0333	0.00726	mg/Kg		01/21/14 10:00	01/22/14 16:21	•
Naphthalene	0.00270	U	0.0333	0.00270	mg/Kg		01/21/14 10:00	01/22/14 16:21	
Fluoranthene	0.00622	U	0.0333	0.00622	mg/Kg		01/21/14 10:00	01/22/14 16:21	
Benzo[a]anthracene	0.00276	U	0.0333	0.00276	mg/Kg		01/21/14 10:00	01/22/14 16:21	•
Indeno[1,2,3-cd]pyrene	0.00700	U	0.0333	0.00700	mg/Kg		01/21/14 10:00	01/22/14 16:21	
Chrysene	0.00204	U	0.0333	0.00204	mg/Kg		01/21/14 10:00	01/22/14 16:21	•
Acenaphthene	0.00288	U	0.0333	0.00288	mg/Kg		01/21/14 10:00	01/22/14 16:21	
Benzo[b]fluoranthene	0.00344	U	0.0333	0.00344	mg/Kg		01/21/14 10:00	01/22/14 16:21	•
1-Methylnaphthalene	0.00314	U	0.0333	0.00314	mg/Kg		01/21/14 10:00	01/22/14 16:21	•

	MB MB				
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	97	10 - 155	01/21/14 10:00	01/22/14 16:21	
2-Fluorophenol	87	25 - 132	01/21/14 10:00	01/22/14 16:21	1
2-Fluorobiphenyl	106	38 - 127	01/21/14 10:00	01/22/14 16:21	1
Terphenyl-d14	120	53 - 134	01/21/14 10:00	01/22/14 16:21	1
2,4,6-Tribromophenol	59	10 - 148	01/21/14 10:00	01/22/14 16:21	1

27 - 123

99

Lab Sample ID: LCS 600-125453/2-A

Matrix: Solid

Phenol-d5 (Surr)

Analysis Batch: 125638

Client Sample ID:	Lab Control Sample
	Prep Type: Total/NA
	Drop Ratch: 125452

01/21/14 10:00 01/22/14 16:21

Allalysis Batcii. 120000	Spike	LCS I	LCS				%Rec.
Analyte	Added	Result (Qualifier	Unit	D	%Rec	Limits
Fluorene	0.667	0.6609		mg/Kg		99	52 - 130
Acenaphthylene	0.667	0.6722		mg/Kg		101	57 ₋ 130
Benzo[g,h,i]perylene	0.667	0.8601		mg/Kg		129	58 ₋ 150
Phenanthrene	0.667	0.7300		mg/Kg		110	57 ₋ 130
Benzo[k]fluoranthene	0.667	0.7323		mg/Kg		110	56 - 136
Benzo[a]pyrene	0.667	0.8382		mg/Kg		126	59 ₋ 130
Anthracene	0.667	0.7352		mg/Kg		110	58 - 130
2-Methylnaphthalene	0.667	0.6159		mg/Kg		92	51 ₋ 130
Pyrene	0.667	0.7807		mg/Kg		117	60 - 135
Dibenz(a,h)anthracene	0.667	0.8409		mg/Kg		126	58 - 138
Naphthalene	0.667	0.6248		mg/Kg		94	59 ₋ 130
Fluoranthene	0.667	0.7761		mg/Kg		116	63 - 130
Benzo[a]anthracene	0.667	0.8108		mg/Kg		122	61 - 132
Indeno[1,2,3-cd]pyrene	0.667	0.7687		mg/Kg		115	56 - 150
Chrysene	0.667	0.7738		mg/Kg		116	64 - 130
Acenaphthene	0.667	0.6447		mg/Kg		97	58 - 130

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

4

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-125453/2-A

Matrix: Solid

Analysis Batch: 125638

Spike

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Prep Batch: 125453

%Rec.

Added Result Qualifier Analyte Unit %Rec Limits 0.667 0.7326 110 54 - 130 Benzo[b]fluoranthene mg/Kg 1-Methylnaphthalene 0.667 0.6110 mg/Kg 92 51 - 130

LCS LCS Surrogate %Recovery Qualifier Limits Nitrobenzene-d5 90 10 - 155 81 25 - 132 2-Fluorophenol 2-Fluorobiphenyl 92 38 - 127 Terphenyl-d14 115 53 - 134 2,4,6-Tribromophenol 80 10 - 148 Phenol-d5 (Surr) 98 27 - 123

Lab Sample ID: 600-85318-26 MS

Client Sample ID: MW-27A (0-2)

Matrix: Solid

Prep Type: Total/NA

Analysis Patch: 425638

Analysis Batch: 125638 Prep Batch: 125453 Sample Sample Spike MS MS %Rec. **Analyte** Result Qualifier Added Result Qualifier %Rec Limits Unit D $\overline{\Box}$ Fluorene 0.00600 U 0.850 0.7766 91 36 - 122 mq/Kq ₩ 0.00254 U 0.850 0.8058 95 Acenaphthylene mg/Kg 32 - 137Ö Benzo[g,h,i]perylene 0.0129 U* 0.850 0.9448 N* mg/Kg 111 34 - 110 ₩ Phenanthrene 0.0148 0.850 0.8593 mg/Kg 99 26 - 126 Benzo[k]fluoranthene 0.00379 U* 0.850 0.8817 ∜ 104 33 - 137 mg/Kg 0.850 0.8997 * mg/Kg ☼ 106 30 - 130 Benzo[a]pyrene 0.00409 U* . . Anthracene 0.00760 J 0.850 0.8302 mg/Kg 97 35 - 115 2-Methylnaphthalene ₩ 0.850 0.7149 82 32 - 136 0.0146 J mg/Kg ☼ 0.850 1.169 * 138 Pyrene 0.00465 U* mg/Kg 28 - 138₩ Dibenz(a,h)anthracene 0.00923 U* 0.850 0.9887 * mg/Kg 116 19 - 125 ₩ Naphthalene 0.0101 J 0.850 0.7099 mg/Kg 82 30 - 112 Fluoranthene 0.00790 U 0.850 0.6247 mg/Kg ₩ 73 37 - 132 Ö 110 Benzo[a]anthracene 0.0138 J* 0.850 0.9531 38 - 128 mg/Kg ₩ 0.850 0.7919 3 93 30 - 112 Indeno[1,2,3-cd]pyrene 0.00890 U* mg/Kg

0.850

0.850

0.850

0.850

0.9702 *

0.9162 3

0.7827

0.7217

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5	89		10 - 155
2-Fluorophenol	82		25 - 132
2-Fluorobiphenyl	88		38 - 127
Terphenyl-d14	121	*	53 - 134
2,4,6-Tribromophenol	89		10 - 148
Phenol-d5 (Surr)	92		27 - 123

0.0361 J*

0.00366 U

0.00437 U*

0.00693 J

Chrysene

Acenaphthene

Benzo[b]fluoranthene

1-Methylnaphthalene

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110

92

108

84

36 - 130

25 - 134

40 - 131

63 - 137

mg/Kg

mg/Kg

mg/Kg

mg/Kg

3

4

7

8

10

11

12

14

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-85318-26 MSD

Matrix: Solid

Analysis Batch: 125638

Client Sample ID: MW-27A (0-2) Prep Type: Total/NA

Prep Batch: 125453

Alialysis Batch. 125056	Sample	Sample	Spike	MSD	MSD				%Rec.	aten. 12	RPD
Analyte	•	Qualifier	Added	Result		Unit	D	%Rec	Limits	RPD	Limit
Fluorene	0.00600	U	0.848	0.8740		mg/Kg	<u></u>	103	36 - 122	12	30
Acenaphthylene	0.00254	U	0.848	0.8986		mg/Kg	₩	106	32 - 137	11	30
Benzo[g,h,i]perylene	0.0129	U *	0.848	0.9774	N *	mg/Kg	₩	115	34 - 110	3	30
Phenanthrene	0.0148	J	0.848	0.9416		mg/Kg		109	26 - 126	9	30
Benzo[k]fluoranthene	0.00379	U *	0.848	0.8825	*	mg/Kg	₩	104	33 - 137	0	30
Benzo[a]pyrene	0.00409	U *	0.848	0.9529	*	mg/Kg	☼	112	30 - 130	6	30
Anthracene	0.00760	J	0.848	0.9256		mg/Kg	₩.	108	35 - 115	11	30
2-Methylnaphthalene	0.0146	J	0.848	0.7647		mg/Kg	☼	88	32 - 136	7	30
Pyrene	0.00465	U *	0.848	1.182	N *	mg/Kg	☼	139	28 - 138	1	30
Dibenz(a,h)anthracene	0.00923	U *	0.848	0.9432	*	mg/Kg	₩.	111	19 - 125	5	30
Naphthalene	0.0101	J	0.848	0.7700		mg/Kg	☼	90	30 - 112	8	30
Fluoranthene	0.00790	U	0.848	0.6824		mg/Kg	₩	80	37 - 132	9	30
Benzo[a]anthracene	0.0138	J *	0.848	0.9894	*	mg/Kg	₩.	115	38 - 128	4	30
Indeno[1,2,3-cd]pyrene	0.00890	U *	0.848	0.7965	*	mg/Kg	☼	94	30 - 112	1	30
Chrysene	0.0361	J *	0.848	0.9661	*	mg/Kg	₩	110	36 - 130	0	30
Acenaphthene	0.00366	Ü	0.848	0.8667		mg/Kg	₩.	102	25 - 134	10	30
Benzo[b]fluoranthene	0.00437	U *	0.848	0.8916	*	mg/Kg	☼	105	40 - 131	3	30
1-Methylnaphthalene	0.00693	J	0.848	0.8139		mg/Kg	₽	95	63 - 137	12	30

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5	91		10 - 155
2-Fluorophenol	76		25 - 132
2-Fluorobiphenyl	97		38 - 127
Terphenyl-d14	128	*	53 - 134
2,4,6-Tribromophenol	106		10 - 148
Phenol-d5 (Surr)	96		27 - 123

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 600-124838/1-A

Matrix: Solid

Analysis Batch: 125027

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 124838

, , , , , , , , , , , , , , , , , , , ,	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.00160	U	0.0167	0.00160	mg/Kg		01/13/14 14:23	01/14/14 15:08	1
PCB-1221	0.00863	U	0.0167	0.00863	mg/Kg		01/13/14 14:23	01/14/14 15:08	1
PCB-1232	0.00670	U	0.0167	0.00670	mg/Kg		01/13/14 14:23	01/14/14 15:08	1
PCB-1242	0.00124	U	0.0167	0.00124	mg/Kg		01/13/14 14:23	01/14/14 15:08	1
PCB-1248	0.00249	U	0.0167	0.00249	mg/Kg		01/13/14 14:23	01/14/14 15:08	1
PCB-1254	0.00221	U	0.0167	0.00221	mg/Kg		01/13/14 14:23	01/14/14 15:08	1
PCB-1260	0.0135	U	0.0167	0.0135	mg/Kg		01/13/14 14:23	01/14/14 15:08	1

	MB	MB
Currogato	%Pocovory	Ouslif

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
Tetrachloro-m-xylene	91		58 - 164	01/13/14 14:23 01/14/14 15:08	1
DCB Decachlorobiphenyl	110		70 - 164	01/13/14 14:23 01/14/14 15:08	1

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

DCB Decachlorobiphenyl

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

70 - 164

Lab Sample ID: LCS 6	00-124838/2-A		Client Sample ID: Lab Contro							
Matrix: Solid									Prep Type: Total/N	Α
Analysis Batch: 12502	27								Prep Batch: 12483	8
			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016			0.167	0.1323		mg/Kg		79	68 - 122	_
PCB-1260			0.167	0.1460		mg/Kg		88	10 - 158	
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
Tetrachloro-m-xylene	83		58 - 164							

Lab Sample ID: 600-85318 Matrix: Solid Analysis Batch: 125030	8-A-36-B MS					Client	Sam	ple ID:	600-85318-A-36-B MS Prep Type: Total/NA Prep Batch: 124838
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00198	U	0.207	0.2049		mg/Kg	₽	99	10 - 154
PCB-1260	0.0167	U	0.207	0.2272		mg/Kg	₩	110	10 - 158
	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
Tetrachloro-m-xylene	93		58 - 164						
DCB Decachlorobiphenyl	121		70 - 164						

Lab Sample ID: 600-8531 Matrix: Solid	8-A-36-C MS	D				Client	Samp	le ID: 6	00-85318- ∣Prep Ty		
Analysis Batch: 125030	Sample	Sample	Spike	MSD	MSD				Prep Ba	atch: 12	24838 RPD
Analyte	•	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	0.00198	U	0.206	0.1927		mg/Kg	<u> </u>	93	10 - 154	6	30
PCB-1260	0.0167	U	0.206	0.2059		mg/Kg	₩	100	10 - 158	10	30
	MSD	MSD									
Surrogato	%Recovery	Qualifier	l imite								

Surrogate	%Recovery Qualifi	er Limits
Surrogate	- Zorrecovery Quantity	
Tetrachloro-m-xylene	88	58 ₋ 164
DCB Decachlorobiphenyl	115	70 - 164

Lab Sample ID: MB 600-124920/1-A

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

106

Matrix: Solid Analysis Batch: 125003	MD	мо						Prep Type: To Prep Batch:	
Analyte		MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.80	U	10.0	3.80	mg/Kg		01/14/14 12:54	01/14/14 14:57	1
>C12-C28	4.06	U	10.0	4.06	mg/Kg		01/14/14 12:54	01/14/14 14:57	1
>C28-C35	4.06	U	10.0	4.06	mg/Kg		01/14/14 12:54	01/14/14 14:57	1
C6-C35	7.48	U	10.0	7.48	mg/Kg		01/14/14 12:54	01/14/14 14:57	1
	МВ	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	93		70 - 130				01/14/14 12:54	01/14/14 14:57	1

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Client Sample ID: Method Blank

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

109

Lab Sample ID: LCS 600-124920/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Total/NA Analysis Batch: 125003 Prep Batch: 124920** Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits C6-C12 250 mg/Kg 94 75 - 125 234.9 >C12-C28 250 224.7 90 75 - 125 mg/Kg 500 C6-C35 459.6 mg/Kg 92 75 - 125 LCS LCS Surrogate %Recovery Qualifier Limits

70 - 130

Lab Sample ID: MB 600-124950/1-A

Matrix: Water

o-Terphenyl

Analysis Batch: 125003

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 124950

	IVID	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.830	U	5.00	0.830	mg/L		01/14/14 15:16	01/15/14 01:55	1
>C12-C28	0.960	U	5.00	0.960	mg/L		01/14/14 15:16	01/15/14 01:55	1
>C28-C35	0.960	U	5.00	0.960	mg/L		01/14/14 15:16	01/15/14 01:55	1
C6-C35	1.56	U	5.00	1.56	mg/L		01/14/14 15:16	01/15/14 01:55	1

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed o-Terphenyl 102 70 - 130 01/14/14 15:16 01/15/14 01:55

Lab Sample ID: LCS 600-124950/2-A

Matrix: Water

Analysis Batch: 125003

Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 124950

	Spike	LCS	LCS			%Rec.	
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	
C6-C12	33.3	36.71	mg/L		110	75 - 125	
>C12-C28	33.3	34.95	mg/L		105	75 - 125	
C6-C35	66.7	71.65	mg/L		107	75 - 125	

LCS LCS %Recovery Qualifier Limits Surrogate o-Terphenyl 116 70 - 130

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-124797/1-A **Client Sample ID: Method Blank** Prep Type: Total/NA

Matrix: Water Analysis Batch: 125051

Analysis Batch: 125051								Prep Batch:	124797
	MB	MB						•	
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00630	U	0.0500	0.00630	mg/L		01/13/14 09:01	01/15/14 12:23	1
Arsenic	0.004240	J ^	0.0100	0.00328	mg/L		01/13/14 09:01	01/15/14 12:23	1
Cadmium	0.000350	U ^	0.00500	0.000350	mg/L		01/13/14 09:01	01/15/14 12:23	1
Lead	0.00290	U ^	0.0100	0.00290	mg/L		01/13/14 09:01	01/15/14 12:23	1
Selenium	0.00417	U	0.0400	0.00417	ma/L		01/13/14 09:01	01/15/14 12:23	1

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 600-124797/2-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA** Analysis Batch: 125051 Prep Batch: 124797

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	1.00	1.016		mg/L		102	80 - 120	
Arsenic	1.00	0.9953	٨	mg/L		100	80 - 120	
Cadmium	0.500	0.4990	٨	mg/L		100	80 - 120	
Lead	1.00	1.028	٨	mg/L		103	80 - 120	
Selenium	1.00	0.9947		mg/L		99	80 - 120	

Lab Sample ID: MB 600-124836/1-A

Matrix: Solid

Analysis Batch: 124882

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 124836

MB MB Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac 0.232 U 0.232 mg/Kg 01/13/14 14:19 01/14/14 08:21 Antimony 2.50 Arsenic 0.218 U 1.00 0.218 mg/Kg 01/13/14 14:19 01/14/14 08:21 Cadmium 0.0256 U 0.250 0.0256 mg/Kg 01/13/14 14:19 01/14/14 08:21 Lead 0.105 U 0.500 0.105 mg/Kg 01/13/14 14:19 01/14/14 08:21 Selenium 0.259 U 2.00 0.259 mg/Kg 01/13/14 14:19 01/14/14 08:21

Lab Sample ID: LCS 600-124836/2-A

Matrix: Solid

Analysis Batch: 124882

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 124836

%Rec.

