



Revised AB2588 Health Risk Assessment

Prepared for:
Exide Technologies
Vernon, California

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List of Abbreviations/ Acronyms

AB2588	Air Toxics "Hot Spots" Information and Assessment Act
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
AMS	American Meteorological Society
ATIR	Air Toxics Inventory Report
BPIPPRIME	Building Profile Input Program PRIME
CARB	California Air Resources Board
CELA	Central Los Angeles
CPF	Cancer Potency Factors
DTSC	Department of Toxic Substances Control
ENVIRON	ENVIRON International Corporation
Exide	Exide Technologies
GIS	Geographic Information System
HARP	Hot Spots Analysis and Reporting Program
HEPA	High Efficiency Particulate Air
HI	Hazard Index
HIA	Acute Hazard Index
HIC	Chronic Hazard Index
HRA	Health Risk Assessment
NED	National Elevation Datasets
MEIR	Maximally Exposed Individual Resident
MEIW	Maximally Exposed Individual Worker
MICR	Maximum Individual Cancer Risk
OEHHA	Office of Environmental Health Hazard Assessment
PCB	Polychlorinated Biphenyls
PM	Particulate Matter
PM-30	Particulate Matter less than 30 microns in diameter
PMI	Point of Maximum Impact
PTS	PTS Laboratories
REL	Reference Exposure Level
RfD	Reference Dose
RMPS	Raw Material Preparation System
SCAQMD	South Coast Air Quality Management District
sL	Silt Loading
TAC	Toxic Air Contaminants

TEQ	Toxic Equivalent
TEF	Toxic Equivalency Factor
TSP	Total Suspendable Particles
URF	Unit Risk Factor
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
VKT	Vehicle Kilometers Traveled
WGS84	World Geodetic System 1984
WHO	World Health Organization
ZOI	Zone of Impact

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Executive Summary

In accordance with the California Air Toxics "Hot Spots" Act (AB2588), this report presents the human health risk assessment (HRA) for the Exide Technologies facility (referred to hereinafter as Exide or the facility), located at 2700 South Indiana Street, Vernon, California (South Coast Air Quality Management District [SCAQMD] Facility ID # 124838). ENVIRON International Corporation (ENVIRON) previously prepared a draft AB2588 HRA for Exide using the emission data from the source tests conducted in 2010; this draft report was submitted to SCAQMD on March 1, 2012 (since this report was started in 2011 and has been referred as 2011 report in various communications and presentations, hereinafter, it is referred as the "2011 Draft Report"). Per the review comments on the 2011 Draft Report by SCAQMD in its letter to the California Office of Environmental Health Hazard Assessment (OEHHA) dated July 13, 2012, ENVIRON prepared this revised report. ENVIRON also included the emission data from the source tests conducted for the Hard Lead Baghouse and Neptune Scrubber stacks in 2012 by using the averages of the 2010 and 2012 source test data per the instruction of SCAQMD.¹ ENVIRON prepared this HRA following the OEHHA Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment (OEHHA, 2003), the latest toxicity values published by OEHHA, the SCAQMD's Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act (SCAQMD, 2011), as well as the United States Environmental Protection Agency (USEPA) Guidelines on Air Quality Models (USEPA, 2005).

Exide operates a secondary lead smelting plant to recover lead from recycled automotive batteries. Incoming lead-containing used batteries and other materials are delivered to Exide by trucks and are charged directly to the facility's Raw Material Preparation System (RMPS) or temporarily stored for a short period of time in the battery storage areas. The RMPS is a mechanized system that separates the spent lead acid battery components and yields separate streams of waste acid, metallic lead, polypropylene, rubber and plastic separator fluff, and lead sulfate paste. The separated metal is then fed into the furnaces. The facility has two smelting furnaces: reverberatory and the blast furnaces. The reverberatory furnace is used primarily to smelt the metals and produce pure lead, whereas the blast furnace is used to separate the metals from the slag produced in the reverberatory furnace. Recovered metal and paste from the RMPS, emission control devices, and on-site waste water treatment are also fed back to the furnace for the recovery of lead. Lead produced in the smelting process is refined in kettles to produce hard or soft lead as the final products.

The facility-wide emissions for the emitted AB2588-listed substances are summarized in Table ES-1. Exposure pathways and target organs for the substances are also included in this table.

ENVIRON conducted the AB2588 HRA analysis in four steps:

- First step was to identify the contaminants of concern and sources of the contaminants, as well as to estimate the emissions from each source. This process is called "hazard identification."

¹Email authored by Thomas Liebel, SCAQMD, October 18, 2012

- The second step, called "exposure assessment," was to quantify the amount of contaminants that people are exposed to during a specific time period, as well as the total number of people exposed. ENVIRON used Breeze AERMOD Version 7.6 (EPA AERMOD Executable Version 12060) to perform the air dispersion modeling and to estimate the ground level air concentrations of the contaminants.
- The third step is called "dose-response assessment." Dose is the amount of a chemical that enters the human body (or reaches a target organ); response is the resulting health effect from the level of the dose. ENVIRON used the Hot Spots Analysis and Reporting Program (HARP) software (Version 1.4f) to perform the calculations for this step as well as for the last step. Exposure pathways evaluated in the HRA include inhalation, dermal absorption, soil ingestion, home grown produce, and mother's milk.
- The last step of the risk assessment process is called "risk characterization." Risk characterization ties together the above three processes to describe the type and magnitude of any increased health risks as a result of the exposure to the toxic air emissions from a facility.

Table ES-2 below summarizes the results of this HRA. The estimated incremental cancer risk for the maximally exposed individual resident (MEIR) is 2.2×10^{-5} (about 22 in a million), for the maximally exposed individual worker (MEIW) is 4.4×10^{-4} (about 440 in a million), and for the point of maximum impact (PMI) is 1.5×10^{-3} (about 1500 in a million). The maximally exposed sensitive receptor is San Antonio Elementary School, which is located approximately 3,000 meters (1.9 miles) southwest of the facility, and has an estimated cancer risk of 1.7×10^{-5} , or approximately 17 in one million, based on a 70-year exposure assumption. Arsenic is the primary contributor to the cancer risk. The locations of MEIR, MEIW, and PMI are illustrated on Figure ES-1 and the 70-year cancer risk of one in a million "zone of impacts" is shown on Figure ES-2.

The excess cancer burden for the total population within the zone of cancer risk at or greater than one in a million is 10.

The chronic hazard index (HIC) is 2.9 at the MEIR, is 177 at the MEIW, is 205 at the PMI, and does not account for any background concentrations. The highest HIC among the sensitive receptors is 2.2 at San Antonio Elementary School, and no other sensitive receptors have HICs greater than 1.0. Arsenic is the primary contributor to the highest HICs. Cardiovascular, central nervous, developmental, respiratory systems, and skin are the primary target organs.

The acute hazard index (HIA) at the MEIR is 0.2 and at the MEIW is 3.7. The highest HIA for the sensitive receptors is 0.07 at Volunteers of America-Salazar Park Head Start, a day care center. Arsenic is the primary contributor to the highest HIAs. Cardiovascular, central nervous, and developmental systems are the primary target organs.

The SCAQMD's public notification thresholds are as follows:

- $\geq 1 \times 10^{-5}$ maximum individual (lifetime) cancer risk (MICR),
- > 1.0 HIA, or
- > 1.0 HIC.

The SCAQMD Rule 1402 action risk levels for a risk reduction plan are as follows:

- Cancer risk (MICR) – 25 in one million, or
- Cancer burden – 0.5, or
- HIA – 3.0, or
- HIC – 3.0

SCAQMD Rule 1402 also establishes the risk reduction significant risk levels:

- MICR of 100 in one million (1.0×10^{-4}), or
- Total acute or HIC of five (5.0) for any target organ system at any receptor location

The results indicate that the cancer risk, the HIC, and the HIA at the MEIW and the cancer burden exceed the respective SCAQMD significant risk reduction thresholds as well as the publication notification thresholds. The cancer risk and the HIC at the MEIR exceed the respective SCAQMD public notification thresholds.

Table ES-1. Emission Rates by Substances

Chemical Name	CAS #	Max Hourly Emission Rate (lb/hr)	Max Hourly Emission Rate (g/s)	Annual Emission Rate (lb/yr)	Annual Emission Rate (g/s)	Multi-pathway Substance	Pathways			Acute Target Organs						Chronic Target Organs														
							Inhalation	Dermal	Soil ingestion	Home grown produce	Mother's milk	CV	CNS	IMMUN	GILV	REPRO	RESP	EYE	DEVEL	BLOOD	CV	CNS	KIDNEY	GILV	REPRO	RESP	SKIN	EYE	ENDO	DEVEL
1,1,1 -Trichloroethane	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X						X									X								
1,1,2,2-Tetrachloroethane	79345	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X																							
1,1,2-Trichloro-1,2,2-Trifluoroethane	76131	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X																							
1,1,2-Trichloroethane	79005	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X																							
1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X																							
1,1-Dichloroethene	75354	2.85E-04	3.59E-05	2.50E+00	3.59E-05		X																X							
1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X																							
1,2,4-Trimethylbenzene	95636	5.00E-03	6.30E-04	4.38E+01	6.30E-04		X																							
1,2-Dibromoethane	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X																	X						
1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X																							
1,2-Dichloroethane	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X																	X						
1,2-Dichloropropane	78875	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X																							
1,3-Butadiene	106990	3.69E-01	4.65E-02	3.23E+03	4.65E-02		X																		X					
1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X																							
1,4-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X																X	X	X	X	X			
1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X											X	X			X	X	X						
2-Butanone	78933	9.77E-03	1.23E-03	8.56E+01	1.23E-03		X											X	X											
2-Methylnaphthalene	91576	1.28E-02	1.61E-03	1.12E+02	1.61E-03		X																							
4-Methyl-2-Pentanone	108101	1.14E-03	1.44E-04	9.99E+00	1.44E-04		X																							
Acenaphthene	83329	5.91E-04	7.45E-05	5.18E+00	7.45E-05		X																							
Acenaphthylene	208968	9.52E-03	1.20E-03	8.34E+01	1.20E-03		X																							
Acetaldehyde	75070	4.15E-02	5.23E-03	3.64E+02	5.23E-03		X											X	X						X					
Acrolein	107028	3.37E-07	4.25E-08	2.96E-03	4.25E-08		X											X	X						X					

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							Inhalation	Dermal	Soil ingestion	Home grown produce	Mother's milk	CV	CNS	IMMUN	GILV	REPRO	RESP	EYE	DEVEL	BLOOD	CV	CNS	KIDNEY	GILV	REPRO	RESP	SKIN	EYE	ENDO	DEVEL
Aluminum	7429905	1.77E-01	2.22E-02	1.54E+03	2.21E-02		X																							
Ammonia	7664417	2.25E-03	2.83E-04	1.97E+01	2.83E-04			X										X	X							X				
Anthracene	120127	9.09E-04	1.15E-04	7.97E+00	1.15E-04			X																						
Antimony	7440360	9.96E-04	1.26E-04	7.56E+00	1.09E-04			X																						
Arsenic	7440382	4.98E-02	6.27E-03	4.36E+02	6.27E-03	X	X	X	X	X		X	X							X	X	X	X	X	X	X	X	X		
Barium	7440393	1.25E-03	1.58E-04	1.06E+01	1.53E-04		X																							
Benz(a)anthracene	56553	1.71E-05	2.15E-06	1.49E-01	2.15E-06	X	X	X	X	X																				
Benzene	71432	1.22E+00	1.54E-01	1.07E+04	1.54E-01			X									X	X		X	X	X					X	X		
Benzo(a)pyrene	50328	2.58E-07	3.25E-08	2.26E-03	3.25E-08	X	X	X	X	X																				
Benzo(b)fluoranthene	205992	3.62E-06	4.56E-07	3.17E-02	4.56E-07	X	X	X	X	X																				
Benzo(e)pyrene	192972	2.03E-06	2.56E-07	1.78E-02	2.56E-07		X																							
Benzo(ghi)perylene	191242	0.00E+00	0.00E+00	0.00E+00	0.00E+00			X																						
Benzo(k)fluoranthene	207089	1.37E-06	1.73E-07	1.20E-02	1.73E-07	X	X	X	X	X																				
Benzyl Chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00			X											X	X										
Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00		X	X	X	X	X															X				
Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00			X																						
Bromomethane	74839	6.10E-03	7.69E-04	5.34E+01	7.69E-04			X							X		X	X	X		X		X		X		X		X	
Cadmium	7440439	3.27E-04	4.12E-05	2.76E+00	3.98E-05	X	X	X	X	X															X		X			
Carbon Disulfide	75150	1.26E-01	1.59E-02	1.11E+03	1.59E-02			X						X			X		X		X		X		X		X			
Carbon Tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00			X						X		X	X		X		X		X		X		X		X	
Chlorobenzene	108907	5.55E-04	6.99E-05	4.86E+00	6.99E-05			X																	X	X	X			
Chloromethane	74873	1.37E-02	1.73E-03	1.20E+02	1.73E-03			X																						
Chloroethane	75003	1.19E-03	1.50E-04	1.04E+01	1.50E-04			X							X		X		X		X		X		X		X		X	
Chloroform	67663	4.10E-04	5.17E-05	3.59E+00	5.17E-05			X						X			X		X		X		X		X		X		X	

Chemical Name	CAS #	Max Hourly Emission Rate (lb/hr)	Max Hourly Emission Rate (g/s)	Annual Emission Rate (lb/yr)	Annual Emission Rate (g/s)	Multi-pathway Substance	Pathways			Acute Target Organs						Chronic Target Organs																			
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Chromium	7440473	7.22E-04	9.10E-05	6.16E+00	8.86E-05		X																												
Chromium VI	18540299	1.24E-04	1.56E-05	1.08E+00	1.56E-05	X	X	X	X	X															X			X							
Chrysene	218019	8.38E-05	1.06E-05	7.34E-01	1.06E-05	X	X	X	X	X																									
Cobalt	7440484	1.72E-04	2.17E-05	1.50E+00	2.15E-05		X																												
Copper	7440508	7.48E-04	9.43E-05	5.59E+00	8.04E-05			X												X															
Dibenz(a,h)anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X	X	X	X																									
Dichlorodifluoromethane	75718	8.87E-04	1.12E-04	7.77E+00	1.12E-04			X																											
Ethylbenzene	100414	9.75E-02	1.23E-02	8.54E+02	1.23E-02			X																	X	X			X	X					
Fluoranthene	206440	1.42E-03	1.79E-04	1.24E+01	1.79E-04			X																											
Fluorene	86737	3.05E-03	3.84E-04	2.67E+01	3.84E-04			X																											
Formaldehyde	50000	4.84E-02	6.10E-03	4.24E+02	6.10E-03			X												X						X									
Hexachloro-1,3-Butadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00			X																											
Hexane	110543	7.87E-07	9.92E-08	6.90E-03	9.92E-08			X																	X										
Indeno(1,2,3-cd)pyrene	193395	4.82E-07	6.07E-08	4.22E-03	6.07E-08	X	X	X	X	X	X																								
Lead	7439921	3.30E-02	4.15E-03	2.45E+02	3.52E-03	X	X	X	X	X	X																								
Manganese	7439965	4.72E-04	5.95E-05	3.78E+00	5.44E-05			X																	X										
Mercury	7439976	4.10E-04	5.17E-05	3.59E+00	5.17E-05	X	X	X	X	X	X				X					X					X	X				X					
Methylene Chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00			X								X								X	X										
Methyl-t-Butyl Ether (MTBE)	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00			X																	X	X			X						
Naphthalene	91203	1.14E-01	1.43E-02	9.97E+02	1.43E-02			X																			X				X				
Nickel	7440020	4.61E-04	5.81E-05	3.70E+00	5.33E-05	X	X	X	X	X	X				X										X				X	X					
Perylene	198550	0.00E+00	0.00E+00	0.00E+00	0.00E+00			X																											
Phenanthrene	85018	1.43E-02	1.80E-03	1.25E+02	1.80E-03			X																											
Phosphorus	7723140	2.24E-03	2.82E-04	1.89E+01	2.72E-04			X																											

Chemical Name	CAS #	Max Hourly Emission Rate (lb/hr)	Max Hourly Emission Rate (g/s)	Annual Emission Rate (lb/yr)	Annual Emission Rate (g/s)	Multi-pathway Substance	Pathways			Acute Target Organs						Chronic Target Organs														
							Inhalation	Dermal	Soil ingestion	Home grown produce	Mother's milk	CV	CNS	IMMUN	GILV	REPRO	RESP	EYE	DEVEL	BLOOD	CV	CNS	KIDNEY	GILV	REPRO	RESP	SKIN	EYE	ENDO	DEVEL
Pyrene	129000	4.63E-04	5.83E-05	4.06E+00	5.83E-05		X																							
Selenium	7782492	4.14E-05	5.21E-06	2.80E-01	4.03E-06			X														X	X		X					
Silver	7440224	3.22E-05	4.06E-06	2.77E-01	3.98E-06			X																						
Styrene	100425	1.03E+00	1.30E-01	9.07E+03	1.30E-01			X										X	X				X							
TEQ (Min) as 2,3,7,8-TCDD	1086	3.28E-09	4.13E-10	2.87E-05	4.13E-10	X	X	X	X	X	X													X	X	X	X	X		
Tetrachloroethene	127184	1.97E-03	2.48E-04	1.73E+01	2.48E-04			X							X			X	X				X	X						
Thallium	7440280	3.08E-07	3.87E-08	1.68E-03	2.42E-08			X																						
Toluene	108883	3.17E-01	3.99E-02	2.78E+03	3.99E-02			X						X			X	X	X	X		X			X			X		
Total PAHs (excl.Naphthalene)	1151	1.25E-08	1.57E-09	1.09E-04	1.57E-09	X	X	X	X	X																				
Total PCBs, as MonoCB	1336363	9.57E-04	1.21E-04	8.38E+00	1.21E-04	X	X	X	X	X	X																			
Trichloroethene	79016	1.41E-03	1.78E-04	1.24E+01	1.78E-04			X														X				X				
Trichlorofluoro methane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00			X																						
Vanadium	7440622	4.23E-06	5.33E-07	3.71E-02	5.33E-07			X										X	X											
Vinyl Acetate	108054	7.14E-03	9.00E-04	6.25E+01	9.00E-04			X																X						
Vinyl Chloride	75014	2.80E-04	3.53E-05	2.45E+00	3.53E-05			X						X				X	X											
Xylenes	1330207	8.29E-02	1.04E-02	7.26E+02	1.04E-02			X										X	X			X			X					
Zinc	7440666	2.79E-03	3.51E-04	2.22E+01	3.20E-04			X																						

Notes:

1. lb/hr = pounds per hour; lb/yr = pounds per year; g/s = grams per second
2. Per OEHHA Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment, 2003, all the Hot Spot substances should be evaluated for the inhalation pathway.

Table ES-2. Executive Summary of Health Impacts
(SCAQMD Health Risk Assessment Summary Form)

Company Name:	<u>Exide Technologies</u>
Facility Name:	<u>Exide Technologies</u>
Facility Address:	<u>2700 S Indiana St, Vernon, CA 90058</u>
Type of Business:	<u>Secondary Lead Smelter</u>
SCAQMD ID Number:	<u>#124838</u>

A. Cancer Risk

1. Inventory Reporting Year: 2010/2012
2. Maximum Cancer Risk to Receptors:
 - a. Offsite 1500 in a million Location (389833 m, 3763541 m)
 - b. Residence 22 in a million Location (389900 m, 3764700 m)
 - c. Worker 440 in a million Location (389833 m, 3763541 m)
3. Substances Accounting for 90% of Cancer Risk: Arsenic, 1,3-butadiene, benzene, chromium VI
Processes Accounting for 90% of Cancer Risk: Hard Lead Refining System Baghouse
4. Residential Population Exposed to Specific Risk Levels:
 - a. 1 to <10 in a million 3,556,896
 - b. 10 to <100 in a million 111,422
 - c. 100 to <1000 in a million 0
 - d. >=1000 in a million 0
 - e. Total >= 1 in a million 3,668,318
5. Cancer Burden: 10 (for the residential population within the 1 in a million cancer contour zone)
Maximum Distance to Edge of 1×10^{-6} Cancer Risk Isopleth (meters): 35,000

B. Hazard Indices

1. Highest Chronic Hazard Indices:
 - a. Residential HI: 2.9; Location: 389900 m, 3764700 m;
Toxicological endpoint: Cardiovascular, Central Nervous, Developmental, Respiratory Systems, and Skin
 - b. Worker HI: 177; Location: 389833 m, 3763541 m;
Toxicological endpoint: Cardiovascular, Central Nervous, Developmental, Respiratory Systems, and Skin
2. Substances Accounting for 90% of Chronic Hazard Index: Arsenic
3. Maximum Acute Hazard Index:
PMI: 3.7; Location: 389817 m, 3763504 m; toxicological endpoint: Cardiovascular, Central Nervous, and Developmental Systems
4. Substances Accounting for 90% of Acute Hazard Index: Arsenic

Figure ES-1. Locations of MEIR, MEIW, and PMI for Cancer Risk

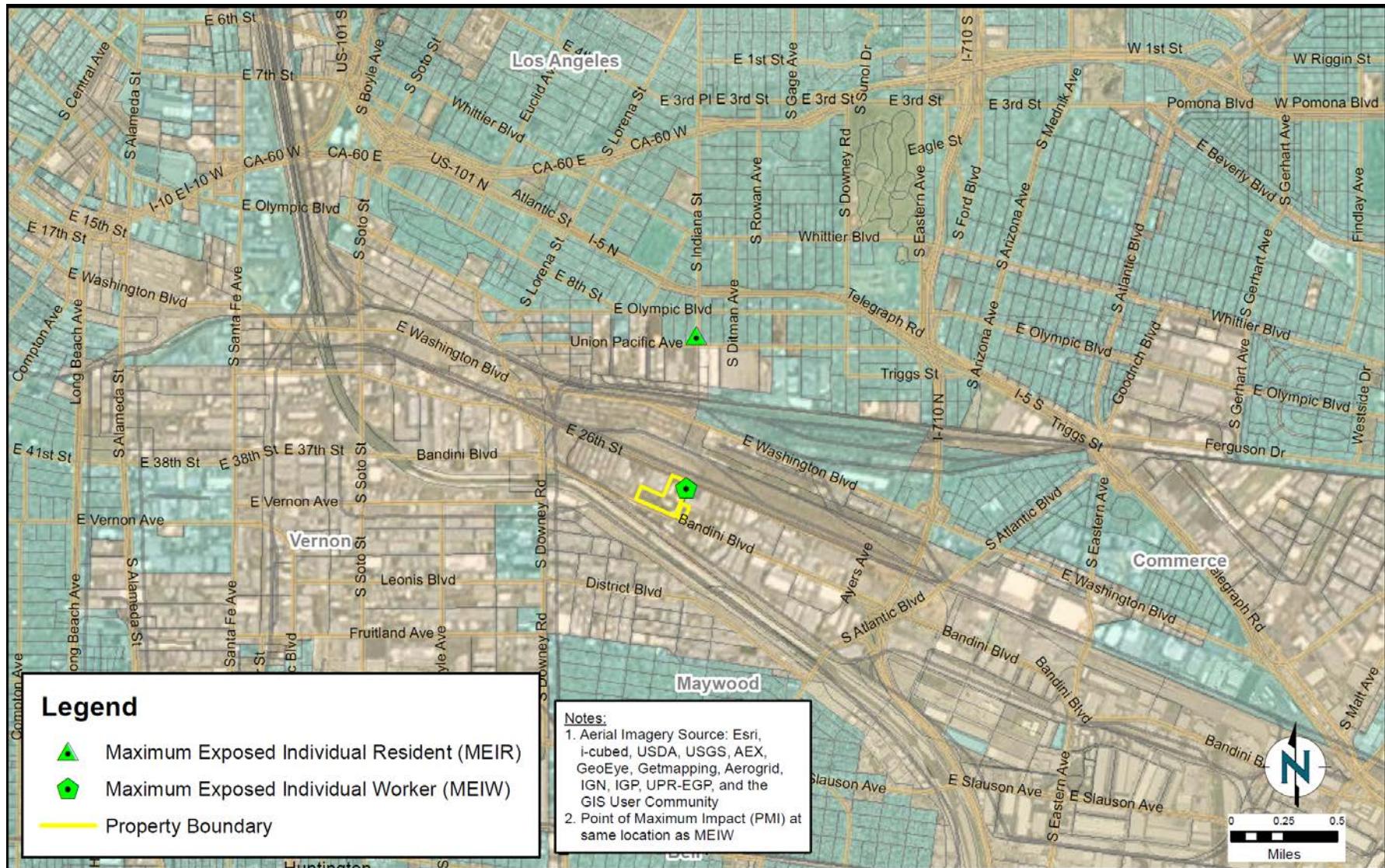
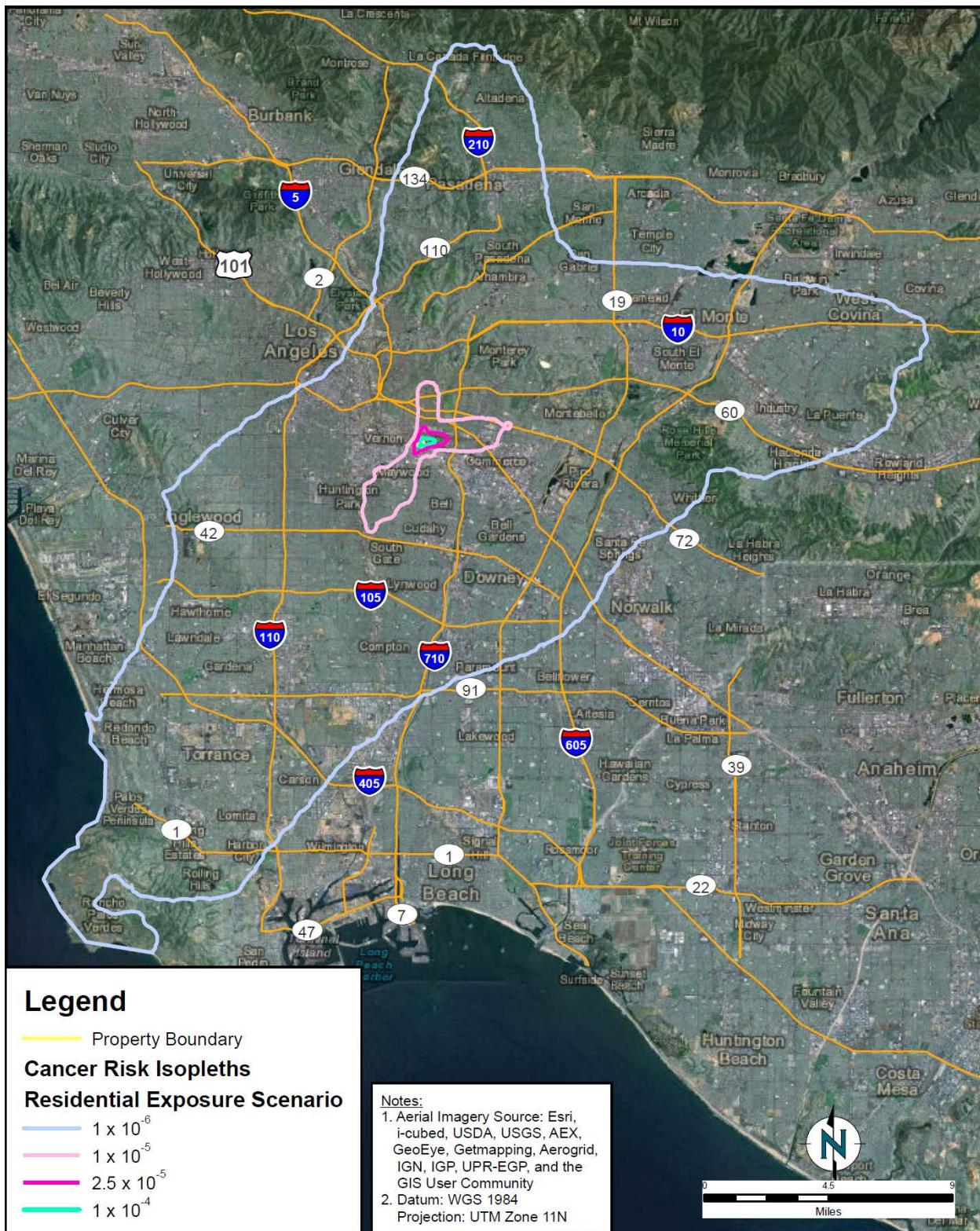


Figure ES-2. Cancer Risk Isopleths



1 Introduction

1.1 Background and Facility Location

ENVIRON prepared a draft report entitled AB2588 Health Risk Assessment, Exide Technologies, using the emission data from the source tests conducted in 2010, and submitted the draft report to SCAQMD on March 1, 2012 (2011 Draft Report). In 2012, Exide conducted AB2588 source tests for the Hard Lead Baghouse and Neptune Scrubber stacks again to further evaluate the emissions from the stacks. ENVIRON updated the 2011 Draft Report by using the averages of the 2010 and 2012 source test data for those two stacks per the instruction of SCAQMD.² In this revision, ENVIRON also incorporated the comments on the 2011 Draft Report by SCAQMD outlined in its letter to the California Office of Environmental Health Hazard Assessment (OEHHA) dated July 13, 2012. In addition, Exide made physical changes to the facility: an enclosure to capture the fugitive emissions from the Reverb Furnace Feed Room to the Smelter Building (the "baghouse row") and new stack heights of 120 feet for the MAC baghouse, dryer baghouse, and north and south Torit baghouses. This HRA used the new building configuration and stack heights in the air dispersion model. Other minor revisions include adding two natural gas water heaters and a roadway segment near the Indiana Street entrance to model the entrained fugitive emissions from trucks going through that entrance.

The HRA report has been prepared in accordance with OEHHA Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment (OEHHA, 2003), the SCAQMD's Supplemental Guidelines (SCAQMD, 2011), as well as the relevant guidelines from the California Air Resources Board (California Air Resources Board [CARB], 2003).

The Exide facility (SCAQMD ID # 124838) is located at 2700 South Indiana Street, Vernon, California. Figure 1 shows the facility and its vicinity. The land use in the immediate vicinity (up to 1.5 kilometers [km] [0.9 mile] radius) of the facility is industrial and the topography around the facility is primarily flat. The facility's layout showing the locations of the various buildings and the stacks are presented on Figures 2a and 2b.

1.2 Health Risk Assessment Format and Definitions

Health risk assessments can be outlined as a four-step process that includes hazard identification, exposure assessment, dose-response assessment, and risk characterization.

The first step of the HRA process is to identify the contaminants of concern and sources of the contaminants, as well as to estimate the emissions from each source. This process is called "hazard identification."

The second step, known as "exposure assessment," is concerned with the quantity of a contaminant that people are exposed to during a specific time period, as well as the total number of people exposed. Once the identity and location of the source(s) are known, the amounts and the process of transporting the contaminants through the environment need to be identified. Computer models, such as the ones distributed by the United States Environmental Protection Agency (USEPA, 2003), use mathematical equations to simulate the movement and

²Email authored by Thomas Liebel, SCAQMD, October 18, 2012

dispersion of air contaminants. The models incorporate source parameters (such as emission rate and contaminant release height), meteorological data (such as wind speed and direction), and distances from the sources to the exposed population to estimate the downwind concentrations. Once the amount of exposure to each toxic air contaminant is identified, an assessment of the contaminant path into the human body is performed. For air emissions, breathing (inhalation) is usually the primary route by which a contaminant enters the body, but contaminants can also enter through eating (ingestion) or can be absorbed through the skin (dermal absorption). The route that a contaminant uses to enter the body is called a "pathway." The risk assessment model used to assess the health risks from Exide's air emissions is a multi-pathway model. In other words, the model accounts for all applicable exposure pathways, such as inhalation, ingestion of soil, ingestion of produce, and dermal absorption.

The third step of an HRA is called "dose-response assessment." Dose is the amount of a chemical that enters the human body (or reaches a targeted organ); response is the resulting health effect from the level of the dose. Epidemiologists, toxicologists, and other researchers conduct animal and human epidemiological studies to evaluate and establish the causal relationships between the various doses and the resulting health effects (responses) for a chemical. These causal relationships are quantified as the cancer potency (slope) factors (CPF) or unit risk factors (URF) for carcinogenic health effects and acute and chronic Reference Exposure Levels (REL) for non-carcinogenic health effects.

The last step of the risk assessment process is called "risk characterization." Risk characterization ties together the above three processes to describe the type and magnitude of any increased health risks as a result of the exposure to the toxic air emissions from a facility.

For the purpose of this AB2588 HRA, acute, chronic, and cancer health impacts are defined as follows:

- Acute risks are non-cancer adverse health impacts, commonly associated with exposures to relatively high concentrations of toxic air contaminants (TAC) over short periods of time, from minutes to hours. Acute exposure typically results in headaches, dizziness, nausea, eye/nose/throat irritation, and/or skin rash. Target organs for each TAC have been identified by OEHHA in its guidance document (OEHHA, 2003).
- Chronic risks are non-cancer adverse health impacts, commonly associated with exposures to relatively low concentrations of toxic air contaminants over long periods of time, as in several years. Typical symptoms of chronic exposure include persistent respiratory or digestive problems, chronic cough, chest pains, numbness or tingling, loss of smell or taste, etc. Each toxic chemical may affect the body through different mechanisms and the target organs to be analyzed in this HRA have been identified by OEHHA (OEHHA, 2003).
- Cancer is defined as the abnormal or irregular growth of cells or tissue. There are many triggers that may cause or increase the risk of cancer, including exposure to certain chemicals or TACs. The increased risk of cancer from exposure to a chemical means the additional risk of getting cancer from continuous exposure (70 years and 365 days per year) to potentially cancer-causing compounds. Cancer risk is usually expressed as a probability (e.g., ten excess chances of contracting cancer in one million exposed individuals).

In general, this AB2588 HRA provides conservative estimates of the probabilities for contracting adverse health effects due to the processes occurring at the Exide facility. A "conservative" estimate assumes that the worst-case exposure conditions exist so that the health effects are not underestimated.

1.3 Significance Criteria and Notification Levels

Under AB2588, the operator of a facility must provide notices to all exposed persons if the facility's health risk assessment indicates that there is a significant health risk associated with the air toxic emissions from the facility. The SCAQMD's public notification thresholds are as follows:

- $\geq 1 \times 10^{-5}$ maximum individual (lifetime) cancer risk (MICR),
- > 1.0 HIA, or
- > 1.0 HIC.

The operator is also required to implement risk reduction measures if the emissions from the facility cause an exceedance of any of the following Action Risk Levels in SCAQMD Rule 1402:

- MICR of twenty-five in one million (2.5×10^{-5}),
- Cancer burden of 0.5, or
- Total HIA or HIC of three (3.0) for any target organ system at any receptor location.

SCAQMD Rule 1402 also establishes the significant risk levels:

- MICR of 100 in one million (1.0×10^{-4}), or
- Total HIA or HIC of five (5.0) for any target organ system at any receptor location.

2 Hazard Identification

Hazard identification is the first step of an HRA process, which includes identification of the contaminants of concern and sources of the contaminants, as well as estimation of emissions from each source. For purposes of this HRA, the contaminants of concern are those listed in the AB2588 regulation. This section will describe the processes at the Exide facility, the various air emission sources, and the emission estimation methods.

2.1 Process Description

Exide Technologies operates a secondary lead smelting process to recover lead from recycled automotive batteries. The facility receives lead-acid batteries from off-site collection facilities and breaks them down in the RMPS using a hammer mill. The components are then drained of acid and separated into metallic lead, polypropylene, rubber and plastic fractions.

Emissions from this process are vented to a packed bed scrubber followed by a High Efficiency Particulate Air (HEPA) filter. Following the RMPS, the metallic portion is fed to the furnaces for smelting. This consists of two different streams, the Reverb Furnace to process lead acid and battery scrap, and the Cupola (Blast) Furnace to process lead slag and scrap. The emissions from Reverb Feed Hopper are controlled by the MAC Baghouse. The Reverb Feed Hopper feeds the natural gas-fired Rotary Kiln Dryer. The Kiln Dryer is used to drive off moisture and other contaminants prior to feeding the furnace. These emissions are vented to a baghouse with Teflon bags. The Kiln Dryer Baghouse is equipped with a triboelectric sensor to detect any leaks in the filter media. The scrap is then fed to the natural gas-fired Reverberatory Furnace. The lead is reduced in the furnace and slag is removed from the bottom to feed the Cupola Furnace, while the crude lead is refined further in the soft lead process. The soft lead refined in this process is typically 99.9% pure lead. Emissions from the Reverb Furnace are quenched before entering the Reverb Baghouse, which is followed by the Venturi and Neptune scrubbers. The crude lead removed from the Reverb Furnace is fed into three receiving kettles and then refined in four refining kettles. Emissions from this refining process are collected and controlled by the Soft Lead Baghouse. On the south side of the building, the slag from the Reverb Furnace is fed into the top of a coke and natural gas-fired Cupola Furnace. Lead removed from this process is further refined into hard lead, which typically contains tin and antimony to increase the materials' strength. Emissions from the Cupola Furnace are vented to a natural gas-fired afterburner, the Blast Baghouse, and then to the Venturi and Neptune Scrubbers. Fugitive emissions from the smelting process are collected from the smelting building, which is maintained under negative pressure and are vented to two sets of Torit cartridge filters. However, the combustion chambers for the burners from the refining kettles are vented through a separate exhaust stack. The refined lead from both processes are formed into ingots and shipped off site for use in other processes.

Exide has an extensive air pollution control system. The emission sources and the equipment that are vented to the air pollution control equipment are identified in Table 1. A process flow diagram showing the relationship between process equipment, control devices, and stacks is presented on Figure 3. In late 2011, Exide constructed an enclosure to capture the fugitive emissions from the baghouse row (i.e., between the Reverb Furnace Feed Room and the Smelter Building) and raised the height of four stacks (the MAC baghouse, dryer baghouse, and

north and south Torit baghouses) to 120 feet. This revision used the new building configuration and stack heights in the modeling.

2.2 Emission Estimates

The facility has nine stacks for the following nine emission control devices:

- RMPS MAPCO Scrubber,
- Material Handling Baghouse,
- Soft Lead Baghouse,
- Hard Lead Baghouse,
- Feed Dryer Baghouse,
- Neptune Scrubber Stack,
- North Cartridge Stack,
- South Cartridge Stack, and
- MAC Baghouse.

The facility also has two natural gas water heaters providing hot water for the administration building and the employee facility (employee shower), which were not included in the 2011 Draft HRA. The emissions from the two water heaters have been added to this revision to be comprehensive on the analysis.

Vehicles such as delivery trucks and forklifts/golf carts travel within the facility. Area sources are used to model the entrained dust emissions from vehicular movement on paved roadways inside the facility. Exide has designated truck routes inside the facility. Area sources were placed along the truck routes for modeling purposes. In this HRA, a new route segment was added near the Indiana Street entrance to account for the trucks entering through this entrance.

2.2.1 Emission Estimates for the Point Sources

Exide retained Almega Environmental (Almega) in 2010 to conduct source tests for the nine stacks outlined above. As previously described, in 2012, stack source tests were conducted again for the Hard Lead Baghouse and Neptune Scrubber stacks. SCAQMD reviewed and approved all the 2010 and 2012 AB2588 source test reports. Per SCAQMD's instruction, ENVIRON compiled the emission rates from the stacks using the averages of the source tests in 2010 and 2012 for the Hard Lead Baghouse and Neptune Scrubber stacks and the 2010 source test results for the other seven stacks. The SCAQMD approval letters are included in Appendix A. The emission results in the Almega source test reports were based on the reporting guidelines outlined in AB2588 Regulations. The source test reports describe how the guidelines were followed in reporting the results. The excerpt from the test report is included below:

A. Blank-Corrected Data

A.1 Blank correction is applied if the blank value was positive (not ND).

A.2 If the blank-corrected value is less than the detection limit, the data is flagged "ND_b" and the detection limit is reported.

B. Individual Test Runs

- B.1 If no fractions are ND or NDb, the data is reported as measured.*
- B.2 If all fractions are ND or NDb, the data is flagged “ND” and the maximum value equal to the sum of the fractions is reported.*
- B.3 If some but not all fractions are ND or NDb, the reported value is equal to the sum of the individual fractions where zero is substituted for ND or NDb fractions.*

C. Test Average Values

- C.1 If no test results are ND, the reported value is the average of all test results.*
- C.2 If all test results are ND or NDb, the data is flagged “ND” (or “NDb” if appropriate) and the reported value is the average of all test results. Then, subsequent data calculations (e.g. multiple-constituent averages) substitute zero for ND results.*
- C.3 If some but not all fractions are ND or NDb, the reported value is the average of all test results, where one-half the detection limit is substituted for ND or NDb results.*

The source test reports presented individual dioxins and furans, and total toxic equivalents (TEQ) (Min) as 2,3,7,8 – TCDD. ENVIRON used the TEQs in the analysis. The TEQs were calculated following the World Health Organization (WHO) 2005 Toxic Equivalency Factors (TEF) method. TEQ for each individual test run was calculated first. Then, using the AB2588 test average procedure, as listed above, Almega obtained the test average TEQ. The source test reports reported individual PCBs and total PCB (as MonoCB). The total PCB emissions are the simple sum of the individual PCB emissions. The WHO 2005 TEF was not applied. However, the reported total PCBs, which were used in the risk analysis, would result in a more conservative estimate of the risks as compared to the risks calculated using the WHO 2005 TEF method.

The emission rates for the stacks are presented in Table 2a and the summary source test reports, which were also submitted to SCAQMD, are included in Appendix A1.

The stack emissions of the two water heaters are summarized in Table 2c. ENVIRON used the emission factors in SCAQMD Annual Emission Reporting Supplemental Instructions³ to estimate the combustion emissions. Fuel usage of the water heater in the facility was based on the number of employees and water usage. Fuel usage of the water heater in the administration building was based on its energy guide label.

The facility operates on a 24/7 schedule. The emissions from the point sources occur continuously.

³ Reporting Procedures for AB2588 Facilities for Reporting their Quadrennial Air Toxics Emissions Inventory, SCAQMD, January, 2010

2.2.2 Emission Estimates for the Area Sources

The area sources are re-entrained roadway dust by vehicle movement in the Exide facility. Toxic metals emitted as particulate matter (PM) are the contaminants of concern in the dust. ENVIRON followed the “Road Dust Sampling and Analysis” approach in the HRA Protocol (ENVIRON, 2011), which summarized the methodologies in AP-42 (USEPA, 2011) for the road dust sampling, analyses, and emission estimation.

ENVIRON determined the sampling locations by consulting Exide and assigned the roadway segments for modeling purpose. Figure 2b indicates the sampling locations. ENVIRON conducted the sampling on September 11, 2011, sent the samples to PTS Laboratories, Inc (PTS) for silt loading analysis, and then the silt fractions were submitted to Test America for metal analyses. The laboratory reports are included in Appendices A2-a and A2-b.

ENVIRON used the USEPA AP-42 equation (USEPA, 2011) to calculate the entrained dust emissions from movement of vehicles on the paved roadways inside the facility. The AP-42 method uses an empirical equation to calculate the emission factor (in terms of pounds/vehicle mile traveled), which is then multiplied with the vehicle kilometers traveled (VKT) to calculate the paved road entrained dust emissions. Equation 1 below provides the empirical equation used by AP-42:

Where:

k= particle size multiplier

sL= silt loading

W=Mean Weight of the vehicle fleet

P = Number of precipitation days

N= Number of days in averaging period

ENVIRON used the "k" factor for PM-30 as a surrogate factor for total suspendable particles (TSP), obtained the information about vehicle weight from Exide, and assumed 40 days of precipitation. The silt loading factor (sL) was calculated based on the silt mass reported by PTS and the square footage of the vacuumed area. ENVIRON also obtained the vehicle travel schedule from Exide. In this revision, ENVIRON added two area sources next to the Indiana Street entrance to account for the entrained dust emissions caused by the trucks coming into the manufacturing area through this entrance. The emission rate calculation is presented in Appendix B, Tables B1 through B3. Note that ENVIRON didn't implement the temporal factors in this round of AERMOD modeling to reflect the zero emissions of the entrained dust during certain hours when there is no truck traffic on a particular roadway segment. The HARP software takes the one-hour maximum emissions to determine the acute hazard index and takes the annual average emissions to determine the chronic hazard index and cancer risk. Without using the temporal factors in the air dispersion model run, the one hour maximum and average emissions were applied to all hours of meteorological data.

Based on the emission factor calculated with Equation (1), mass fraction of metals in the silt reported by Test America, as well as the route length estimated with aerial photo, ENVIRON

calculated the emission rates of the metals for each road segment. The emission rates are presented in Table 2b.

For facility wide emissions, emission rates by substances are presented in Table 2d.

3 Exposure Assessment

Exposure assessment uses air dispersion modeling to establish the ambient air TAC concentrations surrounding the facility and evaluation of the potential exposure pathways.

ENVIRON used the most recent Breeze AERMOD version 7.6, which is based on the American Meteorological Society (AMS)/EPA Regulatory Model (AERMOD) version 12060. This is a newer version than the one that ENVIRON used in the 2011 Draft Report (Breeze AERMOD version 7.3 [EPA 11013 executable]).

3.1 Model Options

The following regulatory default options, based on USEAP guidelines (USEAP, 2005), were used to run the AERMOD model:

- Stack-tip downwash;
- Use calms processing routine;
- Use missing data processing routine; and
- Incorporate effect of elevated terrain.

All the point sources at the facility are located on various manufacturing buildings (refer to Figures 2a and 2b). The USEPA-approved Building Profile Input Program PRIME (BPIPPRIME) was used to simulate the building downwash, which is the effect of nearby structures on the flow of the plumes from their respective emission sources. Table 3 presents the dimensions of the buildings. The AERMOD model was run for the annual average and maximum one-hour options, as the cancer and chronic health effects are based on annual average concentrations and the acute health effects are based on maximum one-hour concentrations.

3.2 Source Parameters

The AERMOD algorithm processes source-specific parameters, including the emission rate, stack height, stack inside diameter, stack exit velocity, and stack gas temperature. Table 4a presents the source parameters used in the AERMOD model for the point sources. The entrained dust emissions from the paved roads in the facility were modeled as a series of contiguous area sources. A release height of 0.3 meters (m) was used for these sources. Table 4b presents the source parameters that were used for modeling entrained dust emissions. As per the SCAQMD guidance for AERMOD modeling (SCAQMD, 2012), all sources were classified as urban sources in AERMOD. A surface roughness of 1.00 was used to characterize the region as completely urban and a population of 9,862,049 for the Los Angeles County (as per SCAQMD guidance on AERMOD modeling) was used.

3.3 Description of Receptors

The following set of receptors was used for AERMOD modeling:

- **Fence line Receptors:** In accordance to the SCAQMD modeling guidance for AERMOD a receptor spacing of 20 meters was used to place the receptors along the facility fence line.

- **Cartesian Grid Network:** This grid of receptors consists of receptors spaced at 100 m intervals in the approximately 2 km x 2 km square around the facility, and receptors spaced at 1 km intervals in the outer approximately 60 km x 60 km square.
- **Industrial and Residential Receptors:** The facility is surrounded by industrial and commercial facilities. The nearest residential receptors are located more than 0.4 mile away in the northeast and south directions (See Figure 4). Industrial and residential receptors were identified on the Cartesian Grid Network. The MEIW and MEIR were located using the Cartesian grid network in combination with the fence line receptors.
- **Sensitive Receptors:** Sensitive receptors (k-12 schools, daycares, healthcare centers/hospitals, senior centers, and nursing/convalescent homes) were identified using discrete receptors within the 60 km x 60 km square around the facility. ENVIRON searched and compiled the sensitive receptors from various government agencies (including Medicare and California Community Care Licensing Division) and from Geographic Information System (GIS) databases available in the public domain. A total of 8,776 sensitive receptors were identified. To minimize the modeling efforts, the list of sensitive receptors was shortened by removing the sensitive receptors outside the 1 in a million cancer contour line. A total of 3,191 sensitive receptors were included in the analysis and illustrated on Figure 5. A list of these receptors and the facility names is provided in the included CD.
- **Census Block Receptors:** ENVIRON obtained the census tract geometrics and 2010 population data within the 60 km x 60 km square around the facility from the website of the United States Census Bureau and further determined the coordinates for the centroid points of the census tracts. To minimize the modeling efforts, ENVIRON included the 735 census tracts within the 1 in a million cancer contour line in the analysis, as illustrated in Figure 6.

Three separate runs were conducted for grid/boundary receptors, sensitive receptors, and census receptors.

3.4 Meteorological Data

Department of Toxic Substances Control (DTSC) in its comment letter dated February 1, 2011 recommended the use of meteorological data from the onsite meteorological station at Exide (DTSC, 2011). ENVIRON obtained two sets of onsite meteorological data (April 2007 – March 2008⁴, and 2010) from the facility. The onsite meteorological data contain wind speed and wind direction measurements. No other parameters were recorded. To be able to use the onsite data in AERMOD, additional parameters would need to be obtained from other data sources and a series of data processing would be required. On the other hand, SCAQMD has made AERMOD-ready meteorological data available using the data collected at its various meteorological stations.

ENVIRON has previously evaluated the various SCAQMD meteorological stations that are near the Exide facility and believes that the data collected at the Central Los Angeles station best represent the meteorological conditions at the facility for the following reasons:

- The Central Los Angeles (CELA) station is geographically located closest to the site.

⁴ The site did not have any wind data for the first quarter of 2007. Therefore, to have 12 calendar months of data, data for the first quarter of 2008 are included.

- The terrain around the Central Los Angeles station is similar to that of the Exide facility.
- There are no intervening terrain features between the CELA station and the Exide facility.

Following suggestions from Mr. Tom Chico of SCAQMD, ENVIRON compared the wind data collected at Exide and the SCAQMD CELA station for the possibility of using the SCAQMD AERMOD-ready data. The comparison indicates that the CELA windrose plots are similar to the Exide windrose plots. After reviewing the windroses, Mr. Chico agreed that the 2006 and 2007 AERMOD-ready meteorological data of the CELA station should be used for this AB2588 HRA. This report includes the results representing both meteorological data sets.

3.5 Terrain Data

The Exide facility and the receptors nearby are in a relatively flat terrain. However, as stated in Section 3.1.1 ENVIRON used the “elevated” terrain option while running AERMOD, which is the regulatory default. ENVIRON ran AERMAP to extract the surface elevations for the various modeling objects in the modeling domain. ENVIRON used the National Elevation Datasets (NED) currently available on the United States Geological Survey’s (USGS) website to extract the elevations for the various modeling objects.

3.6 Coordinate System

ENVIRON used the Universal Transverse Mercator (UTM) system of coordinates and the World Geodetic System 1984 (WGS84) spheroid as the datum for identifying the UTM coordinates of the various modeling objects (sources, buildings, receptors etc.). Note that, in the 2011 Draft Report, ENVIRON used Imagery by Esri as the base map. ENVIRON later noticed that Esri updates the base map periodically and, as a result, the coordinates for specific locations change from time to time. The coordinates in the current report are slightly different from those identified in the 2011 Draft Report.

4 Health Risk Assessment Modeling

4.1 The HARP Risk Analysis Module

SCAQMD requires that all AB2588 HRAs be prepared using the HARP model. The most recent version of HARP (version 1.4f) and HARP On-Ramp (version 1) was used to prepare this HRA. The health risk module of HARP incorporates the current OEHHA guidelines (OEHHA 2003), exposure factors, most recent toxicity values, and California Air Resources Board guidelines (CARB, 2003). The HARP On-Ramp was developed as an interim tool to allow the use of AERMOD output files with HARP.

As required by SCAQMD and as defined by OEHHA, Tier-1 type of risk evaluation is presented in the HRA report. Tier-1 is a standard point-estimate approach using the recommended point-estimates presented in the OEHHA guidelines. The results of the Tier-1 evaluation are useful in comparing risks among a large number of facilities and are used for regulatory purposes.

ENVIRON processed the AERMOD output files in HARP On-Ramp. The following two types of files were imported to HARP:

1. AERMOD input files (included in the CD)
2. AERMOD annual and 1-hour output files (included in the CD)

HARP On-Ramp processed the files and generated the following two types of files:

1. The source-receptor file, including identification of sources, modeled pollutants, receptor coordinates, and maximum one hour and annual emission rates (*.SRC) (included in the CD);
2. The X/Q summary file containing average and one-hour maximum X/Q values for every source-receptor combination (*.XOQ) (included in the CD).

Three separate runs were conducted for grid/boundary receptors, sensitive receptors, and census receptors.

ENVIRON also created a HARP transaction file, which was used to import data about the information for the facility, devices, processes and stacks, and the emission rates for TACs from the point and area sources to HARP (included in the CD).

The HARP risk analysis module utilized the above input files to compute the ambient ground level concentrations for annual and hourly averaging periods. Next, the model computed cancer risks, HIC, and HIA for each individual receptor. Health risk values by sources, by chemicals, or by pathways can also be generated through HARP.

4.2 Exposure Pathways

Exposure pathways are generally classified as primary pathways and secondary pathways. In addition to the inhalation pathway, non-inhalation primary and secondary exposure pathways should be evaluated for each facility. The primary non-inhalation pathways include dermal exposure, water ingestion, crop ingestion (direct deposition), and soil ingestion. The secondary non-inhalation pathways include ingestion of mother's milk, fish, dairy products, all types of meat and eggs, and crop ingestion (root uptake). All of these exposure pathways were

evaluated for applicability to the facility. The following pathways are included in this HRA for residential exposures (residential receptors and census tract centroid receptors):

- inhalation
- dermal absorption
- soil ingestion
- home grown produce
- mother's milk

The water ingestion pathway is not considered since the drinking water supply in the vicinity is not derived from local surface water. The exposure pathways of ingesting fish, dairy, animal, and agricultural product are negligible in the facility's zone of impact (ZOI).

The inhalation, dermal absorption, and soil ingestion pathways are included for the analysis for worker and sensitive receptors.

4.3 Carcinogenic Health Effects

Exposure to carcinogens is based on two scenarios – living and working at a location impacted by the facility's potential air toxics. Specifically, living scenario is applied to the analysis for residential receptors, sensitive receptors, and census tract centroid receptors; and working scenario is applied to the analysis for worker receptors.

Risk assessment modeling for the residential exposure assumes a continuous lifetime exposure for 70 years. The underlying assumption is that the residential population remains at one point for the entire 70 years. This is an extremely conservative assumption because many people change places of residence during their lifetime and do not remain at home all day and every day for a continuous 70-year period. The "Derived (Adjusted)" risk calculation method, as prescribed by CARB, was used for estimating cancer risks at residential receptors in this HRA. The "Derived (Adjusted)" risk calculations use the 80th percentile breathing rate rather than the high-end (i.e., 95th percentile) point estimate when the inhalation pathway is one of the dominant exposure pathways. A deposition velocity of 0.02 m/s was assumed for all the non-inhalation pathways when modeling for residential receptors since the facility has various particulate emission control devices. In addition, this HRA uses the urban default value of 5.2 percent for the fraction of homegrown fruits and vegetables consumed.

This HRA also presents the cancer risks for the 9-year and 30-year exposures. These exposures were chosen to coincide with USEPA's estimates of the median residence time (9 years), high-end estimates (30 years) of residence time, and a typical lifetime (70 years).

For the worker cancer risk calculations, off-site workers are assumed to be exposed only during the work hours and work days (i.e., 8 hours per day, 5 days per week, 49 weeks per year for 40 years). Since the facility operates 24 hours per day and seven days per week, no adjustment factor for the off-site worker exposure via inhalation pathway was incorporated in the HARP modeling. For the area sources, the emission occurs for less than 24 hours a day. Their contribution to the total emissions is a very small fraction, therefore, no specific adjustment was made to account for the shorter operation schedule of the area sources.

4.4 Non-Carcinogenic Health Effects

In the analyses of non-carcinogenic health effects, it is generally assumed that a threshold exists below which no adverse health impacts are expected. The concept of a threshold is based on studies that indicate the body can tolerate low levels of exposures. Non-carcinogenic health effects vary depending on the pollutant, the magnitude of exposure, and the duration of the exposure. These health effects can generally be classified into acute exposures (short-term exposures) and chronic exposures (long-term exposures).

The HARP risk analysis module computes the non-carcinogenic hazard indices using their respective toxicological endpoints (or target organs). The use of a hazard index (HI) approach is recommended in the OEHHA Guidelines for reviewing the cumulative non-carcinogenic health impacts of a mixture of compounds. The HI approach assumes that the health effects of chemical mixtures are additive. The HI is calculated by dividing the estimated exposure (ground level concentration) to a given substance by the REL for that substance or dividing the dose level by the reference dose (RfD) for that substance.

$$\text{Hazard Index} = \frac{\text{Exposure}_i}{\text{Health Standard}_i}$$

Where:

i = the number of pollutants being evaluated.

The HI evaluates certain groups of substances that exert their effect on the same target organs. Therefore, a HI is calculated for each target organ. The HIC is based on the annual average emissions and the modeled annual average concentration, whereas the HIAs is based on the maximum 1 hour emissions and the modeled maximum one hour concentration. The total HI for a toxicological endpoint is computed as the sum of the HIs of all relevant pollutants. To estimate HIC for residential/sensitive/census tract centroid receptors, derived (OEHHA) method was used in HARP. No need to specify a method for HIA in HAPR.

As required by SCAQMD, the HI calculations in this HRA did not include background concentrations.

5 Risk Characterization

Risk characterization, the last step of the health risk assessment process, ties together the previous three processes (i.e., hazard identification, exposure assessment, and toxicity data) to describe the type and magnitude of any increased health risks as a result of the exposure to the toxic air emissions from a facility.

5.1 Individual Cancer Risk Estimates

Maximum Exposed Individual Resident

Based on the HARP modeling, the MEIR is located at the UTM coordinates of (389900, 3764700), discrete receptor #1016 in the HARP file, which is about 1,000 meters (0.6 mile) north of the facility fence line, as shown on Figure 7a. The incremental cancer risk for the MEIR is 2.2×10^{-5} , or 22 in one million. This value is below the SCAQMD Rule 1402 action risk level of 25 in a million for risk reduction, but slightly above the SCAQMD public notification threshold of ten in a million.

The contributions of each pollutant to the cancer risk level at the MEIR are summarized in Table 5a. The contributions from each emission source to the MEIR are shown in Table 5b. About 81 percent of the risk is attributed to arsenic, with the balance attributed to 1,3-butadiene, benzene, chromium VI, Lead, PCBs, and other chemicals emitted from the facility.

Approximately 41 percent of the cancer risk is from the dermal pathway and 34 percent from inhalation pathway. The emissions from the Hard Lead Refining System Baghouse contributes about 86 percent of the cancer risk at the MEIR location, with the balance attributed to the RMPS Scrubber, the Feed Dryer Baghouse, the Soft Lead Baghouse, and other sources throughout the facility. The annual average concentrations at MEIR are presented in Appendix C, Table C1.

Maximum Exposed Individual Worker

The MEIW is located at UTM coordinates of (389833, 3763541), discrete receptor #59 in the HARP model, located along the facility fence line at the north end of the property (see Figure 7a). The results indicate that the estimated incremental cancer risk at the MEIW is 4.40×10^{-4} , or 440 in one million. This value is above the SCAQMD Rule 1402 significant risk level of 100 in a million for risk reduction.

The contributions from each pollutant to the cancer risk level at the MEIW are summarized in Table 6a, and the contributions from each emission source are shown in Table 6b. Fifty-six percent of the risk results from dermal pathway and 20 percent from the inhalation pathway. Ninety-one percent of the risk is attributed to arsenic, with the balance attributed to 1,3-butadiene, chromium VI, benzene, and other chemicals emitted from the facility. The emission from the Hard Lead Refining System Baghouse contributes 97 percent of the cancer risk at the MEIW location, with the balance attributed to the RMPS Scrubber, the Soft Lead Baghouse, the Feed Dryer Baghouse, and other sources throughout the facility. The annual average concentrations at MEIW are presented in Appendix C, Table C2.

Point of Maximum Impact

As required by the SCAQMD guidelines, the HARP output was also evaluated to locate the PMI. The PMI shares the same location as MEIW (see Figure 7a). The contribution of each pollutant to the cancer risk level at the PMI is summarized in Table 7a, and the contribution of each

emission source is shown in Table 7b. The results indicate that the estimated incremental cancer risk for the PMI is 1500 in one million (or 1.46×10^{-3}). This risk is based on a 70-year residential exposure scenario. The PMI is located on the fence line and no resident is expected to be living there. Therefore, it is not applicable to compare this cancer risk at the PMI with the SCAQMD regulatory thresholds outlined in the report.

Forty-four percent of the risk results from the dermal pathway. The second highest pathway is inhalation (30 percent). Eighty-seven percent of the risk is attributed to arsenic, followed by 1,3-butadiene, hexavalent chromium, and benzene. The emissions from the Hard Lead Refining System Baghouse contribute 95 percent of the cancer risk at the PMI, with the balance attributed to the RMPS Scrubber, the Soft Lead Baghouse, the Feed Dryer Baghouse, the Neptune Scrubber, and other sources throughout the facility.

Sensitive Receptors

A total of 2129 sensitive receptors were evaluated in this HRA. Seventy years of residential exposure was assumed in the calculation of the cancer risks for the sensitive receptors. Fifty sensitive receptors with the highest estimated incremental cancer risks are summarized in Table 8. The entire list of evaluated sensitive receptors with the estimated cancer risks, HICs, and HIAs are included in the CD. The sensitive receptor with the highest incremental cancer risk is San Antonio Elementary School, which is located approximately 3000 meters (1.9 miles) southwest of the facility, and has an estimated cancer risk of 1.7×10^{-5} , or 17 in one million. This risk value is below the threshold of SCAQMD public notification. The annual average and maximum hourly concentrations for all sensitive receptors are included in the CD.

5.2 Population Cancer Burden

Population cancer burdens were calculated by multiplying the estimated cancer risk at each census tract centroid by the residential population in that census block. As mentioned, a total of 735 census tract centroids were included in the analysis. The HARP report presenting the census tract cancer burden and cumulative cancer burden data is included in the CD. The total cancer burden is 10, which exceeds the SCAQMD Rule 1402 action risk level of 0.5.

5.3 Cancer Risk Isopleth

SCAQMD defines the one in a million (i.e., 1.0×10^{-6} or 1.0E-06) cancer risk isopleth as the ZOI (see Figure 8). Also shown on the figure are the 2.5×10^{-5} , 1.0×10^{-5} and 1.0×10^{-4} cancer risk isopleths. The risk isopleths were derived using the residential exposure calculation, which over-estimates the risks in the areas that are commercial or industrial.

5.4 Non-Carcinogenic Health Impacts

5.4.1 Chronic Health Effects

The facility emits pollutants that may have chronic adverse health effects on the following human target organs (or toxicological endpoints):

- Cardiovascular system
- Central nervous system
- Developmental system
- Endocrine system

- Eye
- Kidneys
- Gastrointestinal system
- Reproductive system
- Respiratory system
- Skin
- Hematopoietic system

Maximum Exposed Individual Resident

As required by the SCAQMD Supplemental Guidelines, non-carcinogenic HICs for the maximum residential exposure by each pollutant and by each source are presented in Table 9a and Table 9b. The highest HIC of 2.9 for the residential exposure is at discrete receptor #1016 (389900, 3764700) for the respiratory, cardiovascular, skin, developmental, and central nervous systems (Figure 7b). Arsenic is the highest contributing pollutant (approximately 100 percent) to the chronic health impact. The primary source contributor is Hard Lead Baghouse (96 percent). The HIC at the MEIR is below the action risk level of 3.0 set in SCAQMD Rule 1402 for the risk reduction plan and the significance level of 5.0, but above the SCAQMD public notification threshold. The annual average concentrations at MEIR are presented in Appendix C, Table C1.

The HIC isopleths of 0.5, 1.0, 3.0, and 5.0 using the residential exposure scenario are presented on Figure 9. Note no residential receptors are within the HIC isopleths of 3.0 or 5.0.

Maximum Exposed Individual Worker

Results for the maximum off-site exposure by each pollutant and by each source are presented in Table 10a and 10b, respectively. The highest HIC for worker receptors is 177 at discrete receptor #59 for the respiratory, developmental, cardiovascular, skin, and central nervous systems. The maximum off-site chronic exposure is located at UTM coordinates (389833, 3763541) and along the facility fence line at the north end of the property (Figure 7b). Arsenic is the highest contributing pollutant (99 percent) to the chronic health impact. Hard Lead Baghouse is the dominating contributor (99 percent). The HIC at the MEIW is above the SCAQMD Rule 1402 significance level of 5.0. The annual average concentrations at MEIW are presented in Appendix C, Table C3.

Point of Maximum Impact

Results for the maximum off-site exposure by each pollutant and by each source are presented in Table 11a and 11b, respectively, for the PMI, which share the same location as the MEIW for HIC. The HIC at the PMI is 205 for the respiratory, developmental, cardiovascular, skin, and central nervous systems. Arsenic is the highest contributing pollutant (approximately 100 percent) to the chronic health impact. Hard Lead Baghouse is the dominating contributor (approximately 100 percent).

Sensitive Receptors

The HICs at all the sensitive receptors are below the SCAQMD risk reduction action level of 3.0. The highest HIC among the sensitive receptors is 2.2 at San Antonio Elementary School.

5.4.2 Acute Health Effects

The facility also emits pollutants that may have acute adverse health effects on the following human target organs (or toxicological endpoints):

- Cardiovascular system
- Central nervous system
- Developmental system
- Eye
- Immune system
- Reproductive system
- Respiratory system
- Hematopoietic system

Maximum Exposed Individual Resident

Results for the maximum residential exposure for acute health effects by pollutants and by sources are presented in Table 12a and Table 12b, respectively. The highest HIA for the residential receptors is 0.2 for the developmental, cardiovascular, and central nervous systems, with approximately 99 percent attributable to arsenic. The emissions from the Hard Lead Refining System contribute approximately 94 percent to the HIA. The maximum residential acute exposure receptor is located at receptor 975 (389800, 3764700), about 1000 meters (0.6 mile) north from the fence line of the facility (Figure 7c). The highest HIA is below the SCAQMD public notification threshold of 1.0, as well as the SCAQMD risk reduction threshold of 3.0. The maximum hourly concentrations at MEIR are presented in Appendix C, Table C4.

Maximum Exposed Individual Worker

Results for the maximum worker exposure by each pollutant and by each source are presented in Table 13a and Table 13b, respectively. The HIA at the MEIW is 3.7 for the developmental, cardiovascular, and central nervous systems, with 99 percent attributable to arsenic. The emissions from the Hard Lead Refining System contribute approximately 97 percent to the HIA. The MEIW for the HIA is receptor #57 located at coordinates (389817, 3763504), which is along the facility fence line at the north end of the property (Figure 7c). This is also the location of PMI. The HIA is above the SCAQMD public notification threshold of 1.0, and the SCAQMD risk reduction threshold of 3.0. The maximum hourly concentrations at MEIR are presented in Appendix C, Table C5.

Point of Maximum Impact

The HIA and the location of the PMI is the same as the MEIW. The isopleths of HIA at 0.5, 1.0, and 3.0 are presented on Figure 10.

Sensitive Receptors

The HIAs at the evaluated sensitive receptors are below the SCAQMD public notification of 1.0. The highest HIA is 0.07 at Volunteers of America-Salazar Park Head Start, a day care center.

5.5 9-Year and 30-Year Residency Duration Risk Estimates

Per the SCAQMD guidelines, ENVIRON also estimated the cancer risks using 9- and 30-year exposure duration for residential receptors. These risks were calculated using the Derived (OEHHA) method as recommended by the SCAQMD guidelines. The cancer risk at the MEIR location using the 9-year residency (i.e., exposure duration) is 7.0×10^{-6} for children, approximately 7.0 in one million, and 3.1×10^{-6} for adult, approximately 3.1 in one million. The cancer risk at the MEIR location using the 30-year residency is 1.0×10^{-5} , approximately 10 in one million.

5.6 Risk Reductions

The results indicate that the cancer risk, the HIC, and the HIA at the MEIW as well as the cancer burden exceed the SCAQMD significant risk reduction thresholds. The cancer risk and the HIC at the MEIR exceed the SCAQMD public notification thresholds.

Risk reduction provisions:

- SCAQMD Rule 1402; and
- California Health and Safety Code 44390-44394

Public notification provisions:

- SCAQMD Rule 1402;
- California Health and Safety Code 44362; and
- SCAQMD Public Notification Procedures for Phase I and II Facilities under the Air Toxics Hot Spots Information and Assessment Act

As the results indicated, the emissions from the Hard Lead Baghouse stack are the primary contributor to the elevated risk. Arsenic is the main toxic chemical emitted from this stack, causing the exceedance. Risk reduction will be focusing on further control on the particulate emissions from Hard Lead Baghouse emissions.

6 Uncertainty Analysis

ENVIRON has used appropriate engineering and scientific methods in the health risk analysis presented in this report. However, there is a great deal of uncertainty associated with the process of risk assessment. Uncertainty may be defined as what is not known and maybe reduced with further scientific studies. The uncertainty arises from lack of data in many areas, which necessitates the use of assumptions. Sources of uncertainty, which may either underestimate or more likely overestimate the off-site impact, include:

- Exposure estimates – These uncertainties are typically associated with the air dispersion model, which uses mathematical equations to simulate pollutant dispersion in ambient air.
- Toxicity data – This area represents great uncertainty due to lack of human data. Toxicologists use various assumptions, safety factors, and uncertainty factors in attempt to adjust the toxicity data from animal studies to human.
- Health risk characterization – Various assumptions are used in the health risk calculations that overestimate the potential risks; however, OEHHA requires that these parameters be used in the AB2588 HRAs to allow comparisons of different facilities in the AB2588 program.

These sources of uncertainties are further discussed in the paragraphs below. In general, a reasonably conservative approach was used throughout the risk assessment.

6.1 Exposure Estimates

The AERMOD model, the air dispersion model used in this analysis, utilizes Gaussian dispersion equations and a number of assumptions to determine the ground level concentrations and depositions of various pollutants (USEPA, 2004). Sensitivity analyses conducted on Gaussian dispersion models have concluded that it is unrealistic to expect the dispersion models to consistently predict real world pollutant concentrations, which introduces a level of uncertainty in the risk assessment.

In addition, actual meteorological conditions such as wind gusts are rarely accounted for.

6.2 Toxicity Data

Uncertainty in toxicity data include:

- The differences among species and human populations cannot be easily quantified and incorporated into the risk analysis. Factors including metabolism, target site sensitivity, diet, immunological responses, and genetics may influence the response to toxic pollutants.
- Uncertainties in the assumptions underlying the dose-response level used.
- Extrapolation from large experimental doses, where, for example, other toxic effects may compromise the assessment of carcinogenic potential, to usually much smaller environmental doses.
- Lack of data on absorption efficiencies for most compounds.

- Lack of knowledge about interactions from simultaneous exposures to a number of compounds, i.e., synergistic or antagonistic effects that could over or under estimate the risks.

6.3 Health Risk Characterization

Conservative assumptions on exposure duration likely overestimate the health risks for the residential receptors. For the cancer risk analysis, this analysis assumed that the residents are exposed for 24 hours per day, 365 days per year, for 70 years at the same location. However, residents usually leave their houses on daily basis for work, shopping, errands, etc. USEPA's data indicate that the residents rarely live in the same residence for 70 years. As a matter of fact, the median value is 9 years, and the high-end residency period is 30 years, which is why OEHHA supports the inclusion of the cancer risks for 9- and 30-year residency periods in the AB2588 HRA reports. In addition, there is a natural range or variability in the human population in such properties as height, weight, and susceptibility to air toxicants. Finally, off-site workers are assumed to work in the same place of employment for 40 years, which is also very conservative.

In summary, the risk estimates generated by this health analysis should not be interpreted as the expected rates of disease in the exposed population but rather as estimates of potential risks, based on current knowledge and a number of assumptions.

7 References

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Tables

Table 1. Process Equipment and Control Devices

Exide Technologies
Vernon, California

Control Device	Sources Controlled	Control Device ID	Stack
Raw Material Preparation System (RMPS) Scrubber	Crusher	C165/C172	S166
	Feed Crusher Conveyor Belt		
	Mud Tanks		
	Ambient air in the RMPS building		
Material Handling Baghouse	Reverb Furnace Feed Room	C48	S142
	Blast Furnace Feed Room		
Soft Lead Refining System	Refinery Kettles	C47	S141
	Dross Dump Hoppers		
	Reverb Furnace Fugitive Emissions		
Hard Lead Refining System Baghouse	Refinery Kettles	C46	S140
	Dross Dump Hoppers		
	Reverb Furnace Fugitive Emissions		
Feed Dryer Baghouse/Cyclone	Reverb Dryer (also known as Rotary Kiln)	C144/C143	S145
Neptune Scrubber	Reverb Furnace	C42/C43	S139
	Blast Furnace		
	Venturi Scrubber		
	Afterburner		
North Torit Cartridge Filter System	Refinery Kettles	C38	NT
	Dross Dump Hoppers		
	Furnace Fugitive Emissions		
	Fugitive emissions in the baghouse row		
South Torit Cartridge Filter System	Refinery Kettles	C39	ST
	Dross Dump Hoppers		
	Furnace Fugitive Emissions		
MAC Baghouses	Additional Support to Material Baghouse	C156/C157	S158
	Corridor between Reverb and Blast Furnace Feed Rooms		
	Fugitive emissions in the RMPS building		

Table 2a. Emission Rates by Substance and Source - Major Stacks

Exide Technologies
Vernon, California

Source ID	Source Name	Chemical Name	CAS #	1-Hour Maximum (lb/hr)	1-Hour Maximum (g/s)	Annual Average (lb/yr)	Annual Average (g/s)	Method of Estimate
HARDLEAD	Hard Lead Refining System Baghouse	Aluminum	7429905	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Antimony	7440360	2.14E-05	2.69E-06	1.87E-01	2.69E-06	98
HARDLEAD	Hard Lead Refining System Baghouse	Arsenic	7440382	4.86E-02	6.12E-03	4.25E+02	6.12E-03	1
HARDLEAD	Hard Lead Refining System Baghouse	Barium	7440393	1.90E-05	2.39E-06	1.66E-01	2.39E-06	99
HARDLEAD	Hard Lead Refining System Baghouse	Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Cadmium	7440439	5.95E-05	7.49E-06	5.21E-01	7.49E-06	1
HARDLEAD	Hard Lead Refining System Baghouse	Chromium	7440473	2.23E-05	2.81E-06	1.95E-01	2.81E-06	99
HARDLEAD	Hard Lead Refining System Baghouse	Cobalt	7440484	4.43E-05	5.58E-06	3.88E-01	5.58E-06	99
HARDLEAD	Hard Lead Refining System Baghouse	Copper	7440508	3.43E-05	4.32E-06	3.00E-01	4.32E-06	99
HARDLEAD	Hard Lead Refining System Baghouse	Lead	7439921	1.41E-03	1.78E-04	1.24E+01	1.78E-04	1
HARDLEAD	Hard Lead Refining System Baghouse	Manganese	7439965	1.29E-05	1.63E-06	1.13E-01	1.63E-06	1
HARDLEAD	Hard Lead Refining System Baghouse	Mercury	7439976	2.18E-04	2.74E-05	1.91E+00	2.74E-05	1
HARDLEAD	Hard Lead Refining System Baghouse	Nickel	7440020	9.47E-05	1.19E-05	8.30E-01	1.19E-05	1
HARDLEAD	Hard Lead Refining System Baghouse	Phosphorus	7723140	3.08E-04	3.88E-05	2.70E+00	3.88E-05	1
HARDLEAD	Hard Lead Refining System Baghouse	Selenium	7782492	3.55E-06	4.47E-07	3.11E-02	4.47E-07	99
HARDLEAD	Hard Lead Refining System Baghouse	Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Zinc	7440666	2.11E-04	2.66E-05	1.85E+00	2.66E-05	1
HARDLEAD	Hard Lead Refining System Baghouse	Formaldehyde	50000	2.36E-02	2.97E-03	2.06E+02	2.97E-03	1
HARDLEAD	Hard Lead Refining System Baghouse	Acetaldehyde	75070	2.88E-02	3.63E-03	2.52E+02	3.63E-03	1
HARDLEAD	Hard Lead Refining System Baghouse	Naphthalene	91203	8.75E-02	1.10E-02	7.67E+02	1.10E-02	1
HARDLEAD	Hard Lead Refining System Baghouse	2-Methylnaphthalene	91576	1.06E-02	1.34E-03	9.31E+01	1.34E-03	1
HARDLEAD	Hard Lead Refining System Baghouse	Acenaphthylene	208968	8.34E-03	1.05E-03	7.31E+01	1.05E-03	1
HARDLEAD	Hard Lead Refining System Baghouse	Acenaphthene	83329	5.47E-04	6.89E-05	4.79E+00	6.89E-05	1
HARDLEAD	Hard Lead Refining System Baghouse	Fluorene	86737	2.65E-03	3.33E-04	2.32E+01	3.33E-04	1
HARDLEAD	Hard Lead Refining System Baghouse	Phenanthrene	85018	1.09E-02	1.37E-03	9.53E+01	1.37E-03	1
HARDLEAD	Hard Lead Refining System Baghouse	Anthracene	120127	8.90E-04	1.12E-04	7.79E+00	1.12E-04	1
HARDLEAD	Hard Lead Refining System Baghouse	Fluoranthene	206440	1.06E-03	1.34E-04	9.29E+00	1.34E-04	1
HARDLEAD	Hard Lead Refining System Baghouse	Pyrene	129000	3.78E-04	4.76E-05	3.31E+00	4.76E-05	1
HARDLEAD	Hard Lead Refining System Baghouse	Benz(a)anthracene	56553	1.56E-05	1.96E-06	1.36E-01	1.96E-06	1
HARDLEAD	Hard Lead Refining System Baghouse	Chrysene	218019	5.72E-05	7.21E-06	5.01E-01	7.21E-06	1
HARDLEAD	Hard Lead Refining System Baghouse	Benz(b)fluoranthene	205992	1.92E-06	2.42E-07	1.68E-02	2.42E-07	1
HARDLEAD	Hard Lead Refining System Baghouse	Benz(k)fluoranthene	207089	9.57E-07	1.21E-07	8.38E-03	1.21E-07	1
HARDLEAD	Hard Lead Refining System Baghouse	Benzo(e)pyrene	192972	8.79E-07	1.11E-07	7.70E-03	1.11E-07	1
HARDLEAD	Hard Lead Refining System Baghouse	Benzo(a)pyrene	50328	1.62E-07	2.03E-08	1.41E-03	2.03E-08	98
HARDLEAD	Hard Lead Refining System Baghouse	Perylene	198550	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Indeno[1,2,3-cd]pyrene	193395	1.39E-07	1.75E-08	1.21E-03	1.75E-08	99
HARDLEAD	Hard Lead Refining System Baghouse	Dibenz(a,h)anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Benzo(ghi)perylene	191242	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	TEQ (Min) as 2,3,7,8-TCDD	1086	2.62E-11	3.30E-12	2.30E-07	3.30E-12	1
HARDLEAD	Hard Lead Refining System Baghouse	Total PCBs, as MonoCB	1336363	2.76E-04	3.48E-05	2.42E+00	3.48E-05	1
HARDLEAD	Hard Lead Refining System Baghouse	Chromium VI	18540299	3.65E-06	4.60E-07	3.20E-02	4.60E-07	1
HARDLEAD	Hard Lead Refining System Baghouse	Benzene	71432	9.70E-01	1.22E-01	8.50E+03	1.22E-01	1
HARDLEAD	Hard Lead Refining System Baghouse	Benzyl Chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Bromomethane	74839	5.21E-03	6.56E-04	4.56E+01	6.56E-04	1
HARDLEAD	Hard Lead Refining System Baghouse	2-Butanone	78933	4.55E-03	5.73E-04	3.98E+01	5.73E-04	98
HARDLEAD	Hard Lead Refining System Baghouse	Carbon Disulfide	75150	1.18E-01	1.49E-02	1.03E+03	1.49E-02	1
HARDLEAD	Hard Lead Refining System Baghouse	Carbon Tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Chloro benzene	108907	5.55E-04	6.99E-05	4.86E+00	6.99E-05	98
HARDLEAD	Hard Lead Refining System Baghouse	Chloroethane	75003	1.19E-03	1.50E-04	1.04E+01	1.50E-04	1
HARDLEAD	Hard Lead Refining System Baghouse	Chloroform	67663	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Chloro methane	74873	1.23E-02	1.54E-03	1.07E+02	1.54E-03	1
HARDLEAD	Hard Lead Refining System Baghouse	Dichlorodifluoromethane	75718	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,1-Dichloroethene	75354	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,2-Dibromoethane	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,2-Dichloroethane	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,2-Dichloropropane	78875	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,4-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Ethylbenzene	100414	9.44E-02	1.19E-02	8.27E+02	1.19E-02	1
HARDLEAD	Hard Lead Refining System Baghouse	Hexachloro-1,3-Butadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Methyl-t-Butyl Ether (MTBE)	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Methylene Chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	4-Methyl-2-Pentanone	108101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Xylenes	1330207	7.67E-02	9.66E-03	6.72E+02	9.66E-03	1
HARDLEAD	Hard Lead Refining System Baghouse	Styrene	100425	1.03E+00	1.29E-01	9.00E+03	1.29E-01	1
HARDLEAD	Hard Lead Refining System Baghouse	Tetrachloroethene	127184	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99

Table 2a. Emission Rates by Substance and Source - Major Stacks

Exide Technologies
Vernon, California

Source ID	Source Name	Chemical Name	CAS #	1-Hour Maximum (lb/hr)	1-Hour Maximum (g/s)	Annual Average (lb/yr)	Annual Average (g/s)	Method of Estimate
HARDLEAD	Hard Lead Refining System Baghouse	Toluene	108883	2.96E-01	3.73E-02	2.59E+03	3.73E-02	1
HARDLEAD	Hard Lead Refining System Baghouse	Trichloroethene	79016	8.70E-04	1.10E-04	7.62E+00	1.10E-04	99
HARDLEAD	Hard Lead Refining System Baghouse	Trichlorofluoro methane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,2-Trichloro-1,2,2-Trifluoroethane	76131	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,1,1-Trichloroethane	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,1,2-Trichloroethane	79005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,1,2,2-Tetrachloroethane	79345	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,2,4-Trimethylbenzene	95636	5.00E-03	6.30E-04	4.38E+01	6.30E-04	99
HARDLEAD	Hard Lead Refining System Baghouse	1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	Vinyl Acetate	108054	2.37E-03	2.98E-04	2.07E+01	2.98E-04	99
HARDLEAD	Hard Lead Refining System Baghouse	Vinyl Chloride	75014	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
HARDLEAD	Hard Lead Refining System Baghouse	1,3-Butadiene	106990	2.48E-01	3.12E-02	2.17E+03	3.12E-02	1
HARDLEAD	Hard Lead Refining System Baghouse	1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAT_STOR	Material Handling Baghouse	Aluminum	7429905	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAT_STOR	Material Handling Baghouse	Antimony	7440360	2.12E-05	2.67E-06	1.86E-01	2.67E-06	1
MAT_STOR	Material Handling Baghouse	Arsenic	7440382	7.42E-05	9.35E-06	6.50E-01	9.35E-06	1
MAT_STOR	Material Handling Baghouse	Barium	7440393	3.54E-05	4.46E-06	3.10E-01	4.46E-06	1
MAT_STOR	Material Handling Baghouse	Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAT_STOR	Material Handling Baghouse	Cadmium	7440439	5.21E-05	6.56E-06	4.56E-01	6.56E-06	1
MAT_STOR	Material Handling Baghouse	Chromium	7440473	1.73E-04	2.18E-05	1.52E+00	2.18E-05	98
MAT_STOR	Material Handling Baghouse	Cobalt	7440484	6.46E-05	8.14E-06	5.66E-01	8.14E-06	1
MAT_STOR	Material Handling Baghouse	Copper	7440508	2.81E-04	3.54E-05	2.46E+00	3.54E-05	98
MAT_STOR	Material Handling Baghouse	Lead	7439921	1.15E-03	1.45E-04	1.01E+01	1.45E-04	1
MAT_STOR	Material Handling Baghouse	Manganese	7439965	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAT_STOR	Material Handling Baghouse	Mercury	7439976	1.42E-06	1.79E-07	1.24E-02	1.79E-07	98
MAT_STOR	Material Handling Baghouse	Nickel	7440020	3.96E-05	4.99E-06	3.47E-01	4.99E-06	98
MAT_STOR	Material Handling Baghouse	Phosphorus	7723140	8.33E-04	1.05E-04	7.30E+00	1.05E-04	98
MAT_STOR	Material Handling Baghouse	Selenium	7782492	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAT_STOR	Material Handling Baghouse	Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAT_STOR	Material Handling Baghouse	Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAT_STOR	Material Handling Baghouse	Zinc	7440666	2.24E-04	2.82E-05	1.96E+00	2.82E-05	1
MAT_STOR	Material Handling Baghouse	Chromium VI	18540299	1.36E-05	1.71E-06	1.19E-01	1.71E-06	1
NEPTUNE	Neptune Scrubber	Aluminum	7429905	1.39E-03	1.75E-04	1.21E+01	1.75E-04	98
NEPTUNE	Neptune Scrubber	Antimony	7440360	5.14E-06	6.47E-07	4.50E-02	6.47E-07	98
NEPTUNE	Neptune Scrubber	Arsenic	7440382	3.39E-06	4.27E-07	2.97E-02	4.27E-07	1
NEPTUNE	Neptune Scrubber	Barium	7440393	2.46E-05	3.09E-06	2.15E-01	3.09E-06	1
NEPTUNE	Neptune Scrubber	Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Cadmium	7440439	6.69E-06	8.42E-07	5.86E-02	8.42E-07	1
NEPTUNE	Neptune Scrubber	Chromium	7440473	5.67E-06	7.14E-07	4.96E-02	7.14E-07	98
NEPTUNE	Neptune Scrubber	Cobalt	7440484	1.40E-06	1.76E-07	1.23E-02	1.76E-07	99
NEPTUNE	Neptune Scrubber	Copper	7440508	9.05E-06	1.14E-06	7.93E-02	1.14E-06	99
NEPTUNE	Neptune Scrubber	Lead	7439921	4.97E-04	6.26E-05	4.35E+00	6.26E-05	1
NEPTUNE	Neptune Scrubber	Manganese	7439965	4.47E-06	5.63E-07	3.92E-02	5.63E-07	1
NEPTUNE	Neptune Scrubber	Mercury	7439976	6.96E-05	8.77E-06	6.10E-01	8.77E-06	1
NEPTUNE	Neptune Scrubber	Nickel	7440020	2.90E-05	3.65E-06	2.54E-01	3.65E-06	1
NEPTUNE	Neptune Scrubber	Phosphorus	7723140	1.45E-04	1.82E-05	1.27E+00	1.82E-05	99
NEPTUNE	Neptune Scrubber	Selenium	7782492	9.08E-06	1.14E-06	7.95E-02	1.14E-06	98
NEPTUNE	Neptune Scrubber	Silver	7440224	1.18E-06	1.48E-07	1.03E-02	1.48E-07	1
NEPTUNE	Neptune Scrubber	Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Zinc	7440666	1.00E-04	1.26E-05	8.76E-01	1.26E-05	1
NEPTUNE	Neptune Scrubber	Formaldehyde	50000	9.02E-04	1.14E-04	7.90E+00	1.14E-04	1
NEPTUNE	Neptune Scrubber	Acetaldehyde	75070	1.11E-03	1.39E-04	9.70E+00	1.39E-04	1
NEPTUNE	Neptune Scrubber	Naphthalene	91203	1.89E-05	2.38E-06	1.65E-01	2.38E-06	1
NEPTUNE	Neptune Scrubber	2-Methylnaphthalene	91576	5.04E-06	6.34E-07	4.41E-02	6.34E-07	1
NEPTUNE	Neptune Scrubber	Acenaphthylene	208968	5.13E-07	6.46E-08	4.49E-03	6.46E-08	1
NEPTUNE	Neptune Scrubber	Acenaphthene	83329	5.95E-07	7.50E-08	5.21E-03	7.50E-08	1
NEPTUNE	Neptune Scrubber	Fluorene	86737	2.16E-06	2.72E-07	1.89E-02	2.72E-07	1
NEPTUNE	Neptune Scrubber	Phenanthrene	85018	2.15E-05	2.71E-06	1.88E-01	2.71E-06	1
NEPTUNE	Neptune Scrubber	Anthracene	120127	6.19E-07	7.79E-08	5.42E-03	7.79E-08	1
NEPTUNE	Neptune Scrubber	Fluoranthene	206440	2.72E-05	3.42E-06	2.38E-01	3.42E-06	1
NEPTUNE	Neptune Scrubber	Pyrene	129000	1.65E-05	2.08E-06	1.45E-01	2.08E-06	1
NEPTUNE	Neptune Scrubber	Benz(a)anthracene	56553	1.41E-06	1.78E-07	1.24E-02	1.78E-07	98
NEPTUNE	Neptune Scrubber	Chrysene	218019	1.33E-05	1.67E-06	1.16E-01	1.67E-06	1
NEPTUNE	Neptune Scrubber	Benz(b)fluoranthene	205992	1.51E-06	1.90E-07	1.32E-02	1.90E-07	1
NEPTUNE	Neptune Scrubber	Benz(k)fluoranthene	207089	4.18E-07	5.27E-08	3.66E-03	5.27E-08	98
NEPTUNE	Neptune Scrubber	Benzo(e)pyrene	192972	1.07E-06	1.34E-07	9.33E-03	1.34E-07	1
NEPTUNE	Neptune Scrubber	Benzo(a)pyrene	50328	9.65E-08	1.22E-08	8.45E-04	1.22E-08	99
NEPTUNE	Neptune Scrubber	Benzo(ghi)perylene	191242	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Perylene	198550	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Indeno(1,2,3-cd)pyrene	193395	3.13E-07	3.94E-08	2.74E-03	3.94E-08	99