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	88.2	66.54	-	mg/Kg		75	50 - 150	
Arsenic	99.6	95.57		mg/Kg		96	78 - 122	
Cadmium	182	179.3		mg/Kg		99	81 - 119	
Lead	115	110.5		mg/Kg		96	79 - 121	
Selenium	150	144.3		mg/Kg		96	80 - 120	

Lab Sample ID: 600-85318-14 MS

Matrix: Solid

Analysis Batch: 124882

Client Sample ID: MW-27D (0.5-2)

Prep Type: Total/NA

Prep Batch: 124836

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	2.05	J	63.9	27.07	N	mg/Kg	<u> </u>	39	75 - 125	
Arsenic	10.7		63.9	69.18		mg/Kg	₩	92	75 - 125	
Cadmium	15.1		31.9	51.38		mg/Kg	₩	114	75 - 125	
Lead	315		63.9	555.1	4	mg/Kg	₩.	377	75 - 125	
Selenium	0.324	U	63.9	57.04		mg/Kg	₩	89	75 ₋ 125	

Lab Sample ID: 600-85318-14 MSD

Matrix: Solid

Analysis Batch: 124882

Client Sample ID: MW-27D (0.5-2)

Prep Type: Total/NA Prep Batch: 124836

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-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	2.05	J	62.6	27.54	N	mg/Kg	₩	41	75 - 125	2	20
Arsenic	10.7		62.6	70.41		mg/Kg	≎	95	75 - 125	2	20
Cadmium	15.1		31.3	54.91	N	mg/Kg	₩	127	75 - 125	7	20
Lead	315		62.6	405.9	4 N	mg/Kg	₩	146	75 - 125	31	20
Selenium	0.324	U	62.6	56.62		mg/Kg	≎	90	75 - 125	1	20

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Lab Sample ID: 600-85318-20 MS

Analysis Batch: 124882

Matrix: Solid

TestAmerica Job ID: 600-85318-1

Client Sample ID: MW-42 (0.5-2)

Prep Type: Total/NA

Prep Batch: 124836

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	13.9		63.6	62.09		mg/Kg	<u>∓</u>	76	75 - 125	
Cadmium	1.82		31.8	31.12		mg/Kg	₩	92	75 - 125	
Lead	241		63.6	79.68	N	mg/Kg	₩	-253	75 - 125	
Selenium	0.502	J	63.6	51.77		mg/Kg		81	75 ₋ 125	

Lab Sample ID: 600-85318-20 MSD Client Sample ID: MW-42 (0.5-2) **Matrix: Solid Prep Type: Total/NA Analysis Batch: 124882** Prep Batch: 124836

Spike MSD MSD %Rec. **RPD** Sample Sample **Analyte** Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Arsenic 59.96 N $\overline{\Box}$ 75 - 125 13.9 61.9 mg/Kg 74 3 20 ☼ Cadmium 1.82 31.0 30.37 mg/Kg 92 75 - 125 2 20 Lead 241 61.9 74.50 N mg/Kg ₩ -268 75 - 125 20 Selenium 0.502 J 61.9 50.72 75 - 125 mg/Kg 81

Lab Sample ID: 600-85318-14 DU Client Sample ID: MW-27D (0.5-2) **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 124882 Prep Batch: 124836

	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Antimony	2.05	J	2.568	J	mg/Kg	\		20
Arsenic	10.7		10.17		mg/Kg	≎	5	20
Cadmium	15.1		16.92		mg/Kg	≎	12	20
Lead	315		327.3		mg/Kg	*	4	20
Selenium	0.324	U	0.321	U	mg/Kg	₩	NC	20

Lab Sample ID: 600-85318-20 DU Client Sample ID: MW-42 (0.5-2) **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 124882							Prep Batch: 12	24836
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Antimony	0.287	U	0.304	U	mg/Kg	<u> </u>	NC	20
Arsenic	13.9		12.84		mg/Kg	₽	8	20
Cadmium	1.82		0.4723	F	mg/Kg	₽	118	20
Lead	241		22.22	F	mg/Kg	₽	166	20
Selenium	0.502	J	0.340	U	mg/Kg	≎	NC	20

Lab Sample ID: MB 600-124919/1-A **Client Sample ID: Method Blank Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 125010 Prep Batch: 124919 MB MB

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		01/14/14 12:46	01/15/14 12:51	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		01/14/14 12:46	01/15/14 12:51	1
Cadmium	0.03000	J	0.250	0.0256	mg/Kg		01/14/14 12:46	01/15/14 12:51	1
Lead	0.105	U	0.500	0.105	mg/Kg		01/14/14 12:46	01/15/14 12:51	1
Selenium	0.259	U	2.00	0.259	mg/Kg		01/14/14 12:46	01/15/14 12:51	1

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Matrix: Solid

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 600-124919/2-A Matrix: Solid Analysis Batch: 125010	Spike	I CSSDM	LCSSRM	Clier	it Sai	mple II	D: Lab Control Sample Prep Type: Total/NA Prep Batch: 124919 %Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Antimony	88.2	101.7		mg/Kg		115.3	
Anumony	00.2	101.7		mg/rtg		110.0	3
Arsenic	99.6	99.60		mg/Kg		100.0	80.8 - 119.
Cadmium	100	190.9		ma/l/a		104.0	5
Caumum	182	190.9		mg/Kg		104.9	81.9 - 118. 1
Lead	115	115.8		mg/Kg		100.7	81.8 - 119.
							1
Selenium	150	147.1		mg/Kg		98.1	77.3 - 122.
							7

Lab Sample ID: MB 600-125018/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 125110 **Prep Batch: 125018**

	INIB	INIR							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.232	U	2.50	0.232	mg/Kg		01/15/14 12:30	01/16/14 09:51	1
Arsenic	0.218	U	1.00	0.218	mg/Kg		01/15/14 12:30	01/16/14 09:51	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		01/15/14 12:30	01/16/14 09:51	1
Lead	0.105	U	0.500	0.105	mg/Kg		01/15/14 12:30	01/16/14 09:51	1
Selenium	0.259	U	2.00	0.259	mg/Kg		01/15/14 12:30	01/16/14 09:51	1
<u> </u>									

Lab Sample ID: LCSSRM 600-125018/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA Analysis Batch: 125110 **Prep Batch: 125018** Spike LCSSRM LCSSRM %Rec. Analyte Added Result Qualifier Unit D %Rec Limits **Antimony** 88.2 59.66 67.6 45.4 - 231. mg/Kg Arsenic 99.6 98.49 mg/Kg 98.9 80.8 - 119. 5 98.2 81.9 - 118. Cadmium 182 178.7 mg/Kg

96.3 81.8 - 119. Lead 115 110.8 mg/Kg Selenium 150 144.7 mg/Kg 96.5 77.3 - 122. Lab Sample ID: 600-85318-36 MS Client Sample ID: 2013-BSA-2A(0-2)

Analysis Batch: 125110 **Prep Batch: 125018** MS MS Sample Sample Spike %Rec. **Analyte** Result Qualifier Added Result Qualifier Unit D %Rec Limits $\overline{\phi}$ **Antimony** 17.1 61.4 31.60 N 24 75 - 125 mg/Kg ☼ Arsenic 34.9 67.00 N mg/Kg 52 61.4 75 - 125 Cadmium 16.5 30.7 38.79 N ₩ 73 mg/Kg 75 - 125 Lead 2880 61.4 1880 4 mg/Kg -1628 75 - 125 Selenium 1.07 J 61.4 53.54 mg/Kg 75 - 125

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Prep Type: Total/NA

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-85318		Client Sample ID: 2013-BSA-2A(0									
Matrix: Solid									Prep Ty	pe: Tot	al/NA
Analysis Batch: 125110									Prep Ba	atch: 12	25018
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
A C	47.4			07.00	N.I.		74	40	75 405	40	

Α	analyte I	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ā	ntimony	17.1		60.2	27.98	N	mg/Kg	<u> </u>	18	75 - 125	12	20
Α	rsenic	34.9		60.2	64.44	N	mg/Kg	₩	49	75 - 125	4	20
C	Cadmium	16.5		30.1	37.80	N	mg/Kg	₩	71	75 - 125	3	20
L	ead	2880		60.2	1422	4 N	mg/Kg	₽	-2420	75 - 125	28	20
S	Selenium	1.07	J	60.2	52.91		mg/Kg	☼	86	75 - 125	1	20

Lab Sample ID: 600-85318-36 DU Client Sample ID: 2013-BSA-2A(0-2) **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 125110 **Prep Batch: 125018**

	Sample	Sample	DU	DU			•		RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RP	D	Limit
Antimony	17.1		13.62	F	mg/Kg	-		23	20
Arsenic	34.9		14.55	F	mg/Kg	≎	8	32	20
Cadmium	16.5		14.46		mg/Kg	₩	1	3	20
Lead	2880		2740		mg/Kg	₩		5	20
Selenium	1.07	J	0.7478	J	mg/Kg	≎	3	35	20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-85318-1 DU Client Sample ID: 2013-FFTA-01 (0.25-2) Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 124801

Sample Sample DU DU **RPD** Result Qualifier Analyte Result Qualifier Unit RPD Limit Percent Moisture 22 22 % 0.05 20 Percent Solids 78 78 % 0.01 20

Lab Sample ID: 600-85318-21 DU **Client Sample ID: DUP-6 Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 124801

DU DU **RPD** Sample Sample Result Qualifier Result Qualifier RPD Limit Analyte Unit 22 23 % Percent Moisture 20 Percent Solids 78 77 % 0.5 20

Lab Sample ID: 600-85318-31 DU Client Sample ID: D12A (0-0.5) **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 125061

DU DU Sample Sample **RPD** Result Qualifier Result Qualifier Analyte Unit D RPD Limit 25 25 % Percent Moisture 2 20 75 Percent Solids 75 % 8.0 20

TestAmerica Houston

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,1,1-Trichloroethane	0.00500	0.000740	mg/Kg	8260B
1,1,1-Trichloroethane	0.00500	0.000980	mg/L	8260B
1,1,2,2-Tetrachloroethane	0.00500	0.000870	mg/Kg	8260B
1,1,2,2-Tetrachloroethane	0.00500	0.000800	mg/L	8260B
1,1,2-Trichloroethane	0.00500	0.000730	mg/Kg	8260B
1,1,2-Trichloroethane	0.00500	0.000530	mg/L	8260B
1,1-Dichloroethane	0.00500	0.000870	mg/Kg	8260B
1,1-Dichloroethane	0.00500	0.000500	mg/L	8260B
1,1-Dichloroethene	0.00500	0.00122	mg/Kg	8260B
1,1-Dichloroethene	0.00500	0.000760	mg/L	8260B
1,2-Dichloroethane	0.00500	0.000900	mg/Kg	8260B
1,2-Dichloroethane	0.00500	0.00101	mg/L	8260B
1,2-Dichloroethene, Total	0.0100	0.00190	mg/Kg	8260B
1,2-Dichloroethene, Total	0.0100	0.000840	mg/L	8260B
1,2-Dichloropropane	0.00500	0.000710	mg/Kg	8260B
1,2-Dichloropropane	0.00500	0.00141	mg/L	8260B
2-Butanone (MEK)	0.0100	0.00190	mg/Kg	8260B
2-Butanone (MEK)	0.0100	0.00157	mg/L	8260B
2-Hexanone	0.0100	0.00101	mg/Kg	8260B
2-Hexanone	0.0100	0.00142	mg/L	8260B
4-Methyl-2-pentanone (MIBK)	0.0100	0.00147	mg/Kg	8260B
4-Methyl-2-pentanone (MIBK)	0.0100	0.00111	mg/L	8260B
Acetone (IIII)	0.0100	0.00166	mg/Kg	8260B
Acetone	0.0100	0.00227	mg/L	8260B
Benzene	0.00500	0.000630	mg/Kg	8260B
Benzene	0.00500	0.000560	mg/L	8260B
Bromodichloromethane	0.00500	0.000660	mg/Kg	8260B
Bromodichloromethane	0.00500	0.000760	mg/L	8260B
Bromoform	0.00500	0.00137	mg/Kg	8260B
Bromoform	0.00500	0.000770	mg/L	8260B
Bromomethane	0.0100	0.000770		8260B
Bromomethane	0.0100	0.000830	mg/Kg mg/L	8260B
Carbon disulfide	0.0100	0.00213	-	8260B
Carbon disulfide	0.00500	0.000330	mg/Kg	8260B
Carbon distillide Carbon tetrachloride	0.00500	0.00170	mg/L	8260B
		0.00113	mg/Kg	8260B
Carbon tetrachloride	0.00500		mg/L	
Chlorobenzene	0.00500	0.000960 0.000820	mg/Kg	8260B
Chlorobenzene	0.00500		mg/L	8260B
Chlorobromomethane	0.00500	0.00178	mg/Kg	8260B
Chlorobromomethane	0.00500	0.000810	mg/L	8260B
Chloroethane	0.0100	0.00140	mg/Kg	8260B
Chlorofana	0.0100	0.00173	mg/L	8260B
Chloroform	0.00500	0.000660	mg/Kg	8260B
Chloroform	0.00500	0.000820	mg/L	8260B
Chloromethane	0.0100	0.00166	mg/Kg	8260B
Chloromethane	0.0100	0.000850	mg/L	8260B
cis-1,2-Dichloroethene	0.00500	0.000830	mg/Kg	8260B
cis-1,2-Dichloroethene	0.00500	0.000560	mg/L	8260B
cis-1,3-Dichloropropene	0.00500	0.000540	mg/Kg	8260B
cis-1,3-Dichloropropene	0.00500	0.000970	mg/L	8260B
Dibromochloromethane	0.00500	0.000940	mg/Kg	8260B
Dibromochloromethane	0.00500	0.000920	mg/L	8260B

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	MQL	MDL	Units	Method
Ethylbenzene	0.00500	0.00102	mg/Kg	8260B
Ethylbenzene	0.00500	0.00129	mg/L	8260B
Methylene Chloride	0.0100	0.00219	mg/Kg	8260B
Methylene Chloride	0.0100	0.00143	mg/L	8260B
m-Xylene & p-Xylene	0.0100	0.00152	mg/Kg	8260B
m-Xylene & p-Xylene	0.0100	0.00126	mg/L	8260B
o-Xylene	0.00500	0.00113	mg/Kg	8260B
o-Xylene	0.00500	0.000930	mg/L	8260B
Styrene	0.00500	0.000710	mg/Kg	8260B
Styrene	0.00500	0.000560	mg/L	8260B
Tetrachloroethene	0.00500	0.000710	mg/Kg	8260B
Tetrachloroethene	0.00500	0.00124	mg/L	8260B
Toluene	0.00500	0.00138	mg/Kg	8260B
Toluene	0.00500	0.000550	mg/L	8260B
trans-1,2-Dichloroethene	0.00500	0.00114	mg/Kg	8260B
trans-1,2-Dichloroethene	0.00500	0.000880	mg/L	8260B
trans-1,3-Dichloropropene	0.00500	0.000580	mg/Kg	8260B
trans-1,3-Dichloropropene	0.00500	0.000590	mg/L	8260B
Trichloroethene	0.00500	0.00140	mg/Kg	8260B
Trichloroethene	0.00500	0.00158	mg/L	8260B
Vinyl acetate	0.00500	0.000930	mg/Kg	8260B
Vinyl acetate	0.0100	0.000600	mg/L	8260B
Vinyl chloride	0.0100	0.000900	mg/Kg	8260B
Vinyl chloride	0.00500	0.000850	mg/L	8260B
Xylenes, Total	0.00500	0.00113	mg/Kg	8260B
Xylenes, Total	0.00500	0.00198	mg/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