Table 2a. Emission Rates by Substance and Source - Major Stacks

Exide Technologies
Vernon, California

Source ID	Source Name	Chemical Name	CAS #	1-Hour Maximum (lb/hr)	1-Hour Maximum (g/s)	Annual Average (lb/yr)	Annual Average (g/s)	Method of Estimate
NEPTUNE	Neptune Scrubber	Dibenz(a,h)anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	TEQ (Min) as 2,3,7,8-TCDD	1086	3.17E-09	4.00E-10	2.78E-05	4.00E-10	1
NEPTUNE	Neptune Scrubber	Total PCBs, as MonoCB	1336363	3.95E-06	4.98E-07	3.46E-02	4.98E-07	1
NEPTUNE	Neptune Scrubber	Chromium VI	18540299	2.90E-05	3.65E-06	2.54E-01	3.65E-06	1
NEPTUNE	Neptune Scrubber	Benzene	71432	7.15E-05	9.01E-06	6.26E-01	9.01E-06	98
NEPTUNE	Neptune Scrubber	Benzyl Chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Bromomethane	74839	8.60E-05	1.08E-05	7.53E-01	1.08E-05	98
NEPTUNE	Neptune Scrubber	2-Butanone	78933	2.42E-04	3.05E-05	2.12E+00	3.05E-05	99
NEPTUNE	Neptune Scrubber	Carbon Disulfide	75150	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Carbon Tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Chloro benzene	108907	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Chloroethane	75003	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Chloroform	67663	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Chloro methane	74873	2.15E-04	2.70E-05	1.88E+00	2.70E-05	1
NEPTUNE	Neptune Scrubber	Dichlorodifluoromethane	75718	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,1-Dichloroethene	75354	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,2-Dibromoethane	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,2-Dichloroethane	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,2-Dichloropropane	78875	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,4-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Ethylbenzene	100414	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Hexachloro-1,3-Butadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Methyl-t-Butyl Ether (MTBE)	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Methylene Chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	4-Methyl-2-Pentanone	108101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Xylenes	1330207	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Styrene	100425	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Tetrachloroethene	127184	1.97E-03	2.48E-04	1.73E+01	2.48E-04	99
NEPTUNE	Neptune Scrubber	Toluene	108883	5.84E-04	7.36E-05	5.12E+00	7.36E-05	1
NEPTUNE	Neptune Scrubber	Trichloroethene	79016	1.32E-04	1.66E-05	1.16E+00	1.66E-05	99
NEPTUNE	Neptune Scrubber	Trichlorofluoro methane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,2-Trichloro-1,2,2-Trifluoroetha	76131	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,1,1-Trichloroethane	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,1,2-Trichloroethane	79005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,1,2,2-Tetrachloroethane	79345	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,2,4-Trimethylbenzene	95636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	Vinyl Acetate	108054	4.85E-04	6.11E-05	4.25E+00	6.11E-05	99
NEPTUNE	Neptune Scrubber	Vinyl Chloride	75014	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NEPTUNE	Neptune Scrubber	1,3-Butadiene	106990	7.05E-03	8.88E-04	6.18E+01	8.88E-04	99
NEPTUNE	Neptune Scrubber	1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Aluminum	7429905	4.87E-04	6.14E-05	4.27E+00	6.14E-05	1
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Antimony	7440360	3.04E-06	3.83E-07	2.66E-02	3.83E-07	98
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Arsenic	7440382	2.93E-06	3.69E-07	2.57E-02	3.69E-07	1
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Barium	7440393	1.78E-05	2.24E-06	1.56E-01	2.24E-06	1
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Cadmium	7440439	9.26E-06	1.17E-06	8.11E-02	1.17E-06	1
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Chromium	7440473	2.06E-04	2.60E-05	1.80E+00	2.60E-05	1
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Cobalt	7440484	2.42E-06	3.05E-07	2.12E-02	3.05E-07	98
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Copper	7440508	1.04E-05	1.31E-06	9.11E-02	1.31E-06	98
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Lead	7439921	3.58E-04	4.51E-05	3.14E+00	4.51E-05	1
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Manganese	7439965	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Mercury	7439976	3.88E-07	4.89E-08	3.40E-03	4.89E-08	1
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Nickel	7440020	1.10E-04	1.39E-05	9.64E-01	1.39E-05	1
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Selenium	7782492	4.47E-06	5.63E-07	3.92E-02	5.63E-07	98
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Zinc	7440666	4.85E-05	6.11E-06	4.25E-01	6.11E-06	1
MAPCO	Raw Material Preparation System (RMPS) Scrubber	Chromium VI	18540299	1.69E-05	2.13E-06	1.48E-01	2.13E-06	1
SOFTLEAD	Soft Lead Refining System	Aluminum	7429905	3.62E-03	4.56E-04	3.17E+01	4.56E-04	1
SOFTLEAD	Soft Lead Refining System	Antimony	7440360	1.27E-05	1.60E-06	1.11E-01	1.60E-06	98
SOFTLEAD	Soft Lead Refining System	Arsenic	7440382	1.00E-04	1.26E-05	8.76E-01	1.26E-05	1
SOFTLEAD	Soft Lead Refining System	Barium	7440393	2.01E-05	2.53E-06	1.76E-01	2.53E-06	98
SOFTLEAD	Soft Lead Refining System	Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Cadmium	7440439	9.59E-05	1.21E-05	8.40E-01	1.21E-05	1

Table 2a. Emission Rates by Substance and Source - Major Stacks

Exide Technologies
Vernon, California

Source ID	Source Name	Chemical Name	CAS #	1-Hour Maximum (lb/hr)	1-Hour Maximum (g/s)	Annual Average (lb/yr)	Annual Average (g/s)	Method of Estimate
SOFTLEAD	Soft Lead Refining System	Chromium	7440473	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Cobalt	7440484	2.44E-05	3.07E-06	2.14E-01	3.07E-06	1
SOFTLEAD	Soft Lead Refining System	Copper	7440508	7.25E-05	9.13E-06	6.35E-01	9.13E-06	98
SOFTLEAD	Soft Lead Refining System	Lead	7439921	8.51E-04	1.07E-04	7.45E+00	1.07E-04	1
SOFTLEAD	Soft Lead Refining System	Manganese	7439965	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Mercury	7439976	3.14E-05	3.96E-06	2.75E-01	3.96E-06	1
SOFTLEAD	Soft Lead Refining System	Nickel	7440020	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Phosphorus	7723140	7.58E-04	9.55E-05	6.64E+00	9.55E-05	98
SOFTLEAD	Soft Lead Refining System	Selenium	7782492	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Zinc	7440666	3.38E-04	4.26E-05	2.96E+00	4.26E-05	1
SOFTLEAD	Soft Lead Refining System	Formaldehyde	50000	4.87E-03	6.14E-04	4.27E+01	6.14E-04	1
SOFTLEAD	Soft Lead Refining System	Acetaldehyde	75070	3.70E-03	4.66E-04	3.24E+01	4.66E-04	1
SOFTLEAD	Soft Lead Refining System	Naphthalene	91203	1.29E-02	1.63E-03	1.13E+02	1.63E-03	1
SOFTLEAD	Soft Lead Refining System	2-Methylnaphthalene	91576	1.23E-03	1.55E-04	1.08E+01	1.55E-04	1
SOFTLEAD	Soft Lead Refining System	Acenaphthylene	208968	1.14E-03	1.44E-04	9.99E+00	1.44E-04	1
SOFTLEAD	Soft Lead Refining System	Acenaphthene	83329	3.88E-05	4.89E-06	3.40E-01	4.89E-06	1
SOFTLEAD	Soft Lead Refining System	Fluorene	86737	3.85E-04	4.85E-05	3.37E+00	4.85E-05	1
SOFTLEAD	Soft Lead Refining System	Phenanthrene	85018	3.24E-03	4.08E-04	2.84E+01	4.08E-04	1
SOFTLEAD	Soft Lead Refining System	Anthracene	120127	1.90E-05	2.39E-06	1.66E-01	2.39E-06	1
SOFTLEAD	Soft Lead Refining System	Fluoranthene	206440	3.03E-04	3.82E-05	2.65E+00	3.82E-05	1
SOFTLEAD	Soft Lead Refining System	Benz(o)ghi)perylene	191242	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Pyrene	129000	6.23E-05	7.85E-06	5.46E-01	7.85E-06	1
SOFTLEAD	Soft Lead Refining System	Benz(a)anthracene	56553	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Chrysene	218019	8.10E-06	1.02E-06	7.10E-02	1.02E-06	1
SOFTLEAD	Soft Lead Refining System	Benz(b)fluoranthene	205992	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Benzo(k)fluoranthene	207089	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Benzo(e)pyrene	192972	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Benzo(a)pyrene	50328	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Perylene	198550	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Indeno(1,2,3-cd)pyrene	193395	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Dibenz(a,h)anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Chromium VI	18540299	1.87E-06	2.36E-07	1.64E-02	2.36E-07	98
SOFTLEAD	Soft Lead Refining System	Benzene	71432	6.19E-02	7.80E-03	5.42E+02	7.80E-03	1
SOFTLEAD	Soft Lead Refining System	Benzyl Chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Bromomethane	74839	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	2-Butanone	78933	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Carbon Disulfide	75150	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Carbon Tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Chloro benzene	108907	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Chloroethane	75003	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Chloroform	67663	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Chloro methane	74873	4.75E-04	5.98E-05	4.16E+00	5.98E-05	98
SOFTLEAD	Soft Lead Refining System	Dichlorodifluoromethane	75718	8.87E-04	1.12E-04	7.77E+00	1.12E-04	98
SOFTLEAD	Soft Lead Refining System	1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,1-Dichloroethene	75354	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,2-Dibromoethane	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,2-Dichloroethane	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,2-Dichloropropane	78875	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,4-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Ethylbenzene	100414	1.72E-03	2.17E-04	1.51E+01	2.17E-04	98
SOFTLEAD	Soft Lead Refining System	Hexachloro-1,3-Butadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Methyl-t-Butyl Ether (MTBE)	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Methylene Chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	4-Methyl-2-Pentanone	108101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Xylenes	1330207	4.31E-03	5.43E-04	3.78E+01	5.43E-04	98
SOFTLEAD	Soft Lead Refining System	Styrene	100425	3.24E-03	4.08E-04	2.84E+01	4.08E-04	98
SOFTLEAD	Soft Lead Refining System	Tetrachloroethene	127184	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Toluene	108883	8.14E-03	1.03E-03	7.13E+01	1.03E-03	1
SOFTLEAD	Soft Lead Refining System	Trichloroethene	79016	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Trichlorofluoro methane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,2-Trichloro-1,2,2-Trifluoroetha	76131	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,1,1-Trichloroethane	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,1,2-Trichloroethane	79005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,1,2,2-Tetrachloroethane	79345	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,2,4-Trimethylbenzene	95636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99

Table 2a. Emission Rates by Substance and Source - Major Stacks

Exide Technologies
Vernon, California

Source ID	Source Name	Chemical Name	CAS #	1-Hour Maximum (lb/hr)	1-Hour Maximum (g/s)	Annual Average (lb/yr)	Annual Average (g/s)	Method of Estimate
SOFTLEAD	Soft Lead Refining System	1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Vinyl Acetate	108054	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	Vinyl Chloride	75014	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOFTLEAD	Soft Lead Refining System	1,3-Butadiene	106990	9.77E-02	1.23E-02	8.56E+02	1.23E-02	1
SOFTLEAD	Soft Lead Refining System	1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOU_CART	South Torit Cartridge Filter System	Aluminum	7429905	3.15E-03	3.97E-04	2.76E+01	3.97E-04	1
SOU_CART	South Torit Cartridge Filter System	Antimony	7440360	3.36E-04	4.23E-05	2.94E+00	4.23E-05	1
SOU_CART	South Torit Cartridge Filter System	Arsenic	7440382	4.83E-05	6.09E-06	4.23E-01	6.09E-06	1
SOU_CART	South Torit Cartridge Filter System	Barium	7440393	5.48E-05	6.90E-06	4.80E-01	6.90E-06	1
SOU_CART	South Torit Cartridge Filter System	Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOU_CART	South Torit Cartridge Filter System	Cadmium	7440439	2.19E-05	2.76E-06	1.92E-01	2.76E-06	1
SOU_CART	South Torit Cartridge Filter System	Chromium	7440473	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOU_CART	South Torit Cartridge Filter System	Cobalt	7440484	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOU_CART	South Torit Cartridge Filter System	Copper	7440508	6.07E-05	7.65E-06	5.32E-01	7.65E-06	98
SOU_CART	South Torit Cartridge Filter System	Lead	7439921	3.60E-03	4.54E-04	3.15E+01	4.54E-04	1
SOU_CART	South Torit Cartridge Filter System	Manganese	7439965	1.92E-05	2.42E-06	1.68E-01	2.42E-06	98
SOU_CART	South Torit Cartridge Filter System	Mercury	7439976	8.21E-07	1.03E-07	7.19E-03	1.03E-07	98
SOU_CART	South Torit Cartridge Filter System	Nickel	7440020	5.92E-06	7.46E-07	5.19E-02	7.46E-07	98
SOU_CART	South Torit Cartridge Filter System	Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOU_CART	South Torit Cartridge Filter System	Selenium	7782492	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOU_CART	South Torit Cartridge Filter System	Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOU_CART	South Torit Cartridge Filter System	Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
SOU_CART	South Torit Cartridge Filter System	Zinc	7440666	1.81E-04	2.28E-05	1.59E+00	2.28E-05	98
SOU_CART	South Torit Cartridge Filter System	Chromium VI	18540299	6.91E-06	8.71E-07	6.05E-02	8.71E-07	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Aluminum	7429905	5.87E-02	7.40E-03	5.14E+02	7.40E-03	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Antimony	7440360	4.30E-05	5.42E-06	3.77E-01	5.42E-06	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Arsenic	7440382	2.65E-05	3.34E-06	2.32E-01	3.34E-06	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Barium	7440393	2.00E-04	2.52E-05	1.75E+00	2.52E-05	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Cadmium	7440439	1.08E-05	1.36E-06	9.46E-02	1.36E-06	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Chromium	7440473	3.14E-06	3.96E-07	2.75E-02	3.96E-07	98
DRYER_BH	Feed Dryer Baghouse/Cyclone	Cobalt	7440484	1.59E-06	2.00E-07	1.39E-02	2.00E-07	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Copper	7440508	1.40E-05	1.76E-06	1.23E-01	1.76E-06	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Lead	7439921	1.05E-02	1.32E-03	9.20E+01	1.32E-03	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Manganese	7439965	1.13E-04	1.42E-05	9.90E-01	1.42E-05	98
DRYER_BH	Feed Dryer Baghouse/Cyclone	Mercury	7439976	8.20E-05	1.03E-05	7.18E-01	1.03E-05	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Nickel	7440020	9.50E-06	1.20E-06	8.32E-02	1.20E-06	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Selenium	7782492	1.64E-06	2.07E-07	1.44E-02	2.07E-07	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Silver	7440224	3.13E-06	3.94E-07	2.74E-02	3.94E-07	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Vanadium	7440622	4.23E-06	5.33E-07	3.71E-02	5.33E-07	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Zinc	7440666	4.24E-05	5.34E-06	3.71E-01	5.34E-06	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Formaldehyde	50000	1.91E-02	2.41E-03	1.67E+02	2.41E-03	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Acetaldehyde	75070	7.92E-03	9.98E-04	6.94E+01	9.98E-04	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Naphthalene	91203	1.34E-02	1.69E-03	1.17E+02	1.69E-03	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	2-Methylnaphthalene	91576	9.16E-04	1.15E-04	8.02E+00	1.15E-04	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Acenaphthylene	208968	4.09E-05	5.15E-06	3.58E-01	5.15E-06	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Acenaphthene	83329	5.05E-06	6.36E-07	4.42E-02	6.36E-07	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Fluorene	86737	1.51E-05	1.90E-06	1.32E-01	1.90E-06	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Phenanthrene	85018	1.25E-04	1.57E-05	1.10E+00	1.57E-05	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Anthracene	120127	3.62E-07	4.56E-08	3.17E-03	4.56E-08	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Fluoranthene	206440	3.09E-05	3.89E-06	2.71E-01	3.89E-06	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Pyrene	129000	6.08E-06	7.66E-07	5.33E-02	7.66E-07	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Benz(a)anthracene	56553	8.75E-08	1.10E-08	7.67E-04	1.10E-08	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Chrysene	218019	5.21E-06	6.56E-07	4.56E-02	6.56E-07	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Benz(b)fluoranthene	205992	1.91E-07	2.41E-08	1.67E-03	2.41E-08	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Benz(k)fluoranthene	207089	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Benz(e)pyrene	192972	8.67E-08	1.09E-08	7.59E-04	1.09E-08	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Benz(a)pyrene	50328	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Benzo(ghi)perylene	191242	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Perylene	198550	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Indeno(1,2,3-cd)pyrene	193395	3.06E-08	3.86E-09	2.68E-04	3.86E-09	98
DRYER_BH	Feed Dryer Baghouse/Cyclone	Dibenz(a,h)anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	TEQ (Min) as 2,3,7,8-TCDD	1086	7.80E-11	9.83E-12	6.83E-07	9.83E-12	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Total PCBs, as MonoCB	1336363	6.77E-04	8.53E-05	5.93E+00	8.53E-05	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Chromium VI	18540299	3.38E-06	4.26E-07	2.96E-02	4.26E-07	98
DRYER_BH	Feed Dryer Baghouse/Cyclone	Benzene	71432	1.88E-01	2.37E-02	1.65E+03	2.37E-02	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Benzyl Chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99

Table 2a. Emission Rates by Substance and Source - Major Stacks

Exide Technologies
Vernon, California

Source ID	Source Name	Chemical Name	CAS #	1-Hour Maximum (lb/hr)	1-Hour Maximum (g/s)	Annual Average (lb/yr)	Annual Average (g/s)	Method of Estimate
DRYER_BH	Feed Dryer Baghouse/Cyclone	Bromomethane	74839	8.09E-04	1.02E-04	7.09E+00	1.02E-04	98
DRYER_BH	Feed Dryer Baghouse/Cyclone	2-Butanone	78933	4.98E-03	6.27E-04	4.36E+01	6.27E-04	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Carbon Disulfide	75150	8.26E-03	1.04E-03	7.24E+01	1.04E-03	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Carbon Tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Chloro benzene	108907	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Chloroethane	75003	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Chloroform	67663	4.10E-04	5.17E-05	3.59E+00	5.17E-05	98
DRYER_BH	Feed Dryer Baghouse/Cyclone	Chloro methane	74873	7.53E-04	9.49E-05	6.60E+00	9.49E-05	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Dichlorodifluoromethane	75718	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,1-Dichloroethene	75354	2.85E-04	3.59E-05	2.50E+00	3.59E-05	98
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,2-Dibromoethane	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,2-Dichloroethane	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,2-Dichloropropane	78875	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,4-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Ethylbenzene	100414	1.46E-03	1.84E-04	1.28E+01	1.84E-04	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Hexachloro-1,3-Butadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Methyl-t-Butyl Ether (MTBE)	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Methylene Chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	4-Methyl-2-Pentanone	108101	1.14E-03	1.44E-04	9.99E+00	1.44E-04	98
DRYER_BH	Feed Dryer Baghouse/Cyclone	Xylenes	1330207	1.87E-03	2.35E-04	1.63E+01	2.35E-04	98
DRYER_BH	Feed Dryer Baghouse/Cyclone	Styrene	100425	4.23E-03	5.33E-04	3.71E+01	5.33E-04	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Tetrachloroethene	127184	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Toluene	108883	1.21E-02	1.52E-03	1.06E+02	1.52E-03	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	Trichloroethene	79016	4.11E-04	5.18E-05	3.60E+00	5.18E-05	98
DRYER_BH	Feed Dryer Baghouse/Cyclone	Trichlorofluoro methane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,2-Trichloro-1,2,2-Trifluoroetha	76131	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,1,1-Trichloroethane	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,1,2-Trichloroethane	79005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,1,2,2-Tetrachloroethane	79345	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,2,4-Trimethylbenzene	95636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
DRYER_BH	Feed Dryer Baghouse/Cyclone	Vinyl Acetate	108054	4.29E-03	5.41E-04	3.76E+01	5.41E-04	98
DRYER_BH	Feed Dryer Baghouse/Cyclone	Vinyl Chloride	75014	2.80E-04	3.53E-05	2.45E+00	3.53E-05	98
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,3-Butadiene	106990	1.67E-02	2.10E-03	1.46E+02	2.10E-03	1
DRYER_BH	Feed Dryer Baghouse/Cyclone	1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAC_BH	MAC Baghouse	Aluminum	7429905	1.04E-01	1.31E-02	9.11E+02	1.31E-02	1
MAC_BH	MAC Baghouse	Antimony	7440360	2.12E-04	2.67E-05	1.86E+00	2.67E-05	98
MAC_BH	MAC Baghouse	Arsenic	7440382	5.71E-05	7.19E-06	5.00E-01	7.19E-06	98
MAC_BH	MAC Baghouse	Barium	7440393	7.75E-04	9.76E-05	6.79E+00	9.76E-05	1
MAC_BH	MAC Baghouse	Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAC_BH	MAC Baghouse	Cadmium	7440439	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAC_BH	MAC Baghouse	Chromium	7440473	2.63E-04	3.31E-05	2.30E+00	3.31E-05	98
MAC_BH	MAC Baghouse	Cobalt	7440484	2.48E-05	3.12E-06	2.17E-01	3.12E-06	98
MAC_BH	MAC Baghouse	Copper	7440508	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAC_BH	MAC Baghouse	Lead	7439921	5.72E-04	7.21E-05	5.01E+00	7.21E-05	1
MAC_BH	MAC Baghouse	Manganese	7439965	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAC_BH	MAC Baghouse	Mercury	7439976	1.35E-06	1.70E-07	1.18E-02	1.70E-07	98
MAC_BH	MAC Baghouse	Nickel	7440020	2.69E-05	3.39E-06	2.36E-01	3.39E-06	1
MAC_BH	MAC Baghouse	Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAC_BH	MAC Baghouse	Selenium	7782492	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAC_BH	MAC Baghouse	Silver	7440224	1.67E-05	2.10E-06	1.46E-01	2.10E-06	1
MAC_BH	MAC Baghouse	Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
MAC_BH	MAC Baghouse	Zinc	7440666	7.88E-04	9.93E-05	6.90E+00	9.93E-05	98
MAC_BH	MAC Baghouse	Chromium VI	18540299	3.95E-05	4.98E-06	3.46E-01	4.98E-06	1
NOR_CART	North Torit Cartridge Filter System	Aluminum	7429905	3.18E-03	4.01E-04	2.79E+01	4.01E-04	1
NOR_CART	North Torit Cartridge Filter System	Antimony	7440360	1.81E-05	2.28E-06	1.59E-01	2.28E-06	98
NOR_CART	North Torit Cartridge Filter System	Arsenic	7440382	8.69E-04	1.09E-04	7.61E+00	1.09E-04	1
NOR_CART	North Torit Cartridge Filter System	Barium	7440393	1.11E-05	1.40E-06	9.72E-02	1.40E-06	1
NOR_CART	North Torit Cartridge Filter System	Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NOR_CART	North Torit Cartridge Filter System	Cadmium	7440439	4.36E-05	5.49E-06	3.82E-01	5.49E-06	1
NOR_CART	North Torit Cartridge Filter System	Chromium	7440473	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NOR_CART	North Torit Cartridge Filter System	Cobalt	7440484	5.05E-06	6.36E-07	4.42E-02	6.36E-07	98
NOR_CART	North Torit Cartridge Filter System	Copper	7440508	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NOR_CART	North Torit Cartridge Filter System	Lead	7439921	1.41E-03	1.78E-04	1.24E+01	1.78E-04	1
NOR_CART	North Torit Cartridge Filter System	Manganese	7439965	2.25E-04	2.83E-05	1.97E+00	2.83E-05	98
NOR_CART	North Torit Cartridge Filter System	Mercury	7439976	5.79E-06	7.30E-07	5.07E-02	7.30E-07	1
NOR_CART	North Torit Cartridge Filter System	Nickel	7440020	5.17E-05	6.51E-06	4.53E-01	6.51E-06	1

Table 2a. Emission Rates by Substance and Source - Major Stacks

Exide Technologies
Vernon, California

Source ID	Source Name	Chemical Name	CAS #	1-Hour Maximum (lb/hr)	1-Hour Maximum (g/s)	Annual Average (lb/yr)	Annual Average (g/s)	Method of Estimate
NOR_CART	North Torit Cartridge Filter System	Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NOR_CART	North Torit Cartridge Filter System	Selenium	7782492	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NOR_CART	North Torit Cartridge Filter System	Silver	7440224	9.97E-06	1.26E-06	8.73E-02	1.26E-06	98
NOR_CART	North Torit Cartridge Filter System	Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	99
NOR_CART	North Torit Cartridge Filter System	Zinc	7440666	2.56E-04	3.23E-05	2.24E+00	3.23E-05	1
NOR_CART	North Torit Cartridge Filter System	Chromium VI	18540299	8.88E-06	1.12E-06	7.78E-02	1.12E-06	1

Note:

1. Method of estimate followed the instruction in *Emission Inventory Criteria and Guidelines Report, Appendix B-II*, published by ARB. 1: all runs were detected; 98: some of the runs were detected, half detection limit was used for non-detect run(s); 99: all runs were not detected, zero was reported.

Table 2b. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Peak Day Emission Factor (g/VKT)	Peak Hourly Emssion (lb/hr)	Peak Hourly Emssion (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A1	Entrained Road Dust	Phosphorus	7723-14-0	6.82E-03	7.59E-06	9.57E-07	2.25E-02	3.24E-07
A1	Entrained Road Dust	Aluminum	7429-90-5	5.85E-02	6.52E-05	8.22E-06	1.93E-01	2.78E-06
A1	Entrained Road Dust	Antimony	7440-36-0	4.13E-03	4.60E-06	5.80E-07	1.36E-02	1.96E-07
A1	Entrained Road Dust	Arsenic	7440-38-2	6.89E-04	7.67E-07	9.67E-08	2.27E-03	3.27E-08
A1	Entrained Road Dust	Barium	7440-39-3	2.69E-03	2.99E-06	3.77E-07	8.87E-03	1.28E-07
A1	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A1	Entrained Road Dust	Cadmium	7440-43-9	3.72E-04	4.14E-07	5.22E-08	1.23E-03	1.77E-08
A1	Entrained Road Dust	Chromium	7440-47-3	9.64E-04	1.07E-06	1.35E-07	3.18E-03	4.58E-08
A1	Entrained Road Dust	Cobalt	7440-48-4	7.57E-05	8.44E-08	1.06E-08	2.50E-04	3.60E-09
A1	Entrained Road Dust	Copper	7440-50-8	3.10E-03	3.45E-06	4.35E-07	1.02E-02	1.47E-07
A1	Entrained Road Dust	Lead	7439-92-1	3.03E-01	3.38E-04	4.25E-05	1.00E+00	1.44E-05
A1	Entrained Road Dust	Manganese	7439-96-5	2.75E-03	3.07E-06	3.87E-07	9.09E-03	1.31E-07
A1	Entrained Road Dust	Nickel	7440-02-0	1.17E-03	1.30E-06	1.64E-07	3.87E-03	5.56E-08
A1	Entrained Road Dust	Selenium	7782-49-2	1.51E-04	1.69E-07	2.13E-08	5.00E-04	7.19E-09
A1	Entrained Road Dust	Silver	7440-22-4	1.38E-05	1.53E-08	1.93E-09	4.55E-05	6.54E-10
A1	Entrained Road Dust	Thallium	7440-28-0	5.72E-06	6.37E-09	8.02E-10	1.89E-05	2.71E-10
A1	Entrained Road Dust	Zinc	7440-66-6	1.93E-02	2.15E-05	2.71E-06	6.37E-02	9.16E-07
A1	Entrained Road Dust	Mercury	7439-97-6	1.24E-06	1.38E-09	1.74E-10	4.09E-06	5.89E-11
A1	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A2	Entrained Road Dust	Phosphorus	7723-14-0	3.37E-03	3.76E-06	4.74E-07	1.11E-02	1.60E-07
A2	Entrained Road Dust	Aluminum	7429-90-5	2.57E-02	2.86E-05	3.61E-06	8.49E-02	1.22E-06
A2	Entrained Road Dust	Antimony	7440-36-0	7.29E-03	8.12E-06	1.02E-06	2.41E-02	3.46E-07
A2	Entrained Road Dust	Arsenic	7440-38-2	1.11E-03	1.24E-06	1.56E-07	3.67E-03	5.28E-08
A2	Entrained Road Dust	Barium	7440-39-3	1.34E-03	1.50E-06	1.88E-07	4.43E-03	6.38E-08
A2	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A2	Entrained Road Dust	Cadmium	7440-43-9	6.52E-04	7.27E-07	9.15E-08	2.15E-03	3.10E-08
A2	Entrained Road Dust	Chromium	7440-47-3	5.37E-04	5.98E-07	7.54E-08	1.77E-03	2.55E-08
A2	Entrained Road Dust	Cobalt	7440-48-4	9.59E-05	1.07E-07	1.35E-08	3.17E-04	4.55E-09
A2	Entrained Road Dust	Copper	7440-50-8	6.14E-03	6.84E-06	8.62E-07	2.03E-02	2.91E-07
A2	Entrained Road Dust	Lead	7439-92-1	1.76E-01	1.97E-04	2.48E-05	5.83E-01	8.38E-06
A2	Entrained Road Dust	Manganese	7439-96-5	2.30E-03	2.56E-06	3.23E-07	7.60E-03	1.09E-07
A2	Entrained Road Dust	Nickel	7440-02-0	1.76E-03	1.97E-06	2.48E-07	5.83E-03	8.38E-08
A2	Entrained Road Dust	Selenium	7782-49-2	4.99E-04	5.56E-06	7.00E-08	1.65E-03	2.37E-08
A2	Entrained Road Dust	Silver	7440-22-4	9.59E-05	1.07E-07	1.35E-08	3.17E-04	4.55E-09
A2	Entrained Road Dust	Thallium	7440-28-0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A2	Entrained Road Dust	Zinc	7440-66-6	9.59E-03	1.07E-05	1.35E-06	3.17E-02	4.55E-07
A2	Entrained Road Dust	Mercury	7439-97-6	9.20E-07	1.03E-09	1.29E-10	3.04E-06	4.37E-11
A2	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A3	Entrained Road Dust	Phosphorus	7723-14-0	3.37E-03	3.76E-06	4.74E-07	1.11E-02	1.60E-07
A3	Entrained Road Dust	Aluminum	7429-90-5	2.57E-02	2.86E-05	3.61E-06	8.49F-02	1.22E-06
A3	Entrained Road Dust	Antimony	7440-36-0	7.29E-03	8.12E-06	1.02E-06	2.41E-02	3.46E-07
A3	Entrained Road Dust	Arsenic	7440-38-2	1.11E-03	1.24E-06	1.56E-07	3.67E-03	5.28E-08
A3	Entrained Road Dust	Barium	7440-39-3	1.34E-03	1.50E-06	1.88E-07	4.43E-03	6.38E-08
A3	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A3	Entrained Road Dust	Cadmium	7440-43-9	6.52E-04	7.27E-07	9.15E-08	2.15E-03	3.10E-08
A3	Entrained Road Dust	Chromium	7440-47-3	5.37E-04	5.98E-07	7.54E-08	1.77E-03	2.55E-08
A3	Entrained Road Dust	Cobalt	7440-48-4	9.59E-05	1.07E-07	1.35E-08	3.17E-04	4.55E-09
A3	Entrained Road Dust	Copper	7440-50-8	6.14E-03	6.84E-06	8.62E-07	2.03E-02	2.91E-07
A3	Entrained Road Dust	Lead	7439-92-1	1.76E-01	1.97E-04	2.48E-05	5.83E-01	8.38E-06
A3	Entrained Road Dust	Manganese	7439-96-5	2.30E-03	2.56E-06	3.23E-07	7.60E-03	1.09E-07
A3	Entrained Road Dust	Nickel	7440-02-0	1.76E-03	1.97E-06	2.48E-07	5.83E-03	8.38E-08
A3	Entrained Road Dust	Selenium	7782-49-2	4.99E-04	5.56E-07	7.00E-08	1.65E-03	2.37E-08
A3	Entrained Road Dust	Silver	7440-22-4	9.59E-05	1.07E-07	1.35E-08	3.17E-04	4.55E-09
A3	Entrained Road Dust	Thallium	7440-28-0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A3	Entrained Road Dust	Zinc	7440-66-6	9.59E-03	1.07E-05	1.35E-06	3.17E-02	4.55E-07
A3	Entrained Road Dust	Mercury	7439-97-6	9.20E-07	1.03E-09	1.29E-10	3.04E-06	4.37E-11
A3	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A4	Entrained Road Dust	Phosphorus	7723-14-0	3.37E-03	3.76E-06	4.74E-07	1.11E-02	1.60E-07
A4	Entrained Road Dust	Aluminum	7429-90-5	2.57E-02	2.86E-05	3.61E-06	8.49E-02	1.22E-06
A4	Entrained Road Dust	Antimony	7440-36-0	7.29E-03	8.12E-06	1.02E-06	2.41E-02	3.46E-07
A4	Entrained Road Dust	Arsenic	7440-38-2	1.11E-03	1.24E-06	1.56E-07	3.67E-03	5.28E-08
A4	Entrained Road Dust	Barium	7440-39-3	1.34E-03	1.50E-06	1.88E-07	4.43E-03	6.38E-08
A4	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A4	Entrained Road Dust	Cadmium	7440-43-9	6.52E-04	7.27E-07	9.15E-08	2.15E-03	3.10E-08
A4	Entrained Road Dust	Chromium	7440-47-3	5.37E-04	5.98E-07	7.54E-08	1.77E-03	2.55E-08
A4	Entrained Road Dust	Cobalt	7440-48-4	9.59E-05	1.07E-07	1.35E-08	3.17E-04	4.55E-09
A4	Entrained Road Dust	Copper	7440-50-8	6.14E-03	6.84E-06	8.62E-07	2.03E-02	2.91E-07
A4	Entrained Road Dust	Lead	7439-92-1	1.76E-01	1.97E-04	2.48E-05	5.83E-01	8.38E-06
A4	Entrained Road Dust	Manganese	7439-96-5	2.30E-03	2.56E-06	3.23E-07	7.60E-03	1.09E-07
A4	Entrained Road Dust	Nickel	7440-02-0	1.76E-03	1.97E-06	2.48E-07	5.83E-03	8.38E-08
A4	Entrained Road Dust	Selenium	7782-49-2	4.99E-04	5.56E-07	7.00E-08	1.65E-03	2.37E-08
A4	Entrained Road Dust	Silver	7440-22-4	9.59E-05	1.07E-07	1.35E-08	3.17E-04	4.55E-09
A4	Entrained Road Dust	Thallium	7440-28-0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A4	Entrained Road Dust	Zinc	7440-66-6	9.59E-03	1.07E-05	1.35E-06	3.17E-02	4.55E-07
A4	Entrained Road Dust	Mercury	7439-97-6	9.20E-07	1.03E-09	1.29E-10	3.04E-06	4.37E-11
A4	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A5	Entrained Road Dust	Phosphorus	7723-14-0	4.04E-03	1.58E-06	1.99E-07	1.38E-02	1.99E-07
A5	Entrained Road Dust	Aluminum	7429-90-5	3.27E-02	1.28E-05	1.61E-06	1.12E-01	1.61E-06

Table 2b. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Peak Day Emission Factor (g/VKT)	Peak Hourly Emssion (lb/hr)	Peak Hourly Emssion (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A5	Entrained Road Dust	Antimony	7440-36-0	4.76E+03	1.86E-06	2.34E-07	1.63E-02	2.34E-07
A5	Entrained Road Dust	Arsenic	7440-38-2	7.21E-04	2.82E-07	3.55E-08	2.47E-03	3.55E-08
A5	Entrained Road Dust	Barium	7440-39-3	1.88E-03	7.33E-07	9.23E-08	6.41E-03	9.22E-08
A5	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A5	Entrained Road Dust	Cadmium	7440-43-9	3.80E-04	1.48E-07	1.87E-08	1.30E-03	1.87E-08
A5	Entrained Road Dust	Chromium	7440-47-3	1.06E-03	4.13E-07	5.21E-08	3.62E-03	5.20E-08
A5	Entrained Road Dust	Cobalt	7440-48-4	5.29E-05	2.07E-08	2.60E-09	1.81E-04	2.60E-09
A5	Entrained Road Dust	Copper	7440-50-8	3.22E-03	1.26E-06	1.59E-07	1.10E-02	1.58E-07
A5	Entrained Road Dust	Lead	7439-92-1	2.50E-01	9.77E-05	1.23E-05	8.55E-01	1.23E-05
A5	Entrained Road Dust	Manganese	7439-96-5	1.73E-03	6.76E-07	8.52E-08	5.92E-03	8.51E-08
A5	Entrained Road Dust	Nickel	7440-02-0	1.25E-03	4.88E-07	6.15E-08	4.27E-03	6.15E-08
A5	Entrained Road Dust	Selenium	7782-49-2	2.12E-04	8.27E-08	1.04E-08	7.23E-04	1.04E-08
A5	Entrained Road Dust	Silver	7440-22-4	1.44E-05	5.64E-09	7.10E-10	4.93E-05	7.09E-10
A5	Entrained Road Dust	Thallium	7440-28-0	7.21E-06	2.82E-09	3.55E-10	2.47E-05	3.55E-10
A5	Entrained Road Dust	Zinc	7440-66-6	5.77E-03	2.25E-06	2.84E-07	1.97E-02	2.84E-07
A5	Entrained Road Dust	Mercury	7439-97-6	9.14E-07	3.57E-10	4.50E-11	3.12E-06	4.49E-11
A5	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A6	Entrained Road Dust	Phosphorus	7723-14-0	4.04E-03	1.58E-06	1.99E-07	1.38E-02	1.98E-07
A6	Entrained Road Dust	Aluminum	7429-90-5	3.27E-02	1.28E-05	1.61E-06	1.12E-01	1.61E-06
A6	Entrained Road Dust	Antimony	7440-36-0	4.76E-03	1.86E-06	2.34E-07	1.63E-02	2.34E-07
A6	Entrained Road Dust	Arsenic	7440-38-2	7.21E-04	2.81E-07	3.55E-08	2.46E-03	3.54E-08
A6	Entrained Road Dust	Barium	7440-39-3	1.88E-03	7.32E-07	9.22E-08	6.40E-03	9.21E-08
A6	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A6	Entrained Road Dust	Cadmium	7440-43-9	3.80E-04	1.48E-07	1.87E-08	1.30E-03	1.87E-08
A6	Entrained Road Dust	Chromium	7440-47-3	1.06E-03	4.13E-07	5.20E-08	3.61E-03	5.20E-08
A6	Entrained Road Dust	Cobalt	7440-48-4	5.29E-05	2.06E-08	2.60E-09	1.81E-04	2.60E-09
A6	Entrained Road Dust	Copper	7440-50-8	3.22E-03	1.26E-06	1.58E-07	1.10E-02	1.58E-07
A6	Entrained Road Dust	Lead	7439-92-1	2.50E-01	9.76E-05	1.23E-05	8.54E-01	1.23E-05
A6	Entrained Road Dust	Manganese	7439-96-5	1.73E-03	6.75E-07	8.51E-08	5.91E-03	8.50E-08
A6	Entrained Road Dust	Nickel	7440-02-0	1.25E-03	4.88E-07	6.15E-08	4.27E-03	6.14E-08
A6	Entrained Road Dust	Selenium	7782-49-2	2.12E-04	8.26E-08	1.04E-08	7.23E-04	1.04E-08
A6	Entrained Road Dust	Silver	7440-22-4	1.44E-05	5.63E-09	7.09E-10	4.93E-05	7.09E-10
A6	Entrained Road Dust	Thallium	7440-28-0	7.21E-06	2.81E-09	3.55E-10	2.46E-05	3.54E-10
A6	Entrained Road Dust	Zinc	7440-66-6	5.77E-03	2.25E-06	2.84E-07	1.97E-02	2.83E-07
A6	Entrained Road Dust	Mercury	7439-97-6	9.14E-07	3.57E-10	4.49E-11	3.12E-06	4.49E-11
A6	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A7	Entrained Road Dust	Phosphorus	7723-14-0	4.04E-03	1.58E-06	1.99E-07	1.38E-02	1.99E-07
A7	Entrained Road Dust	Aluminum	7429-90-5	3.27E-02	1.28E-05	1.61E-06	1.12E-01	1.61E-06
A7	Entrained Road Dust	Antimony	7440-36-0	4.76E-03	1.86E-06	2.34E-07	1.63E-02	2.34E-07
A7	Entrained Road Dust	Arsenic	7440-38-2	7.21E-04	2.82E-07	3.55E-08	2.46E-03	3.54E-08
A7	Entrained Road Dust	Barium	7440-39-3	1.88E-03	7.32E-07	9.23E-08	6.41E-03	9.22E-08
A7	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A7	Entrained Road Dust	Cadmium	7440-43-9	3.80E-04	1.48E-07	1.87E-08	1.30E-03	1.87E-08
A7	Entrained Road Dust	Chromium	7440-47-3	1.06E-03	4.13E-07	5.20E-08	3.61E-03	5.20E-08
A7	Entrained Road Dust	Cobalt	7440-48-4	5.29E-05	2.07E-08	2.60E-09	1.81E-04	2.60E-09
A7	Entrained Road Dust	Copper	7440-50-8	3.22E-03	1.26E-06	1.58E-07	1.10E-02	1.58E-07
A7	Entrained Road Dust	Lead	7439-92-1	2.50E-01	9.76E-05	1.23E-05	8.54E-01	1.23E-05
A7	Entrained Road Dust	Manganese	7439-96-5	1.73E-03	6.76E-07	8.52E-08	5.91E-03	8.51E-08
A7	Entrained Road Dust	Nickel	7440-02-0	1.25E-03	4.88E-07	6.15E-08	4.27E-03	6.14E-08
A7	Entrained Road Dust	Selenium	7782-49-2	2.12E-04	8.26E-08	1.04E-08	7.23E-04	1.04E-08
A7	Entrained Road Dust	Silver	7440-22-4	1.44E-05	5.63E-09	7.10E-10	4.93E-05	7.09E-10
A7	Entrained Road Dust	Thallium	7440-28-0	7.21E-06	2.82E-09	3.55E-10	2.46E-05	3.54E-10
A7	Entrained Road Dust	Zinc	7440-66-6	5.77E-03	2.25E-06	2.84E-07	1.97E-02	2.84E-07
A7	Entrained Road Dust	Mercury	7439-97-6	9.14E-07	3.57E-10	4.49E-11	3.12E-06	4.49E-11
A7	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A8	Entrained Road Dust	Phosphorus	7723-14-0	4.04E-03	1.58E-06	1.99E-07	1.38E-02	1.99E-07
A8	Entrained Road Dust	Aluminum	7429-90-5	3.27E-02	1.28E-05	1.61E-06	1.12E-01	1.61E-06
A8	Entrained Road Dust	Antimony	7440-36-0	4.76E-03	1.86E-06	2.34E-07	1.63E-02	2.34E-07
A8	Entrained Road Dust	Arsenic	7440-38-2	7.21E-04	2.82E-07	3.55E-08	2.46E-03	3.54E-08
A8	Entrained Road Dust	Barium	7440-39-3	1.88E-03	7.32E-07	9.23E-08	6.41E-03	9.22E-08
A8	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A8	Entrained Road Dust	Cadmium	7440-43-9	3.80E-04	1.48E-07	1.87E-08	1.30E-03	1.87E-08
A8	Entrained Road Dust	Chromium	7440-47-3	1.06E-03	4.13E-07	5.20E-08	3.61E-03	5.20E-08
A8	Entrained Road Dust	Cobalt	7440-48-4	5.29E-05	2.07E-08	2.60E-09	1.81E-04	2.60E-09
A8	Entrained Road Dust	Copper	7440-50-8	3.22E-03	1.26E-06	1.58E-07	1.10E-02	1.58E-07
A8	Entrained Road Dust	Lead	7439-92-1	2.50E-01	9.76E-05	1.23E-05	8.54E-01	1.23E-05
A8	Entrained Road Dust	Manganese	7439-96-5	1.73E-03	6.76E-07	8.52E-08	5.91E-03	8.51E-08
A8	Entrained Road Dust	Nickel	7440-02-0	1.25E-03	4.88E-07	6.15E-08	4.27E-03	6.14E-08
A8	Entrained Road Dust	Selenium	7782-49-2	2.12E-04	8.26E-08	1.04E-08	7.23E-04	1.04E-08
A8	Entrained Road Dust	Silver	7440-22-4	1.44E-05	5.63E-09	7.10E-10	4.93E-05	7.09E-10
A8	Entrained Road Dust	Thallium	7440-28-0	7.21E-06	2.82E-09	3.55E-10	2.46E-05	3.54E-10
A8	Entrained Road Dust	Zinc	7440-66-6	5.77E-03	2.25E-06	2.84E-07	1.97E-02	2.84E-07
A8	Entrained Road Dust	Mercury	7439-97-6	9.14E-07	3.57E-10	4.49E-11	3.12E-06	4.49E-11
A8	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A9	Entrained Road Dust	Phosphorus	7723-14-0	4.04E-03	1.58E-06	1.99E-07	1.38E-02	1.99E-07
A9	Entrained Road Dust	Aluminum	7429-90-5	3.27E-02	1.28E-05	1.61E-06	1.12E-01	1.61E-06
A9	Entrained Road Dust	Antimony	7440-36-0	4.76E-03	1.86E-06	2.34E-07	1.63E-02	2.34E-07
A9	Entrained Road Dust	Arsenic	7440-38-2	7.21E-04	2.82E-07	3.55E-08	2.46E-03	3.54E-08

Table 2b. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Peak Day Emission Factor (g/VKT)	Peak Hourly Emssion (lb/hr)	Peak Hourly Emssion (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A9	Entrained Road Dust	Barium	7440-39-3	1.88E+03	7.32E-07	9.23E-08	6.41E-03	9.22E-08
A9	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A9	Entrained Road Dust	Cadmium	7440-43-9	3.80E-04	1.48E-07	1.87E-08	1.30E-03	1.87E-08
A9	Entrained Road Dust	Chromium	7440-47-3	1.06E-03	4.13E-07	5.20E-08	3.61E-03	5.20E-08
A9	Entrained Road Dust	Cobalt	7440-48-4	5.29E-05	2.07E-08	2.60E-09	1.81E-04	2.60E-09
A9	Entrained Road Dust	Copper	7440-50-8	3.22E-03	1.26E-06	1.58E-07	1.10E-02	1.58E-07
A9	Entrained Road Dust	Lead	7439-92-1	2.50E-01	9.76E-05	1.23E-05	8.54E-01	1.23E-05
A9	Entrained Road Dust	Manganese	7439-96-5	1.73E-03	6.76E-07	8.52E-08	5.91E-03	8.51E-08
A9	Entrained Road Dust	Nickel	7440-02-0	1.25E-03	4.88E-07	6.15E-08	4.27E-03	6.14E-08
A9	Entrained Road Dust	Selenium	7782-49-2	2.12E-04	8.26E-08	1.04E-08	7.23E-04	1.04E-08
A9	Entrained Road Dust	Silver	7440-22-4	1.44E-05	5.63E-09	7.10E-10	4.93E-05	7.09E-10
A9	Entrained Road Dust	Thallium	7440-28-0	7.21E-06	2.82E-09	3.55E-10	2.46E-05	3.54E-10
A9	Entrained Road Dust	Zinc	7440-66-6	5.77E-03	2.25E-06	2.84E-07	1.97E-02	2.84E-07
A9	Entrained Road Dust	Mercury	7439-97-6	9.14E-07	3.57E-10	4.49E-11	3.12E-06	4.49E-11
A9	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A10	Entrained Road Dust	Phosphorus	7723-14-0	4.04E-03	1.57E-06	1.98E-07	1.38E-02	1.98E-07
A10	Entrained Road Dust	Aluminum	7429-90-5	3.27E-02	1.27E-05	1.60E-06	1.11E-01	1.60E-06
A10	Entrained Road Dust	Antimony	7440-36-0	4.76E-03	1.85E-06	2.34E-07	1.62E-02	2.33E-07
A10	Entrained Road Dust	Arsenic	7440-38-2	7.21E-04	2.81E-07	3.54E-08	2.46E-03	3.54E-08
A10	Entrained Road Dust	Barium	7440-39-3	1.88E-03	7.30E-07	9.20E-08	6.39E-03	9.19E-08
A10	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A10	Entrained Road Dust	Cadmium	7440-43-9	3.80E-04	1.48E-07	1.86E-08	1.29E-03	1.86E-08
A10	Entrained Road Dust	Chromium	7440-47-3	1.06E-03	4.12E-07	5.19E-08	3.60E-03	5.18E-08
A10	Entrained Road Dust	Cobalt	7440-48-4	5.29E-05	2.06E-08	2.59E-09	1.80E-04	2.59E-09
A10	Entrained Road Dust	Copper	7440-50-8	3.22E-03	1.25E-06	1.58E-07	1.10E-02	1.58E-07
A10	Entrained Road Dust	Lead	7439-92-1	2.50E-01	9.74E-05	1.23E-05	8.52E-01	1.23E-05
A10	Entrained Road Dust	Manganese	7439-96-5	1.73E-03	6.74E-07	8.49E-08	5.90E-03	8.48E-08
A10	Entrained Road Dust	Nickel	7440-02-0	1.25E-03	4.87E-07	6.13E-08	4.26E-03	6.13E-08
A10	Entrained Road Dust	Selenium	7782-49-2	2.12E-04	8.24E-08	1.04E-08	7.21E-04	1.04E-08
A10	Entrained Road Dust	Silver	7440-22-4	1.44E-05	5.62E-09	7.08E-10	4.92E-05	7.07E-10
A10	Entrained Road Dust	Thallium	7440-28-0	7.21E-06	2.81E-09	3.54E-10	2.46E-05	3.54E-10
A10	Entrained Road Dust	Zinc	7440-66-6	5.77E-03	2.25E-06	2.83E-07	1.97E-02	2.83E-07
A10	Entrained Road Dust	Mercury	7439-97-6	9.14E-07	3.56E-10	4.48E-11	3.11E-06	4.48E-11
A10	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A11	Entrained Road Dust	Phosphorus	7723-14-0	6.79E-03	4.78E-06	6.03E-07	2.55E-02	3.66E-07
A11	Entrained Road Dust	Aluminum	7429-90-5	6.35E-02	4.48E-05	5.64E-06	2.38E-01	3.43E-06
A11	Entrained Road Dust	Antimony	7440-36-0	7.22E-03	5.09E-06	6.42E-07	2.71E-02	3.90E-07
A11	Entrained Road Dust	Arsenic	7440-38-2	1.31E-03	9.20E-07	1.16E-07	4.90E-03	7.04E-08
A11	Entrained Road Dust	Barium	7440-39-3	3.57E-03	2.52E-06	3.17E-07	1.34E-02	1.93E-07
A11	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A11	Entrained Road Dust	Cadmium	7440-43-9	6.96E-04	4.91E-07	6.18E-08	2.61E-03	3.76E-08
A11	Entrained Road Dust	Chromium	7440-47-3	3.13E-03	2.21E-06	2.78E-07	1.18E-02	1.69E-07
A11	Entrained Road Dust	Cobalt	7440-48-4	1.22E-04	8.59E-08	1.08E-08	4.57E-04	6.58E-09
A11	Entrained Road Dust	Copper	7440-50-8	7.05E-03	4.97E-06	6.26E-07	2.64E-02	3.80E-07
A11	Entrained Road Dust	Lead	7439-92-1	3.83E-01	2.70E-04	3.40E-05	1.44E+00	2.07E-05
A11	Entrained Road Dust	Manganese	7439-96-5	3.05E-03	2.15E-06	2.71E-07	1.14E-02	1.64E-07
A11	Entrained Road Dust	Nickel	7440-02-0	3.39E-03	2.39E-06	3.01E-07	1.27E-02	1.83E-07
A11	Entrained Road Dust	Selenium	7782-49-2	5.14E-04	3.62E-07	4.56E-08	1.93E-03	2.77E-08
A11	Entrained Road Dust	Silver	7440-22-4	2.61E-05	1.84E-08	2.32E-09	9.80E-05	1.41E-09
A11	Entrained Road Dust	Thallium	7440-28-0	9.57E-06	6.75E-09	8.50E-10	3.59E-05	5.17E-10
A11	Entrained Road Dust	Zinc	7440-66-6	2.18E-02	1.53E-05	1.93E-06	8.16E-02	1.17E-06
A11	Entrained Road Dust	Mercury	7439-97-6	1.65E-06	1.17E-09	1.47E-10	6.20E-06	8.92E-11
A11	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A12	Entrained Road Dust	Phosphorus	7723-14-0	6.79E-03	4.78E-06	6.03E-07	2.55E-02	3.66E-07
A12	Entrained Road Dust	Aluminum	7429-90-5	6.35E-02	4.48E-05	5.64E-06	2.38E-01	3.43E-06
A12	Entrained Road Dust	Antimony	7440-36-0	7.22E-03	5.09E-06	6.42E-07	2.71E-02	3.90E-07
A12	Entrained Road Dust	Arsenic	7440-38-2	1.31E-03	9.20E-07	1.16E-07	4.90E-03	7.04E-08
A12	Entrained Road Dust	Barium	7440-39-3	3.57E-03	2.52E-06	3.17E-07	1.34E-02	1.93E-07
A12	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A12	Entrained Road Dust	Cadmium	7440-43-9	6.96E-04	4.91E-07	6.18E-08	2.61E-03	3.76E-08
A12	Entrained Road Dust	Chromium	7440-47-3	3.13E-03	2.21E-06	2.78E-07	1.18E-02	1.69E-07
A12	Entrained Road Dust	Cobalt	7440-48-4	1.22E-04	8.59E-08	1.08E-08	4.57E-04	6.58E-09
A12	Entrained Road Dust	Copper	7440-50-8	7.05E-03	4.97E-06	6.26E-07	2.64E-02	3.80E-07
A12	Entrained Road Dust	Lead	7439-92-1	3.83E-01	2.70E-04	3.40E-05	1.44E+00	2.07E-05
A12	Entrained Road Dust	Manganese	7439-96-5	3.05E-03	2.15E-06	2.71E-07	1.14E-02	1.64E-07
A12	Entrained Road Dust	Nickel	7440-02-0	3.39E-03	2.39E-06	3.01E-07	1.27E-02	1.83E-07
A12	Entrained Road Dust	Selenium	7782-49-2	5.14E-04	3.62E-07	4.56E-08	1.93E-03	2.77E-08
A12	Entrained Road Dust	Silver	7440-22-4	2.61E-05	1.84E-08	2.32E-09	9.80E-05	1.41E-09
A12	Entrained Road Dust	Thallium	7440-28-0	9.57E-06	6.75E-09	8.50E-10	3.59E-05	5.17E-10
A12	Entrained Road Dust	Zinc	7440-66-6	2.18E-02	1.53E-05	1.93E-06	8.16E-02	1.17E-06
A12	Entrained Road Dust	Mercury	7439-97-6	1.65E-06	1.17E-09	1.47E-10	6.20E-06	8.92E-11
A12	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A13	Entrained Road Dust	Phosphorus	7723-14-0	7.12E-03	5.02E-06	6.33E-07	2.67E-02	3.84E-07
A13	Entrained Road Dust	Aluminum	7429-90-5	3.90E-02	2.75E-05	3.47E-06	1.46E-01	2.11E-06
A13	Entrained Road Dust	Antimony	7440-36-0	1.76E-02	1.24E-05	1.56E-06	6.59E-02	9.48E-07
A13	Entrained Road Dust	Arsenic	7440-38-2	1.95E-03	1.38E-06	1.73E-07	7.32E-03	1.05E-07
A13	Entrained Road Dust	Barium	7440-39-3	3.03E-03	2.13E-06	2.69E-07	1.14E-02	1.63E-07
A13	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 2b. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Peak Day Emission Factor (g/VKT)	Peak Hourly Emssion (lb/hr)	Peak Hourly Emssion (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A13	Entrained Road Dust	Cadmium	7440-43-9	1.17E+03	8.25E-07	1.04E-07	4.39E-03	6.32E-08
A13	Entrained Road Dust	Chromium	7440-47-3	2.83E-03	1.99E-06	2.51E-07	1.06E-02	1.53E-07
A13	Entrained Road Dust	Cobalt	7440-48-4	1.46E-04	1.03E-07	1.30E-08	5.49E-04	7.90E-09
A13	Entrained Road Dust	Copper	7440-50-8	1.27E-02	8.94E-06	1.13E-06	4.76E-02	6.85E-07
A13	Entrained Road Dust	Lead	7439-92-1	5.66E-01	3.99E-04	5.03E-05	2.12E+00	3.05E-05
A13	Entrained Road Dust	Manganese	7439-96-5	3.51E-03	2.48E-06	3.12E-07	1.32E-02	1.90E-07
A13	Entrained Road Dust	Nickel	7440-02-0	4.59E-03	3.23E-06	4.07E-07	1.72E-02	2.48E-07
A13	Entrained Road Dust	Selenium	7782-49-2	9.08E-04	6.40E-07	8.06E-08	3.41E-03	4.90E-08
A13	Entrained Road Dust	Silver	7440-22-4	4.78E-05	3.37E-08	4.25E-09	1.79E-04	2.58E-09
A13	Entrained Road Dust	Thallium	7440-28-0	1.76E-05	1.24E-08	1.56E-09	6.59E-05	9.48E-10
A13	Entrained Road Dust	Zinc	7440-66-6	4.88E-03	3.44E-06	4.33E-07	1.83E-02	2.63E-07
A13	Entrained Road Dust	Mercury	7439-97-6	1.07E-06	7.57E-10	9.53E-11	4.03E-06	5.79E-11
A13	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A14	Entrained Road Dust	Phosphorus	7723-14-0	7.12E-03	5.02E-06	6.32E-07	2.67E-02	3.84E-07
A14	Entrained Road Dust	Aluminum	7429-90-5	3.90E-02	2.75E-05	3.46E-06	1.46E-01	2.11E-06
A14	Entrained Road Dust	Antimony	7440-36-0	1.76E-02	1.24E-05	1.56E-06	6.59E-02	9.47E-07
A14	Entrained Road Dust	Arsenic	7440-38-2	1.95E-03	1.37E-06	1.73E-07	7.32E-03	1.05E-07
A14	Entrained Road Dust	Barium	7440-39-3	3.03E-03	2.13E-06	2.69E-07	1.13E-02	1.63E-07
A14	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A14	Entrained Road Dust	Cadmium	7440-43-9	1.17E-03	8.25E-07	1.04E-07	4.39E-03	6.32E-08
A14	Entrained Road Dust	Chromium	7440-47-3	2.83E-03	1.99E-06	2.51E-07	1.06E-02	1.53E-07
A14	Entrained Road Dust	Cobalt	7440-48-4	1.46E-04	1.03E-07	1.30E-08	5.49E-04	7.89E-09
A14	Entrained Road Dust	Copper	7440-50-8	1.27E-02	8.94E-06	1.13E-06	4.76E-02	6.84E-07
A14	Entrained Road Dust	Lead	7439-92-1	5.66E-01	3.99E-04	5.02E-05	2.12E+00	3.05E-05
A14	Entrained Road Dust	Manganese	7439-96-5	3.51E-03	2.47E-06	3.12E-07	1.32E-02	1.89E-07
A14	Entrained Road Dust	Nickel	7440-02-0	4.59E-03	3.23E-06	4.07E-07	1.72E-02	2.47E-07
A14	Entrained Road Dust	Selenium	7782-49-2	9.08E-04	6.39E-07	8.06E-08	3.40E-03	4.89E-08
A14	Entrained Road Dust	Silver	7440-22-4	4.78E-05	3.37E-08	4.24E-09	1.79E-04	2.58E-09
A14	Entrained Road Dust	Thallium	7440-28-0	1.76E-05	1.24E-08	1.56E-09	6.59E-05	9.47E-10
A14	Entrained Road Dust	Zinc	7440-66-6	4.88E-03	3.44E-06	4.33E-07	1.83E-02	2.63E-07
A14	Entrained Road Dust	Mercury	7439-97-6	1.07E-06	7.56E-10	9.53E-11	4.03E-06	5.79E-11
A14	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A15	Entrained Road Dust	Phosphorus	7723-14-0	7.12E-03	5.02E-06	6.33E-07	2.67E-02	3.85E-07
A15	Entrained Road Dust	Aluminum	7429-90-5	3.90E-02	2.75E-05	3.47E-06	1.47E-01	2.11E-06
A15	Entrained Road Dust	Antimony	7440-36-0	1.76E-02	1.24E-05	1.56E-06	6.59E-02	9.48E-07
A15	Entrained Road Dust	Arsenic	7440-38-2	1.95E-03	1.38E-06	1.73E-07	7.33E-03	1.05E-07
A15	Entrained Road Dust	Barium	7440-39-3	3.03E-03	2.13E-06	2.69E-07	1.14E-02	1.63E-07
A15	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A15	Entrained Road Dust	Cadmium	7440-43-9	1.17E-03	8.26E-07	1.04E-07	4.40E-03	6.32E-08
A15	Entrained Road Dust	Chromium	7440-47-3	2.83E-03	2.00E-06	2.51E-07	1.06E-02	1.53E-07
A15	Entrained Road Dust	Cobalt	7440-48-4	1.46E-04	1.03E-07	1.30E-08	5.49E-04	7.90E-09
A15	Entrained Road Dust	Copper	7440-50-8	1.27E-02	8.95E-06	1.13E-06	4.76E-02	6.85E-07
A15	Entrained Road Dust	Lead	7439-92-1	5.66E-01	3.99E-04	5.03E-05	2.12E+00	3.06E-05
A15	Entrained Road Dust	Manganese	7439-96-5	3.51E-03	2.48E-06	3.12E-07	1.32E-02	1.90E-07
A15	Entrained Road Dust	Nickel	7440-02-0	4.59E-03	3.23E-06	4.08E-07	1.72E-02	2.48E-07
A15	Entrained Road Dust	Selenium	7782-49-2	9.08E-04	6.40E-07	8.06E-08	3.41E-03	4.90E-08
A15	Entrained Road Dust	Silver	7440-22-4	4.78E-05	3.37E-08	4.25E-09	1.80E-04	2.58E-09
A15	Entrained Road Dust	Thallium	7440-28-0	1.76E-05	1.24E-08	1.56E-09	6.59E-05	9.48E-10
A15	Entrained Road Dust	Zinc	7440-66-6	4.88E-03	3.44E-06	4.34E-07	1.83E-02	2.63E-07
A15	Entrained Road Dust	Mercury	7439-97-6	1.07E-06	7.57E-10	9.54E-11	4.03E-06	5.80E-11
A15	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A16	Entrained Road Dust	Phosphorus	7723-14-0	7.12E-03	5.02E-06	6.33E-07	2.67E-02	3.84E-07
A16	Entrained Road Dust	Aluminum	7429-90-5	3.90E-02	2.75E-05	3.47E-06	1.46E-01	2.11E-06
A16	Entrained Road Dust	Antimony	7440-36-0	1.76E-02	1.24E-05	1.56E-06	6.59E-02	9.48E-07
A16	Entrained Road Dust	Arsenic	7440-38-2	1.95E-03	1.38E-06	1.73E-07	7.32E-03	1.05E-07
A16	Entrained Road Dust	Barium	7440-39-3	3.03E-03	2.13E-06	2.69E-07	1.14E-02	1.63E-07
A16	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A16	Entrained Road Dust	Cadmium	7440-43-9	1.17E-03	8.25E-07	1.04E-07	4.39E-03	6.32E-08
A16	Entrained Road Dust	Chromium	7440-47-3	2.83E-03	1.99E-06	2.51E-07	1.06E-02	1.53E-07
A16	Entrained Road Dust	Cobalt	7440-48-4	1.46E-04	1.03E-07	1.30E-08	5.49E-04	7.90E-09
A16	Entrained Road Dust	Copper	7440-50-8	1.27E-02	8.94E-06	1.13E-06	4.76E-02	6.85E-07
A16	Entrained Road Dust	Lead	7439-92-1	5.66E-01	3.99E-04	5.03E-05	2.12E+00	3.05E-05
A16	Entrained Road Dust	Manganese	7439-96-5	3.51E-03	2.48E-06	3.12E-07	1.32E-02	1.90E-07
A16	Entrained Road Dust	Nickel	7440-02-0	4.59E-03	3.23E-06	4.07E-07	1.72E-02	2.48E-07
A16	Entrained Road Dust	Selenium	7782-49-2	9.08E-04	6.40E-07	8.06E-08	3.41E-03	4.90E-08
A16	Entrained Road Dust	Silver	7440-22-4	4.78E-05	3.37E-08	4.25E-09	1.79E-04	2.58E-09
A16	Entrained Road Dust	Thallium	7440-28-0	1.76E-05	1.24E-08	1.56E-09	6.59E-05	9.48E-10
A16	Entrained Road Dust	Zinc	7440-66-6	4.88E-03	3.44E-06	4.33E-07	1.83E-02	2.63E-07
A16	Entrained Road Dust	Mercury	7439-97-6	1.07E-06	7.57E-10	9.53E-11	4.03E-06	5.79E-11
A16	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A17	Entrained Road Dust	Phosphorus	7723-14-0	5.58E-03	4.50E-06	5.67E-07	2.40E-02	3.45E-07
A17	Entrained Road Dust	Aluminum	7429-90-5	4.60E-02	3.71E-05	4.68E-06	1.98E-01	2.84E-06
A17	Entrained Road Dust	Antimony	7440-36-0	3.32E-03	2.68E-06	3.37E-07	1.42E-02	2.05E-07
A17	Entrained Road Dust	Arsenic	7440-38-2	7.24E-04	5.84E-07	7.36E-08	3.11E-03	4.47E-08
A17	Entrained Road Dust	Barium	7440-39-3	2.41E-03	1.95E-06	2.45E-07	1.04E-02	1.49E-07
A17	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A17	Entrained Road Dust	Cadmium	7440-43-9	4.07E-04	3.28E-07	4.14E-08	1.75E-03	2.52E-08
A17	Entrained Road Dust	Chromium	7440-47-3	3.17E-03	2.55E-06	3.22E-07	1.36E-02	1.96E-07

Table 2b. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Peak Day Emission Factor (g/VKT)	Peak Hourly Emssion (lb/hr)	Peak Hourly Emssion (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A17	Entrained Road Dust	Cobalt	7440-48-4	1.58E-04	1.28E-07	1.61E-08	6.80E-04	9.78E-09
A17	Entrained Road Dust	Copper	7440-50-8	8.30E-03	6.69E-06	8.43E-07	3.56E-02	5.12E-07
A17	Entrained Road Dust	Lead	7439-92-1	3.40E-01	2.74E-04	3.45E-05	1.46E+00	2.10E-05
A17	Entrained Road Dust	Manganese	7439-96-5	3.24E-03	2.62E-06	3.30E-07	1.39E-02	2.00E-07
A17	Entrained Road Dust	Nickel	7440-02-0	3.02E-03	2.43E-06	3.07E-07	1.30E-02	1.86E-07
A17	Entrained Road Dust	Selenium	7782-49-2	3.17E-04	2.55E-07	3.22E-08	1.36E-03	1.96E-08
A17	Entrained Road Dust	Silver	7440-22-4	1.36E-05	1.09E-08	1.38E-09	5.83E-05	8.38E-10
A17	Entrained Road Dust	Thallium	7440-28-0	6.26E-06	5.05E-09	6.36E-10	2.69E-05	3.87E-10
A17	Entrained Road Dust	Zinc	7440-66-6	1.58E-02	1.28E-05	1.61E-06	6.80E-02	9.78E-07
A17	Entrained Road Dust	Mercury	7439-97-6	1.21E-06	9.73E-10	1.23E-10	5.18E-06	7.45E-11
A17	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A18	Entrained Road Dust	Phosphorus	7723-14-0	5.58E-03	3.94E-06	4.96E-07	2.10E-02	3.02E-07
A18	Entrained Road Dust	Aluminum	7429-90-5	4.60E-02	3.25E-05	4.09E-06	1.73E-01	2.49E-06
A18	Entrained Road Dust	Antimony	7440-36-0	3.32E-03	2.34E-06	2.95E-07	1.25E-02	1.79E-07
A18	Entrained Road Dust	Arsenic	7440-38-2	7.24E-04	5.11E-07	6.44E-08	2.72E-03	3.91E-08
A18	Entrained Road Dust	Barium	7440-39-3	2.41E-03	1.70E-06	2.15E-07	9.07E-03	1.30E-07
A18	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A18	Entrained Road Dust	Cadmium	7440-43-9	4.07E-04	2.88E-07	3.62E-08	1.53E-03	2.20E-08
A18	Entrained Road Dust	Chromium	7440-47-3	3.17E-03	2.24E-06	2.82E-07	1.19E-02	1.71E-07
A18	Entrained Road Dust	Cobalt	7440-48-4	1.58E-04	1.12E-07	1.41E-08	5.95E-04	8.56E-09
A18	Entrained Road Dust	Copper	7440-50-8	8.30E-03	5.86E-06	7.38E-07	3.12E-02	4.48E-07
A18	Entrained Road Dust	Lead	7439-92-1	3.40E-01	2.40E-04	3.02E-05	1.28E+00	1.83E-05
A18	Entrained Road Dust	Manganese	7439-96-5	3.24E-03	2.29E-06	2.88E-07	1.22E-02	1.75E-07
A18	Entrained Road Dust	Nickel	7440-02-0	3.02E-03	2.13E-06	2.68E-07	1.13E-02	1.63E-07
A18	Entrained Road Dust	Selenium	7782-49-2	3.17E-04	2.24E-07	2.82E-08	1.19E-03	1.71E-08
A18	Entrained Road Dust	Silver	7440-22-4	1.36E-05	9.58E-09	1.21E-09	5.10E-05	7.34E-10
A18	Entrained Road Dust	Thallium	7440-28-0	6.26E-06	4.42E-09	5.57E-10	2.35E-05	3.38E-10
A18	Entrained Road Dust	Zinc	7440-66-6	1.58E-02	1.12E-05	1.41E-06	5.95E-02	8.56E-07
A18	Entrained Road Dust	Mercury	7439-97-6	1.21E-06	8.52E-10	1.07E-10	4.53E-06	6.52E-11
A18	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A19	Entrained Road Dust	Phosphorus	7723-14-0	5.58E-03	3.95E-06	4.98E-07	2.10E-02	3.02E-07
A19	Entrained Road Dust	Aluminum	7429-90-5	4.60E-02	3.26E-05	4.10E-06	1.73E-01	2.49E-06
A19	Entrained Road Dust	Antimony	7440-36-0	3.32E-03	2.35E-06	2.96E-07	1.25E-02	1.80E-07
A19	Entrained Road Dust	Arsenic	7440-38-2	7.24E-04	5.12E-07	6.46E-08	2.73E-03	3.92E-08
A19	Entrained Road Dust	Barium	7440-39-3	2.41E-03	1.71E-06	2.15E-07	9.09E-03	1.31E-07
A19	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A19	Entrained Road Dust	Cadmium	7440-43-9	4.07E-04	2.88E-07	3.63E-08	1.53E-03	2.21E-08
A19	Entrained Road Dust	Chromium	7440-47-3	3.17E-03	2.24E-06	2.82E-07	1.19E-02	1.72E-07
A19	Entrained Road Dust	Cobalt	7440-48-4	1.58E-04	1.12E-07	1.41E-08	5.97E-04	8.58E-09
A19	Entrained Road Dust	Copper	7440-50-8	8.30E-03	5.87E-06	7.40E-07	3.13E-02	4.50E-07
A19	Entrained Road Dust	Lead	7439-92-1	3.40E-01	2.40E-04	3.03E-05	1.28E+00	1.84E-05
A19	Entrained Road Dust	Manganese	7439-96-5	3.24E-03	2.30E-06	2.89E-07	1.22E-02	1.76E-07
A19	Entrained Road Dust	Nickel	7440-02-0	3.02E-03	2.13E-06	2.69E-07	1.14E-02	1.63E-07
A19	Entrained Road Dust	Selenium	7782-49-2	3.17E-04	2.24E-07	2.82E-08	1.19E-03	1.72E-08
A19	Entrained Road Dust	Silver	7440-22-4	1.36E-05	9.61E-09	1.21E-09	5.11E-05	7.36E-10
A19	Entrained Road Dust	Thallium	7440-28-0	6.26E-06	4.43E-09	5.58E-10	2.36E-05	3.39E-10
A19	Entrained Road Dust	Zinc	7440-66-6	1.58E-02	1.12E-05	1.41E-06	5.97E-02	8.58E-07
A19	Entrained Road Dust	Mercury	7439-97-6	1.21E-06	8.54E-10	1.08E-10	4.55E-06	6.54E-11
A19	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A20	Entrained Road Dust	Phosphorus	7723-14-0	5.58E-03	3.84E-06	4.84E-07	2.04E-02	2.94E-07
A20	Entrained Road Dust	Aluminum	7429-90-5	4.60E-02	3.16E-05	3.99E-06	1.68E-01	2.42E-06
A20	Entrained Road Dust	Antimony	7440-36-0	3.32E-03	2.28E-06	2.88E-07	1.21E-02	1.75E-07
A20	Entrained Road Dust	Arsenic	7440-38-2	7.24E-04	4.98E-07	6.27E-08	2.65E-03	3.81E-08
A20	Entrained Road Dust	Barium	7440-39-3	2.41E-03	1.66E-06	2.09E-07	8.84E-03	1.27E-07
A20	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A20	Entrained Road Dust	Cadmium	7440-43-9	4.07E-04	2.80E-07	3.53E-08	1.49E-03	2.14E-08
A20	Entrained Road Dust	Chromium	7440-47-3	3.17E-03	2.18E-06	2.75E-07	1.16E-02	1.67E-07
A20	Entrained Road Dust	Cobalt	7440-48-4	1.58E-04	1.09E-07	1.37E-08	5.80E-04	8.34E-09
A20	Entrained Road Dust	Copper	7440-50-8	8.30E-03	5.71E-06	7.19E-07	3.04E-02	4.37E-07
A20	Entrained Road Dust	Lead	7439-92-1	3.40E-01	2.33E-04	2.94E-05	1.24E+00	1.79E-05
A20	Entrained Road Dust	Manganese	7439-96-5	3.24E-03	2.23E-06	2.81E-07	1.19E-02	1.71E-07
A20	Entrained Road Dust	Nickel	7440-02-0	3.02E-03	2.08E-06	2.61E-07	1.10E-02	1.59E-07
A20	Entrained Road Dust	Selenium	7782-49-2	3.17E-04	2.18E-07	2.75E-08	1.16E-03	1.67E-08
A20	Entrained Road Dust	Silver	7440-22-4	1.36E-05	9.34E-09	1.18E-09	4.97E-05	7.15E-10
A20	Entrained Road Dust	Thallium	7440-28-0	6.26E-06	4.31E-09	5.43E-10	2.29E-05	3.30E-10
A20	Entrained Road Dust	Zinc	7440-66-6	1.58E-02	1.09E-05	1.37E-06	5.80E-02	8.34E-07
A20	Entrained Road Dust	Mercury	7439-97-6	1.21E-06	8.30E-10	1.05E-10	4.42E-06	6.35E-11
A20	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A21	Entrained Road Dust	Phosphorus	7723-14-0	3.89E-03	2.52E-06	3.18E-07	1.34E-02	1.93E-07
A21	Entrained Road Dust	Aluminum	7429-90-5	5.11E-02	3.31E-05	4.17E-06	1.76E-01	2.53E-06
A21	Entrained Road Dust	Antimony	7440-36-0	2.01E-03	1.30E-06	1.64E-07	6.92E-03	9.95E-08
A21	Entrained Road Dust	Arsenic	7440-38-2	6.08E-04	3.94E-07	4.96E-08	2.10E-03	3.01E-08
A21	Entrained Road Dust	Barium	7440-39-3	2.43E-03	1.57E-06	1.98E-07	8.38E-03	1.21E-07
A21	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A21	Entrained Road Dust	Cadmium	7440-43-9	2.73E-04	1.77E-07	2.23E-08	9.43E-04	1.36E-08
A21	Entrained Road Dust	Chromium	7440-47-3	4.13E-04	2.68E-07	3.37E-08	1.43E-03	2.05E-08
A21	Entrained Road Dust	Cobalt	7440-48-4	7.29E-05	4.72E-08	5.95E-09	2.51E-04	3.62E-09
A21	Entrained Road Dust	Copper	7440-50-8	3.40E-03	2.20E-06	2.78E-07	1.17E-02	1.69E-07

Table 2b. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Peak Day Emission Factor (g/VKT)	Peak Hourly Emssion (lb/hr)	Peak Hourly Emssion (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A21	Entrained Road Dust	Lead	7439-92-1	2.43E-01	1.57E-04	1.98E-05	8.38E-01	1.21E-05
A21	Entrained Road Dust	Manganese	7439-96-5	1.58E-03	1.02E-06	1.29E-07	5.45E-03	7.84E-08
A21	Entrained Road Dust	Nickel	7440-02-0	7.29E-04	4.72E-07	5.95E-08	2.51E-03	3.62E-08
A21	Entrained Road Dust	Selenium	7782-49-2	2.07E-04	1.34E-07	1.69E-08	7.13E-04	1.02E-08
A21	Entrained Road Dust	Silver	7440-22-4	8.51E-06	5.51E-09	6.95E-10	2.93E-05	4.22E-10
A21	Entrained Road Dust	Thallium	7440-28-0	3.10E-06	2.01E-09	2.53E-10	1.07E-05	1.54E-10
A21	Entrained Road Dust	Zinc	7440-66-6	3.10E-02	2.01E-05	2.53E-06	1.07E-01	1.54E-06
A21	Entrained Road Dust	Mercury	7439-97-6	8.51E-07	5.51E-10	6.95E-11	2.93E-06	4.22E-11
A21	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A22	Entrained Road Dust	Phosphorus	7723-14-0	3.89E-03	2.66E-06	3.35E-07	1.41E-02	2.03E-07
A22	Entrained Road Dust	Aluminum	7429-90-5	5.11E-02	3.49E-05	4.39E-06	1.86E-01	2.67E-06
A22	Entrained Road Dust	Antimony	7440-36-0	2.01E-03	1.37E-06	1.73E-07	7.29E-03	1.05E-07
A22	Entrained Road Dust	Arsenic	7440-38-2	6.08E-04	4.15E-07	5.23E-08	2.21E-03	3.18E-08
A22	Entrained Road Dust	Barium	7440-39-3	2.43E-03	1.66E-06	2.09E-07	8.84E-03	1.27E-07
A22	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A22	Entrained Road Dust	Cadmium	7440-43-9	2.73E-04	1.87E-07	2.35E-08	9.94E-04	1.43E-08
A22	Entrained Road Dust	Chromium	7440-47-3	4.13E-04	2.82E-07	3.56E-08	1.50E-03	2.16E-08
A22	Entrained Road Dust	Cobalt	7440-48-4	7.29E-05	4.98E-08	6.28E-09	2.65E-04	3.81E-09
A22	Entrained Road Dust	Copper	7440-50-8	3.40E-03	2.32E-06	2.93E-07	1.24E-02	1.78E-07
A22	Entrained Road Dust	Lead	7439-92-1	2.43E-01	1.66E-04	2.09E-05	8.84E-01	1.27E-05
A22	Entrained Road Dust	Manganese	7439-96-5	1.58E-03	1.08E-06	1.36E-07	5.75E-03	8.26E-08
A22	Entrained Road Dust	Nickel	7440-02-0	7.29E-04	4.98E-07	6.28E-08	2.65E-03	3.81E-08
A22	Entrained Road Dust	Selenium	7782-49-2	2.07E-04	1.41E-07	1.78E-08	7.51E-04	1.08E-08
A22	Entrained Road Dust	Silver	7440-22-4	8.51E-06	5.81E-09	7.32E-10	3.09E-05	4.45E-10
A22	Entrained Road Dust	Thallium	7440-28-0	3.10E-06	2.12E-09	2.67E-10	1.13E-05	1.62E-10
A22	Entrained Road Dust	Zinc	7440-66-6	3.10E-02	2.12E-05	2.67E-06	1.13E-01	1.62E-06
A22	Entrained Road Dust	Mercury	7439-97-6	8.51E-07	5.81E-10	7.32E-11	3.09E-06	4.45E-11
A22	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A23	Entrained Road Dust	Phosphorus	7723-14-0	3.89E-03	2.74E-06	3.45E-07	1.46E-02	2.10E-07
A23	Entrained Road Dust	Aluminum	7429-90-5	5.11E-02	3.60E-05	4.53E-06	1.91E-01	2.75E-06
A23	Entrained Road Dust	Antimony	7440-36-0	2.01E-03	1.41E-06	1.78E-07	7.52E-03	1.08E-07
A23	Entrained Road Dust	Arsenic	7440-38-2	6.08E-04	4.28E-07	5.39E-08	2.28E-03	3.28E-08
A23	Entrained Road Dust	Barium	7440-39-3	2.43E-03	1.71E-06	2.16E-07	9.12E-03	1.31E-07
A23	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A23	Entrained Road Dust	Cadmium	7440-43-9	2.73E-04	1.93E-07	2.43E-08	1.03E-03	1.48E-08
A23	Entrained Road Dust	Chromium	7440-47-3	4.13E-04	2.91E-07	3.67E-08	1.55E-03	2.23E-08
A23	Entrained Road Dust	Cobalt	7440-48-4	7.29E-05	5.14E-08	6.47E-09	2.73E-04	3.93E-09
A23	Entrained Road Dust	Copper	7440-50-8	3.40E-03	2.40E-06	3.02E-07	1.28E-02	1.84E-07
A23	Entrained Road Dust	Lead	7439-92-1	2.43E-01	1.71E-04	2.16E-05	9.12E-01	1.31E-05
A23	Entrained Road Dust	Manganese	7439-96-5	1.58E-03	1.11E-06	1.40E-07	5.93E-03	8.52E-08
A23	Entrained Road Dust	Nickel	7440-02-0	7.29E-04	5.14E-07	6.47E-08	2.73E-03	3.93E-08
A23	Entrained Road Dust	Selenium	7782-49-2	2.07E-04	1.46E-07	1.83E-08	7.75E-04	1.11E-08
A23	Entrained Road Dust	Silver	7440-22-4	8.51E-06	5.99E-09	7.55E-10	3.19E-05	4.59E-10
A23	Entrained Road Dust	Thallium	7440-28-0	3.10E-06	2.18E-09	2.75E-10	1.16E-05	1.67E-10
A23	Entrained Road Dust	Zinc	7440-66-6	3.10E-02	2.18E-05	2.75E-06	1.16E-01	1.67E-06
A23	Entrained Road Dust	Mercury	7439-97-6	8.51E-07	5.99E-10	7.55E-11	3.19E-06	4.59E-11
A23	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A24	Entrained Road Dust	Phosphorus	7723-14-0	3.89E-03	2.72E-06	3.43E-07	1.45E-02	2.08E-07
A24	Entrained Road Dust	Aluminum	7429-90-5	5.11E-02	3.57E-05	4.50E-06	1.90E-01	2.73E-06
A24	Entrained Road Dust	Antimony	7440-36-0	2.01E-03	1.40E-06	1.77E-07	7.47E-03	1.07E-07
A24	Entrained Road Dust	Arsenic	7440-38-2	6.08E-04	4.25E-07	5.36E-08	2.26E-03	3.26E-08
A24	Entrained Road Dust	Barium	7440-39-3	2.43E-03	1.70E-06	2.14E-07	9.05E-03	1.30E-07
A24	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A24	Entrained Road Dust	Cadmium	7440-43-9	2.73E-04	1.91E-07	2.41E-08	1.02E-03	1.46E-08
A24	Entrained Road Dust	Chromium	7440-47-3	4.13E-04	2.89E-07	3.64E-08	1.54E-03	2.21E-08
A24	Entrained Road Dust	Cobalt	7440-48-4	7.29E-05	5.10E-08	6.43E-09	2.72E-04	3.91E-09
A24	Entrained Road Dust	Copper	7440-50-8	3.40E-03	2.38E-06	3.00E-07	1.27E-02	1.82E-07
A24	Entrained Road Dust	Lead	7439-92-1	2.43E-01	1.70E-04	2.14E-05	9.05E-01	1.30E-05
A24	Entrained Road Dust	Manganese	7439-96-5	1.58E-03	1.11E-06	1.39E-07	5.88E-03	8.46E-08
A24	Entrained Road Dust	Nickel	7440-02-0	7.29E-04	5.10E-07	6.43E-08	2.72E-03	3.91E-08
A24	Entrained Road Dust	Selenium	7782-49-2	2.07E-04	1.45E-07	1.82E-08	7.69E-04	1.11E-08
A24	Entrained Road Dust	Silver	7440-22-4	8.51E-06	5.95E-09	7.50E-10	3.17E-05	4.56E-10
A24	Entrained Road Dust	Thallium	7440-28-0	3.10E-06	2.17E-09	2.73E-10	1.15E-05	1.66E-10
A24	Entrained Road Dust	Zinc	7440-66-6	3.10E-02	2.17E-05	2.73E-06	1.15E-01	1.66E-06
A24	Entrained Road Dust	Mercury	7439-97-6	8.51E-07	5.95E-10	7.50E-11	3.17E-06	4.56E-11
A24	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A25	Entrained Road Dust	Phosphorus	7723-14-0	3.89E-03	2.75E-06	3.46E-07	1.46E-02	2.10E-07
A25	Entrained Road Dust	Aluminum	7429-90-5	5.11E-02	3.60E-05	4.54E-06	1.92E-01	2.76E-06
A25	Entrained Road Dust	Antimony	7440-36-0	2.01E-03	1.42E-06	1.78E-07	7.54E-03	1.08E-07
A25	Entrained Road Dust	Arsenic	7440-38-2	6.08E-04	4.29E-07	5.41E-08	2.28E-03	3.29E-08
A25	Entrained Road Dust	Barium	7440-39-3	2.43E-03	1.72E-06	2.16E-07	9.14E-03	1.31E-07
A25	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A25	Entrained Road Dust	Cadmium	7440-43-9	2.73E-04	1.93E-07	2.43E-08	1.03E-03	1.48E-08
A25	Entrained Road Dust	Chromium	7440-47-3	4.13E-04	2.92E-07	3.68E-08	1.55E-03	2.23E-08
A25	Entrained Road Dust	Cobalt	7440-48-4	7.29E-05	5.15E-08	6.49E-09	2.74E-04	3.94E-09
A25	Entrained Road Dust	Copper	7440-50-8	3.40E-03	2.40E-06	3.03E-07	1.28E-02	1.84E-07
A25	Entrained Road Dust	Lead	7439-92-1	2.43E-01	1.72E-04	2.16E-05	9.14E-01	1.31E-05
A25	Entrained Road Dust	Manganese	7439-96-5	1.58E-03	1.12E-06	1.41E-07	5.94E-03	8.54E-08

Table 2b. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Peak Day Emission Factor (g/VKT)	Peak Hourly Emssion (lb/hr)	Peak Hourly Emssion (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A25	Entrained Road Dust	Nickel	7440-02-0	7.29E-04	5.15E-07	6.49E-08	2.74E-03	3.94E-08
A25	Entrained Road Dust	Selenium	7782-49-2	2.07E-04	1.46E-07	1.84E-08	7.77E-04	1.12E-08
A25	Entrained Road Dust	Silver	7440-22-4	8.51E-06	6.01E-09	7.57E-10	3.20E-05	4.60E-10
A25	Entrained Road Dust	Thallium	7440-28-0	3.10E-06	2.19E-09	2.76E-10	1.16E-05	1.68E-10
A25	Entrained Road Dust	Zinc	7440-66-6	3.10E-02	2.19E-05	2.76E-06	1.16E-01	1.68E-06
A25	Entrained Road Dust	Mercury	7439-97-6	8.51E-07	6.01E-10	7.57E-11	3.20E-06	4.60E-11
A25	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A26	Entrained Road Dust	Phosphorus	7723-14-0	3.89E-03	2.74E-06	3.45E-07	1.46E-02	2.10E-07
A26	Entrained Road Dust	Aluminum	7429-90-5	5.11E-02	3.59E-05	4.53E-06	1.91E-01	2.75E-06
A26	Entrained Road Dust	Antimony	7440-36-0	2.01E-03	1.41E-06	1.78E-07	7.51E-03	1.08E-07
A26	Entrained Road Dust	Arsenic	7440-38-2	6.08E-04	4.28E-07	5.39E-08	2.28E-03	3.27E-08
A26	Entrained Road Dust	Barium	7440-39-3	2.43E-03	1.71E-06	2.16E-07	9.10E-03	1.31E-07
A26	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A26	Entrained Road Dust	Cadmium	7440-43-9	2.73E-04	1.92E-07	2.42E-08	1.02E-03	1.47E-08
A26	Entrained Road Dust	Chromium	7440-47-3	4.13E-04	2.91E-07	3.66E-08	1.55E-03	2.23E-08
A26	Entrained Road Dust	Cobalt	7440-48-4	7.29E-05	5.13E-08	6.47E-09	2.73E-04	3.93E-09
A26	Entrained Road Dust	Copper	7440-50-8	3.40E-03	2.39E-06	3.02E-07	1.27E-02	1.83E-07
A26	Entrained Road Dust	Lead	7439-92-1	2.43E-01	1.71E-04	2.16E-05	9.10E-01	1.31E-05
A26	Entrained Road Dust	Manganese	7439-96-5	1.58E-03	1.11E-06	1.40E-07	5.92E-03	8.51E-08
A26	Entrained Road Dust	Nickel	7440-02-0	7.29E-04	5.13E-07	6.47E-08	2.73E-03	3.93E-08
A26	Entrained Road Dust	Selenium	7782-49-2	2.07E-04	1.45E-07	1.83E-08	7.74E-04	1.11E-08
A26	Entrained Road Dust	Silver	7440-22-4	8.51E-06	5.99E-09	7.54E-10	3.19E-05	4.58E-10
A26	Entrained Road Dust	Thallium	7440-28-0	3.10E-06	2.18E-09	2.75E-10	1.16E-05	1.67E-10
A26	Entrained Road Dust	Zinc	7440-66-6	3.10E-02	2.18E-05	2.75E-06	1.16E-01	1.67E-06
A26	Entrained Road Dust	Mercury	7439-97-6	8.51E-07	5.99E-10	7.54E-11	3.19E-06	4.58E-11
A26	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A27	Entrained Road Dust	Phosphorus	7723-14-0	5.58E-03	3.94E-06	4.97E-07	2.10E-02	3.02E-07
A27	Entrained Road Dust	Aluminum	7429-90-5	4.60E-02	3.25E-05	4.09E-06	1.73E-01	2.49E-06
A27	Entrained Road Dust	Antimony	7440-36-0	3.32E-03	2.34E-06	2.95E-07	1.26E-02	1.79E-07
A27	Entrained Road Dust	Arsenic	7440-38-2	7.24E-04	5.11E-07	6.44E-08	2.72E-03	3.92E-08
A27	Entrained Road Dust	Barium	7440-39-3	2.41E-03	1.70E-06	2.15E-07	9.07E-03	1.31E-07
A27	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A27	Entrained Road Dust	Cadmium	7440-43-9	4.07E-04	2.88E-07	3.62E-08	1.53E-03	2.20E-08
A27	Entrained Road Dust	Chromium	7440-47-3	3.17E-03	2.24E-06	2.82E-07	1.19E-02	1.71E-07
A27	Entrained Road Dust	Cobalt	7440-48-4	1.58E-04	1.12E-07	1.41E-08	5.96E-04	8.57E-09
A27	Entrained Road Dust	Copper	7440-50-8	8.30E-03	5.86E-06	7.38E-07	3.12E-02	4.49E-07
A27	Entrained Road Dust	Lead	7439-92-1	3.40E-01	2.40E-04	3.02E-05	1.28E+00	1.84E-05
A27	Entrained Road Dust	Manganese	7439-96-5	3.24E-03	2.29E-06	2.89E-07	1.22E-02	1.75E-07
A27	Entrained Road Dust	Nickel	7440-02-0	3.02E-03	2.13E-06	2.69E-07	1.13E-02	1.63E-07
A27	Entrained Road Dust	Selenium	7782-49-2	3.17E-04	2.24E-07	2.82E-08	1.19E-03	1.71E-08
A27	Entrained Road Dust	Silver	7440-22-4	1.36E-05	9.59E-09	1.21E-09	5.10E-05	7.34E-10
A27	Entrained Road Dust	Thallium	7440-28-0	6.26E-06	4.42E-09	5.57E-10	2.35E-05	3.39E-10
A27	Entrained Road Dust	Zinc	7440-66-6	1.58E-02	1.12E-05	1.41E-06	5.96E-02	8.57E-07
A27	Entrained Road Dust	Mercury	7439-97-6	1.21E-06	8.52E-10	1.07E-10	4.54E-06	6.53E-11
A27	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A28	Entrained Road Dust	Phosphorus	7723-14-0	3.89E-03	1.58E-06	1.99E-07	8.42E-03	1.21E-07
A28	Entrained Road Dust	Aluminum	7429-90-5	5.11E-02	2.08E-05	2.62E-06	1.11E-01	1.59E-06
A28	Entrained Road Dust	Antimony	7440-36-0	2.01E-03	8.16E-07	1.03E-07	4.34E-03	6.25E-08
A28	Entrained Road Dust	Arsenic	7440-38-2	6.08E-04	2.47E-07	3.11E-08	1.32E-03	1.89E-08
A28	Entrained Road Dust	Barium	7440-39-3	2.43E-03	9.89E-07	1.25E-07	5.26E-03	7.57E-08
A28	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A28	Entrained Road Dust	Cadmium	7440-43-9	2.73E-04	1.11E-07	1.40E-08	5.92E-04	8.52E-09
A28	Entrained Road Dust	Chromium	7440-47-3	4.13E-04	1.68E-07	2.12E-08	8.95E-04	1.29E-08
A28	Entrained Road Dust	Cobalt	7440-48-4	7.29E-05	2.97E-08	3.74E-09	1.58E-04	2.27E-09
A28	Entrained Road Dust	Copper	7440-50-8	3.40E-03	1.38E-06	1.74E-07	7.37E-03	1.06E-07
A28	Entrained Road Dust	Lead	7439-92-1	2.43E-01	9.89E-05	1.25E-05	5.26E-01	7.57E-06
A28	Entrained Road Dust	Manganese	7439-96-5	1.58E-03	6.43E-07	8.10E-08	3.42E-03	4.92E-08
A28	Entrained Road Dust	Nickel	7440-02-0	7.29E-04	2.97E-07	3.74E-08	1.58E-03	2.27E-08
A28	Entrained Road Dust	Selenium	7782-49-2	2.07E-04	8.41E-08	1.06E-08	4.47E-04	6.44E-09
A28	Entrained Road Dust	Silver	7440-22-4	8.51E-06	3.46E-09	4.36E-10	1.84E-05	2.65E-10
A28	Entrained Road Dust	Thallium	7440-28-0	3.10E-06	1.26E-09	1.59E-10	6.71E-06	9.65E-11
A28	Entrained Road Dust	Zinc	7440-66-6	3.10E-02	1.26E-05	1.59E-06	6.71E-02	9.65E-07
A28	Entrained Road Dust	Mercury	7439-97-6	8.51E-07	3.46E-10	4.36E-11	1.84E-06	2.65E-11
A28	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A29	Entrained Road Dust	Phosphorus	7723-14-0	5.58E-03	3.94E-06	4.97E-07	2.10E-02	3.02E-07
A29	Entrained Road Dust	Aluminum	7429-90-5	4.60E-02	3.25E-05	4.09E-06	1.73E-01	2.49E-06
A29	Entrained Road Dust	Antimony	7440-36-0	3.32E-03	2.34E-06	2.95E-07	1.25E-02	1.79E-07
A29	Entrained Road Dust	Arsenic	7440-38-2	7.24E-04	5.11E-07	6.44E-08	2.72E-03	3.92E-08
A29	Entrained Road Dust	Barium	7440-39-3	2.41E-03	1.70E-06	2.15E-07	9.07E-03	1.31E-07
A29	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A29	Entrained Road Dust	Cadmium	7440-43-9	4.07E-04	2.88E-07	3.62E-08	1.53E-03	2.20E-08
A29	Entrained Road Dust	Chromium	7440-47-3	3.17E-03	2.24E-06	2.82E-07	1.19E-02	1.71E-07
A29	Entrained Road Dust	Cobalt	7440-48-4	1.58E-04	1.12E-07	1.41E-08	5.96E-04	8.57E-09
A29	Entrained Road Dust	Copper	7440-50-8	8.30E-03	5.86E-06	7.38E-07	3.12E-02	4.49E-07
A29	Entrained Road Dust	Lead	7439-92-1	3.40E-01	2.40E-04	3.02E-05	1.28E+00	1.84E-05
A29	Entrained Road Dust	Manganese	7439-96-5	3.24E-03	2.29E-06	2.89E-07	1.22E-02	1.75E-07
A29	Entrained Road Dust	Nickel	7440-02-0	3.02E-03	2.13E-06	2.69E-07	1.13E-02	1.63E-07
A29	Entrained Road Dust	Selenium	7782-49-2	3.17E-04	2.24E-07	2.82E-08	1.19E-03	1.71E-08

Table 2b. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Peak Day Emission Factor (g/VKT)	Peak Hourly Emssion (lb/hr)	Peak Hourly Emssion (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A29	Entrained Road Dust	Silver	7440-22-4	1.36E-05	9.59E-09	1.21E-09	5.10E-05	7.34E-10
A29	Entrained Road Dust	Thallium	7440-28-0	6.26E-06	4.42E-09	5.57E-10	2.35E-05	3.39E-10
A29	Entrained Road Dust	Zinc	7440-66-6	1.58E-02	1.12E-05	1.41E-06	5.96E-02	8.57E-07
A29	Entrained Road Dust	Mercury	7439-97-6	1.21E-06	8.52E-10	1.07E-10	4.54E-06	6.53E-11
A29	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A30	Entrained Road Dust	Phosphorus	7723-14-0	5.58E-03	1.97E-06	2.49E-07	1.05E-02	1.51E-07
A30	Entrained Road Dust	Aluminum	7429-90-5	4.60E-02	1.63E-05	2.05E-06	8.66E-02	1.25E-06
A30	Entrained Road Dust	Antimony	7440-36-0	3.32E-03	1.17E-06	1.48E-07	6.26E-03	8.99E-08
A30	Entrained Road Dust	Arsenic	7440-38-2	7.24E-04	2.56E-07	3.23E-08	1.36E-03	1.96E-08
A30	Entrained Road Dust	Barium	7440-39-3	2.41E-03	8.54E-07	1.08E-07	4.54E-03	6.54E-08
A30	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A30	Entrained Road Dust	Cadmium	7440-43-9	4.07E-04	1.44E-07	1.82E-08	7.67E-04	1.10E-08
A30	Entrained Road Dust	Chromium	7440-47-3	3.17E-03	1.12E-06	1.41E-07	5.96E-03	8.58E-08
A30	Entrained Road Dust	Cobalt	7440-48-4	1.58E-04	5.60E-08	7.06E-09	2.96E-04	4.29E-09
A30	Entrained Road Dust	Copper	7440-50-8	8.30E-03	2.93E-06	3.70E-07	1.56E-02	2.25E-07
A30	Entrained Road Dust	Lead	7439-92-1	3.40E-01	1.20E-04	1.51E-05	6.39E-01	9.19E-06
A30	Entrained Road Dust	Manganese	7439-96-5	3.24E-03	1.15E-06	1.45E-07	6.11E-03	8.78E-08
A30	Entrained Road Dust	Nickel	7440-02-0	3.02E-03	1.07E-06	1.34E-07	5.68E-03	8.17E-08
A30	Entrained Road Dust	Selenium	7782-49-2	3.17E-04	1.12E-07	1.41E-08	5.96E-04	8.58E-09
A30	Entrained Road Dust	Silver	7440-22-4	1.36E-05	4.80E-09	6.05E-10	2.56E-05	3.68E-10
A30	Entrained Road Dust	Thallium	7440-28-0	6.26E-06	2.21E-09	2.79E-10	1.18E-05	1.70E-10
A30	Entrained Road Dust	Zinc	7440-66-6	1.58E-02	5.60E-06	7.06E-07	2.98E-02	4.29E-07
A30	Entrained Road Dust	Mercury	7439-97-6	1.21E-06	4.27E-10	5.38E-11	2.27E-06	3.27E-11
A30	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A31	Entrained Road Dust	Phosphorus	7723-14-0	5.58E-03	2.38E-06	3.00E-07	1.27E-02	1.83E-07
A31	Entrained Road Dust	Aluminum	7429-90-5	4.60E-02	1.97E-05	2.48E-06	1.05E-01	1.50E-06
A31	Entrained Road Dust	Antimony	7440-36-0	3.32E-03	1.42E-06	1.79E-07	7.55E-03	1.09E-07
A31	Entrained Road Dust	Arsenic	7440-38-2	7.24E-04	3.09E-07	3.90E-08	1.65E-03	2.37E-08
A31	Entrained Road Dust	Barium	7440-39-3	2.41E-03	1.03E-06	1.30E-07	5.49E-03	7.89E-08
A31	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A31	Entrained Road Dust	Cadmium	7440-43-9	4.07E-04	1.74E-07	2.19E-08	9.26E-04	1.33E-08
A31	Entrained Road Dust	Chromium	7440-47-3	3.17E-03	1.35E-06	1.71E-07	7.20E-03	1.04E-07
A31	Entrained Road Dust	Cobalt	7440-48-4	1.58E-04	6.77E-08	8.53E-09	3.60E-04	5.18E-09
A31	Entrained Road Dust	Copper	7440-50-8	8.30E-03	3.54E-06	4.47E-07	1.89E-02	2.71E-07
A31	Entrained Road Dust	Lead	7439-92-1	3.40E-01	1.45E-04	1.83E-05	7.72E-01	1.11E-05
A31	Entrained Road Dust	Manganese	7439-96-5	3.24E-03	1.39E-06	1.75E-07	7.37E-03	1.06E-07
A31	Entrained Road Dust	Nickel	7440-02-0	3.02E-03	1.29E-06	1.62E-07	6.86E-03	9.87E-08
A31	Entrained Road Dust	Selenium	7782-49-2	3.17E-04	1.35E-07	1.71E-08	7.20E-04	1.04E-08
A31	Entrained Road Dust	Silver	7440-22-4	1.36E-05	5.80E-09	7.31E-10	3.09E-05	4.44E-10
A31	Entrained Road Dust	Thallium	7440-28-0	6.26E-06	2.67E-09	3.37E-10	1.42E-05	2.05E-10
A31	Entrained Road Dust	Zinc	7440-66-6	1.58E-02	6.77E-06	8.53E-07	3.60E-02	5.18E-07
A31	Entrained Road Dust	Mercury	7439-97-6	1.21E-06	5.16E-10	6.50E-11	2.74E-06	3.95E-11
A31	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A32	Entrained Road Dust	Phosphorus	7723-14-0	1.82E-02	1.16E-05	1.46E-06	6.17E-02	8.88E-07
A32	Entrained Road Dust	Aluminum	7429-90-5	2.27E-01	1.45E-04	1.82E-05	7.70E-01	1.11E-05
A32	Entrained Road Dust	Antimony	7440-36-0	3.97E-02	2.52E-05	3.18E-06	1.34E-01	1.93E-06
A32	Entrained Road Dust	Arsenic	7440-38-2	6.08E-03	3.87E-06	4.87E-07	2.06E-02	2.96E-07
A32	Entrained Road Dust	Barium	7440-39-3	8.99E-03	5.72E-06	7.20E-07	3.04E-02	4.38E-07
A32	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A32	Entrained Road Dust	Cadmium	7440-43-9	3.17E-03	2.02E-06	2.54E-07	1.07E-02	1.54E-07
A32	Entrained Road Dust	Chromium	7440-47-3	2.64E-03	1.68E-06	2.12E-07	8.95E-03	1.29E-07
A32	Entrained Road Dust	Cobalt	7440-48-4	3.17E-04	2.02E-07	2.54E-08	1.07E-03	1.54E-08
A32	Entrained Road Dust	Copper	7440-50-8	2.59E-02	1.65E-05	2.08E-06	8.77E-02	1.26E-06
A32	Entrained Road Dust	Lead	7439-92-1	1.24E+00	7.90E-04	9.96E-05	4.21E+00	6.05E-05
A32	Entrained Road Dust	Manganese	7439-96-5	8.72E-03	5.55E-06	6.99E-07	2.95E-02	4.25E-07
A32	Entrained Road Dust	Nickel	7440-02-0	9.52E-03	6.05E-06	7.63E-07	3.22E-02	4.63E-07
A32	Entrained Road Dust	Selenium	7782-49-2	2.91E-03	1.85E-06	2.33E-07	9.84E-03	1.42E-07
A32	Entrained Road Dust	Silver	7440-22-4	8.99E-05	5.72E-08	7.20E-09	3.04E-04	4.38E-09
A32	Entrained Road Dust	Thallium	7440-28-0	3.70E-05	2.35E-08	2.97E-09	1.25E-04	1.80E-09
A32	Entrained Road Dust	Zinc	7440-66-6	5.29E-02	3.36E-05	4.24E-06	1.79E-01	2.57E-06
A32	Entrained Road Dust	Mercury	7439-97-6	4.76E-06	3.03E-09	3.81E-10	1.61E-05	2.32E-10
A32	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A33	Entrained Road Dust	Phosphorus	7723-14-0	1.82E-02	1.29E-05	1.62E-06	6.84E-02	9.84E-07
A33	Entrained Road Dust	Aluminum	7429-90-5	2.27E-01	1.60E-04	2.02E-05	8.53E-01	1.23E-05
A33	Entrained Road Dust	Antimony	7440-36-0	3.97E-02	2.79E-05	3.52E-06	1.49E-01	2.14E-06
A33	Entrained Road Dust	Arsenic	7440-38-2	6.08E-03	4.28E-06	5.40E-07	2.28E-02	3.28E-07
A33	Entrained Road Dust	Barium	7440-39-3	8.99E-03	6.33E-06	7.98E-07	3.37E-02	4.85E-07
A33	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A33	Entrained Road Dust	Cadmium	7440-43-9	3.17E-03	2.24E-06	2.82E-07	1.19E-02	1.71E-07
A33	Entrained Road Dust	Chromium	7440-47-3	2.64E-03	1.86E-06	2.35E-07	9.92E-03	1.43E-07
A33	Entrained Road Dust	Cobalt	7440-48-4	3.17E-04	2.24E-07	2.82E-08	1.19E-03	1.71E-08
A33	Entrained Road Dust	Copper	7440-50-8	2.59E-02	1.83E-05	2.30E-06	9.72E-02	1.40E-06
A33	Entrained Road Dust	Lead	7439-92-1	1.24E+00	8.76E-04	1.10E-04	4.66E+00	6.70E-05
A33	Entrained Road Dust	Manganese	7439-96-5	8.72E-03	6.15E-06	7.75E-07	3.27E-02	4.71E-07
A33	Entrained Road Dust	Nickel	7440-02-0	9.52E-03	6.71E-06	8.45E-07	3.57E-02	5.13E-07
A33	Entrained Road Dust	Selenium	7782-49-2	2.91E-03	2.05E-06	2.58E-07	1.09E-02	1.57E-07
A33	Entrained Road Dust	Silver	7440-22-4	8.99E-05	6.33E-08	7.98E-09	3.37E-04	4.85E-09
A33	Entrained Road Dust	Thallium	7440-28-0	3.70E-05	2.61E-08	3.29E-09	1.39E-04	2.00E-09

Table 2b. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Peak Day Emission Factor (g/VKT)	Peak Hourly Emssion (lb/hr)	Peak Hourly Emssion (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A33	Entrained Road Dust	Zinc	7440-66-6	5.29E+02	3.73E-05	4.69E-06	1.98E-01	2.85E-06
A33	Entrained Road Dust	Mercury	7439-97-6	4.76E-06	3.35E-09	4.22E-10	1.78E-05	2.57E-10
A33	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A34	Entrained Road Dust	Phosphorus	7723-14-0	1.82E-02	1.29E-05	1.63E-06	6.88E-02	9.89E-07
A34	Entrained Road Dust	Aluminum	7429-90-5	2.27E-01	1.61E-04	2.03E-05	8.57E-01	1.23E-05
A34	Entrained Road Dust	Antimony	7440-36-0	3.97E-02	2.81E-05	3.54E-06	1.49E-01	2.15E-06
A34	Entrained Road Dust	Arsenic	7440-38-2	6.08E-03	4.31E-06	5.42E-07	2.29E-02	3.30E-07
A34	Entrained Road Dust	Barium	7440-39-3	8.99E-03	6.36E-06	8.02E-07	3.39E-02	4.87E-07
A34	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A34	Entrained Road Dust	Cadmium	7440-43-9	3.17E-03	2.25E-06	2.83E-07	1.20E-02	1.72E-07
A34	Entrained Road Dust	Chromium	7440-47-3	2.64E-03	1.87E-06	2.36E-07	9.96E-03	1.43E-07
A34	Entrained Road Dust	Cobalt	7440-48-4	3.17E-04	2.25E-07	2.83E-08	1.20E-03	1.72E-08
A34	Entrained Road Dust	Copper	7440-50-8	2.59E-02	1.83E-05	2.31E-06	9.77E-02	1.40E-06
A34	Entrained Road Dust	Lead	7439-92-1	1.24E+00	8.80E-04	1.11E-04	4.66E+00	6.74E-05
A34	Entrained Road Dust	Manganese	7439-96-5	8.72E-03	6.18E-06	7.78E-07	3.29E-02	4.73E-07
A34	Entrained Road Dust	Nickel	7440-02-0	9.52E-03	6.74E-06	8.49E-07	3.59E-02	5.16E-07
A34	Entrained Road Dust	Selenium	7782-49-2	2.91E-03	2.06E-06	2.59E-07	1.10E-02	1.58E-07
A34	Entrained Road Dust	Silver	7440-22-4	8.99E-05	6.36E-08	8.02E-09	3.39E-04	4.87E-09
A34	Entrained Road Dust	Thallium	7440-28-0	3.70E-05	2.62E-08	3.30E-09	1.40E-04	2.01E-09
A34	Entrained Road Dust	Zinc	7440-66-6	5.29E-02	3.74E-05	4.72E-06	1.99E-01	2.87E-06
A34	Entrained Road Dust	Mercury	7439-97-6	4.76E-06	3.37E-09	4.25E-10	1.79E-05	2.58E-10
A34	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A35	Entrained Road Dust	Phosphorus	7723-14-0	1.82E-02	1.17E-05	1.47E-06	6.22E-02	8.95E-07
A35	Entrained Road Dust	Aluminum	7429-90-5	2.27E-01	1.46E-04	1.84E-05	7.76E-01	1.12E-05
A35	Entrained Road Dust	Antimony	7440-36-0	3.97E-02	2.54E-05	3.20E-06	1.35E-01	1.95E-06
A35	Entrained Road Dust	Arsenic	7440-38-2	6.08E-03	3.90E-06	4.91E-07	2.07E-02	2.98E-07
A35	Entrained Road Dust	Barium	7440-39-3	8.99E-03	5.76E-06	7.26E-07	3.07E-02	4.41E-07
A35	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A35	Entrained Road Dust	Cadmium	7440-43-9	3.17E-03	2.03E-06	2.56E-07	1.08E-02	1.56E-07
A35	Entrained Road Dust	Chromium	7440-47-3	2.64E-03	1.69E-06	2.14E-07	9.02E-03	1.30E-07
A35	Entrained Road Dust	Cobalt	7440-48-4	3.17E-04	2.03E-07	2.56E-08	1.08E-03	1.56E-08
A35	Entrained Road Dust	Copper	7440-50-8	2.59E-02	1.66E-05	2.09E-06	8.84E-02	1.27E-06
A35	Entrained Road Dust	Lead	7439-92-1	1.24E+00	7.97E-04	1.00E-04	4.24E+00	6.10E-05
A35	Entrained Road Dust	Manganese	7439-96-5	8.72E-03	5.59E-06	7.05E-07	2.98E-02	4.28E-07
A35	Entrained Road Dust	Nickel	7440-02-0	9.52E-03	6.10E-06	7.69E-07	3.25E-02	4.67E-07
A35	Entrained Road Dust	Selenium	7782-49-2	2.91E-03	1.86E-06	2.35E-07	9.92E-03	1.43E-07
A35	Entrained Road Dust	Silver	7440-22-4	8.99E-05	5.76E-08	7.26E-09	3.07E-04	4.41E-09
A35	Entrained Road Dust	Thallium	7440-28-0	3.70E-05	2.37E-08	2.99E-09	1.26E-04	1.82E-09
A35	Entrained Road Dust	Zinc	7440-66-6	5.29E-02	3.39E-05	4.27E-06	1.80E-01	2.60E-06
A35	Entrained Road Dust	Mercury	7439-97-6	4.76E-06	3.05E-09	3.84E-10	1.62E-05	2.34E-10
A35	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A36	Entrained Road Dust	Phosphorus	7723-14-0	1.82E-02	1.16E-05	1.46E-06	6.16E-02	8.86E-07
A36	Entrained Road Dust	Aluminum	7429-90-5	2.27E-01	1.44E-04	1.82E-05	7.68E-01	1.10E-05
A36	Entrained Road Dust	Antimony	7440-36-0	3.97E-02	2.51E-05	3.17E-06	1.34E-01	1.93E-06
A36	Entrained Road Dust	Arsenic	7440-38-2	6.08E-03	3.86E-06	4.86E-07	2.05E-02	2.95E-07
A36	Entrained Road Dust	Barium	7440-39-3	8.99E-03	5.70E-06	7.18E-07	3.03E-02	4.36E-07
A36	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A36	Entrained Road Dust	Cadmium	7440-43-9	3.17E-03	2.01E-06	2.54E-07	1.07E-02	1.54E-07
A36	Entrained Road Dust	Chromium	7440-47-3	2.64E-03	1.68E-06	2.11E-07	8.92E-03	1.28E-07
A36	Entrained Road Dust	Cobalt	7440-48-4	3.17E-04	2.01E-07	2.54E-08	1.07E-03	1.54E-08
A36	Entrained Road Dust	Copper	7440-50-8	2.59E-02	1.64E-05	2.07E-06	8.75E-02	1.26E-06
A36	Entrained Road Dust	Lead	7439-92-1	1.24E+00	7.88E-04	9.93E-05	4.19E+00	6.03E-05
A36	Entrained Road Dust	Manganese	7439-96-5	8.72E-03	5.53E-06	6.97E-07	2.95E-02	4.24E-07
A36	Entrained Road Dust	Nickel	7440-02-0	9.52E-03	6.04E-06	7.61E-07	3.21E-02	4.62E-07
A36	Entrained Road Dust	Selenium	7782-49-2	2.91E-03	1.84E-06	2.32E-07	9.82E-03	1.41E-07
A36	Entrained Road Dust	Silver	7440-22-4	8.99E-05	5.70E-08	7.18E-09	3.03E-04	4.36E-09
A36	Entrained Road Dust	Thallium	7440-28-0	3.70E-05	2.35E-08	2.96E-09	1.25E-04	1.80E-09
A36	Entrained Road Dust	Zinc	7440-66-6	5.29E-02	3.35E-05	4.23E-06	1.78E-01	2.57E-06
A36	Entrained Road Dust	Mercury	7439-97-6	4.76E-06	3.02E-09	3.80E-10	1.61E-05	2.31E-10
A36	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A37	Entrained Road Dust	Phosphorus	7723-14-0	1.82E-02	1.29E-05	1.62E-06	6.84E-02	9.84E-07
A37	Entrained Road Dust	Aluminum	7429-90-5	2.27E-01	1.60E-04	2.02E-05	8.53E-01	1.23E-05
A37	Entrained Road Dust	Antimony	7440-36-0	3.97E-02	2.79E-05	3.52E-06	1.49E-01	2.14E-06
A37	Entrained Road Dust	Arsenic	7440-38-2	6.08E-03	4.29E-06	5.40E-07	2.28E-02	3.28E-07
A37	Entrained Road Dust	Barium	7440-39-3	8.99E-03	6.33E-06	7.98E-07	3.37E-02	4.85E-07
A37	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A37	Entrained Road Dust	Cadmium	7440-43-9	3.17E-03	2.24E-06	2.82E-07	1.19E-02	1.71E-07
A37	Entrained Road Dust	Chromium	7440-47-3	2.64E-03	1.86E-06	2.35E-07	9.92E-03	1.43E-07
A37	Entrained Road Dust	Cobalt	7440-48-4	3.17E-04	2.24E-07	2.82E-08	1.19E-03	1.71E-08
A37	Entrained Road Dust	Copper	7440-50-8	2.59E-02	1.83E-05	2.30E-06	9.72E-02	1.40E-06
A37	Entrained Road Dust	Lead	7439-92-1	1.24E+00	8.76E-04	1.10E-04	4.66E+00	6.70E-05
A37	Entrained Road Dust	Manganese	7439-96-5	8.72E-03	6.15E-06	7.75E-07	3.27E-02	4.71E-07
A37	Entrained Road Dust	Nickel	7440-02-0	9.52E-03	6.71E-06	8.45E-07	3.57E-02	5.14E-07
A37	Entrained Road Dust	Selenium	7782-49-2	2.91E-03	2.05E-06	2.58E-07	1.09E-02	1.57E-07
A37	Entrained Road Dust	Silver	7440-22-4	8.99E-05	6.33E-08	7.98E-09	3.37E-04	4.85E-09
A37	Entrained Road Dust	Thallium	7440-28-0	3.70E-05	2.61E-08	3.29E-09	1.39E-04	2.00E-09
A37	Entrained Road Dust	Zinc	7440-66-6	5.29E-02	3.73E-05	4.69E-06	1.98E-01	2.85E-06
A37	Entrained Road Dust	Mercury	7439-97-6	4.76E-06	3.35E-09	4.23E-10	1.79E-05	2.57E-10

Table 2b. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Peak Day Emission Factor (g/VKT)	Peak Hourly Emssion (lb/hr)	Peak Hourly Emssion (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A37	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A38	Entrained Road Dust	Phosphorus	7723-14-0	1.82E-02	1.29E-05	1.62E-06	6.85E-02	9.85E-07
A38	Entrained Road Dust	Aluminum	7429-90-5	2.27E-01	1.60E-04	2.02E-05	8.53E-01	1.23E-05
A38	Entrained Road Dust	Antimony	7440-36-0	3.97E-02	2.80E-05	3.52E-06	1.49E-01	2.14E-06
A38	Entrained Road Dust	Arsenic	7440-38-2	6.08E-03	4.29E-06	5.40E-07	2.28E-02	3.28E-07
A38	Entrained Road Dust	Barium	7440-39-3	8.99E-03	6.34E-06	7.99E-07	3.37E-02	4.85E-07
A38	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A38	Entrained Road Dust	Cadmium	7440-43-9	3.17E-03	2.24E-06	2.82E-07	1.19E-02	1.71E-07
A38	Entrained Road Dust	Chromium	7440-47-3	2.64E-03	1.86E-06	2.35E-07	9.92E-03	1.43E-07
A38	Entrained Road Dust	Cobalt	7440-48-4	3.17E-04	2.24E-07	2.82E-08	1.19E-03	1.71E-08
A38	Entrained Road Dust	Copper	7440-50-8	2.59E-02	1.83E-05	2.30E-06	9.73E-02	1.40E-06
A38	Entrained Road Dust	Lead	7439-92-1	1.24E+00	8.76E-04	1.10E-04	4.66E+00	6.71E-05
A38	Entrained Road Dust	Manganese	7439-96-5	8.72E-03	6.15E-06	7.75E-07	3.28E-02	4.71E-07
A38	Entrained Road Dust	Nickel	7440-02-0	9.52E-03	6.71E-06	8.46E-07	3.57E-02	5.14E-07
A38	Entrained Road Dust	Selenium	7782-49-2	2.91E-03	2.05E-06	2.58E-07	1.09E-02	1.57E-07
A38	Entrained Road Dust	Silver	7440-22-4	8.99E-05	6.34E-08	7.99E-09	3.37E-04	4.85E-09
A38	Entrained Road Dust	Thallium	7440-28-0	3.70E-05	2.61E-08	3.29E-09	1.39E-04	2.00E-09
A38	Entrained Road Dust	Zinc	7440-66-6	5.29E-02	3.73E-05	4.70E-06	1.98E-01	2.85E-06
A38	Entrained Road Dust	Mercury	7439-97-6	4.76E-06	3.36E-09	4.23E-10	1.79E-05	2.57E-10
A38	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A39	Entrained Road Dust	Phosphorus	7723-14-0	2.58E-03	2.39E-06	3.01E-07	6.64E-03	9.55E-08
A39	Entrained Road Dust	Aluminum	7429-90-5	1.96E-02	1.82E-05	2.29E-06	5.06E-02	7.27E-07
A39	Entrained Road Dust	Antimony	7440-36-0	5.57E-03	5.16E-06	6.50E-07	1.43E-02	2.06E-07
A39	Entrained Road Dust	Arsenic	7440-38-2	8.50E-04	7.87E-07	9.92E-08	2.19E-03	3.15E-08
A39	Entrained Road Dust	Barium	7440-39-3	1.03E-03	9.50E-07	1.20E-07	2.64E-03	3.80E-08
A39	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A39	Entrained Road Dust	Cadmium	7440-43-9	4.98E-04	4.62E-07	5.81E-08	1.28E-03	1.85E-08
A39	Entrained Road Dust	Chromium	7440-47-3	4.10E-04	3.80E-07	4.79E-08	1.06E-03	1.52E-08
A39	Entrained Road Dust	Cobalt	7440-48-4	7.33E-05	6.79E-08	8.55E-09	1.89E-04	2.71E-09
A39	Entrained Road Dust	Copper	7440-50-8	4.69E-03	4.34E-06	5.47E-07	1.21E-02	1.74E-07
A39	Entrained Road Dust	Lead	7439-92-1	1.35E-01	1.25E-04	1.57E-05	3.47E-01	4.99E-06
A39	Entrained Road Dust	Manganese	7439-96-5	1.76E-03	1.63E-06	2.05E-07	4.53E-03	6.51E-08
A39	Entrained Road Dust	Nickel	7440-02-0	1.35E-03	1.25E-06	1.57E-07	3.47E-03	4.99E-08
A39	Entrained Road Dust	Selenium	7782-49-2	3.81E-04	3.53E-07	4.45E-08	9.81E-04	1.41E-08
A39	Entrained Road Dust	Silver	7440-22-4	7.33E-05	6.79E-08	8.55E-09	1.89E-04	2.71E-09
A39	Entrained Road Dust	Thallium	7440-28-0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A39	Entrained Road Dust	Zinc	7440-66-6	7.33E-03	6.79E-06	8.55E-07	1.89E-02	2.71E-07
A39	Entrained Road Dust	Mercury	7439-97-6	7.04E-07	6.52E-10	8.21E-11	1.81E-06	2.61E-11
A39	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A40	Entrained Road Dust	Phosphorus	7723-14-0	2.58E-03	2.37E-06	2.98E-07	6.58E-03	9.46E-08
A40	Entrained Road Dust	Aluminum	7429-90-5	1.96E-02	1.80E-05	2.27E-06	5.01E-02	7.20E-07
A40	Entrained Road Dust	Antimony	7440-36-0	5.57E-03	5.11E-06	6.44E-07	1.42E-02	2.04E-07
A40	Entrained Road Dust	Arsenic	7440-38-2	8.50E-04	7.80E-07	9.83E-08	2.17E-03	3.12E-08
A40	Entrained Road Dust	Barium	7440-39-3	1.03E-03	9.41E-07	1.19E-07	2.62E-03	3.76E-08
A40	Entrained Road Dust	Beryllium	7440-41-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A40	Entrained Road Dust	Cadmium	7440-43-9	4.98E-04	4.57E-07	5.76E-08	1.27E-03	1.83E-08
A40	Entrained Road Dust	Chromium	7440-47-3	4.10E-04	3.76E-07	4.74E-08	1.05E-03	1.51E-08
A40	Entrained Road Dust	Cobalt	7440-48-4	7.33E-05	6.72E-08	8.47E-09	1.87E-04	2.69E-09
A40	Entrained Road Dust	Copper	7440-50-8	4.69E-03	4.30E-06	5.42E-07	1.20E-02	1.72E-07
A40	Entrained Road Dust	Lead	7439-92-1	1.35E-01	1.24E-04	1.56E-05	3.44E-01	4.95E-06
A40	Entrained Road Dust	Manganese	7439-96-5	1.76E-03	1.61E-06	2.03E-07	4.49E-03	6.45E-08
A40	Entrained Road Dust	Nickel	7440-02-0	1.35E-03	1.24E-06	1.56E-07	3.44E-03	4.95E-08
A40	Entrained Road Dust	Selenium	7782-49-2	3.81E-04	3.50E-07	4.40E-08	9.72E-04	1.40E-08
A40	Entrained Road Dust	Silver	7440-22-4	7.33E-05	6.72E-08	8.47E-09	1.87E-04	2.69E-09
A40	Entrained Road Dust	Thallium	7440-28-0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A40	Entrained Road Dust	Zinc	7440-66-6	7.33E-03	6.72E-06	8.47E-07	1.87E-02	2.69E-07
A40	Entrained Road Dust	Mercury	7439-97-6	7.04E-07	6.45E-10	8.13E-11	1.79E-06	2.58E-11
A40	Entrained Road Dust	Chromium VI	18540-29-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 2c. Summary of Emissions of Two Water Heaters

Exide Technologies
Vernon, California

Chemicals	CAS NO.	Emission Factor (LB / MMSCF)	Hourly Emission - WH_EF (lb/hr)	Annual Emission WH_EF (lb/yr)	Hourly Emission WH_AB (lb/hr)	Annual Emission WH_AB (lb/yr)
Acetaldehyde	75070	0.0043	5.24E-07	4.59E-03	1.35E-08	1.18E-04
Acrolein	107028	0.0027	3.29E-07	2.88E-03	8.48E-09	7.43E-05
Ammonia	7664417	18	2.19E-03	1.92E+01	5.66E-05	4.95E-01
Benzene	71432	0.008	9.75E-07	8.54E-03	2.51E-08	2.20E-04
Ethyl benzene	100414	0.0095	1.16E-06	1.01E-02	2.98E-08	2.61E-04
Formaldehyde	50000	0.017	2.07E-06	1.81E-02	5.34E-08	4.68E-04
Hexane	110543	0.0063	7.68E-07	6.72E-03	1.98E-08	1.73E-04
Naphthalene	91203	0.0003	3.66E-08	3.20E-04	9.42E-10	8.25E-06
Toluene	108883	0.0366	4.46E-06	3.91E-02	1.15E-07	1.01E-03
Total PAHs (excluding Naphthalene)	1151	0.0001	1.22E-08	1.07E-04	3.14E-10	2.75E-06
Xylene	1330207	0.0272	3.31E-06	2.90E-02	8.54E-08	7.48E-04

Notes:

1. VOC EFs comes from AQMD AER Supplemental Instructions Reporting Procedures for AB2588 Facilities for Reporting their Quadrennial Air Toxics Emissions Inventory; for external combustion sources with less than 10 MMBTU/h

WH_EF

AU: annual gas usage AU=TH/HV×365 1,067,412 ft³/yr

U: water use in shower

2 gal/min

<http://ga.water.usgs.gov>

D: duration per shower

15 min/person

assumed

PU:water use per person-shower

PU = UxD

30 gal/person

E: employees at Exide

135 person/day

Exide data

TU: total daily water use in shower

TU=PUxE

4050 gal/day

assumed based on SoCal tap water temperature and EPA recommended water heater temperature setting

TR: temperature rise

50 F

WD: water density

8.34 lb/gal

H: heat required

1688850 BTU/day

EE: energy effeciency

55%

lower end effciency

TH: total heat required

3070636 BTU/day

HV:natural gas heat value

1050 BTU/ft³

<http://www.arb.ca.gov>

WH_AB

AU:annual gas usage AU=AC/6×1000 27,500 ft³/yr

AC: annual natural gas cost (energy guide)

\$165 \$/yr

based on the energy guide label on the heater

GP: natural gas price

6 \$/kft³

early 90s price, <http://www.eia.gov>

Table 2d. Emission Rates by Substances

Exide Technologies
Vernon, California

Chemical Name	CAS #	Max Hourly Emission Rate (lb/hr)	Max Hourly Emission Rate (g/s)	Annual Emission Rate (lb/yr)	Annual Emission Rate (g/s)
1,1,1 -Trichloroethane	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1,2,2-Tetrachloroethane	79345	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1,2-Trichloro-1,2,2-Trifluoroethane	76131	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1,2-Trichloroethane	79005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1-Dichloroethene	75354	2.85E-04	3.59E-05	2.50E+00	3.59E-05
1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trimethylbenzene	95636	5.00E-03	6.30E-04	4.38E+01	6.30E-04
1,2-Dibromoethane	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichloroethane	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichloropropane	78875	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Butadiene	106990	3.69E-01	4.65E-02	3.23E+03	4.65E-02
1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,4-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2-Butanone	78933	9.77E-03	1.23E-03	8.56E+01	1.23E-03
2-Methylnaphthalene	91576	1.28E-02	1.61E-03	1.12E+02	1.61E-03
4-Methyl-2-Pentanone	108101	1.14E-03	1.44E-04	9.99E+00	1.44E-04
Acenaphthene	83329	5.91E-04	7.45E-05	5.18E+00	7.45E-05
Acenaphthylene	208968	9.52E-03	1.20E-03	8.34E+01	1.20E-03
Acetaldehyde	75070	4.15E-02	5.23E-03	3.64E+02	5.23E-03
Acrolein	107028	3.37E-07	4.25E-08	2.96E-03	4.25E-08
Aluminum	7429905	1.77E-01	2.22E-02	1.54E+03	2.21E-02
Ammonia	7664417	2.25E-03	2.83E-04	1.97E+01	2.83E-04
Anthracene	120127	9.09E-04	1.15E-04	7.97E+00	1.15E-04
Antimony	7440360	9.96E-04	1.26E-04	7.56E+00	1.09E-04
Arsenic	7440382	4.98E-02	6.27E-03	4.36E+02	6.27E-03
Barium	7440393	1.25E-03	1.58E-04	1.06E+01	1.53E-04
Benz(a)anthracene	56553	1.71E-05	2.15E-06	1.49E-01	2.15E-06
Benzene	71432	1.22E+00	1.54E-01	1.07E+04	1.54E-01
Benzo(a)pyrene	50328	2.58E-07	3.25E-08	2.26E-03	3.25E-08
Benzo(b)fluoranthene	205992	3.62E-06	4.56E-07	3.17E-02	4.56E-07
Benzo(e)pyrene	192972	2.03E-06	2.56E-07	1.78E-02	2.56E-07
Benzo(ghi)perylene	191242	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo(k)fluoranthene	207089	1.37E-06	1.73E-07	1.20E-02	1.73E-07
Benzyl Chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Bromomethane	74839	6.10E-03	7.69E-04	5.34E+01	7.69E-04
Cadmium	7440439	3.27E-04	4.12E-05	2.76E+00	3.98E-05
Carbon Disulfide	75150	1.26E-01	1.59E-02	1.11E+03	1.59E-02
Carbon Tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chlorobenzene	108907	5.55E-04	6.99E-05	4.86E+00	6.99E-05
Chloro methane	74873	1.37E-02	1.73E-03	1.20E+02	1.73E-03
Chloroethane	75003	1.19E-03	1.50E-04	1.04E+01	1.50E-04
Chloroform	67663	4.10E-04	5.17E-05	3.59E+00	5.17E-05
Chromium	7440473	7.22E-04	9.10E-05	6.16E+00	8.86E-05
Chromium VI	18540299	1.24E-04	1.56E-05	1.08E+00	1.56E-05
Chrysene	218019	8.38E-05	1.06E-05	7.34E-01	1.06E-05
Cobalt	7440484	1.72E-04	2.17E-05	1.50E+00	2.15E-05
Copper	7440508	7.48E-04	9.43E-05	5.59E+00	8.04E-05
Dibenz(a,h)anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorodifluoromethane	75718	8.87E-04	1.12E-04	7.77E+00	1.12E-04
Ethylbenzene	100414	9.75E-02	1.23E-02	8.54E+02	1.23E-02
Fluoranthene	206440	1.42E-03	1.79E-04	1.24E+01	1.79E-04
Fluorene	86737	3.05E-03	3.84E-04	2.67E+01	3.84E-04
Formaldehyde	50000	4.84E-02	6.10E-03	4.24E+02	6.10E-03
Hexachloro-1,3-Butadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexane	110543	7.87E-07	9.92E-08	6.90E-03	9.92E-08
Indeno(1,2,3-cd)pyrene	193395	4.82E-07	6.07E-08	4.22E-03	6.07E-08
Lead	7439921	3.30E-02	4.15E-03	2.45E+02	3.52E-03
Manganese	7439965	4.72E-04	5.95E-05	3.78E+00	5.44E-05
Mercury	7439976	4.10E-04	5.17E-05	3.59E+00	5.17E-05
Methylene Chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl-t-Butyl Ether (MTBE)	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	91203	1.14E-01	1.43E-02	9.97E+02	1.43E-02
Nickel	7440020	4.61E-04	5.81E-05	3.70E+00	5.33E-05
Perylene	198550	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phenanthrene	85018	1.43E-02	1.80E-03	1.25E+02	1.80E-03
Phosphorus	7723140	2.24E-03	2.82E-04	1.89E+01	2.72E-04
Pyrene	129000	4.63E-04	5.83E-05	4.06E+00	5.83E-05
Selenium	7782492	4.14E-05	5.21E-06	2.80E-01	4.03E-06
Silver	7440224	3.22E-05	4.06E-06	2.77E-01	3.98E-06
Styrene	100425	1.03E+00	1.30E-01	9.07E+03	1.30E-01
TEQ (Min) as 2,3,7,8-TCDD	1086	3.28E-09	4.13E-10	2.87E-05	4.13E-10
Tetrachloroethene	127184	1.97E-03	2.48E-04	1.73E+01	2.48E-04
Thallium	7440280	3.08E-07	3.87E-08	1.68E-03	2.42E-08
Toluene	108863	3.17E-01	3.99E-02	2.78E+03	3.99E-02
Total PAHs (excluding Naphthalene)	1151	1.25E-08	1.57E-09	1.09E-04	1.57E-09
Total PCBs, as MonoCB	1336363	9.57E-04	1.21E-04	8.38E+00	1.21E-04
Trichloroethene	79016	1.41E-03	1.78E-04	1.24E+01	1.78E-04
Trichlorofluoro methane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vanadium	7440622	4.23E-06	5.33E-07	3.71E-02	5.33E-07
Vinyl Acetate	108054	7.14E-03	9.00E-04	6.25E+01	9.00E-04

Table 2d. Emission Rates by SubstancesExide Technologies
Vernon, California

Chemical Name	CAS #	Max Hourly Emission Rate (lb/hr)	Max Hourly Emission Rate (g/s)	Annual Emission Rate (lb/yr)	Annual Emission Rate (g/s)
Vinyl Chloride	75014	2.80E-04	3.53E-05	2.45E+00	3.53E-05
Xylenes	1330207	8.29E-02	1.04E-02	7.26E+02	1.04E-02
Zinc	7440666	2.79E-03	3.51E-04	2.22E+01	3.20E-04

Table 3. Building Dimensions

Exide Technologies
Vernon, California

Buildings	UTMX (m)	UTMY (m)	Building Height (m)
BLD0	389693.5	3763525.3	13.7
	389685.6	3763528.7	
	389689.4	3763537.4	
	389696.9	3763534.3	
	389706.3	3763556.3	
	389733.9	3763544.9	
	389715.0	3763499.7	
	389687.8	3763511.3	
	389745.2	3763490.1	
BLD1	389754.7	3763485.9	9.1
	389743.1	3763458.2	
	389742.3	3763456.1	
	389708.4	3763470.7	
	389711.6	3763478.5	
	389706.9	3763480.5	
	389709.0	3763485.4	
	389738.1	3763473.1	
	389745.2	3763490.1	
BLD2	389803.0	3763601.2	12.2
	389842.6	3763584.1	
	389784.1	3763443.4	
	389743.9	3763459.7	
BLD3	389715.0	3763499.7	9.1
	389706.9	3763480.5	
	389680.5	3763491.5	
	389688.5	3763511.0	
BLD4	389733.9	3763545.0	18.3
	389706.4	3763556.3	
	389716.3	3763579.8	
	389743.7	3763568.3	
BLD5	389803.0	3763601.2	4.6
	389799.8	3763593.6	
	389763.6	3763608.6	
	389766.9	3763616.2	
BLD7	389785.5	3763559.2	24.1
	389754.7	3763485.9	
	389745.2	3763490.1	
	389738.1	3763473.1	
	389709.0	3763485.4	
	389746.5	3763574.9	
	389785.5	3763559.2	
BLD8	389719.0	3763403.0	8.4
	389710.6	3763383.5	
	389689.0	3763392.5	
	389690.5	3763396.0	
	389688.1	3763397.0	
	389692.2	3763406.3	
	389696.1	3763404.7	
	389696.8	3763406.2	
	389709.4	3763400.4	
	389711.9	3763406.0	

Table 3. Building Dimensions

Exide Technologies
Vernon, California

Buildings	UTMX (m)	UTMY (m)	Building Height (m)
BLD9	389831.1	3763374.1	4.4
	389824.4	3763357.4	
	389796.8	3763368.8	
	389784.6	3763340.1	
	389773.0	3763345.0	
	389785.0	3763373.5	
	389783.7	3763374.0	
	389790.8	3763390.5	
BLD10	389716.3	3763579.8	15.2
	389696.9	3763534.3	
	389689.4	3763537.4	
	389708.0	3763583.4	

Note:

1. The projection datum is WGS-84.

Table 4a. Source Parameters of Point Sources

Exide Technologies
Vernon, California

Source ID	UTM Coordinates (m)		Elevation (m)	Release Height (m)	Temperature (K)	Velocity (m/s)	Stack Diameter (m)
	X Coordinate	Y Coordinate					
MAPCO	389703.4	3763542.9	55.19	19.4	296.8	8.7	1.1
MAT_STOR	389714.5	3763495.8	54.71	34.1	295.9	12.9	2.1
SOFTLEAD	389741.6	3763561.6	54.88	34.1	306.6	13.6	2.0
HARDLEAD	389721.9	3763513.9	54.83	34.1	316.5	15.5	2.0
DRYER_BH	389764.8	3763530.3	54.61	36.6	377.2	10.9	0.9
NEPTUNE	389748.7	3763529.8	54.72	34.1	332.2	13.1	1.2
NOR_CART	389786.2	3763554.2	54.49	36.6	312.6	13.3	2.1
SOU_CART	389785.0	3763551.4	54.49	36.6	297.9	14.7	2.1
MAC_BH	389734.6	3763485.1	54.46	36.6	296.5	19.4	1.8
WH_AB	389695.2	3763397.2	52.7	4.5	438.7	0.001	0.2
WH_EF	389794.1	3763371.3	52.97	8.0	438.7	0.001	0.2

Notes:

1. The projection datum is WGS-84.
2. The stack flow temperature, velocity, and stack diameter data are based the 2010 and 2012 source test reports. Arithmetic means of temperature and velocity values reported in different source tests are presented in the table for each stack.

Table 4b. Source Parameters of Area Sources

Exide Technologies
Vernon, California

Source ID	UTM Coordinates (m)		Elevation (m)	Release Height (m)	Width (m)	Length (m)	Angle
	X Coordinate	Y Coordinate					
A1	389729.4	3763635.6	55.1	0.3	3.5	25	-158.2
A2	389721.2	3763615.7	55.3	0.3	3.5	25	111.7
A3	389744.4	3763606.3	55.0	0.3	3.5	25	111.7
A4	389767.5	3763596.8	54.7	0.3	3.5	25	111.7
A5	389719.9	3763612.5	55.3	0.3	3.5	25	-158
A6	389710.3	3763589.4	55.3	0.3	3.5	25	-158.1
A7	389700.7	3763566.3	55.3	0.3	3.5	25	-158.1
A8	389691.2	3763543.2	55.3	0.3	3.5	25	-158.1
A9	389681.6	3763520.1	55.2	0.3	3.5	25	-158.1
A10	389673.5	3763498.1	55.1	0.3	3.5	24.9	173.3
A11	389677.4	3763472.2	54.8	0.3	3.5	25	-157.8
A12	389667.7	3763449.2	54.3	0.3	3.5	25	-157.8
A13	389634.1	3763433.6	53.9	0.3	3.5	25	107.1
A14	389610.3	3763441.1	54.0	0.3	3.5	25	107.1
A15	389586.4	3763448.5	54.4	0.3	3.5	25	107.1
A16	389562.6	3763456.0	54.6	0.3	3.5	25	107.1
A17	389533.4	3763446.2	54.6	0.3	3.5	28.6	70.5
A18	389510.3	3763456.1	55.1	0.3	3.5	25	112.6
A19	389487.3	3763466.0	55.4	0.3	3.5	25.1	112.6
A20	389465.0	3763475.5	55.6	0.3	3.5	24.4	112.4
A21	389464.1	3763473.9	55.6	0.3	3.5	22.98	-157.9
A22	389471.6	3763497.3	55.7	0.3	3.5	24.2	-161.7
A23	389481.3	3763520.5	55.7	0.3	3.5	25	-158
A24	389490.8	3763543.4	55.8	0.3	3.5	24.8	-157.9
A25	389490.8	3763543.4	55.8	0.3	3.5	25	112.6
A26	389517.2	3763532.3	55.7	0.3	3.5	25	-160.1
A27	389504.8	3763498.6	55.5	0.3	3.5	25	112.6
A28	389508.5	3763508.8	55.5	0.3	3.5	14.4	-160.1
A29	389527.8	3763488.7	55.2	0.3	3.5	25	112.6
A30	389550.9	3763478.8	55.0	0.3	3.5	12.5	112.6
A31	389564.6	3763471.1	54.9	0.3	3.5	15.1	-171.1
A32	389678.2	3763474.4	54.8	0.3	3.5	22.6	111.9
A33	389699.2	3763465.8	54.5	0.3	3.5	25	111.8
A34	389722.3	3763456.2	54.2	0.3	3.5	25.1	111.7
A35	389744.1	3763443.4	53.8	0.3	3.5	22.7	-157.8
A36	389714.4	3763431.0	53.7	0.3	3.5	22.5	111.8
A37	389691.3	3763440.6	53.9	0.3	3.5	25	111.8
A38	389668.2	3763450.1	54.3	0.3	3.5	25	111.8
A39	389735.2	3763422.5	53.4	0.3	3.5	22.5	111.8
A40	389756.0	3763413.9	53.2	0.3	3.5	22.3	111.8

Note:

1. The projection datum is WGS-84.

Table 5a. MEIR Cancer Risk by Chemical and Exposure Pathway

Exide Technologies
Vernon, California

Chemical Name	CAS #	Inhalation	Dermal	Soil	Mother's Milk	Plants	Oral Subtotal	Total
Aluminum	7429905	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Lead	7439921	3.41E-08	2.17E-09	7.16E-08	0.00E+00	5.11E-08	1.25E-07	1.59E-07
Manganese	7439965	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mercury	7439976	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nickel	7440020	1.11E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-08
Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Antimony	7440360	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Arsenic	7440382	3.74E-06	8.95E-06	4.36E-06	0.00E+00	8.00E-07	1.41E-05	1.78E-05
Barium	7440393	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cadmium	7440439	6.64E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.64E-08
Chromium	7440473	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cobalt	7440484	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Copper	7440508	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zinc	7440666	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Selenium	7782492	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chromium, hexavalent	18540299	1.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-06
Formaldehyde	50000	9.10E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.10E-09
Benzo[a]pyrene	50328	7.78E-12	1.03E-10	1.55E-11	0.00E+00	1.31E-10	2.50E-10	2.58E-10
Dibenz[a,h]anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benz[a]anthracene	56553	4.04E-11	5.37E-10	8.04E-11	0.00E+00	6.81E-10	1.30E-09	1.34E-09
Phenanthrene	85018	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluorene	86737	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexachlorobutadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	91203	9.65E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.65E-08
2-Methyl naphthalene	91576	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trimethylbenzene	95636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl benzene	100414	5.35E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.35E-09
Styrene	100425	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzyl chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
p-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylene dibromide	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Butadiene	106990	1.52E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.52E-06
Ethylene dichloride	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl acetate	108054	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl isobutyl ketone	108101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Toluene	108883	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chlorobenzene	108907	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Anthracene	120127	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Perchloroethylene	127184	5.24E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.24E-10
Chloroform	67663	9.82E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.82E-11
Benzene	71432	8.82E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.82E-07
Methyl chloroform	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl bromide	74839	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl chloride	74873	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl chloride	75003	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl chloride	75014	9.53E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.53E-10
Acetaldehyde	75070	3.19E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.19E-09
Methylene chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon disulfide	75150	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinylidene chloride	75354	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Trichlorofluoromethane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorodifluoromethane	75718	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chlorinated Fluorocarbon	76131	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichloropropane	78875	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl ethyl ketone	78933	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1,2-Trichloroethane	79005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Trichloroethylene	79016	8.57E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.57E-11
1,1,2,2-Tetrachloroethane	79345	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acenaphthene	83329	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pyrene	129000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[g,h,i]perylene	191242	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[e]pyrene	192972	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indeno[1,2,3-cd]pyrene	193395	1.82E-12	2.42E-11	3.63E-12	0.00E+00	3.07E-11	5.86E-11	6.04E-11
Perylene	198550	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[b]fluoranthene	205992	1.17E-11	1.55E-10	2.33E-11	0.00E+00	1.97E-10	3.75E-10	3.87E-10

Table 5a. MEIR Cancer Risk by Chemical and Exposure Pathway

Exide Technologies
Vernon, California

Chemical Name	CAS #	Inhalation	Dermal	Soil	Mother's Milk	Plants	Oral Subtotal	Total
Fluoranthene	206440	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[k]fluoranthene	207089	3.93E-12	5.22E-11	7.82E-12	0.00E+00	6.62E-11	1.26E-10	1.30E-10
Acenaphthylene	208968	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chrysene	218019	2.26E-11	3.01E-10	4.50E-11	0.00E+00	3.81E-10	7.27E-10	7.50E-10
1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xylenes	1330207	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl tert-butyl ether	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dioxins, total	1086	4.82E-09	2.03E-08	8.50E-09	1.74E-08	1.37E-09	4.76E-08	5.24E-08
PCBs	1336363	1.85E-08	1.39E-07	1.93E-08	1.09E-07	2.85E-08	2.96E-07	3.14E-07
Vanadium	7440622	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PAHs, total	1151	2.07E-12	2.75E-11	4.13E-12	0.00E+00	3.49E-11	6.66E-11	6.87E-11
Acrolein	107028	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexane	110543	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ammonia	7664417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SUM		7.40E-06	9.11E-06	4.46E-06	1.27E-07	8.83E-07	1.46E-05	2.20E-05

Table 5b. MEIR Cancer Risk by Emission Sources and Exposure Pathway

Exide Technologies
Vernon, California

Source ID	Source Name	Inhalation	Dermal	Soil	Mother's Milk	Plants	Oral Subtotal	Total
MAPCO	Raw Material Preparation System (RMPS) Scrubber	3.97E-07	3.79E-09	3.09E-09	0.00E+00	1.24E-09	8.12E-09	4.05E-07
MAT_STOR	Material Handling Baghouse	1.40E-07	3.44E-08	1.82E-08	0.00E+00	4.12E-09	5.68E-08	1.97E-07
SOFTLEAD	Soft Lead Refining System Baghouse	5.06E-07	2.08E-08	1.06E-08	0.00E+00	2.24E-09	3.36E-08	5.40E-07
HARDLEAD	Hard Lead Refining System Baghouse	5.22E-06	8.66E-06	4.21E-06	1.82E-08	7.78E-07	1.37E-05	1.89E-05
DRYER_BH	Feed Dryer Baghouse/Cyclone	4.39E-07	1.25E-07	3.14E-08	9.09E-08	3.20E-08	2.80E-07	7.19E-07
NEPTUNE	Neptune Scrubber	2.49E-07	2.20E-08	9.51E-09	1.75E-08	2.39E-09	5.14E-08	3.01E-07
NOR_CART	North Torit Cartridge Filter System	8.53E-08	1.36E-07	6.66E-08	0.00E+00	1.26E-08	2.15E-07	3.00E-07
SOU_CART	South Torit Cartridge Filter System	4.31E-08	1.32E-08	9.05E-09	0.00E+00	3.09E-09	2.53E-08	6.84E-08
MAC_BH	MAC Baghouse	2.30E-07	1.81E-08	9.29E-09	0.00E+00	1.97E-09	2.93E-08	2.59E-07
WH_AB	Water Heater in Administration Building	2.55E-13	7.10E-13	1.06E-13	0.00E+00	9.01E-13	1.72E-12	1.97E-12
WH_EF	Water Heater in Employee Facility	9.62E-12	2.68E-11	4.02E-12	0.00E+00	3.40E-11	6.49E-11	7.45E-11
A1	Entrained Road Dust	1.22E-09	9.48E-10	1.56E-09	0.00E+00	8.73E-10	3.38E-09	4.59E-09
A2	Entrained Road Dust	1.42E-09	1.47E-09	1.34E-09	0.00E+00	5.82E-10	3.39E-09	4.81E-09
A3	Entrained Road Dust	1.39E-09	1.44E-09	1.31E-09	0.00E+00	5.70E-10	3.32E-09	4.72E-09
A4	Entrained Road Dust	1.34E-09	1.38E-09	1.26E-09	0.00E+00	5.48E-10	3.20E-09	4.54E-09
A5	Entrained Road Dust	1.15E-09	9.83E-10	1.38E-09	0.00E+00	7.37E-10	3.10E-09	4.25E-09
A6	Entrained Road Dust	1.11E-09	9.46E-10	1.33E-09	0.00E+00	7.09E-10	2.98E-09	4.09E-09
A7	Entrained Road Dust	1.07E-09	9.12E-10	1.28E-09	0.00E+00	6.84E-10	2.87E-09	3.94E-09
A8	Entrained Road Dust	1.03E-09	8.78E-10	1.23E-09	0.00E+00	6.58E-10	2.77E-09	3.79E-09
A9	Entrained Road Dust	9.89E-10	8.46E-10	1.19E-09	0.00E+00	6.34E-10	2.67E-09	3.66E-09
A10	Entrained Road Dust	9.58E-10	8.20E-10	1.15E-09	0.00E+00	6.14E-10	2.58E-09	3.54E-09
A11	Entrained Road Dust	1.79E-09	1.58E-09	2.00E-09	0.00E+00	1.03E-09	4.60E-09	6.40E-09
A12	Entrained Road Dust	1.73E-09	1.52E-09	1.93E-09	0.00E+00	9.92E-10	4.45E-09	6.18E-09
A13	Entrained Road Dust	2.55E-09	2.21E-09	2.77E-09	0.00E+00	1.42E-09	6.40E-09	8.95E-09
A14	Entrained Road Dust	2.46E-09	2.12E-09	2.67E-09	0.00E+00	1.37E-09	6.16E-09	8.62E-09
A15	Entrained Road Dust	2.34E-09	2.02E-09	2.54E-09	0.00E+00	1.30E-09	5.86E-09	8.20E-09
A16	Entrained Road Dust	2.19E-09	1.89E-09	2.38E-09	0.00E+00	1.22E-09	5.49E-09	7.68E-09
A17	Entrained Road Dust	1.05E-09	7.46E-10	1.28E-09	0.00E+00	7.27E-10	2.75E-09	3.80E-09
A18	Entrained Road Dust	8.34E-10	5.94E-10	1.02E-09	0.00E+00	5.79E-10	2.19E-09	3.02E-09
A19	Entrained Road Dust	7.68E-10	5.47E-10	9.37E-10	0.00E+00	5.32E-10	2.02E-09	2.78E-09
A20	Entrained Road Dust	6.83E-10	4.87E-10	8.34E-10	0.00E+00	4.74E-10	1.79E-09	2.48E-09
A21	Entrained Road Dust	4.53E-10	3.85E-10	5.93E-10	0.00E+00	3.27E-10	1.31E-09	1.76E-09
A22	Entrained Road Dust	4.57E-10	3.89E-10	5.98E-10	0.00E+00	3.29E-10	1.32E-09	1.77E-09
A23	Entrained Road Dust	4.89E-10	4.16E-10	6.40E-10	0.00E+00	3.52E-10	1.41E-09	1.90E-09
A24	Entrained Road Dust	5.05E-10	4.30E-10	6.61E-10	0.00E+00	3.64E-10	1.45E-09	1.96E-09
A25	Entrained Road Dust	5.47E-10	4.65E-10	7.16E-10	0.00E+00	3.95E-10	1.58E-09	2.12E-09
A26	Entrained Road Dust	5.67E-10	4.82E-10	7.41E-10	0.00E+00	4.08E-10	1.63E-09	2.20E-09
A27	Entrained Road Dust	8.24E-10	5.87E-10	1.01E-09	0.00E+00	5.71E-10	2.16E-09	2.99E-09
A28	Entrained Road Dust	3.18E-10	2.70E-10	4.16E-10	0.00E+00	2.29E-10	9.15E-10	1.23E-09
A29	Entrained Road Dust	8.98E-10	6.40E-10	1.10E-09	0.00E+00	6.23E-10	2.36E-09	3.26E-09
A30	Entrained Road Dust	4.78E-10	3.40E-10	5.83E-10	0.00E+00	3.31E-10	1.25E-09	1.73E-09
A31	Entrained Road Dust	5.86E-10	4.17E-10	7.15E-10	0.00E+00	4.06E-10	1.54E-09	2.12E-09
A32	Entrained Road Dust	6.68E-09	6.74E-09	9.96E-09	0.00E+00	3.26E-09	1.70E-08	2.36E-08
A33	Entrained Road Dust	7.38E-09	7.45E-09	7.69E-09	0.00E+00	3.60E-09	1.87E-08	2.61E-08
A34	Entrained Road Dust	7.28E-09	7.35E-09	7.59E-09	0.00E+00	3.55E-09	1.85E-08	2.58E-08
A35	Entrained Road Dust	6.43E-09	6.49E-09	6.71E-09	0.00E+00	3.14E-09	1.63E-08	2.28E-08
A36	Entrained Road Dust	6.34E-09	6.39E-09	6.60E-09	0.00E+00	3.09E-09	1.61E-08	2.24E-08
A37	Entrained Road Dust	7.14E-09	7.21E-09	7.44E-09	0.00E+00	3.48E-09	1.81E-08	2.53E-08
A38	Entrained Road Dust	7.15E-09	7.21E-09	7.45E-09	0.00E+00	3.49E-09	1.81E-08	2.53E-08
A39	Entrained Road Dust	6.42E-10	6.62E-10	6.04E-10	0.00E+00	2.62E-10	1.53E-09	2.17E-09
A40	Entrained Road Dust	6.19E-10	6.38E-10	5.82E-10	0.00E+00	2.53E-10	1.47E-09	2.09E-09
	SUM	7.40E-06	9.11E-06	4.46E-06	1.27E-07	8.83E-07	1.46E-05	2.20E-05

Table 6a. MEIW Cancer Risk by Chemical and Exposure Pathway

Exide Technologies
Vernon, California

Chemical Name	CAS #	Inhalation	Dermal	Soil	Oral Subtotal	Total
Aluminum	7429905	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Lead	7439921	1.23E-07	2.29E-07	3.87E-07	6.15E-07	7.38E-07
Manganese	7439965	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mercury	7439976	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nickel	7440020	6.47E-08	0.00E+00	0.00E+00	0.00E+00	6.47E-08
Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Antimony	7440360	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Arsenic	7440382	5.27E-05	2.43E-04	1.02E-04	3.45E-04	3.98E-04
Barium	7440393	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cadmium	7440439	3.45E-07	0.00E+00	0.00E+00	0.00E+00	3.45E-07
Chromium	7440473	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cobalt	7440484	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Copper	7440508	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zinc	7440666	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Selenium	7782492	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chromium, hexavalent	18540299	6.63E-06	0.00E+00	0.00E+00	0.00E+00	6.63E-06
Formaldehyde	50000	6.76E-08	0.00E+00	0.00E+00	0.00E+00	6.76E-08
Benzo[a]pyrene	50328	9.24E-11	2.12E-09	2.76E-10	2.40E-09	2.49E-09
Dibenz[a,h]anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benz[a]anthracene	56553	5.99E-10	1.37E-08	1.79E-09	1.55E-08	1.61E-08
Phenanthrene	85018	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluorene	86737	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexachlorobutadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	91203	1.07E-06	0.00E+00	0.00E+00	0.00E+00	1.07E-06
2-Methyl naphthalene	91576	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trimethylbenzene	95636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl benzene	100414	7.49E-08	0.00E+00	0.00E+00	0.00E+00	7.49E-08
Styrene	100425	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzyl chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
p-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylene dibromide	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Butadiene	106990	1.65E-05	0.00E+00	0.00E+00	0.00E+00	1.65E-05
Ethylene dichloride	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl acetate	108054	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl isobutyl ketone	108101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Toluene	108883	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chlorobenzene	108907	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Anthracene	120127	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Perchloroethylene	127184	3.94E-09	0.00E+00	0.00E+00	0.00E+00	3.94E-09
Chloroform	67663	3.37E-10	0.00E+00	0.00E+00	0.00E+00	3.37E-10
Benzene	71432	9.78E-06	0.00E+00	0.00E+00	0.00E+00	9.78E-06
Methyl chloroform	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl bromide	74839	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl chloride	74873	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl chloride	75003	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl chloride	75014	3.27E-09	0.00E+00	0.00E+00	0.00E+00	3.27E-09
Acetaldehyde	75070	3.18E-08	0.00E+00	0.00E+00	0.00E+00	3.18E-08
Methylene chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon disulfide	75150	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinylidene chloride	75354	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Trichlorofluoromethane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorodifluoromethane	75718	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chlorinated Fluorocarbon	76131	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichloropropane	78875	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl ethyl ketone	78933	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1,2-Trichloroethane	79005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Trichloroethylene	79016	7.60E-10	0.00E+00	0.00E+00	0.00E+00	7.60E-10
1,1,2,2-Tetrachloroethane	79345	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acenaphthene	83329	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pyrene	129000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[g,h,i]perylene	191242	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[e]pyrene	192972	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indeno[1,2,3-cd]pyrene	193395	1.70E-11	3.90E-10	5.07E-11	4.40E-10	4.57E-10
Perylene	198550	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[b]fluoranthene	205992	1.26E-10	2.90E-09	3.77E-10	3.28E-09	3.40E-09

Table 6a. MEIW Cancer Risk by Chemical and Exposure Pathway

Exide Technologies
Vernon, California

Chemical Name	CAS #	Inhalation	Dermal	Soil	Oral Subtotal	Total
Fluoranthene	206440	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[k]fluoranthene	207089	4.90E-11	1.13E-09	1.46E-10	1.27E-09	1.32E-09
Acenaphthylene	208968	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chrysene	218019	2.71E-10	6.22E-09	8.08E-10	7.03E-09	7.30E-09
1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xylenes	1330207	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl tert-butyl ether	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dioxins, total	1086	4.00E-08	2.90E-07	1.06E-07	3.96E-07	4.36E-07
PCBs	1336363	1.09E-07	1.41E-06	1.70E-07	1.58E-06	1.69E-06
Vanadium	7440622	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PAHs, total	1151	2.22E-11	5.08E-10	6.61E-11	5.75E-10	5.97E-10
Acrolein	107028	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexane	110543	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ammonia	7664417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SUM		8.75E-05	2.44E-04	1.03E-04	3.48E-04	4.35E-04

Table 6b. MEIW Cancer Risk by Emission Sources and Exposure Pathway

Exide Technologies
Vernon, California

Source ID	Source Name	Inhalation	Dermal	Soil	Oral Subtotal	Total
MAPCO	Raw Material Preparation System (RMPS) Scrubber	3.18E-06	6.78E-08	4.13E-08	1.09E-07	3.29E-06
MAT_STOR	Material Handling Baghouse	8.46E-07	4.08E-07	1.83E-07	5.91E-07	1.44E-06
SOFTLEAD	Soft Lead Refining System Baghouse	2.76E-06	2.21E-07	9.65E-08	3.17E-07	3.08E-06
HARDLEAD	Hard Lead Refining System Baghouse	7.58E-05	2.42E-04	1.02E-04	3.44E-04	4.20E-04
DRYER_BH	Feed Dryer Baghouse/Cyclone	1.51E-06	8.61E-07	1.79E-07	1.04E-06	2.55E-06
NEPTUNE	Neptune Scrubber	1.88E-06	3.21E-07	1.19E-07	4.40E-07	2.32E-06
NOR_CART	North Torit Cartridge Filter System	4.46E-09	1.37E-08	5.81E-09	1.95E-08	2.39E-08
SOU_CART	South Torit Cartridge Filter System	1.34E-09	8.62E-10	4.68E-10	1.33E-09	2.67E-09
MAC_BH	MAC Baghouse	1.23E-06	1.88E-07	8.28E-08	2.71E-07	1.50E-06
WH_AB	Water Heater in Administration Building	1.58E-12	8.28E-12	1.08E-12	9.36E-12	1.09E-11
WH_EF	Water Heater in Employee Facility	9.55E-11	5.00E-10	6.50E-11	5.65E-10	6.61E-10
A1	Entrained Road Dust	2.37E-09	5.31E-09	4.82E-09	1.01E-08	1.25E-08
A2	Entrained Road Dust	3.41E-09	7.98E-09	5.23E-09	1.32E-08	1.66E-08
A3	Entrained Road Dust	5.20E-09	1.22E-08	7.98E-09	2.02E-08	2.54E-08
A4	Entrained Road Dust	8.92E-09	2.09E-08	1.37E-08	3.46E-08	4.35E-08
A5	Entrained Road Dust	2.56E-09	5.86E-09	4.92E-09	1.08E-08	1.33E-08
A6	Entrained Road Dust	3.76E-09	8.59E-09	7.22E-09	1.58E-08	1.96E-08
A7	Entrained Road Dust	5.39E-09	1.23E-08	1.03E-08	2.27E-08	2.81E-08
A8	Entrained Road Dust	6.06E-09	1.39E-08	1.16E-08	2.55E-08	3.16E-08
A9	Entrained Road Dust	5.46E-09	1.25E-08	1.05E-08	2.29E-08	2.84E-08
A10	Entrained Road Dust	4.37E-09	9.98E-09	8.38E-09	1.84E-08	2.27E-08
A11	Entrained Road Dust	6.06E-09	1.37E-08	1.09E-08	2.45E-08	3.06E-08
A12	Entrained Road Dust	4.26E-09	9.60E-09	7.63E-09	1.72E-08	2.15E-08
A13	Entrained Road Dust	5.43E-09	1.20E-08	9.48E-09	2.15E-08	2.69E-08
A14	Entrained Road Dust	5.58E-09	1.23E-08	9.75E-09	2.21E-08	2.77E-08
A15	Entrained Road Dust	5.63E-09	1.24E-08	9.83E-09	2.22E-08	2.79E-08
A16	Entrained Road Dust	5.54E-09	1.22E-08	9.67E-09	2.19E-08	2.74E-08
A17	Entrained Road Dust	2.63E-09	5.51E-09	5.11E-09	1.06E-08	1.33E-08
A18	Entrained Road Dust	2.09E-09	4.38E-09	4.07E-09	8.45E-09	1.05E-08
A19	Entrained Road Dust	2.03E-09	4.24E-09	3.94E-09	8.18E-09	1.02E-08
A20	Entrained Road Dust	1.86E-09	3.89E-09	3.61E-09	7.50E-09	9.36E-09
A21	Entrained Road Dust	1.22E-09	2.88E-09	2.53E-09	5.41E-09	6.63E-09
A22	Entrained Road Dust	1.27E-09	3.00E-09	2.64E-09	5.64E-09	6.91E-09
A23	Entrained Road Dust	1.34E-09	3.16E-09	2.78E-09	5.94E-09	7.28E-09
A24	Entrained Road Dust	1.30E-09	3.06E-09	2.70E-09	5.76E-09	7.05E-09
A25	Entrained Road Dust	1.40E-09	3.32E-09	2.92E-09	6.24E-09	7.64E-09
A26	Entrained Road Dust	1.56E-09	3.68E-09	3.24E-09	6.93E-09	8.49E-09
A27	Entrained Road Dust	2.38E-09	4.99E-09	4.63E-09	9.62E-09	1.20E-08
A28	Entrained Road Dust	9.05E-10	2.14E-09	1.88E-09	4.02E-09	4.92E-09
A29	Entrained Road Dust	2.63E-09	5.51E-09	5.12E-09	1.06E-08	1.33E-08
A30	Entrained Road Dust	1.40E-09	2.93E-09	2.72E-09	5.64E-09	7.04E-09
A31	Entrained Road Dust	1.63E-09	3.41E-09	3.16E-09	6.57E-09	8.20E-09
A32	Entrained Road Dust	2.61E-08	6.23E-08	4.41E-08	1.06E-07	1.32E-07
A33	Entrained Road Dust	2.73E-08	6.53E-08	4.62E-08	1.11E-07	1.39E-07
A34	Entrained Road Dust	2.56E-08	6.12E-08	4.33E-08	1.04E-07	1.30E-07
A35	Entrained Road Dust	1.89E-08	4.50E-08	3.18E-08	7.69E-08	9.57E-08
A36	Entrained Road Dust	1.54E-08	3.68E-08	2.60E-08	6.29E-08	7.83E-08
A37	Entrained Road Dust	1.78E-08	4.26E-08	3.01E-08	7.27E-08	9.05E-08
A38	Entrained Road Dust	1.93E-08	4.60E-08	3.25E-08	7.85E-08	9.78E-08
A39	Entrained Road Dust	1.75E-09	4.09E-09	2.68E-09	6.77E-09	8.52E-09
A40	Entrained Road Dust	2.43E-09	5.69E-09	3.73E-09	9.41E-09	1.18E-08
SUM		8.75E-05	2.44E-04	1.03E-04	3.48E-04	4.35E-04

Table 7a. PMI Cancer Risk by Chemical and Exposure Pathway

Exide Technologies
Vernon, California

Chemical Name	CAS #	Inhalation	Dermal	Soil	Mother's Milk	Plants	Oral Subtotal	Total
Aluminum	7429905	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Lead	7439921	5.58E-07	3.56E-08	1.17E-06	0.00E+00	8.37E-07	2.05E-06	2.60E-06
Manganese	7439965	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mercury	7439976	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nickel	7440020	3.28E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.28E-07
Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Antimony	7440360	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Arsenic	7440382	2.67E-04	6.39E-04	3.11E-04	0.00E+00	5.71E-05	1.01E-03	1.27E-03
Barium	7440393	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cadmium	7440439	1.75E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.75E-06
Chromium	7440473	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cobalt	7440484	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Copper	7440508	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zinc	7440666	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Selenium	7782492	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chromium, hexavalent	18540299	3.36E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-05
Formaldehyde	50000	3.43E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.43E-07
Benzo[a]pyrene	50328	4.20E-10	5.59E-09	8.37E-10	0.00E+00	7.09E-09	1.35E-08	1.39E-08
Dibenz[a,h]anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benz[a]anthracene	56553	2.72E-09	3.62E-08	5.43E-09	0.00E+00	4.59E-08	8.76E-08	9.03E-08
Phenanthrene	85018	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluorene	86737	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexachlorobutadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	91203	5.44E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.44E-06
2-Methyl naphthalene	91576	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trimethylbenzene	95636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl benzene	100414	3.80E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.80E-07
Styrene	100425	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzyl chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
p-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylene dibromide	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Butadiene	106990	8.36E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.36E-05
Ethylene dichloride	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl acetate	108054	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl isobutyl ketone	108101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Toluene	108883	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chlorobenzene	108907	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Anthracene	120127	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Perchloroethylene	127184	1.99E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.99E-08
Chloroform	67663	1.71E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-09
Benzene	71432	4.95E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.95E-05
Methyl chloroform	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl bromide	74839	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl chloride	74873	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl chloride	75003	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl chloride	75014	1.66E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-08
Acetaldehyde	75070	1.61E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.61E-07
Methylene chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon disulfide	75150	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyldiene chloride	75354	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Trichlorofluoromethane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorodifluoromethane	75718	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chlorinated Fluorocarbon	76131	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichloropropane	78875	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl ethyl ketone	78933	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1,2-Trichloroethane	79005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Trichloroethylene	79016	3.85E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.85E-09
1,1,2,2-Tetrachloroethane	79345	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acenaphthene	83329	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pyrene	129000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[g,h,i]perylene	191242	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[e]pyrene	192972	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indeno[1,2,3-cd]pyrene	193395	7.72E-11	1.03E-09	1.54E-10	0.00E+00	1.30E-09	2.48E-09	2.56E-09
Perylene	198550	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[b]fluoranthene	205992	5.75E-10	7.64E-09	1.14E-09	0.00E+00	9.69E-09	1.85E-08	1.90E-08

Table 7a. PMI Cancer Risk by Chemical and Exposure Pathway

Exide Technologies
Vernon, California

Chemical Name	CAS #	Inhalation	Dermal	Soil	Mother's Milk	Plants	Oral Subtotal	Total
Fluoranthene	206440	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[k]fluoranthene	207089	2.23E-10	2.96E-09	4.44E-10	0.00E+00	3.76E-09	7.17E-09	7.39E-09
Acenaphthylene	208968	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chrysene	218019	1.23E-09	1.64E-08	2.45E-09	0.00E+00	2.08E-08	3.96E-08	4.08E-08
1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xylenes	1330207	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl tert-butyl ether	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dioxins, total	1086	1.82E-07	7.65E-07	3.20E-07	6.56E-07	5.18E-08	1.79E-06	1.98E-06
PCBs	1336363	4.95E-07	3.72E-06	5.17E-07	2.93E-06	7.63E-07	7.92E-06	8.42E-06
Vanadium	7440622	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PAHs, total	1151	1.01E-10	1.34E-09	2.01E-10	0.00E+00	1.70E-09	3.24E-09	3.34E-09
Acrolein	107028	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexane	110543	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ammonia	7664417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SUM		4.43E-04	6.43E-04	3.13E-04	3.58E-06	5.89E-05	1.02E-03	1.46E-03