1,2-Dichlorobenzene 0.0167 0.00302 mg/Kg 8270C LL 1,3-Dichlorobenzene 0.0167 0.00154 mg/Kg 8270C LL 1,4-Dichlorobenzene 0.0167 0.00225 mg/Kg 8270C LL 1-Methylnaphthalene 0.0167 0.00157 mg/Kg 8270C LL 1-Methylnaphthalene 0.000500 0.000190 mg/Kg 8270C LL 2,4,5-Trichlorophenol 0.0167 0.00268 mg/Kg 8270C LL 2,4,6-Trichlorophenol 0.0167 0.00387 mg/Kg 8270C LL 2,4-Dinitrophenol 0.0167 0.00387 mg/Kg 8270C LL 2,4-Dinitrophenol 0.0167 0.00858 mg/Kg 8270C LL 2,4-Dinitrotoluene 0.0167 0.00361 mg/Kg 8270C LL 2,4-Dinitrotoluene 0.0167 0.00361 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00295 mg/Kg 8270C LL 2-Met	Analyte	MQL	MDL	Units	Method
1,3-Dichlorobenzene 0.0167 0.00154 mg/Kg 8270C LL 1,4-Dichlorobenzene 0.0167 0.00225 mg/Kg 8270C LL 1-Methylnaphthalene 0.0167 0.00157 mg/Kg 8270C LL 1-Methylnaphthalene 0.000500 0.000190 mg/L 8270C LL 2,4,5-Trichlorophenol 0.0167 0.0100 mg/Kg 8270C LL 2,4-Dichlorophenol 0.0167 0.00387 mg/Kg 8270C LL 2,4-Dimethylphenol 0.0167 0.00858 mg/Kg 8270C LL 2,4-Dinitrophenol 0.0167 0.00858 mg/Kg 8270C LL 2,4-Dinitrophenol 0.0167 0.00858 mg/Kg 8270C LL 2,4-Dinitrophenol 0.0167 0.00361 mg/Kg 8270C LL 2,4-Dinitrophenol 0.0167 0.00361 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00121 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylphen	1,2,4-Trichlorobenzene	0.0167	0.00210	mg/Kg	8270C LL
1,4-Dichlorobenzene 0.0167 0.00225 mg/Kg 8270C LL 1-Methylnaphthalene 0.0167 0.00157 mg/Kg 8270C LL 1-Methylnaphthalene 0.000500 0.000190 mg/L 8270C LL 2,4,5-Trichlorophenol 0.0167 0.0100 mg/Kg 8270C LL 2,4-Dichlorophenol 0.0167 0.00387 mg/Kg 8270C LL 2,4-Dimethylphenol 0.0167 0.00858 mg/Kg 8270C LL 2,4-Dinitrophenol 0.100 0.00472 mg/Kg 8270C LL 2,4-Dinitrotoluene 0.0167 0.00381 mg/Kg 8270C LL 2,4-Dinitrotoluene 0.0167 0.00361 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00121 mg/Kg 8270C LL 2-Chloronaphthalene 0.0167 0.00121 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00323 mg/Kg 8270C LL 2-Met	1,2-Dichlorobenzene	0.0167	0.00302	mg/Kg	8270C LL
1-Methylnaphthalene 0.0167 0.00157 mg/Kg 8270C LL 1-Methylnaphthalene 0.000500 0.000190 mg/L 8270C LL 2,4,5-Trichlorophenol 0.0167 0.0100 mg/Kg 8270C LL 2,4,6-Trichlorophenol 0.0167 0.00268 mg/Kg 8270C LL 2,4-Dichlorophenol 0.0167 0.00387 mg/Kg 8270C LL 2,4-Dimethylphenol 0.0167 0.00858 mg/Kg 8270C LL 2,4-Dinitrophenol 0.100 0.00472 mg/Kg 8270C LL 2,4-Dinitrotoluene 0.0167 0.00361 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00121 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00197 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitrophenol	1,3-Dichlorobenzene	0.0167	0.00154	mg/Kg	8270C LL
1-Methylnaphthalene 0.000500 0.000190 mg/L 8270C LL 2,4,5-Trichlorophenol 0.0167 0.0100 mg/Kg 8270C LL 2,4,6-Trichlorophenol 0.0167 0.00268 mg/Kg 8270C LL 2,4-Dichlorophenol 0.0167 0.00387 mg/Kg 8270C LL 2,4-Dinitrophenol 0.0167 0.00858 mg/Kg 8270C LL 2,4-Dinitrophenol 0.100 0.00472 mg/Kg 8270C LL 2,4-Dinitrotoluene 0.0167 0.00361 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00121 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00197 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitropaniline 0.0167 0.00489 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 2-Nitrophenol <t< td=""><td>1,4-Dichlorobenzene</td><td>0.0167</td><td>0.00225</td><td>mg/Kg</td><td>8270C LL</td></t<>	1,4-Dichlorobenzene	0.0167	0.00225	mg/Kg	8270C LL
2,4,5-Trichlorophenol 0.0167 0.0100 mg/Kg 8270C LL 2,4,6-Trichlorophenol 0.0167 0.00268 mg/Kg 8270C LL 2,4-Dichlorophenol 0.0167 0.00387 mg/Kg 8270C LL 2,4-Dinitrophenol 0.0167 0.00858 mg/Kg 8270C LL 2,4-Dinitrophenol 0.100 0.00472 mg/Kg 8270C LL 2,4-Dinitrotoluene 0.0167 0.00361 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00121 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00197 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 2-Nitrophenol 0.0167 </td <td>1-Methylnaphthalene</td> <td>0.0167</td> <td>0.00157</td> <td>mg/Kg</td> <td>8270C LL</td>	1-Methylnaphthalene	0.0167	0.00157	mg/Kg	8270C LL
2,4,6-Trichlorophenol 0.0167 0.00268 mg/Kg 8270C LL 2,4-Dichlorophenol 0.0167 0.00387 mg/Kg 8270C LL 2,4-Dimethylphenol 0.0167 0.00858 mg/Kg 8270C LL 2,4-Dinitrophenol 0.100 0.00472 mg/Kg 8270C LL 2,4-Dinitrotoluene 0.0167 0.00361 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00121 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00197 mg/Kg 8270C LL 2-Methylnaphthalene 0.00500 0.00140 mg/Kg 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00489 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0	1-Methylnaphthalene	0.000500	0.000190	mg/L	8270C LL
2,4-Dichlorophenol 0.0167 0.00387 mg/Kg 8270C LL 2,4-Dimethylphenol 0.0167 0.00858 mg/Kg 8270C LL 2,4-Dinitrophenol 0.100 0.00472 mg/Kg 8270C LL 2,4-Dinitrotoluene 0.0167 0.00361 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2-Chloronaphthalene 0.0167 0.00121 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00197 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2,4,5-Trichlorophenol	0.0167	0.0100	mg/Kg	8270C LL
2,4-Dimethylphenol 0.0167 0.00858 mg/Kg 8270C LL 2,4-Dinitrophenol 0.100 0.00472 mg/Kg 8270C LL 2,4-Dinitrotoluene 0.0167 0.00361 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2-Chloronaphthalene 0.0167 0.00121 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00197 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00489 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2,4,6-Trichlorophenol	0.0167	0.00268	mg/Kg	8270C LL
2,4-Dinitrophenol 0.100 0.00472 mg/Kg 8270C LL 2,4-Dinitrotoluene 0.0167 0.00361 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2-Chloronaphthalene 0.0167 0.00121 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00197 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitroaniline 0.0167 0.00489 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2,4-Dichlorophenol	0.0167	0.00387	mg/Kg	8270C LL
2,4-Dinitrotoluene 0.0167 0.00361 mg/Kg 8270C LL 2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2-Chloronaphthalene 0.0167 0.00121 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00197 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitroaniline 0.0167 0.00489 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2,4-Dimethylphenol	0.0167	0.00858	mg/Kg	8270C LL
2,6-Dinitrotoluene 0.0167 0.00295 mg/Kg 8270C LL 2-Chloronaphthalene 0.0167 0.00121 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00197 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylnaphthalene 0.000500 0.000140 mg/L 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitroaniline 0.0167 0.00489 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2,4-Dinitrophenol	0.100	0.00472	mg/Kg	8270C LL
2-Chloronaphthalene 0.0167 0.00121 mg/Kg 8270C LL 2-Chlorophenol 0.0167 0.00197 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylnaphthalene 0.000500 0.000140 mg/L 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitroaniline 0.0167 0.00489 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2,4-Dinitrotoluene	0.0167	0.00361	mg/Kg	8270C LL
2-Chlorophenol 0.0167 0.00197 mg/Kg 8270C LL 2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylnaphthalene 0.000500 0.000140 mg/L 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitroaniline 0.0167 0.00489 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2,6-Dinitrotoluene	0.0167	0.00295	mg/Kg	8270C LL
2-Methylnaphthalene 0.0167 0.00274 mg/Kg 8270C LL 2-Methylnaphthalene 0.000500 0.000140 mg/L 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitroaniline 0.0167 0.00489 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2-Chloronaphthalene	0.0167	0.00121	mg/Kg	8270C LL
2-Methylnaphthalene 0.000500 0.000140 mg/L 8270C LL 2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitroaniline 0.0167 0.00489 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2-Chlorophenol	0.0167	0.00197	mg/Kg	8270C LL
2-Methylphenol 0.0167 0.00323 mg/Kg 8270C LL 2-Nitroaniline 0.0167 0.00489 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2-Methylnaphthalene	0.0167	0.00274	mg/Kg	8270C LL
2-Nitrophenol 0.0167 0.00489 mg/Kg 8270C LL 2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2-Methylnaphthalene	0.000500	0.000140	mg/L	8270C LL
2-Nitrophenol 0.0167 0.00389 mg/Kg 8270C LL 3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2-Methylphenol	0.0167	0.00323	mg/Kg	8270C LL
3 & 4 Methylphenol 0.0333 0.00279 mg/Kg 8270C LL	2-Nitroaniline	0.0167	0.00489	mg/Kg	8270C LL
3 3	2-Nitrophenol	0.0167	0.00389	mg/Kg	8270C LL
3,3'-Dichlorobenzidine 0.0167 0.0102 mg/Kg 8270C LL	3 & 4 Methylphenol	0.0333	0.00279	mg/Kg	8270C LL
	3,3'-Dichlorobenzidine	0.0167	0.0102	mg/Kg	8270C LL

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	MQL	MDL	Units	Method	
3-Nitroaniline	0.0167	0.00715	mg/Kg	8270C LL	
4,6-Dinitro-2-methylphenol	0.0167	0.00498	mg/Kg	8270C LL	
4-Bromophenyl phenyl ether	0.0167	0.00284	mg/Kg	8270C LL	
4-Chloro-3-methylphenol	0.0167	0.0156	mg/Kg	8270C LL	
4-Chloroaniline	0.0167	0.00582	mg/Kg	8270C LL	
4-Chlorophenyl phenyl ether	0.0167	0.00180	mg/Kg	8270C LL	
4-Nitroaniline	0.0167	0.0112	mg/Kg	8270C LL	
4-Nitrophenol	0.0167	0.00508	mg/Kg	8270C LL	
Acenaphthene	0.0167	0.00144	mg/Kg	8270C LL	
Acenaphthene	0.000500	0.000160	mg/L	8270C LL	
Acenaphthylene	0.0167	0.00100	mg/Kg	8270C LL	
Acenaphthylene	0.000500	0.000160	mg/L	8270C LL	
Anthracene	0.0167	0.00128	mg/Kg	8270C LL	
Anthracene	0.000500	0.000440	mg/L	8270C LL	
Benzidine	0.0833	0.00902	mg/Kg	8270C LL	
Benzo[a]anthracene	0.0167	0.00138	mg/Kg	8270C LL	
Benzo[a]anthracene	0.000500	0.000250	mg/L	8270C LL	
Benzo[a]pyrene	0.0167	0.00161	mg/Kg	8270C LL	
Benzo[a]pyrene	0.000500	0.000130	mg/L	8270C LL	
Benzo[b]fluoranthene	0.0167	0.00172	mg/Kg	8270C LL	
Benzo[b]fluoranthene	0.000500	0.000180	mg/L	8270C LL	
Benzo[g,h,i]perylene	0.0167	0.00507	mg/Kg	8270C LL	
Benzo[g,h,i]perylene	0.000500	0.000350	mg/L	8270C LL	
Benzo[k]fluoranthene	0.0167	0.00149	mg/Kg	8270C LL	
Benzo[k]fluoranthene	0.000500	0.000149	mg/L	8270C LL	
Benzyl alcohol	0.0167	0.00583	mg/Kg	8270C LL	
bis (2-Chloroisopropyl) ether	0.0167	0.00383	mg/Kg	8270C LL	
Bis(2-chloroethoxy)methane	0.0167	0.00384		8270C LL	
	0.0167	0.00142	mg/Kg	8270C LL	
Bis(2-chloroethyl)ether			mg/Kg	8270C LL	
Bis(2-ethylhexyl) phthalate	0.0667 0.0667	0.00537 0.00619	mg/Kg	8270C LL 8270C LL	
Butyl benzyl phthalate			mg/Kg		
Carbazole	0.0167	0.00312	mg/Kg	8270C LL 8270C LL	
Chrysene	0.0167		mg/Kg	8270C LL 8270C LL	
Chrysene	0.000500	0.000240	mg/L		
Dibenz(a,h)anthracene	0.0167	0.00363	mg/Kg	8270C LL	
Dibenz(a,h)anthracene	0.000500	0.000290	mg/L	8270C LL	
Dibenzofuran	0.0167	0.00178	mg/Kg	8270C LL	
Diethyl phthalate	0.0667	0.00843	mg/Kg	8270C LL	
Dimethyl phthalate	0.0667	0.00489	mg/Kg	8270C LL	
Di-n-butyl phthalate	0.0667	0.00259	mg/Kg	8270C LL	
Di-n-octyl phthalate	0.0667	0.00190	mg/Kg	8270C LL	
Fluoranthene	0.0167	0.00311	mg/Kg	8270C LL	
Fluoranthene	0.000500	0.000310	mg/L	8270C LL	
Fluorene	0.0167	0.00236	mg/Kg	8270C LL	
Fluorene	0.000500	0.000120	mg/L	8270C LL	
Hexachlorobenzene	0.0167	0.00152	mg/Kg	8270C LL	
Hexachlorobutadiene	0.0167	0.00192	mg/Kg	8270C LL	
Hexachlorocyclopentadiene	0.0167	0.00461	mg/Kg	8270C LL	
Hexachloroethane	0.0167	0.00231	mg/Kg	8270C LL	
Indeno[1,2,3-cd]pyrene	0.0167	0.00350	mg/Kg	8270C LL	
Indeno[1,2,3-cd]pyrene	0.000500	0.000290	mg/L	8270C LL	
Isophorone	0.0167	0.00100	mg/Kg	8270C LL	

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	MQL	MDL	Units	Method	
Naphthalene	0.0167	0.00135	mg/Kg	8270C LL	
Naphthalene	0.000500	0.000160	mg/L	8270C LL	
Nitrobenzene	0.0167	0.00296	mg/Kg	8270C LL	
N-Nitrosodimethylamine	0.0167	0.00419	mg/Kg	8270C LL	
N-Nitrosodi-n-propylamine	0.0167	0.00222	mg/Kg	8270C LL	
N-Nitrosodiphenylamine	0.0167	0.00189	mg/Kg	8270C LL	
Pentachlorophenol	0.167	0.00400	mg/Kg	8270C LL	
Phenanthrene	0.0167	0.00495	mg/Kg	8270C LL	
Phenanthrene	0.000500	0.000290	mg/L	8270C LL	
Phenol	0.0167	0.00424	mg/Kg	8270C LL	
Pyrene	0.0167	0.00183	mg/Kg	8270C LL	
Pyrene	0.000500	0.000330	mg/L	8270C LL	

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	MQL	MDL	Units	Method
PCB-1016	0.0167	0.00160	mg/Kg	8082
PCB-1221	0.0167	0.00863	mg/Kg	8082
PCB-1232	0.0167	0.00670	mg/Kg	8082
PCB-1242	0.0167	0.00124	mg/Kg	8082
PCB-1248	0.0167	0.00249	mg/Kg	8082
PCB-1254	0.0167	0.00221	mg/Kg	8082
PCB-1260	0.0167	0.0135	mg/Kg	8082

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	MQL	MDL	Units	Method
>C12-C28	10.0	4.06	mg/Kg	TX 1005
>C12-C28	5.00	0.960	mg/L	TX 1005
>C28-C35	10.0	4.06	mg/Kg	TX 1005
>C28-C35	5.00	0.960	mg/L	TX 1005
C6-C12	10.0	3.80	mg/Kg	TX 1005
C6-C12	5.00	0.830	mg/L	TX 1005
C6-C35	10.0	7.48	mg/Kg	TX 1005
C6-C35	5.00	1.56	mg/L	TX 1005