Table 7b. PMI Cancer Risk by Emission Sources and Exposure Pathway

Exide Technologies
Vernon, California

Source ID	Source Name	Inhalation	Dermal	Soil	Mother's Milk	Plants	Oral Subtotal	Total
MAPCO	Raw Material Preparation System (RMPS) Scrubber	1.61E-05	1.54E-07	1.25E-07	0.00E+00	5.02E-08	3.30E-07	1.64E-05
MAT_STOR	Material Handling Baghouse	4.28E-06	1.05E-06	5.56E-07	0.00E+00	1.26E-07	1.73E-06	6.02E-06
SOFTLEAD	Soft Lead Refining System Baghouse	1.40E-05	5.75E-07	2.93E-07	0.00E+00	6.18E-08	9.29E-07	1.49E-05
HARDLEAD	Hard Lead Refining System Baghouse	3.84E-04	6.37E-04	3.09E-04	1.34E-06	5.72E-05	1.00E-03	1.39E-03
DRYER_BH	Feed Dryer Baghouse/Cyclone	7.63E-06	2.18E-06	5.45E-07	1.58E-06	5.57E-07	4.86E-06	1.25E-05
NEPTUNE	Neptune Scrubber	9.48E-06	8.37E-07	3.62E-07	6.64E-07	9.07E-08	1.95E-06	1.14E-05
NOR_CART	North Torit Cartridge Filter System	2.26E-08	3.59E-08	1.76E-08	0.00E+00	3.32E-09	5.69E-08	7.94E-08
SOU_CART	South Torit Cartridge Filter System	6.77E-09	2.07E-09	1.42E-09	0.00E+00	4.85E-10	3.97E-09	1.07E-08
MAC_BH	MAC Baghouse	6.22E-06	4.89E-07	2.51E-07	0.00E+00	5.33E-08	7.93E-07	7.01E-06
WH_AB	Water Heater in Administration Building	7.82E-12	2.18E-11	3.27E-12	0.00E+00	2.77E-11	5.28E-11	6.06E-11
WH_EF	Water Heater in Employee Facility	4.72E-10	1.32E-09	1.97E-10	0.00E+00	1.67E-09	3.19E-09	3.66E-09
A1	Entrained Road Dust	1.15E-08	8.93E-09	1.46E-08	0.00E+00	8.22E-09	3.18E-08	4.32E-08
A2	Entrained Road Dust	1.69E-08	1.74E-08	1.59E-08	0.00E+00	6.89E-09	4.02E-08	5.70E-08
A3	Entrained Road Dust	2.57E-08	2.66E-08	2.42E-08	0.00E+00	1.05E-08	6.13E-08	8.71E-08
A4	Entrained Road Dust	4.41E-08	4.55E-08	4.15E-08	0.00E+00	1.80E-08	1.05E-07	1.49E-07
A5	Entrained Road Dust	1.24E-08	1.06E-08	1.49E-08	0.00E+00	7.98E-09	3.36E-08	4.60E-08
A6	Entrained Road Dust	1.83E-08	1.56E-08	2.19E-08	0.00E+00	1.17E-08	4.92E-08	6.75E-08
A7	Entrained Road Dust	2.62E-08	2.24E-08	3.14E-08	0.00E+00	1.68E-08	7.06E-08	9.68E-08
A8	Entrained Road Dust	2.94E-08	2.52E-08	3.53E-08	0.00E+00	1.89E-08	7.94E-08	1.09E-07
A9	Entrained Road Dust	2.65E-08	2.27E-08	3.18E-08	0.00E+00	1.70E-08	7.15E-08	9.80E-08
A10	Entrained Road Dust	2.12E-08	1.81E-08	2.55E-08	0.00E+00	1.36E-08	5.72E-08	7.84E-08
A11	Entrained Road Dust	2.96E-08	2.61E-08	3.30E-08	0.00E+00	1.70E-08	7.60E-08	1.06E-07
A12	Entrained Road Dust	2.08E-08	1.83E-08	2.32E-08	0.00E+00	1.19E-08	5.34E-08	7.42E-08
A13	Entrained Road Dust	2.65E-08	2.29E-08	2.88E-08	0.00E+00	1.48E-08	6.65E-08	9.30E-08
A14	Entrained Road Dust	2.73E-08	2.36E-08	2.96E-08	0.00E+00	1.52E-08	6.84E-08	9.57E-08
A15	Entrained Road Dust	2.75E-08	2.37E-08	2.98E-08	0.00E+00	1.53E-08	6.89E-08	9.64E-08
A16	Entrained Road Dust	2.71E-08	2.34E-08	2.94E-08	0.00E+00	1.51E-08	6.78E-08	9.49E-08
A17	Entrained Road Dust	1.27E-08	9.07E-09	1.55E-08	0.00E+00	8.82E-09	3.34E-08	4.61E-08
A18	Entrained Road Dust	1.01E-08	7.21E-09	1.23E-08	0.00E+00	7.02E-09	2.66E-08	3.67E-08
A19	Entrained Road Dust	9.79E-09	6.98E-09	1.19E-08	0.00E+00	6.79E-09	2.57E-08	3.55E-08
A20	Entrained Road Dust	8.98E-09	6.40E-09	1.10E-08	0.00E+00	6.23E-09	2.36E-08	3.26E-08
A21	Entrained Road Dust	5.88E-09	5.00E-09	7.69E-09	0.00E+00	4.24E-09	1.69E-08	2.28E-08
A22	Entrained Road Dust	6.13E-09	5.21E-09	8.02E-09	0.00E+00	4.42E-09	1.76E-08	2.38E-08
A23	Entrained Road Dust	6.45E-09	5.49E-09	8.44E-09	0.00E+00	4.65E-09	1.86E-08	2.50E-08
A24	Entrained Road Dust	6.26E-09	5.32E-09	8.18E-09	0.00E+00	4.51E-09	1.80E-08	2.43E-08
A25	Entrained Road Dust	6.78E-09	5.76E-09	8.86E-09	0.00E+00	4.88E-09	1.95E-08	2.63E-08
A26	Entrained Road Dust	7.53E-09	6.40E-09	9.85E-09	0.00E+00	5.43E-09	2.17E-08	2.92E-08
A27	Entrained Road Dust	1.15E-08	8.20E-09	1.41E-08	0.00E+00	7.99E-09	3.02E-08	4.18E-08
A28	Entrained Road Dust	4.37E-09	3.71E-09	5.71E-09	0.00E+00	3.15E-09	1.26E-08	1.69E-08
A29	Entrained Road Dust	1.27E-08	9.07E-09	1.55E-08	0.00E+00	8.83E-09	3.34E-08	4.61E-08
A30	Entrained Road Dust	6.76E-09	4.81E-09	8.24E-09	0.00E+00	4.69E-09	1.77E-08	2.45E-08
A31	Entrained Road Dust	7.87E-09	5.61E-09	9.61E-09	0.00E+00	5.46E-09	2.07E-08	2.86E-08
A32	Entrained Road Dust	1.28E-07	1.29E-07	1.34E-07	0.00E+00	6.26E-08	3.26E-07	4.54E-07
A33	Entrained Road Dust	1.34E-07	1.36E-07	1.40E-07	0.00E+00	6.55E-08	3.41E-07	4.76E-07
A34	Entrained Road Dust	1.26E-07	1.27E-07	1.31E-07	0.00E+00	6.15E-08	3.20E-07	4.46E-07
A35	Entrained Road Dust	9.27E-08	9.36E-08	9.67E-08	0.00E+00	4.52E-08	2.35E-07	3.28E-07
A36	Entrained Road Dust	7.59E-08	7.65E-08	7.91E-08	0.00E+00	3.70E-08	1.93E-07	2.68E-07
A37	Entrained Road Dust	8.77E-08	8.85E-08	9.14E-08	0.00E+00	4.28E-08	2.23E-07	3.10E-07
A38	Entrained Road Dust	9.47E-08	9.55E-08	9.87E-08	0.00E+00	4.62E-08	2.40E-07	3.35E-07
A39	Entrained Road Dust	8.65E-09	8.92E-09	8.14E-09	0.00E+00	3.53E-09	2.06E-08	2.92E-08
A40	Entrained Road Dust	1.20E-08	1.24E-08	1.13E-08	0.00E+00	4.91E-09	2.86E-08	4.06E-08
SUM		4.43E-04	6.43E-04	3.13E-04	3.58E-06	5.89E-05	1.02E-03	1.46E-03

Table 8. Health Risks for Fifty Sensitive Receptors with the Highest Risks

Exide Technologies
Vernon, California

Rec. No	UTMX	UTMY	Facility Type	Facility Name	Cancer Risk	HIC	HIA	Street	City	Zip Code
1100	387922	3761155	School	San Antonio Elementary School	1.69E-05	2.22E+00	5.10E-02	6222 State St	Huntington Park	90255
1256	392010	3764098	School	Las Palmas School	1.61E-05	2.11E+00	5.92E-02	1500 S McDonnell Ave	Los Angeles	90022
1360	390114	3765361	Daycare	Volunteers Of America, Salazar Park Head Start	1.59E-05	2.06E+00	7.34E-02	3864 Whitter Boulevard	Los Angeles	90023
1076	387551	3760738	Healthcare	Community Health Foundation Gage Middle School Hc	1.53E-05	2.03E+00	4.75E-02	2880 E Gage Ave	Huntington Park	90255
1071	387531	3760670	School	Gage Middle School	1.52E-05	2.02E+00	4.67E-02	2880 E Gage Ave	Huntington Park	90255
1054	387598	3760388	Daycare	Pasitos Miles Pre-Kindergarten Academy	1.50E-05	1.99E+00	4.63E-02	6720 Miles Avenue	Huntington Park	90255
1056	387451	3760393	School	Miles Elementary School	1.47E-05	1.95E+00	4.37E-02	6720 Miles Avenue	Huntington Park	90255
1046	387404	3760266	Daycare	Miles Avenue Early Education Center	1.44E-05	1.91E+00	4.29E-02	2855 Saturn Ave.	Huntington Park	90255
1077	387376	3760747	Healthcare	Huntington Park Nursing Center	1.44E-05	1.90E+00	4.71E-02	6425 Miles Ave	Huntington Park	90255
1379	389925	3765812	Healthcare	Plaza Community Center Clinic	1.43E-05	1.87E+00	6.56E-02	3700 Princeton St	Los Angeles	90023
1378	389931	3765811	Daycare	Plaza Child Development Center	1.43E-05	1.88E+00	6.56E-02	648 South Indiana	Los Angeles	90023
1373	389874	3765694	School	Stevenson Middle School	1.41E-05	1.85E+00	6.45E-02	725 S Indiana St	Los Angeles	90023
1397	389981	3766124	School	Spanish American Baptist Seminary	1.38E-05	1.82E+00	6.56E-02	512 S Indiana St	Los Angeles	90063
1366	390342	3765455	Healthcare	Altamed Medical And Dental Group-E.L.A.Boyle Heights	1.37E-05	1.79E+00	6.57E-02	3945 Whitter Blvd	Los Angeles	90023
1392	389935	3766076	Healthcare	Altamed Senior Buenacare	1.36E-05	1.80E+00	6.61E-02	512 S Indiana St	Los Angeles	90063
1113	387487	3761286	School	Huntington Park High School	1.35E-05	1.77E+00	5.30E-02	6020 Miles Ave	Huntington Park	90255
1290	392690	3764450	Daycare	Winter Gardens Head Start	1.35E-05	1.78E+00	5.52E-02	1277 Clea Ave.	Los Angeles	90022
1293	392631	3764523	School	Winter Gardens Elementary School	1.31E-05	1.74E+00	5.57E-02	1277 Clea Ave.	Los Angeles	90022
1323	390358	3764895	Healthcare	Los Angeles Community Hospital	1.28E-05	1.67E+00	6.40E-02	4081 E Olympic Blvd	Los Angeles	90023
1387	390441	3765965	School	Rowan Elementary School	1.27E-05	1.68E+00	6.62E-02	600 S Rowan Ave	Los Angeles	90023
1062	386982	3760467	Daycare	Maof Head Start Zoe Avenue Center	1.25E-05	1.66E+00	4.43E-02	2650 Zoe Ave.	Huntington Park	90255
1221	392182	3763419	School	Bandini Elementary School	1.25E-05	1.63E+00	5.73E-02	2318 Couts Ave	Commerce	90040
1450	390157	3766822	Daycare	La Trinidad - Pace Head Start	1.24E-05	1.64E+00	5.94E-02	3565 E. First Street	Los Angeles	90063
1430	389987	3766586	School	Ramona Opportunity High Alternative School	1.24E-05	1.64E+00	6.33E-02	213 S Alma Ave	Los Angeles	90063
1019	386802	3759864	Healthcare	Southern California Surgery Center	1.23E-05	1.63E+00	3.95E-02	7305 Pacific Blvd	Huntington Park	90255
1082	387102	3760844	Daycare	Ymca Of Metropolitan Los Angeles-Rio Vista	1.22E-05	1.62E+00	4.84E-02	6348 Seville Ave	Huntington Park	90255
983	387049	3759408	Daycare	Happy Time Education	1.22E-05	1.62E+00	3.94E-02	2675 Grand Ave.	Walnut Park	90255
1014	387922	3759855	Daycare	St. Matthias Pre-K	1.22E-05	1.62E+00	4.33E-02	7130 Cedar Street	Huntington Park	90255
1018	387932	3759864	School	Saint Matthias School	1.22E-05	1.62E+00	4.35E-02	7130 Cedar Street	Huntington Park	90255
1420	390498	3766426	School	Our Lady Of Lourdes School	1.21E-05	1.60E+00	6.64E-02	315 S Eastman Ave	Los Angeles	90063
968	386976	3759279	Daycare	Walnut Park Elementary School Cspp	1.19E-05	1.58E+00	3.85E-02	2642 Olive Street Rm.B1 & B2	Huntington Park	90255
1074	388662	3760706	Daycare	Pasitos Gage Pre-Kindergarten Academy	1.19E-05	1.56E+00	4.92E-02	3355 Gage Avenue	Huntington Park	90255
1300	390691	3764577	Daycare	Our Lady Of Victory	1.19E-05	1.56E+00	6.45E-02	1316 South Herbert	East Los Angeles	90023
1444	390501	3766734	School	Belvedere Elementary School	1.18E-05	1.56E+00	6.41E-02	3724 E 1St St	Los Angeles	90063
1426	390533	3766544	Daycare	Belvedere Early Education Center	1.18E-05	1.56E+00	6.52E-02	221 S. Eastman Ave.	Los Angeles	90063
1324	390452	3764903	Nursing	Los Angeles Comm Hospital	1.17E-05	1.53E+00	6.24E-02	4081 East Olympic Blvd	Los Angeles	90023
1075	386953	3760724	Daycare	Huntington Park Rita	1.17E-05	1.55E+00	4.69E-02	6420 Rita	Huntington Park	90255
964	386812	3759263	Daycare	Maof Head Start Walnut Center	1.17E-05	1.56E+00	3.63E-02	7818 S. Pacific Blvd.	Huntington Park	90255
1277	393998	3764302	Healthcare	Rai - East Olympic - Los Angeles	1.17E-05	1.55E+00	4.57E-02	5714 E Olympic Blvd	Commerce	90022
1302	390681	3764607	Daycare	Plaza Cs Child Development Center	1.16E-05	1.52E+00	6.21E-02	4198 Union Pacific Avenue	Los Angeles	90023
1009	388032	3759817	Healthcare	Community And Mission Hsp Of Hntg Park-Florence	1.15E-05	1.53E+00	4.37E-02	3111 E Florence Ave	Huntington Park	90255
1217	392298	3763333	Daycare	Volunteers Of America, Commerce Head Start	1.15E-05	1.50E+00	5.43E-02	5102 Kinsie Street	Los Angeles	90040
1335	390478	3765055	Daycare	Las Flores Preschool	1.15E-05	1.50E+00	6.53E-02	1075 S. Eastman Avenue	Los Angeles	90023
1310	393446	3764711	Daycare	Maof Child Care Center-Goodrich	1.14E-05	1.52E+00	5.06E-02	972 So. Goodrich Blvd.	City Of Commerce	90022
1306	390593	3764672	Daycare	Eastman Avenue Early Education Center	1.13E-05	1.49E+00	6.97E-02	1266 S. Gage	Los Angeles	90023
1304	391119	3764627	Daycare	Union Pacific Cdc/Ywca Of Greater L.A.	1.13E-05	1.49E+00	6.28E-02	4315 Union Pacific Avenue	Los Angeles	90023
1139	389213	3761664	Daycare	Loma Vista Elementary School Cspp	1.11E-05	1.43E+00	6.79E-02	3629 E. 58Th St. Rm 11	Maywood	90270
1316	390556	3764793	School	Eastman Avenue Elementary School	1.09E-05	1.44E+00	7.02E-02	4112 E Olympic Blvd	Los Angeles	90023
1090	386996	3761015	School	Baptist Day School	1.09E-05	1.44E+00	4.76E-02	2665 Clarendon Ave	Huntington Park	90255
1313	391515	3764765	Daycare	Maof Child Care Center Telegraph	1.06E-05	1.40E+00	5.95E-02	4457 Telegraph Road	Los Angeles	90023

Table 9a. MEIR Chronic Hazard Index without Background by Chemical

Exide Technologies
Vernon, California

Chemical Name	CAS #	Cardio-vascular System	Central Nervous System	Developmental System	Endo-crine System	Eye	GILV	Kidney	Reproductive System	Respiratory System	Skin	Blood	MAX
Aluminum	7429905	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Lead	7439921	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Manganese	7439965	0.00E+00	3.06E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.06E-04
Mercury	7439976	0.00E+00	2.75E-03	2.75E-03	0.00E+00	0.00E+00	0.00E+00	2.75E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.75E-03
Nickel	7440020	0.00E+00	0.00E+00	4.80E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.01E-03	0.00E+00	3.01E-03	3.01E-03
Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Antimony	7440360	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Arsenic	7440382	2.87E+00	2.87E+00	2.87E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.87E+00	2.87E+00	0.00E+00	2.87E+00
Barium	7440393	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cadmium	7440439	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-03	0.00E+00	7.64E-04	0.00E+00	0.00E+00	1.14E-03
Chromium	7440473	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cobalt	7440484	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Copper	7440508	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zinc	7440666	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Selenium	7782492	2.71E-07	2.71E-07	0.00E+00	0.00E+00	0.00E+00	2.71E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.71E-07
Chromium, hexavalent	18540299	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.40E-05	0.00E+00	1.61E-06	3.40E-05
Formaldehyde	50000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-04	0.00E+00	0.00E+00	1.66E-04
Benzo[a]pyrene	50328	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dibenz[a,h]anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benz[a]anthracene	56553	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phenanthrene	85018	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluorene	86737	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexachlorobutadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	91203	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-04	0.00E+00	0.00E+00	3.08E-04
2-Methyl naphthalene	91576	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trimethylbenzene	95636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl benzene	100414	0.00E+00	0.00E+00	1.06E-06	1.06E-06	0.00E+00	1.06E-06	1.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-06
Styrene	100425	0.00E+00	2.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-05
Benzyl chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
p-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylene dibromide	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Butadiene	106990	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.38E-04	0.00E+00	0.00E+00	4.38E-04
Ethylene dichloride	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl acetate	108054	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.29E-06	0.00E+00	0.00E+00	1.29E-06
Methyl isobutyl ketone	108101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Toluene	108883	0.00E+00	2.36E-05	2.36E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E-05	0.00E+00	0.00E+00	2.36E-05
Chlorobenzene	108907	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E-08	1.19E-08	1.19E-08	0.00E+00	0.00E+00	1.19E-08
Anthracene	120127	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Perchloroethylene	127184	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.46E-06	2.46E-06	0.00E+00	0.00E+00	0.00E+00	2.46E-06
Chloroform	67663	0.00E+00	0.00E+00	5.95E-08	0.00E+00	0.00E+00	5.95E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.95E-08
Benzene	71432	0.00E+00	5.08E-04	5.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.08E-04
Methyl chloroform	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl bromide	74839	0.00E+00	3.01E-05	3.01E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.01E-05	0.00E+00	0.00E+00	3.01E-05
Methyl chloride	74873	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl chloride	75003	0.00E+00	0.00E+00	8.48E-10	0.00E+00	0.00E+00	8.48E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.48E-10
Vinyl chloride	75014	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acetaldehyde	75070	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.87E-06	0.00E+00	0.00E+00	7.87E-06
Methylene chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon disulfide	75150	3.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-06	0.00E+00	0.00E+00	0.00E+00	3.60E-06
Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinylidene chloride	75354	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-07
Trichlorofluoromethane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorodifluoromethane	75718	0.00E+00	0.00E+00	0.00E+0									

Table 9a. MEIR Chronic Hazard Index without Background by Chemical

Exide Technologies
Vernon, California

Chemical Name	CAS #	Cardio-vascular System	Central Nervous System	Develop-mental System	Endo-crine System	Eye	GILV	Kidney	Repro-ductive System	Respi-ratory System	Skin	Blood	MAX
Chrysene	218019	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xylenes	1330207	0.00E+00	2.61E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.61E-06	0.00E+00	0.00E+00	2.61E-06
Methyl tert-butyl ether	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dioxins, total	1086	0.00E+00	0.00E+00	4.12E-05	4.12E-05	0.00E+00	4.12E-05	0.00E+00	4.12E-05	4.12E-05	0.00E+00	4.12E-05	4.12E-05
PCBs	1336363	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vanadium	7440622	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PAHs, total	1151	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acrolein	107028	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.58E-07	0.00E+00	0.00E+00	1.58E-07
Hexane	110543	0.00E+00	1.84E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.84E-11
Ammonia	7664417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.84E-06	0.00E+00	0.00E+00	1.84E-06
SUM		2.87E+00	2.88E+00	2.88E+00	4.22E-05	7.04E-08	4.52E-05	3.89E-03	4.83E-04	2.88E+00	2.87E+00	3.56E-03	2.88E+00

Table 9b. MEIR Chronic Hazard Index without Background by Source

Exide Technologies
Vernon, California

Source ID	Source Name	Cardio-vascular System	Central Nervous System	Developmental System	Endocrine System	Eye	GILV	Kidney	Reproductive System	Respiratory System	Skin	Blood	MAX
MAPCO	Raw Material Preparation System (RMPS) Scrubber	1.21E-03	1.22E-03	1.24E-03	0.00E+00	0.00E+00	3.44E-08	1.20E-04	0.00E+00	2.50E-03	1.21E-03	1.21E-03	2.50E-03
MAT_STOR	Material Handling Baghouse	1.10E-02	1.11E-02	1.11E-02	0.00E+00	0.00E+00	0.00E+00	2.34E-04	0.00E+00	1.14E-02	1.10E-02	1.58E-04	1.14E-02
SOFTLEAD	Soft Lead Refining System Baghouse	6.66E-03	6.86E-03	6.86E-03	2.14E-08	0.00E+00	2.14E-08	3.52E-04	1.22E-04	6.83E-03	6.66E-03	2.57E-05	6.86E-03
HARDEAD	Hard Lead Refining System Baghouse	2.77E+00	2.77E+00	2.77E+00	1.17E-06	3.10E-08	1.19E-06	1.13E-03	2.68E-04	2.77E+00	2.77E+00	4.90E-04	2.77E+00
DRYER_BH	Feed Dryer Baghouse/Cyclone	3.08E-03	4.07E-03	4.02E-03	1.01E-06	2.98E-08	1.25E-06	8.27E-04	3.78E-05	3.30E-03	3.08E-03	1.67E-04	4.07E-03
NEPTUNE	Neptune Scrubber	3.96E-04	1.08E-03	1.11E-03	4.00E-05	4.25E-05	7.00E-04	5.55E-05	5.53E-04	3.96E-04	1.31E-04	1.11E-03	
NOR_CART	North Torit Cartridge Filter System	4.35E-02	4.36E-02	4.36E-02	0.00E+00	0.00E+00	0.00E+00	8.52E-05	0.00E+00	4.36E-02	4.35E-02	6.93E-05	4.36E-02
SOU_CART	South Torit Cartridge Filter System	4.20E-03	4.21E-03	4.21E-03	0.00E+00	0.00E+00	0.00E+00	5.92E-05	0.00E+00	4.25E-03	4.20E-03	1.38E-05	4.25E-03
MAC_BH	MAC Baghouse	5.80E-03	5.81E-03	5.81E-03	0.00E+00	0.00E+00	0.00E+00	1.14E-05	0.00E+00	5.88E-03	5.80E-03	7.34E-05	5.88E-03
WH_AB	Water Heater in Administration Building	0.00E+00	1.55E-10	1.37E-10	2.50E-12	0.00E+00	2.50E-12	2.50E-12	0.00E+00	5.26E-08	0.00E+00	7.03E-11	5.26E-08
WH_EF	Water Heater in Employee Facility	0.00E+00	5.88E-09	5.18E-09	9.46E-11	0.00E+00	9.46E-11	9.46E-11	0.00E+00	1.99E-06	0.00E+00	2.65E-09	1.99E-06
A1	Entrained Road Dust	2.94E-04	2.94E-04	2.94E-04	0.00E+00	0.00E+00	1.21E-09	4.48E-06	0.00E+00	3.10E-04	2.94E-04	1.33E-05	3.10E-04
A2	Entrained Road Dust	4.65E-04	4.69E-04	4.66E-04	0.00E+00	0.00E+00	3.90E-09	7.66E-06	0.00E+00	4.90E-04	4.65E-04	1.97E-05	4.90E-04
A3	Entrained Road Dust	4.56E-04	4.60E-04	4.56E-04	0.00E+00	0.00E+00	3.83E-09	7.50E-06	0.00E+00	4.80E-04	4.56E-04	1.93E-05	4.80E-04
A4	Entrained Road Dust	4.39E-04	4.42E-04	4.39E-04	0.00E+00	0.00E+00	3.68E-09	7.22E-06	0.00E+00	4.62E-04	4.39E-04	1.86E-05	4.62E-04
A5	Entrained Road Dust	3.07E-04	3.10E-04	3.07E-04	0.00E+00	0.00E+00	1.69E-09	4.55E-06	0.00E+00	3.24E-04	3.07E-04	1.42E-05	3.24E-04
A6	Entrained Road Dust	2.95E-04	2.98E-04	2.95E-04	0.00E+00	0.00E+00	1.62E-09	4.38E-06	0.00E+00	3.12E-04	2.95E-04	1.37E-05	3.12E-04
A7	Entrained Road Dust	2.85E-04	2.87E-04	2.85E-04	0.00E+00	0.00E+00	1.56E-09	4.22E-06	0.00E+00	3.01E-04	2.85E-04	1.32E-05	3.01E-04
A8	Entrained Road Dust	2.74E-04	2.77E-04	2.74E-04	0.00E+00	0.00E+00	1.50E-09	4.06E-06	0.00E+00	2.89E-04	2.74E-04	1.27E-05	2.89E-04
A9	Entrained Road Dust	2.64E-04	2.67E-04	2.64E-04	0.00E+00	0.00E+00	1.45E-09	3.92E-06	0.00E+00	2.79E-04	2.64E-04	1.22E-05	2.79E-04
A10	Entrained Road Dust	2.56E-04	2.58E-04	2.56E-04	0.00E+00	0.00E+00	1.40E-09	3.79E-06	0.00E+00	2.70E-04	2.56E-04	1.19E-05	2.70E-04
A11	Entrained Road Dust	4.95E-04	5.00E-04	4.96E-04	0.00E+00	0.00E+00	3.64E-09	7.43E-06	0.00E+00	5.34E-04	4.95E-04	3.44E-05	5.34E-04
A12	Entrained Road Dust	4.78E-04	4.83E-04	4.78E-04	0.00E+00	0.00E+00	3.52E-09	7.18E-06	0.00E+00	5.16E-04	4.78E-04	3.32E-05	5.16E-04
A13	Entrained Road Dust	6.91E-04	6.97E-04	6.92E-04	0.00E+00	0.00E+00	6.02E-09	1.16E-05	0.00E+00	7.43E-04	6.91E-04	4.34E-05	7.43E-04
A14	Entrained Road Dust	6.66E-04	6.71E-04	6.67E-04	0.00E+00	0.00E+00	5.80E-09	1.12E-05	0.00E+00	7.15E-04	6.66E-04	4.19E-05	7.15E-04
A15	Entrained Road Dust	6.33E-04	6.38E-04	6.34E-04	0.00E+00	0.00E+00	5.51E-09	1.07E-05	0.00E+00	6.80E-04	6.33E-04	3.98E-05	6.80E-04
A16	Entrained Road Dust	5.93E-04	5.98E-04	5.94E-04	0.00E+00	0.00E+00	5.16E-09	9.98E-06	0.00E+00	6.37E-04	5.93E-04	3.73E-05	6.37E-04
A17	Entrained Road Dust	2.31E-04	2.35E-04	2.31E-04	0.00E+00	0.00E+00	1.89E-09	3.66E-06	0.00E+00	2.59E-04	2.31E-04	2.57E-05	2.59E-04
A18	Entrained Road Dust	1.84E-04	1.87E-04	1.84E-04	0.00E+00	0.00E+00	1.50E-09	2.91E-06	0.00E+00	2.06E-04	1.84E-04	2.05E-05	2.06E-04
A19	Entrained Road Dust	1.69E-04	1.72E-04	1.69E-04	0.00E+00	0.00E+00	1.38E-09	2.68E-06	0.00E+00	1.90E-04	1.69E-04	1.88E-05	1.90E-04
A20	Entrained Road Dust	1.50E-04	1.53E-04	1.51E-04	0.00E+00	0.00E+00	1.23E-09	2.39E-06	0.00E+00	1.69E-04	1.50E-04	1.68E-05	1.69E-04
A21	Entrained Road Dust	1.20E-04	1.21E-04	1.20E-04	0.00E+00	0.00E+00	7.62E-10	1.52E-06	0.00E+00	1.25E-04	1.20E-04	3.84E-06	1.25E-04
A22	Entrained Road Dust	1.21E-04	1.22E-04	1.21E-04	0.00E+00	0.00E+00	7.68E-10	1.53E-06	0.00E+00	1.26E-04	1.21E-04	3.87E-06	1.26E-04
A23	Entrained Road Dust	1.29E-04	1.31E-04	1.29E-04	0.00E+00	0.00E+00	8.22E-10	1.64E-06	0.00E+00	1.34E-04	1.29E-04	4.14E-06	1.34E-04
A24	Entrained Road Dust	1.33E-04	1.35E-04	1.34E-04	0.00E+00	0.00E+00	8.49E-10	1.69E-06	0.00E+00	1.39E-04	1.33E-04	4.28E-06	1.39E-04
A25	Entrained Road Dust	1.45E-04	1.46E-04	1.45E-04	0.00E+00	0.00E+00	9.20E-10	1.84E-06	0.00E+00	1.50E-04	1.45E-04	4.64E-06	1.50E-04
A26	Entrained Road Dust	1.50E-04	1.51E-04	1.50E-04	0.00E+00	0.00E+00	9.53E-10	1.90E-06	0.00E+00	1.56E-04	1.50E-04	4.80E-06	1.56E-04
A27	Entrained Road Dust	1.81E-04	1.85E-04	1.82E-04	0.00E+00	0.00E+00	1.49E-09	2.88E-06	0.00E+00	2.04E-04	1.81E-04	2.02E-05	2.04E-04
A28	Entrained Road Dust	8.40E-05	8.49E-05	8.40E-05	0.00E+00	0.00E+00	5.35E-10	1.07E-06	0.00E+00	8.74E-05	8.40E-05	2.70E-06	8.74E-05
A29	Entrained Road Dust	1.98E-04	2.01E-04	1.98E-04	0.00E+00	0.00E+00	1.62E-09	3.14E-06	0.00E+00	2.22E-04	1.98E-04	2.20E-05	2.22E-04
A30	Entrained Road Dust	1.05E-04	1.07E-04	1.05E-04	0.00E+00	0.00E+00	8.62E-10	1.67E-06	0.00E+00	1.18E-04	1.05E-04	1.17E-05	1.18E-04
A31	Entrained Road Dust	1.29E-04	1.31E-04	1.29E-04	0.00E+00	0.00E+00	1.06E-09	2.05E-06	0.00E+00	1.45E-04	1.29E-04	1.44E-05	1.45E-04
A32	Entrained Road Dust	2.13E-03	2.14E-03	2.13E-03	0.00E+00	0.00E+00	1.90E-08	3.12E-05	0.00E+00	2.24E-03	2.13E-03	8.91E-05	2.24E-03
A33	Entrained Road Dust	2.35E-03	2.36E-03	2.35E-03	0.00E+00	0.00E+00	2.10E-08	3.44E-05	0.00E+00	2.47E-03	2.35E-03	9.84E-05	2.47E-03
A34	Entrained Road Dust	2.32E-03	2.33E-03	2.32E-03	0.00E+00	0.00E+00	2.08E-08	3.40E-05	0.00E+00	2.44E-03	2.32E-03	9.71E-05	2.44E-03
A35	Entrained Road Dust	2.05E-03	2.06E-03	2.05E-03	0.00E+00	0.00E+00	1.84E-08	3.00E-05	0.00E+00	2.16E-03	2.05E-03	8.58E-05	2.16E-03
A36	Entrained Road Dust	2.02E-03	2.03E-03	2.02E-03	0.00E+00	0.00E+00	1.81E-08	2.96E-05	0.00E+00	2.12E-03	2.02E-03	8.45E-05	2.12E-03
A37	Entrained Road Dust	2.27E-03	2.29E-03	2.28E-03	0.00E+00	0.00E+00	2.04E-08	3.33E-05	0.00E+00	2.39E-03	2.27E-03	9.52E-05	2.39E-03
A38	Entrained Road Dust	2.28E-03	2.29E-03	2.28E-03	0.00E+00	0.00E+00	2.04E-08	3.34E-05	0.00E+00	2.39E-03	2.28E-03	9.53E-05	2.40E-03
A39	Entrained Road Dust	2.10E-04	2.12E-04	2.10E-04	0.00E+00	0.00E+00	1.76E-09	3.45E-06	0.00E+00	2.21E-04	2.10E-04	8.90E-06	2.21E-04
A40	Entrained Road Dust	2.02E-04	2.04E-04	2.02E-04	0.00E+00	0.00E+00	1.70E-09	3.33E-06	0.00E+00	2.13E-04	2.02E-04	8.58E-06	2.13E-04
SUM		2.87E+00	2.88E+00	2.88E+00	4.22E-05	7.04E-08	4.52E-05	3.89E-03	4.83E-04	2.88E+00	2.87E+00	3.56E-03	2.88E+00

Table 10a. MEIW Chronic Hazard Index without Background by Chemical

Exide Technologies
Vernon, California

Chemical Name	CAS #	Cardio-vascular System	Central Nervous System	Develop-mental System	Endo-crine System	Eye	GILV	Kidney	Repro-ductive System	Respi-atory System	Skin	Blood	MAX
Aluminum	7429905	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Lead	7439921	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Manganese	7439965	0.00E+00	4.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.19E-03
Mercury	7439976	0.00E+00	7.32E-02	7.32E-02	0.00E+00	0.00E+00	0.00E+00	7.32E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.32E-02
Nickel	7440020	0.00E+00	0.00E+00	8.82E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.88E-02	0.00E+00	8.88E-02	8.88E-02
Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Antimony	7440360	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Arsenic	7440382	1.76E+02	1.76E+02	1.76E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E+02	1.76E+02	0.00E+00	1.76E+02
Barium	7440393	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cadmium	7440439	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.21E-02	0.00E+00	2.01E-02	0.00E+00	0.00E+00	2.21E-02
Chromium	7440473	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cobalt	7440484	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Copper	7440508	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zinc	7440666	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Selenium	7782492	5.68E-06	5.68E-06	0.00E+00	0.00E+00	0.00E+00	5.68E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.68E-06
Chromium, hexavalent	18540299	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-03	0.00E+00	4.19E-05	1.14E-03
Formaldehyde	50000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.26E-03	0.00E+00	0.00E+00	6.26E-03
Benz[a]pyrene	50328	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dibenz[a,h]anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benz[a]anthracene	56553	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phenanthrene	85018	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluorene	86737	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexachlorobutadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	91203	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-02	0.00E+00	0.00E+00	1.74E-02
2-Methyl naphthalene	91576	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trimethylbenzene	95636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl benzene	100414	0.00E+00	0.00E+00	7.53E-05	7.53E-05	0.00E+00	7.53E-05	0.00E+00	7.53E-05	0.00E+00	0.00E+00	0.00E+00	7.53E-05
Styrene	100425	0.00E+00	1.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.80E-03
Benzyl chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
p-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylenic dibromide	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Butadiene	106990	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-02	0.00E+00	0.00E+00	2.40E-02
Ethylenic dichloride	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl acetate	108054	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.89E-05	0.00E+00	0.00E+00	3.89E-05
Methyl isobutyl ketone	108101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Toluene	108883	0.00E+00	1.60E-03	1.60E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.60E-03	0.00E+00	0.00E+00	1.60E-03
Chlorobenzene	108907	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.73E-07	8.73E-07	8.73E-07	0.00E+00	0.00E+00	0.00E+00	8.73E-07
Anthracene	120127	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Perchloroethylene	127184	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.37E-05	9.37E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.37E-05
Chloroform	67663	0.00E+00	0.00E+00	1.03E-06	0.00E+00	0.00E+00	1.03E-06	1.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-06
Benzene	71432	0.00E+00	2.85E-02	2.85E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.85E-02
Methyl chloroform	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl bromide	74839	0.00E+00	1.79E-03	1.79E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-03	0.00E+00	0.00E+00	1.79E-03
Methyl chloride	74873	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl chloride	75003	0.00E+00	0.00E+00	6.24E-08	0.00E+00	0.00E+00	6.24E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.24E-08
Vinyl chloride	75014	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acetaldehyde	75070	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.98E-04	0.00E+00	0.00E+00	3.98E-04
Methylene chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon disulfide	75150	0.00E+00	2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-04	0.00E+00	0.00E+00	2.40E-04
Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinylidene chloride	75354	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-06
Trichlorofluoromethane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorodifluoromethane	75718	0.00E+00	0.00E+00</td										

Table 10a. MEIW Chronic Hazard Index without Background by Chemical

Exide Technologies
Vernon, California

Chemical Name	CAS #	Cardio-vascular System	Central Nervous System	Develop-mental System	Endo-crine System	Eye	GILV	Kidney	Repro-ductive System	Respi-ratory System	Skin	Blood	MAX
Benzo[b]fluoranthene	205992	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluoranthene	206440	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzo[k]fluoranthene	207089	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acenaphthylene	208968	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chrysene	218019	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xylenes	1330207	0.00E+00	1.79E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-04	0.00E+00	0.00E+00	1.79E-04
Methyl tert-butyl ether	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dioxins, total	1086	0.00E+00	0.00E+00	9.29E-04	9.29E-04	0.00E+00	9.29E-04	0.00E+00	9.29E-04	9.29E-04	0.00E+00	9.29E-04	9.29E-04
PCBs	1336363	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vanadium	7440622	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PAHs, total	1151	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acrolein	107028	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.67E-06	0.00E+00	0.00E+00	7.67E-06
Hexane	110543	0.00E+00	8.94E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.94E-10
Ammonia	7664417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.94E-05	0.00E+00	0.00E+00	8.94E-05
SUM		1.76E+02	1.77E+02	1.77E+02	1.00E-03	3.16E-06	1.11E-03	9.55E-02	2.52E-02	1.77E+02	1.76E+02	1.18E-01	1.77E+02

Table 10b. MEIW Chronic Hazard Index without Background by Source

Exide Technologies
Vernon, California

Source ID	Source Name	Cardio-vascular System	Central Nervous System	Developmental System	Endo-crine System	Eye	GILV	Kidney	Reproductive System	Respiratory System	Skin	Blood	MAX
MAPCO	Raw Material Preparation System (RMPS) Scrubber	4.21E-02	4.24E-02	4.29E-02	0.00E+00	0.00E+00	1.40E-06	3.50E-03	0.00E+00	9.46E-02	4.21E-02	4.91E-02	9.46E-02
MAT_STOR	Material Handling Baghouse	2.90E-01	2.91E-01	2.91E-01	0.00E+00	0.00E+00	0.00E+00	5.19E-03	0.00E+00	3.00E-01	2.90E-01	4.82E-03	3.00E-01
SOFTLEAD	Soft Lead Refining System Baghouse	1.58E-01	1.62E-01	1.62E-01	5.93E-07	0.00E+00	5.93E-07	6.52E-03	3.37E-03	1.63E-01	1.58E-01	7.12E-04	1.63E-01
HARDLEAD	Hard Lead Refining System Baghouse	1.75E+02	1.75E+02	1.75E+02	8.13E-05	2.28E-06	8.25E-05	5.09E-02	1.97E-02	1.75E+02	1.75E+02	3.61E-02	1.75E+02
DRYER_BH	Feed Dryer Baghouse/Cyclone	4.60E-02	5.78E-02	5.69E-02	1.07E-05	5.18E-07	1.49E-05	8.73E-03	6.49E-04	4.99E-02	4.60E-02	2.89E-03	5.78E-02
NEPTUNE	Neptune Scrubber	1.30E-02	2.86E-02	2.94E-02	9.11E-04	3.66E-07	1.01E-03	1.62E-02	1.50E-03	1.83E-02	1.30E-02	4.36E-03	2.94E-02
NOR_CART	North Torit Cartridge Filter System	9.91E-03	9.93E-03	9.92E-03	0.00E+00	0.00E+00	0.00E+00	1.57E-05	0.00E+00	9.94E-03	9.91E-03	1.83E-05	9.94E-03
SOU_CART	South Torit Cartridge Filter System	5.67E-04	5.69E-04	5.67E-04	0.00E+00	0.00E+00	0.00E+00	6.70E-06	0.00E+00	5.75E-04	5.67E-04	2.17E-06	5.75E-04
MAC_BH	MAC Baghouse	1.35E-01	1.35E-01	1.35E-01	0.00E+00	0.00E+00	0.00E+00	1.85E-04	0.00E+00	1.37E-01	1.35E-01	1.98E-03	1.37E-01
WH_AB	Water Heater in Administration Building	0.00E+00	4.78E-09	4.21E-09	7.69E-11	0.00E+00	7.69E-11	7.69E-11	0.00E+00	1.62E-06	0.00E+00	2.16E-09	1.62E-06
WH_EF	Water Heater in Employee Facility	0.00E+00	2.89E-07	2.54E-07	4.64E-09	0.00E+00	4.64E-09	4.64E-09	0.00E+00	9.76E-05	0.00E+00	1.30E-07	9.76E-05
A1	Entrained Road Dust	2.38E-03	2.42E-03	2.38E-03	0.00E+00	0.00E+00	1.14E-08	3.09E-05	0.00E+00	2.53E-03	2.38E-03	1.26E-04	2.53E-03
A2	Entrained Road Dust	4.74E-03	4.79E-03	4.74E-03	0.00E+00	0.00E+00	4.63E-08	6.67E-05	0.00E+00	5.04E-03	4.74E-03	2.34E-04	5.04E-03
A3	Entrained Road Dust	7.24E-03	7.31E-03	7.24E-03	0.00E+00	0.00E+00	7.06E-08	1.02E-04	0.00E+00	7.69E-03	7.24E-03	3.57E-04	7.69E-03
A4	Entrained Road Dust	1.24E-02	1.25E-02	1.24E-02	0.00E+00	0.00E+00	1.21E-07	1.74E-04	0.00E+00	1.32E-02	1.24E-02	6.12E-04	1.32E-02
A5	Entrained Road Dust	2.86E-03	2.89E-03	2.86E-03	0.00E+00	0.00E+00	1.82E-08	3.62E-05	0.00E+00	3.04E-03	2.86E-03	1.54E-04	3.05E-03
A6	Entrained Road Dust	4.19E-03	4.24E-03	4.19E-03	0.00E+00	0.00E+00	2.68E-08	5.31E-05	0.00E+00	4.47E-03	4.19E-03	2.26E-04	4.47E-03
A7	Entrained Road Dust	6.01E-03	6.08E-03	6.02E-03	0.00E+00	0.00E+00	3.84E-08	7.61E-05	0.00E+00	6.41E-03	6.01E-03	3.24E-04	6.41E-03
A8	Entrained Road Dust	6.76E-03	6.84E-03	6.76E-03	0.00E+00	0.00E+00	4.32E-08	8.56E-05	0.00E+00	7.20E-03	6.76E-03	3.64E-04	7.20E-03
A9	Entrained Road Dust	6.09E-03	6.16E-03	6.09E-03	0.00E+00	0.00E+00	3.89E-08	7.71E-05	0.00E+00	6.48E-03	6.09E-03	3.28E-04	6.48E-03
A10	Entrained Road Dust	4.87E-03	4.93E-03	4.87E-03	0.00E+00	0.00E+00	3.11E-08	6.17E-05	0.00E+00	5.19E-03	4.87E-03	2.63E-04	5.19E-03
A11	Entrained Road Dust	7.03E-03	7.11E-03	7.03E-03	0.00E+00	0.00E+00	6.02E-08	9.01E-05	0.00E+00	7.68E-03	7.03E-03	5.68E-04	7.68E-03
A12	Entrained Road Dust	4.93E-03	4.99E-03	4.94E-03	0.00E+00	0.00E+00	4.22E-08	6.33E-05	0.00E+00	5.39E-03	4.93E-03	3.99E-04	5.39E-03
A13	Entrained Road Dust	6.18E-03	6.23E-03	6.18E-03	0.00E+00	0.00E+00	6.25E-08	8.88E-05	0.00E+00	6.71E-03	6.18E-03	4.52E-04	6.71E-03
A14	Entrained Road Dust	6.36E-03	6.41E-03	6.36E-03	0.00E+00	0.00E+00	6.43E-08	9.14E-05	0.00E+00	6.90E-03	6.36E-03	4.64E-04	6.90E-03
A15	Entrained Road Dust	6.40E-03	6.46E-03	6.41E-03	0.00E+00	0.00E+00	6.48E-08	9.20E-05	0.00E+00	6.95E-03	6.40E-03	4.68E-04	6.95E-03
A16	Entrained Road Dust	6.30E-03	6.36E-03	6.31E-03	0.00E+00	0.00E+00	6.38E-08	9.06E-05	0.00E+00	6.84E-03	6.30E-03	4.60E-04	6.84E-03
A17	Entrained Road Dust	2.41E-03	2.46E-03	2.41E-03	0.00E+00	0.00E+00	2.29E-08	3.26E-05	0.00E+00	2.75E-03	2.41E-03	3.12E-04	2.75E-03
A18	Entrained Road Dust	1.92E-03	1.96E-03	1.92E-03	0.00E+00	0.00E+00	1.82E-08	2.59E-05	0.00E+00	2.19E-03	1.92E-03	2.48E-04	2.19E-03
A19	Entrained Road Dust	1.85E-03	1.89E-03	1.86E-03	0.00E+00	0.00E+00	1.77E-08	2.51E-05	0.00E+00	2.12E-03	1.85E-03	2.40E-04	2.12E-03
A20	Entrained Road Dust	1.70E-03	1.74E-03	1.70E-03	0.00E+00	0.00E+00	1.62E-08	2.30E-05	0.00E+00	1.94E-03	1.70E-03	2.20E-04	1.94E-03
A21	Entrained Road Dust	1.34E-03	1.35E-03	1.34E-03	0.00E+00	0.00E+00	9.88E-09	1.45E-05	0.00E+00	1.40E-03	1.34E-03	4.98E-05	1.40E-03
A22	Entrained Road Dust	1.39E-03	1.41E-03	1.39E-03	0.00E+00	0.00E+00	1.03E-08	1.51E-05	0.00E+00	1.46E-03	1.39E-03	5.20E-05	1.46E-03
A23	Entrained Road Dust	1.47E-03	1.48E-03	1.47E-03	0.00E+00	0.00E+00	1.09E-08	1.59E-05	0.00E+00	1.54E-03	1.47E-03	5.47E-05	1.54E-03
A24	Entrained Road Dust	1.42E-03	1.44E-03	1.42E-03	0.00E+00	0.00E+00	1.05E-08	1.54E-05	0.00E+00	1.49E-03	1.42E-03	5.30E-05	1.49E-03
A25	Entrained Road Dust	1.54E-03	1.56E-03	1.54E-03	0.00E+00	0.00E+00	1.14E-08	1.67E-05	0.00E+00	1.61E-03	1.54E-03	5.74E-05	1.61E-03
A26	Entrained Road Dust	1.71E-03	1.73E-03	1.71E-03	0.00E+00	0.00E+00	1.27E-08	1.85E-05	0.00E+00	1.79E-03	1.71E-03	6.38E-05	1.79E-03
A27	Entrained Road Dust	2.18E-03	2.23E-03	2.18E-03	0.00E+00	0.00E+00	2.08E-08	2.95E-05	0.00E+00	2.49E-03	2.18E-03	2.82E-04	2.49E-03
A28	Entrained Road Dust	9.92E-04	1.00E-03	9.93E-04	0.00E+00	0.00E+00	7.34E-09	1.08E-05	0.00E+00	1.04E-03	9.92E-04	3.70E-05	1.04E-03
A29	Entrained Road Dust	2.41E-03	2.46E-03	2.41E-03	0.00E+00	0.00E+00	2.29E-08	3.26E-05	0.00E+00	2.75E-03	2.41E-03	3.12E-04	2.75E-03
A30	Entrained Road Dust	1.28E-03	1.31E-03	1.28E-03	0.00E+00	0.00E+00	1.22E-08	1.73E-05	0.00E+00	1.46E-03	1.28E-03	1.66E-04	1.46E-03
A31	Entrained Road Dust	1.49E-03	1.52E-03	1.49E-03	0.00E+00	0.00E+00	1.42E-08	2.02E-05	0.00E+00	1.70E-03	1.49E-03	1.93E-04	1.70E-03
A32	Entrained Road Dust	3.52E-02	3.54E-02	3.52E-02	0.00E+00	0.00E+00	3.66E-07	4.40E-04	0.00E+00	3.73E-02	3.52E-02	1.71E-03	3.73E-02
A33	Entrained Road Dust	3.68E-02	3.71E-02	3.69E-02	0.00E+00	0.00E+00	3.83E-07	4.61E-04	0.00E+00	3.90E-02	3.68E-02	1.79E-03	3.90E-02
A34	Entrained Road Dust	3.45E-02	3.48E-02	3.46E-02	0.00E+00	0.00E+00	3.60E-07	4.32E-04	0.00E+00	3.66E-02	3.45E-02	1.68E-03	3.66E-02
A35	Entrained Road Dust	2.54E-02	2.56E-02	2.54E-02	0.00E+00	0.00E+00	2.65E-07	3.18E-04	0.00E+00	2.69E-02	2.54E-02	1.24E-03	2.69E-02
A36	Entrained Road Dust	2.08E-02	2.09E-02	2.08E-02	0.00E+00	0.00E+00	2.16E-07	2.60E-04	0.00E+00	2.20E-02	2.08E-02	1.01E-03	2.20E-02
A37	Entrained Road Dust	2.40E-02	2.42E-02	2.40E-02	0.00E+00	0.00E+00	2.50E-07	3.01E-04	0.00E+00	2.55E-02	2.40E-02	1.17E-03	2.55E-02
A38	Entrained Road Dust	2.59E-02	2.61E-02	2.60E-02	0.00E+00	0.00E+00	2.70E-07	3.25E-04	0.00E+00	2.75E-02	2.59E-02	1.26E-03	2.75E-02
A39	Entrained Road Dust	2.43E-03	2.46E-03	2.43E-03	0.00E+00	0.00E+00	2.37E-08	3.42E-05	0.00E+00	2.58E-03	2.43E-03	1.20E-04	2.58E-03
A40	Entrained Road Dust	3.38E-03	3.41E-03	3.38E-03	0.00E+00	0.00E+00	3.30E-08	4.75E-05	0.00E+00	3.59E-03	3.38E-03	1.67E-04	3.59E-03
	SUM	1.76E+02	1.77E+02	1.77E+02	1.00E-03	3.16E-06	1.11E-03	9.55E-02	2.52E-02	1.77E+02	1.76E+02	1.18E-01	1.77E+02

Table 11a. PMI Chronic Hazard Index without Background by Chemical

Exide Technologies
Vernon, California

Chemical Name	CAS #	Cardio-vascular System	Central Nervous System	Develop-mental System	Endo-crine System	Eye	GILV	Kidney	Reproductive System	Respi-ratory System	Skin	Blood	MAX
Aluminum	7429905	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Lead	7439921	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Manganese	7439965	0.00E+00	4.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.19E-03
Mercury	7439976	0.00E+00	1.22E-01	1.22E-01	0.00E+00	0.00E+00	0.00E+00	1.22E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-01
Nickel	7440020	0.00E+00	0.00E+00	1.42E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.88E-02	0.00E+00	8.88E-02	8.88E-02
Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Antimony	7440360	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Arsenic	7440382	2.05E+02	2.05E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.05E+02	2.05E+02	0.00E+00	2.05E+02
Barium	7440393	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cadmium	7440439	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-02	0.00E+00	2.01E-02	0.00E+00	0.00E+00	3.00E-02
Chromium	7440473	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cobalt	7440484	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Copper	7440508	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zinc	7440666	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Selenium	7782492	5.68E-06	5.68E-06	0.00E+00	0.00E+00	0.00E+00	5.68E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.68E-06
Chromium, hexavalent	18540299	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-03	0.00E+00	5.37E-05	1.14E-03
Formaldehyde	50000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.26E-03	0.00E+00	0.00E+00	6.26E-03
Benzo[a]pyrene	50328	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dibenz[a,h]anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benz[a]anthracene	56553	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phenanthrene	85018	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluorene	86737	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexachlorobutadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	91203	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-02	0.00E+00	0.00E+00	1.74E-02
2-Methyl naphthalene	91576	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trimethylbenzene	95636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl benzene	100414	0.00E+00	0.00E+00	7.53E-05	7.53E-05	0.00E+00	7.53E-05	7.53E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.53E-05
Styrene	100425	0.00E+00	1.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.80E-03
Benzyl chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
p-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylene dibromide	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Butadiene	106990	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-02	0.00E+00	0.00E+00	2.40E-02
Ethylene dichloride	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl acetate	108054	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.89E-05	0.00E+00	0.00E+00	3.89E-05
Methyl isobutyl ketone	108101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Toluene	108883	0.00E+00	1.60E-03	1.60E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.60E-03	0.00E+00	0.00E+00	1.60E-03
Chlorobenzene	108907	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.73E-07	8.73E-07	8.73E-07	0.00E+00	0.00E+00	8.73E-07
Anthracene	120127	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,3-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Perchloroethylene	127184	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.37E-05	9.37E-05	0.00E+00	0.00E+00	0.00E+00	9.37E-05
Chloroform	67663	0.00E+00	0.00E+00	1.03E-06	1.03E-06	0.00E+00	1.03E-06	1.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-06
Benzene	71432	2.85E-02	2.85E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.85E-02
Methyl chloroform	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl bromide	74839	0.00E+00	1.79E-03	1.79E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-03	0.00E+00	0.00E+00	1.79E-03
Methyl chloride	74873	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl chloride	75003	0.00E+00	0.00E+00	6.24E-08	6.24E-08	0.00E+00	6.24E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.24E-08
Vinyl chloride	75014	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acetaldehyde	75070	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.98E-04	0.00E+00	0.00E+00	3.98E-04
Methylene chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon disulfide	75150	0.00E+00	2.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-04	0.00E+00	0.00E+00	2.40E-04
Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinylidene chloride	75354	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-06
Trichlorofluoromethane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorodifluoromethane	75718	0.00E+00	0.00E+00	0.									

Table 11a. PMI Chronic Hazard Index without Background by Chemical

Exide Technologies
Vernon, California

Chemical Name	CAS #	Cardio-vascular System	Central Nervous System	Develop-mental System	Endo-crine System	Eye	GILV	Kidney	Reproductive System	Respi-ratory System	Skin	Blood	MAX
Methyl tert-butyl ether	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dioxins, total	1086	0.00E+00	0.00E+00	1.55E-03	1.55E-03	0.00E+00	1.55E-03	0.00E+00	1.55E-03	1.55E-03	0.00E+00	1.55E-03	1.55E-03
PCBs	1336363	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vanadium	7440622	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PAHs, total	1151	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acrolein	107028	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.67E-06	0.00E+00	0.00E+00	7.67E-06
Hexane	110543	0.00E+00	8.94E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.94E-10
Ammonia	7664417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.94E-05	0.00E+00	0.00E+00	8.94E-05
SUM		2.05E+02	2.05E+02	2.05E+02	1.63E-03	3.16E-06	1.73E-03	1.52E-01	2.58E-02	2.05E+02	2.05E+02	1.19E-01	2.05E+02

Table 11b. PMI Chronic Hazard Index without Background by Source

Exide Technologies
Vernon, California

Source ID	Source Name	Cardio-vascular System	Central Nervous System	Developmental System	Endocrine System	Eye	GILV	Kidney	Reproductive System	Respiratory System	Skin	Blood	MAX
MAPCO	Raw Material Preparation System (RMPS) Scrubber	4.89E-02	4.94E-02	5.02E-02	0.00E+00	0.00E+00	1.40E-06	4.86E-03	0.00E+00	1.01E-01	4.89E-02	4.91E-02	1.01E-01
MAT_STOR	Material Handling Baghouse	3.37E-01	3.38E-01	3.38E-01	0.00E+00	0.00E+00	0.00E+00	7.16E-03	0.00E+00	3.47E-01	3.37E-01	4.82E-03	3.47E-01
SOFTLEAD	Soft Lead Refining System Baghouse	1.84E-01	1.90E-01	1.90E-01	5.93E-07	0.00E+00	5.93E-07	9.74E-03	3.37E-03	1.89E-01	1.84E-01	7.12E-04	1.90E-01
HARDLEAD	Hard Lead Refining System Baghouse	2.04E+02	2.04E+02	2.04E+02	8.61E-05	2.28E-06	8.73E-05	8.30E-02	1.97E-02	2.04E+02	2.04E+02	3.61E-02	2.04E+02
DRYER_BH	Feed Dryer Baghouse/Cyclone	5.35E-02	7.08E-02	6.98E-02	1.76E-05	5.18E-07	2.17E-05	1.44E-02	6.56E-04	5.74E-02	5.35E-02	2.90E-03	7.08E-02
NEPTUNE	Neptune Scrubber	1.51E-02	4.09E-02	4.24E-02	1.52E-03	3.66E-07	1.62E-03	2.66E-02	2.11E-03	1.51E-02	4.98E-03	4.24E-02	
NOR_CART	North Torit Cartridge Filter System	1.15E-02	1.15E-02	1.15E-02	0.00E+00	0.00E+00	0.00E+00	2.25E-05	0.00E+00	1.16E-02	1.15E-02	1.83E-05	1.16E-02
SOU_CART	South Torit Cartridge Filter System	6.59E-04	6.61E-04	6.60E-04	0.00E+00	0.00E+00	0.00E+00	9.29E-06	0.00E+00	6.67E-04	6.59E-04	2.17E-06	6.67E-04
MAC_BH	MAC Baghouse	1.57E-01	1.57E-01	1.57E-01	0.00E+00	0.00E+00	0.00E+00	3.08E-04	0.00E+00	1.59E-01	1.57E-01	1.99E-01	1.59E-01
WH_AB	Water Heater in Administration Building	0.00E+00	4.78E-09	4.21E-09	7.69E-11	0.00E+00	7.69E-11	7.69E-11	0.00E+00	1.62E-06	0.00E+00	2.16E-06	1.62E-06
WH_EF	Water Heater in Employee Facility	0.00E+00	2.89E-07	2.54E-07	4.64E-09	0.00E+00	4.64E-09	4.64E-09	0.00E+00	9.76E-05	0.00E+00	1.30E-07	9.76E-05
A1	Entrained Road Dust	2.76E-03	2.81E-03	2.77E-03	0.00E+00	0.00E+00	1.14E-08	4.21E-05	0.00E+00	2.92E-03	2.76E-03	1.26E-03	2.92E-03
A2	Entrained Road Dust	5.51E-03	5.56E-03	5.52E-03	0.00E+00	0.00E+00	4.63E-08	9.07E-05	0.00E+00	5.81E-03	5.51E-03	2.34E-04	5.81E-03
A3	Entrained Road Dust	8.42E-03	8.49E-03	8.42E-03	0.00E+00	0.00E+00	7.06E-08	1.39E-04	0.00E+00	8.87E-03	8.42E-03	3.57E-04	8.87E-03
A4	Entrained Road Dust	1.44E-02	1.45E-02	1.44E-02	0.00E+00	0.00E+00	1.21E-07	2.37E-04	0.00E+00	1.52E-02	1.44E-02	6.12E-04	1.52E-02
A5	Entrained Road Dust	3.32E-03	3.36E-03	3.33E-03	0.00E+00	0.00E+00	1.82E-08	4.93E-05	0.00E+00	3.51E-03	3.32E-03	1.54E-04	3.51E-03
A6	Entrained Road Dust	4.87E-03	4.92E-03	4.88E-03	0.00E+00	0.00E+00	2.68E-08	7.23E-05	0.00E+00	5.15E-03	4.87E-03	2.26E-04	5.15E-03
A7	Entrained Road Dust	6.99E-03	7.06E-03	7.00E-03	0.00E+00	0.00E+00	3.84E-08	1.04E-04	0.00E+00	7.38E-03	6.99E-03	3.24E-04	7.38E-03
A8	Entrained Road Dust	7.86E-03	7.94E-03	7.87E-03	0.00E+00	0.00E+00	4.32E-08	1.17E-04	0.00E+00	8.30E-03	7.86E-03	3.64E-04	8.30E-03
A9	Entrained Road Dust	7.08E-03	7.15E-03	7.08E-03	0.00E+00	0.00E+00	3.89E-08	1.05E-04	0.00E+00	7.47E-03	7.08E-03	3.28E-04	7.47E-03
A10	Entrained Road Dust	5.66E-03	5.72E-03	5.67E-03	0.00E+00	0.00E+00	3.11E-08	8.40E-05	0.00E+00	5.98E-03	5.66E-03	2.63E-04	5.98E-03
A11	Entrained Road Dust	8.17E-03	8.25E-03	8.18E-03	0.00E+00	0.00E+00	6.02E-08	1.23E-04	0.00E+00	8.82E-03	8.17E-03	5.68E-04	8.82E-03
A12	Entrained Road Dust	5.74E-03	5.79E-03	5.74E-03	0.00E+00	0.00E+00	4.22E-08	8.61E-05	0.00E+00	6.19E-03	5.74E-03	3.99E-04	6.19E-03
A13	Entrained Road Dust	7.19E-03	7.24E-03	7.19E-03	0.00E+00	0.00E+00	6.25E-08	1.21E-04	0.00E+00	7.72E-03	7.19E-03	4.52E-04	7.72E-03
A14	Entrained Road Dust	7.39E-03	7.45E-03	7.40E-03	0.00E+00	0.00E+00	6.43E-08	1.24E-04	0.00E+00	7.94E-03	7.39E-03	4.64E-04	7.94E-03
A15	Entrained Road Dust	7.44E-03	7.50E-03	7.45E-03	0.00E+00	0.00E+00	6.48E-08	1.25E-04	0.00E+00	8.00E-03	7.44E-03	4.68E-04	8.00E-03
A16	Entrained Road Dust	7.33E-03	7.38E-03	7.33E-03	0.00E+00	0.00E+00	6.38E-08	1.23E-04	0.00E+00	7.87E-03	7.33E-03	4.60E-04	7.87E-03
A17	Entrained Road Dust	2.80E-03	2.85E-03	2.81E-03	0.00E+00	0.00E+00	2.29E-08	4.44E-05	0.00E+00	3.14E-03	2.80E-03	3.12E-04	3.14E-03
A18	Entrained Road Dust	2.23E-03	2.27E-03	2.23E-03	0.00E+00	0.00E+00	1.82E-08	3.53E-05	0.00E+00	2.50E-03	2.23E-03	2.48E-04	2.50E-03
A19	Entrained Road Dust	2.16E-03	2.20E-03	2.16E-03	0.00E+00	0.00E+00	1.77E-08	3.42E-05	0.00E+00	2.42E-03	2.16E-03	2.40E-04	2.42E-03
A20	Entrained Road Dust	1.98E-03	2.01E-03	1.98E-03	0.00E+00	0.00E+00	1.62E-08	3.14E-05	0.00E+00	2.22E-03	1.98E-03	2.20E-04	2.22E-03
A21	Entrained Road Dust	1.55E-03	1.57E-03	1.55E-03	0.00E+00	0.00E+00	9.88E-09	1.97E-05	0.00E+00	1.62E-03	1.55E-03	4.98E-05	1.62E-03
A22	Entrained Road Dust	1.62E-03	1.64E-03	1.62E-03	0.00E+00	0.00E+00	1.03E-08	2.06E-05	0.00E+00	1.68E-03	1.62E-03	5.20E-05	1.68E-03
A23	Entrained Road Dust	1.70E-03	1.72E-03	1.71E-03	0.00E+00	0.00E+00	1.09E-08	2.16E-05	0.00E+00	1.77E-03	1.70E-03	5.47E-05	1.77E-03
A24	Entrained Road Dust	1.65E-03	1.67E-03	1.65E-03	0.00E+00	0.00E+00	1.05E-08	2.10E-05	0.00E+00	1.72E-03	1.65E-03	5.30E-05	1.72E-03
A25	Entrained Road Dust	1.79E-03	1.81E-03	1.79E-03	0.00E+00	0.00E+00	1.14E-08	2.27E-05	0.00E+00	1.86E-03	1.79E-03	5.74E-05	1.86E-03
A26	Entrained Road Dust	1.99E-03	2.01E-03	1.99E-03	0.00E+00	0.00E+00	1.27E-08	2.53E-05	0.00E+00	2.07E-03	1.99E-03	6.38E-05	2.07E-03
A27	Entrained Road Dust	2.53E-03	2.58E-03	2.54E-03	0.00E+00	0.00E+00	2.08E-08	4.02E-05	0.00E+00	2.84E-03	2.53E-03	2.82E-04	2.84E-03
A28	Entrained Road Dust	1.15E-03	1.17E-03	1.15E-03	0.00E+00	0.00E+00	7.34E-09	1.46E-05	0.00E+00	1.20E-03	1.15E-03	3.70E-05	1.20E-03
A29	Entrained Road Dust	2.80E-03	2.85E-03	2.81E-03	0.00E+00	0.00E+00	2.29E-08	4.44E-05	0.00E+00	3.14E-03	2.80E-03	3.12E-04	3.14E-03
A30	Entrained Road Dust	1.49E-03	1.52E-03	1.49E-03	0.00E+00	0.00E+00	1.22E-08	2.36E-05	0.00E+00	1.67E-03	1.49E-03	1.66E-04	1.67E-03
A31	Entrained Road Dust	1.73E-03	1.77E-03	1.74E-03	0.00E+00	0.00E+00	1.42E-08	2.75E-05	0.00E+00	1.94E-03	1.73E-03	1.93E-04	1.94E-03
A32	Entrained Road Dust	4.09E-02	4.11E-02	4.09E-02	0.00E+00	0.00E+00	3.66E-07	5.99E-04	0.00E+00	4.30E-02	4.09E-02	1.71E-03	4.30E-02
A33	Entrained Road Dust	4.28E-02	4.31E-02	4.29E-02	0.00E+00	0.00E+00	3.83E-07	6.27E-04	0.00E+00	4.50E-02	4.28E-02	1.79E-03	4.50E-02
A34	Entrained Road Dust	4.02E-02	4.04E-02	4.02E-02	0.00E+00	0.00E+00	3.60E-07	5.88E-04	0.00E+00	4.22E-02	4.02E-02	1.68E-03	4.22E-02
A35	Entrained Road Dust	2.95E-02	2.97E-02	2.96E-02	0.00E+00	0.00E+00	2.65E-07	4.33E-04	0.00E+00	3.11E-02	2.95E-02	1.24E-03	3.11E-02
A36	Entrained Road Dust	2.42E-02	2.43E-02	2.42E-02	0.00E+00	0.00E+00	2.16E-07	3.54E-04	0.00E+00	2.54E-02	2.42E-02	1.01E-03	2.54E-02
A37	Entrained Road Dust	2.79E-02	2.81E-02	2.80E-02	0.00E+00	0.00E+00	2.50E-07	4.09E-04	0.00E+00	2.94E-02	2.79E-02	1.17E-03	2.94E-02
A38	Entrained Road Dust	3.02E-02	3.03E-02	3.02E-02	0.00E+00	0.00E+00	2.70E-07	4.42E-04	0.00E+00	3.17E-02	3.02E-02	1.26E-03	3.17E-02
A39	Entrained Road Dust	2.83E-03	2.85E-03	2.83E-03	0.00E+00	0.00E+00	2.37E-08	4.65E-05	0.00E+00	2.98E-03	2.83E-03	1.20E-04	2.98E-03
A40	Entrained Road Dust	3.93E-03	3.96E-03	3.93E-03	0.00E+00	0.00E+00	3.30E-08	6.47E-05	0.00E+00	4.14E-03	3.93E-03	1.67E-04	4.14E-03
SUM		2.05E+02	2.05E+02	2.05E+02	1.63E-03	3.16E-06	1.73E-03	1.52E-01	2.58E-02	2.05E+02	2.05E+02	1.19E-01	2.05E+02

Table 12a. MEIR Acute Hazard Index without Background by Chemical

Exide Technologies

Vernon, California

Chemical Name	CAS #	Cardio-vascular System	Central Nervous System	Developmental System	Eye	Immune System	Reproductive System	Respiratory System	Blood	MAX
Aluminum	7429905	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Lead	7439921	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Manganese	7439965	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mercury	7439976	0.00E+00	4.57E-04	4.57E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.57E-04
Nickel	7440020	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-02	0.00E+00	0.00E+00	1.10E-02
Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Antimony	7440360	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Arsenic	7440382	1.44E-01	1.44E-01	1.44E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.44E-01
Barium	7440393	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cadmium	7440439	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chromium	7440473	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cobalt	7440484	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Copper	7440508	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.22E-05	0.00E+00	5.22E-05
Zinc	7440666	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Selenium	7782492	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chromium, hexavalent	18540299	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Formaldehyde	50000	0.00E+00	0.00E+00	0.00E+00	5.76E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.76E-04
Benz[a]pyrene	50328	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dibenz[a,h]anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benz[a]anthracene	56553	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phenanthrene	85018	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluorene	86737	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexachlorobutadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	91203	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2-Methyl naphthalene	91576	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trimethylbenzene	95636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl benzene	100414	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Styrene	100425	0.00E+00	0.00E+00	0.00E+00	2.76E-05	0.00E+00	0.00E+00	2.76E-05	0.00E+00	2.76E-05
Benzyl chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
p-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylene dibromide	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Butadiene	106990	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylene dichloride	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl acetate	108054	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl isobutyl ketone	108101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Toluene	108883	0.00E+00	4.86E-06	4.86E-06	0.00E+00	4.86E-06	0.00E+00	4.86E-06	0.00E+00	4.86E-06
Chlorobenzene	108907	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Anthracene	120127	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Perchloroethylene	127184	0.00E+00	8.55E-08	0.00E+00	8.55E-08	0.00E+00	0.00E+00	8.55E-08	0.00E+00	8.55E-08
Chloroform	67663	0.00E+00	2.23E-06	2.23E-06	0.00E+00	0.00E+00	2.23E-06	0.00E+00	0.00E+00	2.23E-06
Benzene	71432	0.00E+00	0.00E+00	5.57E-04	0.00E+00	5.57E-04	5.57E-04	0.00E+00	5.57E-04	5.57E-04
Methyl chloroform	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl bromide	74839	0.00E+00	9.35E-07	9.35E-07	0.00E+00	0.00E+00	9.35E-07	9.35E-07	0.00E+00	9.35E-07
Methyl chloride	74873	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl chloride	75003	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl chloride	75014	0.00E+00	1.27E-09	0.00E+00	1.27E-09	0.00E+00	0.00E+00	1.27E-09	0.00E+00	1.27E-09
Acetaldehyde	75070	0.00E+00	0.00E+00	0.00E+00	5.36E-05	0.00E+00	0.00E+00	5.36E-05	0.00E+00	5.36E-05
Methylene chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon disulfide	75150	0.00E+00	1.17E-05	1.17E-05	0.00E+00	0.00E+00	1.17E-05	0.00E+00	0.00E+00	1.17E-05
Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinylidene chloride	75354	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Trichlorofluoromethane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorodifluoromethane	75718	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chlorinated Fluorocarbon	76131	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichloropropane	78875	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl ethyl ketone	78933	0.00E+00	0.00E+00	0.00E+00	5.24E-07	0.00E+00	0.00E+00	5.24E-07	0.00E+00	5.24E-07
1,1,2-Trichloroethane	79005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Trichloroethylene	79016	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1,2,2-Tetrachloroethane	79345	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acenaphthene	83329	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pyrene	129000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzog[f,g,i]perylene	191242	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzof[e]pyrene	192972	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indeno[1,2,3-cd]pyrene	193395	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Perylene	198550	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzof[b]fluoranthene	205992	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluoranthene	206440	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzof[k]fluoranthene	207089	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acenaphthylene	208968	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chrysene	218019	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xylenes	1330207	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-06	0.00E+00	2.11E-06	0.00E+00	2.11E-06

Table 12a. MEIR Acute Hazard Index without Background by Chemical

Exide Technologies
Vernon, California

Chemical Name	CAS #	Cardio-vascular System	Central Nervous System	Developmental System	Eye	Immune System	Reproductive System	Respiratory System	Blood	MAX
Methyl tert-butyl ether	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dioxins, total	1086	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PCBs	1336363	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vanadium	7440622	0.00E+00	0.00E+00	0.00E+00	1.15E-07	0.00E+00	0.00E+00	1.15E-07	0.00E+00	1.15E-07
PAHs, total	1151	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acrolein	107028	0.00E+00	0.00E+00	0.00E+00	4.42E-07	0.00E+00	0.00E+00	4.42E-07	0.00E+00	4.42E-07
Hexane	110543	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ammonia	7664417	0.00E+00	0.00E+00	0.00E+00	2.30E-06	0.00E+00	0.00E+00	2.30E-06	0.00E+00	2.30E-06
SUM		1.44E-01	1.44E-01	1.45E-01	6.68E-04	1.16E-02	5.77E-04	1.45E-04	5.57E-04	1.45E-01

Table 12b. MEIR Acute Hazard Index without Background by Source

Exide Technologies
Vernon, California

Source ID	Source Name	Cardio-vascular System	Central Nervous System	Developmental System	Eye	Immune System	Reproductive System	Respiratory System	Blood	MAX
MAPCO	Raw Material Preparation System (RMPS) Scrubber	5.56E-05	5.80E-05	5.80E-05	0.00E+00	2.09E-03	0.00E+00	3.94E-07	0.00E+00	2.09E-03
MAT_STOR	Material Handling Baghouse	8.50E-04	8.55E-04	8.55E-04	0.00E+00	4.54E-04	0.00E+00	6.44E-06	0.00E+00	8.55E-04
SOFTLEAD	Soft Lead Refining System Baghouse	2.22E-04	2.46E-04	2.67E-04	4.32E-05	2.12E-05	2.13E-05	4.08E-06	2.12E-05	2.67E-04
HARDLEAD	Hard Lead Refining System Baghouse	1.36E-01	1.36E-01	1.37E-01	3.08E-04	6.83E-04	4.34E-04	6.93E-05	4.18E-04	1.37E-01
DRYER_BH	Feed Dryer Baghouse/Cyclone	1.08E-04	2.23E-04	3.41E-04	2.97E-04	1.56E-04	1.21E-04	1.49E-05	1.18E-04	3.41E-04
NEPTUNE	Neptune Scrubber	1.47E-05	1.15E-04	1.15E-04	1.64E-05	1.26E-04	8.05E-08	2.26E-06	4.77E-08	1.26E-04
NOR_CART	North Torit Cartridge Filter System	1.27E-03	1.28E-03	1.28E-03	0.00E+00	7.58E-05	0.00E+00	0.00E+00	0.00E+00	1.28E-03
SOU_CART	South Torit Cartridge Filter System	4.58E-04	4.61E-04	4.61E-04	0.00E+00	5.62E-05	0.00E+00	1.15E-06	0.00E+00	4.61E-04
MAC_BH	MAC Baghouse	5.85E-04	5.89E-04	5.89E-04	0.00E+00	2.75E-04	0.00E+00	0.00E+00	0.00E+00	5.89E-04
WH_AB	Water Heater in Administration Building	0.00E+00	9.80E-12	7.08E-11	6.96E-08	6.10E-11	7.08E-11	6.65E-08	6.10E-11	6.96E-08
WH_EF	Water Heater in Employee Facility	0.00E+00	3.95E-10	2.85E-09	2.80E-06	2.46E-06	2.85E-09	2.68E-06	2.46E-09	2.80E-06
A1	Entrained Road Dust	7.55E-05	7.55E-05	7.55E-05	0.00E+00	1.28E-04	0.00E+00	6.79E-07	0.00E+00	1.28E-04
A2	Entrained Road Dust	1.23E-04	1.23E-04	1.23E-04	0.00E+00	1.94E-04	0.00E+00	1.35E-06	0.00E+00	1.94E-04
A3	Entrained Road Dust	1.20E-04	1.20E-04	1.20E-04	0.00E+00	1.91E-04	0.00E+00	1.33E-06	0.00E+00	1.91E-04
A4	Entrained Road Dust	1.05E-04	1.05E-04	1.05E-04	0.00E+00	1.67E-04	0.00E+00	1.16E-06	0.00E+00	1.67E-04
A5	Entrained Road Dust	2.78E-05	2.78E-05	2.78E-05	0.00E+00	4.82E-05	0.00E+00	2.48E-07	0.00E+00	4.82E-05
A6	Entrained Road Dust	2.73E-05	2.73E-05	2.73E-05	0.00E+00	4.73E-05	0.00E+00	2.44E-07	0.00E+00	4.73E-05
A7	Entrained Road Dust	2.65E-05	2.65E-05	2.65E-05	0.00E+00	4.59E-05	0.00E+00	2.37E-07	0.00E+00	4.59E-05
A8	Entrained Road Dust	2.52E-05	2.52E-05	2.52E-05	0.00E+00	4.37E-05	0.00E+00	2.25E-07	0.00E+00	4.37E-05
A9	Entrained Road Dust	2.37E-05	2.38E-05	2.38E-05	0.00E+00	4.12E-05	0.00E+00	2.12E-07	0.00E+00	4.12E-05
A10	Entrained Road Dust	2.31E-05	2.31E-05	2.31E-05	0.00E+00	4.00E-05	0.00E+00	2.06E-07	0.00E+00	4.00E-05
A11	Entrained Road Dust	7.37E-05	7.38E-05	7.38E-05	0.00E+00	1.92E-04	0.00E+00	7.96E-07	0.00E+00	1.92E-04
A12	Entrained Road Dust	6.90E-05	6.90E-05	6.90E-05	0.00E+00	1.79E-04	0.00E+00	7.45E-07	0.00E+00	1.79E-04
A13	Entrained Road Dust	1.05E-04	1.05E-04	1.05E-04	0.00E+00	2.46E-04	0.00E+00	1.36E-06	0.00E+00	2.46E-04
A14	Entrained Road Dust	9.86E-05	9.86E-05	9.86E-05	0.00E+00	2.32E-04	0.00E+00	1.28E-06	0.00E+00	2.32E-04
A15	Entrained Road Dust	8.47E-05	8.47E-05	8.47E-05	0.00E+00	1.99E-04	0.00E+00	1.10E-06	0.00E+00	1.99E-04
A16	Entrained Road Dust	1.01E-04	1.01E-04	1.01E-04	0.00E+00	2.38E-04	0.00E+00	1.32E-06	0.00E+00	2.38E-04
A17	Entrained Road Dust	4.37E-05	4.38E-05	4.38E-05	0.00E+00	1.82E-04	0.00E+00	1.00E-06	0.00E+00	1.82E-04
A18	Entrained Road Dust	4.22E-05	4.22E-05	4.22E-05	0.00E+00	1.76E-04	0.00E+00	9.67E-07	0.00E+00	1.76E-04
A19	Entrained Road Dust	4.18E-05	4.18E-05	4.18E-05	0.00E+00	1.74E-04	0.00E+00	9.57E-07	0.00E+00	1.74E-04
A20	Entrained Road Dust	4.19E-05	4.19E-05	4.19E-05	0.00E+00	1.74E-04	0.00E+00	9.60E-07	0.00E+00	1.74E-04
A21	Entrained Road Dust	3.54E-05	3.54E-05	3.54E-05	0.00E+00	4.24E-05	0.00E+00	3.96E-07	0.00E+00	4.24E-05
A22	Entrained Road Dust	3.55E-05	3.55E-05	3.55E-05	0.00E+00	4.26E-05	0.00E+00	3.97E-07	0.00E+00	4.26E-05
A23	Entrained Road Dust	3.78E-05	3.78E-05	3.78E-05	0.00E+00	4.53E-05	0.00E+00	4.23E-07	0.00E+00	4.53E-05
A24	Entrained Road Dust	3.87E-05	3.87E-05	3.87E-05	0.00E+00	4.64E-05	0.00E+00	4.33E-07	0.00E+00	4.64E-05
A25	Entrained Road Dust	3.83E-05	3.83E-05	3.83E-05	0.00E+00	4.59E-05	0.00E+00	4.29E-07	0.00E+00	4.59E-05
A26	Entrained Road Dust	3.74E-05	3.74E-05	3.74E-05	0.00E+00	4.49E-05	0.00E+00	4.19E-07	0.00E+00	4.49E-05
A27	Entrained Road Dust	4.45E-05	4.45E-05	4.45E-05	0.00E+00	1.85E-04	0.00E+00	1.02E-06	0.00E+00	1.85E-04
A28	Entrained Road Dust	2.08E-05	2.08E-05	2.08E-05	0.00E+00	2.50E-05	0.00E+00	2.33E-07	0.00E+00	2.50E-05
A29	Entrained Road Dust	4.22E-05	4.22E-05	4.22E-05	0.00E+00	1.76E-04	0.00E+00	9.67E-07	0.00E+00	1.76E-04
A30	Entrained Road Dust	2.00E-05	2.00E-05	2.00E-05	0.00E+00	8.33E-05	0.00E+00	4.58E-07	0.00E+00	8.33E-05
A31	Entrained Road Dust	2.40E-05	2.40E-05	2.40E-05	0.00E+00	9.98E-05	0.00E+00	5.49E-07	0.00E+00	9.98E-05
A32	Entrained Road Dust	3.28E-04	3.28E-04	3.28E-04	0.00E+00	5.13E-04	0.00E+00	2.79E-06	0.00E+00	5.13E-04
A33	Entrained Road Dust	3.45E-04	3.45E-04	3.45E-04	0.00E+00	5.40E-04	0.00E+00	2.94E-06	0.00E+00	5.40E-04
A34	Entrained Road Dust	3.60E-04	3.60E-04	3.60E-04	0.00E+00	5.63E-04	0.00E+00	3.07E-06	0.00E+00	5.63E-04
A35	Entrained Road Dust	3.21E-04	3.21E-04	3.21E-04	0.00E+00	5.02E-04	0.00E+00	2.73E-06	0.00E+00	5.02E-04
A36	Entrained Road Dust	3.11E-04	3.11E-04	3.11E-04	0.00E+00	4.86E-04	0.00E+00	2.65E-06	0.00E+00	4.86E-04
A37	Entrained Road Dust	3.44E-04	3.44E-04	3.44E-04	0.00E+00	5.38E-04	0.00E+00	2.93E-06	0.00E+00	5.38E-04
A38	Entrained Road Dust	3.49E-04	3.49E-04	3.49E-04	0.00E+00	5.46E-04	0.00E+00	2.97E-06	0.00E+00	5.46E-04
A39	Entrained Road Dust	6.24E-05	6.24E-05	6.24E-05	0.00E+00	9.89E-05	0.00E+00	6.88E-07	0.00E+00	9.89E-05
A40	Entrained Road Dust	5.58E-05	5.58E-05	5.58E-05	0.00E+00	8.85E-05	0.00E+00	6.16E-07	0.00E+00	8.85E-05
SUM		1.44E-01	1.44E-01	1.45E-01	6.68E-04	1.16E-02	5.77E-04	1.45E-04	5.57E-04	1.45E-01

Table 13a. MEIW Acute Hazard Index without Background by Chemical

Exide Technologies
Vernon, California

Chemical Name	CAS #	Cardio-vascular System	Central Nervous System	Develop-mental System	Eye	Immune System	Reproto-ductive System	Respi-ratory System	Blood	MAX
Aluminum	7429905	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Lead	7439921	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Manganese	7439965	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mercury	7439976	0.00E+00	1.06E-02	1.06E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-02
Nickel	7440020	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-01	0.00E+00	0.00E+00	0.00E+00	1.77E-01
Silver	7440224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Thallium	7440280	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Antimony	7440360	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Arsenic	7440382	3.72E+00	3.72E+00	3.72E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E+00
Barium	7440393	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Beryllium	7440417	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cadmium	7440439	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chromium	7440473	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cobalt	7440484	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Copper	7440508	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.35E-04	0.00E+00	8.35E-04
Zinc	7440666	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phosphorus	7723140	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Selenium	7782492	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chromium, hexavalent	18540299	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Formaldehyde	50000	0.00E+00	0.00E+00	0.00E+00	1.15E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-02
Benz[a]pyrene	50328	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dibenz[a,h]anthracene	53703	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon tetrachloride	56235	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benz[a]anthracene	56553	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phenanthrene	85018	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluorene	86737	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexachlorobutadiene	87683	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	91203	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2-Methyl naphthalene	91576	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	95501	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trimethylbenzene	95636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl benzene	100414	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Styrene	100425	0.00E+00	0.00E+00	0.00E+00	7.30E-04	0.00E+00	0.00E+00	7.30E-04	0.00E+00	7.30E-04
Benzyl chloride	100447	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
p-Dichlorobenzene	106467	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylene dibromide	106934	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Butadiene	106990	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethylene dichloride	107062	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl acetate	108054	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl isobutyl ketone	108101	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Toluene	108883	0.00E+00	1.25E-04	1.25E-04	1.25E-04	0.00E+00	1.25E-04	1.25E-04	0.00E+00	1.25E-04
Chlorobenzene	108907	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Anthracene	120127	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2,4-Trichlorobenzene	120821	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,4-Dioxane	123911	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Perchloroethylene	127184	0.00E+00	2.60E-06	0.00E+00	2.60E-06	0.00E+00	0.00E+00	2.60E-06	0.00E+00	2.60E-06
Chloroform	67663	0.00E+00	2.88E-05	2.88E-05	0.00E+00	0.00E+00	2.88E-05	0.00E+00	0.00E+00	2.88E-05
Benzene	71432	0.00E+00	0.00E+00	1.32E-02	0.00E+00	1.32E-02	0.00E+00	1.32E-02	0.00E+00	1.32E-02
Methyl chloroform	71556	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl bromide	74839	0.00E+00	2.26E-05	2.26E-05	0.00E+00	0.00E+00	2.26E-05	2.26E-05	0.00E+00	2.26E-05
Methyl chloride	74873	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl chloride	75003	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinyl chloride	75014	0.00E+00	1.64E-08	0.00E+00	1.64E-08	0.00E+00	0.00E+00	1.64E-08	0.00E+00	1.64E-08
Acetaldehyde	75070	0.00E+00	0.00E+00	0.00E+00	1.24E-03	0.00E+00	0.00E+00	1.24E-03	0.00E+00	1.24E-03
Methylene chloride	75092	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon disulfide	75150	0.00E+00	2.96E-04	2.96E-04	0.00E+00	0.00E+00	2.96E-04	0.00E+00	0.00E+00	2.96E-04
Bromoform	75252	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1-Dichloroethane	75343	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vinylidene chloride	75354	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Trichlorofluoromethane	75694	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dichlorodifluoromethane	75718	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chlorinated Fluorocarbon	76131	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,2-Dichloropropane	78875	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Methyl ethyl ketone	78933	0.00E+00	0.00E+00	0.00E+00	9.71E-06	0.00E+00	0.00E+00	9.71E-06	0.00E+00	9.71E-06
1,1,2-Trichloroethane	79005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Trichloroethylene	79016	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,1,2,2-Tetrachloroethane	79345	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acenaphthene	83329	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pyrene	129000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzof[g,h,i]perylene	191242	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzof[e]pyrene	192972	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Indeno[1,2,3-cd]pyrene	193395	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Perylene	198550	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzof[b]fluoranthene	205992	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fluoranthene	206440	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzof[k]fluoranthene	207089	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acenaphthylene	208968	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Chrysene	218019	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1,3-Dichlorobenzene	541731	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xylenes	1330207	0.00E+00	0.00E+00	0.00E+00	5.50E-05	0.00E+00	0.00E+00	5.50E-05	0.00E+00	5.50E-05

Table 13a. MEIW Acute Hazard Index without Background by Chemical

Exide Technologies
Vernon, California

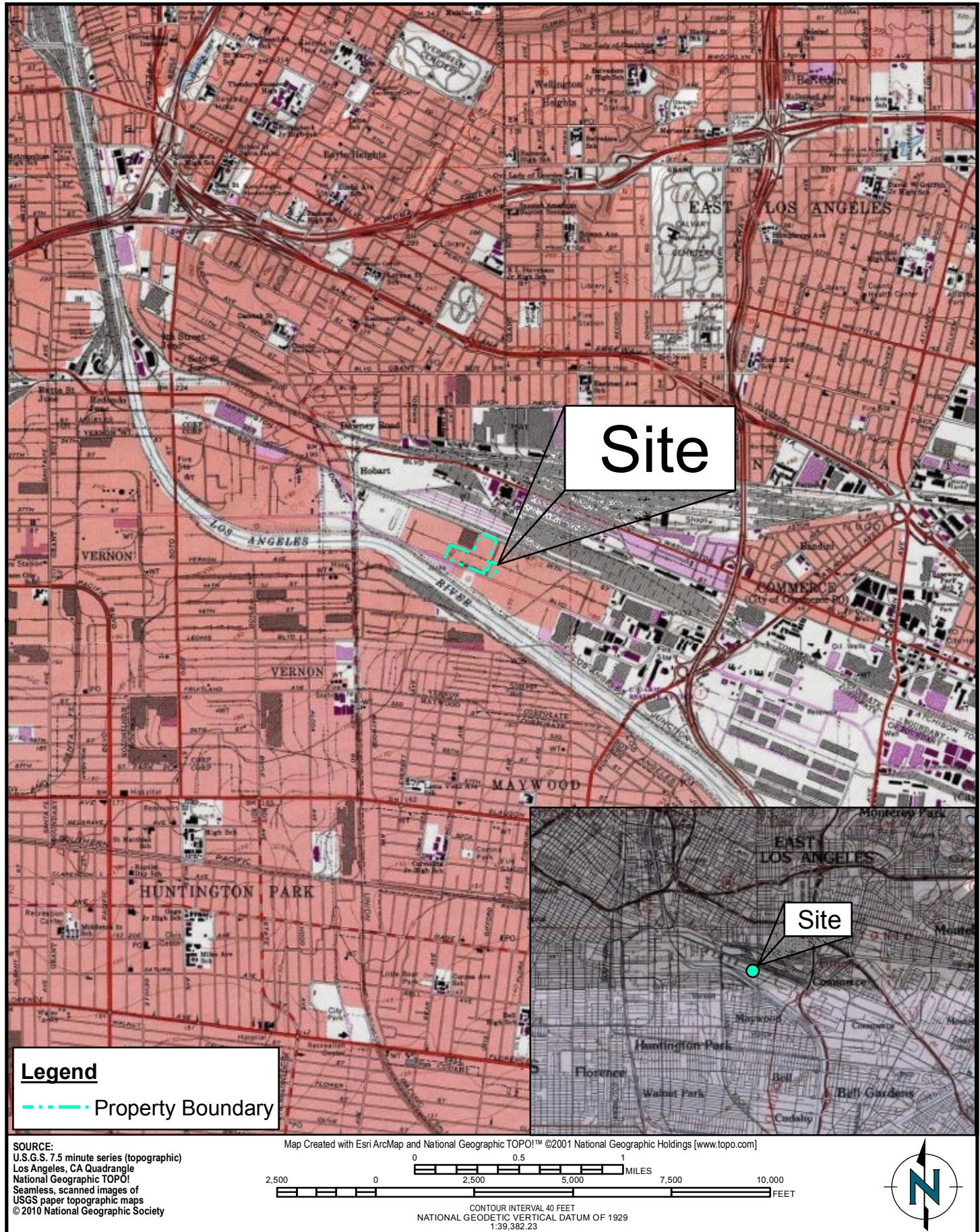
Chemical Name	CAS #	Cardio-vascular System	Central Nervous System	Developmental System	Eye	Immune System	Reproductive System	Respiratory System	Blood	MAX
Methyl tert-butyl ether	1634044	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dioxins, total	1086	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PCBs	1336363	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Vanadium	7440622	0.00E+00	0.00E+00	0.00E+00	1.49E-06	0.00E+00	0.00E+00	1.49E-06	0.00E+00	1.49E-06
PAHs, total	1151	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acrolein	107028	0.00E+00	0.00E+00	0.00E+00	2.40E-05	0.00E+00	0.00E+00	2.40E-05	0.00E+00	2.40E-05
Hexane	110543	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ammonia	7664417	0.00E+00	0.00E+00	0.00E+00	1.25E-04	0.00E+00	0.00E+00	1.25E-04	0.00E+00	1.25E-04
SUM		3.72E+00	3.73E+00	3.74E+00	1.38E-02	1.90E-01	1.36E-02	3.17E-03	1.32E-02	3.74E+00

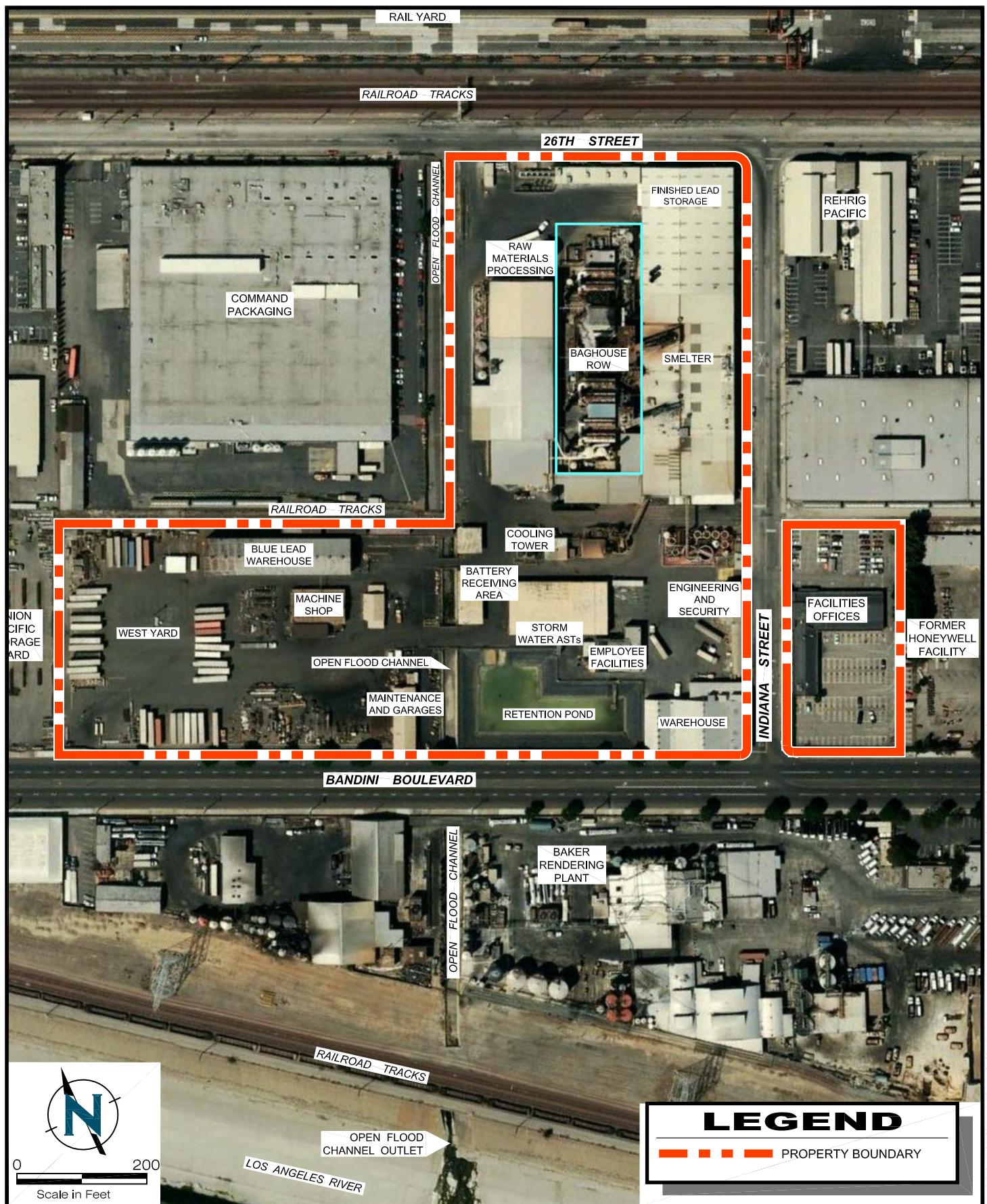
Table 13b. MEIW Acute Hazard Index without Background by Source

Exide Technologies
Vernon, California

Source ID	Source Name	Cardio-vascular System	Central Nervous System	Developmental System	Eye	Immune System	Reproductive System	Respiratory System	Blood	MAX
MAPCO	Raw Material Preparation System (RMPS) Scrubber	6.27E-04	6.55E-04	6.55E-04	0.00E+00	2.36E-02	0.00E+00	4.45E-06	0.00E+00	2.36E-02
MAT_STOR	Material Handling Baghouse	5.30E-03	5.33E-03	5.33E-03	0.00E+00	2.83E-03	0.00E+00	4.01E-05	0.00E+00	5.33E-03
SOFTLEAD	Soft Lead Refining System Baghouse	5.96E-03	6.58E-03	7.15E-03	1.16E-03	5.67E-04	5.70E-04	1.09E-04	5.67E-04	7.15E-03
HARDLEAD	Hard Lead Refining System Baghouse	3.60E+00	3.61E+00	3.62E+00	8.16E-03	1.81E-02	1.15E-02	1.84E-03	1.11E-02	3.62E+00
DRYER_BH	Feed Dryer Baghouse/Cyclone	1.40E-03	2.88E-03	4.41E-03	3.85E-03	2.02E-03	1.57E-03	1.93E-04	1.52E-03	4.41E-03
NEPTUNE	Neptune Scrubber	4.47E-04	3.51E-03	3.51E-03	4.98E-04	3.82E-03	2.45E-06	6.85E-05	1.45E-06	3.82E-03
NOR_CART	North Torit Cartridge Filter System	1.90E-02	1.90E-02	1.90E-02	0.00E+00	1.13E-03	0.00E+00	0.00E+00	0.00E+00	1.90E-02
SOU_CART	South Torit Cartridge Filter System	1.07E-03	1.08E-03	1.08E-03	0.00E+00	1.31E-04	0.00E+00	2.69E-06	0.00E+00	1.08E-03
MAC_BH	MAC Baghouse	2.49E-03	2.51E-03	2.51E-03	0.00E+00	1.17E-03	0.00E+00	0.00E+00	0.00E+00	2.51E-03
WH_AB	Water Heater in Administration Building	0.00E+00	7.58E-10	5.47E-09	5.38E-06	4.71E-09	5.47E-09	5.14E-06	4.71E-09	5.38E-06
WH_EF	Water Heater in Employee Facility	0.00E+00	2.12E-08	1.53E-07	1.51E-04	1.32E-07	1.53E-07	1.44E-04	1.32E-07	1.51E-04
A1	Entrained Road Dust	1.09E-03	1.09E-03	1.09E-03	0.00E+00	1.84E-03	0.00E+00	9.77E-06	0.00E+00	1.84E-03
A2	Entrained Road Dust	2.24E-03	2.24E-03	2.24E-03	0.00E+00	3.55E-03	0.00E+00	2.47E-05	0.00E+00	3.55E-03
A3	Entrained Road Dust	2.90E-03	2.90E-03	2.90E-03	0.00E+00	4.60E-03	0.00E+00	3.20E-05	0.00E+00	4.60E-03
A4	Entrained Road Dust	3.39E-03	3.40E-03	3.40E-03	0.00E+00	5.38E-03	0.00E+00	3.75E-05	0.00E+00	5.38E-03
A5	Entrained Road Dust	4.29E-04	4.30E-04	4.30E-04	0.00E+00	7.44E-04	0.00E+00	3.84E-06	0.00E+00	7.44E-04
A6	Entrained Road Dust	4.19E-04	4.19E-04	4.19E-04	0.00E+00	7.27E-04	0.00E+00	3.75E-06	0.00E+00	7.27E-04
A7	Entrained Road Dust	4.55E-04	4.56E-04	4.56E-04	0.00E+00	7.89E-04	0.00E+00	4.07E-06	0.00E+00	7.89E-04
A8	Entrained Road Dust	4.17E-04	4.18E-04	4.18E-04	0.00E+00	7.24E-04	0.00E+00	3.73E-06	0.00E+00	7.24E-04
A9	Entrained Road Dust	4.16E-04	4.16E-04	4.16E-04	0.00E+00	7.21E-04	0.00E+00	3.72E-06	0.00E+00	7.21E-04
A10	Entrained Road Dust	4.19E-04	4.19E-04	4.19E-04	0.00E+00	7.26E-04	0.00E+00	3.74E-06	0.00E+00	7.26E-04
A11	Entrained Road Dust	1.36E-03	1.36E-03	1.36E-03	0.00E+00	3.54E-03	0.00E+00	1.47E-05	0.00E+00	3.54E-03
A12	Entrained Road Dust	1.13E-03	1.13E-03	1.13E-03	0.00E+00	2.94E-03	0.00E+00	1.22E-05	0.00E+00	2.94E-03
A13	Entrained Road Dust	1.44E-03	1.44E-03	1.44E-03	0.00E+00	3.38E-03	0.00E+00	1.87E-05	0.00E+00	3.38E-03
A14	Entrained Road Dust	1.30E-03	1.30E-03	1.30E-03	0.00E+00	3.06E-03	0.00E+00	1.69E-05	0.00E+00	3.06E-03
A15	Entrained Road Dust	1.23E-03	1.23E-03	1.23E-03	0.00E+00	2.88E-03	0.00E+00	1.60E-05	0.00E+00	2.88E-03
A16	Entrained Road Dust	9.41E-04	9.41E-04	9.41E-04	0.00E+00	2.21E-03	0.00E+00	1.22E-05	0.00E+00	2.21E-03
A17	Entrained Road Dust	3.66E-04	3.67E-04	3.67E-04	0.00E+00	1.53E-03	0.00E+00	8.40E-06	0.00E+00	1.53E-03
A18	Entrained Road Dust	2.96E-04	2.96E-04	2.96E-04	0.00E+00	1.23E-03	0.00E+00	6.78E-06	0.00E+00	1.23E-03
A19	Entrained Road Dust	2.78E-04	2.78E-04	2.78E-04	0.00E+00	1.16E-03	0.00E+00	6.37E-06	0.00E+00	1.16E-03
A20	Entrained Road Dust	2.50E-04	2.50E-04	2.50E-04	0.00E+00	1.04E-03	0.00E+00	5.72E-06	0.00E+00	1.04E-03
A21	Entrained Road Dust	1.97E-04	1.97E-04	1.97E-04	0.00E+00	2.36E-04	0.00E+00	2.20E-06	0.00E+00	2.36E-04
A22	Entrained Road Dust	1.76E-04	1.76E-04	1.76E-04	0.00E+00	2.11E-04	0.00E+00	1.97E-06	0.00E+00	2.11E-04
A23	Entrained Road Dust	1.85E-04	1.85E-04	1.85E-04	0.00E+00	2.22E-04	0.00E+00	2.07E-06	0.00E+00	2.22E-04
A24	Entrained Road Dust	2.13E-04	2.13E-04	2.13E-04	0.00E+00	2.55E-04	0.00E+00	2.38E-06	0.00E+00	2.55E-04
A25	Entrained Road Dust	2.19E-04	2.19E-04	2.19E-04	0.00E+00	2.63E-04	0.00E+00	2.45E-06	0.00E+00	2.63E-04
A26	Entrained Road Dust	2.41E-04	2.41E-04	2.41E-04	0.00E+00	2.89E-04	0.00E+00	2.70E-06	0.00E+00	2.89E-04
A27	Entrained Road Dust	2.76E-04	2.76E-04	2.76E-04	0.00E+00	1.15E-03	0.00E+00	6.33E-06	0.00E+00	1.15E-03
A28	Entrained Road Dust	1.29E-04	1.30E-04	1.30E-04	0.00E+00	1.55E-04	0.00E+00	1.45E-06	0.00E+00	1.55E-04
A29	Entrained Road Dust	3.45E-04	3.46E-04	3.46E-04	0.00E+00	1.44E-03	0.00E+00	7.92E-06	0.00E+00	1.44E-03
A30	Entrained Road Dust	1.89E-04	1.89E-04	1.89E-04	0.00E+00	7.88E-04	0.00E+00	4.33E-06	0.00E+00	7.88E-04
A31	Entrained Road Dust	2.32E-04	2.32E-04	2.32E-04	0.00E+00	9.68E-04	0.00E+00	5.32E-06	0.00E+00	9.68E-04
A32	Entrained Road Dust	7.06E-03	7.06E-03	7.06E-03	0.00E+00	1.11E-02	0.00E+00	6.02E-05	0.00E+00	1.11E-02
A33	Entrained Road Dust	8.79E-03	8.79E-03	8.79E-03	0.00E+00	1.38E-02	0.00E+00	7.49E-05	0.00E+00	1.38E-02
A34	Entrained Road Dust	9.06E-03	9.06E-03	9.06E-03	0.00E+00	1.42E-02	0.00E+00	7.72E-05	0.00E+00	1.42E-02
A35	Entrained Road Dust	8.95E-03	8.95E-03	8.95E-03	0.00E+00	1.40E-02	0.00E+00	7.63E-05	0.00E+00	1.40E-02
A36	Entrained Road Dust	6.38E-03	6.38E-03	6.38E-03	0.00E+00	9.99E-03	0.00E+00	5.44E-05	0.00E+00	9.99E-03
A37	Entrained Road Dust	6.63E-03	6.63E-03	6.63E-03	0.00E+00	1.04E-02	0.00E+00	5.65E-05	0.00E+00	1.04E-02
A38	Entrained Road Dust	5.95E-03	5.95E-03	5.95E-03	0.00E+00	9.31E-03	0.00E+00	5.07E-05	0.00E+00	9.31E-03
A39	Entrained Road Dust	1.63E-03	1.63E-03	1.63E-03	0.00E+00	2.59E-03	0.00E+00	1.80E-05	0.00E+00	2.59E-03
A40	Entrained Road Dust	1.61E-03	1.61E-03	1.61E-03	0.00E+00	2.56E-03	0.00E+00	1.78E-05	0.00E+00	2.56E-03
SUM		3.72E+00	3.73E+00	3.74E+00	1.38E-02	1.90E-01	1.36E-02	3.17E-03	1.32E-02	3.74E+00

Figures





ENVIRON

DRAFTED BY: SSHIN

DATE: 11/20/2012

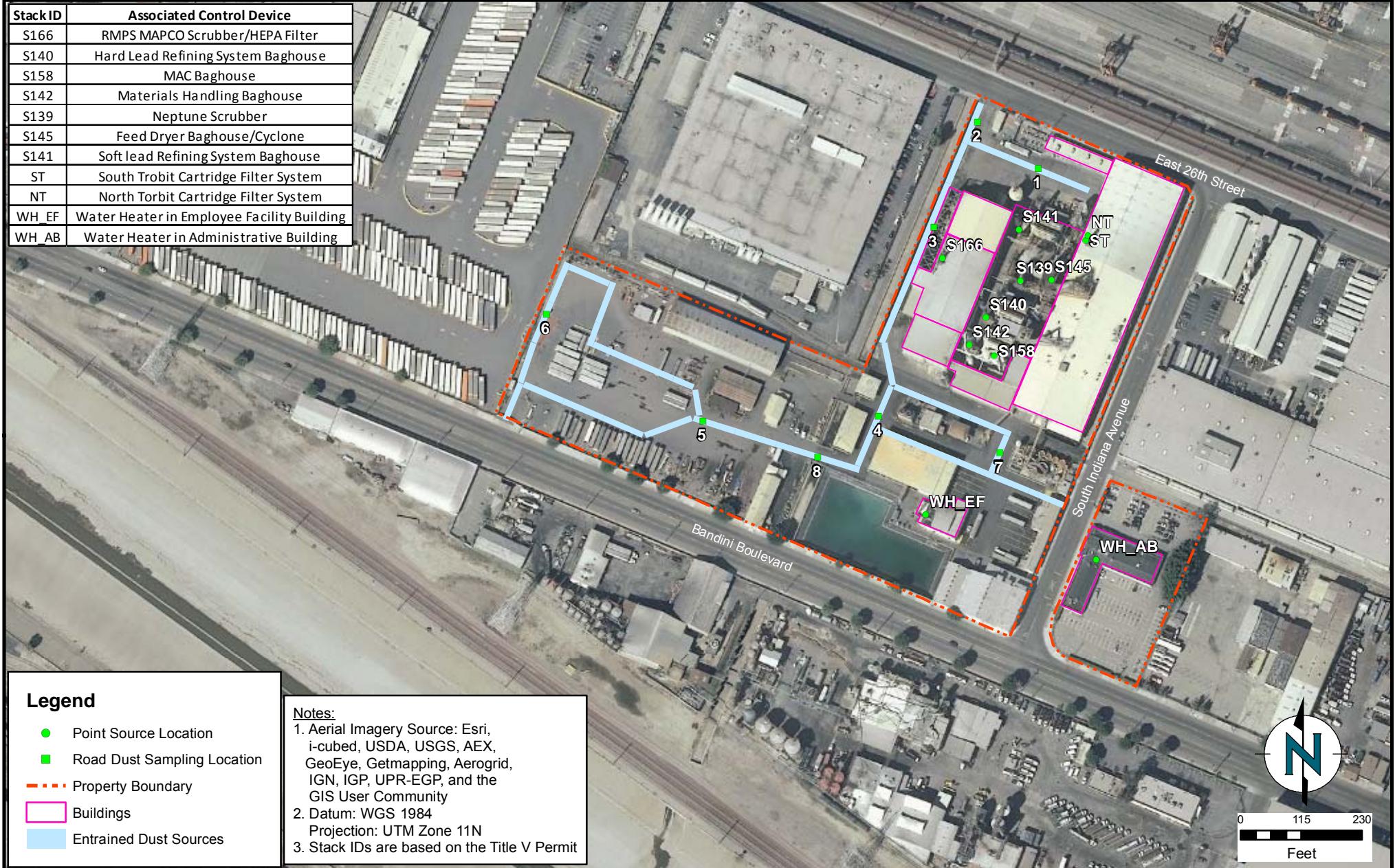
Site Plot Plan

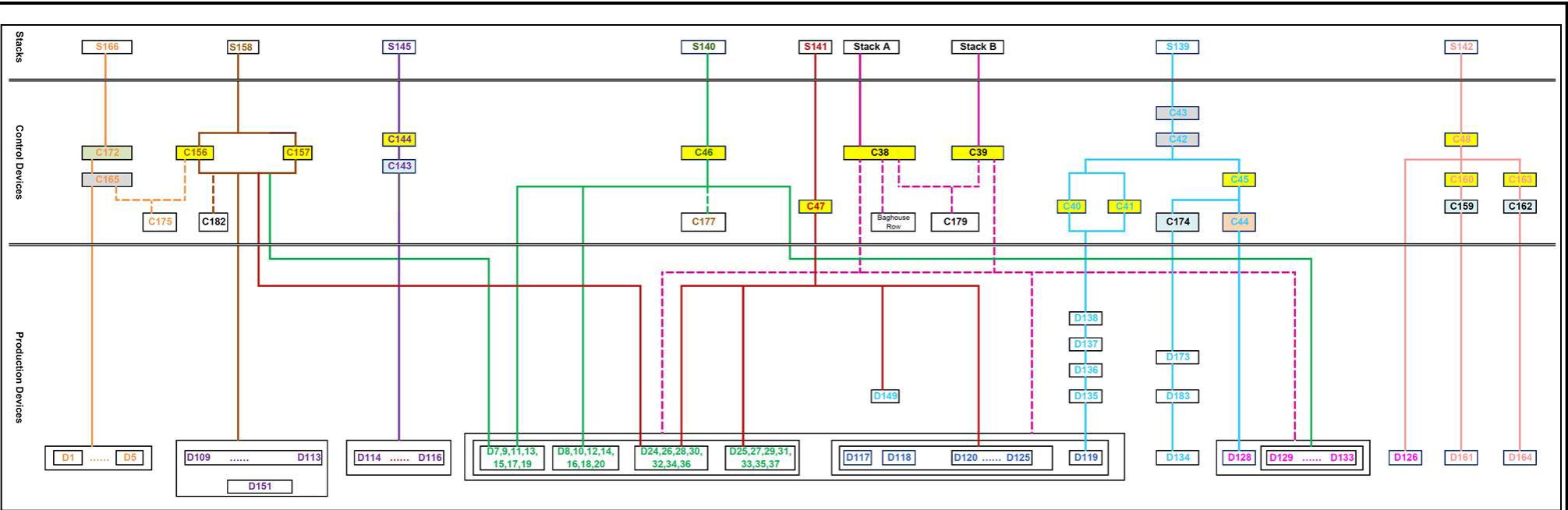
Exide Technologies Facility
2700 South Indiana Street, Vernon, California

Figure
2a

PROJECT: 07-24850A

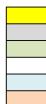
Stack ID	Associated Control Device
S166	RMPS MAPCO Scrubber/HEPA Filter
S140	Hard Lead Refining System Baghouse
S158	MAC Baghouse
S142	Materials Handling Baghouse
S139	Neptune Scrubber
S145	Feed Dryer Baghouse/Cyclone
S141	Soft lead Refining System Baghouse
ST	South Trobit Cartridge Filter System
NT	North Torbit Cartridge Filter System
WH_EF	Water Heater in Employee Facility Building
WH_AB	Water Heater in Administrative Building





Color coding for the device and stack IDs

System 1	Raw material preparation system
System 2	Feed drying system
System 3	Lead smelting system
System 4	Lead slag processing system
System 5	Lead metal refining system
System 6	Fugitive dust control system
System 7	Reverberatory and cupola furnaces APCs
System 8	Cupola and hard lead refinery furnaces APCs
System 9	Reverberatory and soft lead refinery furnaces APCs
System 10	Reverb furnace feed room APCs
System 11	Cupola furnace feed room APCs

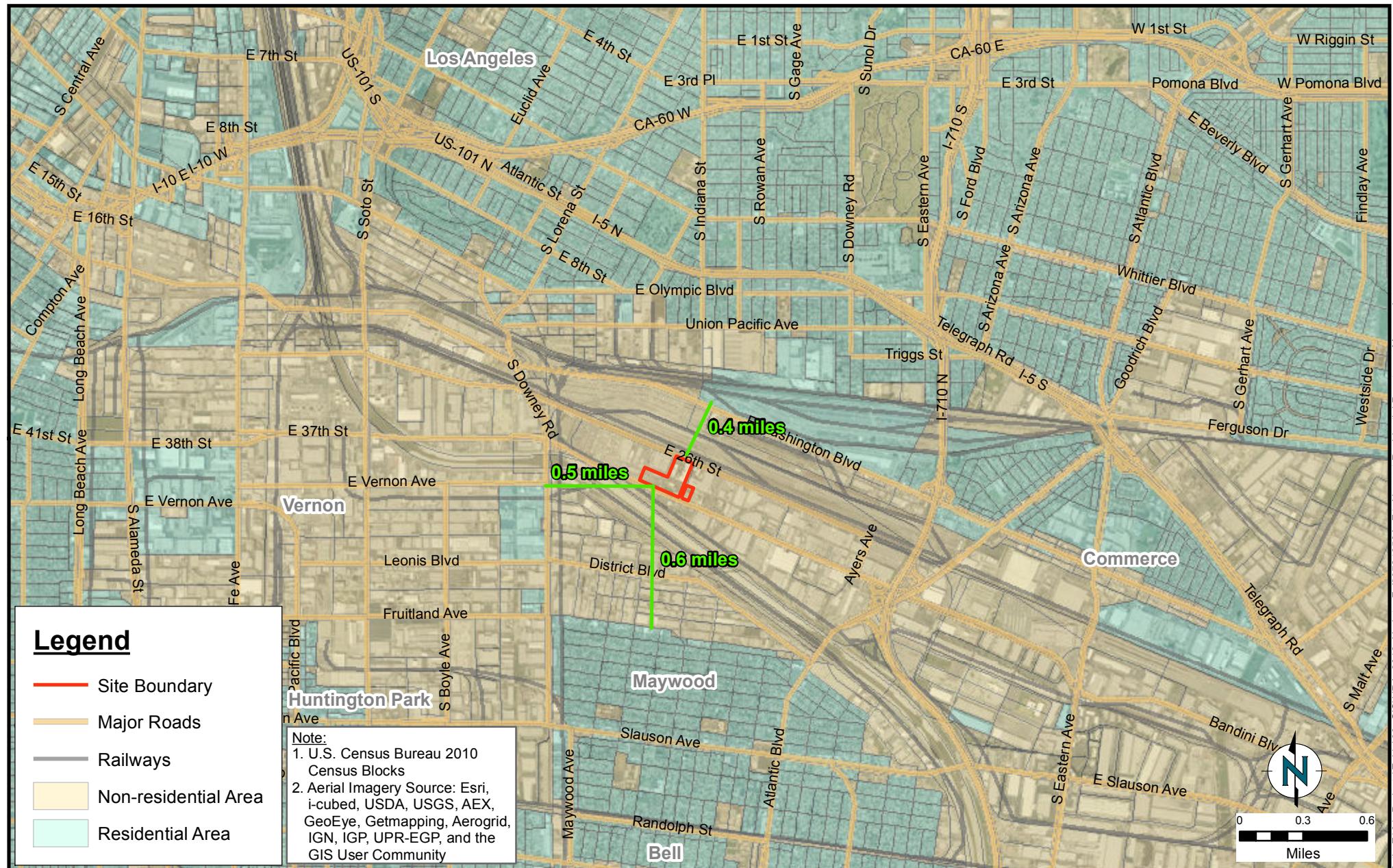


Baghouse
Scrubber
HEPA Filter
Enclosure
Cyclone
Afterburner

Single solid line: Vented emissions
Single dotted line: Fugitive emissions

Note:

1. Device IDs are based on the facilities' Title V permit.



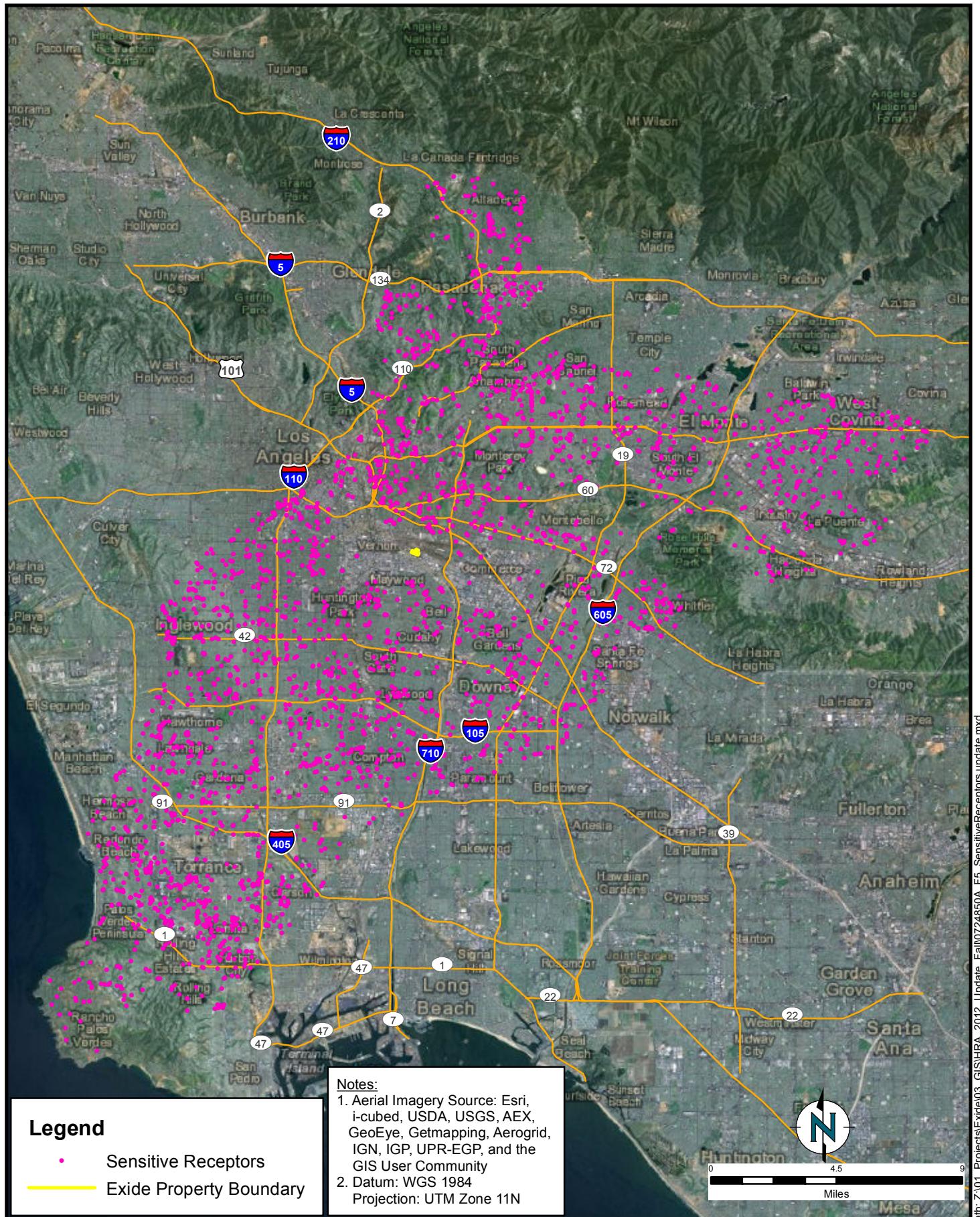
UPDATED BY: XZLiu

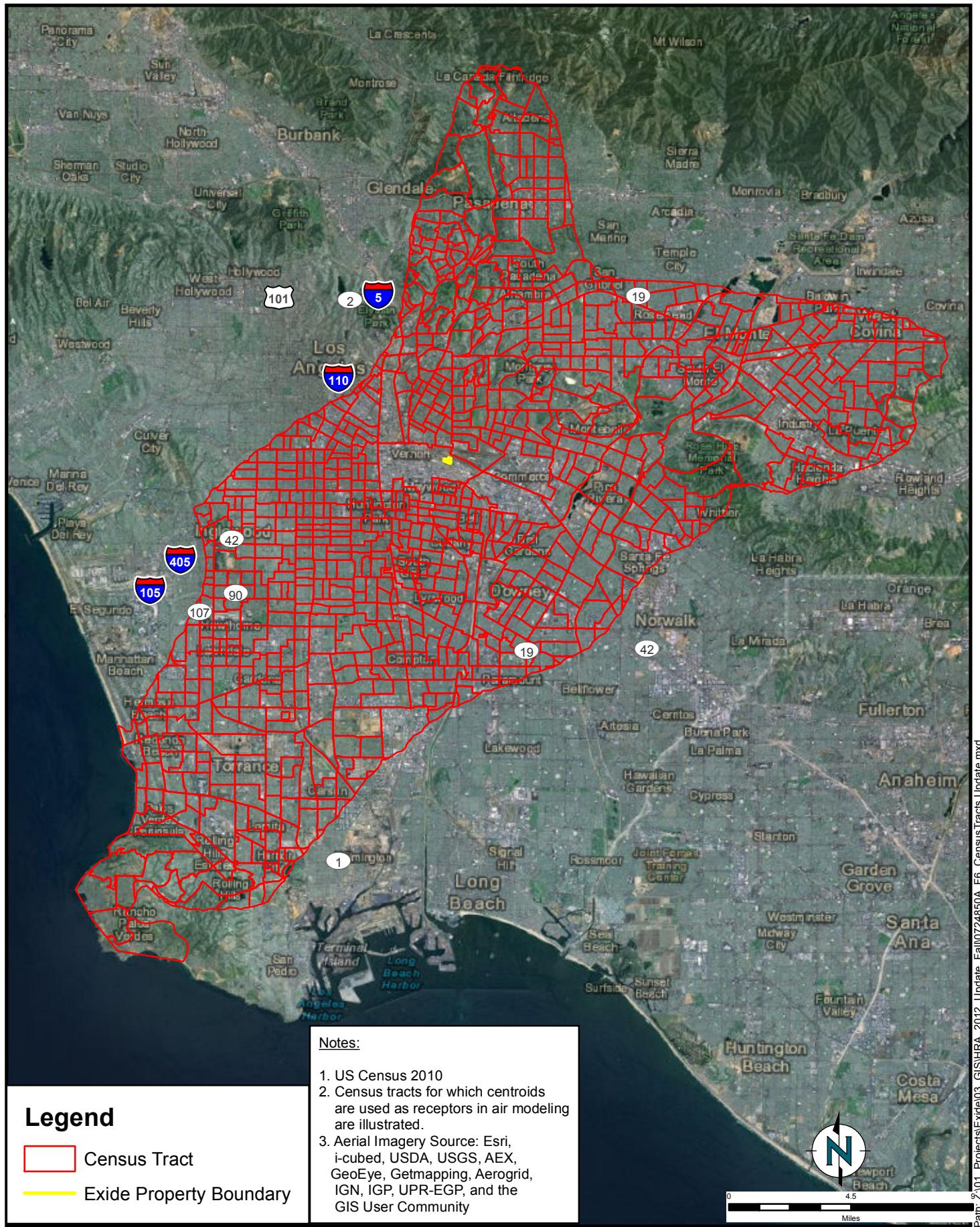
DATE: 11/30/2012

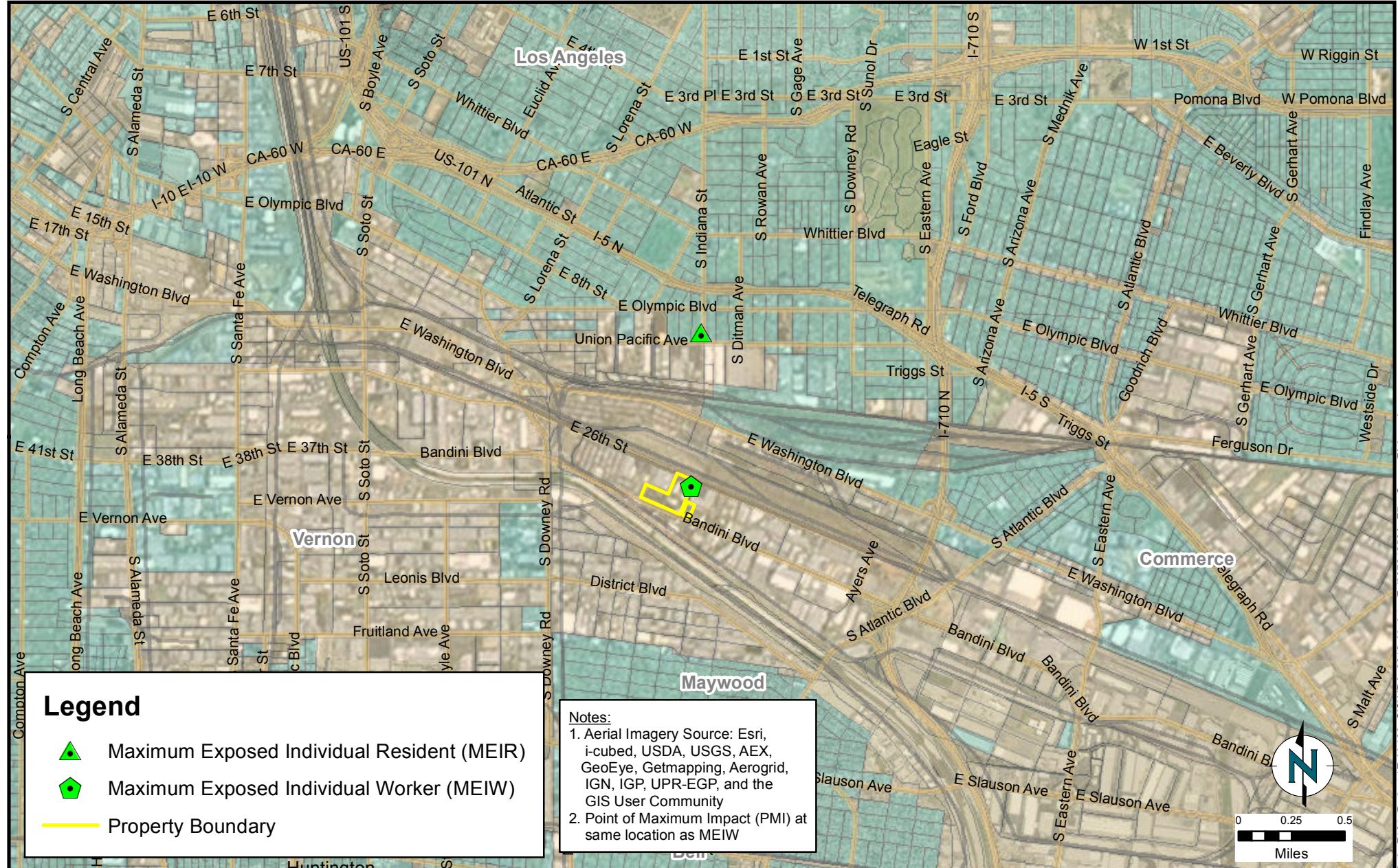
Locations of the Nearest Residential Areas
Exide Technologies
2700 South Indiana Street
Vernon, California 90058

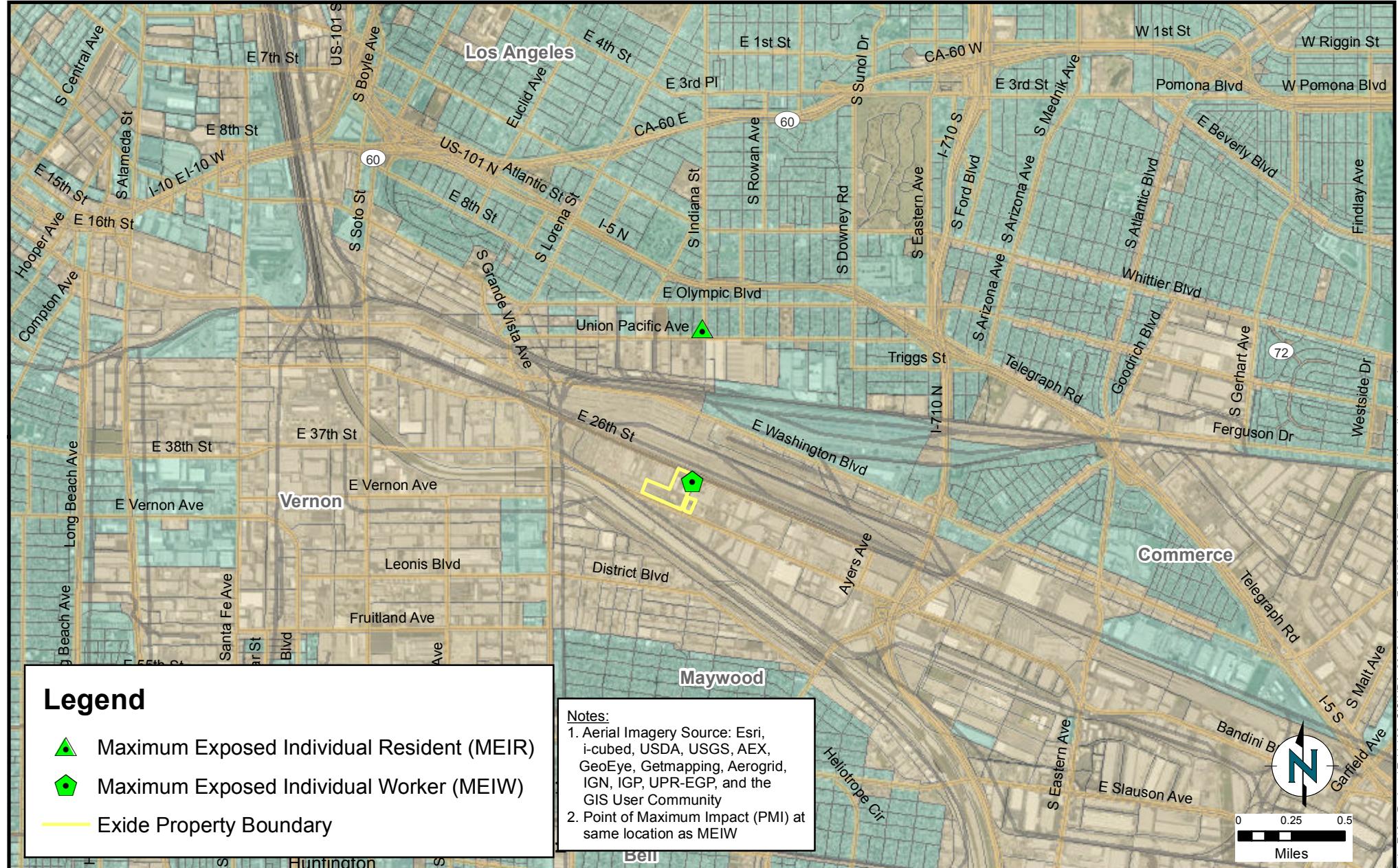
Figure
4

PROJECT: 07-24850A









UPDATED BY: XZLiu

DATE: 11/30/2012

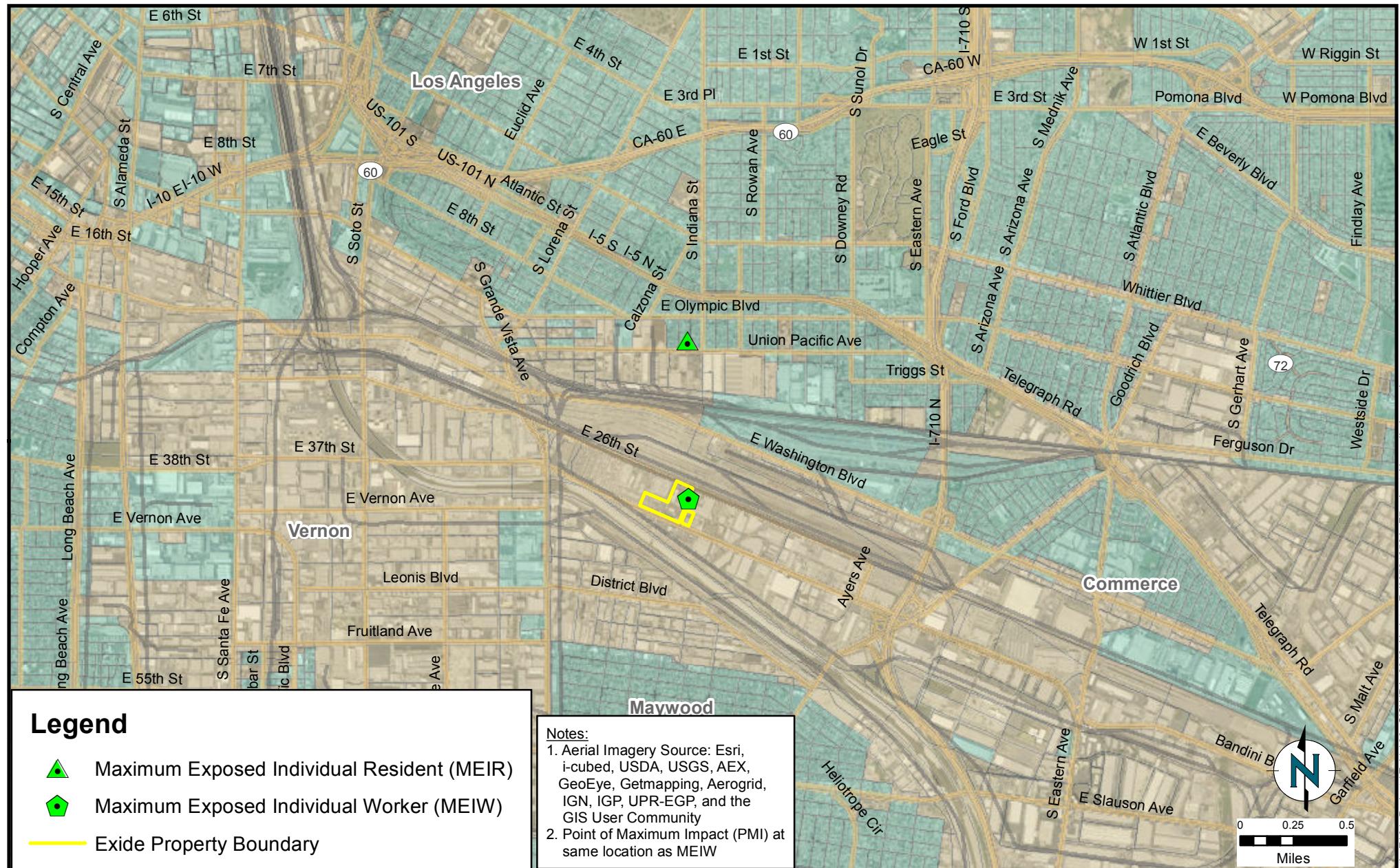
Locations of MEIR, MEIW and PMI for Chronic Hazard Index

Exide Technologies

2700 South Indiana Street, Vernon, California 90058

Figure
7b

PROJECT: 07-24850A



Legend

- ▲ Maximum Exposed Individual Resident (MEIR)
- ◆ Maximum Exposed Individual Worker (MEIW)
- Exide Property Boundary



Locations of MEIR, MEIW and PMI for
Acute Hazard Index

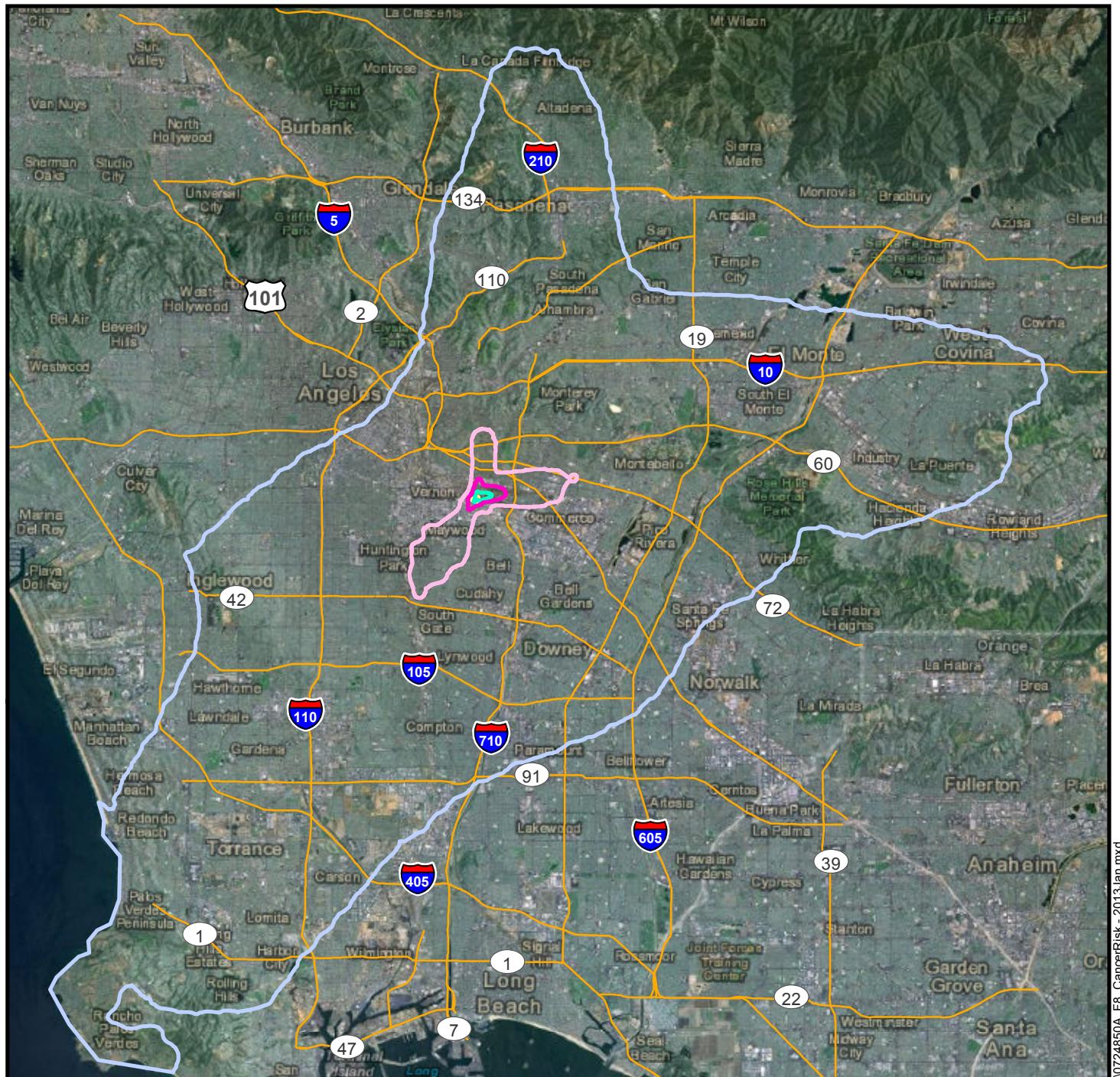
Exide Technologies

UPDATED BY: XZLiu

DATE: 11/30/2012

Figure
7c

PROJECT: 07-24850A



Legend

Property Boundary

Cancer Risk Isopleths

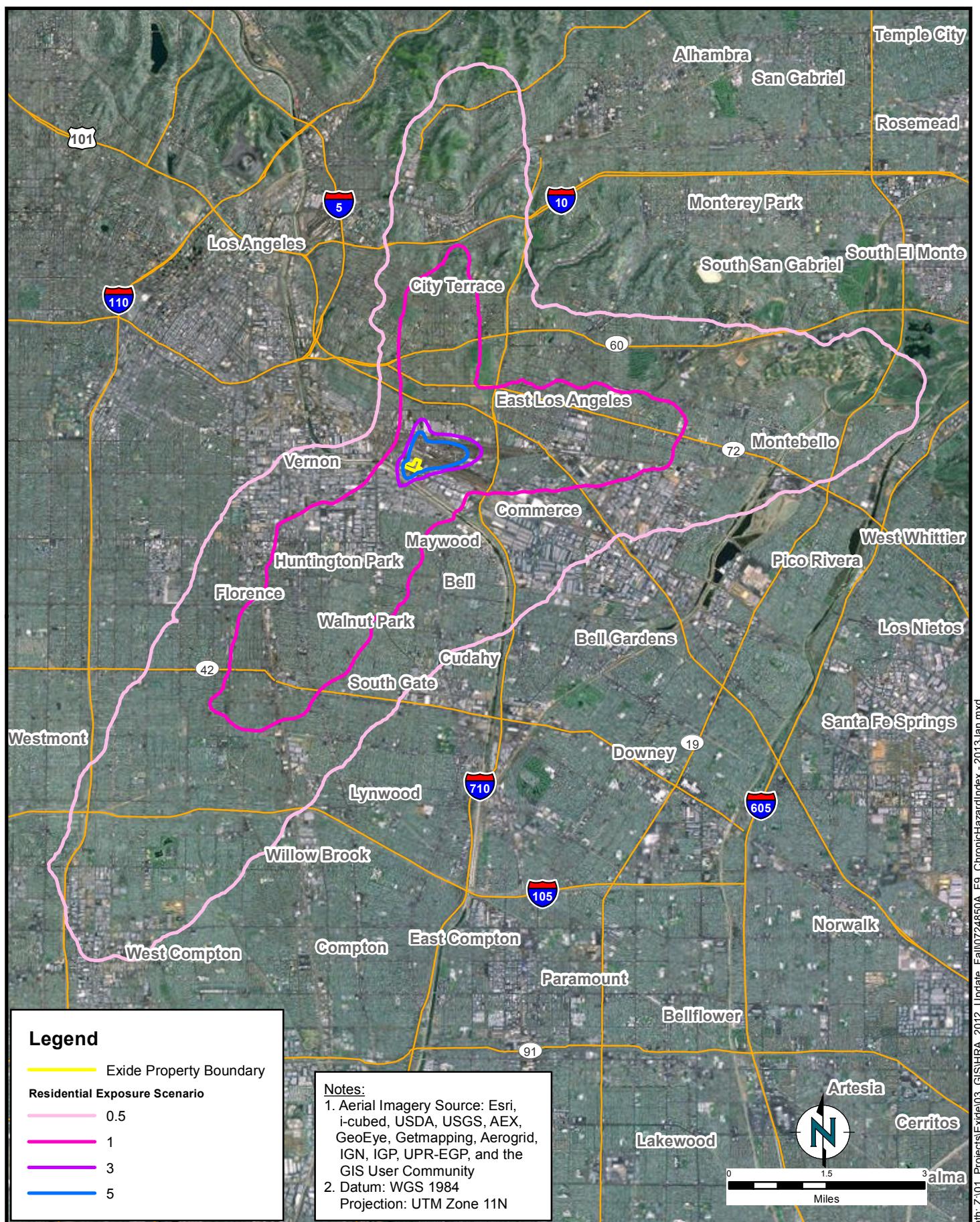
Residential Exposure Scenario

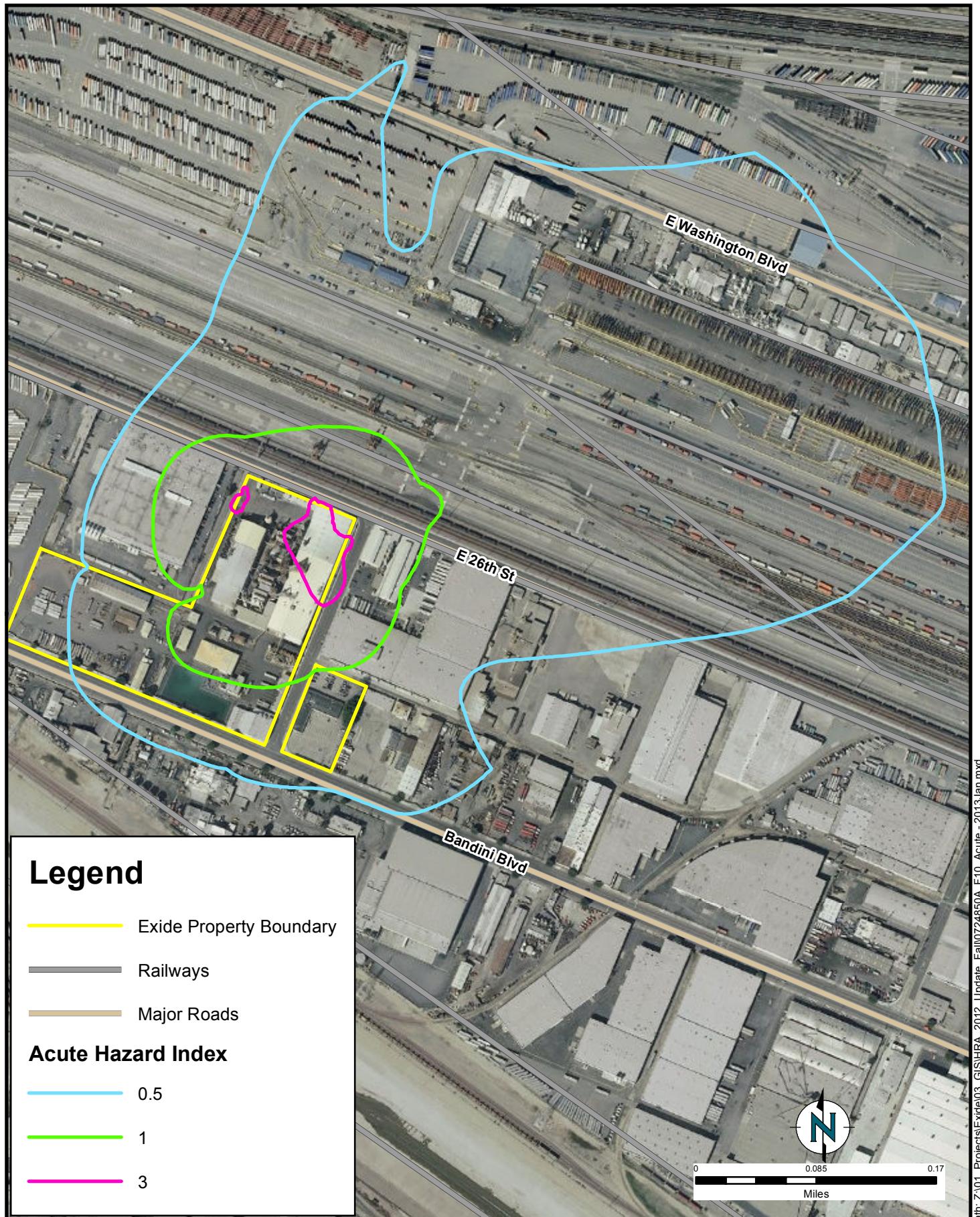
- 1×10^{-6}
- 1×10^{-5}
- 2.5×10^{-5}
- 1×10^{-4}

Notes:

1. Aerial Imagery Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, UPR-EGP, and the GIS User Community
2. Datum: WGS 1984
Projection: UTM Zone 11N







Appendix A
Point and Area Source Test Reports

Appendix A1a

2010 Almega Source Test Summary Tables with AQMD Approval Letter

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

M E M O R A N D U M

DATE: October 3, 2011

TO: Jay Chen

FROM: Rudy Eden *R. Eden*

SUBJECT: Evaluation of Source Test Report:
(Requested by Ngoc Tran, September 15, 2011)

AQMD ID: **FACILITY ID NO.** **800089** *APPLICATION NO.: **512799***

COMPANY: **ExxonMobil Oil Corp., Torrance, CA**

EQUIPMENT: **FCC Regenerator (D151)**

ESP (C2283 & C2284)

SCR (C1772)

TEST LOCATION: **3700 West 190th Street, Torrance, CA**

TEST DATE: **June 30 through July 1, 2011**

REFERENCE: **R11448** (STE Source Test File)

Source Test Engineering has completed the evaluation of the subject source test report and has concluded that it is:

CONDITIONALLY ACCEPTABLE

Compliance with all applicable Rules and/or Permit Conditions, as well as compliance limits, may not have been acceptably demonstrated, and/or the accuracy of some of the reported gaseous emissions and/or flows may not have been confidently confirmed, and their use regarding emission calculations may be subject to certain restrictions. Refer to the following sections for a complete discussion concerning these restrictions and compliance determination.

The attached evaluation has not been forwarded to the facility or the source testing firm. It is the responsibility of the requestor to review the attached evaluation and forward it to the parties involved, if you concur with our findings. If there are any questions, please contact Carey Willoughby at Ext. 3006.

GK: CAW
cc: Ngoc Tran

R11448: REV 10/04/11

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

MONITORING & ANALYSIS DIVISION * SOURCE TEST ENGINEERING BRANCH

SOURCE TEST REPORT EVALUATION

S/T ID:

PR10312

AQMD ID:

FACILITY ID NO. 124838

COMPANY:

Exide Technologies (f.k.a. GNB), Los Angeles

EQUIPMENT:

Secondary Lead Smelting-various equipment

(Scrubbers: C165/C172; C42/C43/C40/C41)

(Baghouses: C48, C47, C46, C144/C143, C38, C39)

TEST LOCATION:

2700 S. Indiana St.**Vernon, CA 90023**

REQUESTED BY:

Pierre Sycip (Memo 7/6/11)

TYPE OF TEST:

PERFORMANCE REPORTDOCUMENT DATE: **6/24/11**

REASON FOR TEST:

(TESTING SUBJECT TO THE FOLLOWING RULE, PERMIT, OR SPECIFIED CONDITIONS):

- AB2588 & R1401

REQUESTED EVAL:

TOXICS: Multi Metals, Cr ^(tot) & Cr ⁽⁺⁶⁾, TO-15 Toxic Organic compounds, PCDD/PCDF, PCB, PAH, HCl Aldehydes, 1,3-Butadiene, 1,4-Dioxane**CO, TGNMEOC, SOx – Dryer Baghouse only**

TEST FIRM:

Almega Charles Figueroa

(714) 889-4000

STE EVALUATOR:

Scott Wilson EXT: 2257

REVIEW DATE: **10/5/11**

EXPEDITED REVIEW:

 YES NO**OVERVIEW OF EVALUATION:**

OVERALL

 ACCEPTABLE **CONDITIONALLY ACCEPTABLE** **UNACCEPTABLE** **NOT REVIEWED**

RESTRICTIONS FOR USE OF REPORTED RESULTS:

- No Restrictions. Results for all reported emissions may be used for compliance determination and emission calculations.
- Results for all emissions, as reported, are in compliance by an acceptable margin¹, with the Rules/Permit Compliance Limits specified above.

COMPLIANCE DETERMINATION:

(REFER TO NEXT SECTION FOR COMPLETE DISCUSSION OF THESE DEFICIENCIES)

¹ **NOTE:** STE assigns a 10% “margin of error” to most compliance limits when evaluating emissions for compliance determination. This is due to uncertainties assigned to source testing, in general, and errors associated with individual analytical procedures. As a result, some reported emissions may be judged as being in compliance although they appear to be non-compliant or marginally non-compliant. Similarly, non-compliance is judged using the same margin-of-error.

This source test Report has been reviewed by the Source Test Engineering Branch staff. The following item(s) specifically explain the required modifications to the existing source test Report which must be implemented, or items requiring further discussion or explanation, before testing can proceed:

- Equipment/Process/Test Overview
- Completeness of Application/Report/Report
- Representativeness of Data & Process
- Rule/Permit Fulfillment
- Sampling & Analytical Methods
- Quality Assurance
- Calculations

EQUIPMENT/PROCESS/TEST OVERVIEW

- This test program was conducted to update the Air Toxic Inventory Report (ATIR) & Health Risk Assessment (HRA) for the facility. Source Test Engineering (STE) has reviewed the report and supporting laboratory data and determined that the testing and analysis was conducted according to promulgated methods, additionally no errors were noted in the calculation or reporting of emissions.

COMPLETENESS OF REPORT

- The report was complete on initial submittal.

REPRESENTATIVENESS OF DATA & PROCESS

- To clearly identify the compounds to be used in the Health Risk Assessment (HRA) modeling per the AB2588 requirements as prescribed in the California Air Pollution Control Officers Association (CAPCOA) guidelines, Source Test Engineering (STE) requested Almega to provide revised emission summary tables that address compounds that were non-detect (ND). The revised summary emission tables are attached to this evaluation.
- The following operational parameters were stipulated to be recorded during the testing and were included in the final report:
 - The pot furnace ID, the total amounts charged, and the chronological times, for additions of all chemical reagents into each pot furnace during each test run.
 - The process weight of all materials charged during each test run to the rotary dryer furnace and the cupola furnace.
 - The temperatures of the rotary dryer, and the cupola afterburner during each test run.
 - The total weight of batteries charged to the battery breaker during the test run on the RMPS scrubber.
 - The oxygen enrichment ratio for the reverberatory furnace, during each test run, calculated pursuant to the equation in the Facility Permit, and the supporting data used to calculate this parameter (combustion air flow rate, enrichment oxygen gas flow rate).

S P E C I F I C R E Q U I R E M E N T S**RULE/PERMIT FULFILLMENT**

- Testing must be conducted pursuant to the following Rule/Permit Conditions:
 - AB2588 & R1401

All of the above requirements have been addressed in this Report and are satisfactory as presented, or as modified and discussed in this review. The source test report summary emission information attached to this evaluation is recommended by STE to be used for emission reporting & interpretation to avoid including ND compounds.

SAMPLING & ANALYTICAL METHODS

- All sampling & analysis was conducted according to the promulgated methods required for quantification of the targeted compounds.

QUALITY ASSURANCE

- All required data supporting the sampling & analysis was included in the original submittal.

CALCULATIONS

- No errors were noted.



October 10, 2011

Mr. Scott Wilson
South Coast Air Quality Management District (SCAQMD)
21865 East Copley Drive
Diamond Bar, CA 91765-4182

Sub: Revised summary emissions tables (1and 6) with an additional AB2588/HRA reporting values for nine stacks at Exide Technologies, Vernon Facility

Dear Mr. Wilson,

Per your request, all nine stack's summary tables 1 and 6 have been revised including an additional AB2588/HRA reporting values by dropping the “<” values to zero and submitted for your review. The revised summary tables are organized as follows:

Section I: Feed Dryer
Section II: Neptune Scrubber
Section III: Hard Lead
Section IV: Soft Lead
Section V: MAC Baghouse
Section VI: Material Handling Baghouse
Section VII: South Torit
Section VIII: North Torit
Section IX: RMPS Scrubber

If you have any questions or comments regarding the enclosed data package, please contact Mr. Charles Figueroa or myself at 714-889-4000.

Sincerely,

A handwritten signature in black ink that appears to read "Surya".

Surya Adhikari
Project Manager

Cc: Mr. Ed Mopas
Exide Technologies, Inc.
2700 S. Indiana Street
Vernon, CA 90058

SECTION I

FEED DRYER

TABLE 1-1. SUMMARY OF TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Feed Dryer

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/14, 16 & 17/2010	--
Sampling Data*			
Stack Temperature	°F	216	--
Moisture	%	12.5	--
Sample Volume	dscf	312	--
Oxygen**	% v/v	18.1	--
Carbon Dioxide**	% v/v	1.4	--
Gas Velocity	ft/min	2,151	--
Stack Flow Rate	acfm	15,208	--
Stack Flow Rate	dscfm	10,392	--
CARB Method 436			
CONCENTRATION			
Aluminum	ug/dscm	1,509	1,509
Antimony	ug/dscm	1.11	1.11
Arsenic	ug/dscm	0.682	0.682
Barium	ug/dscm	5.20	5.20
Beryllium	ug/dscm	< 0.0566	0
Cadmium	ug/dscm	0.279	0.279
Chromium	ug/dscm	0.0810	0.0810
Cobalt	ug/dscm	0.0408	0.0408
Copper	ug/dscm	0.358	0.358
Lead	ug/dscm	271	271
Manganese	ug/dscm	2.89	2.89
Mercury	ug/dscm	2.11	2.11
Nickel	ug/dscm	0.245	0.245
Phosphorus	ug/dscm	< 3.06	0
Selenium	ug/dscm	0.0422	0.0422
Silver	ug/dscm	0.0802	0.0802
Thallium	ug/dscm	< 0.0226	0
Vanadium	ug/dscm	0.109	0.109
Zinc	ug/dscm	1.09	1.09
Iron	ug/dscm	43.1	43.1
CARB Method 436			
MASS EMISSION RATE			
Aluminum	lb/hr	5.87E-02	5.87E-02
Antimony	lb/hr	4.30E-05	4.30E-05
Arsenic	lb/hr	2.65E-05	2.65E-05
Barium	lb/hr	2.00E-04	2.00E-04
Beryllium	lb/hr	< 2.20E-06	0
Cadmium	lb/hr	1.08E-05	1.08E-05
Chromium	lb/hr	3.14E-06	3.14E-06
Cobalt	lb/hr	1.59E-06	1.59E-06
Copper	lb/hr	1.40E-05	1.40E-05
Lead	lb/hr	1.05E-02	1.05E-02
Manganese	lb/hr	1.13E-04	1.13E-04
Mercury	lb/hr	8.20E-05	8.20E-05
Nickel	lb/hr	9.50E-06	9.50E-06
Phosphorus	lb/hr	< 1.19E-04	0
Selenium	lb/hr	1.64E-06	1.64E-06
Silver	lb/hr	3.13E-06	3.13E-06
Thallium	lb/hr	< 8.81E-07	0
Vanadium	lb/hr	4.23E-06	4.23E-06
Zinc	lb/hr	4.24E-05	4.24E-05
Iron	lb/hr	1.68E-03	1.68E-03

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - Not detected, reporting limit reported.

**TABLE 6-1. TEST RESULTS
CARB 436 (Multiple Metals)**

Facility: Exide Technologies
City: Vernon, CA
Source: Feed Dryer

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	Run 1	Run 2	Run 3	--	--
Test Date	m/d/y	09/14/10	09/16/10	09/17/10	--	--
Test Time	h/m	7:09-15:44	7:00-15:25	5:43-14:10	--	--
Sampling Data*						
Stack Temperature	°F	224	207	216	216	--
Moisture	%	10.6	12.7	14.1	12.5	--
Sample Volume	dscf	311	310	315	312	--
Oxygen**	% v/v	17.3	18.3	18.7	18.1	--
Carbon Dioxide**	% v/v	1.4	1.4	1.3	1.4	--
Gas Velocity	ft/min	2,170	2,118	2,167	2,151	--
Stack Flow Rate	acfmin	15,336	14,968	15,319	15,208	--
Stack Flow Rate	dscfm	10,573	10,342	10,260	10,392	--
CARB Method 436						
CONCENTRATION		Total	Total	Total		
Aluminum	ug/dscm	1,364	1,594	1,568	1,509	1,509
Antimony	ug/dscm	1.046	0.820	1.456	1.11	1.11
Arsenic	ug/dscm	0.575	0.155	1.317	0.682	0.682
Barium	ug/dscm	0.887	1.49	13.23	5.20	5.20
Beryllium	ug/dscm	ND	0.057	ND	0.056	< 0.0566
Cadmium	ug/dscm	0.205	0.228	0.403	0.279	0.279
Chromium	ug/dscm	NDb	0.061	0.182	NDb	0.060
Cobalt	ug/dscm	0.041	0.056	0.026	0.0408	0.0408
Copper	ug/dscm	0.421	0.285	0.370	0.358	0.358
Lead	ug/dscm	193	285	336	271	271
Manganese	ug/dscm	2.74	5.93	NDb	0.022	2.89
Mercury	ug/dscm	2.05	1.48	2.80	2.11	2.11
Nickel	ug/dscm	0.182	0.216	0.336	0.245	0.245
Phosphorus	ug/dscm	ND	3.07	ND	3.02	< 3.06
Selenium	ug/dscm	0.0387	0.0444	0.0437	0.0422	0.0422
Silver	ug/dscm	0.0841	0.114	0.0426	0.0802	0.0802
Thallium	ug/dscm	ND	0.0227	ND	0.0224	< 0.0226
Vanadium	ug/dscm	ND	0.114	0.146	0.109	0.109
Zinc	ug/dscm	0.978	0.660	1.64	1.09	1.09
Iron	ug/dscm	30.8	58.2	40.4	43.1	43.1
CARB Method 436						
MASS EMISSION RATE		Total	Total	Total		
Aluminum	lb/hr	5.40E-02	6.17E-02	6.03E-02	5.87E-02	5.87E-02
Antimony	lb/hr	4.14E-05	3.18E-05	5.60E-05	4.30E-05	4.30E-05
Arsenic	lb/hr	2.28E-05	6.00E-06	5.06E-05	2.65E-05	2.65E-05
Barium	lb/hr	3.51E-05	5.78E-05	5.08E-04	2.00E-04	2.00E-04
Beryllium	lb/hr	ND	2.25E-06	ND	2.15E-06	< 2.20E-06
Cadmium	lb/hr	8.10E-06	8.82E-06	1.55E-05	1.08E-05	1.08E-05
Chromium	lb/hr	NDb	2.43E-06	7.06E-06	NDb	2.32E-06
Cobalt	lb/hr	1.62E-06	2.16E-06	9.90E-07	1.59E-06	1.59E-06
Copper	lb/hr	1.67E-05	1.10E-05	1.42E-05	1.40E-05	1.40E-05
Lead	lb/hr	7.65E-03	1.10E-02	1.29E-02	1.05E-02	1.05E-02
Manganese	lb/hr	1.09E-04	2.30E-04	8.61E-07	1.13E-04	1.13E-04
Mercury	lb/hr	8.11E-05	5.74E-05	1.08E-04	8.20E-05	8.20E-05
Nickel	lb/hr	7.20E-06	8.38E-06	1.29E-05	9.50E-06	9.50E-06
Phosphorus	lb/hr	ND	1.22E-04	ND	1.16E-04	< 1.19E-04
Selenium	lb/hr	1.53E-06	1.72E-06	1.68E-06	1.64E-06	1.64E-06
Silver	lb/hr	3.33E-06	4.41E-06	1.64E-06	3.13E-06	3.13E-06
Thallium	lb/hr	ND	9.01E-07	ND	8.61E-07	< 8.81E-07
Vanadium	lb/hr	ND	4.50E-06	5.60E-06	4.23E-06	4.23E-06
Zinc	lb/hr	3.87E-05	2.56E-05	6.28E-05	4.24E-05	4.24E-05
Iron	lb/hr	1.22E-03	2.25E-03	1.55E-03	1.68E-03	1.68E-03

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - Not detected, reporting limit reported.

B - Reagent blank corrected value.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 1-2. SUMMARY OF TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Feed Dryer

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/21-22/10	--
Sampling Data:			
Stack Flow Rate:*	dscfm	10,547	--
Stack Temperature:*	°F	224	--
Gas Sample Volume	dscm	0.367	--
Formaldehyde			
Catch	ug	178	178
Mass Concentration:	mg/dscm	0.484	0.484
Volumetric Concentration:	ppmv	0.388	0.388
Mass Emission Rate:	lb/hr	0.0191	0.0191
Acetaldehyde			
Catch	ug	73.8	73.8
Mass Concentration:	mg/dscm	0.200	0.200
Volumetric Concentration:	ppmv	0.109	0.109
Mass Emission Rate:	lb/hr	0.00792	0.00792

* Measured during sampling per SCAQMD Methods 1-4.

TABLE 6-2. TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
City: Vernon, CA
Unit: Feed Dryer

Test Data	Units	Symbol	Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	--	Run 1	Run 2	Run 3	--	--
Test Date	m/d/y	--	09/21/11	09/22/11	09/22/11	--	--
Time:	h/m	--	9:32 - 13:17	6:50 - 10:50	11:00 - 15:00	--	--
<u>Sampling Data:</u>							
Stack Flow Rate:*	dscfm	Qsd	10,522	10,559	10,561	10,547	--
Stack Temperature:*	°F	Ts	223	224	224	224	--
Gas Sample Volume	dscm	Vm,std	0.352	0.375	0.375	0.367	--
<u>Formaldehyde</u>							
Catch	ug	Cbcs,f	148	187	199	178	178
Mass Concentration:	mg/dscm	Cm,f	0.422	0.500	0.530	0.484	0.484
Volumetric Concentration:	ppmv	Cv,f	0.338	0.401	0.425	0.388	0.388
Mass Emission Rate:	lb/hr	Ef	0.0166	0.0198	0.0210	0.0191	0.0191
<u>Acetaldehyde</u>							
Catch	ug	Cbcs,a	58.6	60.5	102	73.8	73.8
Mass Concentration:	mg/dscm	Cm,a	0.167	0.161	0.273	0.200	0.200
Volumetric Concentration:	ppmv	Cv,a	0.0911	0.0882	0.149	0.109	0.109
Mass Emission Rate:	lb/hr	Ea	0.00657	0.00639	0.0108	0.00792	0.00792

* Measured during sampling per SCAQMD Methods 1-4.

TABLE 1-3. SUMMARY OF TEST RESULTS
CARB 429 (Polycyclic Aromatic Hydrocarbons)

Facility: Exide Technologies
City: Vernon, CA
Source: Feed Dryer

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/8-10/2010	--
Sampling Data*			
Stack Temperature	°F	220	--
Moisture	%	8.2	--
Sample Volume	dscf	332	--
Oxygen**	% v/v	18.3	--
Carbon Dioxide**	% v/v	1.2	--
Gas Velocity	ft/min	2,119	--
Stack Flow Rate	acfmin	14,979	--
Stack Flow Rate	dscfm	10,658	--
CARB Method 429, PAH CONCENTRATION			
Naphthalene	ug/dscm	336	336
2-Methylnaphthalene	ug/dscm	23.0	23.0
Acenaphthylene	ug/dscm	1.02	1.02
Acenaphthene	ug/dscm	0.127	0.127
Fluorene	ug/dscm	0.379	0.379
Phenanthrene	ug/dscm	3.14	3.14
Anthracene	ug/dscm	0.00907	0.00907
Fluoranthene	ug/dscm	0.776	0.776
Pyrene	ug/dscm	0.153	0.153
Benz(a)anthracene	ug/dscm	0.00219	0.00219
Chrysene	ug/dscm	0.131	0.131
Benzo(b)fluoranthene	ug/dscm	0.00478	0.00478
Benzo(k)fluoranthene	ug/dscm	< 0.00106	0
Benzo(e)pyrene	ug/dscm	0.00217	0.00217
Benzo(a)pyrene	ug/dscm	< 0.00106	0
Perylene	ug/dscm	< 0.00106	0
Indeno(1,2,3-cd)pyrene	ug/dscm	0.000763	0.000763
Dibenz(a,h)anthracene	ug/dscm	< 0.00106	0
Benzo(ghi)perylene	ug/dscm	< 0.00106	0
CARB Method 429, PAH MASS EMISSION RATE			
Naphthalene	lb/hr	1.34E-02	1.34E-02
2-Methylnaphthalene	lb/hr	9.16E-04	9.16E-04
Acenaphthylene	lb/hr	4.09E-05	4.09E-05
Acenaphthene	lb/hr	5.05E-06	5.05E-06
Fluorene	lb/hr	1.51E-05	1.51E-05
Phenanthrene	lb/hr	1.25E-04	1.25E-04
Anthracene	lb/hr	3.62E-07	3.62E-07
Fluoranthene	lb/hr	3.09E-05	3.09E-05
Pyrene	lb/hr	6.08E-06	6.08E-06
Benz(a)anthracene	lb/hr	8.75E-08	8.75E-08
Chrysene	lb/hr	5.21E-06	5.21E-06
Benzo(b)fluoranthene	lb/hr	1.91E-07	1.91E-07
Benzo(k)fluoranthene	lb/hr	< 4.25E-08	0
Benzo(e)pyrene	lb/hr	8.67E-08	8.67E-08
Benzo(a)pyrene	lb/hr	< 4.25E-08	0
Perylene	lb/hr	< 4.25E-08	0
Indeno(1,2,3-cd)pyrene	lb/hr	3.06E-08	3.06E-08
Dibenz(a,h)anthracene	lb/hr	< 4.25E-08	0
Benzo(ghi)perylene	lb/hr	< 4.25E-08	0

* Performed during isokinetic sampling (e.g. CARB Method 429).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - not detected, reporting limit reported.

TABLE 6-3. TEST RESULTS
CARB 429 (Polycyclic Aromatic Hydrocarbons)

Facility: Exide Technologies
City: Vernon, CA
Source: Feed Dryer

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	09/08/10	09/09/10	09/10/10	--	--
Test Time	h/m	7:50-16:08	7:35-15:54	8:50-17:11	--	--
Sampling Data*						
Stack Temperature	°F	219	225	217	220	--
Moisture	%	4.7	9.3	10.7	8.2	--
Sample Volume	dscf	326	336	334	332	--
Oxygen**	% v/v	18.4	18.5	18.1	18.3	--
Carbon Dioxide**	% v/v	1.2	1.1	1.3	1.2	--
Gas Velocity	ft/min	2,064	2,162	2,131	2,119	--
Stack Flow Rate	acfmin	14,589	15,281	15,065	14,979	--
Stack Flow Rate	dscfm	10,791	10,687	10,497	10,658	--
CARB Method 429, PAH CONCENTRATION						
Naphthalene	ug/dscm	Total 358	Total 228	Total 421	336	336
2-Methylnaphthalene	ug/dscm	25.3	16.4	27.3	23.0	23.0
Acenaphthylene	ug/dscm	1.43	0.724	0.912	1.02	1.02
Acenaphthene	ug/dscm	0.125	0.0823	0.173	0.127	0.127
Fluorene	ug/dscm	0.361	0.333	0.444	0.379	0.379
Phenanthrene	ug/dscm	2.45	2.99	3.97	3.14	3.14
Anthracene	ug/dscm	0.0111	0.00685	0.00930	0.00907	0.00907
Fluoranthene	ug/dscm	0.519	0.833	0.978	0.776	0.776
Pyrene	ug/dscm	0.117	0.154	0.186	0.153	0.153
Benz(a)anthracene	ug/dscm	0.00218	0.00252	0.00187	0.00219	0.00219
Chrysene	ug/dscm	0.100	0.131	0.161	0.131	0.131
Benzo(b)fluoranthene	ug/dscm	0.00434	0.00398	0.00604	0.00478	0.00478
Benzo(k)fluoranthene	ug/dscm	ND	0.00108	ND	0.00106	< 0.00106
Benzo(e)pyrene	ug/dscm	0.00215	0.00187	0.00251	0.00217	0.00217
Benzo(a)pyrene	ug/dscm	ND	0.00108	ND	0.00106	< 0.00106
Perylene	ug/dscm	ND	0.00108	ND	0.00106	< 0.00106
Indeno(1,2,3-cd)pyrene	ug/dscm	0.00124	ND	0.00105	ND	0.000763
Dibenz(a,h)anthracene	ug/dscm	ND	0.00108	ND	0.00106	< 0.00106
Benzo(ghi)perylene	ug/dscm	ND	0.00108	ND	0.00106	0
CARB Method 429, PAH MASS EMISSION RATE						
Naphthalene	lb/hr	Total 1.45E-02	Total 9.12E-03	Total 1.65E-02	1.34E-02	1.34E-02
2-Methylnaphthalene	lb/hr	1.02E-03	6.55E-04	1.07E-03	9.16E-04	9.16E-04
Acenaphthylene	lb/hr	5.79E-05	2.90E-05	3.59E-05	4.09E-05	4.09E-05
Acenaphthene	lb/hr	5.04E-06	3.29E-06	6.82E-06	5.05E-06	5.05E-06
Fluorene	lb/hr	1.46E-05	1.33E-05	1.75E-05	1.51E-05	1.51E-05
Phenanthrene	lb/hr	9.91E-05	1.20E-04	1.56E-04	1.25E-04	1.25E-04
Anthracene	lb/hr	4.47E-07	2.74E-07	3.66E-07	3.62E-07	3.62E-07
Fluoranthene	lb/hr	2.10E-05	3.33E-05	3.84E-05	3.09E-05	3.09E-05
Pyrene	lb/hr	4.74E-06	6.18E-06	7.31E-06	6.08E-06	6.08E-06
Benz(a)anthracene	lb/hr	8.81E-08	1.01E-07	7.36E-08	8.75E-08	8.75E-08
Chrysene	lb/hr	4.06E-06	5.25E-06	6.32E-06	5.21E-06	5.21E-06
Benzo(b)fluoranthene	lb/hr	1.75E-07	1.59E-07	2.37E-07	1.91E-07	1.91E-07
Benzo(k)fluoranthene	lb/hr	ND	4.38E-08	ND	4.16E-08	< 4.25E-08
Benzo(e)pyrene	lb/hr	8.68E-08	7.48E-08	9.85E-08	8.67E-08	8.67E-08
Benzo(a)pyrene	lb/hr	ND	4.38E-08	ND	4.16E-08	< 4.25E-08
Perylene	lb/hr	ND	4.38E-08	ND	4.16E-08	< 4.25E-08
Indeno(1,2,3-cd)pyrene	lb/hr	5.00E-08	ND	4.20E-08	ND	3.06E-08
Dibenz(a,h)anthracene	lb/hr	ND	4.38E-08	ND	4.16E-08	< 4.25E-08
Benzo(ghi)perylene	lb/hr	ND	4.38E-08	ND	4.16E-08	< 4.25E-08

* Performed during isokinetic sampling (e.g. CARB Method 429).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - not detected, reporting limit reported.