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Antimony	2.50	0.232	mg/Kg	6010B
Antimony	0.0500	0.00630	mg/L	6010B
Arsenic	1.00	0.218	mg/Kg	6010B
Arsenic	0.0100	0.00328	mg/L	6010B
Cadmium	0.250	0.0256	mg/Kg	6010B
Cadmium	0.00500	0.000350	mg/L	6010B
Lead	0.500	0.105	mg/Kg	6010B
Lead	0.0100	0.00290	mg/L	6010B
Selenium	2.00	0.259	mg/Kg	6010B
Selenium	0.0400	0.00417	mg/L	6010B

General Chemistry

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

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QC Association Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

GC/MS VOA

Analysis Batch: 124815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-22	FIELD BLANK	Total/NA	Water	8260B	
600-85318-40	RINSE BLANK aeo	Total/NA	Water	8260B	
600-85318-41	TRIP BLANK	Total/NA	Water	8260B	
LCS 600-124815/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-124815/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 125013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-1	2013-FFTA-01 (0.25-2)	Total/NA	Solid	8260B	
LCS 600-125013/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-125013/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 125071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-3	2013-FFTA-03 (18-19)	Total/NA	Solid	8260B	
600-85318-4	2013-MB-3 (0.75-1.25)	Total/NA	Solid	8260B	
600-85318-7	2013-MB-5 (0.5-5)	Total/NA	Solid	8260B	
600-85318-11	2013-MB-4 (0.83-1.33)	Total/NA	Solid	8260B	
600-85318-14	MW-27D (0.5-2)	Total/NA	Solid	8260B	
600-85318-16	MW-27C (0-2)	Total/NA	Solid	8260B	
600-85318-24	MW-27B (0-2)	Total/NA	Solid	8260B	
600-85318-26	MW-27A (0-2)	Total/NA	Solid	8260B	
LCS 600-125071/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-125071/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 125242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-8	2013-MB-5 (10-12)	Total/NA	Solid	8260B	
LCS 600-125242/4	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-125242/3	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 124914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-40	RINSE BLANK aeo	Total/NA	Water	3510C	
LCS 600-124914/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-124914/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 124982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-16 LCS 600-124982/2-A	MW-27C (0-2) Lab Control Sample	Total/NA Total/NA	Solid Solid	3546 3546	
MB 600-124982/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 125073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-40	RINSE BLANK aeo	Total/NA	Water	8270C LL	124914
LCS 600-124914/2-A	Lab Control Sample	Total/NA	Water	8270C LL	124914
MB 600-124914/1-A	Method Blank	Total/NA	Water	8270C LL	124914

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Client: Golder Associates Inc.

TestAmerica Job ID: 600-85318-1

GC/MS Semi VOA (Continued)

Project/Site: Exide Recycling Center

Prep Batch: 125220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-1	2013-FFTA-01 (0.25-2)	Total/NA	Solid	3546	
600-85318-3	2013-FFTA-03 (18-19)	Total/NA	Solid	3546	
600-85318-7	2013-MB-5 (0.5-5)	Total/NA	Solid	3546	
600-85318-8	2013-MB-5 (10-12)	Total/NA	Solid	3546	
600-85318-14	MW-27D (0.5-2)	Total/NA	Solid	3546	
600-85318-24	MW-27B (0-2)	Total/NA	Solid	3546	
LCS 600-125220/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 600-125220/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 125404

Lab Sample ID 600-85318-16	Client Sample ID MW-27C (0-2)	Prep Type Total/NA	Matrix Solid	Method 8270C LL	Prep Batch 124982
LCS 600-124982/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	124982
MB 600-124982/1-A	Method Blank	Total/NA	Solid	8270C LL	124982

Prep Batch: 125453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-26	MW-27A (0-2)	Total/NA	Solid	3546	
600-85318-26 MS	MW-27A (0-2)	Total/NA	Solid	3546	
600-85318-26 MSD	MW-27A (0-2)	Total/NA	Solid	3546	
LCS 600-125453/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 600-125453/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 125471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-3	2013-FFTA-03 (18-19)	Total/NA	Solid	8270C LL	125220
600-85318-7	2013-MB-5 (0.5-5)	Total/NA	Solid	8270C LL	125220
600-85318-14	MW-27D (0.5-2)	Total/NA	Solid	8270C LL	125220
LCS 600-125220/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	125220
MB 600-125220/1-A	Method Blank	Total/NA	Solid	8270C LL	125220

Analysis Batch: 125638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-1	2013-FFTA-01 (0.25-2)	Total/NA	Solid	8270C LL	125220
600-85318-8	2013-MB-5 (10-12)	Total/NA	Solid	8270C LL	125220
600-85318-24	MW-27B (0-2)	Total/NA	Solid	8270C LL	125220
600-85318-26	MW-27A (0-2)	Total/NA	Solid	8270C LL	125453
600-85318-26 MS	MW-27A (0-2)	Total/NA	Solid	8270C LL	125453
600-85318-26 MSD	MW-27A (0-2)	Total/NA	Solid	8270C LL	125453
LCS 600-125453/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	125453
MB 600-125453/1-A	Method Blank	Total/NA	Solid	8270C LL	125453

GC Semi VOA

Prep Batch: 124838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-28	2013-NDA-1A(2-4)	Total/NA	Solid	3546	<u> </u>
600-85318-A-36-B MS	600-85318-A-36-B MS	Total/NA	Solid	3546	
600-85318-A-36-C MSD	600-85318-A-36-C MSD	Total/NA	Solid	3546	
LCS 600-124838/2-A	Lab Control Sample	Total/NA	Solid	3546	

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QC Association Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

GC Semi VOA (Continued)

Prep Batch: 124838	(Continued)
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-124838/1-A	Method Blank	Total/NA	Solid	3546	

Prep Batch: 124920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
600-85318-1	2013-FFTA-01 (0.25-2)	Total/NA	Solid	TX_1005_S_Pre
600-85318-3	2013-FFTA-03 (18-19)	Total/NA	Solid	p TX_1005_S_Pre
600-85318-7	2013-MB-5 (0.5-5)	Total/NA	Solid	p TX_1005_S_Pre
600-85318-8	2013-MB-5 (10-12)	Total/NA	Solid	TX_1005_S_Pre
600-85318-14	MW-27D (0.5-2)	Total/NA	Solid	p TX_1005_S_Pre
600-85318-16	MW-27C (0-2)	Total/NA	Solid	p TX_1005_S_Pre
600-85318-24	MW-27B (0-2)	Total/NA	Solid	TX_1005_S_Pre
600-85318-26	MW-27A (0-2)	Total/NA	Solid	p TX_1005_S_Pre
LCS 600-124920/2-A	Lab Control Sample	Total/NA	Solid	p TX_1005_S_Pre
MB 600-124920/1-A	Method Blank	Total/NA	Solid	TX_1005_S_Pre p

Prep Batch: 124950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-40	RINSE BLANK aeo	Total/NA	Water	TX_1005_W_Pr	
LCS 600-124950/2-A	Lab Control Sample	Total/NA	Water	ep TX_1005_W_Pr	
MB 600-124950/1-A	Method Blank	Total/NA	Water	ep TX_1005_W_Pr ep	

Analysis Batch: 124998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-40	RINSE BLANK aeo	Total/NA	Water	TX 1005	124950

Analysis Batch: 125003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-1	2013-FFTA-01 (0.25-2)	Total/NA	Solid	TX 1005	124920
600-85318-3	2013-FFTA-03 (18-19)	Total/NA	Solid	TX 1005	124920
600-85318-7	2013-MB-5 (0.5-5)	Total/NA	Solid	TX 1005	124920
600-85318-8	2013-MB-5 (10-12)	Total/NA	Solid	TX 1005	124920
600-85318-14	MW-27D (0.5-2)	Total/NA	Solid	TX 1005	124920
600-85318-16	MW-27C (0-2)	Total/NA	Solid	TX 1005	124920
600-85318-24	MW-27B (0-2)	Total/NA	Solid	TX 1005	124920
600-85318-26	MW-27A (0-2)	Total/NA	Solid	TX 1005	124920
LCS 600-124920/2-A	Lab Control Sample	Total/NA	Solid	TX 1005	124920
LCS 600-124950/2-A	Lab Control Sample	Total/NA	Water	TX 1005	124950
MB 600-124920/1-A	Method Blank	Total/NA	Solid	TX 1005	124920
MB 600-124950/1-A	Method Blank	Total/NA	Water	TX 1005	124950

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QC Association Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

GC Semi VOA (Continued)

Analysis Batch: 125027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-124838/2-A	Lab Control Sample	Total/NA	Solid	8082	124838
MB 600-124838/1-A	Method Blank	Total/NA	Solid	8082	124838

Analysis Batch: 125030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-28	2013-NDA-1A(2-4)	Total/NA	Solid	8082	124838
600-85318-A-36-B MS	600-85318-A-36-B MS	Total/NA	Solid	8082	124838
600-85318-A-36-C MSD	600-85318-A-36-C MSD	Total/NA	Solid	8082	124838

Metals

Prep Batch: 124797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-23	RINSE BLANK-CME	Total/NA	Water	3010A	
600-85318-40	RINSE BLANK aeo	Total/NA	Water	3010A	
LCS 600-124797/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 600-124797/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 124836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-4	2013-MB-3 (0.75-1.25)	Total/NA	Solid	3050B	
600-85318-7 - DL	2013-MB-5 (0.5-5)	Total/NA	Solid	3050B	
600-85318-7	2013-MB-5 (0.5-5)	Total/NA	Solid	3050B	
600-85318-8	2013-MB-5 (10-12)	Total/NA	Solid	3050B	
600-85318-11	2013-MB-4 (0.83-1.33)	Total/NA	Solid	3050B	
600-85318-14	MW-27D (0.5-2)	Total/NA	Solid	3050B	
600-85318-14 DU	MW-27D (0.5-2)	Total/NA	Solid	3050B	
600-85318-14 MS	MW-27D (0.5-2)	Total/NA	Solid	3050B	
600-85318-14 MSD	MW-27D (0.5-2)	Total/NA	Solid	3050B	
600-85318-17	MW-41 (0-0.5)	Total/NA	Solid	3050B	
600-85318-18	MW-41 (0.5-2)	Total/NA	Solid	3050B	
600-85318-19	MW-42 (0-0.5)	Total/NA	Solid	3050B	
600-85318-20	MW-42 (0.5-2)	Total/NA	Solid	3050B	
600-85318-20 DU	MW-42 (0.5-2)	Total/NA	Solid	3050B	
600-85318-20 MS	MW-42 (0.5-2)	Total/NA	Solid	3050B	
600-85318-20 MSD	MW-42 (0.5-2)	Total/NA	Solid	3050B	
600-85318-21	DUP-6	Total/NA	Solid	3050B	
600-85318-24	MW-27B (0-2)	Total/NA	Solid	3050B	
600-85318-26	MW-27A (0-2)	Total/NA	Solid	3050B	
600-85318-32	D13A (0-0.5)	Total/NA	Solid	3050B	
600-85318-33	2013-C2L-03-(0-0.5)	Total/NA	Solid	3050B	
600-85318-37	2013-AD-04 (0-0.5)	Total/NA	Solid	3050B	
LCS 600-124836/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-124836/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 124882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-4	2013-MB-3 (0.75-1.25)	Total/NA	Solid	6010B	124836
600-85318-7	2013-MB-5 (0.5-5)	Total/NA	Solid	6010B	124836
600-85318-8	2013-MB-5 (10-12)	Total/NA	Solid	6010B	124836

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Metals (Continued)

Analysis Batch: 124882 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-11	2013-MB-4 (0.83-1.33)	Total/NA	Solid	6010B	124836
600-85318-14	MW-27D (0.5-2)	Total/NA	Solid	6010B	124836
600-85318-14 DU	MW-27D (0.5-2)	Total/NA	Solid	6010B	124836
600-85318-14 MS	MW-27D (0.5-2)	Total/NA	Solid	6010B	124836
600-85318-14 MSD	MW-27D (0.5-2)	Total/NA	Solid	6010B	124836
600-85318-17	MW-41 (0-0.5)	Total/NA	Solid	6010B	124836
600-85318-18	MW-41 (0.5-2)	Total/NA	Solid	6010B	124836
600-85318-19	MW-42 (0-0.5)	Total/NA	Solid	6010B	124836
600-85318-20	MW-42 (0.5-2)	Total/NA	Solid	6010B	124836
600-85318-20 DU	MW-42 (0.5-2)	Total/NA	Solid	6010B	124836
600-85318-20 MS	MW-42 (0.5-2)	Total/NA	Solid	6010B	124836
600-85318-20 MSD	MW-42 (0.5-2)	Total/NA	Solid	6010B	124836
600-85318-21	DUP-6	Total/NA	Solid	6010B	124836
600-85318-24	MW-27B (0-2)	Total/NA	Solid	6010B	124836
600-85318-26	MW-27A (0-2)	Total/NA	Solid	6010B	124836
600-85318-32	D13A (0-0.5)	Total/NA	Solid	6010B	124836
600-85318-33	2013-C2L-03-(0-0.5)	Total/NA	Solid	6010B	124836
600-85318-37	2013-AD-04 (0-0.5)	Total/NA	Solid	6010B	124836
LCS 600-124836/2-A	Lab Control Sample	Total/NA	Solid	6010B	124836
MB 600-124836/1-A	Method Blank	Total/NA	Solid	6010B	124836

Prep Batch: 124919

Lab Sample ID 600-85318-16	Client Sample ID MW-27C (0-2)	Prep Type Total/NA	Matrix Solid Solid	Method 3050B	Prep Batch
600-85318-30 600-85318-31	D11A (0-0.5) D12A (0-0.5)	Total/NA Total/NA	Solid	3050B 3050B	
LCSSRM 600-124919/2-A MB 600-124919/1-A	Lab Control Sample Method Blank	Total/NA Total/NA	Solid Solid	3050B 3050B	

Analysis Batch: 125010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-7 - DL	2013-MB-5 (0.5-5)	Total/NA	Solid	6010B	124836
600-85318-16	MW-27C (0-2)	Total/NA	Solid	6010B	124919
600-85318-30	D11A (0-0.5)	Total/NA	Solid	6010B	124919
600-85318-31	D12A (0-0.5)	Total/NA	Solid	6010B	124919
LCSSRM 600-124919/2-A	Lab Control Sample	Total/NA	Solid	6010B	124919
MB 600-124919/1-A	Method Blank	Total/NA	Solid	6010B	124919

Prep Batch: 125018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-36	2013-BSA-2A(0-2)	Total/NA	Solid	3050B	
600-85318-36 DU	2013-BSA-2A(0-2)	Total/NA	Solid	3050B	
600-85318-36 MS	2013-BSA-2A(0-2)	Total/NA	Solid	3050B	
600-85318-36 MSD	2013-BSA-2A(0-2)	Total/NA	Solid	3050B	
LCSSRM 600-125018/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-125018/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 125051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-23	RINSE BLANK-CME	Total/NA	Water	6010B	124797
600-85318-40	RINSE BLANK aeo	Total/NA	Water	6010B	124797

TestAmerica Houston

QC Association Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Metals (Continued)

Analysis Batch: 125051 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-124797/2-A	Lab Control Sample	Total/NA	Water	6010B	124797
MB 600-124797/1-A	Method Blank	Total/NA	Water	6010B	124797

Analysis Batch: 125110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-36	2013-BSA-2A(0-2)	Total/NA	Solid	6010B	125018
600-85318-36 DU	2013-BSA-2A(0-2)	Total/NA	Solid	6010B	125018
600-85318-36 MS	2013-BSA-2A(0-2)	Total/NA	Solid	6010B	125018
600-85318-36 MSD	2013-BSA-2A(0-2)	Total/NA	Solid	6010B	125018
LCSSRM 600-125018/2-A	Lab Control Sample	Total/NA	Solid	6010B	125018
MB 600-125018/1-A	Method Blank	Total/NA	Solid	6010B	125018