TABLE 1-4. SUMMARY OF TEST RESULTS
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Feed Dryer

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/8-10/2010	--
Sampling Data*			
Stack Temperature	°F	219	--
Moisture	%	9.5	--
Sample Volume	dscf	336	--
Oxygen**	% v/v	18.3	--
Carbon Dioxide**	% v/v	1.2	--
Gas Velocity	ft/min	2,152	--
Stack Flow Rate	acfm	15,211	--
Stack Flow Rate	dscfm	10,694	--
CARB Method 428			
CONCENTRATION			
2,3,7,8-TCDD	ug/dscm	2.24E-07	2.24E-07
1,2,3,7,8-PeCDD	ug/dscm	2.20E-07	2.20E-07
1,2,3,4,7,8-HxCDD	ug/dscm	< 3.98E-07	0
1,2,3,6,7,8-HxCDD	ug/dscm	< 4.00E-07	0
1,2,3,7,8,9-HxCDD	ug/dscm	< 3.63E-07	0
1,2,3,4,6,7,8,-HpCDD	ug/dscm	3.71E-07	3.71E-07
OCDD	ug/dscm	1.45E-06	1.45E-06
2,3,7,8-TCDF	ug/dscm	8.31E-06	8.31E-06
1,2,3,7,8-PeCDF	ug/dscm	2.33E-06	2.33E-06
2,3,4,7,8-PeCDF	ug/dscm	2.05E-06	2.05E-06
1,2,3,4,7,8-HxCDF	ug/dscm	9.97E-07	9.97E-07
1,2,3,6,7,8-HxCDF	ug/dscm	6.94E-07	6.94E-07
2,3,4,6,7,8-HxCDF	ug/dscm	2.71E-07	2.71E-07
1,2,3,7,8,9-HxCDF	ug/dscm	< 2.35E-07	0
1,2,3,4,6,7,8-HpCDF	ug/dscm	5.84E-07	5.84E-07
1,2,3,4,7,8,9-HpCDF	ug/dscm	< 6.21E-07	0
OCDF	ug/dscm	< 4.78E-07	0
TEQ (Min) as 2,3,7,8-TCDD	ug/dscm	1.95E-06	1.95E-06
Total TCDD	ug/dscm	7.87E-05	7.87E-05
Total PeCDD	ug/dscm	1.35E-05	1.35E-05
Total HxCDD	ug/dscm	2.20E-06	2.20E-06
Total HpCDD	ug/dscm	1.19E-06	1.19E-06
Total TCDF	ug/dscm	1.54E-04	1.54E-04
Total PeCDF	ug/dscm	3.96E-05	3.96E-05
Total HxCDF	ug/dscm	7.06E-06	7.06E-06
Total HpCDF	ug/dscm	5.84E-07	5.84E-07
PCBs			
Total monoCB	ug/dscm	3.28E-01	3.28E-01
Total diCB	ug/dscm	4.40E+00	4.40E+00
Total triCB	ug/dscm	8.22E+00	8.22E+00
Total tetraCB	ug/dscm	3.72E+00	3.72E+00
Total pentaCB	ug/dscm	2.50E-01	2.50E-01
Total hexaCB	ug/dscm	3.54E-02	3.54E-02
Total heptaCB	ug/dscm	6.80E-03	6.80E-03
Total octaCB	ug/dscm	1.11E-03	1.11E-03
Total nonaCB	ug/dscm	1.12E-04	1.12E-04
Total decaCB	ug/dscm	< 5.26E-05	0
Total PCBs, as MonoCB	ug/dscm	1.69E+01	1.69E+01

TABLE 1-4. SUMMARY OF TEST RESULTS, Continued
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies

City: Vernon, CA

Source: Feed Dryer

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/8-10/2010	--
CARB Method 428			
MASS EMISSION RATE			
2,3,7,8-TCDD	lb/hr	8.85E-12	8.85E-12
1,2,3,7,8-PeCDD	lb/hr	8.87E-12	8.87E-12
1,2,3,4,7,8-HxCDD	lb/hr	< 1.60E-11	0
1,2,3,6,7,8-HxCDD	lb/hr	< 1.61E-11	0
1,2,3,7,8,9-HxCDD	lb/hr	< 1.46E-11	0
1,2,3,4,6,7,8,-HpCDD	lb/hr	1.48E-11	1.48E-11
OCDD	lb/hr	5.81E-11	5.81E-11
2,3,7,8-TCDF	lb/hr	3.33E-10	3.33E-10
1,2,3,7,8-PeCDF	lb/hr	9.32E-11	9.32E-11
2,3,4,7,8-PeCDF	lb/hr	8.19E-11	8.19E-11
1,2,3,4,7,8-HxCDF	lb/hr	3.99E-11	3.99E-11
1,2,3,6,7,8-HxCDF	lb/hr	2.77E-11	2.77E-11
2,3,4,6,7,8-HxCDF	lb/hr	1.09E-11	1.09E-11
1,2,3,7,8,9-HxCDF	lb/hr	< 9.43E-12	0
1,2,3,4,6,7,8-HpCDF	lb/hr	2.33E-11	2.33E-11
1,2,3,4,7,8,9-HpCDF	lb/hr	< 2.48E-11	0
OCDF	lb/hr	< 1.92E-11	0
TEQ (Min) as 2,3,7,8-TCDD	lb/hr	7.80E-11	7.80E-11
Total TCDD	lb/hr	3.16E-09	3.16E-09
Total PeCDD	lb/hr	5.44E-10	5.44E-10
Total HxCDD	lb/hr	8.75E-11	8.75E-11
Total HpCDD	lb/hr	4.73E-11	4.73E-11
Total TCDF	lb/hr	6.16E-09	6.16E-09
Total PeCDF	lb/hr	1.59E-09	1.59E-09
Total HxCDF	lb/hr	2.82E-10	2.82E-10
Total HpCDF	lb/hr	2.33E-11	2.33E-11
PCBs			
Total monoCB	lb/hr	1.31E-05	1.31E-05
Total diCB	lb/hr	1.76E-04	1.76E-04
Total triCB	lb/hr	3.28E-04	3.28E-04
Total tetraCB	lb/hr	1.49E-04	1.49E-04
Total pentaCB	lb/hr	1.00E-05	1.00E-05
Total hexaCB	lb/hr	1.43E-06	1.43E-06
Total heptaCB	lb/hr	2.74E-07	2.74E-07
Total octaCB	lb/hr	4.47E-08	4.47E-08
Total nonaCB	lb/hr	4.50E-09	4.50E-09
Total decaCB	lb/hr	< 2.11E-09	0
Total PCBs, as MonoCB	lb/hr	6.77E-04	6.77E-04

* Performed during isokinetic sampling (e.g. CARB Method 428).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - not detected, reporting limit reported.

TEQ based on (2005) WHO Toxic Equivalent Factors (WHO).

TEQ (Min)-The "Min" indicates that a zero was used in the equation when an analyte was not detected.

**TABLE 6-4. TEST RESULTS
CARB 428 (Dioxins, Furans & PCBs)**

Facility: Exide Technologies
City: Vernon, CA
Source: Feed Dryer

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values			
Run Number	-	Run 1	Run 2	Run 3					
Test Date	m/d/y	09/08/10	09/09/10	09/10/10	--	--			
Test Time	h/m	7:50-16:08	7:35-15:54	8:50-17:11	--	--			
Sampling Data*									
Stack Temperature	°F	218	225	215	219	--			
Moisture	%	9.8	9.4	9.3	9.5	--			
Sample Volume	dscf	326	343	339	336	--			
Oxygen**	% v/v	18.4	18.5	18.1	18.3	--			
Carbon Dioxide**	% v/v	1.2	1.1	1.3	1.2	--			
Gas Velocity	ft/min	2,098	2,209	2,148	2,152	--			
Stack Flow Rate	acf m	14,831	15,617	15,184	15,211	--			
Stack Flow Rate	dscfm	10,400	10,897	10,785	10,694	--			
CARB Method 428									
CONCENTRATION									
2,3,7,8-TCDD	ug/dscm	J	4.10E-07	ND	1.98E-07	EMPC	3.25E-07	2.24E-07	2.24E-07
1,2,3,7,8-PeCDD	ug/dscm	ND	3.37E-07	J	3.22E-07	EMPC	3.41E-07	2.20E-07	2.20E-07
1,2,3,4,7,8-HxCDD	ug/dscm	ND	3.52E-07	ND	4.64E-07	ND	3.76E-07	< 3.98E-07	0
1,2,3,6,7,8-HxCDD	ug/dscm	ND	3.54E-07	ND	4.67E-07	ND	3.79E-07	< 4.00E-07	0
1,2,3,7,8,9-HxCDD	ug/dscm	ND	3.22E-07	ND	4.24E-07	ND	3.44E-07	< 3.63E-07	0
1,2,3,4,6,7,8,-HpCDD	ug/dscm	J,B	4.69E-07	J,B	3.02E-07	J,B	3.41E-07	3.71E-07	3.71E-07
OCDD	ug/dscm	J	1.56E-06	J	1.54E-06	J	1.25E-06	1.45E-06	1.45E-06
2,3,7,8-TCDF	ug/dscm		8.61E-06		8.52E-06		7.79E-06	8.31E-06	8.31E-06
1,2,3,7,8-PeCDF	ug/dscm	J	2.68E-06	J	2.14E-06	J	2.18E-06	2.33E-06	2.33E-06
2,3,4,7,8-PeCDF	ug/dscm	J	2.26E-06	J	1.94E-06	J	1.94E-06	2.05E-06	2.05E-06
1,2,3,4,7,8-HxCDF	ug/dscm	J	1.02E-06	J	9.66E-07	J	1.00E-06	9.97E-07	9.97E-07
1,2,3,6,7,8-HxCDF	ug/dscm	J	9.14E-07	J	7.95E-07	EMPC	7.45E-07	6.94E-07	6.94E-07
2,3,4,6,7,8-HxCDF	ug/dscm	EMPC	3.06E-07	J	3.29E-07	J	3.30E-07	2.71E-07	2.71E-07
1,2,3,7,8,9-HxCDF	ug/dscm	ND	2.37E-07	ND	2.63E-07	ND	2.06E-07	< 2.35E-07	0
1,2,3,4,6,7,8-HpCDF	ug/dscm	J,B	6.69E-07	J,B	4.20E-07	J,B	6.64E-07	5.84E-07	5.84E-07
1,2,3,4,7,8,9-HpCDF	ug/dscm	ND	7.94E-07	ND	5.19E-07	ND	5.50E-07	< 6.21E-07	0
OCDF	ug/dscm	ND	4.53E-07	ND	5.18E-07	ND	4.63E-07	< 4.78E-07	0
TEQ (Min) as 2,3,7,8-TCDD	ug/dscm		2.24E-06		2.04E-06		1.57E-06	1.95E-06	1.95E-06
Total TCDD	ug/dscm		7.42E-05		8.35E-05		7.85E-05	7.87E-05	7.87E-05
Total PeCDD	ug/dscm		1.03E-05		1.51E-05		1.52E-05	1.35E-05	1.35E-05
Total HxCDD	ug/dscm		3.38E-06		1.33E-06		1.90E-06	2.20E-06	2.20E-06
Total HpCDD	ug/dscm		1.60E-06		1.09E-06		8.72E-07	1.19E-06	1.19E-06
Total TCDF	ug/dscm		1.48E-04		1.59E-04		1.54E-04	1.54E-04	1.54E-04
Total PeCDF	ug/dscm		4.06E-05		3.89E-05		3.93E-05	3.96E-05	3.96E-05
Total HxCDF	ug/dscm		7.51E-06		7.20E-06		6.47E-06	7.06E-06	7.06E-06
Total HpCDF	ug/dscm		6.69E-07		4.20E-07		6.64E-07	5.84E-07	5.84E-07
PCBs									
Total monoCB	ug/dscm		0.322		0.345		0.317	0.328	0.328
Total diCB	ug/dscm		5.28		4.30		3.62	4.40	4.40
Total triCB	ug/dscm		10.21		8.02		6.43	8.22	8.22
Total tetraCB	ug/dscm		4.56		3.60		2.99	3.72	3.72
Total pentaCB	ug/dscm		0.219		0.278		0.254	0.250	0.250
Total hexaCB	ug/dscm		0.0209		0.0462		0.0391	0.0354	0.0354
Total heptaCB	ug/dscm		0.00356		0.00803		0.00879	0.00680	0.00680
Total octaCB	ug/dscm		0.000571		0.00103		0.00173	0.00111	0.00111
Total nonaCB	ug/dscm		0.0000705		0.0000594		0.000206	0.000112	0.000112
Total decaCB	ug/dscm	ND	0.00005	ND	0.00005	ND	0.00005	< 0.00005	0
Total PCBs, as MonoCB	ug/dscm		20.58		16.58		13.66	16.94	16.94

TABLE 6-4. TEST RESULTS, Continued
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
City: Vernon, CA
Source: Feed Dryer

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values			
Run Number	-	Run 1	Run 2	Run 3					
Test Date	m/d/y	09/08/10	09/09/10	09/10/10	--	--			
Test Time	h/m	7:50-16:08	7:35-15:54	8:50-17:11	--	--			
CARB Method 428									
MASS EMISSION RATE									
2,3,7,8-TCDD	lb/hr	J	1.60E-11	ND	8.07E-12	EMPC	1.31E-11	8.85E-12	8.85E-12
1,2,3,7,8-PeCDD	lb/hr	ND	1.31E-11	J	1.32E-11	EMPC	1.38E-11	8.87E-12	8.87E-12
1,2,3,4,7,8-HxCDD	lb/hr	ND	1.37E-11	ND	1.90E-11	ND	1.52E-11	< 1.60E-11	0
1,2,3,6,7,8-HxCDD	lb/hr	ND	1.38E-11	ND	1.91E-11	ND	1.53E-11	< 1.61E-11	0
1,2,3,7,8,9-HxCDD	lb/hr	ND	1.25E-11	ND	1.73E-11	ND	1.39E-11	< 1.46E-11	0
1,2,3,4,6,7,8,-HpCDD	lb/hr	J,B	1.83E-11	J,B	1.23E-11	J,B	1.38E-11	1.48E-11	1.48E-11
OCDD	lb/hr	J	6.08E-11	J	6.30E-11	J	5.05E-11	5.81E-11	5.81E-11
2,3,7,8-TCDF	lb/hr		3.35E-10		3.48E-10		3.15E-10	3.33E-10	3.33E-10
1,2,3,7,8-PeCDF	lb/hr	J	1.04E-10	J	8.74E-11	J	8.80E-11	9.32E-11	9.32E-11
2,3,4,7,8-PeCDF	lb/hr	J	8.82E-11	J	7.90E-11	J	7.83E-11	8.19E-11	8.19E-11
1,2,3,4,7,8-HxCDF	lb/hr	J	3.99E-11	J	3.94E-11	J	4.04E-11	3.99E-11	3.99E-11
1,2,3,6,7,8-HxCDF	lb/hr	J	3.56E-11	J	3.24E-11	EMPC	3.01E-11	2.77E-11	2.77E-11
2,3,4,6,7,8-HxCDF	lb/hr	EMPC	1.19E-11	J	1.34E-11	J	1.33E-11	1.09E-11	1.09E-11
1,2,3,7,8,9-HxCDF	lb/hr	ND	9.24E-12	ND	1.07E-11	ND	8.34E-12	< 9.43E-12	0
1,2,3,4,6,7,8-HpCDF	lb/hr	J,B	2.60E-11	J,B	1.72E-11	J,B	2.68E-11	2.33E-11	2.33E-11
1,2,3,4,7,8,9-HpCDF	lb/hr	ND	3.09E-11	ND	2.12E-11	ND	2.22E-11	< 2.48E-11	0
OCDF	lb/hr	ND	1.76E-11	ND	2.11E-11	ND	1.87E-11	< 1.92E-11	0
TEQ (Min) as 2,3,7,8-TCDD	lb/hr		8.73E-11		8.31E-11		6.35E-11	7.80E-11	7.80E-11
Total TCDD	lb/hr		2.89E-09		3.41E-09		3.17E-09	3.16E-09	3.16E-09
Total PeCDD	lb/hr		4.00E-10		6.18E-10		6.15E-10	5.44E-10	5.44E-10
Total HxCDD	lb/hr		1.32E-10		5.42E-11		7.67E-11	8.75E-11	8.75E-11
Total HpCDD	lb/hr		6.24E-11		4.45E-11		3.52E-11	4.73E-11	4.73E-11
Total TCDF	lb/hr		5.78E-09		6.47E-09		6.23E-09	6.16E-09	6.16E-09
Total PeCDF	lb/hr		1.58E-09		1.59E-09		1.59E-09	1.59E-09	1.59E-09
Total HxCDF	lb/hr		2.92E-10		2.94E-10		2.61E-10	2.82E-10	2.82E-10
Total HpCDF	lb/hr		2.60E-11		1.72E-11		2.68E-11	2.33E-11	2.33E-11
PCBs									
Total monoCB	lb/hr		1.25E-05		1.41E-05		1.28E-05	1.31E-05	1.31E-05
Total diCB	lb/hr		2.06E-04		1.76E-04		1.46E-04	1.76E-04	1.76E-04
Total triCB	lb/hr		3.98E-04		3.27E-04		2.60E-04	3.28E-04	3.28E-04
Total tetraCB	lb/hr		1.78E-04		1.47E-04		1.21E-04	1.49E-04	1.49E-04
Total pentaCB	lb/hr		8.52E-06		1.13E-05		1.03E-05	1.00E-05	1.00E-05
Total hexaCB	lb/hr		8.14E-07		1.89E-06		1.58E-06	1.43E-06	1.43E-06
Total heptaCB	lb/hr		1.39E-07		3.28E-07		3.55E-07	2.74E-07	2.74E-07
Total octaCB	lb/hr		2.22E-08		4.20E-08		6.99E-08	4.47E-08	4.47E-08
Total nonaCB	lb/hr		2.75E-09		2.42E-09		8.34E-09	4.50E-09	4.50E-09
Total decaCB	lb/hr	ND	2.11E-09	ND	2.10E-09	ND	2.11E-09	< 2.11E-09	0
Total PCBs, as MonoCB	lb/hr		8.02E-04		6.77E-04		5.52E-04	6.77E-04	6.77E-04

* Performed during isokinetic sampling (e.g. CARB Method 428).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - not detected, reporting limit reported.

B - Reagent blank corrected value.

J - The amount detected is below the Low Calibration Limit.

EMPC = Estimated Maximum Possible Concentration.

TEQ based on (2005) WHO Toxic Equivalent Factors (WHO).

TEQ (Min)-The "Min" indicates that a zero was used in the equation when an analyte was not detected.

TABLE 1-5. SUMMARY OF TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Feed Dryer

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/14,16 & 17/2010	--
<u>Sampling Data*</u>			
Stack Temperature	°F	217	--
Moisture	%	11.8	--
Sample Volume	dscf	309	--
Oxygen**	% v/v	18.1	--
Carbon Dioxide**	% v/v	1.4	--
Gas Velocity	ft/min	2,142	--
Stack Flow Rate	acfmin	15,138	--
Stack Flow Rate	dscfm	10,409	--
<u>CARB Method 425</u>			
<u>CONCENTRATION</u>			
Chromium VI	ug/dscm	0.0877	0.0877
<u>CARB Method 425</u>			
<u>MASS EMISSION RATE</u>			
Chromium VI	lb/hr	3.38E-06	3.38E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

TABLE 6-5. TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
City: Vernon, CA
Source: Feed Dryer

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	09/14/10	09/16/10	09/17/10	--	--
Test Time	h/m	7:09-16:02	7:00-16:00	05:43-14:10	--	--
Sampling Data*						
Stack Temperature	°F	227	215	209	217	--
Moisture	%	8.5	14.6	12.2	11.8	--
Sample Volume	dscf	308	311	309	309	--
Oxygen**	% v/v	17.3	18.3	18.7	18.1	--
Carbon Dioxide**	% v/v	1.4	1.4	1.3	1.4	--
Gas Velocity	ft/min	2,152	2,159	2,114	2,142	--
Stack Flow Rate	acf m	15,209	15,264	14,941	15,138	--
Stack Flow Rate	dscfm	10,694	10,197	10,335	10,409	--
CARB Method 425						
CONCENTRATION						
Chromium VI	ug/dscm	NDb	0.0286	0.103	0.145	0.0877
CARB Method 425						
MASS EMISSION RATE						
Chromium VI	lb/hr	NDb	1.15E-06	3.95E-06	5.63E-06	3.38E-06
						3.38E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 1-6. SUMMARY OF TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Feed Dryer

Test Date: 3/1/11

Parameter	Units	Average	AB2588/HRA Avg. Reporting Values
Sampling Conditions			
Standard Temperature, Tstd	deg.F	68	--
Standard Pressure, Pstd	in.Hg	29.92	--
Stack Gas Flow Rate *	DSCFM	10,250	--
Laboratory Data	Units	Average	
Acetone	ppbv	327	327
Benzene	ppbv	1,513	1,513
Benzyl Chloride	ppbv	< 9.53	0
Bromodichloromethane	ppbv	< 3.25	0
Bromoform	ppbv	< 3.25	0
Bromomethane	ppbv	5.37	5.37
1,3-Butadiene**	ppbv	195	195
2-Butanone	ppbv	43.3	43.3
Carbon Disulfide	ppbv	68.0	68.0
Carbon Tetrachloride	ppbv	< 3.25	0
Chlorobenzene	ppbv	< 3.25	0
Chloroethane	ppbv	< 3.25	0
Chloroform	ppbv	2.13	2.13
Chloromethane	ppbv	9.37	9.37
Dibromochloromethane	ppbv	< 3.25	0
Dichlorodifluoromethane	ppbv	< 3.25	0
1,1-Dichloroethane	ppbv	< 3.25	0
1,1-Dichloroethene	ppbv	1.83	1.83
1,2-Dibromoethane	ppbv	< 3.25	0
Dichlorotetrafluoroethane	ppbv	< 4.80	0
1,2-Dichlorobenzene	ppbv	< 3.25	0
1,2-Dichloroethane	ppbv	< 3.25	0
1,2-Dichloropropane	ppbv	< 3.25	0
1,3-Dichlorobenzene	ppbv	< 3.25	0
1,4-Dichlorobenzene	ppbv	< 3.25	0
1,4-Dioxane**	ppbv	< 2.00	0
c-1,3-Dichloropropene	ppbv	< 3.25	0
c-1,2-Dichloroethene	ppbv	< 3.25	0
t-1,2-Dichloroethene	ppbv	< 3.25	0
t-1,3-Dichloropropene	ppbv	< 6.37	0
Ethylbenzene	ppbv	8.63	8.63
4-Ethyltoluene	ppbv	< 3.25	0
Hexachloro-1,3-Butadiene	ppbv	< 9.53	0
2-Hexanone	ppbv	5.92	5.92
Methyl-t-Butyl Ether (MTBE)	ppbv	< 13.1	0
Methylene Chloride	ppbv	< 32.5	0
4-Methyl-2-Pentanone	ppbv	7.07	7.07
o-Xylene	ppbv	2.20	2.20
p/m-Xylene	ppbv	8.73	8.73
Styrene	ppbv	25.3	25.3
Tetrachloroethene	ppbv	< 3.25	0
Toluene	ppbv	82.0	82.0
Trichloroethene	ppbv	1.94	1.94
Trichlorofluoromethane	ppbv	< 6.37	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	ppbv	< 9.53	0
1,1,1-Trichloroethane	ppbv	< 3.25	0
1,1,2-Trichloroethane	ppbv	< 3.25	0
1,3,5-Trimethylbenzene	ppbv	< 3.25	0
1,1,2,2-Tetrachloroethane	ppbv	< 6.37	0
1,2,4-Trimethylbenzene	ppbv	< 9.53	0
1,2,4-Trichlorobenzene	ppbv	< 13.1	0
Vinyl Acetate	ppbv	30.9	30.9
Vinyl Chloride	ppbv	2.80	2.80

TABLE 1-6. SUMMARY OF TEST RESULTS, Continued
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Feed Dryer

Test Date: 3/1/11

Emissions Data	Units	Average	
Acetone	lb/hr	3.02E-02	3.02E-02
Benzene	lb/hr	1.88E-01	1.88E-01
Benzyl Chloride	lb/hr	< 1.95E-03	0
Bromodichloromethane	lb/hr	< 8.59E-04	0
Bromoform	lb/hr	< 1.33E-03	0
Bromomethane	lb/hr	8.09E-04	8.09E-04
1,3-Butadiene**	lb/hr	1.67E-02	1.67E-02
2-Butanone	lb/hr	4.98E-03	4.98E-03
Carbon Disulfide	lb/hr	8.26E-03	8.26E-03
Carbon Tetrachloride	lb/hr	< 8.07E-04	0
Chlorobenzene	lb/hr	< 5.90E-04	0
Chloroethane	lb/hr	< 3.38E-04	0
Chloroform	lb/hr	4.10E-04	4.10E-04
Chloromethane	lb/hr	7.53E-04	7.53E-04
Dibromochloromethane	lb/hr	< 1.09E-03	0
Dichlorodifluoromethane	lb/hr	< 6.34E-04	0
1,1-Dichloroethane	lb/hr	< 5.19E-04	0
1,1-Dichloroethene	lb/hr	2.85E-04	2.85E-04
1,2-Dibromoethane	lb/hr	< 9.85E-04	0
Dichlorotetrafluoroethane	lb/hr	< 1.32E-03	0
1,2-Dichlorobenzene	lb/hr	< 7.71E-04	0
1,2-Dichloroethane	lb/hr	< 5.19E-04	0
1,2-Dichloropropane	lb/hr	< 5.93E-04	0
1,3-Dichlorobenzene	lb/hr	< 7.71E-04	0
1,4-Dichlorobenzene	lb/hr	< 7.71E-04	0
1,4-Dioxane**	lb/hr	< 2.81E-04	0
c-1,3-Dichloropropene	lb/hr	< 5.82E-04	0
c-1,2-Dichloroethene	lb/hr	< 5.08E-04	0
t-1,2-Dichloroethene	lb/hr	< 5.08E-04	0
t-1,3-Dichloropropene	lb/hr	< 1.14E-03	0
Ethylbenzene	lb/hr	1.46E-03	1.46E-03
4-Ethyltoluene	lb/hr	< 6.30E-04	0
Hexachloro-1,3-Butadiene	lb/hr	< 4.02E-03	0
2-Hexanone	lb/hr	9.57E-04	9.57E-04
Methyl-t-Butyl Ether (MTBE)	lb/hr	< 1.86E-03	0
Methylene Chloride	lb/hr	< 4.46E-03	0
4-Methyl-2-Pentanone	lb/hr	1.14E-03	1.14E-03
o-Xylene	lb/hr	3.76E-04	3.76E-04
p/m-Xylene	lb/hr	1.49E-03	1.49E-03
Styrene	lb/hr	4.23E-03	4.23E-03
Tetrachloroethene	lb/hr	< 8.70E-04	0
Toluene	lb/hr	1.21E-02	1.21E-02
Trichloroethene	lb/hr	4.11E-04	4.11E-04
Trichlorofluoromethane	lb/hr	< 1.41E-03	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	lb/hr	< 2.89E-03	0
1,1,1-Trichloroethane	lb/hr	< 7.00E-04	0
1,1,2-Trichloroethane	lb/hr	< 7.00E-04	0
1,3,5-Trimethylbenzene	lb/hr	< 6.30E-04	0
1,1,2,2-Tetrachloroethane	lb/hr	< 1.73E-03	0
1,2,4-Trimethylbenzene	lb/hr	< 1.85E-03	0
1,2,4-Trichlorobenzene	lb/hr	< 3.83E-03	0
Vinyl Acetate	lb/hr	4.29E-03	4.29E-03
Vinyl Chloride	lb/hr	2.80E-04	2.80E-04

* Flow Rate determined by SCAQMD Methods 1-4.

** Analyzed via onsite GC using direct injection.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd} (\text{dscfh}) * \text{MW}_i / 385 / 1000000$$

TABLE 6-6. TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Feed Dryer

Test Date: 3/1/11

Parameter	Units	Data	Data	Data	Average	AB2588/HRA Avg. Reporting Values
Run Number		1	2	3		
Sampling Conditions						
Standard Temperature, Tstd	deg.F	68	68	68	68	--
Standard Pressure, Pstd	in.Hg	29.92	29.92	29.92	29.92	--
Stack Gas Flow Rate *	DSCFM	9,997	10,351	10,402	10,250	--
Laboratory Data						
Acetone	ppbv	380	290	310	327	327
Benzene	ppbv	2,300	840	1,400	1,513	1,513
Benzyl Chloride	ppbv	ND 2.3	ND 2.3	ND 24	< 9.53	0
Bromodichloromethane	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
Bromoform	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
Bromomethane	ppbv	7.8	4.2	ND 8.2	5.37	5.37
1,3-Butadiene**	ppbv	277	87.2	220	195	195
2-Butanone	ppbv	48	43	39	43.3	43.3
Carbon Disulfide	ppbv	79	52	73	68.0	68.0
Carbon Tetrachloride	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
Chlorobenzene	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
Chloroethane	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
Chloroform	ppbv	1.1	1.2	ND 8.2	2.13	2.13
Chloromethane	ppbv	12	6.7	9.4	9.37	9.37
Dibromochloromethane	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
Dichlorodifluoromethane	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
1,1-Dichloroethane	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
1,1-Dichloroethene	ppbv	0.99	ND 0.78	ND 8.2	1.83	1.83
1,2-Dibromoethane	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
Dichlorotetrafluoroethane	ppbv	ND 3.1	ND 3.1	ND 8.2	< 4.80	0
1,2-Dichlorobenzene	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
1,2-Dichloroethane	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
1,2-Dichloropropane	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
1,3-Dichlorobenzene	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
1,4-Dichlorobenzene	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
1,4-Dioxane**	ppbv	ND 2.00	ND 2.00	ND 2.00	< 2.00	0
c-1,3-Dichloropropene	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
c-1,2-Dichloroethene	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
t-1,2-Dichloroethene	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
t-1,3-Dichloropropene	ppbv	ND 1.5	ND 1.6	ND 16	< 6.37	0
Ethylbenzene	ppbv	8.3	8.3	9.3	8.63	8.63
4-Ethyltoluene	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
Hexachloro-1,3-Butadiene	ppbv	ND 2.3	ND 2.3	ND 24	< 9.53	0
2-Hexanone	ppbv	ND 2.3	4.6	ND 24	5.92	5.92
Methyl-t-Butyl Ether (MTBE)	ppbv	ND 3.1	ND 3.1	ND 33	< 13.1	0
Methylene Chloride	ppbv	ND 7.6	ND 7.8	ND 82	< 32.5	0
4-Methyl-2-Pentanone	ppbv	3.9	5.3	ND 24	7.07	7.07
o-Xylene	ppbv	1.1	1.4	ND 8.2	2.20	2.20
p/m-Xylene	ppbv	4.4	5.3	ND 33	8.73	8.73
Styrene	ppbv	20	12	44	25.3	25.3
Tetrachloroethene	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
Toluene	ppbv	91	64	91	82.0	82.0
Trichloroethene	ppbv	0.86	0.87	ND 8.2	1.94	1.94
Trichlorofluoromethane	ppbv	ND 1.5	ND 1.6	ND 16	< 6.37	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	ppbv	ND 2.3	ND 2.3	ND 24	< 9.53	0
1,1,1-Trichloroethane	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
1,1,2-Trichloroethane	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
1,3,5-Trimethylbenzene	ppbv	ND 0.76	ND 0.78	ND 8.2	< 3.25	0
1,1,2,2-Tetrachloroethane	ppbv	ND 1.5	ND 1.6	ND 16	< 6.37	0
1,2,4-Trimethylbenzene	ppbv	ND 2.3	ND 2.3	ND 24	< 9.53	0
1,2,4-Trichlorobenzene	ppbv	ND 3.1	ND 3.1	ND 33	< 13.1	0
Vinyl Acetate	ppbv	ND 3.1	36	55	30.9	30.9
Vinyl Chloride	ppbv	2.9	1.4	ND 8.2	2.80	2.80

TABLE 6-6. TEST RESULTS
EPA TO-15 (Volatile Organic Compounds), Continued

Facility: Exide Technologies

City: Vernon, CA

Source: Feed Dryer

Test Date: 3/1/11

Parameter	Units	Data	Data	Data	Average	AB2588/HRA Avg. Reporting Values
Run Number		1	2	3		
Emissions Data	Units	1	2	3	Average	
Acetone	lb/hr	3.44E-02	2.72E-02	2.92E-02	3.02E-02	3.02E-02
Benzene	lb/hr	2.80E-01	1.06E-01	1.77E-01	1.88E-01	1.88E-01
Benzyl Chloride	lb/hr	ND	4.54E-04	ND	4.92E-03	< 1.95E-03
Bromodichloromethane	lb/hr	ND	1.94E-04	ND	2.06E-04	ND
Bromoform	lb/hr	ND	2.99E-04	ND	3.18E-04	ND
Bromomethane	lb/hr		1.15E-03	6.43E-04	ND	1.26E-03
1,3-Butadiene**	lb/hr		2.33E-02	7.61E-03	1.93E-02	1.67E-02
2-Butanone	lb/hr		5.39E-03	5.00E-03	4.56E-03	4.98E-03
Carbon Disulfide	lb/hr		9.37E-03	6.39E-03	9.01E-03	8.26E-03
Carbon Tetrachloride	lb/hr	ND	1.82E-04	ND	1.94E-04	ND
Chlorobenzene	lb/hr	ND	1.33E-04	ND	1.42E-04	ND
Chloroethane	lb/hr	ND	7.64E-05	ND	8.12E-05	ND
Chloroform	lb/hr		2.05E-04	2.31E-04	ND	1.59E-03
Chloromethane	lb/hr		9.44E-04	5.46E-04	7.69E-04	7.53E-04
Dibromochloromethane	lb/hr	ND	2.47E-04	ND	2.62E-04	ND
Dichlorodifluoromethane	lb/hr	ND	1.43E-04	ND	1.52E-04	ND
1,1-Dichloroethane	lb/hr	ND	1.17E-04	ND	1.25E-04	ND
1,1-Dichloroethene	lb/hr		1.50E-04	ND	1.22E-04	ND
1,2-Dibromoethane	lb/hr	ND	2.22E-04	ND	2.36E-04	ND
Dichlorotetrafluoroethane	lb/hr	ND	8.26E-04	ND	8.55E-04	ND
1,2-Dichlorobenzene	lb/hr	ND	1.74E-04	ND	1.85E-04	ND
1,2-Dichloroethane	lb/hr	ND	1.17E-04	ND	1.25E-04	ND
1,2-Dichloropropane	lb/hr	ND	1.34E-04	ND	1.42E-04	ND
1,3-Dichlorobenzene	lb/hr	ND	1.74E-04	ND	1.85E-04	ND
1,4-Dichlorobenzene	lb/hr	ND	1.74E-04	ND	1.85E-04	ND
1,4-Dioxane**	lb/hr	ND	2.75E-04	ND	2.84E-04	ND
c-1,3-Dichloropropene	lb/hr	ND	1.31E-04	ND	1.40E-04	ND
c-1,2-Dichloroethene	lb/hr	ND	1.15E-04	ND	1.22E-04	ND
t-1,2-Dichloroethene	lb/hr	ND	1.15E-04	ND	1.22E-04	ND
t-1,3-Dichloropropene	lb/hr	ND	2.59E-04	ND	2.86E-04	ND
Ethylbenzene	lb/hr		1.37E-03	1.42E-03	1.60E-03	1.46E-03
4-Ethyltoluene	lb/hr	ND	1.42E-04	ND	1.51E-04	ND
Hexachloro-1,3-Butadiene	lb/hr	ND	9.34E-04	ND	9.68E-04	ND
2-Hexanone	lb/hr	ND	3.59E-04	ND	7.43E-04	ND
Methyl-t-Butyl Ether (MTBE)	lb/hr	ND	4.26E-04	ND	4.41E-04	ND
Methylene Chloride	lb/hr	ND	1.01E-03	ND	1.07E-03	ND
4-Methyl-2-Pentanone	lb/hr		6.09E-04	8.56E-04	ND	3.90E-03
o-Xylene	lb/hr		1.82E-04	2.40E-04	ND	1.41E-03
p/m-Xylene	lb/hr		7.28E-04	9.08E-04	ND	5.68E-03
Styrene	lb/hr		3.25E-03	2.02E-03	7.43E-03	4.23E-03
Tetrachloroethene	lb/hr	ND	1.96E-04	ND	2.09E-04	ND
Toluene	lb/hr		1.31E-02	9.51E-03	1.36E-02	1.21E-02
Trichloroethene	lb/hr		1.76E-04	1.84E-04	ND	1.75E-03
Trichlorofluoromethane	lb/hr	ND	3.21E-04	ND	3.55E-04	ND
1,1,2-Trichloro-1,2,2-Trifluoroethane	lb/hr	ND	6.71E-04	ND	6.95E-04	ND
1,1,1-Trichloroethane	lb/hr	ND	1.58E-04	ND	1.68E-04	ND
1,1,2-Trichloroethane	lb/hr	ND	1.58E-04	ND	1.68E-04	ND
1,3,5-Trimethylbenzene	lb/hr	ND	1.42E-04	ND	1.51E-04	ND
1,1,2,2-Tetrachloroethane	lb/hr	ND	3.92E-04	ND	4.33E-04	ND
1,2,4-Trimethylbenzene	lb/hr	ND	4.31E-04	ND	4.46E-04	ND
1,2,4-Trichlorobenzene	lb/hr	ND	8.76E-04	ND	9.07E-04	ND
Vinyl Acetate	lb/hr	ND	4.16E-04	5.00E-03	7.68E-03	4.29E-03
Vinyl Chloride	lb/hr		2.82E-04	1.41E-04	ND	8.31E-04

* Flow Rate determined by SCAQMD Methods 1-4.

** Analyzed via onsite GC using direct injection.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

lb/hr = (ppbv/1000)*Qsd (dscfh)*MWi/385/1000000

SECTION II

NEPTUNE SCRUBBER

TABLE 1-1. SUMMARY OF TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/8-10/2010	--
Sampling Data*			
Stack Temperature	°F	139	--
Moisture	%	17.2	--
Sample Volume	dscf	320	--
Oxygen**	% v/v	16.5	--
Carbon Dioxide**	% v/v	4.5	--
Gas Velocity	ft/min	2,195	--
Stack Flow Rate	acfm	24,784	--
Stack Flow Rate	dscfm	18,059	--
CARB Method 436 CONCENTRATION			
Aluminum	ug/dscm	38.0	38.0
Antimony	ug/dscm	0.0940	0.0940
Arsenic	ug/dscm	0.0605	0.0605
Barium	ug/dscm	0.250	0.250
Beryllium	ug/dscm	0.0553	0
Cadmium	ug/dscm	0.0694	0.0694
Chromium	ug/dscm	0.0958	0.0958
Cobalt	ug/dscm	0.0416	0.0416
Copper	ug/dscm	0.267	0.267
Lead	ug/dscm	2.59	2.59
Manganese	ug/dscm	0.0221	0
Mercury	ug/dscm	1.90	1.90
Nickel	ug/dscm	0.711	0.711
Phosphorus	ug/dscm	4.25	4.25
Selenium	ug/dscm	0.191	0.191
Silver	ug/dscm	0.0221	0
Thallium	ug/dscm	0.0221	0
Vanadium	ug/dscm	0.111	0
Zinc	ug/dscm	1.60	1.60
Iron	ug/dscm	5.57	5.57
CARB Method 436 MASS EMISSION RATE			
Aluminum	lb/hr	2.53E-03	2.53E-03
Antimony	lb/hr	6.39E-06	6.39E-06
Arsenic	lb/hr	4.13E-06	4.13E-06
Barium	lb/hr	1.69E-05	1.69E-05
Beryllium	lb/hr	3.74E-06	0
Cadmium	lb/hr	4.67E-06	4.67E-06
Chromium	lb/hr	6.46E-06	6.46E-06
Cobalt	lb/hr	2.80E-06	2.80E-06
Copper	lb/hr	1.81E-05	1.81E-05
Lead	lb/hr	1.75E-04	1.75E-04
Manganese	lb/hr	1.49E-06	0
Mercury	lb/hr	1.27E-04	1.27E-04
Nickel	lb/hr	4.77E-05	4.77E-05
Phosphorus	lb/hr	2.89E-04	2.89E-04
Selenium	lb/hr	1.31E-05	1.31E-05
Silver	lb/hr	1.49E-06	0
Thallium	lb/hr	1.49E-06	0
Vanadium	lb/hr	7.47E-06	0
Zinc	lb/hr	1.08E-04	1.08E-04
Iron	lb/hr	3.78E-04	3.78E-04

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - Not detected, reporting limit reported.

**TABLE 6-1. TEST RESULTS
CARB 436 (Multiple Metals)**

Facility: Exide Technologies
City: Vernon, CA
Source: Neptune Scrubber

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	Run 1	Run 2	Run 3		
Test Date	m/d/y	09/08/11	09/09/10	09/10/10	--	--
Test Time	h/m	8:25-16:45	8:06-16:29	5:37-14:09	--	--
Sampling Data*						
Stack Temperature	°F	138	141	139	139	--
Moisture	%	15.3	18.0	18.3	17.2	--
Sample Volume	dscf	299	337	325	320	--
Oxygen**	% v/v	16.6	16.7	16.2	16.5	--
Carbon Dioxide**	% v/v	4.5	3.8	5.1	4.5	--
Gas Velocity	ft/min	2,135	2,274	2,176	2,195	--
Stack Flow Rate	acfmin	24,104	25,680	24,567	24,784	--
Stack Flow Rate	dscfm	18,002	18,487	17,688	18,059	--
CARB Method 436						
CONCENTRATION		Total	Total	Total		
Aluminum	ug/dscm	11.1	10.5	92.3	38.0	38.0
Antimony	ug/dscm	0.070	0.136	0.0760	0.0940	0.0940
Arsenic	ug/dscm	NDb	0.024	0.0587	0.0605	0.0605
Barium	ug/dscm	0.366	0.220	0.163	0.250	0.250
Beryllium	ug/dscm	ND	0.059	0.0524	ND	< 0.0553
Cadmium	ug/dscm	0.082	0.0367	0.0902	0.0694	0.0694
Chromium	ug/dscm	0.0945	0.0734	0.119	0.0958	0.0958
Cobalt	ug/dscm	0.063	0.0241	0.0380	0.0416	0.0416
Copper	ug/dscm	0.343	0.231	0.228	0.267	0.267
Lead	ug/dscm	2.77	2.88	2.11	2.59	2.59
Manganese	ug/dscm	NDb	0.0236	NDb	0.0217	< 0.0221
Mercury	ug/dscm	1.30	0.922	3.48	1.90	1.90
Nickel	ug/dscm	0.732	0.314	1.09	0.711	0.711
Phosphorus	ug/dscm	3.19	5.55	4.02	4.25	4.25
Selenium	ug/dscm	ND	0.0236	0.388	0.174	0.191
Silver	ug/dscm	ND	0.0236	ND	0.0217	< 0.0221
Thallium	ug/dscm	ND	0.0236	ND	0.0217	< 0.0221
Vanadium	ug/dscm	ND	0.118	ND	0.109	< 0.111
Zinc	ug/dscm	1.25	1.32	2.24	1.60	1.60
Iron	ug/dscm	NDb	3.19	8.49	6.63	5.57
CARB Method 436						
MASS EMISSION RATE		Total	Total	Total		
Aluminum	lb/hr	7.49E-04	7.26E-04	6.12E-03	2.53E-03	2.53E-03
Antimony	lb/hr	4.70E-06	9.43E-06	5.04E-06	6.39E-06	6.39E-06
Arsenic	lb/hr	NDb	1.59E-06	7.69E-06	4.13E-06	4.13E-06
Barium	lb/hr	2.47E-05	1.52E-05	1.08E-05	1.69E-05	1.69E-05
Beryllium	lb/hr	ND	3.98E-06	3.63E-06	ND	< 3.74E-06
Cadmium	lb/hr	5.50E-06	2.54E-06	5.97E-06	4.67E-06	4.67E-06
Chromium	lb/hr	6.37E-06	5.08E-06	7.92E-06	6.46E-06	6.46E-06
Cobalt	lb/hr	4.22E-06	1.67E-06	2.52E-06	2.80E-06	2.80E-06
Copper	lb/hr	2.31E-05	1.60E-05	1.51E-05	1.81E-05	1.81E-05
Lead	lb/hr	1.87E-04	1.99E-04	1.40E-04	1.75E-04	1.75E-04
Manganese	lb/hr	NDb	1.59E-06	NDb	1.44E-06	< 1.49E-06
Mercury	lb/hr	8.77E-05	6.39E-05	2.30E-04	1.27E-04	1.27E-04
Nickel	lb/hr	4.94E-05	2.18E-05	7.20E-05	4.77E-05	4.77E-05
Phosphorus	lb/hr	2.15E-04	3.85E-04	2.66E-04	2.89E-04	2.89E-04
Selenium	lb/hr	ND	1.59E-06	2.69E-05	1.15E-05	1.31E-05
Silver	lb/hr	ND	1.59E-06	ND	1.44E-06	< 1.49E-06
Thallium	lb/hr	ND	1.59E-06	ND	1.44E-06	< 1.49E-06
Vanadium	lb/hr	ND	7.97E-06	ND	7.20E-06	< 7.47E-06
Zinc	lb/hr	8.44E-05	9.14E-05	1.48E-04	1.08E-04	1.08E-04
Iron	lb/hr	NDb	2.15E-04	5.88E-04	4.39E-04	3.78E-04

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - Not detected, reporting limit reported.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 1-2. SUMMARY OF TEST RESULTS**CARB 430 (Formaldehyde and Acetaldehyde)**

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Neptune Scrubber

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/21-22/2011	--
<u>Sampling Data:</u>			
Stack Flow Rate:*	dscfm	18,386	--
Stack Temperature:*	°F	134	--
Gas Sample Volume	dscm	0.245	--
<u>Formaldehyde</u>			
Catch	ug	3.11	3.11
Mass Concentration:	mg/dscm	0.0127	0.0127
Volumetric Concentration:	ppmv	0.0102	0.0102
Mass Emission Rate:	lb/hr	0.000876	0.000876
<u>Acetaldehyde</u>			
Catch	ug	RL 1.26	RL 1.26
Mass Concentration:	mg/dscm	RL 0.00513	RL 0.00513
Volumetric Concentration:	ppmv	RL 0.00280	RL 0.00280
Mass Emission Rate:	lb/hr	RL 0.000354	RL 0.000354

* Measured during sampling per SCAQMD Methods 1-4.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

**TABLE 6-2. SUMMARY OF TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)**

Facility: Exide Technologies
City: Vernon, CA
Unit: Neptune Scrubber

Test Data	Units	Symbol	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	--	Run 1	Run 2	Run 3	--	--
Test Date	m/d/y	--	09/21/11	09/22/11	09/22/11	--	--
Time:	h:m	--	9:45 - 13:45	6:42 - 10:42	11:10 - 15:10	--	--
<u>Sampling Data:</u>							
Stack Flow Rate.*	dscfm	Qsd	18,487	18,467	18,205	18,386	--
Stack Temperature*	°F	Ts	135.0	132.5	135.3	134	--
Gas Sample Volume	dscm	Vm,std	0.247	0.244	0.243	0.245	--
<u>Formaldehyde</u>	<u>units</u>	<u>Symbol</u>					
Catch	ug	Cbcs,f	RL 3.12	3.09	RL 3.12	3.11	3.11
Mass Concentration:	mg/dscm	Cm,f	RL 0.0127	0.0126	RL 0.0128	0.0127	0.0127
Volumetric Concentration:	ppmv	Cv,f	RL 0.0101	0.0101	RL 0.0103	0.0102	0.0102
Mass Emission Rate:	lb/hr	Ef	RL 0.000877	0.000875	RL 0.000875	0.000876	0.000876
<u>Acetaldehyde</u>	<u>units</u>	<u>Symbol</u>					
Catch	ug	Cbcs,a	RL 1.26	RL 1.26	RL 1.26	RL 1.26	RL 1.26
Mass Concentration:	mg/dscm	Cm,a	RL 0.00509	0.00514	RL 0.00516	0.00513	0.00513
Volumetric Concentration:	ppmv	Cv,a	RL 0.00278	0.00281	RL 0.00282	0.00280	0.00280
Mass Emission Rate:	lb/hr	Ea	RL 0.000353	0.000356	RL 0.000352	0.000354	0.000354

* Measured during sampling per SCAQMD Methods 1-4.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

TABLE 1-3. SUMMARY OF TEST RESULTS
CARB 429 (Polycyclic Aromatic Hydrocarbons)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/1-3/2010	--
Sampling Data*			
Stack Temperature	°F	142	--
Moisture	%	16.7	--
Sample Volume	dscf	334	--
Oxygen**	% v/v	18.4	--
Carbon Dioxide**	% v/v	2.3	--
Gas Velocity	ft/min	2,257	--
Stack Flow Rate	acfmin	25,487	--
Stack Flow Rate	dscfm	18,593	--
CARB Method 429, PAH CONCENTRATION			
Naphthalene	ug/dscm	0.238	0.238
2-Methylnaphthalene	ug/dscm	0.0772	0.0772
Acenaphthylene	ug/dscm	0.00508	0.00508
Acenaphthene	ug/dscm	0.0103	0.0103
Fluorene	ug/dscm	0.0394	0.0394
Phenanthrene	ug/dscm	0.115	0.115
Anthracene	ug/dscm	0.00425	0.00425
Fluoranthene	ug/dscm	0.0690	0.0690
Pyrene	ug/dscm	0.0468	0.0468
Benz(a)anthracene	ug/dscm	0.00442	0.00442
Chrysene	ug/dscm	0.0316	0.0316
Benzo(b)fluoranthene	ug/dscm	0.0180	0.0180
Benzo(k)fluoranthene	ug/dscm	0.00693	0.00693
Benzo(e)pyrene	ug/dscm	0.0151	0.0151
Benzo(a)pyrene	ug/dscm	0.00275	0.00275
Perylene	ug/dscm	< 0.00106	0
Indeno(1,2,3-cd)pyrene	ug/dscm	0.00891	0.00891
Dibenz(a,h)anthracene	ug/dscm	< 0.00106	0
Benzo(ghi)perylene	ug/dscm	0.0109	0.0109
CARB Method 429, PAH MASS EMISSION RATE			
Naphthalene	lb/hr	1.66E-05	1.66E-05
2-Methylnaphthalene	lb/hr	5.37E-06	5.37E-06
Acenaphthylene	lb/hr	3.55E-07	3.55E-07
Acenaphthene	lb/hr	7.22E-07	7.22E-07
Fluorene	lb/hr	2.75E-06	2.75E-06
Phenanthrene	lb/hr	8.06E-06	8.06E-06
Anthracene	lb/hr	2.98E-07	2.98E-07
Fluoranthene	lb/hr	4.83E-06	4.83E-06
Pyrene	lb/hr	3.28E-06	3.28E-06
Benz(a)anthracene	lb/hr	3.09E-07	3.09E-07
Chrysene	lb/hr	2.21E-06	2.21E-06
Benzo(b)fluoranthene	lb/hr	1.27E-06	1.27E-06
Benzo(k)fluoranthene	lb/hr	4.86E-07	4.86E-07
Benzo(e)pyrene	lb/hr	1.06E-06	1.06E-06
Benzo(a)pyrene	lb/hr	1.93E-07	1.93E-07
Perylene	lb/hr	< 7.36E-08	0
Indeno(1,2,3-cd)pyrene	lb/hr	6.26E-07	6.26E-07
Dibenz(a,h)anthracene	lb/hr	< 7.36E-08	0
Benzo(ghi)perylene	lb/hr	7.63E-07	7.63E-07

* Performed during isokinetic sampling (e.g. CARB Method 429).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - not detected, reporting limit reported.

TABLE 6-3. TEST RESULTS
CARB 429 (Polycyclic Aromatic Hydrocarbons)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3	--	--
Test Date	m/d/y	09/01/10	09/02/10	09/03/10	--	--
Test Time	h/m	7:45-16:02	7:30-15:50	7:50-16:05	--	--
Sampling Data*						
Stack Temperature	°F	142	143	142	142	--
Moisture	%	15.6	17.1	17.4	16.7	--
Sample Volume	dscf	337	333	332	334	--
Oxygen**	% v/v	18.0	17.3	19.9	18.4	--
Carbon Dioxide**	% v/v	2.7	3.8	0.3	2.3	--
Gas Velocity	ft/min	2,270	2,249	2,253	2,257	--
Stack Flow Rate	acfmin	25,633	25,394	25,435	25,487	--
Stack Flow Rate	dscfm	18,949	18,392	18,437	18,593	--
CARB Method 429, PAH CONCENTRATION						
		Total	Total	Total		
Naphthalene	ug/dscm	0.240	0.212	0.262	0.238	0.238
2-Methylnaphthalene	ug/dscm	0.0682	0.0749	0.0885	0.0772	0.0772
Acenaphthylene	ug/dscm	0.00586	0.00325	0.00615	0.00508	0.00508
Acenaphthene	ug/dscm	0.0134	0.00952	0.00807	0.0103	0.0103
Fluorene	ug/dscm	0.0508	0.0375	0.0300	0.0394	0.0394
Phenanthrene	ug/dscm	0.181	0.0918	0.0722	0.115	0.115
Anthracene	ug/dscm	0.00663	0.00324	0.00289	0.00425	0.00425
Fluoranthene	ug/dscm	0.0953	0.0609	0.0509	0.0690	0.0690
Pyrene	ug/dscm	0.0685	0.0453	0.0267	0.0468	0.0468
Benz(a)anthracene	ug/dscm	0.00625	0.00414	0.00288	0.00442	0.00442
Chrysene	ug/dscm	0.0436	0.0293	0.0220	0.0316	0.0316
Benzo(b)fluoranthene	ug/dscm	0.0331	0.0138	0.00721	0.0180	0.0180
Benzo(k)fluoranthene	ug/dscm	0.0122	0.00540	0.00324	0.00693	0.00693
Benzo(e)pyrene	ug/dscm	0.0268	0.0123	0.00615	0.0151	0.0151
Benzo(a)pyrene	ug/dscm	0.00554	0.00217	ND	0.00275	0.00275
Perylene	ug/dscm	ND	0.00105	ND	0.00106 < 0.00106	0
Indeno(1,2,3-cd)pyrene	ug/dscm	0.0167	0.00657	ND	0.00351 < 0.00106	0.00891 0
Dibenz(a,h)anthracene	ug/dscm	ND	0.00105	ND	0.00106 < 0.00106	0.0109 0.0109
Benzo(ghi)perylene	ug/dscm	0.0205	0.00803	ND	0.00404	
CARB Method 429, PAH MASS EMISSION RATE						
		Total	Total	Total		
Naphthalene	lb/hr	1.70E-05	1.46E-05	1.81E-05	1.66E-05	1.66E-05
2-Methylnaphthalene	lb/hr	4.84E-06	5.16E-06	6.11E-06	5.37E-06	5.37E-06
Acenaphthylene	lb/hr	4.16E-07	2.24E-07	4.25E-07	3.55E-07	3.55E-07
Acenaphthene	lb/hr	9.52E-07	6.56E-07	5.57E-07	7.22E-07	7.22E-07
Fluorene	lb/hr	3.61E-06	2.58E-06	2.07E-06	2.75E-06	2.75E-06
Phenanthrene	lb/hr	1.29E-05	6.32E-06	4.99E-06	8.06E-06	8.06E-06
Anthracene	lb/hr	4.71E-07	2.23E-07	2.00E-07	2.98E-07	2.98E-07
Fluoranthene	lb/hr	6.77E-06	4.20E-06	3.51E-06	4.83E-06	4.83E-06
Pyrene	lb/hr	4.86E-06	3.12E-06	1.84E-06	3.28E-06	3.28E-06
Benz(a)anthracene	lb/hr	4.44E-07	2.85E-07	1.99E-07	3.09E-07	3.09E-07
Chrysene	lb/hr	3.09E-06	2.02E-06	1.52E-06	2.21E-06	2.21E-06
Benzo(b)fluoranthene	lb/hr	2.35E-06	9.51E-07	4.98E-07	1.27E-06	1.27E-06
Benzo(k)fluoranthene	lb/hr	8.62E-07	3.72E-07	2.24E-07	4.86E-07	4.86E-07
Benzo(e)pyrene	lb/hr	1.90E-06	8.48E-07	4.25E-07	1.06E-06	1.06E-06
Benzo(a)pyrene	lb/hr	3.93E-07	1.49E-07	ND	7.34E-08 1.93E-07	1.93E-07
Perylene	lb/hr	ND	7.44E-08	ND	7.34E-08 < 7.36E-08	0
Indeno(1,2,3-cd)pyrene	lb/hr	1.18E-06	4.53E-07	ND	2.42E-07 6.26E-07	6.26E-07
Dibenz(a,h)anthracene	lb/hr	ND	7.44E-08	ND	7.34E-08 < 7.36E-08	0
Benzo(ghi)perylene	lb/hr	1.46E-06	5.53E-07	ND	2.79E-07 7.63E-07	7.63E-07

* Performed during isokinetic sampling (e.g. CARB Method 429).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - not detected, reporting limit reported.

TABLE 1-4. SUMMARY OF TEST RESULTS
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/1/3/2010	--
Sampling Data*			
Stack Temperature	°F	140	--
Moisture	%	15.5	--
Sample Volume	dscf	338	--
Oxygen**	% v/v	18.4	--
Carbon Dioxide**	% v/v	2.3	--
Gas Velocity	ft/min	2,266	--
Stack Flow Rate	acfm	25,591	--
Stack Flow Rate	dscfm	19,022	--
CARB Method 428			
CONCENTRATION			
2,3,7,8-TCDD	ug/dscm	2.50E-07	2.50E-07
1,2,3,7,8-PeCDD	ug/dscm	3.45E-07	3.45E-07
1,2,3,4,7,8-HxCDD	ug/dscm	1.87E-07	1.87E-07
1,2,3,6,7,8-HxCDD	ug/dscm	2.59E-07	2.59E-07
1,2,3,7,8,9-HxCDD	ug/dscm	1.74E-07	1.74E-07
1,2,3,4,6,7,8,-HpCDD	ug/dscm	3.91E-07	3.91E-07
OCDD	ug/dscm	1.45E-06	1.45E-06
2,3,7,8-TCDF	ug/dscm	9.36E-06	9.36E-06
1,2,3,7,8-PeCDF	ug/dscm	1.02E-05	1.02E-05
2,3,4,7,8-PeCDF	ug/dscm	7.82E-06	7.82E-06
1,2,3,4,7,8-HxCDF	ug/dscm	3.35E-06	3.35E-06
1,2,3,6,7,8-HxCDF	ug/dscm	3.84E-06	3.84E-06
2,3,4,6,7,8-HxCDF	ug/dscm	1.86E-06	1.86E-06
1,2,3,7,8,9-HxCDF	ug/dscm	4.54E-07	4.54E-07
1,2,3,4,6,7,8-HpCDF	ug/dscm	2.18E-06	2.18E-06
1,2,3,4,7,8,9-HpCDF	ug/dscm	2.24E-07	2.24E-07
OCDF	ug/dscm	2.53E-07	2.53E-07
TEQ (Min) as 2,3,7,8-TCDD	ug/dscm	4.97E-06	4.97E-06
Total TCDD	ug/dscm	1.61E-05	1.61E-05
Total PeCDD	ug/dscm	6.82E-06	6.82E-06
Total HxCDD	ug/dscm	3.44E-06	3.44E-06
Total HpCDD	ug/dscm	1.33E-06	1.33E-06
Total TCDF	ug/dscm	2.77E-04	2.77E-04
Total PeCDF	ug/dscm	1.24E-04	1.24E-04
Total HxCDF	ug/dscm	2.91E-05	2.91E-05
Total HpCDF	ug/dscm	2.79E-06	2.79E-06
PCBs			
Total monoCB	ug/dscm	4.50E-04	4.50E-04
Total diCB	ug/dscm	5.66E-03	5.66E-03
Total triCB	ug/dscm	1.02E-02	1.02E-02
Total tetraCB	ug/dscm	1.73E-02	1.73E-02
Total pentaCB	ug/dscm	2.32E-02	2.32E-02
Total hexaCB	ug/dscm	6.47E-03	6.47E-03
Total heptaCB	ug/dscm	1.23E-03	1.23E-03
Total octaCB	ug/dscm	8.46E-05	8.46E-05
Total nonaCB	ug/dscm	2.52E-05	2.52E-05
Total decaCB	ug/dscm	< 1.05E-04	0
Total PCBs, as MonoCB	ug/dscm	6.44E-02	6.44E-02

TABLE 1-4. SUMMARY OF TEST RESULTS, Continued
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/1-3/2010	--
CARB Method 428			
MASS EMISSION RATE			
2,3,7,8-TCDD	lb/hr	1.79E-11	1.79E-11
1,2,3,7,8-PeCDD	lb/hr	2.47E-11	2.47E-11
1,2,3,4,7,8-HxCDD	lb/hr	1.33E-11	1.33E-11
1,2,3,6,7,8-HxCDD	lb/hr	1.85E-11	1.85E-11
1,2,3,7,8,9-HxCDD	lb/hr	1.24E-11	1.24E-11
1,2,3,4,6,7,8,-HpCDD	lb/hr	2.78E-11	2.78E-11
OCDD	lb/hr	1.03E-10	1.03E-10
2,3,7,8-TCDF	lb/hr	6.70E-10	6.70E-10
1,2,3,7,8-PeCDF	lb/hr	7.31E-10	7.31E-10
2,3,4,7,8-PeCDF	lb/hr	5.60E-10	5.60E-10
1,2,3,4,7,8-HxCDF	lb/hr	2.40E-10	2.40E-10
1,2,3,6,7,8-HxCDF	lb/hr	2.75E-10	2.75E-10
2,3,4,6,7,8-HxCDF	lb/hr	1.33E-10	1.33E-10
1,2,3,7,8,9-HxCDF	lb/hr	3.26E-11	3.26E-11
1,2,3,4,6,7,8-HpCDF	lb/hr	1.56E-10	1.56E-10
1,2,3,4,7,8,9-HpCDF	lb/hr	1.60E-11	1.60E-11
OCDF	lb/hr	1.80E-11	1.80E-11
TEQ (Min) as 2,3,7,8-TCDD	lb/hr	3.56E-10	3.56E-10
Total TCDD	lb/hr	1.15E-09	1.15E-09
Total PeCDD	lb/hr	4.87E-10	4.87E-10
Total HxCDD	lb/hr	2.46E-10	2.46E-10
Total HpCDD	lb/hr	9.42E-11	9.42E-11
Total TCDF	lb/hr	1.98E-08	1.98E-08
Total PeCDF	lb/hr	8.88E-09	8.88E-09
Total HxCDF	lb/hr	2.09E-09	2.09E-09
Total HpCDF	lb/hr	2.00E-10	2.00E-10
PCBs			
Total monoCB	lb/hr	3.20E-08	3.20E-08
Total diCB	lb/hr	4.02E-07	4.02E-07
Total triCB	lb/hr	7.22E-07	7.22E-07
Total tetraCB	lb/hr	1.22E-06	1.22E-06
Total pentaCB	lb/hr	1.65E-06	1.65E-06
Total hexaCB	lb/hr	4.60E-07	4.60E-07
Total heptaCB	lb/hr	8.74E-08	8.74E-08
Total octaCB	lb/hr	5.98E-09	5.98E-09
Total nonaCB	lb/hr	1.80E-09	1.80E-09
Total decaCB	lb/hr	<	0
Total PCBs, as MonoCB	lb/hr	7.45E-09	4.57E-06

* Performed during isokinetic sampling (e.g. CARB Method 428).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - not detected, reporting limit reported.

TEQ based on (2005) WHO Toxic Equivalent Factors (WHO).

TEQ (Min)-The "Min" indicates that a zero was used in the equation when an analyte was not detected.

TABLE 6-4. TEST RESULTS
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
City: Vernon, CA
Source: Neptune Scrubber

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3	--	--
Test Date	m/d/y	09/01/10	09/02/10	09/03/10	--	--
Test Time	h/m	7:45-16:02	7:30-15:50	7:50-16:05	--	--
Sampling Data*						
Stack Temperature	°F	139	141	139	140	--
Moisture	%	17.2	14.5	14.8	15.5	--
Sample Volume	dscf	338	339	336	338	--
Oxygen**	% v/v	18.0	17.3	19.9	18.4	--
Carbon Dioxide**	% v/v	2.7	3.8	0.3	2.3	--
Gas Velocity	ft/min	2,271	2,272	2,256	2,266	--
Stack Flow Rate	acfm	25,643	25,653	25,477	25,591	--
Stack Flow Rate	dscfm	18,702	19,227	19,138	19,022	--
CARB Method 428 CONCENTRATION						
2,3,7,8-TCDD	ug/dscm	EMPC	1.71E-07	J	4.50E-07	4.26E-07
1,2,3,7,8-PeCDD	ug/dscm	J	2.24E-07	J	4.92E-07	6.39E-07
1,2,3,4,7,8-HxCDD	ug/dscm	ND	3.73E-07	ND	2.18E-07	2.67E-07
1,2,3,6,7,8-HxCDD	ug/dscm	ND	3.48E-07	J	2.30E-07	3.72E-07
1,2,3,7,8,9-HxCDD	ug/dscm	ND	3.31E-07	ND	1.94E-07	2.59E-07
1,2,3,4,6,7,8,-HpCDD	ug/dscm	J	4.98E-07	EMPC	5.06E-07	5.9E-07
OCDD	ug/dscm	J	2.23E-06	EMPC	1.48E-06	1.40E-06
2,3,7,8-TCDF	ug/dscm		4.55E-06		1.23E-05	1.12E-05
1,2,3,7,8-PeCDF	ug/dscm	J	3.76E-06		1.36E-05	1.32E-05
2,3,4,7,8-PeCDF	ug/dscm	J	2.78E-06		1.05E-05	1.02E-05
1,2,3,4,7,8-HxCDF	ug/dscm	EMPC	9.39E-07	J	4.82E-06	4.76E-06
1,2,3,6,7,8-HxCDF	ug/dscm	J	1.22E-06	J	5.08E-06	5.23E-06
2,3,4,6,7,8-HxCDF	ug/dscm	J	6.50E-07	J	2.34E-06	2.57E-06
1,2,3,7,8,9-HxCDF	ug/dscm	EMPC	6.98E-08	J	4.25E-07	9.02E-07
1,2,3,4,6,7,8-HpCDF	ug/dscm	J	7.79E-07	J	2.86E-06	2.89E-06
1,2,3,4,7,8,9-HpCDF	ug/dscm	ND	1.96E-07	ND	2.86E-07	4.54E-07
OCDF	ug/dscm	J	3.00E-07	EMPC	4.09E-07	5.10E-07
TEQ (Min) as 2,3,7,8-TCDD	ug/dscm		1.83E-06		7.05E-06	6.04E-06
Total TCDD	ug/dscm		1.11E-05		1.90E-05	1.83E-05
Total PeCDD	ug/dscm		4.17E-06		6.53E-06	9.75E-06
Total HxCDD	ug/dscm		2.12E-06		4.24E-06	3.96E-06
Total HpCDD	ug/dscm		1.86E-06		8.01E-07	1.32E-06
Total TCDF	ug/dscm		1.48E-04		3.45E-04	3.38E-04
Total PeCDF	ug/dscm		4.88E-05		1.68E-04	1.55E-04
Total HxCDF	ug/dscm		7.20E-06		3.95E-05	4.07E-05
Total HpCDF	ug/dscm		7.79E-07		3.50E-06	4.09E-06
PCBs						
Total monoCB	ug/dscm		4.26E-04		4.42E-04	4.81E-04
Total diCB	ug/dscm		8.55E-03		4.78E-03	3.65E-03
Total triCB	ug/dscm		1.63E-02		8.52E-03	5.74E-03
Total tetraCB	ug/dscm		2.72E-02		1.44E-02	1.02E-02
Total pentaCB	ug/dscm		3.25E-02		2.09E-02	1.61E-02
Total hexaCB	ug/dscm		8.51E-03		5.68E-03	5.23E-03
Total heptaCB	ug/dscm		1.70E-03		9.70E-04	1.02E-03
Total octaCB	ug/dscm		1.66E-04	ND	1.04E-04	3.56E-05
Total nonaCB	ug/dscm		1.23E-05		1.07E-05	1.05E-04
Total decaCB	ug/dscm	ND	1.05E-04	ND	1.04E-04	1.05E-04
Total PCBs, as MonoCB	ug/dscm		9.53E-02		5.56E-02	4.24E-02

TABLE 6-4. TEST RESULTS, Continued
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
City: Vernon, CA
Source: Neptune Scrubber

Test Data	Units	Source Test Results					Average	AB2588/HRA Avg. Reporting Values		
Run Number	-	Run 1		Run 2		Run 3				
Test Date	m/d/y	09/01/10		09/02/10		09/03/10	--	--		
Test Time	h/m	7:45-16:02		7:30-15:50		7:50-16:05	--	--		
CARB Method 428										
MASS EMISSION RATE										
2,3,7,8-TCDD	lb/hr	EMPC	1.20E-11	J	3.24E-11	EMPC	3.05E-11	1.79E-11		
1,2,3,7,8-PeCDD	lb/hr	J	1.57E-11	J	3.54E-11	EMPC	4.58E-11	2.47E-11		
1,2,3,4,7,8-HxCDD	lb/hr	ND	2.61E-11	ND	1.57E-11	J	1.91E-11	1.33E-11		
1,2,3,6,7,8-HxCDD	lb/hr	ND	2.44E-11	J	1.66E-11	J	2.66E-11	1.85E-11		
1,2,3,7,8,9-HxCDD	lb/hr	ND	2.32E-11	ND	1.40E-11	J	1.86E-11	1.24E-11		
1,2,3,4,6,7,8,-HpCDD	lb/hr	J	3.49E-11	EMPC	3.65E-11	J	3.02E-11	2.78E-11		
OCDD	lb/hr	J	1.56E-10	EMPC	1.07E-10	J	1.00E-10	1.03E-10		
2,3,7,8-TCDF	lb/hr		3.18E-10		8.85E-10		8.05E-10	6.70E-10		
1,2,3,7,8-PeCDF	lb/hr	J	2.64E-10		9.83E-10		9.48E-10	7.31E-10		
2,3,4,7,8-PeCDF	lb/hr	J	1.95E-10		7.58E-10	J	7.29E-10	5.60E-10		
1,2,3,4,7,8-HxCDF	lb/hr	EMPC	6.58E-11	J	3.47E-10	J	3.41E-10	2.40E-10		
1,2,3,6,7,8-HxCDF	lb/hr	J	8.56E-11	J	3.66E-10	J	3.75E-10	2.75E-10		
2,3,4,6,7,8-HxCDF	lb/hr	J	4.55E-11	J	1.69E-10	J	1.84E-10	1.33E-10		
1,2,3,7,8,9-HxCDF	lb/hr	EMPC	4.89E-12	J	3.06E-11	J	4.64E-11	3.26E-11		
1,2,3,4,6,7,8-HpCDF	lb/hr	J	5.45E-11	J	2.06E-10	J	2.07E-10	1.56E-10		
1,2,3,4,7,8,9-HpCDF	lb/hr	ND	1.38E-11	ND	2.06E-11	J	3.09E-11	1.60E-11		
OCDF	lb/hr	J	2.10E-11	EMPC	2.95E-11	EMPC	3.66E-11	1.80E-11		
TEQ (Min) as 2,3,7,8-TCDD	lb/hr		1.28E-10		5.08E-10		4.33E-10	3.56E-10		
Total TCDD	lb/hr		7.76E-10		1.37E-09		1.31E-09	1.15E-09		
Total PeCDD	lb/hr		2.92E-10		4.70E-10		6.99E-10	4.87E-10		
Total HxCDD	lb/hr		1.49E-10		3.05E-10		2.84E-10	2.46E-10		
Total HpCDD	lb/hr		1.30E-10		5.77E-11		9.47E-11	9.42E-11		
Total TCDF	lb/hr		1.04E-08		2.48E-08		2.42E-08	1.98E-08		
Total PeCDF	lb/hr		3.42E-09		1.21E-08		1.11E-08	8.88E-09		
Total HxCDF	lb/hr		5.04E-10		2.84E-09		2.92E-09	2.09E-09		
Total HpCDF	lb/hr		5.45E-11		2.52E-10		2.93E-10	2.00E-10		
PCBs										
Total monoCB	lb/hr		2.99E-08		3.18E-08		3.45E-08	3.20E-08		
Total diCB	lb/hr		5.99E-07		3.44E-07		2.62E-07	4.02E-07		
Total triCB	lb/hr		1.14E-06		6.14E-07		4.12E-07	7.22E-07		
Total tetraCB	lb/hr		1.90E-06		1.04E-06		7.34E-07	1.22E-06		
Total pentaCB	lb/hr		2.28E-06		1.51E-06		1.15E-06	1.65E-06		
Total hexaCB	lb/hr		5.96E-07		4.09E-07		3.75E-07	4.60E-07		
Total heptaCB	lb/hr		1.19E-07		6.98E-08		7.30E-08	8.74E-08		
Total octaCB	lb/hr		1.16E-08	ND	7.50E-09		2.55E-09	5.98E-09		
Total nonaCB	lb/hr		8.64E-10		7.73E-10	ND	7.52E-09	1.80E-09		
Total decaCB	lb/hr	ND	7.32E-09	ND	7.50E-09	ND	7.52E-09	< 7.45E-09		
Total PCBs, as MonoCB	lb/hr		6.68E-06		4.01E-06		3.04E-06	4.57E-06		

* Performed during isokinetic sampling (e.g. CARB Method 428).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - not detected, reporting limit reported.

J - The amount detected is below the Low Calibration Limit.

EMPC = Estimated Maximum Possible Concentration.

TEQ based on (2005) WHO Toxic Equivalent Factors (WHO).

TEQ (Min)-The "Min" indicates that a zero was used in the equation when an analyte was not detected.

TABLE 1-5. SUMMARY OF TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

TEST DATA	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/8-10/2010	--
Sampling Data*			
Stack Temperature	°F	140	
Moisture	%	16.9	
Sample Volume	dscf	336	
Oxygen**	% v/v	16.5	
Carbon Dioxide**	% v/v	4.5	
Gas Velocity	ft/min	2,255	
Stack Flow Rate	acfm	25,462	
Stack Flow Rate	dscfm	18,611	
CARB Method 425***			
CONCENTRATION			
Chromium VI	ug/dscm	0.0712	0.0712
CARB Method 425			
MASS EMISSION RATE			
Chromium VI	lb/hr	4.96E-06	4.96E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

*** The "Total chrome" value from the simultaneously collected M436 sampling for Run #1 was used as "Hex chrome" value in calculating the average hexavalent chromium emissions replacing the anomalous high hex chrome results reported in Run #1 of the M425 test (see section 6.1.5).

**TABLE 6-5. TEST RESULTS
 CARB 425 (Hexavalent Chromium)**

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

TEST DATA	Units	Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	09/08/11	09/09/10	09/10/10	--	--
Test Time	h/m	8:25-16:51	8:06-16:29	05:37-14:09	--	--
Sampling Data*						
Stack Temperature	°F	139	139	141	140	--
Moisture	%	16.6	16.4	17.7	16.9	--
Sample Volume	dscf	335	336	338	336	--
Oxygen**	% v/v	16.6	16.7	16.2	16.5	--
Carbon Dioxide**	% v/v	4.5	3.8	5.1	4.5	--
Gas Velocity	ft/min	2,246	2,248	2,270	2,255	--
Stack Flow Rate	acf m	25,365	25,383	25,637	25,462	--
Stack Flow Rate	dscfm	18,611	18,677	18,546	18,611	--
CARB Method 425						
CONCENTRATION		Total	Total	Total		
Chromium VI, as measured	ug/dscm	0.363	0.0583	0.0608	0.161	0.161
Maximum Chromium VI (M436) for R1 only***	ug/dscm	0.0945	0.0583	0.0608	0.0712	0.0712
CARB Method 425						
MASS EMISSION RATE		Total	Total	Total		
Chromium VI	lb/hr	2.53E-05	4.08E-06	4.22E-06	1.12E-05	1.12E-05
Maximum Chromium VI (M436) for R1 only***	lb/hr	6.59E-06	4.08E-06	4.22E-06	4.96E-06	4.96E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

*** Hexavalent chromium result should not be greater than the simultaneously measured total chromium based on M436.

Therefore, simultaneous total chromium result based on M436 was reported as maximum hexavalent chromium for Run #1.

TABLE 1-6. SUMMARY OF TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Neptune Scrubber

Test Date: 9/14/10

Parameter	Units	Average	AB2588/HRA Avg. Reporting Values
Sampling Conditions			
Standard Temperature, Tstd	deg.F	68	--
Standard Pressure, Pstd	in.Hg	29.92	--
Stack Gas Flow Rate *	DSCFM	18,455	--
Laboratory Data			
Acetone	ppbv	28	28
Benzene	ppbv	< 0.79	0
Benzyl Chloride	ppbv	< 2.4	0
Bromodichloromethane	ppbv	< 0.79	0
Bromoform	ppbv	< 0.79	0
Bromomethane	ppbv	< 0.79	0
2-Butanone	ppbv	2.3	2.3
Carbon Disulfide	ppbv	< 3.1	0
Carbon Tetrachloride	ppbv	< 0.79	0
Chlorobenzene	ppbv	< 0.79	0
Chloroethane	ppbv	< 0.79	0
Chloroform	ppbv	< 0.79	0
Chloromethane	ppbv	0.57	0.57
Dibromochloromethane	ppbv	< 0.79	0
Dichlorodifluoromethane	ppbv	< 0.79	0
1,1-Dichloroethane	ppbv	< 0.79	0
1,1-Dichloroethene	ppbv	< 0.79	0
1,2-Dibromoethane	ppbv	< 0.79	0
Dichlorotetrafluoroethane	ppbv	< 3.1	0
1,2-Dichlorobenzene	ppbv	< 0.79	0
1,2-Dichloroethane	ppbv	< 0.79	0
1,2-Dichloropropane	ppbv	< 0.79	0
1,3-Dichlorobenzene	ppbv	< 0.79	0
1,4-Dichlorobenzene	ppbv	< 0.79	0
c-1,3-Dichloropropene	ppbv	< 0.79	0
c-1,2-Dichloroethene	ppbv	< 0.79	0
t-1,2-Dichloroethene	ppbv	< 0.79	0
t-1,3-Dichloropropene	ppbv	< 1.6	0
Ethylbenzene	ppbv	< 0.79	0
4-Ethyltoluene	ppbv	< 0.79	0
Hexachloro-1,3-Butadiene	ppbv	< 2.4	0
2-Hexanone	ppbv	< 2.4	0
Methyl-t-Butyl Ether (MTBE)	ppbv	< 3.1	0
Methylene Chloride	ppbv	< 7.9	0
4-Methyl-2-Pentanone	ppbv	< 2.4	0
Naphthalene	ppbv	< 16	0
o-Xylene	ppbv	< 0.79	0
p/m-Xylene	ppbv	< 3.1	0
Styrene	ppbv	< 2.4	0
Tetrachloroethene	ppbv	8.3	8.3
Toluene	ppbv	2.7	2.7
Trichloroethene	ppbv	0.70	0.70
Trichlorofluoromethane	ppbv	< 1.6	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	ppbv	< 2.4	0
1,1,1-Trichloroethane	ppbv	< 0.79	0
1,1,2-Trichloroethane	ppbv	< 0.79	0
1,3,5-Trimethylbenzene	ppbv	< 0.79	0
1,1,2,2-Tetrachloroethane	ppbv	< 1.6	0
1,2,4-Trimethylbenzene	ppbv	< 2.4	0
1,2,4-Trichlorobenzene	ppbv	< 3.1	0
Vinyl Acetate	ppbv	3.9	3.9
Vinyl Chloride	ppbv	< 0.79	0

TABLE 1-6. SUMMARY OF TEST RESULTS, Continued
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Neptune Scrubber

Test Date: 9/14/10

Parameter	Units	Average	AB2588/HRA Avg. Reporting Values
Emissions Data			
Acetone	lb/hr	4.73E-03	4.73E-03
Benzene	lb/hr	< 1.77E-04	0
Benzyl Chloride	lb/hr	< 8.74E-04	0
Bromodichloromethane	lb/hr	< 3.72E-04	0
Bromoform	lb/hr	< 5.74E-04	0
Bromomethane	lb/hr	< 2.16E-04	0
2-Butanone	lb/hr	4.84E-04	4.84E-04
Carbon Disulfide	lb/hr	< 6.86E-04	0
Carbon Tetrachloride	lb/hr	< 3.50E-04	0
Chlorobenzene	lb/hr	< 2.56E-04	0
Chloroethane	lb/hr	< 1.47E-04	0
Chloroform	lb/hr	< 2.71E-04	0
Chloromethane	lb/hr	8.20E-05	8.20E-05
Dibromochloromethane	lb/hr	< 4.73E-04	0
Dichlorodifluoromethane	lb/hr	< 2.75E-04	0
1,1-Dichloroethane	lb/hr	< 2.25E-04	0
1,1-Dichloroethene	lb/hr	< 2.20E-04	0
1,2-Dibromoethane	lb/hr	< 4.27E-04	0
Dichlorotetrafluoroethane	lb/hr	< 1.54E-03	0
1,2-Dichlorobenzene	lb/hr	< 3.34E-04	0
1,2-Dichloroethane	lb/hr	< 2.25E-04	0
1,2-Dichloropropane	lb/hr	< 2.57E-04	0
1,3-Dichlorobenzene	lb/hr	< 3.34E-04	0
1,4-Dichlorobenzene	lb/hr	< 3.34E-04	0
c-1,3-Dichloropropene	lb/hr	< 2.52E-04	0
c-1,2-Dichloroethene	lb/hr	< 2.20E-04	0
t-1,2-Dichloroethene	lb/hr	< 2.20E-04	0
t-1,3-Dichloropropene	lb/hr	< 5.11E-04	0
Ethylbenzene	lb/hr	< 2.41E-04	0
4-Ethyltoluene	lb/hr	< 2.73E-04	0
Hexachloro-1,3-Butadiene	lb/hr	< 1.80E-03	0
2-Hexanone	lb/hr	< 6.91E-04	0
Methyl-t-Butyl Ether (MTBE)	lb/hr	< 7.94E-04	0
Methylene Chloride	lb/hr	< 1.93E-03	0
4-Methyl-2-Pentanone	lb/hr	< 6.91E-04	0
Naphthalene	lb/hr	< 5.90E-03	0
o-Xylene	lb/hr	< 2.41E-04	0
p/m-Xylene	lb/hr	< 9.57E-04	0
Styrene	lb/hr	< 7.19E-04	0
Tetrachloroethene	lb/hr	3.94E-03	3.94E-03
Toluene	lb/hr	7.07E-04	7.07E-04
Trichloroethene	lb/hr	2.64E-04	2.64E-04
Trichlorofluoromethane	lb/hr	< 6.32E-04	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	lb/hr	< 1.29E-03	0
1,1,1-Trichloroethane	lb/hr	< 3.03E-04	0
1,1,2-Trichloroethane	lb/hr	< 3.03E-04	0
1,3,5-Trimethylbenzene	lb/hr	< 2.73E-04	0
1,1,2,2-Tetrachloroethane	lb/hr	< 7.72E-04	0
1,2,4-Trimethylbenzene	lb/hr	< 8.30E-04	0
1,2,4-Trichlorobenzene	lb/hr	< 1.64E-03	0
Vinyl Acetate	lb/hr	9.70E-04	9.70E-04
Vinyl Chloride	lb/hr	< 1.42E-04	0

* Flow Rate determined by SCAQMD Methods 1-4.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd (dscfh)} * \text{MW}_i / 385 / 1000000$$

TABLE 6-6. TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber
 Test Date: 9/14/10

Parameter	Units	Data	Data	Data	Average	AB2588/HRA Avg. Reporting Values
Run Number		1	2	3		
Sampling Conditions						
Standard Temperature, Tstd	deg.F	68	68	68	68	--
Standard Pressure, Pstd	in.Hg	29.92	29.92	29.92	29.92	--
Stack Gas Flow Rate *	DSCFM	18,455	18,455	18,455	18,455	--
Laboratory Data						
Acetone	ppbv	21	53	11	28	28
Benzene	ppbv	ND	0.78	ND	< 0.79	0
Benzyl Chloride	ppbv	ND	2.4	ND	< 2.4	0
Bromodichloromethane	ppbv	ND	0.78	ND	< 0.79	0
Bromoform	ppbv	ND	0.78	ND	< 0.79	0
Bromomethane	ppbv	ND	0.78	ND	< 0.79	0
2-Butanone	ppbv	ND	2.4	4.6	ND	2.3
Carbon Disulfide	ppbv	ND	3.1	ND	3.2	< 3.1
Carbon Tetrachloride	ppbv	ND	0.78	ND	< 0.79	0
Chlorobenzene	ppbv	ND	0.78	ND	< 0.79	0
Chloroethane	ppbv	ND	0.78	ND	< 0.79	0
Chloroform	ppbv	ND	0.78	ND	< 0.79	0
Chloromethane	ppbv	ND	0.78	0.9	ND	0.81
Dibromochloromethane	ppbv	ND	0.78	ND	< 0.79	0
Dichlorodifluoromethane	ppbv	ND	0.78	ND	< 0.79	0
1,1-Dichloroethane	ppbv	ND	0.78	ND	< 0.79	0
1,1-Dichloroethene	ppbv	ND	0.78	ND	< 0.79	0
1,2-Dibromoethane	ppbv	ND	0.78	ND	< 0.79	0
Dichlortetrafluoroethane	ppbv	ND	3.1	ND	< 3.1	0
1,2-Dichlorobenzene	ppbv	ND	0.78	ND	< 0.79	0
1,2-Dichloroethane	ppbv	ND	0.78	ND	< 0.79	0
1,2-Dichloropropane	ppbv	ND	0.78	ND	< 0.79	0
1,3-Dichlorobenzene	ppbv	ND	0.78	ND	< 0.79	0
1,4-Dichlorobenzene	ppbv	ND	0.78	ND	< 0.79	0
c-1,3-Dichloropropene	ppbv	ND	0.78	ND	< 0.79	0
c-1,2-Dichloroethene	ppbv	ND	0.78	ND	< 0.79	0
t-1,2-Dichloroethene	ppbv	ND	0.78	ND	< 0.79	0
t-1,3-Dichloropropene	ppbv	ND	1.6	ND	< 1.6	0
Ethylbenzene	ppbv	ND	0.78	ND	< 0.79	0
4-Ethyltoluene	ppbv	ND	0.78	ND	< 0.79	0
Hexachloro-1,3-Butadiene	ppbv	ND	2.4	ND	< 2.4	0
2-Hexanone	ppbv	ND	2.4	ND	< 2.4	0
Methyl-t-Butyl Ether (MTBE)	ppbv	ND	3.1	ND	< 3.1	0
Methylene Chloride	ppbv	ND	7.8	ND	< 7.9	0
4-Methyl-2-Pentanone	ppbv	ND	2.4	ND	< 2.4	0
Naphthalene	ppbv	ND	16	ND	< 16	0
o-Xylene	ppbv	ND	0.78	ND	< 0.79	0
p/m-Xylene	ppbv	ND	3.1	ND	< 3.1	0
Styrene	ppbv	ND	2.4	ND	< 2.4	0
Tetrachloroethene	ppbv	ND	24	ND	0.81	8.3
Toluene	ppbv	ND	2.4	ND	2.8	2.7
Trichloroethene	ppbv	ND	1.3	ND	0.78	0.70
Trichlorofluoromethane	ppbv	ND	1.6	ND	1.6	< 1.6
1,1,2-Trichloro-1,2,2-Trifluoroethane	ppbv	ND	2.4	ND	2.4	< 2.4
1,1,1-Trichloroethane	ppbv	ND	0.78	ND	0.81	< 0.79
1,1,2-Trichloroethane	ppbv	ND	0.78	ND	0.81	< 0.79
1,3,5-Trimethylbenzene	ppbv	ND	0.78	ND	0.81	< 0.79
1,1,2,2-Tetrachloroethane	ppbv	ND	1.6	ND	1.6	< 1.6
1,2,4-Trimethylbenzene	ppbv	ND	2.4	ND	2.4	< 2.4
1,2,4-Trichlorobenzene	ppbv	ND	3.1	ND	3.2	< 3.1
Vinyl Acetate	ppbv	ND	3.1	ND	3.2	3.9
Vinyl Chloride	ppbv	ND	0.78	ND	0.81	< 0.79

TABLE 6-6. TEST RESULTS, Continued
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Neptune Scrubber

Test Date: 9/14/10

Parameter	Units	Data 1	Data 2	Data 3	Average	AB2588/HRA Avg. Reporting Values
Run Number						
Emissions Data						
Acetone	lb/hr	3.51E-03	8.85E-03	1.84E-03	4.73E-03	4.73E-03
Benzene	lb/hr	ND	1.75E-04	ND	< 1.77E-04	0
Benzyl Chloride	lb/hr	ND	8.74E-04	ND	< 8.74E-04	0
Bromodichloromethane	lb/hr	ND	3.68E-04	ND	< 3.72E-04	0
Bromoform	lb/hr	ND	5.67E-04	ND	< 5.74E-04	0
Bromomethane	lb/hr	ND	2.13E-04	ND	< 2.16E-04	0
2-Butanone	lb/hr	ND	4.98E-04	ND	4.98E-04	4.84E-04
Carbon Disulfide	lb/hr	ND	6.79E-04	ND	< 6.86E-04	0
Carbon Tetrachloride	lb/hr	ND	3.45E-04	ND	< 3.50E-04	0
Chlorobenzene	lb/hr	ND	2.53E-04	ND	< 2.56E-04	0
Chloroethane	lb/hr	ND	1.45E-04	ND	< 1.47E-04	0
Chloroform	lb/hr	ND	2.68E-04	ND	< 2.71E-04	0
Chloromethane	lb/hr	ND	1.13E-04	ND	1.18E-04	8.20E-05
Dibromochloromethane	lb/hr	ND	4.67E-04	ND	< 4.73E-04	0
Dichlorodifluoromethane	lb/hr	ND	2.71E-04	ND	< 2.75E-04	0
1,1-Dichloroethane	lb/hr	ND	2.22E-04	ND	< 2.25E-04	0
1,1-Dichloroethene	lb/hr	ND	2.17E-04	ND	< 2.20E-04	0
1,2-Dibromoethane	lb/hr	ND	4.21E-04	ND	< 4.27E-04	0
Dichlorotetrafluoroethane	lb/hr	ND	1.52E-03	ND	< 1.54E-03	0
1,2-Dichlorobenzene	lb/hr	ND	3.30E-04	ND	< 3.34E-04	0
1,2-Dichloroethane	lb/hr	ND	2.22E-04	ND	< 2.25E-04	0
1,2-Dichloropropane	lb/hr	ND	2.53E-04	ND	< 2.57E-04	0
1,3-Dichlorobenzene	lb/hr	ND	3.30E-04	ND	< 3.34E-04	0
1,4-Dichlorobenzene	lb/hr	ND	3.30E-04	ND	< 3.34E-04	0
c-1,3-Dichloropropene	lb/hr	ND	2.49E-04	ND	< 2.52E-04	0
c-1,2-Dichloroethene	lb/hr	ND	2.17E-04	ND	< 2.20E-04	0
t-1,2-Dichloroethene	lb/hr	ND	2.17E-04	ND	< 2.20E-04	0
t-1,3-Dichloropropene	lb/hr	ND	5.11E-04	ND	< 5.11E-04	0
Ethylbenzene	lb/hr	ND	2.38E-04	ND	< 2.41E-04	0
4-Ethyltoluene	lb/hr	ND	2.70E-04	ND	< 2.73E-04	0
Hexachloro-1,3-Butadiene	lb/hr	ND	1.80E-03	ND	< 1.80E-03	0
2-Hexanone	lb/hr	ND	6.91E-04	ND	< 6.91E-04	0
Methyl-t-Butyl Ether (MTBE)	lb/hr	ND	7.86E-04	ND	< 7.94E-04	0
Methylene Chloride	lb/hr	ND	1.91E-03	ND	< 1.93E-03	0
4-Methyl-2-Pentanone	lb/hr	ND	6.91E-04	ND	< 6.91E-04	0
Naphthalene	lb/hr	ND	5.90E-03	ND	< 5.90E-03	0
o-Xylene	lb/hr	ND	2.38E-04	ND	< 2.41E-04	0
p/m-Xylene	lb/hr	ND	9.47E-04	ND	< 9.57E-04	0
Styrene	lb/hr	ND	7.19E-04	ND	< 7.19E-04	0
Tetrachloroethene	lb/hr	ND	1.14E-02	ND	< 3.94E-03	3.94E-03
Toluene	lb/hr	ND	6.36E-04	ND	< 7.07E-04	7.07E-04
Trichloroethene	lb/hr	ND	4.91E-04	ND	< 2.64E-04	2.64E-04
Trichlorofluoromethane	lb/hr	ND	6.32E-04	ND	< 6.32E-04	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	lb/hr	ND	1.29E-03	ND	< 1.29E-03	0
1,1,1-Trichloroethane	lb/hr	ND	2.99E-04	ND	< 3.03E-04	0
1,1,2-Trichloroethane	lb/hr	ND	2.99E-04	ND	< 3.03E-04	0
1,3,5-Trimethylbenzene	lb/hr	ND	2.70E-04	ND	< 2.73E-04	0
1,1,2,2-Tetrachloroethane	lb/hr	ND	7.72E-04	ND	< 7.72E-04	0
1,2,4-Trimethylbenzene	lb/hr	ND	8.30E-04	ND	< 8.30E-04	0
1,2,4-Trichlorobenzene	lb/hr	ND	1.62E-03	ND	< 1.64E-03	0
Vinyl Acetate	lb/hr	ND	7.68E-04	ND	< 2.13E-03	ND
Vinyl Chloride	lb/hr	ND	1.40E-04	ND	< 1.46E-04	ND

* Flow Rate determined by SCAQMD Methods 1-4.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd (dscfh)} * \text{MW}_i / 385 / 1000000$$

TABLE 1-7. SUMMARY OF TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Neptune Scrubber

Test Date: 3/2/11

Parameter	Units	Average	AB2588/HRA Avg. Reporting Values
Sampling Conditions			
Standard Temperature, Tstd	deg.F	68	--
Standard Pressure, Pstd	in.Hg	29.92	--
Stack Gas Flow Rate, Qsd *	DSCFM	22,295	--
Laboratory Data			
1,3-Butadiene**	ppbv	73.0	73.0
1,4-Dioxane**	ppbv	< 2.00	0
Emissions Data			
1,3-Butadiene**	lb/hr	1.41E-02	1.41E-02
1,4-Dioxane**	lb/hr	< 6.12E-04	0

* Flow Rate determined by SCAQMD Methods 1-4.

** Analyzed via onsite GC using direct injection.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

lb/hr = (ppbv/1000)*Qsd (dscfh)*MWi/385/1000000

TABLE 6-7. TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber
 Test Date: 3/2/11

Parameter	Units	Data	Data	Data	Average	AB2588/HRA Avg.
Run Number		1	2	3		Reporting Values
Sampling Conditions						
Standard Temperature, Tstd	deg.F	68	68	68	68	--
Standard Pressure, Pstd	in.Hg	29.92	29.92	29.92	29.92	--
Stack Gas Flow Rate, Qsd *	DSCFM	22,932	22,232	21,721	22,295	--
Laboratory Data						
1,3-Butadiene**	ppbv	217	ND	2.00	ND	73.0
1,4-Dioxane**	ppbv	ND	2.00	ND	2.00	< 2.00
Emissions Data						
1,3-Butadiene**	lb/hr	4.20E-02	ND	3.75E-04	ND	3.66E-04
1,4-Dioxane**	lb/hr	ND	6.30E-04	ND	6.11E-04	< 6.12E-04

* Flow Rate determined by SCAQMD Methods 1-4.

** Analyzed via onsite GC using direct injection.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd (dscfh)} * \text{MW}_i / 385 / 1000000$$

SECTION III

HARD LEAD

TABLE 1-1. SUMMARY OF TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

TEST DATA	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/4, 5 & 7/2010	--
Sampling Data*			
Stack Temperature	°F	99	--
Moisture	%	1.3	--
Sample Volume	dscf	367	--
Oxygen**	% v/v	20.4	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	3,122	--
Stack Flow Rate	acfm	108,987	--
Stack Flow Rate	dscfm	101,832	--
CARB Method 436 CONCENTRATION			
Aluminum	ug/dscm	< 19.3	0
Antimony	ug/dscm	0.0708	0.0708
Arsenic	ug/dscm	199	199
Barium	ug/dscm	0.100	0.100
Beryllium	ug/dscm	< 0.0482	0
Cadmium	ug/dscm	0.194	0.194
Chromium	ug/dscm	0.116	0.116
Cobalt	ug/dscm	0.231	0.231
Copper	ug/dscm	0.180	0.180
Lead	ug/dscm	2.68	2.68
Manganese	ug/dscm	< 0.0193	0
Mercury	ug/dscm	0.695	0.695
Nickel	ug/dscm	0.106	0.106
Phosphorus	ug/dscm	< 2.60	0
Selenium	ug/dscm	0.0187	0.0187
Silver	ug/dscm	< 0.0193	0
Thallium	ug/dscm	< 0.0193	0
Vanadium	ug/dscm	< 0.0964	0
Zinc	ug/dscm	0.498	0.498
Iron	ug/dscm	< 2.60	0
CARB Method 436 MASS EMISSION RATE			
Aluminum	lb/hr	< 7.35E-03	0
Antimony	lb/hr	2.69E-05	2.69E-05
Arsenic	lb/hr	7.59E-02	7.59E-02
Barium	lb/hr	3.80E-05	3.80E-05
Beryllium	lb/hr	< 1.84E-05	0
Cadmium	lb/hr	7.41E-05	7.41E-05
Chromium	lb/hr	4.46E-05	4.46E-05
Cobalt	lb/hr	8.85E-05	8.85E-05
Copper	lb/hr	6.86E-05	6.86E-05
Lead	lb/hr	1.02E-03	1.02E-03
Manganese	lb/hr	< 7.35E-06	0
Mercury	lb/hr	2.65E-04	2.65E-04
Nickel	lb/hr	4.04E-05	4.04E-05
Phosphorus	lb/hr	< 9.92E-04	0
Selenium	lb/hr	7.10E-06	7.10E-06
Silver	lb/hr	< 7.35E-06	0
Thallium	lb/hr	< 7.35E-06	0
Vanadium	lb/hr	< 3.67E-05	0
Zinc	lb/hr	1.90E-04	1.90E-04
Iron	lb/hr	< 9.92E-04	0

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - Not detected, reporting limit reported.

TABLE 6-1. TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg.
Run Number	--	Run 1	Run 2	Run 3		Reporting Values
Test Date	m/d/y	10/04/10	10/05/10	10/07/10	--	--
Test Time	h/m	6:45-15:12	6:29-14:57	6:47-15:14	--	--
Sampling Data*						
Stack Temperature	°F	98	98	102	99	--
Moisture	%	1.2	1.4	1.3	1.3	--
Sample Volume	dscf	363	369	367	367	--
Oxygen**	% v/v	20.7	20.6	19.9	20.4	--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--
Gas Velocity	ft/min	3,085	3,143	3,138	3,122	--
Stack Flow Rate	acfmin	107,702	109,712	109,548	108,987	--
Stack Flow Rate	dscfm	100,749	102,560	102,189	101,832	--
CARB Method 436 CONCENTRATION						
Aluminum	ug/dscm	ND	Total 19.5	ND Total 19.1	ND Total 19.2	< 19.3 0
Antimony	ug/dscm		0.107	0.0813	0.0481	0.0708 0.0708
Arsenic	ug/dscm		292	172	135	199 199
Barium	ug/dscm		0.0778	0.0670	0.154	0.100 0.100
Beryllium	ug/dscm	ND	0.0486	ND 0.0478	ND 0.0481	< 0.0482 0
Cadmium	ug/dscm		0.185	0.306	0.0913	0.194 0.194
Chromium	ug/dscm	NDb	0.0525	0.297	NDb 0.0519	0.116 0.116
Cobalt	ug/dscm		0.0700	0.373	0.250	0.231 0.231
Copper	ug/dscm		0.214	0.230	ND 0.192	0.180 0.180
Lead	ug/dscm		3.06	4.25	0.727	2.68 2.68
Manganese	ug/dscm	NDb	0.0195	NDb 0.0191	NDb 0.0192	< 0.0193 0
Mercury	ug/dscm		0.973	0.651	0.462	0.695 0.695
Nickel	ug/dscm		0.0681	0.239	NDb 0.0192	0.106 0.106
Phosphorus	ug/dscm	ND	2.63	ND 2.58	ND 2.59	< 2.60 0
Selenium	ug/dscm		0.0253	ND 0.0191	0.0211	0.0187 0.0187
Silver	ug/dscm	ND	0.0195	ND 0.0191	ND 0.0192	< 0.0193 0
Thallium	ug/dscm	ND	0.0195	ND 0.0191	ND 0.0192	< 0.0193 0
Vanadium	ug/dscm	ND	0.0973	ND 0.0957	ND 0.0961	< 0.0964 0
Zinc	ug/dscm		0.584	0.383	0.529	0.498 0.498
Iron	ug/dscm	NDb	2.63	NDb 2.58	NDb 2.59	< 2.60 0
CARB Method 436 MASS EMISSION RATE						
Aluminum	lb/hr	ND	Total 7.34E-03	ND Total 7.35E-03	ND Total 7.36E-03	< 7.35E-03 0
Antimony	lb/hr		4.04E-05	3.12E-05	ND 1.84E-05	2.69E-05 2.69E-05
Arsenic	lb/hr		1.10E-01	6.62E-02	5.15E-02	7.59E-02 7.59E-02
Barium	lb/hr		2.94E-05	2.57E-05	5.89E-05	3.80E-05 3.80E-05
Beryllium	lb/hr	ND	1.84E-05	ND 1.84E-05	ND 1.84E-05	< 1.84E-05 0
Cadmium	lb/hr		6.97E-05	1.18E-04	3.49E-05	7.41E-05 7.41E-05
Chromium	lb/hr	NDb	1.98E-05	1.14E-04	NDb 1.99E-05	4.46E-05 4.46E-05
Cobalt	lb/hr		2.64E-05	1.43E-04	9.56E-05	8.85E-05 8.85E-05
Copper	lb/hr		8.07E-05	8.82E-05	ND 7.36E-05	6.86E-05 6.86E-05
Lead	lb/hr		1.15E-03	1.63E-03	2.78E-04	1.02E-03 1.02E-03
Manganese	lb/hr	NDb	7.34E-06	NDb 7.35E-06	NDb 7.36E-06	< 7.35E-06 0
Mercury	lb/hr		3.67E-04	2.50E-04	1.77E-04	2.65E-04 2.65E-04
Nickel	lb/hr		2.57E-05	9.19E-05	NDb 7.36E-06	4.04E-05 4.04E-05
Phosphorus	lb/hr	ND	9.91E-04	ND 9.92E-04	ND 9.93E-04	< 9.92E-04 0
Selenium	lb/hr		9.54E-06	ND 7.35E-06	8.09E-06	7.10E-06 7.10E-06
Silver	lb/hr	ND	7.34E-06	ND 7.35E-06	ND 7.36E-06	< 7.35E-06 0
Thallium	lb/hr	ND	7.34E-06	ND 7.35E-06	ND 7.36E-06	< 7.35E-06 0
Vanadium	lb/hr	ND	3.67E-05	ND 3.68E-05	ND 3.68E-05	< 3.67E-05 0
Zinc	lb/hr		2.20E-04	1.47E-04	2.02E-04	1.90E-04 1.90E-04
Iron	lb/hr	NDb	9.91E-04	NDb 9.92E-04	NDb 9.93E-04	< 9.92E-04 0

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - Not detected, reporting limit reported.

B - Reagent blank corrected value.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 1-2. SUMMARY OF TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Hard Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/12-13/2010	--
<u>Sampling Data:</u>			
Stack Flow Rate*	dscfm	98,552	--
Stack Temperature*	°F	103	--
Gas Sample Volume	dscm	0.353	--
<u>Formaldehyde</u>			
Catch	ug	RL 12.7	RL 12.7
Mass Concentration	mg/dscm	RL 0.0360	RL 0.0360
Volumetric Concentration	ppmv	RL 0.0288	RL 0.0288
Mass Emission Rate	lb/hr	RL 0.0133	RL 0.0133
<u>Acetaldehyde</u>			
Catch	ug	7.76	7.76
Mass Concentration	mg/dscm	0.0220	0.0220
Volumetric Concentration	ppmv	0.0120	0.0120
Mass Emission Rate	lb/hr	0.00813	0.00813

* Measured during sampling per SCAQMD Methods 1-4.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

TABLE 6-2. TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Hard Lead

Test Data	Units	Symbol	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	--	Run 1	Run 2	Run 3	--	--
Test Date	m/d/y	--	10/12/10	10/13/10	10/13/10	--	--
Time:	h/m	--	9:20 - 13:20	5:50 - 9:50	10:00 - 14:00	--	--
<u>Sampling Data:</u>							
Stack Flow Rate*	dscfm	Qsd	98,200	98,101	99,356	98,552	--
Stack Temperature*	°F	Ts	104	102	103	103	--
Gas Sample Volume	dscm	Vm,std	0.354	0.353	0.353	0.353	--
<u>Formaldehyde</u>							
Catch	ug	Cbcs,f	RL 12.7	RL 12.7	RL 12.7	RL 12.7	RL 12.7
Mass Concentration	mg/dscm	Cm,f	RL 0.0359	RL 0.0360	RL 0.0360	RL 0.0360	RL 0.0360
Volumetric Concentration	ppmv	Cv,f	RL 0.0288	RL 0.0289	RL 0.0289	RL 0.0288	RL 0.0288
Mass Emission Rate	lb/hr	Ef	RL 0.0132	RL 0.0132	RL 0.0134	RL 0.0133	RL 0.0133
<u>Acetaldehyde</u>							
Catch	ug	Cbcs,a	7.30	5.80	10.2	7.76	7.76
Mass Concentration	mg/dscm	Cm,a	0.0206	0.0164	0.0289	0.0220	0.0220
Volumetric Concentration	ppmv	Cv,a	0.0113	0.00898	0.0158	0.0120	0.0120
Mass Emission Rate	lb/hr	Ea	0.00758	0.00604	0.01077	0.00813	0.00813

* Measured during sampling per SCAQMD Methods 1-4.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

TABLE 6-2. TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Hard Lead

Test Data	Units	Symbol	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	--	Run 1	Run 2	Run 3	--	--
Test Date	m/d/y	--	10/12/10	10/13/10	10/13/10	--	--
Time:	h/m	--	9:20 - 13:20	5:50 - 9:50	10:00 - 14:00	--	--
Sampling Data:							
Stack Flow Rate*	dscfm	Qsd	98,200	98,101	99,356	98,552	--
Stack Temperature*	°F	Ts	104	102	103	103	--
Gas Sample Volume	dscm	Vm,std	0.354	0.353	0.353	0.353	--
Formaldehyde							
Catch	ug	Cbcs,f	RL 12.7	RL 12.7	RL 12.7	RL 12.7	0
Mass Concentration	mg/dscm	Cm,f	RL 0.0359	RL 0.0360	RL 0.0360	RL 0.0360	0
Volumetric Concentration	ppmv	Cv,f	RL 0.0288	RL 0.0289	RL 0.0289	RL 0.0288	0
Mass Emission Rate	lb/hr	Ef	RL 0.0132	RL 0.0132	RL 0.0134	RL 0.0133	0
Acetaldehyde							
Catch	ug	Cbcs,a	7.30	5.80	10.2	7.76	7.76
Mass Concentration	mg/dscm	Cm,a	0.0206	0.0164	0.0289	0.0220	0.0220
Volumetric Concentration	ppmv	Cv,a	0.0113	0.00898	0.0158	0.0120	0.0120
Mass Emission Rate	lb/hr	Ea	0.00758	0.00604	0.01077	0.00813	0.00813

* Measured during sampling per SCAQMD Methods 1-4.

TABLE 1-3. SUMMARY OF TEST RESULTS
CARB 429 (Polycyclic Aromatic Hydrocarbons)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

TEST DATA	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/22-24/2010	--
Sampling Data*			
Stack Temperature	°F	111	--
Moisture	%	1.1	--
Sample Volume	dscf	352	--
Oxygen**	% v/v	20.1	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	3,076	--
Stack Flow Rate	acfmin	107,374	--
Stack Flow Rate	dscfm	97,954	--
CARB Method 429, PAH CONCENTRATION			
Naphthalene	ug/dscm	338	338
2-Methylnaphthalene	ug/dscm	41.8	41.8
Acenaphthylene	ug/dscm	34.9	34.9
Acenaphthene	ug/dscm	2.08	2.08
Fluorene	ug/dscm	10.8	10.8
Phenanthrene	ug/dscm	36.8	36.8
Anthracene	ug/dscm	3.53	3.53
Fluoranthene	ug/dscm	2.82	2.82
Pyrene	ug/dscm	0.866	0.866
Benz(a)anthracene	ug/dscm	0.0316	0.0316
Chrysene	ug/dscm	0.132	0.132
Benzo(b)fluoranthene	ug/dscm	0.00496	0.00496
Benzo(k)fluoranthene	ug/dscm	0.00143	0.00143
Benzo(e)pyrene	ug/dscm	0.00185	0.00185
Benzo(a)pyrene	ug/dscm	< 0.00100	0
Perylene	ug/dscm	< 0.00100	0
Indeno(1,2,3-cd)pyrene	ug/dscm	0.000756	0.000756
Dibenz(a,h)anthracene	ug/dscm	< 0.00100	0
Benzo(ghi)perylene	ug/dscm	0.000742	0.000742
CARB Method 429, PAH MASS EMISSION RATE			
Naphthalene	lb/hr	1.24E-01	1.24E-01
2-Methylnaphthalene	lb/hr	1.53E-02	1.53E-02
Acenaphthylene	lb/hr	1.28E-02	1.28E-02
Acenaphthene	lb/hr	7.63E-04	7.63E-04
Fluorene	lb/hr	3.94E-03	3.94E-03
Phenanthrene	lb/hr	1.35E-02	1.35E-02
Anthracene	lb/hr	1.30E-03	1.30E-03
Fluoranthene	lb/hr	1.03E-03	1.03E-03
Pyrene	lb/hr	3.18E-04	3.18E-04
Benz(a)anthracene	lb/hr	1.16E-05	1.16E-05
Chrysene	lb/hr	4.85E-05	4.85E-05
Benzo(b)fluoranthene	lb/hr	1.82E-06	1.82E-06
Benzo(k)fluoranthene	lb/hr	5.23E-07	5.23E-07
Benzo(e)pyrene	lb/hr	6.78E-07	6.78E-07
Benzo(a)pyrene	lb/hr	< 3.68E-07	0
Perylene	lb/hr	< 3.68E-07	0
Indeno(1,2,3-cd)pyrene	lb/hr	2.77E-07	2.77E-07
Dibenz(a,h)anthracene	lb/hr	< 3.68E-07	0
Benzo(ghi)perylene	lb/hr	2.72E-07	2.72E-07

* Performed during isokinetic sampling (e.g. CARB Method 429).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - not detected, reporting limit reported.

TABLE 6-3. TEST RESULTS
CARB 429 (Polycyclic Aromatic Hydrocarbons)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3	--	--
Test Date	m/d/y	09/22/10	09/23/10	09/24/10	--	--
Test Time	h/m	7:58-16:20	7:25-15:48	06:50-15:12	--	--
Sampling Data*						
Stack Temperature	°F	102	111	118	111	--
Moisture	%	1.3	1.3	0.8	1.1	--
Sample Volume	dscf	353	352	351	352	--
Oxygen**	% v/v	20.1	20.0	20.3	20.1	--
Carbon Dioxide**	% v/v	0.3	0.4	0.3	0.3	--
Gas Velocity	ft/min	3,051	3,082	3,095	3,076	--
Stack Flow Rate	acfm	106,485	107,597	108,042	107,374	--
Stack Flow Rate	dscfm	98,091	97,929	97,841	97,954	--
CARB Method 429, PAH CONCENTRATION						
		Total	Total	Total		
Naphthalene	ug/dscm	270	300	443	338	338
2-Methylnaphthalene	ug/dscm	38.9	29.0	57.6	41.8	41.8
Acenaphthylene	ug/dscm	37.3	23.7	43.8	34.9	34.9
Acenaphthene	ug/dscm	2.05	1.72	2.47	2.08	2.08
Fluorene	ug/dscm	6.86	5.77	19.6	10.8	10.8
Phenanthrene	ug/dscm	30.7	39.2	40.3	36.8	36.8
Anthracene	ug/dscm	6.86	2.42	1.31	3.53	3.53
Fluoranthene	ug/dscm	1.27	2.91	4.28	2.82	2.82
Pyrene	ug/dscm	0.437	0.922	1.24	0.866	0.866
Benz(a)anthracene	ug/dscm	0.0178	0.0371	0.0400	0.0316	0.0316
Chrysene	ug/dscm	0.0566	0.140	0.199	0.132	0.132
Benzo(b)fluoranthene	ug/dscm	0.00266	0.00496	0.00725	0.00496	0.00496
Benzo(k)fluoranthene	ug/dscm	ND	0.00100	0.00139	0.00143	0.00143
Benzo(e)pyrene	ug/dscm	0.00115	0.00175	0.00265	0.00185	0.00185
Benzo(a)pyrene	ug/dscm	ND	0.00100	ND	0.00101	< 0.00100
Perylene	ug/dscm	ND	0.00100	ND	0.00101	< 0.00100
Indeno(1,2,3-cd)pyrene	ug/dscm	0.00126	ND	0.00100	ND	0.000756
Dibenz(a,h)anthracene	ug/dscm	ND	0.00100	ND	0.00101	< 0.00100
Benzo(ghi)perylene	ug/dscm	0.00122	ND	0.00100	ND	0.000742
CARB Method 429, PAH MASS EMISSION RATE						
		Total	Total	Total		
Naphthalene	lb/hr	9.94E-02	1.10E-01	1.62E-01	1.24E-01	1.24E-01
2-Methylnaphthalene	lb/hr	1.43E-02	1.06E-02	2.11E-02	1.53E-02	1.53E-02
Acenaphthylene	lb/hr	1.37E-02	8.68E-03	1.61E-02	1.28E-02	1.28E-02
Acenaphthene	lb/hr	7.54E-04	6.29E-04	9.04E-04	7.63E-04	7.63E-04
Fluorene	lb/hr	2.52E-03	2.12E-03	7.20E-03	3.94E-03	3.94E-03
Phenanthrene	lb/hr	1.13E-02	1.44E-02	1.48E-02	1.35E-02	1.35E-02
Anthracene	lb/hr	2.52E-03	8.87E-04	4.80E-04	1.30E-03	1.30E-03
Fluoranthene	lb/hr	4.67E-04	1.07E-03	1.57E-03	1.03E-03	1.03E-03
Pyrene	lb/hr	1.60E-04	3.38E-04	4.54E-04	3.18E-04	3.18E-04
Benz(a)anthracene	lb/hr	6.55E-06	1.36E-05	1.47E-05	1.16E-05	1.16E-05
Chrysene	lb/hr	2.08E-05	5.15E-05	7.31E-05	4.85E-05	4.85E-05
Benzo(b)fluoranthene	lb/hr	9.79E-07	1.82E-06	2.66E-06	1.82E-06	1.82E-06
Benzo(k)fluoranthene	lb/hr	ND	3.68E-07	5.11E-07	8.75E-07	5.23E-07
Benzo(e)pyrene	lb/hr	4.23E-07	6.40E-07	9.71E-07	6.78E-07	6.78E-07
Benzo(a)pyrene	lb/hr	ND	3.68E-07	ND	3.69E-07	< 3.68E-07
Perylene	lb/hr	ND	3.68E-07	ND	3.69E-07	< 3.68E-07
Indeno(1,2,3-cd)pyrene	lb/hr	4.64E-07	ND	3.68E-07	ND	2.77E-07
Dibenz(a,h)anthracene	lb/hr	ND	3.68E-07	ND	3.69E-07	< 3.68E-07
Benzo(ghi)perylene	lb/hr	4.49E-07	ND	3.68E-07	ND	2.72E-07

* Performed during isokinetic sampling (e.g. CARB Method 429).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - not detected, reporting limit reported.

TABLE 1-4. SUMMARY OF TEST RESULTS
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/22-24/2010	--
Sampling Data*			
Stack Temperature	°F	111	--
Moisture	%	1.1	--
Sample Volume	dscf	352	--
Oxygen**	% v/v	20.1	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	3,076	--
Stack Flow Rate	acfm	107,364	--
Stack Flow Rate	dscfm	98,033	--
CARB Method 428			
CONCENTRATION			
2,3,7,8-TCDD	ug/dscm	< 2.59E-07	0
1,2,3,7,8-PeCDD	ug/dscm	< 2.98E-07	0
1,2,3,4,7,8-HxCDD	ug/dscm	< 4.07E-07	0
1,2,3,6,7,8-HxCDD	ug/dscm	< 4.10E-07	0
1,2,3,7,8,9-HxCDD	ug/dscm	< 3.72E-07	0
1,2,3,4,6,7,8,-HpCDD	ug/dscm	< 4.93E-07	0
OCDD	ug/dscm	6.32E-07	6.32E-07
2,3,7,8-TCDF	ug/dscm	7.33E-07	7.33E-07
1,2,3,7,8-PeCDF	ug/dscm	< 2.79E-07	0
2,3,4,7,8-PeCDF	ug/dscm	< 2.95E-07	0
1,2,3,4,7,8-HxCDF	ug/dscm	< 1.89E-07	0
1,2,3,6,7,8-HxCDF	ug/dscm	< 1.83E-07	0
2,3,4,6,7,8-HxCDF	ug/dscm	< 2.10E-07	0
1,2,3,7,8,9-HxCDF	ug/dscm	< 2.24E-07	0
1,2,3,4,6,7,8-HpCDF	ug/dscm	< 3.41E-07	0
1,2,3,4,7,8,9-HpCDF	ug/dscm	< 3.98E-07	0
OCDF	ug/dscm	< 6.89E-07	0
TEQ (Min) as 2,3,7,8-TCDD	ug/dscm	7.13E-08	7.13E-08
Total TCDD	ug/dscm	8.97E-06	8.97E-06
Total PeCDD	ug/dscm	7.10E-07	7.10E-07
Total HxCDD	ug/dscm	< 3.97E-07	0
Total HpCDD	ug/dscm	< 4.93E-07	0
Total TCDF	ug/dscm	3.08E-05	3.08E-05
Total PeCDF	ug/dscm	5.99E-07	5.99E-07
Total HxCDF	ug/dscm	1.57E-07	1.57E-07
Total HpCDF	ug/dscm	< 3.69E-07	0
PCBs			
Total monoCB	ug/dscm	2.51E-01	2.51E-01
Total diCB	ug/dscm	2.47E-01	2.47E-01
Total triCB	ug/dscm	5.17E-01	5.17E-01
Total tetraCB	ug/dscm	2.33E-01	2.33E-01
Total pentaCB	ug/dscm	3.65E-02	3.65E-02
Total hexaCB	ug/dscm	4.82E-03	4.82E-03
Total heptaCB	ug/dscm	2.38E-04	2.38E-04
Total octaCB	ug/dscm	< 1.34E-04	0
Total nonaCB	ug/dscm	< 1.34E-04	0
Total decaCB	ug/dscm	< 1.34E-04	0
Total PCBs, as MonoCB	ug/dscm	1.29E+00	1.29E+00

TABLE 1-4. SUMMARY OF TEST RESULTS, Continued
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/22-24/2010	--
CARB Method 428			
MASS EMISSION RATE			
2,3,7,8-TCDD	lb/hr	< 9.52E-11	0
1,2,3,7,8-PeCDD	lb/hr	< 1.10E-10	0
1,2,3,4,7,8-HxCDD	lb/hr	< 1.49E-10	0
1,2,3,6,7,8-HxCDD	lb/hr	< 1.51E-10	0
1,2,3,7,8,9-HxCDD	lb/hr	< 1.37E-10	0
1,2,3,4,6,7,8,-HpCDD	lb/hr	< 1.81E-10	0
OCDD	lb/hr	2.32E-10	2.32E-10
2,3,7,8-TCDF	lb/hr	2.69E-10	2.69E-10
1,2,3,7,8-PeCDF	lb/hr	< 1.02E-10	0
2,3,4,7,8-PeCDF	lb/hr	< 1.08E-10	0
1,2,3,4,7,8-HxCDF	lb/hr	< 6.95E-11	0
1,2,3,6,7,8-HxCDF	lb/hr	< 6.73E-11	0
2,3,4,6,7,8-HxCDF	lb/hr	< 7.73E-11	0
1,2,3,7,8,9-HxCDF	lb/hr	< 8.23E-11	0
1,2,3,4,6,7,8-HpCDF	lb/hr	< 1.25E-10	0
1,2,3,4,7,8,9-HpCDF	lb/hr	< 1.46E-10	0
OCDF	lb/hr	< 2.53E-10	0
TEQ (Min) as 2,3,7,8-TCDD	lb/hr	2.62E-11	2.62E-11
Total TCDD	lb/hr	3.29E-09	3.29E-09
Total PeCDD	lb/hr	2.61E-10	2.61E-10
Total HxCDD	lb/hr	< 1.46E-10	0
Total HpCDD	lb/hr	< 1.81E-10	0
Total TCDF	lb/hr	1.13E-08	1.13E-08
Total PeCDF	lb/hr	2.20E-10	2.20E-10
Total HxCDF	lb/hr	5.77E-11	5.77E-11
Total HpCDF	lb/hr	< 1.36E-10	0
PCBs			
Total monoCB	lb/hr	9.22E-05	9.22E-05
Total diCB	lb/hr	9.08E-05	9.08E-05
Total triCB	lb/hr	1.90E-04	1.90E-04
Total tetraCB	lb/hr	8.55E-05	8.55E-05
Total pentaCB	lb/hr	1.34E-05	1.34E-05
Total hexaCB	lb/hr	1.77E-06	1.77E-06
Total heptaCB	lb/hr	8.73E-08	8.73E-08
Total octaCB	lb/hr	< 4.92E-08	0
Total nonaCB	lb/hr	< 4.92E-08	0
Total decaCB	lb/hr	< 4.92E-08	0
Total PCBs, as MonoCB	lb/hr	4.73E-04	4.73E-04

* Performed during isokinetic sampling (e.g. CARB Method 428).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - not detected, reporting limit reported.

TEQ based on (2005) WHO Toxic Equivalent Factors (WHO).

TEQ (Min)-The "Min" indicates that a zero was used in the equation when an analyte was not detected.

**TABLE 6-4. TEST RESULTS
 CARB 428 (Dioxins, Furans & PCBs)**

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values	
Run Number	-	Run 1	Run 2	Run 3			
Test Date	m/d/y	09/22/10	09/23/10	09/24/10	--	--	
Test Time	h/m	7:58-16:20	7:25-15:48	6:50-15:12	--	--	
Sampling Data*							
Stack Temperature	°F	102	111	118	111	--	
Moisture	%	1.2	1.0	0.9	1.1	--	
Sample Volume	dscf	353	351	351	352	--	
Oxygen**	% v/v	20.1	20.0	20.3	20.1	--	
Carbon Dioxide**	% v/v	0.3	0.4	0.3	0.3	--	
Gas Velocity	ft/min	3,052	3,075	3,100	3,076	--	
Stack Flow Rate	acfmin	106,546	107,342	108,204	107,364	--	
Stack Flow Rate	dscfm	98,209	97,925	97,965	98,033	--	
CARB Method 428							
CONCENTRATION		Total	Total	Total			
2,3,7,8-TCDD	ug/dscm	ND	2.30E-07	ND	2.58E-07	< 2.59E-07 0	
1,2,3,7,8-PeCDD	ug/dscm	ND	3.17E-07	ND	2.71E-07	< 2.98E-07 0	
1,2,3,4,7,8-HxCDD	ug/dscm	ND	4.27E-07	ND	3.60E-07	< 4.07E-07 0	
1,2,3,6,7,8-HxCDD	ug/dscm	ND	4.30E-07	ND	3.63E-07	< 4.10E-07 0	
1,2,3,7,8,9-HxCDD	ug/dscm	ND	3.90E-07	ND	3.30E-07	< 3.72E-07 0	
1,2,3,4,6,7,8,-HpCDD	ug/dscm	ND	5.27E-07	ND	4.52E-07	< 4.93E-07 0	
OCDD	ug/dscm	ND	7.73E-07	J	1.18E-06	ND 6.32E-07 6.32E-07	
2,3,7,8-TCDF	ug/dscm	J	2.99E-07	J	7.04E-07	J 1.20E-06 7.33E-07 7.33E-07	
1,2,3,7,8-PeCDF	ug/dscm	ND	2.62E-07	ND	2.85E-07	ND 2.90E-07 < 2.79E-07 0	
2,3,4,7,8-PeCDF	ug/dscm	ND	2.77E-07	ND	3.01E-07	ND 3.07E-07 < 2.95E-07 0	
1,2,3,4,7,8-HxCDF	ug/dscm	ND	1.90E-07	ND	1.95E-07	ND 1.83E-07 < 1.89E-07 0	
1,2,3,6,7,8-HxCDF	ug/dscm	ND	1.84E-07	ND	1.89E-07	ND 1.77E-07 < 1.83E-07 0	
2,3,4,6,7,8-HxCDF	ug/dscm	ND	2.11E-07	ND	2.17E-07	ND 2.03E-07 < 2.10E-07 0	
1,2,3,7,8,9-HxCDF	ug/dscm	ND	2.25E-07	ND	2.31E-07	ND 2.16E-07 < 2.24E-07 0	
1,2,3,4,6,7,8,-HpCDF	ug/dscm	ND	3.35E-07	ND	3.38E-07	ND 3.50E-07 < 3.41E-07 0	
1,2,3,4,7,8,9-HpCDF	ug/dscm	ND	3.91E-07	ND	3.94E-07	ND 4.08E-07 < 3.98E-07 0	
OCDF	ug/dscm	ND	7.46E-07	ND	7.27E-07	ND 5.95E-07 < 6.89E-07 0	
TEQ (Min) as 2,3,7,8-TCDD	ug/dscm		2.77E-08		6.86E-08		1.18E-07 7.13E-08 7.13E-08
Total TCDD	ug/dscm		4.03E-06		7.98E-06		1.49E-05 8.97E-06 8.97E-06
Total PeCDD	ug/dscm		5.25E-07		5.98E-07		1.01E-06 7.10E-07 7.10E-07
Total HxCDD	ug/dscm	ND	4.16E-07	ND	4.22E-07	ND	3.51E-07 < 3.97E-07 0
Total HpCDD	ug/dscm	ND	5.27E-07	ND	5.01E-07	ND	4.52E-07 < 4.93E-07 0
Total TCDF	ug/dscm		1.45E-05		2.81E-05		4.97E-05 3.08E-05 3.08E-05
Total PeCDF	ug/dscm	EMPC	6.40E-07		5.22E-07		9.55E-07 5.99E-07 5.99E-07
Total HxCDF	ug/dscm	ND	2.02E-07	ND	2.08E-07		2.67E-07 1.57E-07 1.57E-07
Total HpCDF	ug/dscm	ND	3.63E-07	ND	3.66E-07	ND	3.79E-07 < 3.69E-07 0
PCBs							
Total monoCB	ug/dscm		1.12E-01		1.39E-01		5.03E-01 2.51E-01 2.51E-01
Total diCB	ug/dscm		1.87E-01		2.20E-01		3.35E-01 2.47E-01 2.47E-01
Total triCB	ug/dscm		4.30E-01		4.80E-01		6.40E-01 5.17E-01 5.17E-01
Total tetraCB	ug/dscm		1.77E-01		2.21E-01		3.01E-01 2.33E-01 2.33E-01
Total pentaCB	ug/dscm		1.92E-02		3.03E-02		6.00E-02 3.65E-02 3.65E-02
Total hexaCB	ug/dscm		2.49E-03		4.64E-03		7.33E-03 4.82E-03 4.82E-03
Total heptaCB	ug/dscm		1.85E-04		1.59E-04		3.69E-04 2.38E-04 2.38E-04
Total octaCB	ug/dscm	ND	1.00E-04	ND	1.01E-04	ND	2.01E-04 < 1.34E-04 0
Total nonaCB	ug/dscm	ND	1.00E-04	ND	1.01E-04	ND	2.01E-04 < 1.34E-04 0
Total decaCB	ug/dscm	ND	1.00E-04	ND	1.01E-04	ND	2.01E-04 < 1.34E-04 0
Total PCBs, as MonoCB	ug/dscm		9.29E-01		1.10E+00		1.84E+00 1.29E+00 1.29E+00

TABLE 6-4. TEST RESULTS, Continued
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
City: Vernon, CA
Source: Hard Lead

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values				
Run Number	-	Run 1	Run 2	Run 3	--	--				
Test Date	m/d/y	09/22/10	09/23/10	09/24/10	--	--				
Test Time	h/m	7:58-16:20	7:25-15:48	6:50-15:12	--	--				
CARB Method 428										
MASS EMISSION RATE										
2,3,7,8-TCDD	lb/hr	ND	8.46E-11	ND	1.07E-10	ND	9.45E-11	<	9.52E-11	0
1,2,3,7,8-PeCDD	lb/hr	ND	1.17E-10	ND	1.13E-10	ND	9.93E-11	<	1.10E-10	0
1,2,3,4,7,8-HxCDD	lb/hr	ND	1.57E-10	ND	1.59E-10	ND	1.32E-10	<	1.49E-10	0
1,2,3,6,7,8-HxCDD	lb/hr	ND	1.58E-10	ND	1.60E-10	ND	1.33E-10	<	1.51E-10	0
1,2,3,7,8,9-HxCDD	lb/hr	ND	1.43E-10	ND	1.45E-10	ND	1.21E-10	<	1.37E-10	0
1,2,3,4,6,7,8,-HpCDD	lb/hr	ND	1.94E-10	ND	1.84E-10	ND	1.66E-10	<	1.81E-10	0
OCDD	lb/hr	ND	2.84E-10	J	4.31E-10	ND	2.44E-10		2.32E-10	2.32E-10
2,3,7,8-TCDF	lb/hr	J	1.10E-10	J	2.58E-10	J	4.39E-10		2.69E-10	2.69E-10
1,2,3,7,8-PeCDF	lb/hr	ND	9.64E-11	ND	1.04E-10	ND	1.06E-10	<	1.02E-10	0
2,3,4,7,8-PeCDF	lb/hr	ND	1.02E-10	ND	1.10E-10	ND	1.13E-10	<	1.08E-10	0
1,2,3,4,7,8-HxCDF	lb/hr	ND	6.99E-11	ND	7.15E-11	ND	6.72E-11	<	6.95E-11	0
1,2,3,6,7,8-HxCDF	lb/hr	ND	6.77E-11	ND	6.93E-11	ND	6.50E-11	<	6.73E-11	0
2,3,4,6,7,8-HxCDF	lb/hr	ND	7.76E-11	ND	7.97E-11	ND	7.46E-11	<	7.73E-11	0
1,2,3,7,8,9-HxCDF	lb/hr	ND	8.28E-11	ND	8.48E-11	ND	7.94E-11	<	8.23E-11	0
1,2,3,4,6,7,8-HpCDF	lb/hr	ND	1.23E-10	ND	1.24E-10	ND	1.28E-10	<	1.25E-10	0
1,2,3,4,7,8,9-HpCDF	lb/hr	ND	1.44E-10	ND	1.45E-10	ND	1.50E-10	<	1.46E-10	0
OCDF	lb/hr	ND	2.74E-10	ND	2.67E-10	ND	2.18E-10	<	2.53E-10	0
TEQ (Min) as 2,3,7,8-TCDD	lb/hr		1.02E-11		2.52E-11		4.31E-11		2.62E-11	2.62E-11
Total TCDD	lb/hr		1.48E-09		2.93E-09		5.46E-09		3.29E-09	3.29E-09
Total PeCDD	lb/hr		1.93E-10		2.19E-10		3.69E-10		2.61E-10	2.61E-10
Total HxCDD	lb/hr	ND	1.53E-10	ND	1.55E-10	ND	1.29E-10	<	1.46E-10	0
Total HpCDD	lb/hr	ND	1.94E-10	ND	1.84E-10	ND	1.66E-10	<	1.81E-10	0
Total TCDF	lb/hr		5.34E-09		1.03E-08		1.82E-08		1.13E-08	1.13E-08
Total PeCDF	lb/hr	EMPC	2.35E-10		1.91E-10		3.50E-10		2.20E-10	2.20E-10
Total HxCDF	lb/hr	ND	7.43E-11	ND	7.63E-11		9.78E-11		5.77E-11	5.77E-11
Total HpCDF	lb/hr	ND	1.34E-10	ND	1.34E-10	ND	1.39E-10	<	1.36E-10	0
PCBs										
Total monoCB	lb/hr		4.12E-05		5.09E-05		1.85E-04		9.22E-05	9.22E-05
Total diCB	lb/hr		6.88E-05		8.08E-05		1.23E-04		9.08E-05	9.08E-05
Total triCB	lb/hr		1.58E-04		1.76E-04		2.35E-04		1.90E-04	1.90E-04
Total tetraCB	lb/hr		6.51E-05		8.11E-05		1.10E-04		8.55E-05	8.55E-05
Total pentaCB	lb/hr		7.06E-06		1.11E-05		2.20E-05		1.34E-05	1.34E-05
Total hexaCB	lb/hr		9.16E-07		1.70E-06		2.69E-06		1.77E-06	1.77E-06
Total heptaCB	lb/hr		6.81E-08		5.83E-08		1.35E-07		8.73E-08	8.73E-08
Total octaCB	lb/hr	ND	3.68E-08	ND	3.69E-08	ND	7.38E-08	<	4.92E-08	0
Total nonaCB	lb/hr	ND	3.68E-08	ND	3.69E-08	ND	7.38E-08	<	4.92E-08	0
Total decaCB	lb/hr	ND	3.68E-08	ND	3.69E-08	ND	7.38E-08	<	4.92E-08	0
Total PCBs, as MonoCB	lb/hr		3.42E-04		4.02E-04		6.76E-04		4.73E-04	4.73E-04

* Performed during isokinetic sampling (e.g. CARB Method 428).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - not detected, reporting limit reported.

J - The amount detected is below the Low Calibration Limit.

EMPC = Estimated Maximum Possible Concentration.

TEQ based on (2005) WHO Toxic Equivalent Factors (WHO).

TEQ (Min)-The "Min" indicates that a zero was used in the equation when an analyte was not detected.

TABLE 1-5. SUMMARY OF TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/4, 5, & 7/2010	--
<u>Sampling Data*</u>			
Stack Temperature	°F	107	--
Moisture	%	1.6	--
Sample Volume	dscf	363	--
Oxygen**	% v/v	20.4	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	3,143	--
Stack Flow Rate	acfm	109,710	--
Stack Flow Rate	dscfm	100,805	--
<u>CARB Method 425</u>			
<u>CONCENTRATION</u>			
Chromium VI	ug/dscm	0.0193	0.0193
<u>CARB Method 425</u>			
<u>MASS EMISSION RATE</u>			
Chromium VI	lb/hr	7.30E-06	7.30E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

TABLE 6-5. TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

Test Data	Units	Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	10/04/10	10/05/10	10/07/10	--	--
Test Time	h/m	6:45-15:12	6:29-14:57	06:47-15:14	--	--
Sampling Data*						
Stack Temperature	°F	107	105	108	107	--
Moisture	%	2.0	1.5	1.4	1.6	--
Sample Volume	dscf	358	367	364	363	--
Oxygen**	% v/v	20.7	20.6	19.9	20.4	--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--
Gas Velocity	ft/min	3,114	3,172	3,143	3,143	--
Stack Flow Rate	acfmin	108,702	110,732	109,696	109,710	--
Stack Flow Rate	dscfm	99,257	101,999	101,158	100,805	--
CARB Method 425						
CONCENTRATION		Total	Total	Total		
Chromium VI	ug/dscm	0.0124	0.0250	0.0204	0.0193	0.0193
CARB Method 425						
MASS EMISSION RATE		Total	Total	Total		
Chromium VI	lb/hr	4.63E-06	9.56E-06	7.71E-06	7.30E-06	7.30E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

B - Reagent blank corrected value.

TABLE 1-6. SUMMARY OF TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Hard Lead

Test Date: 10/7/10

Parameter	Units	Average	AB2588/HRA Avg. Reporting Values
<u>Sampling Conditions</u>			
Standard Temperature, Tstd	deg.F	68	--
Standard Pressure, Pstd	in.Hg	29.92	--
Stack Gas Flow Rate *	DSCFM	102,189	--
<u>Laboratory Data</u>			
Acetone	ppbv	103	103
Benzene	ppbv	1130	1130
Benzyl Chloride	ppbv	< 3.83	0
Bromodichloromethane	ppbv	< 1.27	0
Bromoform	ppbv	< 1.27	0
Bromomethane	ppbv	2.40	2.40
2-Butanone	ppbv	5.83	5.83
Carbon Disulfide	ppbv	168	168
Carbon Tetrachloride	ppbv	< 1.27	0
Chlorobenzene	ppbv	< 1.27	0
Chloroethane	ppbv	0.867	0.867
Chloroform	ppbv	< 1.27	0
Chloromethane	ppbv	13.7	13.7
Dibromochloromethane	ppbv	< 1.27	0
Dichlorodifluoromethane	ppbv	< 1.27	0
1,1-Dichloroethane	ppbv	< 1.27	0
1,1-Dichloroethene	ppbv	< 1.27	0
1,2-Dibromoethane	ppbv	< 1.27	0
Dichlorotetrafluoroethane	ppbv	< 5.10	0
1,2-Dichlorobenzene	ppbv	< 1.27	0
1,2-Dichloroethane	ppbv	< 1.27	0
1,2-Dichloropropane	ppbv	< 1.27	0
1,3-Dichlorobenzene	ppbv	< 1.27	0
1,4-Dichlorobenzene	ppbv	< 1.27	0
c-1,3-Dichloropropene	ppbv	< 1.27	0
c-1,2-Dichloroethene	ppbv	< 1.27	0
t-1,2-Dichloroethene	ppbv	< 1.27	0
t-1,3-Dichloropropene	ppbv	< 2.57	0
Ethylbenzene	ppbv	35.3	35.3
4-Ethyltoluene	ppbv	1.87	1.87
Hexachloro-1,3-Butadiene	ppbv	< 3.83	0
2-Hexanone	ppbv	< 3.83	0
Methyl-t-Butyl Ether (MTBE)	ppbv	< 5.10	0
Methylene Chloride	ppbv	< 12.7	0
4-Methyl-2-Pentanone	ppbv	< 3.83	0
o-Xylene	ppbv	17.3	17.3
p/m-Xylene	ppbv	50.3	50.3
Styrene	ppbv	503	503
Tetrachloroethene	ppbv	< 1.27	0
Toluene	ppbv	220	220
Trichloroethene	ppbv	0.833	0.833
Trichlorofluoromethane	ppbv	< 2.57	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	ppbv	< 3.83	0
1,1,1-Trichloroethane	ppbv	< 1.27	0
1,1,2-Trichloroethane	ppbv	< 1.27	0
1,3,5-Trimethylbenzene	ppbv	14.0	14.0
1,1,2,2-Tetrachloroethane	ppbv	< 2.57	0
1,2,4-Trimethylbenzene	ppbv	5.23	5.23
1,2,4-Trichlorobenzene	ppbv	< 5.10	0
Vinyl Acetate	ppbv	3.45	3.45
Vinyl Chloride	ppbv	< 1.27	0

TABLE 1-6. SUMMARY OF TEST RESULTS, Continued
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Hard Lead

Test Date: 10/7/10

Emissions Data	Units	Average	
Acetone	lb/hr	9.53E-02	9.53E-02
Benzene	lb/hr	1.41E+00	1.41E+00
Benzyl Chloride	lb/hr	< 7.73E-03	0
Bromodichloromethane	lb/hr	< 3.30E-03	0
Bromoform	lb/hr	< 5.10E-03	0
Bromomethane	lb/hr	3.63E-03	3.63E-03
2-Butanone	lb/hr	6.70E-03	6.70E-03
Carbon Disulfide	lb/hr	2.03E-01	2.03E-01
Carbon Tetrachloride	lb/hr	< 3.10E-03	0
Chlorobenzene	lb/hr	< 2.27E-03	0
Chloroethane	lb/hr	8.91E-04	8.91E-04
Chloroform	lb/hr	< 2.41E-03	0
Chloromethane	lb/hr	1.10E-02	1.10E-02
Dibromochloromethane	lb/hr	< 4.20E-03	0
Dichlorodifluoromethane	lb/hr	< 2.44E-03	0
1,1-Dichloroethane	lb/hr	< 2.00E-03	0
1,1-Dichloroethene	lb/hr	< 1.96E-03	0
1,2-Dibromoethane	lb/hr	< 3.79E-03	0
Dichlorotetrafluoroethane	lb/hr	< 1.39E-02	0
1,2-Dichlorobenzene	lb/hr	< 2.97E-03	0
1,2-Dichloroethane	lb/hr	< 2.00E-03	0
1,2-Dichloropropane	lb/hr	< 2.28E-03	0
1,3-Dichlorobenzene	lb/hr	< 2.97E-03	0
1,4-Dichlorobenzene	lb/hr	< 2.97E-03	0
c-1,3-Dichloropropene	lb/hr	< 2.24E-03	0
c-1,2-Dichloroethene	lb/hr	< 1.96E-03	0
t-1,2-Dichloroethene	lb/hr	< 1.96E-03	0
t-1,3-Dichloropropene	lb/hr	< 4.54E-03	0
Ethylbenzene	lb/hr	5.97E-02	5.97E-02
4-Ethyltoluene	lb/hr	3.57E-03	3.57E-03
Hexachloro-1,3-Butadiene	lb/hr	< 1.59E-02	0
2-Hexanone	lb/hr	< 6.11E-03	0
Methyl-t-Butyl Ether (MTBE)	lb/hr	< 7.16E-03	0
Methylene Chloride	lb/hr	< 1.71E-02	0
4-Methyl-2-Pentanone	lb/hr	< 6.11E-03	0
o-Xylene	lb/hr	2.93E-02	2.93E-02
p/m-Xylene	lb/hr	8.51E-02	8.51E-02
Styrene	lb/hr	8.35E-01	8.35E-01
Tetrachloroethene	lb/hr	< 3.35E-03	0
Toluene	lb/hr	3.23E-01	3.23E-01
Trichloroethene	lb/hr	1.74E-03	1.74E-03
Trichlorofluoromethane	lb/hr	< 5.62E-03	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	lb/hr	< 1.14E-02	0
1,1,1-Trichloroethane	lb/hr	< 2.69E-03	0
1,1,2-Trichloroethane	lb/hr	< 2.69E-03	0
1,3,5-Trimethylbenzene	lb/hr	2.68E-02	2.68E-02
1,1,2,2-Tetrachloroethane	lb/hr	< 6.86E-03	0
1,2,4-Trimethylbenzene	lb/hr	1.00E-02	1.00E-02
1,2,4-Trichlorobenzene	lb/hr	< 1.47E-02	0
Vinyl Acetate	lb/hr	4.73E-03	4.73E-03
Vinyl Chloride	lb/hr	< 1.26E-03	0

* Performed during isokinetic sampling (e.g. CARB Method 436).

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd} (\text{dscfh}) * \text{MW}_i / 385 / 1000000$$

TABLE 6-6. TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Hard Lead

Test Date: 10/7/10

Parameter	Units	Data	Data	Data	Average	AB2588/HRA Avg. Reporting Values
Run Number		1	2	3		
<u>Sampling Conditions</u>						
Standard Temperature, Tstd	deg.F	68	68	68	68	--
Standard Pressure, Pstd	in.Hg	29.92	29.92	29.92	29.92	--
Stack Gas Flow Rate *	DSCFM	102,189	102,189	102,189	102,189	--
Laboratory Data						
Acetone	ppbv	130	82	97	103	103
Benzene	ppbv	790	1400	1200	1130	1130
Benzyl Chloride	ppbv	ND 3	ND 4.9	ND 3.6	< 3.83	0
Bromodichloromethane	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
Bromoform	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
Bromomethane	ppbv	2.1	2.8	2.3	2.40	2.40
2-Butanone	ppbv	5.6	6.8	5.1	5.83	5.83
Carbon Disulfide	ppbv	83	180	240	168	168
Carbon Tetrachloride	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
Chlorobenzene	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
Chloroethane	ppbv	1.2	ND 1.6	ND 1.2	0.867	0.867
Chloroform	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
Chloromethane	ppbv	13	15	13	13.7	13.7
Dibromochloromethane	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
Dichlorodifluoromethane	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
1,1-Dichloroethane	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
1,1-Dichloroethene	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
1,2-Dibromoethane	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
Dichlorotetrafluoroethane	ppbv	ND 4	ND 6.5	ND 4.8	< 5.10	0
1,2-Dichlorobenzene	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
1,2-Dichloroethane	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
1,2-Dichloropropane	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
1,3-Dichlorobenzene	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
1,4-Dichlorobenzene	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
c-1,3-Dichloropropene	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
c-1,2-Dichloroethene	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
t-1,2-Dichloroethene	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
t-1,3-Dichloropropene	ppbv	ND 2	ND 3.3	ND 2.4	< 2.57	0
Ethylbenzene	ppbv	30	48	28	35.3	35.3
4-Ethyltoluene	ppbv	1.6	2.4	1.6	1.87	1.87
Hexachloro-1,3-Butadiene	ppbv	ND 3	ND 4.9	ND 3.6	< 3.83	0
2-Hexanone	ppbv	ND 3	ND 4.9	ND 3.6	< 3.83	0
Methyl-t-Butyl Ether (MTBE)	ppbv	ND 4	ND 6.5	ND 4.8	< 5.10	0
Methylene Chloride	ppbv	ND 10	ND 16	ND 12	< 12.7	0
4-Methyl-2-Pentanone	ppbv	ND 3	ND 4.9	ND 3.6	< 3.83	0
o-Xylene	ppbv	13	23	16	17.3	17.3
p/m-Xylene	ppbv	38	66	47	50.3	50.3
Styrene	ppbv	450	640	420	503	503
Tetrachloroethene	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
Toluene	ppbv	160	290	210	220	220
Trichloroethene	ppbv	ND 1	ND 1.6	ND 1.2	0.833	0.833
Trichlorofluoromethane	ppbv	ND 2	ND 3.3	ND 2.4	< 2.57	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	ppbv	ND 3	ND 4.9	ND 3.6	< 3.83	0
1,1,1-Trichloroethane	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
1,1,2-Trichloroethane	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0
1,3,5-Trimethylbenzene	ppbv	12	19	11	14.0	14.0
1,1,2,2-Tetrachloroethane	ppbv	ND 2	ND 3.3	ND 2.4	< 2.57	0
1,2,4-Trimethylbenzene	ppbv	4.1	6.7	4.9	5.23	5.23
1,2,4-Trichlorobenzene	ppbv	ND 4	ND 6.5	ND 4.8	< 5.10	0
Vinyl Acetate	ppbv	ND 4	ND 6.5	ND 5.1	3.45	3.45
Vinyl Chloride	ppbv	ND 1	ND 1.6	ND 1.2	< 1.27	0

TABLE 6-6. TEST RESULTS, Continued
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Hard Lead

Test Date: 10/7/10

Parameter	Units	Data	Data	Data	Average	AB2588/HRA Avg. Reporting Values
Run Number		1	2	3		
Emissions Data						
Acetone	lb/hr	1.20E-01	7.58E-02	8.97E-02	9.53E-02	9.53E-02
Benzene	lb/hr	9.83E-01	1.74E+00	1.49E+00	1.41E+00	1.41E+00
Benzyl Chloride	lb/hr	ND	6.05E-03	ND	9.88E-03	ND
Bromodichloromethane	lb/hr	ND	2.61E-03	ND	4.17E-03	ND
Bromoform	lb/hr	ND	4.03E-03	ND	6.44E-03	ND
Bromomethane	lb/hr	3.18E-03	4.23E-03	3.48E-03	3.63E-03	3.63E-03
2-Butanone	lb/hr	6.43E-03	7.81E-03	5.86E-03	6.70E-03	6.70E-03
Carbon Disulfide	lb/hr	1.01E-01	2.18E-01	2.91E-01	2.03E-01	2.03E-01
Carbon Tetrachloride	lb/hr	ND	2.45E-03	ND	3.92E-03	ND
Chlorobenzene	lb/hr	ND	1.79E-03	ND	2.87E-03	ND
Chloroethane	lb/hr	1.23E-03	ND	1.64E-03	ND	1.23E-03
Chloroform	lb/hr	ND	1.90E-03	ND	3.04E-03	ND
Chloromethane	lb/hr	1.05E-02	1.21E-02	1.05E-02	1.10E-02	1.10E-02
Dibromochloromethane	lb/hr	ND	3.32E-03	ND	5.31E-03	ND
Dichlorodifluoromethane	lb/hr	ND	1.93E-03	ND	3.08E-03	ND
1,1-Dichloroethane	lb/hr	ND	1.58E-03	ND	2.52E-03	ND
1,1-Dichloroethene	lb/hr	ND	1.54E-03	ND	2.47E-03	ND
1,2-Dibromoethane	lb/hr	ND	2.99E-03	ND	4.79E-03	ND
Dichlorotetrafluoroethane	lb/hr	ND	1.09E-02	ND	1.77E-02	ND
1,2-Dichlorobenzene	lb/hr	ND	2.34E-03	ND	3.75E-03	ND
1,2-Dichloroethane	lb/hr	ND	1.58E-03	ND	2.52E-03	ND
1,2-Dichloropropane	lb/hr	ND	1.80E-03	ND	2.88E-03	ND
1,3-Dichlorobenzene	lb/hr	ND	2.34E-03	ND	3.75E-03	ND
1,4-Dichlorobenzene	lb/hr	ND	2.34E-03	ND	3.75E-03	ND
c-1,3-Dichloropropene	lb/hr	ND	1.77E-03	ND	2.83E-03	ND
c-1,2-Dichloroethene	lb/hr	ND	1.54E-03	ND	2.47E-03	ND
t-1,2-Dichloroethene	lb/hr	ND	1.54E-03	ND	2.47E-03	ND
t-1,3-Dichloropropene	lb/hr	ND	3.53E-03	ND	5.83E-03	ND
Ethylbenzene	lb/hr	5.07E-02	8.12E-02	4.73E-02	5.97E-02	5.97E-02
4-Ethyltoluene	lb/hr	3.06E-03	4.59E-03	3.06E-03	3.57E-03	3.57E-03
Hexachloro-1,3-Butadiene	lb/hr	ND	1.25E-02	ND	2.03E-02	ND
2-Hexanone	lb/hr	ND	4.79E-03	ND	7.82E-03	ND
Methyl-t-Butyl Ether (MTBE)	lb/hr	ND	5.62E-03	ND	9.12E-03	ND
Methylene Chloride	lb/hr	ND	1.35E-02	ND	2.16E-02	ND
4-Methyl-2-Pentanone	lb/hr	ND	4.79E-03	ND	7.82E-03	ND
o-Xylene	lb/hr	2.20E-02	3.89E-02	2.71E-02	2.93E-02	2.93E-02
p/m-Xylene	lb/hr	6.43E-02	1.12E-01	7.95E-02	8.51E-02	8.51E-02
Styrene	lb/hr	7.46E-01	1.06E+00	6.97E-01	8.35E-01	8.35E-01
Tetrachloroethene	lb/hr	ND	2.64E-03	ND	4.23E-03	ND
Toluene	lb/hr	2.35E-01	4.25E-01	3.08E-01	3.23E-01	3.23E-01
Trichloroethene	lb/hr	ND	2.09E-03	ND	3.35E-03	ND
Trichlorofluoromethane	lb/hr	ND	4.38E-03	ND	7.22E-03	ND
1,1,2-Trichloro-1,2,2-Trifluoroethane	lb/hr	ND	8.95E-03	ND	1.46E-02	ND
1,1,1-Trichloroethane	lb/hr	ND	2.12E-03	ND	3.40E-03	ND
1,1,2-Trichloroethane	lb/hr	ND	2.12E-03	ND	3.40E-03	ND
1,3,5-Trimethylbenzene	lb/hr	ND	2.30E-02	ND	3.64E-02	ND
1,1,2,2-Tetrachloroethane	lb/hr	ND	5.35E-03	ND	8.82E-03	ND
1,2,4-Trimethylbenzene	lb/hr	ND	7.85E-03	ND	1.28E-02	ND
1,2,4-Trichlorobenzene	lb/hr	ND	1.16E-02	ND	1.88E-02	ND
Vinyl Acetate	lb/hr	ND	5.48E-03	ND	8.91E-03	ND
Vinyl Chloride	lb/hr	ND	9.95E-04	ND	1.59E-03	ND
					1.19E-03	< 1.26E-03

* Performed during isokinetic sampling (e.g. CARB Method 436).

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd}(\text{dscfh}) * \text{MW}_i / 385 / 1000000$$

TABLE 1-7. SUMMARY OF TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Hard Lead

Test Date: 3/4/11

Parameter	Units	Average	AB2588/HRA Avg. Reporting Values
Sampling Conditions			
Standard Temperature, Tstd	deg.F	68	--
Standard Pressure, Pstd	in.Hg	29.92	--
Stack Gas Flow Rate *	DSCFM	103,455	--
Laboratory Data			
1,3-Butadiene**	ppbv	396	396
1,4-Dioxane**	ppbv	< 2.00	0
Emissions Data			
1,3-Butadiene**	lb/hr	3.45E-01	3.45E-01
1,4-Dioxane**	lb/hr	< 2.84E-03	0

* Flow Rate determined by SCAQMD Methods 1-4.

** Analyzed via onsite GC using direct injection.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd (dscfh)} * \text{MWi}/385/1000000$$

TABLE 6-7. TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Hard Lead

Test Date: 3/4/11

Parameter	Units	Data	Data	Data	Average	AB2588/HRA Avg. Reporting Values
Run Number		1	2	3		
Sampling Conditions						
Standard Temperature, Tstd	deg.F	68	68	68	68	--
Standard Pressure, Pstd	in.Hg	29.92	29.92	29.92	29.92	--
Stack Gas Flow Rate *	DSCFM	107,628	105,110	97,628	103,455	--
Laboratory Data						
1,3-Butadiene**	ppbv	481	273	432	396	396
1,4-Dioxane**	ppbv	ND 2.00	ND 2.00	ND 2.00	< 2.00	0
Emissions Data						
1,3-Butadiene**	lb/hr	4.36E-01	2.42E-01	3.56E-01	3.45E-01	3.45E-01
1,4-Dioxane**	lb/hr	ND 2.96E-03	ND 2.89E-03	ND 2.68E-03	< 2.84E-03	0

* Flow Rate determined by SCAQMD Methods 1-4.

** Analyzed via onsite GC using direct injection.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd (dscfh)} * \text{MW}_i / 385 / 1000000$$

SECTION IV

SOFT LEAD

TABLE 1-1. SUMMARY OF TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Soft Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/21, 22 & 25/2010	--
Sampling Data*			
Stack Temperature	°F	98	--
Moisture	%	1.6	--
Sample Volume	dscf	338	--
Oxygen**	% v/v	20.1	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	2,627	--
Stack Flow Rate	acfm	91,714	--
Stack Flow Rate	dscfm	85,435	--
CARB Method 436			
CONCENTRATION			
Aluminum	ug/dscm	11.3	11.3
Antimony	ug/dscm	0.0397	0.0397
Arsenic	ug/dscm	0.313	0.313
Barium	ug/dscm	0.0628	0.0628
Beryllium	ug/dscm	< 0.0522	0
Cadmium	ug/dscm	0.299	0.299
Chromium	ug/dscm	< 0.0564	0
Cobalt	ug/dscm	0.0761	0.0761
Copper	ug/dscm	0.226	0.226
Lead	ug/dscm	2.66	2.66
Manganese	ug/dscm	< 0.0209	0
Mercury	ug/dscm	0.0979	0.0979
Nickel	ug/dscm	< 0.0209	0
Phosphorus	ug/dscm	2.37	2.37
Selenium	ug/dscm	< 0.0209	0
Silver	ug/dscm	< 0.0209	0
Thallium	ug/dscm	< 0.0209	0
Vanadium	ug/dscm	< 0.104	0
Zinc	ug/dscm	1.06	1.06
Iron	ug/dscm	6.57	6.57
CARB Method 436			
MASS EMISSION RATE			
Aluminum	lb/hr	3.62E-03	3.62E-03
Antimony	lb/hr	1.27E-05	1.27E-05
Arsenic	lb/hr	1.00E-04	1.00E-04
Barium	lb/hr	2.01E-05	2.01E-05
Beryllium	lb/hr	< 1.67E-05	0
Cadmium	lb/hr	9.59E-05	9.59E-05
Chromium	lb/hr	< 1.80E-05	0
Cobalt	lb/hr	2.44E-05	2.44E-05
Copper	lb/hr	7.25E-05	7.25E-05
Lead	lb/hr	8.51E-04	8.51E-04
Manganese	lb/hr	< 6.68E-06	0
Mercury	lb/hr	3.14E-05	3.14E-05
Nickel	lb/hr	< 6.68E-06	0
Phosphorus	lb/hr	7.58E-04	7.58E-04
Selenium	lb/hr	< 6.68E-06	0
Silver	lb/hr	< 6.68E-06	0
Thallium	lb/hr	< 6.68E-06	0
Vanadium	lb/hr	< 3.34E-05	0
Zinc	lb/hr	3.38E-04	3.38E-04
Iron	lb/hr	2.10E-03	2.10E-03

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - Not detected, reporting limit reported.

**TABLE 6-1. TEST RESULTS
 CARB 436 (Multiple Metals)**

Facility: Exide Technologies
 City: Vernon, CA
 Source: Soft Lead

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values	
Run Number	--	Run 1	Run 2	Run 3			
Test Date	m/d/y	10/21/10	10/22/10	10/25/10	--	--	
Test Time	h/m	6:10-14:23	5:45-13:57	6:37-14:59	--	--	
Sampling Data*							
Stack Temperature	°F	98	97	99	98	--	
Moisture	%	1.6	1.9	1.4	1.6	--	
Sample Volume	dscf	338	339	337	338	--	
Oxygen**	% v/v	20.2	20.0	20.1	20.1	--	
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--	
Gas Velocity	ft/min	2,628	2,621	2,633	2,627	--	
Stack Flow Rate	acfmin	91,739	91,493	91,911	91,714	--	
Stack Flow Rate	dscfm	85,621	85,269	85,416	85,435	--	
CARB Method 436							
CONCENTRATION		Total	Total	Total			
Aluminum	ug/dscm	17.7	8.23	7.96	11.3	11.3	
Antimony	ug/dscm	ND	0.0522	0.0667	ND	0.0397	
Arsenic	ug/dscm		0.528	0.131		0.313	
Barium	ug/dscm		0.0626	NDb	0.0208	0.0628	
Beryllium	ug/dscm	ND	0.0522	ND	0.0521	ND	0.0522
Cadmium	ug/dscm		0.668		0.115	0.299	
Chromium	ug/dscm		0.0564	NDb	0.0562	NDb	0.0564
Cobalt	ug/dscm		0.0741		0.125		0.0761
Copper	ug/dscm		0.344	ND	0.208		0.226
Lead	ug/dscm		1.51		3.28		2.66
Manganese	ug/dscm	NDb	0.0209	NDb	0.0208	NDb	0.0209
Mercury	ug/dscm		0.188		0.0552		0.0979
Nickel	ug/dscm	NDb	0.0209	NDb	0.0208	NDb	0.0209
Phosphorus	ug/dscm		4.28	ND	2.81	ND	2.37
Selenium	ug/dscm	ND	0.0209	ND	0.0208	ND	0.0209
Silver	ug/dscm	ND	0.0209	ND	0.0208	ND	0.0209
Thallium	ug/dscm	ND	0.0209	ND	0.0208	ND	0.0209
Vanadium	ug/dscm	ND	0.104	ND	0.104	ND	0.104
Zinc	ug/dscm		0.647		1.42		1.06
Iron	ug/dscm		2.92		11.6		6.57
CARB Method 436							
MASS EMISSION RATE		Total	Total	Total			
Aluminum	lb/hr	5.69E-03	2.63E-03	2.55E-03	3.62E-03	3.62E-03	
Antimony	lb/hr	ND	1.67E-05	2.13E-05	ND	1.27E-05	
Arsenic	lb/hr		1.69E-04	4.19E-05		1.00E-04	
Barium	lb/hr		2.01E-05	NDb	6.65E-06	2.01E-05	
Beryllium	lb/hr	ND	1.67E-05	ND	1.66E-05	ND	1.67E-05
Cadmium	lb/hr		2.14E-04		3.66E-05		9.59E-05
Chromium	lb/hr	NDb	1.81E-05	NDb	1.80E-05	NDb	1.80E-05
Cobalt	lb/hr		2.38E-05		3.99E-05		2.44E-05
Copper	lb/hr		1.10E-04	ND	6.65E-05		7.25E-05
Lead	lb/hr		4.84E-04		1.05E-03		8.51E-04
Manganese	lb/hr	NDb	6.69E-06	NDb	6.65E-06	NDb	6.68E-06
Mercury	lb/hr		6.03E-05		1.76E-05		3.14E-05
Nickel	lb/hr	NDb	6.69E-06	NDb	6.65E-06	NDb	6.68E-06
Phosphorus	lb/hr		1.37E-03	ND	8.98E-04	ND	7.58E-04
Selenium	lb/hr	ND	6.69E-06	ND	6.65E-06	ND	6.71E-06
Silver	lb/hr	ND	6.69E-06	ND	6.65E-06	ND	6.68E-06
Thallium	lb/hr	ND	6.69E-06	ND	6.65E-06	ND	6.68E-06
Vanadium	lb/hr	ND	3.35E-05	ND	3.33E-05	ND	3.34E-05
Zinc	lb/hr		2.08E-04		4.52E-04		3.38E-04
Iron	lb/hr		9.37E-04		3.69E-03		2.10E-03

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - Not detected, reporting limit reported.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 1-2. SUMMARY OF TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Soft Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/27-28/2010	--
<u>Sampling Data:</u>			
Stack Flow Rate*	dscfm	88,673	--
Stack Temperature*	°F	101	--
Gas Sample Volume	dscm	0.352	--
<u>Formaldehyde</u>			
Catch	ug	RL 5.15	RL 5.15
Mass Concentration	mg/dscm	RL 0.0146	RL 0.0146
Volumetric Concentration	ppmv	RL 0.0117	RL 0.0117
Mass Emission Rate	lb/hr	RL 0.00487	RL 0.00487
<u>Acetaldehyde</u>			
Catch	ug	3.92	3.92
Mass Concentration	mg/dscm	0.0111	0.0111
Volumetric Concentration	ppmv	0.00609	0.00609
Mass Emission Rate	lb/hr	0.00370	0.00370

* Measured during sampling per SCAQMD Methods 1-4.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

TABLE 6-2. TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Soft Lead

Test Data	Units	Symbol	Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	--	Run 1	Run 2	Run 3		
Test Date	m/d/y	--	10/27/10	10/28/10	10/28/10	--	--
Time:	h/m	--	7:45 - 11:45	5:45 - 9:45	9:50 - 13:50	--	--
Sampling Data:							
Stack Flow Rate*	dscfm	Qsd	88,592	88,905	88,522	88,673	--
Stack Temperature*	°F	Ts	100	99	105	101	--
Gas Sample Volume	dscm	Vm,std	0.351	0.352	0.352	0.352	--
Formaldehyde							
Catch	ug	Cbcs,f	RL 5.15	RL 5.15	RL 5.15	RL 5.15	RL 5.15
Mass Concentration	mg/dscm	Cm,f	RL 0.0147	RL 0.0146	RL 0.0146	RL 0.0146	RL 0.0146
Volumetric Concentration	ppmv	Cv,f	RL 0.0118	RL 0.0117	RL 0.0117	RL 0.0117	RL 0.0117
Mass Emission Rate	lb/hr	Ef	RL 0.00487	RL 0.00488	RL 0.00485	RL 0.00487	RL 0.00487
Acetaldehyde							
Catch	ug	Cbcs,a	3.11	3.88	4.75	3.92	3.92
Mass Concentration	mg/dscm	Cm,a	0.0089	0.0110	0.0135	0.0111	0.0111
Volumetric Concentration	ppmv	Cv,a	0.00485	0.00603	0.00738	0.00609	0.00609
Mass Emission Rate	lb/hr	Ea	0.00295	0.00368	0.00448	0.00370	0.00370

* Measured during sampling per SCAQMD Methods 1-4.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

TABLE 1-3. SUMMARY OF TEST RESULTS
CARB 429 (Polycyclic Aromatic Hydrocarbons)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Soft Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/12-14/2010	--
Sampling Data*			
Stack Temperature	°F	94	--
Moisture	%	1.6	--
Sample Volume	dscf	356	--
Oxygen**	% v/v	20.2	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	2,756	--
Stack Flow Rate	acfm	96,205	--
Stack Flow Rate	dscfm	90,392	--
CARB Method 429, PAH CONCENTRATION			
Naphthalene	ug/dscm	38.5	38.5
2-Methylnaphthalene	ug/dscm	3.65	3.65
Acenaphthylene	ug/dscm	3.40	3.40
Acenaphthene	ug/dscm	0.115	0.115
Fluorene	ug/dscm	1.14	1.14
Phenanthrene	ug/dscm	9.51	9.51
Anthracene	ug/dscm	0.0553	0.0553
Fluoranthene	ug/dscm	0.895	0.895
Pyrene	ug/dscm	0.183	0.183
Benz(a)anthracene	ug/dscm	< 0.000991	0
Chrysene	ug/dscm	0.0240	0.0240
Benzo(b)fluoranthene	ug/dscm	< 0.000991	0
Benzo(k)fluoranthene	ug/dscm	< 0.000991	0
Benzo(e)pyrene	ug/dscm	< 0.000991	0
Benzo(a)pyrene	ug/dscm	< 0.000991	0
Perylene	ug/dscm	< 0.000991	0
Indeno(1,2,3-cd)pyrene	ug/dscm	< 0.000991	0
Dibenz(a,h)anthracene	ug/dscm	< 0.000991	0
Benzo(ghi)perylene	ug/dscm	< 0.000991	0
CARB Method 429, PAH MASS EMISSION RATE			
Naphthalene	lb/hr	1.29E-02	1.29E-02
2-Methylnaphthalene	lb/hr	1.23E-03	1.23E-03
Acenaphthylene	lb/hr	1.14E-03	1.14E-03
Acenaphthene	lb/hr	3.88E-05	3.88E-05
Fluorene	lb/hr	3.85E-04	3.85E-04
Phenanthrene	lb/hr	3.24E-03	3.24E-03
Anthracene	lb/hr	1.90E-05	1.90E-05
Fluoranthene	lb/hr	3.03E-04	3.03E-04
Pyrene	lb/hr	6.23E-05	6.23E-05
Benz(a)anthracene	lb/hr	< 3.35E-07	0
Chrysene	lb/hr	8.10E-06	8.10E-06
Benzo(b)fluoranthene	lb/hr	< 3.35E-07	0
Benzo(k)fluoranthene	lb/hr	< 3.35E-07	0
Benzo(e)pyrene	lb/hr	< 3.35E-07	0
Benzo(a)pyrene	lb/hr	< 3.35E-07	0
Perylene	lb/hr	< 3.35E-07	0
Indeno(1,2,3-cd)pyrene	lb/hr	< 3.35E-07	0
Dibenz(a,h)anthracene	lb/hr	< 3.35E-07	0
Benzo(ghi)perylene	lb/hr	< 3.35E-07	0

* Performed during isokinetic sampling (e.g. CARB Method 429).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - not detected, reporting limit reported.

TABLE 6-3. TEST RESULTS
CARB 429 (Polycyclic Aromatic Hydrocarbons)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Soft Lead

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	10/12/10	10/13/10	10/14/10	--	--
Test Time	h/m	6:08-14:21	6:05-14:19	7:07-15:21	--	--
Sampling Data*						
Stack Temperature	°F	96	96	91	94	--
Moisture	%	1.6	1.7	1.5	1.6	--
Sample Volume	dscf	351	352	367	356	--
Oxygen**	% v/v	20.1	20.2	20.5	20.2	--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--
Gas Velocity	ft/min	2,733	2,725	2,810	2,756	--
Stack Flow Rate	acfm	95,415	95,123	98,077	96,205	--
Stack Flow Rate	dscfm	89,169	89,056	92,951	90,392	--
CARB Method 429, PAH CONCENTRATION						
Naphthalene	ug/dscm	49.4	50.5	15.7	38.5	38.5
2-Methylnaphthalene	ug/dscm	3.36	6.10	1.49	3.65	3.65
Acenaphthylene	ug/dscm	4.11	4.96	1.14	3.40	3.40
Acenaphthene	ug/dscm	0.133	0.142	0.0704	0.115	0.115
Fluorene	ug/dscm	1.42	1.22	0.783	1.14	1.14
Phenanthrene	ug/dscm	5.14	9.54	13.9	9.51	9.51
Anthracene	ug/dscm	0.0295	0.0267	0.110	0.0553	0.0553
Fluoranthene	ug/dscm	1.10	0.659	0.927	0.895	0.895
Pyrene	ug/dscm	0.227	0.0717	0.250	0.183	0.183
Benz(a)anthracene	ug/dscm	ND	0.00101	ND	0.000963	< 0.000991
Chrysene	ug/dscm	0.0266	0.0257	0.0196	0.0240	0.0240
Benzo(b)fluoranthene	ug/dscm	ND	0.00101	ND	0.000963	< 0.000991
Benzo(k)fluoranthene	ug/dscm	ND	0.00101	ND	0.000963	< 0.000991
Benzo(e)pyrene	ug/dscm	ND	0.00101	ND	0.000963	< 0.000991
Benzo(a)pyrene	ug/dscm	ND	0.00101	ND	0.000963	< 0.000991
Perylene	ug/dscm	ND	0.00101	ND	0.000963	< 0.000991
Indeno(1,2,3-cd)pyrene	ug/dscm	ND	0.00101	ND	0.000963	< 0.000991
Dibenz(a,h)anthracene	ug/dscm	ND	0.00101	ND	0.000963	< 0.000991
Benzo(ghi)perylene	ug/dscm	ND	0.00101	ND	0.000963	< 0.000991
CARB Method 429, PAH MASS EMISSION RATE						
Naphthalene	lb/hr	1.65E-02	1.68E-02	5.46E-03	1.29E-02	1.29E-02
2-Methylnaphthalene	lb/hr	1.12E-03	2.03E-03	5.19E-04	1.23E-03	1.23E-03
Acenaphthylene	lb/hr	1.37E-03	1.65E-03	3.96E-04	1.14E-03	1.14E-03
Acenaphthene	lb/hr	4.44E-05	4.75E-05	2.45E-05	3.88E-05	3.88E-05
Fluorene	lb/hr	4.74E-04	4.08E-04	2.73E-04	3.85E-04	3.85E-04
Phenanthrene	lb/hr	1.72E-03	3.18E-03	4.83E-03	3.24E-03	3.24E-03
Anthracene	lb/hr	9.86E-06	8.90E-06	3.82E-05	1.90E-05	1.90E-05
Fluoranthene	lb/hr	3.67E-04	2.20E-04	3.23E-04	3.03E-04	3.03E-04
Pyrene	lb/hr	7.57E-05	2.39E-05	8.72E-05	6.23E-05	6.23E-05
Benz(a)anthracene	lb/hr	ND	3.36E-07	ND	3.35E-07	< 3.35E-07
Chrysene	lb/hr	8.88E-06	8.57E-06	6.84E-06	8.10E-06	8.10E-06
Benzo(b)fluoranthene	lb/hr	ND	3.36E-07	ND	3.35E-07	< 3.35E-07
Benzo(k)fluoranthene	lb/hr	ND	3.36E-07	ND	3.35E-07	< 3.35E-07
Benzo(e)pyrene	lb/hr	ND	3.36E-07	ND	3.35E-07	< 3.35E-07
Benzo(a)pyrene	lb/hr	ND	3.36E-07	ND	3.35E-07	< 3.35E-07
Perylene	lb/hr	ND	3.36E-07	ND	3.35E-07	< 3.35E-07
Indeno(1,2,3-cd)pyrene	lb/hr	ND	3.36E-07	ND	3.35E-07	< 3.35E-07
Dibenz(a,h)anthracene	lb/hr	ND	3.36E-07	ND	3.35E-07	< 3.35E-07
Benzo(ghi)perylene	lb/hr	ND	3.36E-07	ND	3.35E-07	< 3.35E-07

* Performed during isokinetic sampling (e.g. CARB Method 429).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - not detected, reporting limit reported.