General Chemistry

Analysis Batch: 124801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-1	2013-FFTA-01 (0.25-2)	Total/NA	Solid	Moisture	
600-85318-1 DU	2013-FFTA-01 (0.25-2)	Total/NA	Solid	Moisture	
600-85318-3	2013-FFTA-03 (18-19)	Total/NA	Solid	Moisture	
600-85318-4	2013-MB-3 (0.75-1.25)	Total/NA	Solid	Moisture	
600-85318-7	2013-MB-5 (0.5-5)	Total/NA	Solid	Moisture	
600-85318-8	2013-MB-5 (10-12)	Total/NA	Solid	Moisture	
600-85318-11	2013-MB-4 (0.83-1.33)	Total/NA	Solid	Moisture	
600-85318-14	MW-27D (0.5-2)	Total/NA	Solid	Moisture	
600-85318-17	MW-41 (0-0.5)	Total/NA	Solid	Moisture	
600-85318-18	MW-41 (0.5-2)	Total/NA	Solid	Moisture	
600-85318-19	MW-42 (0-0.5)	Total/NA	Solid	Moisture	
600-85318-20	MW-42 (0.5-2)	Total/NA	Solid	Moisture	
600-85318-20 MS	MW-42 (0.5-2)	Total/NA	Solid	Moisture	
600-85318-20 MSD	MW-42 (0.5-2)	Total/NA	Solid	Moisture	
600-85318-21	DUP-6	Total/NA	Solid	Moisture	
600-85318-21 DU	DUP-6	Total/NA	Solid	Moisture	
600-85318-24	MW-27B (0-2)	Total/NA	Solid	Moisture	
600-85318-26	MW-27A (0-2)	Total/NA	Solid	Moisture	
600-85318-32	D13A (0-0.5)	Total/NA	Solid	Moisture	
600-85318-33	2013-C2L-03-(0-0.5)	Total/NA	Solid	Moisture	
600-85318-36	2013-BSA-2A(0-2)	Total/NA	Solid	Moisture	
600-85318-37	2013-AD-04 (0-0.5)	Total/NA	Solid	Moisture	

Analysis Batch: 124909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-16	MW-27C (0-2)	Total/NA	Solid	Moisture	
600-85318-28	2013-NDA-1A(2-4)	Total/NA	Solid	Moisture	

Analysis Batch: 125061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-30	D11A (0-0.5)	Total/NA	Solid	Moisture	
600-85318-31	D12A (0-0.5)	Total/NA	Solid	Moisture	
600-85318-31 DU	D12A (0-0.5)	Total/NA	Solid	Moisture	

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: 2013-FFTA-01 (0.25-2)

Date Collected: 01/08/14 10:20 Date Received: 01/10/14 10:31

Lab Sample ID: 600-85318-1

Matrix: Solid Percent Solids: 78.5

Prep Type Total/NA	Batch Type Analysis	Batch Method 8260B	Run	Dil Factor	Initial Amount 5 g	Final Amount 5 g	Batch Number 125013	Prepared or Analyzed 01/14/14 15:28	Analyst WS1	Lab TAL HOU
Total/NA Total/NA	Prep Analysis	3546 8270C LL		20	15.06 g 15.06 g	1.0 mL 1.0 mL	125220 125638	01/17/14 13:18 01/22/14 21:55	RLK MBB	TAL HOU TAL HOU
Total/NA Total/NA	Prep Analysis	TX_1005_S_Prep TX 1005		1	10.02 g 10.02 g	10.00 mL 10.00 mL	124920 125003	01/14/14 12:54 01/14/14 16:07	NVP RJV	TAL HOU TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: 2013-FFTA-03 (18-19)

Date Collected: 01/08/14 10:45 Date Received: 01/10/14 10:31

Lab Sample ID: 600-85318-3 **Matrix: Solid**

Percent Solids: 93.4

Prep Type Total/NA	Batch Type Analysis	Batch Method 8260B	Run	Dil Factor	Initial Amount 5 g	Final Amount 5 g	Batch Number 125071	Prepared or Analyzed 01/15/14 20:16	Analyst KLV	Lab TAL HOU
Total/NA Total/NA	Prep Analysis	3546 8270C LL		1	15.03 g 15.03 g	1.0 mL 1.0 mL	125220 125471	01/17/14 13:18 01/21/14 02:32		TAL HOU TAL HOU
Total/NA Total/NA	Prep Analysis	TX_1005_S_Prep TX 1005		1	10.07 g 10.07 g	10.00 mL 10.00 mL	124920 125003	01/14/14 12:54 01/14/14 16:41	NVP RJV	TAL HOU TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: 2013-MB-3 (0.75-1.25)

Date Collected: 01/08/14 12:18

Date Received: 01/10/14 10:31

Lab Sample ID: 600-85318-4

Matrix: Solid Percent Solids: 77.2

Prep Type Total/NA	Batch Type Analysis	Batch Method 8260B	Run	Dil Factor	Initial Amount 5 g	Final Amount 5 g	Batch Number 125071	Prepared or Analyzed 01/15/14 20:41	Analyst KLV	Lab TAL HOU
Total/NA	Prep	3050B			1.06 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	124882	01/14/14 08:28	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: 2013-MB-5 (0.5-5)

Date Collected: 01/08/14 13:20

Lab Sample ID: 600-85318-7 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 76.7

Prep Type Total/NA	Batch Type Analysis	Batch Method 8260B	Run	Pactor 1	Initial Amount 5 g	Final Amount 5 g	Batch Number 125071	Prepared or Analyzed 01/15/14 21:06	Analyst KLV	Lab TAL HOU
Total/NA Total/NA	Prep Analysis	3546 8270C LL		1	15.08 g 15.08 g	1.0 mL 1.0 mL	125220 125471	01/17/14 13:18 01/21/14 02:59	· - - - · ·	TAL HOU TAL HOU
Total/NA Total/NA	Prep Analysis	TX_1005_S_Prep TX 1005		1	10.02 g 10.02 g	10.00 mL 10.00 mL	124920 125003	01/14/14 12:54 01/14/14 17:17		TAL HOU TAL HOU
Total/NA Total/NA	Prep Analysis	3050B 6010B		1	1.05 g 1.05 g	50 mL 50 mL	124836 124882	01/13/14 14:19 01/14/14 08:52	—	TAL HOU TAL HOU
Total/NA	Prep	3050B	DL		1.05 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU

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Lab Chronicle

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/08/14 13:20

Date Received: 01/10/14 10:31

Client Sample ID: 2013-MB-5 (0.5-5)

TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-7

Matrix: Solid Percent Solids: 76.7

Batch Batch Dil Initial Final Batch Prepared Method **Prep Type** Type Run **Factor** Amount Amount Number or Analyzed Analyst Lab Total/NA Analysis 6010B DL 10 1.05 g 50 mL 125010 01/15/14 10:39 DCL TAL HOU Moisture Total/NA Analysis 1 124801 01/13/14 09:59 AYS TAL HOU

Client Sample ID: 2013-MB-5 (10-12) Lab Sample ID: 600-85318-8

Date Collected: 01/08/14 13:35 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 75.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 g	5 g	125242	01/17/14 12:32	WS1	TAL HOU
Total/NA	Prep	3546			15.00 g	1.0 mL	125220	01/17/14 13:18	RLK	TAL HOU
Total/NA	Analysis	8270C LL		100	15.00 g	1.0 mL	125638	01/22/14 22:21	MBB	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			10.03 g	10.00 mL	124920	01/14/14 12:54	NVP	TAL HOU
Total/NA	Analysis	TX 1005		5	10.03 g	10.00 mL	125003	01/15/14 09:36	RJV	TAL HOU
Total/NA	Prep	3050B			1.01 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.01 g	50 mL	124882	01/14/14 08:55	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: 2013-MB-4 (0.83-1.33) Lab Sample ID: 600-85318-11

Date Collected: 01/08/14 15:15 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 76.4

Prep Type	Batch Type Analysis	Batch Method 8260B	Run	Factor 1	Initial Amount 5 g	Final Amount 5 g	Batch Number 125071	Prepared or Analyzed 01/15/14 21:55	Analyst	Lab TAL HOU
Total/NA Total/NA	Prep Analysis	3050B 6010B		. 1	1.03 g 1.03 q	50 mL 50 mL	124836 124882	01/13/14 14:19 01/14/14 08:57		TAL HOU
Total/NA	Analysis	Moisture		1	1.03 g	30 IIIL	124801	01/13/14 09:59		TAL HOU

Client Sample ID: MW-27D (0.5-2) Lab Sample ID: 600-85318-14

Date Collected: 01/08/14 15:45 Matrix: Solid Date Received: 01/10/14 10:31 Percent Solids: 77.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 g	5 g	125071	01/15/14 22:19	KLV	TAL HOU
Total/NA	Prep	3546			15.06 g	1.0 mL	125220	01/17/14 13:18	RLK	TAL HOU
Total/NA	Analysis	8270C LL		1	15.06 g	1.0 mL	125471	01/21/14 03:53	MBB	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			10.07 g	10.00 mL	124920	01/14/14 12:54	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	10.07 g	10.00 mL	125003	01/14/14 18:25	RJV	TAL HOU
Total/NA	Prep	3050B			1.03 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	124882	01/14/14 08:31	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

TestAmerica Houston

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Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: MW-27C (0-2)

Date Collected: 01/08/14 16:20 Date Received: 01/10/14 10:31

Lab Sample ID: 600-85318-16

Matrix: Solid Percent Solids: 78.0

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 g	5 g	125071	01/15/14 22:43	KLV	TAL HOU
Total/NA	Prep	3546			15.13 g	1.00 mL	124982	01/15/14 08:14	MRA	TAL HOU
Total/NA	Analysis	8270C LL		1	15.13 g	1.00 mL	125404	01/17/14 12:30	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			10.01 g	10.00 mL	124920	01/14/14 12:54	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	10.01 g	10.00 mL	125003	01/14/14 19:00	RJV	TAL HOU
Total/NA	Prep	3050B			1.08 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.08 g	50 mL	125010	01/15/14 13:22	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124909	01/14/14 13:52	AYS	TAL HOU

Client Sample ID: MW-41 (0-0.5)

Date Collected: 01/08/14 13:40

Date Received: 01/10/14 10:31

Lab Sample ID: 600-85318-17 **Matrix: Solid**

Percent Solids: 76.4

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.05 g	50 mL	124882	01/14/14 09:00	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: MW-41 (0.5-2)

Date Collected: 01/08/14 13:45

Date Received: 01/10/14 10:31

Lab Sample ID: 600-85318-18 **Matrix: Solid**

Percent Solids: 76.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.00 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.00 g	50 mL	124882	01/14/14 09:02	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: MW-42 (0-0.5)

Date Collected: 01/08/14 15:40

Date Received: 01/10/14 10:31

Lab Sample ID: 600-85318-19 **Matrix: Solid** Percent Solids: 72.7

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.09 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.09 g	50 mL	124882	01/14/14 09:05	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: MW-42 (0.5-2)

Date Collected: 01/08/14 15:45

Date Received: 01/10/14 10:31

Lab Sample ID: 600-85318-20 **Matrix: Solid** Percent Solids: 74.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.09 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU

TestAmerica Houston

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Lab Chronicle

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Client Sample ID: MW-42 (0.5-2)

Date Collected: 01/08/14 15:45 Date Received: 01/10/14 10:31

Lab Sample ID: 600-85318-20

Matrix: Solid Percent Solids: 74.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	6010B		1	1.09 g	50 mL	124882	01/14/14 09:07	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: DUP-6 Lab Sample ID: 600-85318-21

Date Collected: 01/08/14 00:00 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.07 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.07 g	50 mL	124882	01/14/14 09:23	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: FIELD BLANK Lab Sample ID: 600-85318-22

Date Collected: 01/08/14 17:19 **Matrix: Water**

Date Received: 01/10/14 10:31

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	124815	01/11/14 18:04	DT1	TAL HOU

Client Sample ID: RINSE BLANK-CME Lab Sample ID: 600-85318-23 **Matrix: Water**

Date Collected: 01/09/14 08:50 Date Received: 01/10/14 10:31

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	124797	01/13/14 09:01	NER	TAL HOU
Total/NA	Analysis	6010B		1	50 mL	50 mL	125051	01/15/14 12:52	DCL	TAL HOU

Client Sample ID: MW-27B (0-2) Lab Sample ID: 600-85318-24

Date Collected: 01/09/14 08:55 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 77.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 g	5 g	125071	01/15/14 23:08	KLV	TAL HOU
Total/NA	Prep	3546			15.02 g	1.0 mL	125220	01/17/14 13:18	RLK	TAL HOU
Total/NA	Analysis	8270C LL		20	15.02 g	1.0 mL	125638	01/22/14 22:46	MBB	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			10.07 g	10.00 mL	124920	01/14/14 12:54	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	10.07 g	10.00 mL	125003	01/14/14 19:35	RJV	TAL HOU
Total/NA	Prep	3050B			1.00 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.00 g	50 mL	124882	01/14/14 09:26	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

TestAmerica Houston

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Client Sample ID: MW-27A (0-2)

Date Collected: 01/09/14 09:25

Date Received: 01/10/14 10:31

Lab Sample ID: 600-85318-26

Percent Solids: 78.3

Matrix: Solid

Lab Sample ID: 600-85318-28

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 g	5 g	125071	01/15/14 23:32	KLV	TAL HOU
Total/NA	Prep	3546			15.08 g	1.0 mL	125453	01/21/14 10:00	RLK	TAL HOU
Total/NA	Analysis	8270C LL		1	15.08 g	1.0 mL	125638	01/22/14 19:21	MBB	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			10.02 g	10.00 mL	124920	01/14/14 12:54	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	10.02 g	10.00 mL	125003	01/14/14 20:09	RJV	TAL HOU
Total/NA	Prep	3050B			1.08 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.08 g	50 mL	124882	01/14/14 09:28	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: 2013-NDA-1A(2-4)

Date Collected: 01/09/14 10:15 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 81.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.04 g	5.00 mL	124838	01/13/14 14:23	RLK	TAL HOU
Total/NA	Analysis	8082		1	15.04 g	5.00 mL	125030	01/15/14 11:52	JAL	TAL HOU
Total/NA	Analysis	Moisture		1			124909	01/14/14 13:52	AYS	TAL HOU

Client Sample ID: D11A (0-0.5)

Lab Sample ID: 600-85318-30 Date Collected: 01/09/14 10:35 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 72.6

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.01 g	50 mL	125010	01/15/14 13:25	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: D12A (0-0.5)

Lab Sample ID: 600-85318-31 Date Collected: 01/09/14 10:50 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 74.6

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.07 g	50 mL	124919	01/14/14 12:46	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.07 g	50 mL	125010	01/15/14 13:27	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			125061	01/15/14 15:56	AYS	TAL HOU

Client Sample ID: D13A (0-0.5)

Date Collected: 01/09/14 11:04

Date Received: 01/10/14 10:31

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU

TestAmerica Houston

Percent Solids: 78.6

Lab Sample ID: 600-85318-32

Matrix: Solid

TestAmerica Job ID: 600-85318-1

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: D13A (0-0.5)

Lab Sample ID: 600-85318-32

Matrix: Solid

Date Collected: 01/09/14 11:04 Date Received: 01/10/14 10:31 Percent Solids: 78.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	6010B		1	1.05 g	50 mL	124882	01/14/14 09:34	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: 2013-C2L-03-(0-0.5) Lab Sample ID: 600-85318-33

Date Collected: 01/09/14 11:26 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 73.9

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.06 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.06 g	50 mL	124882	01/14/14 09:36	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: 2013-BSA-2A(0-2) Lab Sample ID: 600-85318-36

Date Collected: 01/09/14 12:50 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 80.6

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	125018	01/15/14 12:30	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	125110	01/16/14 09:58	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Client Sample ID: 2013-AD-04 (0-0.5) Lab Sample ID: 600-85318-37

Date Collected: 01/09/14 13:26 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 79.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.08 g	50 mL	124836	01/13/14 14:19	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.08 g	50 mL	124882	01/14/14 09:38	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			124801	01/13/14 09:59	AYS	TAL HOU

Lab Sample ID: 600-85318-40 Client Sample ID: RINSE BLANK aeo **Matrix: Water**

Date Collected: 01/09/14 08:30 Date Received: 01/10/14 10:31

_	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	124815	01/11/14 18:27	DT1	TAL HOU
Total/NA	Prep	3510C			250 mL	1.0 mL	124914	01/14/14 16:09	LER	TAL HOU
Total/NA	Analysis	8270C LL		1	250 mL	1.0 mL	125073	01/15/14 01:25	MBB	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			30.79 mL	3.00 mL	124950	01/14/14 15:16	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	30.79 mL	3.00 mL	124998	01/15/14 04:47	RJV	TAL HOU
Total/NA	Prep	3010A			50 mL	50 mL	124797	01/13/14 09:01	NER	TAL HOU
Total/NA	Analysis	6010B		1	50 mL	50 mL	125051	01/15/14 12:54	DCL	TAL HOU

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Lab Chronicle

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: TRIP BLANK

TestAmerica Job ID: 600-85318-1

Lab Sample ID: 600-85318-41

Matrix: Water

Date Collected: 01/09/14 00:00 Date Received: 01/10/14 10:31

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	124815	01/11/14 16:54	DT1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-15
Louisiana	NELAP	6	30643	06-30-15 *
Oklahoma	State Program	6	1309	08-31-15
Texas	NELAP	6	T104704223	10-31-15
USDA	Federal		P330-14-00192	06-06-17
Utah	NELAP	8	TX00083	11-30-15

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^{*} Certification renewal pending - certification considered valid.

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Page: Page				com	icainc.	tamer	r@tes	E-Mail: dean.joiner@testamericainc.com	E-Mail: dean.j	7	118-80	Phone: 817-808-8144	Pho			am	gginboth	Client Contact Christina Higginbotham
COC No: 600-25571-9015.1	king No(s):	<u></u> ≿ı	1				an A	Lab PM: Joiner, Dean A	Lab	O.S	ONIVAZI	Sampler: CARAS	Sam			n	ormatic	Client Information
				Chain of Custod	ain of	다 8 8	500-85318	_	Chain						Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646) 44 Fax (713	77040 (X 77040) () 690-44	Houston, TX 77040 Phone (713) 690-44
) •						5	Houston	erica	TestAmerica Houston
		Ambailer and			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				14	13		10	8	7	5			1

,		rks:	perature(s) °C and Other Remarks:	re(s) °C and	Temperatu	Cooler Tem							act: Custody Seal No.:	Custody Seals Intact.
(83) Company	Date/Tipe: 10 124		LAN.		ed by:	Received by		Compañy			Daté/∫ime:		Į.	Relinquished by:
Company	Date/Ilime:			١,	ed by:	Receiv	\	Hermon (760	工	Date/lime:	Е	clower	Relinquished by:
SV Company	Date/Tree	,	7			Regeiv	CE CE	Company NER	1815	41BC	Date/Time:		ANZEW	Reinguished by J:
	of Shipment #	Method :		>			Time:			Date:	,		hed by:	Empty Kit Relinquished by:
			Special Instructions/QC Requirements:	s/QC Rec	struction	becial In	S						Deliverable Requested: I, II, III, IV, Other (specify)	Deliverable Reques
ger than 1 month)Months	oles are retained longer	assessed if samples Disposal By Lab	may be ass	osal (A fee m To Client	oisposal (At um To Client	Sample Dispo	ý	cal	Radiological	ln	B Unknown	Poison B	entification Flammable Skin Initant	Possible Hazard Identification Non-Hazard Flammat
								Solid	G	411546	Con Job 114		05-2)MSD	からち
	2							Solid	6	11545	1 60 10		(0.5-2) MS	
			ズ					Solid	G	1545	D 108 114		0.5-2)	NW-FD (
		<i>₹</i>	×					Solid) G	+154p	ONTOBLIF	_	0-0.5)	MW-42 (
								Solid	6 6	1345	m/0#/17		じくろ	Thr my
								Solid	6	1340	01/08/14		0-0.5)	MW-41 (
			×	*	<u> </u>	×		Solid) G	<u></u>	41/80/19	-	(-0-2)	J. C. MIN
								Solid	6	200	02/08/14		(2-4)	MW-270
			> %	×	\times	\times	rapidentes (Solid	٠ 6	9±21	DL 08 (14		(0-2)	MW-270
Mary	4013						LOKE PART	Solid	0	०८२।	01/06/14		1 (2-4)	2015-ME-
Horo								Solid	ດ	1618	01/08/14	6	(0,5-2)	2015-MB-4
	×	z	z	z	z	z	X	Preservation Code:	Prese	X	$\bigg \bigg $			
Special Instructions/Note:	Total Number	Moisture 8082 PCB	9056_28D - Sulf 6010B - Cd,Pb 6010B - As,Cd,F	TX_1005 - Loca	8270C_LL - (MC	8260B - Target	Field Filtered	le (W=water, S=solid, O=waste/oil, O=waste/oil, b) BT=Tissue, A=Air	0 3 4	Sample Time	Sample Date		ion	Sample Identification
Other:		-0,00				Comp					SSOW#:	- (0	FLOSCO	EXIDE -
L-EDA Z-other (specify)	·	,				ound L					Project #: 60004831	0.71	Project Name: Exide Recycling Center, Frisco TX Project	Project Name: Exide Recycling Ce
막	-			old for	mpou	ist	-				WO #		tham@golder.com	Email: Christina_Higginbotham@golder.com
<u>a</u>				TPH 10	nd List		بمبيست		ted	er Reques	Po#: Purchase Order Requested	-T- T-1	281-821-6870(Fax)	Phone: 281-821-6868(Tel)
D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MaOH R - Na2S2SO3				05 resi		<u> </u>								State, Zip: TX, 77073
				ults)	*******	. 7.6	Single Nation		5 WD TRRP	(days): 5 W [TAT Requested (days):	1		City: Houston
Preservation Codes: A - HCI M - Hexane	T					See See				sted:	Due Date Requested:	н	Drive Suite 190	Address: 500 Century Plaza Drive
1502086		Requested	Analysis Rec	Anal									inc.	Company: Golder Associates Inc.
Page: Page 久	יי די			ricainc.com		r@testa	E- _{Mail:} dean.joiner@testame	E-N de	-844	00	Phone: 817-		ham	Christina Higginbotham
COC No: 600-25571-9015.1		Carrier Tracking No(s):				an A	Lab PM: Joiner, Dean A	Jo	GNNA	,	Sampler: CHRS	- (0	ion	Client Information
			ord	Record	tody	Cus	า of	Chain of Custo					I estAmerica, Howsign 6310 Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646	estAmerica, Howard Continuous Street 6310 Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713)
							ı							1

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TestAmerica Houston 6310 Rothway Street	Chain of Custody Record	
Prione (713) 690-4444 Fax (713) 690-5646	Lab PM:	Carrier Tracking No(s): COC No:
Client Contact: Christina Higginbotham		Page:
Company: Golder Associates Inc	Analysis	Requested Job# (307066
Address: 500 Century Plaza Drive Suite 190	Due Date Requested:	Preservation Code
		B. NaOH N. None CZn Acetate OAsNaO2
State, Zip: TX, 77073		D-Nitric Acid P-Na2O4S E-NaHSO4 Q-Na2SO3
Phone: 281-821-6868(Tel) 281-821-6870(Fax)	ad List	<u>a.</u>
Email: Christina_Higginbotham@golder.com	No) st mpour	I - Ice J - DI Water
Project Name: Exide Recycling Center, Frisco TX Project	es or und L get Co	ntaine L-EDA
Site: EXIOU-FUSCO	Samp SD (Y Compo D) Tar D) PAI Metho	- A.
	Sample (C=comp. Septid. (W=water. MS/N) Sound Filtered (FOC_LL - (MC) CTOC_LL - (oisture 082 PCB 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	Z
DUP-6	81(06)14 - G Solid	
THE BLANK	01/08/14 1719 G Solid X	
	61/09/14/0850 G SSMOW)	
MW-27B (0-2)	Pulonity Moss G Solid X X X	5-
	01/09 14 0900 G Solid	HE)
NN TA (O-C)	01/09/14 0925 G Solid X XX	
MW-27A (2-4)	01/09/14 0930 G Solid	HOLD
10A-	01/09/14 1016 G Solid	×
E-116 (0.0.5)	6) 64 14 1035 G Solid	×
D-11A (00.5)	01 08 14 1035 G Solid X	
D-128 (0-0.5)	0\ [03 17 [03 0 G Solid]	
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐	Poison B Unknown Radiological Scripple Disposal (A fee may be ass	assessed if samples are retained longer than 1 month) Disposal By Lab Archive For Months
ested: I, II, III, IV, Otl	Special Instru	y :
Empty Kit Relinquished by:	Date:	Method of Shipment ,
Relinaushed by A.C. N. 1900	Oaler Time: Oaler Marie Company Received by Company Reserved by	Date/films: 11 5 6 Company
] [Company	Date Time: //4 1637 Company
A Yes A No	could retiberatively) o and other remains	alma

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TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646	Cha	Chain of Custody Record	
Client Information	CHURS TRAINS	r, Dean A	Carrier Tracking No(s): COC No: 600-25571-9015.1
Client Contact: Christina Higginbotham	Phone: 819-808-8144	E-Mail: dean.joiner@testamericainc.com	Page: 1
Company: Golder Associates Inc.			Job#.
Address: 500 Century Plaza Drive Suite 190	Due Date Requested:		Preservation Cod
City: Houston	TAT Requested (days): 5 WD TRRP	ults)	B - NaOH N - None C - Zn Acetate O - AsNaO2
State, Zip: TX, 77073		05 resi	
Phone: 281-821-6868(Tel) 281-821-6870(Fax)	PO# Purchase Order Requested	d List	<u>a</u> :
	WO#	No) st mpour	I - Ice J - DI Water
Project Name: Exide Recycling Center, Frisco TX Project	Project#. 60004831	es or und L get Co	L-EDA
SIE EXIDE-MASO	SSOW#:	SD (Y Compo D) Tar D) PAI Metho	of col
Sample Identification	Sample (Wewater, Sound) Sample Date Time G=grab) Sample Date Time G=grab) Sample Date Time G=grab)	Field Filtered Perform MS/IV 8260B - Target C 8270C_LL - (MC 8270C_LL - (MC 7X_1005 - Loca 7X_1006 - Loca 9056_28D - Sulf 6010B - Cd,Pb 6010B - As,Cd,F	Moisture 8082 PCB Total Number Special Instructions/Note:
	\sim	Z Z Z Z Z Z Z Z Z Z	Z Z
D-13A (0-0.5)	01 07/14 104 G Solid		
2015-621-03 (0-05)	01 09 17 11 26 G Solid		
2013-121-03 (1-2)	01/09/14/127 G Solid	lid	Crowline
2013-C2L-03 (4-5)	61/81/14 1128 G Solid	lid	HOU
12013-184-24 (0-2)	01 1 1 250 G Solid	lid	X
2013-ADOG (0-0.5)	δι (M (if 1326 G Solid	iā ×	
2013-AD-04 (0.5-2)	01/09/14 1327 G Solid	līd	Morb
2013-M-04 (2-4)	Jij	lid	(hor
PINSE BLANK- and	01/09/14/0830 G Solid		2.7
TY SY	01 / R 14 / G Solid	<u> </u>	
	G Solid	lid .	
Possible Hazard Identification Non-Hazard Flammable Skin Initant	Poison B Unknown Radiological	Semple Disposal (A fee may be assess Return To Client Dispos	be assessed if samples are retained longer than 1 month) Lisposal By Lab Archive For Months
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment
Religious SANZEN	169 14 150c)	Z	The Date of the Park of County
Relinquistator	14 1780	17	Date/Time: Company
_	Date/Time: I Company		Date/Tinje: 1654 Company
Custody Seals Intact. Custody Seal No.: A Yes A No		Cooler Temperadie(s) °C and other Remarks:	cs:

Upton, Cathy

From: Upton, Cathy

Sent: Tuesday, March 04, 2014 3:13 PM

To: Upton, Cathy

Subject: FW: Additional Metals in Soil

Dean,

We would like to report all five metals for the samples listed below. Do you think we could get revised reports for these by Wednesday?

	1					
Location ID	Sample ID	lab_sample_id	Date Sampled	Antimony	Arsenic	Cadı
2013-SL-C15	2013-SL-C15 (0-6)	600-84633-7	2013-12-19	NA	NA	2.10
MW-42	MW-42 (0.5-2)	600-85318-20	2014-01-08	NA	13.9	1.82
MW-27B	MW-27B (0-2)	600-85318-24	2014-01-09	NA	NA	9.85
D-11A	D11A (0-0.5)	600-85318-30	2014-01-09	NA	27.2	1.77
2013-BSA-2A	2013-BSA-2A(0-2)	600-85318-36	2014-01-09	NA	34.9	16.5
ECO-2A	ECO-2A (0-0.5)	600-85389-18	2014-01-09	NA	NA	3.29
ECO-8A	ECO-8A (0-0.5)	600-85389-20	2014-01-09	NA	NA	5.65
2013-AD-3	2013-AD-03 (0-0.5)	600-85389-23	2014-01-09	NA	NA	1.51
SCC-5B	SCC-5B (0-0.5)	600-85389-29	2014-01-10	NA	NA	2.48
2013-CUFT-10B	2013-CUFT-10B (0-0.5)	600-85389-63	2014-01-10	NA	NA	2.19
SRB-VS-11A	SRB-VS-11A (0-0.5)	600-85473-15	2014-01-10	NA	NA	1.44
2013-FWFS-5A	2013-FWFS-5A (0-2)	600-85473-34	2014-01-13	NA	NA	0.52
2013-MW-17B	2013-MW-17B (0-0.5)	600-85473-38	2014-01-13	NA	NA	5.19
SCC-10B	SCC-10B (0-0.5)	600-85473-39	2014-01-13	NA	NA	1.85
2013-C2L-06	2013-C2L-06 (0-0.5)	600-85636-21	2014-01-14	NA	22.6	3.68
ECO-7D	ECO-7D (0-0.5)	600-85636-39	2014-01-14	NA	15.1	2.30

Thanks, Anne

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Anne Faeth-Boyd, R.G., P.E. | Senior Project Engineer | Golder Associates Inc.
820 South Main Street, Suite 100, St. Charles, Missouri, USA 63301
T: +1 (636) 724-9191 | F: +1 (636) 724-9323 | C: +1 314 503-5179 | E: Anne Faeth-Boyd@golder.com | www.golder.com

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Please consider the environment before printing this email.

Upton, Cathy

From: Higginbotham, Christina [Christina_Higginbotham@golder.com]

Sent: Tuesday, May 06, 2014 5:02 PM To: Upton, Cathy; Joiner, Dean Cc: Thomas, Jim; Faeth-Boyd, Anne Subject: Exide discrepancies - metals reporting

Follow Up Flag: Follow up Flag Status: Red Cathy and Dean.

The below revisions are being requested so the final laboratory reports are consistent with tabulated data that was already submitted.

It appears that some metals noted below were reported in an earlier package, and removed for the later data packages. We would like the specified data (see highlights) turned back "on"

Please let us know estimated time for these revisions, or if you have any questions regarding this request.

Thanks Christina

600-85636 REV	/ISION									
				Sb	As	Cd	Pb	Se		
2013-STB-4A	2013-STB-4A (2-4)	600-85636-1	201	4-01-13	NA	NA	NA	1540	NA	REPORT CADMIUM (confirm Cd concentra

600-85318 REVISIONS

2013-C2L-03	2013-C2L-03-(0-0.5)	600-85318-33	2014-01-09	NA	12.2	0.651	79.5	< 0.330 U	REPORT ARSENIC AND SELENIUM
D-12A	D12A (0-0.5)	600-85318-31	2014-01-09	NA	10.9	0.652 b	80.2	< 0.324 U	REV 4 (3/18) reports Cd, Pb only. Report dat reported As, Cd, Pb, Se
									REPORT ARSENIC AND SELENIUM
MW-41	MW-41 (0.5-2)	600-85318-18	2014-01-08	NA	10.1	0.810	92.5	< 0.338 U	REV 4 (3/18) reports Cd, Pb only. Report da reported As, Cd, Pb, Se.
									REPORT ARSENIC AND SELENIUM
MW-41	MW-41 (0-0.5)	600-85318-17	2014-01-08	NA	8.00	0.474	18.4	< 0.323 U	REV 4 (3/18) reports Cd, Pb only. Report da reported As, Cd, Pb, Se.
									REPORT ARSENIC AND SELENIUM
MW-42	DUP-6	600-85318-21	2014-01-08	NA	7.39	0.385	15.0	< 0.311 U	REV 4 (3/18) reports Cd, Pb only. Report da reported As, Cd, Pb, Se.
									REPORT ARSENIC AND SELENIUM
MW-42	MW-42 (0-0.5)	600-85318-19	2014-01-08	NA	14.2	1.56	230	0.580 J	REV 4 (3/18) reports Cd, Pb only. Report da reported As, Cd, Pb, Se.
									REPORT ARSENIC AND SELENIUM

|--|

600-85473 REV									
2013-NT-01	2013-NT-01 (0.2-2)	600-85473-21	2014-01-10	NA	14.4	0.618	18.5	0.546 J	Report from 1/22 has results for As and Se only lists Pb and Cd, 4/21 only lists Cd and
									REPORT ARSENIC AND SELENIUM, also plinterval to "0.5-2" instead of "0.2-2".
2013-NT-01	2013-NT-01 (0-0.5)	600-85473-20	2014-01-10	NA	15.9	0.571	19.5	< 0.328 U	Report from 1/22 reports As and Se. Rev 3 4/21 does not. REPORT ARSENIC AND SELENIUM
2013-NT-02	2013-NT-02 (0.5-2)	600-85473-24	2014-01-10	NA	14.1	0.354	21.2	0.324 J	Report From 1/22 reports As and Se. Rev 3 4/21 does not. REPORT ARSENIC AND SELENIUM
2013-NT-02	2013-NT-02 (0-0.5)	600-85473-23	2014-01-10	NA	14.9	4.89	837	0.654 J	Report from 1/22 reports As and Se. Rev 3 4/21 does not. REPORT ARSENIC AND SELENIUM

600-85389 REVISION

2013-WMU14-1A (5-7)	600-85389-12	1/9/2014	na	na	5.14 J	17000	na	REPORT CADMIUM (confirm Cd concentratio
DUP-7	600-85389-14	1/9/2014	na	na	na	10500	na	REPORT CADMIUM (if 85389-12 is confirmed

Christina Higginbotham, P.G. | Remediation Project Manager | Golder Associates Inc.
500 Century Plaza Drive, Suite 190, Houston, Texas, USA 77073
T: +1 (281) 821-6868 | F: +1 (281) 821-6870 | C: +1 (281) 620-7835 | E: CHigginbotham@golder.com | www.golder.com

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Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 600-85318-1

Login Number: 85318 List Source: TestAmerica Houston

List Number: 1

Creator: Lopez, Sandro R

Creator. Lopez, Sandro K		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.9/3.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-85318-2

Client Project/Site: Exide Recycling Center

Revision: 1

For:

Golder Associates Inc. 500 Century Plaza Drive Suite 190 Houston, Texas 77073

Attn: Christina Higginbotham

Authorized for release by: 6/8/2015 3:27:13 PM

Cathy Upton, Project Manager I (713)690-4444

cathy.upton@testamericainc.com

----- LINKS -----

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Appendix A Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-85318-2 and consists of:

√	R1 - Field chain-of-custody documentation;
\checkmark	R2 - Sample identification cross-reference;
\checkmark	R3 - Test reports (analytical data sheets) for each environmental sample that includes:
	a. Items consistent with NELAC Chapter 5,
	b. dilution factors,
	c. preparation methods,
	d. cleanup methods, and
	e. if required for the project, tentatively identified compounds (TICs).
	R4 - Surrogate recovery data including:
	a. Calculated recovery (%R), and
	b. The laboratory's surrogate QC limits.
\checkmark	R5 - Test reports/summary forms for blank samples;
	R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
	a. LCS spiking amounts,
	b. Calculated %R for each analyte, and
	c. The laboratory's LCS QC limits.
	R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
	a. Samples associated with the MS/MSD clearly identified,
	b. MS/MSD spiking amounts,
	c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
	d. Calculated %Rs and relative percent differences (RPDs), and
	e. The laboratory's MS/MSD QC limits
	R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
	a. The amount of analyte measured in the duplicate,
	b. The calculated RPD, and
	c. The laboratory's QC limits for analytical duplicates.
\checkmark	R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for
(each method and matrix.
\checkmark	R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

	C Mar	
Cathy Upton		2/27/2014
Name (printed)	Signature	Date

Project Management Asst II

Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/27/2014
Project Name:	Exide Recycling Center	Laboratory Job Number:	600-85318-2
Paviower Name:	Cathy Unton		

# ¹ A ²	Description	Yes	No	NA ³	NR ⁴	ER
	n-of-custody (C-O-C)					
	amples meet the laboratory's standard conditions of sample acceptability upon receipt?		Χ			R01A
	e all departures from standard conditions described in an exception report?	Χ				
	ple and quality control (QC) identification					
	all field sample ID numbers cross-referenced to the laboratory ID numbers?	Χ				
Are a	all laboratory ID numbers cross-referenced to the corresponding QC data?	Χ				
R3 OI Test i	reports					
Were	e all samples prepared and analyzed within holding times?	Χ				
Other	r than those results < MQL, were all other raw values bracketed by calibration standards?	Χ				
Were	e calculations checked by a peer or supervisor?	Х				
Were	e all analyte identifications checked by a peer or supervisor?	Χ				
Were	e sample detection limits reported for all analytes not detected?	Χ				
Were	e all results for soil and sediment samples reported on a dry weight basis?	Х				
	e % moisture (or solids) reported for all soil and sediment samples?	Х				
	e bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			Χ		
	uired for the project, are TICs reported?	T		Х		
	ogate recovery data					
	e surrogates added prior to extraction?			Х		
	e surrogate percent recoveries in all samples within the laboratory QC limits?			Х		
	reports/summary forms for blank samples					
	e appropriate type(s) of blanks analyzed?	Х				
	e blanks analyzed at the appropriate frequency?	X				
	e method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup	- ^`				
	edures?	Х				
	e blank concentrations < MQL?	X				
	pratory control samples (LCS):	^				
	e all COCs included in the LCS?	ł		Х		
				X		
	each LCS taken through the entire analytical procedure, including prep and cleanup steps?	<u> </u>				
	e LCSs analyzed at the required frequency?			X		
	e LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?			Х		
	the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used			.,		
	Iculate the SDLs?			X		
	the LCSD RPD within QC limits?			Χ		
	ix spike (MS) and matrix spike duplicate (MSD) data					
	e the project/method specified analytes included in the MS and MSD?	<u> </u>		Х		
	e MS/MSD analyzed at the appropriate frequency?			Х		
	e MS (and MSD, if applicable) %Rs within the laboratory QC limits?			Х		
	e MS/MSD RPDs within laboratory QC limits?			Χ		
	ytical duplicate data					
	e appropriate analytical duplicates analyzed for each matrix?			Χ		
	e analytical duplicates analyzed at the appropriate frequency?			Χ		
	e RPDs or relative standard deviations within the laboratory QC limits?			Χ		
	od quantitation limits (MQLs):					
Are th	he MQLs for each method analyte included in the laboratory data package?	Χ				
Do the	ne MQLs correspond to the concentration of the lowest non-zero calibration standard?	Х				
Are u	nadjusted MQLs and DCSs included in the laboratory data package?	Χ				
10 OI Other	r problems/anomalies					
Are a	all known problems/anomalies/special conditions noted in this LRC and ER?	Х				
	applicable and available technology used to lower the SDL to minimize the matrix interference effects on the					
	ole results?	Х				
	e laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and					
	ods associated with this laboratory data package?	X				
	s identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required repo		tomo			

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
 identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- $2. \quad O = organic \ analyses; \ I = inorganic \ analyses \ (and \ general \ chemistry, \ when \ applicable);$
- 3. NA = Not applicable;
- 4. NR = Not reviewed;
- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/27/2014
Project Name:	Exide Recycling Center	Laboratory Job Number:	600-85318-2
Reviewer Name:	Cathy Linton		

# ¹ /	Description	Yes	No	NA ³	NR^4	ER#
1 C	Initial calibration (ICAL)					
	Were response factors and/or relative response factors for each analyte within QC limits?	Х				
	Were percent RSDs or correlation coefficient criteria met?	Х				
	Was the number of standards recommended in the method used for all analytes?	Х				
	Were all points generated between the lowest and highest standard used to calculate the curve?	Х				
	Are ICAL data available for all instruments used?	Х				
	Has the initial calibration curve been verified using an appropriate second source standard?	X				
	0 11 1					
2 C	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
	Was the CCV analyzed at the method-required frequency?	Х				
	Were percent differences for each analyte within the method-required QC limits?	X				
	Was the ICAL curve verified for each analyte?	X				
	Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	Х				
3 C	Mass spectral tuning					
	Was the appropriate compound for the method used for tuning?			Х		
	Were ion abundance data within the method-required QC limits?			Х		
4 C	Internal standards (IS)					
	Were IS area counts and retention times within the method-required QC limits?			Х		
55 C	Raw data (NELAC Section 5.5.10)					
	Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	Х				
	Were data associated with manual integrations flagged on the raw data?	Х				
6 C						
	Did dual column confirmation results meet the method-required QC?			Х		
7 C						
,,	If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			Х		
88	Interference Check Sample (ICS) results					
	Were percent recoveries within method QC limits?	Х				
39	Serial dilutions, post digestion spikes, and method of standard additions					
<u>, </u>	Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			Х		
10 C	Method detection limit (MDL) studies					
, i o c	Was a MDL study performed for each reported analyte?	Х				
	Is the MDL either adjusted or supported by the analysis of DCSs?	X				
211	Proficiency test reports	^				
,,,,	Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
12	Standards documentation	^				
712	Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	Х				
13 0	Compound/analyte identification procedures	^				
,10	Are the procedures for compound/analyte identification documented?	X				
314 IC	Demonstration of analyst competency (DOC)	^				
, 1 - C	Was DOC conducted consistent with NELAC Chapter 5?	Х				
	Is documentation of the analyst's competency up-to-date and on file?	X	-		-	
315 C	, , , ,	^	-		-	
,13	verification/validation documentation for methods (NELAC Chapter 3)					
	Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
216 10	Are all the methods used to generate the data documented, verified, and validated, where applicable? Laboratory standard operating procedures (SOPs)	^	-			
10	Are laboratory SOPs current and on file for each method performed?	X	-			
4	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-require		toma			
1			tems			
_	identified by the letter "S" should be retained and made available upon request for the appropriate retention periods and personal analysis and the second state of th	iod.				
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3						
4	NR = Not reviewed;					

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

6/8/2015

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	2/27/2014
Project Name:	Exide Recycling Center	Laboratory Job Number:	600-85318-2
Reviewer Name:	Cathy Upton		

ER # ¹	Description
R01A	The following sample(s) was listed on the Chain of Custody (COC); however, no sample(s) was received: . MW-27C(0-2) AND 2013-BSA-2A-(0-2) WERE NOT RECEIVED. The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): EXTRA SAMPLES: 2013-AD-03-(0-0.5): 1-4oz jar 2013-AD-03-(0.5-2): 1-4oz jar 2013-AD-03-(2-4): 1-4oz jar JX: 2- 4oz jars 2- 2oz jars
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items
	identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3.	NA = Not applicable;
4.	NR = Not reviewed;
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Detection Check Standard

Matrix: Soil 6010B Method: Preparation: 3050 Date Analyzed: 12/30/2013 Date Prepared: 12/27/2013 Instrument: Thermo 6500 123949, 123775p TALS Batches:

Prep/Reagent Factor = 50 Units: mg/kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.299654	0.5	0.36	25
Antimony	0.231553	0.45	0.5	2.5
Arsenic	0.217923	0.5	0.53	1
Barium	0.011322	0.03	0.04	1
Beryllium	0.014513	0.02	0.015	0.25
Boron	0.385535	0.6	0.56	20
Cadmium	0.025642	0.05	0.05	0.25
Calcium	0.86399	1.5	2.185	100
Chromium	0.050606	0.1	0.135	0.5
Cobalt	0.067622	0.1	0.09	0.5
Copper	0.173703	0.5	0.64	0.5
Iron	2.534007	4	3.76	20
Lead	0.104832	0.2	0.215	0.5
Selenium	0.258884	0.5	0.465	2
Manganese	0.038111	0.05	0.085	1.5
Molybdenum	0.136448	0.35	0.38	0.5
Nickel	0.116599	0.15	0.2	1
Silver	0.118848	0.2	0.15	0.5
Sodium	0.885548	2.4	3.135	100
Thallium	0.276988	0.7	0.73	1.5
Tin	0.08729	0.15	0.19	1
Titanium	0.014529	0.03	0.01	0.5
Vanadium	0.079068	0.15	0.125	0.5
Zinc	0.108432	0.2	0.305	1.5

Case Narrative

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-2

Job ID: 600-85318-2

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-85318-2

Comments

The report was revised on 06/08/15 to include Arsenic in sample 25, replacing the final report generated on 02/27/14.

Receipt

The samples were received on 1/10/2014 10:31 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.0° C and 3.9° C.

Except:

The following sample(s) was listed on the Chain of Custody (COC); however, no sample(s) was received: . MW-27C(0-2) AND 2013-BSA-2A-(0-2) WERE NOT RECEIVED.

 $The following \ sample(s) \ was \ submitted \ for \ analysis; \ however, \ it \ was \ not \ listed \ on \ the \ Chain-of-Custody \ (COC):$

EXTRA SAMPLES:

2013-AD-03-(0-0.5): 1-4oz jar 2013-AD-03-(0.5-2): 1-4oz jar 2013-AD-03-(2-4): 1-4oz jar

JX:

2- 4oz jars

2- 2oz jars

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Method Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-2

Lab Sample ID	Client Sample ID	Matrix	Collected Received
600-85318-5	2013-MB-3 (1.25-2)	Solid	01/08/14 12:22 01/10/14 10:31
600-85318-9	2013-MB-5 (14-16)	Solid	01/08/14 13:45 01/10/14 10:31
600-85318-15	MW-27D (2-4)	Solid	01/08/14 15:50 01/10/14 10:31
600-85318-25	MW-27B (2-4)	Solid	01/09/14 09:00 01/10/14 10:31
600-85318-27	MW-27A (2-4)	Solid	01/09/14 09:30 01/10/14 10:31
600-85318-28	2013-NDA-1A(2-4)	Solid	01/09/14 10:15 01/10/14 10:31

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TestAmerica Job ID: 600-85318-2

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/08/14 12:22

Lead

Client Sample ID: 2013-MB-3 (1.25-2)

Lab Sample ID: 600-85318-5

© 02/19/14 14:02 02/20/14 11:36

Matrix: Solid

Date Received: 01/10/14 10:31								Percent Solid	ls: 76.9
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
			0.000	0.0000		74	00/00/44 47 00	00/04/44 44 00	

Cadmium	0.489	0.322	0.0330 mg/Kg	₽	02/20/14 17:00	02/21/14 14:03	1
Lead	157	0.644	0.135 mg/Kg	₩	02/20/14 17:00	02/21/14 14:03	1
General Chemistry							

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23	H	1.0	1.0	%			02/25/14 13:53	1
Percent Solids	77	H	1.0	1.0	%			02/25/14 13:53	1

Client Sample ID: 2013-MB-5 (14-16) Lab Sample ID: 600-85318-9

Date Collected: 01/08/14 13:45 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 78.9

ı	Method: 6010B - Metals (ICP)									
F	nalyte	Result Qua	alifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
(admium	0.162 J		0.311	0.0319	mg/Kg		02/19/14 14:02	02/20/14 11:34	1
L	ead	13.3		0.621	0.130	mg/Kg	₩	02/19/14 14:02	02/20/14 11:34	1

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21	H	1.0	1.0	%			02/19/14 13:24	1
Percent Solids	79	Н	1.0	1.0	%			02/19/14 13:24	1

Lab Sample ID: 600-85318-15 Client Sample ID: MW-27D (2-4) Date Collected: 01/08/14 15:50 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 77.5

Method: 6010B - Metals (ICP) Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac © 02/19/14 14:02 02/20/14 11:36 Cadmium 0.296 0.0303 mg/Kg

0.592

0.124 mg/Kg

3.51

1530

_									
General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22	Н	1.0	1.0	%			02/19/14 13:24	1
Percent Solids	78	H	1.0	1.0	%			02/19/14 13:24	1

Client Sample ID: MW-27B (2-4) Lab Sample ID: 600-85318-25

Date Collected: 01/09/14 09:00 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 82.3

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11.9	1.16	0.252	mg/Kg	<u> </u>	02/19/14 14:02	02/20/14 11:39	1
Cadmium	0.480	0.289	0.0297	mg/Kg	₽	02/19/14 14:02	02/20/14 11:39	1
Lead	27.6	0.578	0.121	mg/Kg	≎	02/19/14 14:02	02/20/14 11:39	1

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18	Н	1.0	1.0	%			02/19/14 13:24	1
Percent Solids	82	H	1.0	1.0	%			02/19/14 13:24	1

TestAmerica Houston

Client Sample Results

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: MW-27A (2-4)

TestAmerica Job ID: 600-85318-2

Lab Sample ID: 600-85318-27

Matrix: Solid

Percent Solids: 81.6

Date Collected: 01/09/14 09:30	
Date Received: 01/10/14 10:31	P

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.547	0.297	0.0305	mg/Kg	<u>₩</u>	02/20/14 17:00	02/21/14 14:05	1
Lead	51.9	0.595	0.125	mg/Kg	₩	02/20/14 17:00	02/21/14 14:05	1
General Chemistry								

General Chemistry Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18	H	1.0	1.0	%			02/19/14 13:24	1
Percent Solids	82	H	1.0	1.0	%			02/19/14 13:24	1

Client Sample ID: 2013-NDA-1A(2-4)

Lab Sample ID: 600-85318-28

Date Collected: 01/09/14 10:15

Date Received: 01/10/14 10:31

Matrix: Solid
Percent Solids: 81.6

Method: 6010B - Metals (ICP) Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	4.32	0.303	0.0311	mg/Kg	<u> </u>	02/19/14 14:02	02/20/14 10:21	1
Lead	946	0.607	0.127	mg/Kg	☼	02/19/14 14:02	02/20/14 10:21	1
General Chemistry	Result Qualifier	MQL (Adi)	SDL	Unit	D	Prepared	Analyzed	Dil Fac

General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18	H	1.0	1.0	%			02/20/14 13:42	1
Percent Solids	82	H	1.0	1.0	%			02/20/14 13:42	1

Definitions/Glossary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-2

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
11	Analyte was not detected at or above the SDI

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)

PQL	Practical Quantitation Limit
00	O Pf - O f I

QC	Quality Control
RER	Relative error ratio

	Reporting Limit or Requested Limit (Radiochemistry)
RI	Reporting Limit of Reguested Limit (Radiochemistry)

RPD	Relative Percent Difference.	a measure of the relative diffe	erence hetween two noints
RED	NEIGHIVE FEILEHL DIHEIEHLE,	a measure or the relative unit	SICILICE DELWEELL LWO DOILIE

TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TestAmerica Houston

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6/8/2015

TestAmerica Job ID: 600-85318-2

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-127709/1-A

Lab Sample ID: LCSSRM 600-127709/2-A

Matrix: Solid Analysis Batch: 127767

Analysis Batch: 127767

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 127709

	IVID	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.218	U	1.00	0.218	mg/Kg		02/19/14 14:02	02/20/14 10:09	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		02/19/14 14:02	02/20/14 10:09	1
Lead	0.105	U	0.500	0.105	mg/Kg		02/19/14 14:02	02/20/14 10:09	1

MD MD

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 127709 ICSSDM ICSSDM

	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	99.6	100.5		mg/Kg		100.9	80.8 - 119.	
Cadmium	182	196.5		mg/Kg		108.0	5 81.9 - 118. 1	
Lead	115	116.8		mg/Kg		101.6	81.8 - 119. 1	
Selenium	150	151.9		mg/Kg		101.3	77.3 - 122. 7	

Lab Sample ID: MB 600-127810/1-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 127873

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 127810

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.218	U	1.00	0.218	mg/Kg		02/20/14 17:00	02/21/14 13:27	1
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		02/20/14 17:00	02/21/14 13:27	1
Lead	0.105	U	0.500	0.105	mg/Kg		02/20/14 17:00	02/21/14 13:27	1

Lab Sample ID: LCSSRM 600-127810/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 127873 Prep Batch: 127810 Spike LCSSRM LCSSRM %Rec. Added Analyte Result Qualifier Unit D %Rec Limits Arsenic 99.6 99.77 mg/Kg 100.2 80.8 - 119. 5 Cadmium 182 188.2 mg/Kg 103.4 81.9 - 118.

Lead 116.7 115 mg/Kg 101.5 81.8 - 119. 101.8 77.3 - 122. Selenium 150 152.7 mg/Kg 7

TestAmerica Houston

Unadjusted Detection Limits

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-2

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method	
Arsenic	1.00	0.218	mg/Kg	6010B	
Cadmium	0.250	0.0256	mg/Kg	6010B	
Lead	0.500	0.105	mg/Kg	6010B	

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

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QC Association Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-2

Metals

Prep Batch: 127709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-9	2013-MB-5 (14-16)	Total/NA	Solid	3050B	
600-85318-15	MW-27D (2-4)	Total/NA	Solid	3050B	
600-85318-25	MW-27B (2-4)	Total/NA	Solid	3050B	
600-85318-28	2013-NDA-1A(2-4)	Total/NA	Solid	3050B	
LCSSRM 600-127709/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-127709/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 127767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-9	2013-MB-5 (14-16)	Total/NA	Solid	6010B	127709
600-85318-15	MW-27D (2-4)	Total/NA	Solid	6010B	127709
600-85318-25	MW-27B (2-4)	Total/NA	Solid	6010B	127709
600-85318-28	2013-NDA-1A(2-4)	Total/NA	Solid	6010B	127709
LCSSRM 600-127709/2-A	Lab Control Sample	Total/NA	Solid	6010B	127709
MB 600-127709/1-A	Method Blank	Total/NA	Solid	6010B	127709

Prep Batch: 127810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-5	2013-MB-3 (1.25-2)	Total/NA	Solid	3050B	
600-85318-27	MW-27A (2-4)	Total/NA	Solid	3050B	
LCSSRM 600-127810/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-127810/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 127873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-5	2013-MB-3 (1.25-2)	Total/NA	Solid	6010B	127810
600-85318-27	MW-27A (2-4)	Total/NA	Solid	6010B	127810
LCSSRM 600-127810/2-A	Lab Control Sample	Total/NA	Solid	6010B	127810
MB 600-127810/1-A	Method Blank	Total/NA	Solid	6010B	127810

General Chemistry

Analysis Batch: 127707

Lab Sample ID 600-85318-9	Client Sample ID 2013-MB-5 (14-16)	Prep Type Total/NA	Matrix Solid	Method Moisture	Prep Batch
600-85318-15	MW-27D (2-4)	Total/NA	Solid	Moisture	
600-85318-25	MW-27B (2-4)	Total/NA	Solid	Moisture	
600-85318-27	MW-27A (2-4)	Total/NA	Solid	Moisture	

Analysis Batch: 127793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-28	2013-NDA-1A(2-4)	Total/NA	Solid	Moisture	

Analysis Batch: 128110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-85318-5	2013-MB-3 (1.25-2)	Total/NA	Solid	Moisture	

Page 16 of 24

TestAmerica Job ID: 600-85318-2

Lab Sample ID: 600-85318-15

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Client Sample ID: 2013-MB-3 (1.25-2) Lab Sample ID: 600-85318-5

Date Collected: 01/08/14 12:22 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 76.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	50 mL	127810	02/20/14 17:00	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.01 g	50 mL	127873	02/21/14 14:03	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			128110	02/25/14 13:53	AYS	TAL HOU

Client Sample ID: 2013-MB-5 (14-16) Lab Sample ID: 600-85318-9

Date Collected: 01/08/14 13:45 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 78.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.02 g	50 mL	127709	02/19/14 14:02	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.02 g	50 mL	127767	02/20/14 11:34	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			127707	02/19/14 13:24	AYS	TAL HOU

Client Sample ID: MW-27D (2-4)

Date Collected: 01/08/14 15:50 **Matrix: Solid**

Date Received: 01/10/14 10:31 Percent Solids: 77.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.09 g	50 mL	127709	02/19/14 14:02	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.09 g	50 mL	127767	02/20/14 11:36	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			127707	02/19/14 13:24	AYS	TAL HOU

Client Sample ID: MW-27B (2-4) Lab Sample ID: 600-85318-25

Date Collected: 01/09/14 09:00 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 82.3

	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	50 mL	127709	02/19/14 14:02	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.05 g	50 mL	127767	02/20/14 11:39	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			127707	02/19/14 13:24	AYS	TAL HOU

Client Sample ID: MW-27A (2-4) Lab Sample ID: 600-85318-27

Date Collected: 01/09/14 09:30 **Matrix: Solid** Date Received: 01/10/14 10:31 Percent Solids: 81.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	50 mL	127810	02/20/14 17:00	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.03 g	50 mL	127873	02/21/14 14:05	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			127707	02/19/14 13:24	AYS	TAL HOU

Page 17 of 24

Lab Chronicle

Client: Golder Associates Inc. Project/Site: Exide Recycling Center

Date Collected: 01/09/14 10:15

Date Received: 01/10/14 10:31

Client Sample ID: 2013-NDA-1A(2-4)

TestAmerica Job ID: 600-85318-2

Lab Sample ID: 600-85318-28

Matrix: Solid

Percent Solids: 81.6

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.01 g	50 mL	127709	02/19/14 14:02	NER	TAL HOU
Total/NA	Analysis	6010B		1	1.01 g	50 mL	127767	02/20/14 10:21	DCL	TAL HOU
Total/NA	Analysis	Moisture		1			127793	02/20/14 13:42	AYS	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Certification Summary

Client: Golder Associates Inc. Project/Site: Exide Recycling Center TestAmerica Job ID: 600-85318-2

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-15
Louisiana	NELAP	6	30643	06-30-15 *
Oklahoma	State Program	6	1309	08-31-15
Texas	NELAP	6	T104704223	10-31-15
USDA	Federal		P330-14-00192	06-06-17
Utah	NELAP	8	TX00083	11-30-15

^{*} Certification renewal pending - certification considered valid.

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L	of co			Pb.Se	fate			DD) Ta							SSOW#:			0	-FR-1610	EXIDE	Sille:
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	J - Di Water			· · · ·		eld for		mpou		STATE OF THE PERSON.					WO#			er.com	^{Email:} Christina_Higginbotham@golder.com	ina_Higgint	Email: Christi
	<u>a</u> .					TPH 10		nd List	et.	lo)			equested	Order R	Po#: Purchase Order Requested			870(Fax)) 281-821-6870(Fax)	Phone: 281-821-6868(Tel)	Phone: 281-8
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	Job#:		Requested		Analysis	An													s Inc.	Company: Solder Associates Inc.	Company: Golder /
<u> </u>	Page: Page					com	E-Mail: dean.joiner@testamericainc.com	tame	r@tes	t: Ljoine	E-Mail: dean.j		Phone: 817-808-8144	7-80	Phone: 81				otham	Client Contact Christina Higginbotham	Client Contact Christina Hi
	100	king No(s):	_		٤	1			an A	Joiner, Dean A	Lab PM: Joiner,	0	ONINGEL	CHRUS	Sampler:		 		ition	Client Information	Clien
/004 <i>E</i>					Š	Custod	Chain of	18 CF	600-85318	_	Chain	C					4 6	13) 690-562	6310 Rothway Section Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646	6310 Rothway Sees Houston, TX 77040 Phone (713) 690-444	6310 Rot Houston, Phone (7
	e.																	ž	TestAmerica Houston	tAmeric	Test

, ,	/	perature(s) °C and Other Remarks:		Cooler Tem					Custody Seals Intact: Custody Seal No.: ∆ Yes ∆ No
Company Company	Date/Tine:		i by	Received by	Company			Date/Time:	Relinguished by:
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ユーバハ Company	Date/Time	25		Regeive	Cognpany Cognpany	1815	かるた	Date/Time:	MAZIN HOHOLDEN
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		equirements:	tructions/QC Requirements	Special Instru					Deliverable Requested: I, II, III, IV, Other (specify)
retained longer than 1 month) Archive For Months	samples are Lab	may be assessed if san Disposal By Lab	osal (A fee To Client	Sample Disp		Radiological	i	Poison B Unknown	Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Po
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The Co					Solid	G	1520	01/08/14	2013-MB-4 (2-4)
HOLD					Solid .	G	1618	61/06/14	2015-MB4 (0,5-2)
	z	z	z	Z	Preservation Code:	Preserva	X		
Total Number Special Instructions/Note:	8082 PCB	9056_28D - Su 6010B - Cd,Pb 6010B - As,Cd Moisture	8270C_LL - (M TX_1005 - Loc TX_1006 - Loc	Perform MS/ 8260B - Targe 8270C_LL - (M	Matrix (W=water, S=solid, O=waste/oil, O=maste/oil, O=maste/oil, O=matrix O	Sample Type (C=comp, G=grab)	Sample	Sample Date	Sample Identification
of co			OD) PA	MSD (Comp	Samı		-	SSOW#	EXIDE - FOSCO
L-EDA			H List	Yes or ound L	olë (Ye			Project #: 60004831	Project Name: Exide Recycling Center, Frisco TX Project
J - DI Water				No) st	s.or. N			WO #:	Email: Christina_Higginbotham@golder.com
<u>a</u> :					lo)	ď	er Requeste	Po# Purchase Order Requested	Phone: 281-821-6868(Tel) 281-821-6870(Fax)
D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3									State, Zip: TX, 77073
			ults)		X. T	TRRP	_{(days):} 5 WD TRRP	TAT Requested (days):	City: Houston
ပ္ထ				10.13 10.45 10.45			sted:	Due Date Requested:	Address: 500 Century Plaza Drive Suite 190
1502086	ed	Analysis Requested							Company. Golder Associates Inc.
Page: Page 久			nericainc.com	E-Mail: dean.joiner@testame	E-Mail: dean.jo	448-	00	Phone: 87	Client Contact Christina Higginbotham
COC No: 600-25571-9015.1	Carrier Tracking No(s):	Cai		Lab PM: Joiner, Dean A	Lab PM: Joiner,	THEMNO	١. ١	Sampler: CHRS	Client Information
		ord	ody Record	f Cust	Chain of Custo				6310 Rothway Street Houston, TX 77040 Phone (713) 690-4444 Fax (713) 690-5646
·									TestAmerica Houston

No. Content Skin Irritant Poison B Unknown Rediciological Special Instructions/QC Requirements: Poison B Unknown Rediciological Special Instructions/QC Requirements:	10 5-NVA-1R (2-4)	BLANK - CALE	City	7	Client Information Client Contact Christina Higginbotham Christina Higginbotham Client Information Cli	Chain of Custody Record
Method of Shipment Date/Time:	X X X X X X X X X X X X X X X X X X X		Z			į

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Phoso 7743 200 4444 Ex. (714) 600 5646	Chain of Custoc	ıstody Record	No. of the second secon
Client Information	Sampler: CHAS TABINO Lab PM: Joiner, Dean A	Carrier Tracking No(s):	COC No: 600-25571-9015.1
Client Contact Christina Higginbotham		estamericainc.com	Page: 1
Company: Golder Associates Inc.		Analysis Requested	Job#:
Address: 500 Century Plaza Drive Suite 190	Due Date Requested:		8
	TAT Requested (days): 5 WD TRRP	lits)	B - NaOH N - None C - Zn Acetate O - AsNaO2
State, Zip: TX, 77073			
Phone: 281-821-6868(Tel) 281-821-6870(Fax)	Po# Purchase Order Requested		<u>a</u> :
Email: Christina_Higginbotham@golder.com	s or N No)	mpoul	J-Di Water V-MCAA
Project Name: Exide Recycling Center, Frisco TX Project	es or	H List	
	Samp) SD (Y	D) Tar D) PAI Metho Metho ate	Other:
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	Ž	Z	
D-13A (0-0.5)	61 09/14 1/04 G Solid	×,	
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2013-621-63 (1-2)	01/09/14/137 G Solid		HOLD
2013-C2L-03 (4-5)	61/81/14 1128 G Solid	\$ 250	HOLD
2013-134-24 (0-2)	01/1/11/120 G Solid	***************************************	
- AD-04 (0	0\[M(14) 1726 G Solid	X	= 1 1 1 1
.1	01/09/14 1327 G Solid		MOU
2013-10-10 (2-4)	01/09/14 1328 G Solid	20 mg	でで
PLUSE BUNK- aco	or [09] 0830 solid Y		•
	01 / R P / G Solid		
	G Solid		
Possible Hazard Identification Non-Hazard Flammable Skin Initant Paliverable Requested: I II III IV Other (energy)	Poison B ☐ Unknown ☐ Radiological Species	Sample Disposal (A fee may be assessed if samples are retained longer Return To Client Disposal By Lab Archive For Special Instructions/DC Requirements	orMonths
Empty Kit Relinquished by:	Date:	Method of Shipment	
Religious Back V	Date/Time: Company Reco	ceived by VICOMIAN Date Times 114	Company
Relinquished W. McCSLAC	1911 1700 Consent	Reveived by: Date/Time:	Company
. 1	Date/Time: Company Re	Received by:	Company
Custody Seals Intact Custody Seal No.: ∆ Yes ∆ No	Co	Cooler Temperazone(s) °C and other Remarks:	

Login Sample Receipt Checklist

Client: Golder Associates Inc. Job Number: 600-85318-2

Login Number: 85318 List Source: TestAmerica Houston

List Number: 1

Creator: Lopez, Sandro R

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.9/3.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 6mm (1/4").	True	
fultiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required

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At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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Asia + 852 2562 3658
Australasia + 61 3 8862 3500
Europe + 356 21 42 30 20
North America + 1 800 275 3281
South America + 55 21 3095 9500

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