TABLE 1-4. SUMMARY OF TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Soft Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/21, 22, & 25/2010	--
Sampling Data*			
Stack Temperature	°F	100	--
Moisture	%	1.9	--
Sample Volume	dscf	351	--
Oxygen**	% v/v	20.1	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	2,675	--
Stack Flow Rate	acfm	93,371	--
Stack Flow Rate	dscfm	86,396	--
CARB Method 425			
CONCENTRATION			
Chromium VI	ug/dscm	0.00576	0.00576
CARB Method 425			
MASS EMISSION RATE			
Chromium VI	lb/hr	1.87E-06	1.87E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

TABLE 6-4. TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Soft Lead

Test data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	10/21/10	10/22/10	10/25/10	--	--
Test Time	h/m	6:10-14:33	5:45-14:06	06:37-14:59	--	--
Sampling Data*						
Stack Temperature	°F	103	98	99	100	--
Moisture	%	2.2	2.0	1.6	1.9	--
Sample Volume	dscf	338	380	336	351	--
Oxygen**	% v/v	20.2	20.0	20.1	20.1	--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--
Gas Velocity	ft/min	2,660	2,734	2,631	2,675	--
Stack Flow Rate	acfmin	92,850	95,423	91,841	93,371	--
Stack Flow Rate	dscfm	85,368	88,623	85,197	86,396	--
CARB Method 425 CONCENTRATION						
Chromium VI	ug/dscm	NDb	0.0113	Total 0.00622	NDb	Total 0.0108
CARB Method 425 MASS EMISSION RATE						
Chromium VI	lb/hr	NDb	3.61E-06	Total 2.07E-06	NDb	Total 3.46E-06
					1.87E-06	1.87E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 1-5. SUMMARY OF TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Soft Lead

Test Date: 10/14/10

Parameter	Units	Average	AB2588/HRA Avg. Reporting Values
Sampling Conditions			
Standard Temperature, Tstd	deg.F	68	--
Standard Pressure, Pstd	in.Hg	29.92	--
Stack Gas Flow Rate *	DSCFM	92,951	--
Laboratory Data			
Acetone	ppbv	108	108
Benzene	ppbv	54.7	54.7
Benzyl Chloride	ppbv	< 2.20	0
Bromodichloromethane	ppbv	< 0.747	0
Bromoform	ppbv	< 0.747	0
Bromomethane	ppbv	< 0.747	0
2-Butanone	ppbv	< 2.20	0
Carbon Disulfide	ppbv	< 3.00	0
Carbon Tetrachloride	ppbv	< 0.747	0
Chlorobenzene	ppbv	< 0.747	0
Chloroethane	ppbv	< 0.747	0
Chloroform	ppbv	< 0.747	0
Chloromethane	ppbv	0.650	0.650
Dibromochloromethane	ppbv	< 0.747	0
Dichlorodifluoromethane	ppbv	0.507	0.507
1,1-Dichloroethane	ppbv	< 0.747	0
1,1-Dichloroethene	ppbv	< 0.747	0
1,2-Dibromoethane	ppbv	< 0.747	0
Dichlorotetrafluoroethane	ppbv	< 3.00	0
1,2-Dichlorobenzene	ppbv	< 0.747	0
1,2-Dichloroethane	ppbv	< 0.747	0
1,2-Dichloropropane	ppbv	< 0.747	0
1,3-Dichlorobenzene	ppbv	< 0.747	0
1,4-Dichlorobenzene	ppbv	< 0.747	0
c-1,3-Dichloropropene	ppbv	< 0.747	0
c-1,2-Dichloroethene	ppbv	< 0.747	0
t-1,2-Dichloroethene	ppbv	< 0.747	0
t-1,3-Dichloropropene	ppbv	< 1.50	0
Ethylbenzene	ppbv	1.12	1.12
4-Ethyltoluene	ppbv	< 0.747	0
Hexachloro-1,3-Butadiene	ppbv	< 2.20	0
2-Hexanone	ppbv	< 2.20	0
Methyl-t-Butyl Ether (MTBE)	ppbv	< 3.00	0
Methylene Chloride	ppbv	< 7.47	0
4-Methyl-2-Pentanone	ppbv	< 2.20	0
o-Xylene	ppbv	0.820	0.820
p/m-Xylene	ppbv	1.98	1.98
Styrene	ppbv	2.15	2.15
Tetrachloroethene	ppbv	< 0.747	0
Toluene	ppbv	6.10	6.10
Trichloroethene	ppbv	< 0.747	0
Trichlorofluoromethane	ppbv	< 1.50	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	ppbv	< 2.20	0
1,1,1-Trichloroethane	ppbv	< 0.747	0
1,1,2-Trichloroethane	ppbv	< 0.747	0
1,3,5-Trimethylbenzene	ppbv	< 0.747	0
1,1,2,2-Tetrachloroethane	ppbv	< 1.50	0
1,2,4-Trimethylbenzene	ppbv	< 2.20	0
1,2,4-Trichlorobenzene	ppbv	< 3.00	0
Vinyl Acetate	ppbv	< 3.00	0
Vinyl Chloride	ppbv	< 0.747	0

TABLE 1-5. SUMMARY OF TEST RESULTS, Continued
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Soft Lead

Test Date: 10/14/10

Parameter	Units	Average	AB2588/HRA Avg. Reporting Values
Emissions Data			
Acetone	lb/hr	9.09E-02	9.09E-02
Benzene	lb/hr	6.19E-02	6.19E-02
Benzyl Chloride	lb/hr	< 4.03E-03	0
Bromodichloromethane	lb/hr	< 1.77E-03	0
Bromoform	lb/hr	< 2.73E-03	0
Bromomethane	lb/hr	< 1.03E-03	0
2-Butanone	lb/hr	< 2.30E-03	0
Carbon Disulfide	lb/hr	< 3.31E-03	0
Carbon Tetrachloride	lb/hr	< 1.66E-03	0
Chlorobenzene	lb/hr	< 1.22E-03	0
Chloroethane	lb/hr	< 6.98E-04	0
Chloroform	lb/hr	< 1.29E-03	0
Chloromethane	lb/hr	4.75E-04	4.75E-04
Dibromochloromethane	lb/hr	< 2.25E-03	0
Dichlorodifluoromethane	lb/hr	8.87E-04	8.87E-04
1,1-Dichloroethane	lb/hr	< 1.07E-03	0
1,1-Dichloroethene	lb/hr	< 1.05E-03	0
1,2-Dibromoethane	lb/hr	< 2.03E-03	0
Dichlorotetrafluoroethane	lb/hr	< 7.43E-03	0
1,2-Dichlorobenzene	lb/hr	< 1.59E-03	0
1,2-Dichloroethane	lb/hr	< 1.07E-03	0
1,2-Dichloropropane	lb/hr	< 1.22E-03	0
1,3-Dichlorobenzene	lb/hr	< 1.59E-03	0
1,4-Dichlorobenzene	lb/hr	< 1.59E-03	0
c-1,3-Dichloropropene	lb/hr	< 1.20E-03	0
c-1,2-Dichloroethene	lb/hr	< 1.05E-03	0
t-1,2-Dichloroethene	lb/hr	< 1.05E-03	0
t-1,3-Dichloropropene	lb/hr	< 2.41E-03	0
Ethylbenzene	lb/hr	1.72E-03	1.72E-03
4-Ethyltoluene	lb/hr	< 1.30E-03	0
Hexachloro-1,3-Butadiene	lb/hr	< 8.31E-03	0
2-Hexanone	lb/hr	< 3.19E-03	0
Methyl-t-Butyl Ether (MTBE)	lb/hr	< 3.83E-03	0
Methylene Chloride	lb/hr	< 9.19E-03	0
4-Methyl-2-Pentanone	lb/hr	< 3.19E-03	0
o-Xylene	lb/hr	1.26E-03	1.26E-03
p/m-Xylene	lb/hr	3.05E-03	3.05E-03
Styrene	lb/hr	3.24E-03	3.24E-03
Tetrachloroethene	lb/hr	< 1.79E-03	0
Toluene	lb/hr	8.14E-03	8.14E-03
Trichloroethene	lb/hr	< 1.42E-03	0
Trichlorofluoromethane	lb/hr	< 2.98E-03	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	lb/hr	< 5.97E-03	0
1,1,1-Trichloroethane	lb/hr	< 1.44E-03	0
1,1,2-Trichloroethane	lb/hr	< 1.44E-03	0
1,3,5-Trimethylbenzene	lb/hr	< 1.30E-03	0
1,1,2,2-Tetrachloroethane	lb/hr	< 3.65E-03	0
1,2,4-Trimethylbenzene	lb/hr	< 3.83E-03	0
1,2,4-Trichlorobenzene	lb/hr	< 7.89E-03	0
Vinyl Acetate	lb/hr	< 3.74E-03	0
Vinyl Chloride	lb/hr	< 6.76E-04	0

* Performed during isokinetic sampling (e.g. CARB Method 429).

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd} (\text{dscfh}) * \text{MW}_i / 385 / 1000000$$

TABLE 6-5. TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Soft Lead

Test Date: 10/14/10

Parameter	Units	Data 1	Data 2	Data 3	Average	AB2588/HRA Avg. Reporting Values
Run Number						
Sampling Conditions						
Standard Temperature, Tstd	deg.F	68	68	68	68	--
Standard Pressure, Pstd	in.Hg	29.92	29.92	29.92	29.92	--
Stack Gas Flow Rate *	DSCFM	92,951	92,951	92,951	92,951	--
Laboratory Data						
Acetone	ppbv	140	14	170	108	108
Benzene	ppbv	8.2	140	16	54.7	54.7
Benzyl Chloride	ppbv	ND 2.3	ND 2.1	ND 2.2	< 2.20	0
Bromodichloromethane	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
Bromoform	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
Bromomethane	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
2-Butanone	ppbv	ND 2.3	ND 2.1	ND 2.2	< 2.20	0
Carbon Disulfide	ppbv	ND 3.1	ND 2.9	ND 3.0	< 3.00	0
Carbon Tetrachloride	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
Chlorobenzene	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
Chloroethane	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
Chloroform	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
Chloromethane	ppbv	ND 0.78	ND 0.72	1.2	0.650	0.650
Dibromochloromethane	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
Dichlorodifluoromethane	ppbv	ND 0.78	ND 0.72	0.77	0.507	0.507
1,1-Dichloroethane	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
1,1-Dichloroethene	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
1,2-Dibromoethane	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
Dichlorotetrafluoroethane	ppbv	ND 3.1	ND 2.9	ND 3.0	< 3.00	0
1,2-Dichlorobenzene	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
1,2-Dichloroethane	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
1,2-Dichloropropane	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
1,3-Dichlorobenzene	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
1,4-Dichlorobenzene	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
c-1,3-Dichloropropene	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
c-1,2-Dichloroethene	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
t-1,2-Dichloroethene	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
t-1,3-Dichloropropene	ppbv	ND 1.6	ND 1.4	ND 1.5	< 1.50	0
Ethylbenzene	ppbv	ND 0.78	2.6	ND 0.74	1.12	1.12
4-Ethyltoluene	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
Hexachloro-1,3-Butadiene	ppbv	ND 2.3	ND 2.1	ND 2.2	< 2.20	0
2-Hexanone	ppbv	ND 2.3	ND 2.1	ND 2.2	< 2.20	0
Methyl-t-Butyl Ether (MTBE)	ppbv	ND 3.1	ND 2.9	ND 3.0	< 3.00	0
Methylene Chloride	ppbv	ND 7.8	ND 7.2	ND 7.4	< 7.47	0
4-Methyl-2-Pentanone	ppbv	ND 2.3	ND 2.1	ND 2.2	< 2.20	0
o-Xylene	ppbv	ND 0.78	1.7	ND 0.74	0.820	0.820
p/m-Xylene	ppbv	ND 3.1	2.9	ND 3.0	1.98	1.98
Styrene	ppbv	ND 2.3	4.2	ND 2.2	2.15	2.15
Tetrachloroethene	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
Toluene	ppbv	3.4	13	1.9	6.10	6.10
Trichloroethene	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
Trichlorofluoromethane	ppbv	ND 1.6	ND 1.4	ND 1.5	< 1.50	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	ppbv	ND 2.3	ND 2.1	ND 2.2	< 2.20	0
1,1,1-Trichloroethane	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
1,1,2-Trichloroethane	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
1,3,5-Trimethylbenzene	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0
1,1,2,2-Tetrachloroethane	ppbv	ND 1.6	ND 1.4	ND 1.5	< 1.50	0
1,2,4-Trimethylbenzene	ppbv	ND 2.3	ND 2.1	ND 2.2	< 2.20	0
1,2,4-Trichlorobenzene	ppbv	ND 3.1	ND 2.9	ND 3.0	< 3.00	0
Vinyl Acetate	ppbv	ND 3.1	ND 2.9	ND 3.0	< 3.00	0
Vinyl Chloride	ppbv	ND 0.78	ND 0.72	ND 0.74	< 0.747	0

TABLE 6-5. TEST RESULTS, Continued
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Soft Lead

Test Date: 10/14/10

Parameter	Units	Data 1	Data 2	Data 3	Average	AB2588/HRA Avg. Reporting Values
Run Number						
Emissions Data						
Acetone	lb/hr	1.18E-01	1.18E-02	1.43E-01	9.09E-02	9.09E-02
Benzene	lb/hr	9.28E-03	1.58E-01	1.81E-02	6.19E-02	6.19E-02
Benzyl Chloride	lb/hr	ND	4.22E-03	ND	4.03E-03	< 4.03E-03
Bromodichloromethane	lb/hr	ND	1.85E-03	ND	1.76E-03	< 1.77E-03
Bromoform	lb/hr	ND	2.86E-03	ND	2.71E-03	< 2.73E-03
Bromomethane	lb/hr	ND	1.07E-03	ND	1.02E-03	< 1.03E-03
2-Butanone	lb/hr	ND	2.40E-03	ND	2.30E-03	< 2.30E-03
Carbon Disulfide	lb/hr	ND	3.42E-03	ND	3.31E-03	< 3.31E-03
Carbon Tetrachloride	lb/hr	ND	1.74E-03	ND	1.65E-03	< 1.66E-03
Chlorobenzene	lb/hr	ND	1.27E-03	ND	1.21E-03	< 1.22E-03
Chloroethane	lb/hr	ND	7.29E-04	ND	6.92E-04	< 6.98E-04
Chloroform	lb/hr	ND	1.35E-03	ND	1.28E-03	< 1.29E-03
Chloromethane	lb/hr	ND	5.70E-04	ND	8.78E-04	4.75E-04
Dibromochloromethane	lb/hr	ND	2.35E-03	ND	2.17E-03	< 2.25E-03
Dichlorodifluoromethane	lb/hr	ND	1.37E-03	ND	1.26E-03	8.87E-04
1,1-Dichloroethane	lb/hr	ND	1.12E-03	ND	1.06E-03	< 1.07E-03
1,1-Dichloroethene	lb/hr	ND	1.10E-03	ND	1.01E-03	< 1.05E-03
1,2-Dibromoethane	lb/hr	ND	2.12E-03	ND	1.96E-03	< 2.03E-03
Dichlorotetrafluoroethane	lb/hr	ND	7.68E-03	ND	7.18E-03	< 7.43E-03
1,2-Dichlorobenzene	lb/hr	ND	1.66E-03	ND	1.53E-03	< 1.59E-03
1,2-Dichloroethane	lb/hr	ND	1.12E-03	ND	1.03E-03	< 1.07E-03
1,2-Dichloropropane	lb/hr	ND	1.28E-03	ND	1.18E-03	< 1.22E-03
1,3-Dichlorobenzene	lb/hr	ND	1.66E-03	ND	1.53E-03	< 1.59E-03
1,4-Dichlorobenzene	lb/hr	ND	1.66E-03	ND	1.53E-03	< 1.59E-03
c-1,3-Dichloropropene	lb/hr	ND	1.25E-03	ND	1.16E-03	< 1.20E-03
c-1,2-Dichloroethene	lb/hr	ND	1.10E-03	ND	1.01E-03	< 1.05E-03
t-1,2-Dichloroethene	lb/hr	ND	1.10E-03	ND	1.01E-03	< 1.05E-03
t-1,3-Dichloropropene	lb/hr	ND	2.57E-03	ND	2.25E-03	< 2.41E-03
Ethylbenzene	lb/hr	ND	1.20E-03	ND	4.00E-03	1.14E-03
4-Ethyltoluene	lb/hr	ND	1.36E-03	ND	1.25E-03	< 1.29E-03
Hexachloro-1,3-Butadiene	lb/hr	ND	8.69E-03	ND	7.93E-03	< 8.31E-03
2-Hexanone	lb/hr	ND	3.34E-03	ND	3.05E-03	< 3.19E-03
Methyl-t-Butyl Ether (MTBE)	lb/hr	ND	3.96E-03	ND	3.70E-03	< 3.83E-03
Methylene Chloride	lb/hr	ND	9.60E-03	ND	8.86E-03	< 9.11E-03
4-Methyl-2-Pentanone	lb/hr	ND	3.34E-03	ND	3.05E-03	< 3.19E-03
o-Xylene	lb/hr	ND	1.20E-03	ND	2.61E-03	1.14E-03
p/m-Xylene	lb/hr	ND	4.77E-03	ND	4.46E-03	4.61E-03
Styrene	lb/hr	ND	3.47E-03	ND	6.34E-03	3.32E-03
Tetrachloroethene	lb/hr	ND	1.87E-03	ND	1.73E-03	< 1.78E-03
Toluene	lb/hr	ND	4.54E-03	ND	1.73E-02	2.54E-03
Trichloroethene	lb/hr	ND	1.48E-03	ND	1.37E-03	< 1.41E-03
Trichlorofluoromethane	lb/hr	ND	3.18E-03	ND	2.79E-03	< 2.98E-03
1,1,2-Trichloro-1,2,2-Trifluoroethane	lb/hr	ND	6.24E-03	ND	5.70E-03	< 5.97E-03
1,1,1-Trichloroethane	lb/hr	ND	1.51E-03	ND	1.39E-03	< 1.43E-03
1,1,2-Trichloroethane	lb/hr	ND	1.51E-03	ND	1.39E-03	< 1.43E-03
1,3,5-Trimethylbenzene	lb/hr	ND	1.36E-03	ND	1.25E-03	< 1.29E-03
1,1,2,2-Tetrachloroethane	lb/hr	ND	3.89E-03	ND	3.40E-03	< 3.65E-03
1,2,4-Trimethylbenzene	lb/hr	ND	4.00E-03	ND	3.66E-03	< 3.83E-03
1,2,4-Trichlorobenzene	lb/hr	ND	8.15E-03	ND	7.62E-03	< 7.89E-03
Vinyl Acetate	lb/hr	ND	3.87E-03	ND	3.62E-03	< 3.74E-03
Vinyl Chloride	lb/hr	ND	7.06E-04	ND	6.52E-04	< 6.76E-04

* Performed during isokinetic sampling (e.g. CARB Method 429).

ND or "<" - None detected, RL is reported.

CALCULATIONS:

lb/hr = (ppbv/1000)*Qsd (dscfh)*MWi/385/1000000

TABLE 1-6. SUMMARY OF TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Soft Lead

Test Date: 3/3/11

Parameter	Units	Average	AB2588/HRA Avg. Reporting Values
Sampling Conditions			
Standard Temperature, Tstd	deg.F	68	--
Standard Pressure, Pstd	in.Hg	29.92	--
Stack Gas Flow Rate *	DSCFM	99,142	--
Laboratory Data			
1,3-Butadiene**	ppbv	117	117
1,4-Dioxane**	ppbv	< 2.00	0
Emissions Data			
1,3-Butadiene**	lb/hr	9.77E-02	9.77E-02
1,4-Dioxane**	lb/hr	< 2.72E-03	0

* Flow Rate determined by SCAQMD Methods 1-4.

** Analyzed via onsite GC using direct injection.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd} (\text{dscfh}) * \text{MW}_i / 385 / 1000000$$

TABLE 6-6. TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Soft Lead

Test Date: 3/3/11

Parameter	Units	Data	Data	Data	Average	AB2588/HRA Avg. Reporting Values
Run Number		1	2	3		
<u>Sampling Conditions</u>						
Standard Temperature, Tstd	deg.F	68	68	68	68	--
Standard Pressure, Pstd	in.Hg	29.92	29.92	29.92	29.92	--
Stack Gas Flow Rate *	DSCFM	99,537	101,603	96,285	99,142	--
<u>Laboratory Data</u>						
1,3-Butadiene**	ppbv	211	80.8	58.2	117	117
1,4-Dioxane**	ppbv	ND	2.00	ND	< 2.00	0
<u>Emissions Data</u>						
1,3-Butadiene**	lb/hr	1.77E-01	6.92E-02	4.72E-02	9.77E-02	9.77E-02
1,4-Dioxane**	lb/hr	ND	2.73E-03	ND	< 2.72E-03	0

* Flow Rate determined by SCAQMD Methods 1-4.

** Analyzed via onsite GC using direct injection.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

lb/hr= (ppbv/1000)*Qsd (dscfh)*MWi/385/1000000

SECTION V

MAC BAGHOUSE

TABLE 1-1. SUMMARY OF TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
 City: Vernon, CA
 Source: MAC Baghouse

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	12/15-17/2010	--
Sampling Data*			
Stack Temperature	°F	74	--
Moisture	%	1.2	--
Sample Volume	dscf	443	--
Oxygen**	% v/v	20.0	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	3,777	--
Stack Flow Rate	acfm	106,064	--
Stack Flow Rate	dscfm	103,920	--
CARB Method 436			
CONCENTRATION			
Aluminum	ug/dscm	267	267
Antimony	ug/dscm	0.546	0.546
Arsenic	ug/dscm	0.146	0.146
Barium	ug/dscm	1.99	1.99
Beryllium	ug/dscm	< 0.199	0
Cadmium	ug/dscm	< 0.0797	0
Chromium	ug/dscm	0.675	0.675
Cobalt	ug/dscm	0.0636	0.0636
Copper	ug/dscm	< 0.159	0
Lead	ug/dscm	1.47	1.47
Manganese	ug/dscm	< 0.0159	0
Mercury	ug/dscm	0.00347	0.00347
Nickel	ug/dscm	0.0690	0.0690
Phosphorus	ug/dscm	< 2.15	0
Selenium	ug/dscm	< 0.0797	0
Silver	ug/dscm	0.0427	0.0427
Thallium	ug/dscm	< 0.0159	0
Vanadium	ug/dscm	< 0.0797	0
Zinc	ug/dscm	2.02	2.02
Iron	ug/dscm	4.92	4.92
CARB Method 436			
MASS EMISSION RATE			
Aluminum	lb/hr	1.04E-01	1.04E-01
Antimony	lb/hr	2.12E-04	2.12E-04
Arsenic	lb/hr	5.71E-05	5.71E-05
Barium	lb/hr	7.75E-04	7.75E-04
Beryllium	lb/hr	< 7.75E-05	0
Cadmium	lb/hr	< 3.10E-05	0
Chromium	lb/hr	2.63E-04	2.63E-04
Cobalt	lb/hr	2.48E-05	2.48E-05
Copper	lb/hr	< 6.20E-05	0
Lead	lb/hr	5.72E-04	5.72E-04
Manganese	lb/hr	< 6.20E-06	0
Mercury	lb/hr	1.35E-06	1.35E-06
Nickel	lb/hr	2.69E-05	2.69E-05
Phosphorus	lb/hr	< 8.37E-04	0
Selenium	lb/hr	< 3.10E-05	0
Silver	lb/hr	1.67E-05	1.67E-05
Thallium	lb/hr	< 6.20E-06	0
Vanadium	lb/hr	< 3.10E-05	0
Zinc	lb/hr	7.88E-04	7.88E-04
Iron	lb/hr	1.92E-03	1.92E-03

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - Not detected, reporting limit reported.

**TABLE 6-1. TEST RESULTS
 CARB 436 (Multiple Metals)**

Facility: Exide Technologies
 City: Vernon, CA
 Source: MAC Baghouse

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	Run 1	Run 2	Run 3		
Test Date	m/d/y	12/15/10	12/16/10	12/17/10	--	--
Test Time	h/m	08:30 - 16:42	07:00 - 15:11	06:30 - 14:42	--	--
Sampling Data*						
Stack Temperature	°F	74	77	70	74	--
Moisture	%	1.2	1.2	1.4	1.2	--
Sample Volume	dscf	443	445	442	443	--
Oxygen**	% v/v	19.9	20.2	19.9	20.0	--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--
Gas Velocity	ft/min	3,794	3,803	3,735	3,777	--
Stack Flow Rate	acfmin	106,537	106,787	104,867	106,064	--
Stack Flow Rate	dscfm	104,355	104,043	103,360	103,920	--
CARB Method 436 CONCENTRATION						
		Total	Total	Total		
Aluminum	ug/dscm	398	397	4.40	267	267
Antimony	ug/dscm	ND	0.0398	ND	0.546	0.546
Arsenic	ug/dscm	0.212	0.187	ND	0.146	0.146
Barium	ug/dscm	2.96	2.94	0.056	1.99	1.99
Beryllium	ug/dscm	ND	0.199	ND	0.200	< 0.199 0
Cadmium	ug/dscm	ND	0.0797	ND	0.0800	< 0.0797 0
Chromium	ug/dscm	0.96	1.04	NDb	0.0432	0.675 0.675
Cobalt	ug/dscm	0.0876	0.0952	ND	0.0160	0.0636 0.0636
Copper	ug/dscm	ND	0.159	ND	0.160	< 0.159 0
Lead	ug/dscm	0.99	1.39	ND	2.04	1.47 1.47
Manganese	ug/dscm	NDb	0.0159	NDb	0.0159	< 0.0159 0
Mercury	ug/dscm	0.00876	0.000494	ND	0.00231	0.00347 0.00347
Nickel	ug/dscm	0.0478	0.111	ND	0.0480	0.0690 0.0690
Phosphorus	ug/dscm	ND	2.15	ND	2.16	< 2.15 0
Selenium	ug/dscm	ND	0.0797	ND	0.0800	< 0.0797 0
Silver	ug/dscm	0.0590	0.0468	ND	0.0224	0.0427 0.0427
Thallium	ug/dscm	ND	0.0159	ND	0.0160	< 0.0159 0
Vanadium	ug/dscm	ND	0.0797	ND	0.0800	< 0.0797 0
Zinc	ug/dscm	2.84	2.83	ND	0.7996	2.02 2.02
Iron	ug/dscm	7.25	6.43	NDb	2.16	4.92 4.92
CARB Method 436 MASS EMISSION RATE						
		Total	Total	Total		
Aluminum	lb/hr	1.56E-01	1.55E-01	1.70E-03	1.04E-01	1.04E-01
Antimony	lb/hr	ND	1.56E-05	ND	6.19E-04	2.12E-04 2.12E-04
Arsenic	lb/hr	8.28E-05	7.30E-05	ND	3.10E-05	5.71E-05 5.71E-05
Barium	lb/hr	1.16E-03	1.15E-03	2.17E-05	7.75E-04 7.75E-04	
Beryllium	lb/hr	ND	7.78E-05	ND	7.74E-05	< 7.75E-05 0
Cadmium	lb/hr	ND	3.11E-05	ND	3.10E-05	< 3.10E-05 0
Chromium	lb/hr	3.77E-04	4.05E-04	NDb	1.67E-05	2.63E-04 2.63E-04
Cobalt	lb/hr	3.43E-05	3.71E-05	ND	6.19E-06	2.48E-05 2.48E-05
Copper	lb/hr	ND	6.23E-05	ND	6.19E-05	< 6.20E-05 0
Lead	lb/hr	3.88E-04	5.40E-04	ND	7.88E-04	5.72E-04 5.72E-04
Manganese	lb/hr	NDb	6.23E-06	NDb	6.19E-06	< 6.20E-06 0
Mercury	lb/hr	3.43E-06	1.93E-07	ND	8.93E-07	1.35E-06 1.35E-06
Nickel	lb/hr	1.87E-05	4.33E-05	ND	1.86E-05	2.69E-05 2.69E-05
Phosphorus	lb/hr	ND	8.41E-04	ND	8.36E-04	< 8.37E-04 0
Selenium	lb/hr	ND	3.11E-05	ND	3.10E-05	< 3.10E-05 0
Silver	lb/hr	2.30E-05	1.82E-05	ND	8.67E-06	1.67E-05 1.67E-05
Thallium	lb/hr	ND	6.23E-06	ND	6.19E-06	< 6.20E-06 0
Vanadium	lb/hr	ND	3.11E-05	ND	3.10E-05	< 3.10E-05 0
Zinc	lb/hr	1.11E-03	1.10E-03	ND	3.10E-04	7.88E-04 7.88E-04
Iron	lb/hr	2.83E-03	2.51E-03	NDb	8.36E-04	1.92E-03 1.92E-03

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - Not detected, reporting limit reported.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 1-2. SUMMARY OF TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: MAC Baghouse

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	12/15-17/2010	--
Sampling Data*			
Stack Temperature	°F	74	--
Moisture	%	1.6	--
Sample Volume	dscf	320	--
Oxygen**	% v/v	20.0	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	3,863	--
Stack Flow Rate	acfm	108,473	--
Stack Flow Rate	dscfm	105,856	--
CARB Method 425			
CONCENTRATION			
Chromium VI	ug/dscm	0.0997	0.0997
CARB Method 425			
MASS EMISSION RATE			
Chromium VI	lb/hr	3.95E-05	3.95E-05

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

TABLE 6-2. TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: MAC Baghouse

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3	--	--
Test Date	m/d/y	12/15/10	12/16/10	12/17/10	--	--
Test Time	h/m	08:30 - 16:50	07:00 - 15:20	06:30 - 14:50	--	--
Sampling Data*						
Stack Temperature	°F	74	77	70	74	--
Moisture	%	1.6	1.6	1.7	1.6	--
Sample Volume	dscf	321	323	316	320	--
Oxygen**	% v/v	19.9	20.2	19.9	20.0	--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--
Gas Velocity	ft/min	3,877	3,923	3,789	3,863	--
Stack Flow Rate	acfm	108,860	110,156	106,402	108,473	--
Stack Flow Rate	dscfm	106,208	106,839	104,522	105,856	--
CARB Method 425						
CONCENTRATION		<u>Total</u>	<u>Total</u>	<u>Total</u>		
Chromium VI	ug/dscm	0.0913	0.108	0.0994	0.0997	0.0997
CARB Method 425						
MASS EMISSION RATE		<u>Total</u>	<u>Total</u>	<u>Total</u>		
Chromium VI	lb/hr	3.63E-05	4.33E-05	3.89E-05	3.95E-05	3.95E-05

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

SECTION VI

MATERIAL HANDLING BAGHOUSE

TABLE 1-1. SUMMARY OF TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Material Handling Baghouse

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/12-14/2010	--
Sampling Data*			
Stack Temperature	°F	73	--
Moisture	%	1.9	--
Sample Volume	dscf	406	--
Oxygen**	% v/v	20.2	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	2,558	--
Stack Flow Rate	acfm	98,434	--
Stack Flow Rate	dscfm	95,858	--
CARB Method 436 CONCENTRATION			
Aluminum	ug/dscm	< 17.4	0
Antimony	ug/dscm	0.0592	0.0592
Arsenic	ug/dscm	0.208	0.208
Barium	ug/dscm	0.0989	0.0989
Beryllium	ug/dscm	< 0.0435	0
Cadmium	ug/dscm	0.145	0.145
Chromium	ug/dscm	0.487	0.487
Cobalt	ug/dscm	0.180	0.180
Copper	ug/dscm	0.789	0.789
Lead	ug/dscm	3.20	3.20
Manganese	ug/dscm	< 0.0174	0
Mercury	ug/dscm	0.00393	0.00393
Nickel	ug/dscm	0.111	0.111
Phosphorus	ug/dscm	2.33	2.33
Selenium	ug/dscm	< 0.0174	0
Silver	ug/dscm	< 0.0174	0
Thallium	ug/dscm	< 0.0174	0
Vanadium	ug/dscm	< 0.0870	0
Zinc	ug/dscm	0.626	0.626
Iron	ug/dscm	4.03	4.03
CARB Method 436 MASS EMISSION RATE			
Aluminum	lb/hr	< 6.25E-03	0
Antimony	lb/hr	2.12E-05	2.12E-05
Arsenic	lb/hr	7.42E-05	7.42E-05
Barium	lb/hr	3.54E-05	3.54E-05
Beryllium	lb/hr	< 1.56E-05	0
Cadmium	lb/hr	5.21E-05	5.21E-05
Chromium	lb/hr	1.73E-04	1.73E-04
Cobalt	lb/hr	6.46E-05	6.46E-05
Copper	lb/hr	2.81E-04	2.81E-04
Lead	lb/hr	1.15E-03	1.15E-03
Manganese	lb/hr	< 6.25E-06	0
Mercury	lb/hr	1.42E-06	1.42E-06
Nickel	lb/hr	3.96E-05	3.96E-05
Phosphorus	lb/hr	8.33E-04	8.33E-04
Selenium	lb/hr	< 6.25E-06	0
Silver	lb/hr	< 6.25E-06	0
Thallium	lb/hr	< 6.25E-06	0
Vanadium	lb/hr	< 3.12E-05	0
Zinc	lb/hr	2.24E-04	2.24E-04
Iron	lb/hr	1.44E-03	1.44E-03

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - Not detected, reporting limit reported.

**TABLE 6-1. TEST RESULTS
CARB 436 (Multiple Metals)**

Facility: Exide Technologies
City: Vernon, CA
Source: Material Handling Baghouse

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	Run 1	Run 2	Run 3		
Test Date	m/d/y	10/12/10	10/13/10	10/14/10	--	--
Test Time	h/m	8:30-16:43	7:15-15:27	7:40-15:52	--	--
Sampling Data*						
Stack Temperature	°F	75	73	70	73	--
Moisture	%	1.8	1.9	2.0	1.9	--
Sample Volume	dscf	402	408	408	406	--
Oxygen**	% v/v	20.3	20.3	20.1	20.2	--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--
Gas Velocity	ft/min	2,551	2,569	2,553	2,558	--
Stack Flow Rate	acfmin	98,159	98,875	98,268	98,434	--
Stack Flow Rate	dscfm	95,065	96,276	96,233	95,858	--
CARB Method 436						
CONCENTRATION						
Aluminum	ug/dscm	ND	Total 17.6	ND Total 17.3	ND Total 17.3 < 17.4	0
Antimony	ug/dscm		0.0597		0.0494 0.0592	0.0592
Arsenic	ug/dscm		0.532		0.0511 0.208	0.208
Barium	ug/dscm		0.158		0.0520 0.0866	0.0899
Beryllium	ug/dscm	ND	0.0439	ND 0.0433	ND 0.0433 < 0.0435	0
Cadmium	ug/dscm		0.167		0.147 0.121	0.145
Chromium	ug/dscm		1.41	NDb 0.0468	NDb 0.0468 0.487	0.487
Cobalt	ug/dscm		0.255		0.156 0.130	0.180
Copper	ug/dscm		2.19	ND 0.173	ND 0.173 0.789	0.789
Lead	ug/dscm		2.67		3.94 2.98	3.20
Manganese	ug/dscm	NDb	0.0176	NDb 0.0173	NDb 0.0173 < 0.0174	0
Mercury	ug/dscm	ND	0.00264		0.00511 0.00537	0.00393 0.00393
Nickel	ug/dscm		0.316	NDb 0.0173	NDb 0.0173 0.111	0.111
Phosphorus	ug/dscm		4.65	ND 2.34	ND 2.34 2.33	2.33
Selenium	ug/dscm	ND	0.0176	ND 0.0173	ND 0.0173 < 0.0174	0
Silver	ug/dscm	ND	0.0176	ND 0.0173	ND 0.0173 < 0.0174	0
Thallium	ug/dscm	ND	0.0176	ND 0.0173	ND 0.0173 < 0.0174	0
Vanadium	ug/dscm	ND	0.0878	ND 0.0866	ND 0.0866 < 0.0870	0
Zinc	ug/dscm		1.19		0.295 0.390	0.626
Iron	ug/dscm		9.75	NDb 2.34	NDb 2.34 4.03	4.03
CARB Method 436						
MASS EMISSION RATE						
Aluminum	lb/hr	ND	Total 6.25E-03	ND Total 6.25E-03	ND Total 6.24E-03 < 6.25E-03	0
Antimony	lb/hr		2.13E-05		2.47E-05 1.78E-05	2.12E-05
Arsenic	lb/hr		1.89E-04		1.84E-05 1.47E-05	7.42E-05
Barium	lb/hr		5.63E-05		1.87E-05 3.12E-05	3.54E-05
Beryllium	lb/hr	ND	1.56E-05	ND 1.56E-05	ND 1.56E-05 < 1.56E-05	0
Cadmium	lb/hr		5.94E-05		5.31E-05 4.37E-05	5.21E-05
Chromium	lb/hr		5.03E-04	NDb 1.69E-05	NDb 1.69E-05 1.73E-04	1.73E-04
Cobalt	lb/hr		9.07E-05		5.62E-05 4.68E-05	6.46E-05
Copper	lb/hr		7.82E-04	ND 6.25E-05	ND 6.24E-05 2.81E-04	2.81E-04
Lead	lb/hr		9.52E-04		1.42E-03 1.08E-03	1.15E-03
Manganese	lb/hr	NDb	6.25E-06	NDb 6.25E-06	NDb 6.24E-06 < 6.25E-06	0
Mercury	lb/hr	ND	9.38E-07		1.84E-06 1.93E-06	1.42E-06
Nickel	lb/hr		1.13E-04	NDb 6.25E-06	NDb 6.24E-06 3.96E-05	3.96E-05
Phosphorus	lb/hr		1.66E-03	ND 8.44E-04	ND 8.43E-04 8.33E-04	8.33E-04
Selenium	lb/hr	ND	6.25E-06	ND 6.25E-06	ND 6.24E-06 < 6.25E-06	0
Silver	lb/hr	ND	6.25E-06	ND 6.25E-06	ND 6.24E-06 < 6.25E-06	0
Thallium	lb/hr	ND	6.25E-06	ND 6.25E-06	ND 6.24E-06 < 6.25E-06	0
Vanadium	lb/hr	ND	3.13E-05	ND 3.12E-05	ND 3.12E-05 < 3.12E-05	0
Zinc	lb/hr		4.25E-04		1.06E-04 1.40E-04	2.24E-04
Iron	lb/hr		3.47E-03	NDb 8.44E-04	NDb 8.43E-04 1.44E-03	1.44E-03

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - Not detected, reporting limit reported.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 1-2. SUMMARY OF TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Material Handling Baghouse

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/12-14/2010	--
Sampling Data*			
Stack Temperature	°F	73	--
Moisture	%	1.9	--
Sample Volume	dscf	370	--
Oxygen**	% v/v	20.2	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	2,531	--
Stack Flow Rate	acfm	97,421	--
Stack Flow Rate	dscfm	94,858	--
CARB Method 425			
CONCENTRATION			
Chromium VI	ug/dscm	0.0380	0.0380
CARB Method 425			
MASS EMISSION RATE			
Chromium VI	lb/hr	1.36E-05	1.36E-05

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

TABLE 6-2. TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies

City: Vernon, CA

Source: Material Handling Baghouse

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	10/12/10	10/13/10	10/14/10	--	--
Test Time	h/m	8:30-16:50	7:15-15:34	7:40-16:01	--	--
Sampling Data*						
Stack Temperature	°F	76	73	70	73	--
Moisture	%	1.8	1.9	2.1	1.9	--
Sample Volume	dscf	366	370	374	370	--
Oxygen**	% v/v	20.3	20.3	20.1	20.2	--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--
Gas Velocity	ft/min	2,521	2,531	2,543	2,531	--
Stack Flow Rate	acfm	97,013	97,391	97,858	97,421	--
Stack Flow Rate	dscfm	93,880	94,880	95,813	94,858	--
CARB Method 425						
CONCENTRATION		<u>Total</u>	<u>Total</u>	<u>Total</u>		
Chromium VI	ug/dscm	0.0174	0.0496	0.0472	0.0380	0.0380
CARB Method 425						
MASS EMISSION RATE		<u>Total</u>	<u>Total</u>	<u>Total</u>		
Chromium VI	lb/hr	6.11E-06	1.76E-05	1.69E-05	1.36E-05	1.36E-05

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

SECTION VII

SOUTH TORIT

TABLE 1-1. SUMMARY OF TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
 City: Vernon, CA
 Source: South Torit

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	1/4-6/2011	--
Sampling Data*			
Stack Temperature	°F	77	--
Moisture	%	0.4	--
Sample Volume	dscf	328	--
Oxygen**	% v/v	20.2	--
Carbon Dioxide**	% v/v	0.4	--
Gas Velocity	ft/min	2,896	--
Stack Flow Rate	acfmin	111,452	--
Stack Flow Rate	dscfm	110,126	--
CARB Method 436			
CONCENTRATION			
Aluminum	ug/dscm	7.64	7.64
Antimony	ug/dscm	0.817	0.817
Arsenic	ug/dscm	0.117	0.117
Barium	ug/dscm	0.133	0.133
Beryllium	ug/dscm	< 0.0538	0
Cadmium	ug/dscm	0.0531	0.0531
Chromium	ug/dscm	< 0.0215	0
Cobalt	ug/dscm	< 0.0215	0
Copper	ug/dscm	0.147	0.147
Lead	ug/dscm	8.73	8.73
Manganese	ug/dscm	0.0464	0.0464
Mercury	ug/dscm	0.00199	0.00199
Nickel	ug/dscm	0.0144	0.0144
Phosphorus	ug/dscm	< 2.91	0
Selenium	ug/dscm	< 0.0431	0
Silver	ug/dscm	< 0.0215	0
Thallium	ug/dscm	< 0.0215	0
Vanadium	ug/dscm	< 0.108	0
Zinc	ug/dscm	0.437	0.437
Iron	ug/dscm	< 2.91	0
CARB Method 436			
MASS EMISSION RATE			
Aluminum	lb/hr	3.15E-03	3.15E-03
Antimony	lb/hr	3.36E-04	3.36E-04
Arsenic	lb/hr	4.83E-05	4.83E-05
Barium	lb/hr	5.48E-05	5.48E-05
Beryllium	lb/hr	< 2.22E-05	0
Cadmium	lb/hr	2.19E-05	2.19E-05
Chromium	lb/hr	< 8.88E-06	0
Cobalt	lb/hr	< 8.88E-06	0
Copper	lb/hr	6.07E-05	6.07E-05
Lead	lb/hr	3.60E-03	3.60E-03
Manganese	lb/hr	1.92E-05	1.92E-05
Mercury	lb/hr	8.21E-07	8.21E-07
Nickel	lb/hr	5.92E-06	5.92E-06
Phosphorus	lb/hr	< 1.20E-03	0
Selenium	lb/hr	< 1.78E-05	0
Silver	lb/hr	< 8.88E-06	0
Thallium	lb/hr	< 8.88E-06	0
Vanadium	lb/hr	< 4.44E-05	0
Zinc	lb/hr	1.81E-04	1.81E-04
Iron	lb/hr	< 1.20E-03	0

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - Not detected, reporting limit reported.

**TABLE 6-1. TEST RESULTS
 CARB 436 (Multiple Metals)**

Facility: Exide Technologies
 City: Vernon, CA
 Source: South Torit

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	Run 1	Run 2	Run 3		
Test Date	m/d/y	01/04/11	01/05/11	01/06/11	--	--
Test Time	h/m	06:50 - 15:08	07:00 - 15:18	06:50 - 15:12	--	--
Sampling Data*						
Stack Temperature	°F	77	78	75	77	--
Moisture	%	0.5	0.5	0.3	0.4	--
Sample Volume	dscf	327	330	327	328	--
Oxygen**	% v/v	20.1	19.9	20.4	20.2	--
Carbon Dioxide**	% v/v	0.3	0.5	0.3	0.4	--
Gas Velocity	ft/min	2,886	2,919	2,883	2,896	--
Stack Flow Rate	acfm	111,064	112,340	110,951	111,452	--
Stack Flow Rate	dscfm	109,502	110,845	110,029	110,126	--
CARB Method 436						
CONCENTRATION		Total	Total	Total		
Aluminum	ug/dscm	7.78	7.92	7.23	7.64	7.64
Antimony	ug/dscm	1.30	0.214	0.939	0.817	0.817
Arsenic	ug/dscm	0.0583	0.113	0.179	0.117	0.117
Barium	ug/dscm	0.184	0.086	0.130	0.133	0.133
Beryllium	ug/dscm	ND	0.0540	ND	0.0540	< 0.0538
Cadmium	ug/dscm	0.0551	0.0663	0.0378	0.0531	0.0531
Chromium	ug/dscm	NDb	0.0216	NDb	0.0216	< 0.0215
Cobalt	ug/dscm	ND	0.0216	ND	0.0216	< 0.0215
Copper	ug/dscm	ND	0.216	ND	0.216	0.147
Lead	ug/dscm	7.94	11.7	6.53	8.73	8.73
Manganese	ug/dscm	NDb	0.0216	NDb	0.0216	0.0464
Mercury	ug/dscm	ND	0.00326	ND	0.00307	0.00199
Nickel	ug/dscm	0.0216	NDb	0.0214	NDb	0.0144
Phosphorus	ug/dscm	ND	2.92	ND	2.92	< 2.91
Selenium	ug/dscm	ND	0.0432	ND	0.0428	< 0.0431
Silver	ug/dscm	ND	0.0216	ND	0.0214	0.0215
Thallium	ug/dscm	ND	0.0216	ND	0.0214	< 0.0215
Vanadium	ug/dscm	ND	0.108	ND	0.107	< 0.108
Zinc	ug/dscm	0.486	0.610	ND	0.432	0.437
Iron	ug/dscm	NDb	2.92	NDb	2.89	< 2.91
CARB Method 436						
MASS EMISSION RATE		Total	Total	Total		
Aluminum	lb/hr	3.19E-03	3.29E-03	2.98E-03	3.15E-03	3.15E-03
Antimony	lb/hr	5.32E-04	8.88E-05	3.87E-04	3.36E-04	3.36E-04
Arsenic	lb/hr	2.39E-05	4.71E-05	7.39E-05	4.83E-05	4.83E-05
Barium	lb/hr	7.53E-05	3.55E-05	5.34E-05	5.48E-05	5.48E-05
Beryllium	lb/hr	ND	2.22E-05	ND	2.23E-05	< 2.22E-05
Cadmium	lb/hr	2.26E-05	2.75E-05	1.56E-05	2.19E-05	2.19E-05
Chromium	lb/hr	NDb	8.86E-06	NDb	8.90E-06	< 8.88E-06
Cobalt	lb/hr	ND	8.86E-06	ND	8.90E-06	< 8.88E-06
Copper	lb/hr	ND	8.86E-05	ND	8.90E-05	6.07E-05
Lead	lb/hr	3.25E-03	4.86E-03	2.69E-03	3.60E-03	3.60E-03
Manganese	lb/hr	NDb	8.86E-06	NDb	8.90E-06	1.92E-05
Mercury	lb/hr	ND	1.34E-06	ND	1.27E-06	8.21E-07
Nickel	lb/hr	8.86E-06	NDb	8.88E-06	NDb	5.92E-06
Phosphorus	lb/hr	ND	1.20E-03	ND	1.20E-03	< 1.20E-03
Selenium	lb/hr	ND	1.77E-05	ND	1.78E-05	< 1.78E-05
Silver	lb/hr	ND	8.86E-06	ND	8.88E-06	< 8.88E-06
Thallium	lb/hr	ND	8.86E-06	ND	8.88E-06	< 8.88E-06
Vanadium	lb/hr	ND	4.43E-05	ND	4.45E-05	< 4.44E-05
Zinc	lb/hr	1.99E-04	2.53E-04	ND	1.78E-04	1.81E-04
Iron	lb/hr	NDb	1.20E-03	NDb	1.20E-03	< 1.20E-03

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - Not detected, reporting limit reported.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 1-2. SUMMARY OF TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: South Torit

TEST DATA	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	1/4-6/2011	--
Sampling Data*			
Stack Temperature	°F	76	--
Moisture	%	0.6	--
Sample Volume	dscf	325	--
Oxygen**	% v/v	20.2	--
Carbon Dioxide**	% v/v	0.4	--
Gas Velocity	ft/min	2,872	--
Stack Flow Rate	acfm	110,518	--
Stack Flow Rate	dscfm	109,189	--
CARB Method 425			
CONCENTRATION			
Chromium VI	ug/dscm	0.0169	0.0169
CARB Method 425			
MASS EMISSION RATE			
Chromium VI	lb/hr	6.91E-06	6.91E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

TABLE 6-2. TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: South Torit

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	01/04/11	01/05/11	01/06/11	--	--
Test Time	h/m	06:50 - 15:15	07:00 - 15:35	06:50 - 15:20	--	--
Sampling Data*						
Stack Temperature	°F	77	80	71	76	--
Moisture	%	0.7	0.6	0.4	0.6	--
Sample Volume	dscf	326	323	326	325	--
Oxygen**	% v/v	20.1	19.9	20.4	20.2	--
Carbon Dioxide**	% v/v	0.3	0.5	0.3	0.4	--
Gas Velocity	ft/min	2,889	2,870	2,856	2,872	--
Stack Flow Rate	acfmin	111,199	110,436	109,919	110,518	--
Stack Flow Rate	dscfm	109,300	108,485	109,784	109,189	--
CARB Method 425						
CONCENTRATION		Total	Total	Total		
Chromium VI	ug/dscm	0.0300	0.0109	0.00974	0.0169	0.0169
CARB Method 425						
MASS EMISSION RATE		Total	Total	Total		
Chromium VI	lb/hr	1.23E-05	4.44E-06	4.01E-06	6.91E-06	6.91E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

SECTION VIII

NORTH TORIT

TABLE 1-1. SUMMARY OF TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
City: Vernon, CA
Source: North Torit

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/27-29/2010	--
Sampling Data*			
Stack Temperature	°F	102	--
Moisture	%	0.6	--
Sample Volume	dscf	339	--
Oxygen**	% v/v	20.1	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	2,626	--
Stack Flow Rate	acfm	101,050	--
Stack Flow Rate	dscfm	94,599	--
CARB Method 436			
CONCENTRATION			
Aluminum	ug/dscm	8.97	8.97
Antimony	ug/dscm	0.0511	0.0511
Arsenic	ug/dscm	2.45	2.45
Barium	ug/dscm	0.0313	0.0313
Beryllium	ug/dscm	< 0.0521	0
Cadmium	ug/dscm	0.123	0.123
Chromium	ug/dscm	< 0.0563	0
Cobalt	ug/dscm	0.0142	0.0142
Copper	ug/dscm	< 0.209	0
Lead	ug/dscm	3.98	3.98
Manganese	ug/dscm	0.636	0.636
Mercury	ug/dscm	0.0163	0.0163
Nickel	ug/dscm	0.146	0.146
Phosphorus	ug/dscm	< 2.82	0
Selenium	ug/dscm	< 0.0209	0
Silver	ug/dscm	0.0281	0.0281
Thallium	ug/dscm	< 0.0209	0
Vanadium	ug/dscm	< 0.104	0
Zinc	ug/dscm	0.722	0.722
Iron	ug/dscm	< 2.82	0
CARB Method 436			
MASS EMISSION RATE			
Aluminum	lb/hr	3.18E-03	3.18E-03
Antimony	lb/hr	1.81E-05	1.81E-05
Arsenic	lb/hr	8.69E-04	8.69E-04
Barium	lb/hr	1.11E-05	1.11E-05
Beryllium	lb/hr	< 1.85E-05	0
Cadmium	lb/hr	4.36E-05	4.36E-05
Chromium	lb/hr	< 1.99E-05	0
Cobalt	lb/hr	5.05E-06	5.05E-06
Copper	lb/hr	< 7.39E-05	0
Lead	lb/hr	1.41E-03	1.41E-03
Manganese	lb/hr	2.25E-04	2.25E-04
Mercury	lb/hr	5.79E-06	5.79E-06
Nickel	lb/hr	5.17E-05	5.17E-05
Phosphorus	lb/hr	< 9.97E-04	0
Selenium	lb/hr	< 7.39E-06	0
Silver	lb/hr	9.97E-06	9.97E-06
Thallium	lb/hr	< 7.39E-06	0
Vanadium	lb/hr	< 3.69E-05	0
Zinc	lb/hr	2.56E-04	2.56E-04
Iron	lb/hr	< 9.97E-04	0

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - Not detected, reporting limit reported.

**TABLE 6-1. TEST RESULTS
CARB 436 (Multiple Metals)**

Facility: Exide Technologies
City: Vernon, CA
Source: North Torit

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	Run 1	Run 2	Run 3		
Test Date	m/d/y	10/27/10	10/28/10	10/29/10	--	--
Test Time	h/m	07:30 - 15:41	08:00 - 16:19	05:35 - 13:46	--	--
Sampling Data*						
Stack Temperature	°F	101	105	98	102	--
Moisture	%	0.6	0.5	0.8	0.6	--
Sample Volume	dscf	339	337	340	339	--
Oxygen**	% v/v	20.2	20.0	20.1	20.1	--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--
Gas Velocity	ft/min	2,630	2,629	2,618	2,626	--
Stack Flow Rate	acf m	101,228	101,163	100,760	101,050	--
Stack Flow Rate	dscfm	94,679	94,370	94,747	94,599	--
CARB Method 436 CONCENTRATION						
Aluminum	ug/dscm	Total 9.07	Total 8.80	Total 9.04	8.97	8.97
Antimony	ug/dscm	ND 0.0521	0.0607	0.0665	0.0511	0.0511
Arsenic	ug/dscm	5.19	1.34	0.837	2.45	2.45
Barium	ug/dscm	0.0208	0.0419	0.0312	0.0313	0.0313
Beryllium	ug/dscm	ND 0.0521	ND 0.0524	ND 0.0519	< 0.0521	0
Cadmium	ug/dscm	0.240	0.0827	0.0467	0.123	0.123
Chromium	ug/dscm	NDb 0.0563	NDb 0.0565	NDb 0.0561	< 0.0563	0
Cobalt	ug/dscm	0.0219	ND 0.0209	ND 0.0208	0.0142	0.0142
Copper	ug/dscm	ND 0.208	ND 0.209	ND 0.208	< 0.209	0
Lead	ug/dscm	2.13	5.39	4.41	3.98	3.98
Manganese	ug/dscm	1.89	NDb 0.0209	NDb 0.0208	0.636	0.636
Mercury	ug/dscm	0.0125	0.0126	0.0239	0.0163	0.0163
Nickel	ug/dscm	0.0834	0.126	0.228	0.146	0.146
Phosphorus	ug/dscm	ND 2.81	ND 2.83	ND 2.80	< 2.82	0
Selenium	ug/dscm	ND 0.0208	ND 0.0209	ND 0.0208	< 0.0209	0
Silver	ug/dscm	0.0531	ND 0.0209	ND 0.0208	0.0281	0.0281
Thallium	ug/dscm	ND 0.0208	ND 0.0209	ND 0.0208	< 0.0209	0
Vanadium	ug/dscm	ND 0.104	ND 0.105	ND 0.104	< 0.104	0
Zinc	ug/dscm	1.21	0.377	0.582	0.722	0.722
Iron	ug/dscm	NDb 2.81	NDb 2.83	NDb 2.80	< 2.82	0
CARB Method 436 MASS EMISSION RATE						
Aluminum	lb/hr	Total 3.21E-03	Total 3.11E-03	Total 3.21E-03	3.18E-03	3.18E-03
Antimony	lb/hr	ND 1.85E-05	2.15E-05	2.36E-05	1.81E-05	1.81E-05
Arsenic	lb/hr	1.84E-03	4.72E-04	2.97E-04	8.69E-04	8.69E-04
Barium	lb/hr	7.39E-06	1.48E-05	1.11E-05	1.11E-05	1.11E-05
Beryllium	lb/hr	ND 1.85E-05	ND 1.85E-05	ND 1.84E-05	< 1.85E-05	0
Cadmium	lb/hr	8.50E-05	2.92E-05	1.66E-05	4.36E-05	4.36E-05
Chromium	lb/hr	NDb 2.00E-05	NDb 2.00E-05	NDb 1.99E-05	< 1.99E-05	0
Cobalt	lb/hr	7.76E-06	ND 7.40E-06	ND 7.37E-06	5.05E-06	5.05E-06
Copper	lb/hr	ND 7.39E-05	ND 7.40E-05	ND 7.37E-05	< 7.39E-05	0
Lead	lb/hr	7.56E-04	1.90E-03	1.56E-03	1.41E-03	1.41E-03
Manganese	lb/hr	6.69E-04	NDb 7.40E-06	NDb 7.37E-06	2.25E-04	2.25E-04
Mercury	lb/hr	4.44E-06	4.44E-06	8.48E-06	5.79E-06	5.79E-06
Nickel	lb/hr	2.96E-05	4.44E-05	8.11E-05	5.17E-05	5.17E-05
Phosphorus	lb/hr	ND 9.98E-04	ND 9.99E-04	ND 9.95E-04	< 9.97E-04	0
Selenium	lb/hr	ND 7.39E-06	ND 7.40E-06	ND 7.37E-06	< 7.39E-06	0
Silver	lb/hr	1.88E-05	ND 7.40E-06	ND 7.37E-06	9.97E-06	9.97E-06
Thallium	lb/hr	ND 7.39E-06	ND 7.40E-06	ND 7.37E-06	< 7.39E-06	0
Vanadium	lb/hr	ND 3.70E-05	ND 3.70E-05	ND 3.69E-05	< 3.69E-05	0
Zinc	lb/hr	4.29E-04	1.33E-04	2.06E-04	2.56E-04	2.56E-04
Iron	lb/hr	NDb 9.98E-04	NDb 9.99E-04	NDb 9.95E-04	< 9.97E-04	0

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - Not detected, reporting limit reported.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 1-2. SUMMARY OF TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: North Torit

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/27-29/2010	--
Sampling Data*			
Stack Temperature	°F	104	--
Moisture	%	0.6	--
Sample Volume	dscf	364	--
Oxygen**	% v/v	20.1	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	2,619	--
Stack Flow Rate	acf m	100,791	--
Stack Flow Rate	dscfm	94,057	--
CARB Method 425			
CONCENTRATION			
Chromium VI	ug/dscm	0.0252	0.0252
CARB Method 425			
MASS EMISSION RATE			
Chromium VI	lb/hr	8.88E-06	8.88E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

TABLE 6-2. TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
City: Vernon, CA
Source: North Torit

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	10/27/10	10/28/10	10/29/10	--	--
Test Time	h/m	07:30 - 15:50	08:00 - 16:25	05:35 - 13:57	--	--
Sampling Data*						
Stack Temperature	°F	103	109	98	104	--
Moisture	%	0.7	0.4	0.8	0.6	--
Sample Volume	dscf	364	367	361	364	--
Oxygen**	% v/v	20.2	20.0	20.1	20.1	--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--
Gas Velocity	ft/min	2,627	2,641	2,589	2,619	--
Stack Flow Rate	acfm	101,081	101,653	99,640	100,791	--
Stack Flow Rate	dscfm	94,252	94,288	93,632	94,057	--
CARB Method 425						
CONCENTRATION		<u>Total</u>	<u>Total</u>	<u>Total</u>		
Chromium VI	ug/dscm	0.00291	0.0346	0.0381	0.0252	0.0252
CARB Method 425						
MASS EMISSION RATE		<u>Total</u>	<u>Total</u>	<u>Total</u>		
Chromium VI	lb/hr	1.03E-06	1.22E-05	1.34E-05	8.88E-06	8.88E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

SECTION IX

RMPS SCRUBBER

TABLE 1-1. SUMMARY OF TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
City: Vernon, CA
Source: RMPS Scrubber

TEST DATA	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	11/10-12/2010	--
Sampling Data*			
Stack Temperature	°F	74	--
Moisture	%	1.9	--
Sample Volume	dscf	345	--
Oxygen**	% v/v	20.2	--
Carbon Dioxide**	% v/v	0.4	--
Gas Velocity	ft/min	1,713	--
Stack Flow Rate	acfmin	17,681	--
Stack Flow Rate	dscfm	17,270	--
CARB Method 436			
CONCENTRATION			
Aluminum	ug/dscm	7.53	7.53
Antimony	ug/dscm	0.0470	0.0470
Arsenic	ug/dscm	0.0454	0.0454
Barium	ug/dscm	0.277	0.277
Beryllium	ug/dscm	< 0.0511	0
Cadmium	ug/dscm	0.143	0.143
Chromium	ug/dscm	3.18	3.18
Cobalt	ug/dscm	0.0375	0.0375
Copper	ug/dscm	0.160	0.160
Lead	ug/dscm	5.53	5.53
Manganese	ug/dscm	< 0.0205	0
Mercury	ug/dscm	0.00599	0.00599
Nickel	ug/dscm	1.71	1.71
Phosphorus	ug/dscm	< 2.76	0
Selenium	ug/dscm	0.0693	0.0693
Silver	ug/dscm	< 0.0205	0
Thallium	ug/dscm	< 0.0205	0
Vanadium	ug/dscm	< 0.102	0
Zinc	ug/dscm	0.751	0.751
Iron	ug/dscm	13.4	13.4
CARB Method 436			
MASS EMISSION RATE			
Aluminum	lb/hr	4.87E-04	4.87E-04
Antimony	lb/hr	3.04E-06	3.04E-06
Arsenic	lb/hr	2.93E-06	2.93E-06
Barium	lb/hr	1.78E-05	1.78E-05
Beryllium	lb/hr	< 3.31E-06	0
Cadmium	lb/hr	9.26E-06	9.26E-06
Chromium	lb/hr	2.06E-04	2.06E-04
Cobalt	lb/hr	2.42E-06	2.42E-06
Copper	lb/hr	1.04E-05	1.04E-05
Lead	lb/hr	3.58E-04	3.58E-04
Manganese	lb/hr	< 1.32E-06	0
Mercury	lb/hr	3.88E-07	3.88E-07
Nickel	lb/hr	1.10E-04	1.10E-04
Phosphorus	lb/hr	< 1.79E-04	0
Selenium	lb/hr	4.47E-06	4.47E-06
Silver	lb/hr	< 1.32E-06	0
Thallium	lb/hr	< 1.32E-06	0
Vanadium	lb/hr	< 6.61E-06	0
Zinc	lb/hr	4.85E-05	4.85E-05
Iron	lb/hr	8.66E-04	8.66E-04

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - Not detected, reporting limit reported.

**TABLE 6-1. TEST RESULTS
CARB 436 (Multiple Metals)**

Facility: Exide Technologies
City: Vernon, CA
Source: RMPS Scrubber

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	Run 1	Run 2	Run 3		
Test Date	m/d/y	11/10/10	11/11/10	11/12/10	--	--
Test Time	h/m	05:30 - 14:00	06:00 - 14:15	06:45 - 14:57	--	--
Sampling Data*						
Stack Temperature	°F	75	73	73	74	--
Moisture	%	2.1	1.9	1.6	1.9	--
Sample Volume	dscf	344	346	346	345	--
Oxygen**	% v/v	20.5	20.3	20.0	20.2	--
Carbon Dioxide**	% v/v	0.6	0.3	0.4	0.4	--
Gas Velocity	ft/min	1,719	1,714	1,707	1,713	--
Stack Flow Rate	acfmin	17,737	17,684	17,621	17,681	--
Stack Flow Rate	dscfm	17,156	17,281	17,374	17,270	--
CARB Method 436						
CONCENTRATION						
Aluminum	ug/dscm	Total 7.70	Total 7.87	Total 7.03	7.53	7.53
Antimony	ug/dscm	ND	0.0513	0.0582	0.0571	0.0470
Arsenic	ug/dscm		0.0575	0.0460	0.0326	0.0454
Barium	ug/dscm		0.595	0.163	0.0714	0.277
Beryllium	ug/dscm	ND	0.0513	0.0511	ND	0.0510
Cadmium	ug/dscm		0.113	0.215		0.102
Chromium	ug/dscm		5.55	1.95		2.05
Cobalt	ug/dscm		0.0565	0.0460	ND	0.0204
Copper	ug/dscm		0.277	ND	0.204	ND
Lead	ug/dscm		4.67	5.26		6.67
Manganese	ug/dscm	NDb	0.0205	NDb	0.0204	NDb
Mercury	ug/dscm		0.00586	0.00355		0.00857
Nickel	ug/dscm		2.77	2.15		0.214
Phosphorus	ug/dscm	ND	2.77	ND	2.76	<
Selenium	ug/dscm		0.113	0.0848	ND	0.0204
Silver	ug/dscm	ND	0.0205	ND	0.0204	ND
Thallium	ug/dscm	ND	0.0205	ND	0.0204	ND
Vanadium	ug/dscm	ND	0.103	ND	0.102	ND
Zinc	ug/dscm		0.986	0.879		0.387
Iron	ug/dscm		22.7	10.3		7.24
CARB Method 436						
MASS EMISSION RATE						
Aluminum	lb/hr		Total 4.95E-04	Total 5.09E-04	Total 4.58E-04	4.87E-04
Antimony	lb/hr	ND	3.30E-06	3.77E-06	3.71E-06	3.04E-06
Arsenic	lb/hr		3.69E-06	2.98E-06	2.12E-06	2.93E-06
Barium	lb/hr		3.83E-05	1.06E-05	4.64E-06	1.78E-05
Beryllium	lb/hr	ND	3.30E-06	ND	3.31E-06	<
Cadmium	lb/hr		7.26E-06	1.39E-05	6.63E-06	9.26E-06
Chromium	lb/hr		3.57E-04	1.26E-04	1.33E-04	2.06E-04
Cobalt	lb/hr		3.63E-06	2.98E-06	ND	2.42E-06
Copper	lb/hr		1.78E-05	ND	1.32E-05	ND
Lead	lb/hr		3.00E-04	3.40E-04	4.34E-04	3.58E-04
Manganese	lb/hr	NDb	1.32E-06	NDb	1.32E-06	NDb
Mercury	lb/hr		3.76E-07	2.30E-07	5.58E-07	3.88E-07
Nickel	lb/hr		1.78E-04	1.39E-04	1.39E-05	1.10E-04
Phosphorus	lb/hr	ND	1.78E-04	ND	1.79E-04	<
Selenium	lb/hr		7.26E-06	5.49E-06	ND	4.47E-06
Silver	lb/hr	ND	1.32E-06	ND	1.33E-06	<
Thallium	lb/hr	ND	1.32E-06	ND	1.32E-06	<
Vanadium	lb/hr	ND	6.60E-06	ND	6.61E-06	<
Zinc	lb/hr		6.33E-05	5.69E-05	2.52E-05	4.85E-05
Iron	lb/hr		1.46E-03	6.68E-04	4.71E-04	8.66E-04

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - Not detected, reporting limit reported.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 1-2. SUMMARY OF TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: RMPS Scrubber

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	11/10-12/2010	--
<u>Sampling Data*</u>			
Stack Temperature	°F	75	--
Moisture	%	2.1	--
Sample Volume	dscf	344	--
Oxygen**	% v/v	20.2	--
Carbon Dioxide**	% v/v	0.4	--
Gas Velocity	ft/min	1,715	--
Stack Flow Rate	acfm	17,696	--
Stack Flow Rate	dscfm	17,195	--
<u>CARB Method 425</u>			
<u>CONCENTRATION</u>			
Chromium VI	ug/dscm	0.262	0.262
<u>CARB Method 425</u>			
<u>MASS EMISSION RATE</u>			
Chromium VI	lb/hr	1.69E-05	1.69E-05

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

TABLE 6-2. TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
City: Vernon, CA
Source: RMPS Scrubber

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	11/10/10	11/11/10	11/12/10	--	--
Test Time	h/m	05:30 - 14:00	06:00 - 14:25	06:45 - 15:07	--	--
Sampling Data*						
Stack Temperature	°F	77	76	74	75	--
Moisture	%	2.1	2.2	1.9	2.1	--
Sample Volume	dscf	340	349	344	344	--
Oxygen**	% v/v	20.5	20.3	20.0	20.2	--
Carbon Dioxide**	% v/v	0.6	0.3	0.4	0.4	--
Gas Velocity	ft/min	1,702	1,746	1,696	1,715	--
Stack Flow Rate	acfm	17,563	18,018	17,508	17,696	--
Stack Flow Rate	dscfm	16,928	17,447	17,208	17,195	--
CARB Method 425						
CONCENTRATION		Total	Total	Total		
Chromium VI	ug/dscm	0.270	0.215	0.302	0.262	0.262
CARB Method 425						
MASS EMISSION RATE		Total	Total	Total		
Chromium VI	lb/hr	1.71E-05	1.41E-05	1.95E-05	1.69E-05	1.69E-05

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

Revised Aldehydes Emissions Summary Tables

Submitted by Almega Environmental

October 11, 2011

TABLE 1-2. SUMMARY OF TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Hard Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/12-13/2010	--
<u>Sampling Data:</u>			
Stack Flow Rate*	dscfm	98,552	--
Stack Temperature*	°F	103	--
Gas Sample Volume	dscm	0.353	--
<u>Formaldehyde</u>			
Catch	ug	RL 12.7	RL 12.7
Mass Concentration	mg/dscm	RL 0.0360	RL 0.0360
Volumetric Concentration	ppmv	RL 0.0288	RL 0.0288
Mass Emission Rate	lb/hr	RL 0.0133	RL 0.0133
<u>Acetaldehyde</u>			
Catch	ug	7.76	7.76
Mass Concentration	mg/dscm	0.0220	0.0220
Volumetric Concentration	ppmv	0.0120	0.0120
Mass Emission Rate	lb/hr	0.00813	0.00813

* Measured during sampling per SCAQMD Methods 1-4.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

TABLE 6-2. TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Hard Lead

Test Data	Units	Symbol	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	--	Run 1	Run 2	Run 3	--	--
Test Date	m/d/y	--	10/12/10	10/13/10	10/13/10	--	--
Time:	h/m	--	9:20 - 13:20	5:50 - 9:50	10:00 - 14:00	--	--
<u>Sampling Data:</u>							
Stack Flow Rate*	dscfm	Qsd	98,200	98,101	99,356	98,552	--
Stack Temperature*	°F	Ts	104	102	103	103	--
Gas Sample Volume	dscm	Vm,std	0.354	0.353	0.353	0.353	--
<u>Formaldehyde</u>							
Catch	ug	Cbcs,f	RL 12.7	RL 12.7	RL 12.7	RL 12.7	RL 12.7
Mass Concentration	mg/dscm	Cm,f	RL 0.0359	RL 0.0360	RL 0.0360	RL 0.0360	RL 0.0360
Volumetric Concentration	ppmv	Cv,f	RL 0.0288	RL 0.0289	RL 0.0289	RL 0.0288	RL 0.0288
Mass Emission Rate	lb/hr	Ef	RL 0.0132	RL 0.0132	RL 0.0134	RL 0.0133	RL 0.0133
<u>Acetaldehyde</u>							
Catch	ug	Cbcs,a	7.30	5.80	10.2	7.76	7.76
Mass Concentration	mg/dscm	Cm,a	0.0206	0.0164	0.0289	0.0220	0.0220
Volumetric Concentration	ppmv	Cv,a	0.0113	0.00898	0.0158	0.0120	0.0120
Mass Emission Rate	lb/hr	Ea	0.00758	0.00604	0.01077	0.00813	0.00813

* Measured during sampling per SCAQMD Methods 1-4.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

TABLE 1-2. SUMMARY OF TEST RESULTS**CARB 430 (Formaldehyde and Acetaldehyde)**

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Neptune Scrubber

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	9/21-22/2011	--
<u>Sampling Data:</u>			
Stack Flow Rate:*	dscfm	18,386	--
Stack Temperature:*	°F	134	--
Gas Sample Volume	dscm	0.245	--
<u>Formaldehyde</u>			
Catch	ug	3.11	3.11
Mass Concentration:	mg/dscm	0.0127	0.0127
Volumetric Concentration:	ppmv	0.0102	0.0102
Mass Emission Rate:	lb/hr	0.000876	0.000876
<u>Acetaldehyde</u>			
Catch	ug	RL 1.26	RL 1.26
Mass Concentration:	mg/dscm	RL 0.00513	RL 0.00513
Volumetric Concentration:	ppmv	RL 0.00280	RL 0.00280
Mass Emission Rate:	lb/hr	RL 0.000354	RL 0.000354

* Measured during sampling per SCAQMD Methods 1-4.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

**TABLE 6-2. SUMMARY OF TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)**

Facility: Exide Technologies
City: Vernon, CA
Unit: Neptune Scrubber

Test Data	Units	Symbol	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	--	Run 1	Run 2	Run 3	--	--
Test Date	m/d/y	--	09/21/11	09/22/11	09/22/11	--	--
Time:	h:m	--	9:45 - 13:45	6:42 - 10:42	11:10 - 15:10	--	--
Sampling Data:							
Stack Flow Rate.*	dscfm	Qsd	18,487	18,467	18,205	18,386	--
Stack Temperature*	°F	Ts	135.0	132.5	135.3	134	--
Gas Sample Volume	dscm	Vm,std	0.247	0.244	0.243	0.245	--
Formaldehyde	<u>units</u>	<u>Symbol</u>					
Catch	ug	Cbcs,f	RL 3.12	3.09	RL 3.12	3.11	3.11
Mass Concentration:	mg/dscm	Cm,f	RL 0.0127	0.0126	RL 0.0128	0.0127	0.0127
Volumetric Concentration:	ppmv	Cv,f	RL 0.0101	0.0101	RL 0.0103	0.0102	0.0102
Mass Emission Rate:	lb/hr	Ef	RL 0.000877	0.000875	RL 0.000875	0.000876	0.000876
Acetaldehyde	<u>units</u>	<u>Symbol</u>					
Catch	ug	Cbcs,a	RL 1.26	RL 1.26	RL 1.26	RL 1.26	RL 1.26
Mass Concentration:	mg/dscm	Cm,a	RL 0.00509	0.00514	RL 0.00516	0.00513	0.00513
Volumetric Concentration:	ppmv	Cv,a	RL 0.00278	0.00281	RL 0.00282	0.00280	0.00280
Mass Emission Rate:	lb/hr	Ea	RL 0.000353	0.000356	RL 0.000352	0.000354	0.000354

* Measured during sampling per SCAQMD Methods 1-4.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

TABLE 1-2. SUMMARY OF TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Soft Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	10/27-28/2010	--
<u>Sampling Data:</u>			
Stack Flow Rate*	dscfm	88,673	--
Stack Temperature*	°F	101	--
Gas Sample Volume	dscm	0.352	--
<u>Formaldehyde</u>			
Catch	ug	RL 5.15	RL 5.15
Mass Concentration	mg/dscm	RL 0.0146	RL 0.0146
Volumetric Concentration	ppmv	RL 0.0117	RL 0.0117
Mass Emission Rate	lb/hr	RL 0.00487	RL 0.00487
<u>Acetaldehyde</u>			
Catch	ug	3.92	3.92
Mass Concentration	mg/dscm	0.0111	0.0111
Volumetric Concentration	ppmv	0.00609	0.00609
Mass Emission Rate	lb/hr	0.00370	0.00370

* Measured during sampling per SCAQMD Methods 1-4.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

TABLE 6-2. TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Soft Lead

Test Data	Units	Symbol	Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	--	Run 1	Run 2	Run 3		
Test Date	m/d/y	--	10/27/10	10/28/10	10/28/10	--	--
Time:	h/m	--	7:45 - 11:45	5:45 - 9:45	9:50 - 13:50	--	--
Sampling Data:							
Stack Flow Rate*	dscfm	Qsd	88,592	88,905	88,522	88,673	--
Stack Temperature*	°F	Ts	100	99	105	101	--
Gas Sample Volume	dscm	Vm,std	0.351	0.352	0.352	0.352	--
Formaldehyde							
Catch	ug	Cbcs,f	RL 5.15	RL 5.15	RL 5.15	RL 5.15	RL 5.15
Mass Concentration	mg/dscm	Cm,f	RL 0.0147	RL 0.0146	RL 0.0146	RL 0.0146	RL 0.0146
Volumetric Concentration	ppmv	Cv,f	RL 0.0118	RL 0.0117	RL 0.0117	RL 0.0117	RL 0.0117
Mass Emission Rate	lb/hr	Ef	RL 0.00487	RL 0.00488	RL 0.00485	RL 0.00487	RL 0.00487
Acetaldehyde							
Catch	ug	Cbcs,a	3.11	3.88	4.75	3.92	3.92
Mass Concentration	mg/dscm	Cm,a	0.0089	0.0110	0.0135	0.0111	0.0111
Volumetric Concentration	ppmv	Cv,a	0.00485	0.00603	0.00738	0.00609	0.00609
Mass Emission Rate	lb/hr	Ea	0.00295	0.00368	0.00448	0.00370	0.00370

* Measured during sampling per SCAQMD Methods 1-4.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

Appendix A1b

2012 Almega Source Test Summary Tables with AQMD Approval Letter

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

M E M O R A N D U M

DATE: September 24, 2012

TO: Phil Fine

FROM: Rudy Eden

SUBJECT: Evaluation of Source Test Report:
(Requested by Pierre Sycip, 8/22/12)

AQMD ID: **FACILITY ID NO. 124838**
COMPANY: **Exide Technologies (f.k.a GNB), Vernon**
EQUIPMENT: **Hard Lead Baghouse (C46-A/N 501060)**
TEST LOCATION: **Neptune Scrubber (C40/C41-A/N 374231 C42/C43-A/N 374180)
2700 South Indiana Street, Los Angeles, CA 90023**

TEST DATE: **Hard Lead: May 2-4 & June 1-18, 2012
Neptune Scrubber: May 8-30 & June 19, 2012**

REFERENCE: R12445 (STE Source Test File)

Source Test Engineering has completed the evaluation of the subject source test report and has concluded that it is:

CONDITIONALLY ACCEPTABLE

Calculational errors were noted for PAH emissions reported for the Hard Lead baghouse. An addendum was submitted electronically addressing these errors on 9/13/12. The corrected summary tables of PAH emissions are included with the summaries of all emissions from both the Hard Lead & Neptune scrubber stack as attachments to this evaluation for ease of reference.

The attached evaluation has not been forwarded to the facility or the source testing firm. It is the responsibility of the requestor to review the attached evaluation and forward it to the parties involved, if you concur with our findings. If there are any questions, please contact Scott A. Wilson at Ext. 2257.

RE:MG:SAW
Attachment
cc: Mike Garibay
Pierre Sycip
Tom Chico
Marco Polo

R12445 : REV 9/14/11

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**MONITORING & ANALYSIS DIVISION * SOURCE TEST ENGINEERING BRANCH****SOURCE TEST REPORT EVALUATION****S/T ID:****R12445****AQMD ID:****FACILITY ID NO. 124838****COMPANY:****Exide Technologies (f.k.a GNB), Vernon****EQUIPMENT:****Hard Lead Baghouse (C46-A/N 501060)****TEST LOCATION:****Neptune Scrubber (C40/C41-A/N 374231 C42/C43-A/N 374180)****TEST DATE:****2700 South Indiana Street, Los Angeles, CA 90023****LOCATION:****Hard Lead: May 2-4 & June 1-18, 2012****Neptune Scrubber: May 8-30 & June 19, 2012****2700 South Indiana Street, Los Angeles, CA 90023****REQUESTED BY:****Pierre Sycip (Memo Dated 8/22/12)****TYPE OF TEST:****PERFORMANCE REPORT DOCUMENT DATE: Neptune: 8/8/12 Hard Lead 8/10/12****REASON FOR TEST:****(TESTING SUBJECT TO THE FOLLOWING RULE, PERMIT, OR SPECIFIED CONDITIONS):****- AB2588****REQUESTED EVAL:****TOXICS: Multi Metals, Cr ^(tot) & Cr ⁽⁺⁶⁾, TO-15 Toxic Organic compounds, PCDD/PCDF, PCB, PAH, Aldehydes, 1,3-Butadiene, 1,4-Dioxane****TEST DATE:****Hard Lead: May 2-4 & June 1-18, 2012 Neptune: May 8-30 & June 19, 2012****TEST FIRM:****Almega Surya Adhikari (714) 889-4000****STE EVALUATOR:****Scott A. Wilson EXT: 2257****REVIEW DATE: 9/24/12****EXPEDITED REVIEW:** **YES NO****OVERVIEW OF EVALUATION:****OVERALL** **ACCEPTABLE CONDITIONALLY ACCEPTABLE UNACCEPTABLE****CONFIDENCE IN REPORTED TEST RESULTS:**

- Calculational errors were noted in the PAH emissions for the Hard Lead baghouse, Almega submitted corrections as an addendum on 9/13/12 (electronically). The corrected summary tables are attached to this evaluation, a revised report will be supplied to Planning & Rules (P&R) and Engineering & Compliance (E&C).
- Results for all emissions, as reported (& corrected in the addendum), have been verified to be representative of these processes under the conditions tested.

RESTRICTIONS FOR USE OF REPORTED RESULTS:**COMPLIANCE DETERMINATION:****(REFER TO NEXT SECTION FOR COMPLETE DISCUSSION OF TEST RESULTS AND CORRECTED EMISSION INFORMATION, IF APPLICABLE)**

SOURCE TEST REPORT EVALUATION**DETAILED REVIEW**

This source test report has been reviewed by the Evaluations Unit staff. The following specifically explains the restrictions concerning the treatment of the reported source test information:

- Equipment/Process/Test Overview
- Completeness of Application/Protocol/Report
- Representativeness of Data & Process
- Rule/Permit Fulfillment
- Sampling & Analytical Methods
- Quality Assurance
- Calculations

EQUIPMENT/PROCESS/TEST OVERVIEW

- This test program was conducted as a re-test of the Neptune Scrubber & Hard Lead baghouse due to reported blockage in the riser of the blast furnace charge chute, causing emissions to be drawn into the hard lead baghouse control system (dry filtration) during the initial round of toxics (HRA) testing. The original testing was conducted to update the Air Toxic Inventory Report (ATIR) & Health Risk Assessment (HRA) for the facility. Source Test Engineering (STE) has reviewed this re-test report and supporting laboratory data and determined that the testing and analysis was conducted according to promulgated methods. Errors noted in the PAH calculations for the Hard Lead stack have been corrected and are attached to this evaluation.

COMPLETENESS OF REPORT

- The report was complete on initial submittal.

REPRESENTATIVENESS OF DATA & PROCESS

- As with the original testing, the following operational parameters were stipulated to be recorded during the testing and were included in the final report:
 - The pot furnace ID, the total amounts charged, and the chronological times, for additions of all chemical reagents into each pot furnace during each test run.
 - The process weight of all materials charged during each test run to the rotary dryer furnace and the cupola furnace.
 - The temperatures of the rotary dryer, and the cupola afterburner during each test run.
 - The total weight of batteries charged to the battery breaker during the test run on the RMPS scrubber.
 - The oxygen enrichment ratio for the reverb furnace, during each test run, calculated pursuant to the equation in the Facility Permit, and the supporting data used to calculate this parameter (combustion air flow rate, enrichment oxygen gas flow rate).

SOURCE TEST REPORT EVALUATION**RULE/PERMIT FULFILLMENT**

Testing must satisfy the following Rule/Permit requirements:

- AB2588

All of the above requirements have been addressed in this Report and are satisfactory as presented, or as modified and discussed in this review. The source test report summary emission information attached to this evaluation is recommended by STE to be used for emission reporting & interpretation to avoid referencing incorrect PAH values from the Hard Lead stack.

SAMPLING & ANALYTICAL METHODS / RESULTS

- All testing and analyses were performed according to approved AQMD methods and procedures.
- As documented in the Neptune Scrubber report, due to higher than expected reagent contamination of the sodium hydroxide (NaOH) for the M425 sampling, hexavalent chromium was an order of magnitude greater than the total chromium. Due to the lower detection limit attained from the multi-metals train (CARB M436: ICP/MS analysis) the total chromium value from the simultaneous M436 train is substituted for hexavalent chromium emissions for this stack.

QUALITY ASSURANCE

- All reported testing results were well supported and documented with respect to raw data, calibrations, calculations, and lab analyses.

CALCULATIONS

- Source Test Engineering (STE) noted that incorrect sample gas volumes were used in the calculation of PAH emissions data from the Hard lead baghouse, Almega supplied corrected emission data as an addendum 9/13/12 in electronic format. No other errors were noted in the sampling/analysis or calculation of emissions from either the Hard Lead or Neptune stacks.

TABLE 1-1. SUMMARY OF TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead
 Location: Exhaust

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	5/2-4/12	--
Sampling Data*			
Stack Temperature	°F	112	--
Moisture	%	1.5	--
Sample Volume	dscf	377	--
Oxygen**	% v/v	20.5	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	3,011	--
Stack Flow Rate	acfmin	105,091	--
Stack Flow Rate	dscfm	95,618	--
CARB Method 436			
CONCENTRATION			
Aluminum	ug/dscm	< 0.938	0
Antimony	ug/dscm	0.0441	0.0441
Arsenic	ug/dscm	59.1	59.1
Barium	ug/dscm	< 0.0188	0
Beryllium	ug/dscm	< 0.0938	0
Cadmium	ug/dscm	0.125	0.125
Chromium	ug/dscm	< 0.0506	0
Cobalt	ug/dscm	< 0.0188	0
Copper	ug/dscm	< 0.188	0
Lead	ug/dscm	5.01	5.01
Manganese	ug/dscm	0.0717	0.0717
Mercury	ug/dscm	0.475	0.475
Nickel	ug/dscm	0.415	0.415
Phosphorus	ug/dscm	1.72	1.72
Selenium	ug/dscm	< 0.0375	0
Silver	ug/dscm	< 0.0188	0
Thallium	ug/dscm	< 0.0188	0
Vanadium	ug/dscm	< 0.0938	0
Zinc	ug/dscm	0.647	0.647
Iron	ug/dscm	< 5.06	0
CARB Method 436			
MASS EMISSION RATE			
Aluminum	lb/hr	< 3.36E-04	0
Antimony	lb/hr	1.58E-05	1.58E-05
Arsenic	lb/hr	2.12E-02	2.12E-02
Barium	lb/hr	< 6.72E-06	0
Beryllium	lb/hr	< 3.36E-05	0
Cadmium	lb/hr	4.48E-05	4.48E-05
Chromium	lb/hr	< 1.81E-05	0
Cobalt	lb/hr	< 6.72E-06	0
Copper	lb/hr	< 6.72E-05	0
Lead	lb/hr	1.80E-03	1.80E-03
Manganese	lb/hr	2.58E-05	2.58E-05
Mercury	lb/hr	1.70E-04	1.70E-04
Nickel	lb/hr	1.49E-04	1.49E-04
Phosphorus	lb/hr	6.16E-04	6.16E-04
Selenium	lb/hr	< 1.34E-05	0
Silver	lb/hr	< 6.72E-06	0
Thallium	lb/hr	< 6.72E-06	0
Vanadium	lb/hr	< 3.36E-05	0
Zinc	lb/hr	2.32E-04	2.32E-04
Iron	lb/hr	< 1.81E-03	0

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - Not detected, reporting limit reported.

TABLE 1-2. SUMMARY OF TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Hard Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	6/01-05/12	--
<u>Sampling Data:</u>			
Stack Flow Rate*	dscfm	93,339	--
Stack Temperature*	°F	117	--
Gas Sample Volume	dscm	0.070	--
<u>Formaldehyde</u>			
Catch	ug	6.79	6.79
Mass Concentration	mg/dscm	0.0965	0.0965
Volumetric Concentration	ppmv	0.0774	0.0774
Mass Emission Rate	lb/hr	0.0338	0.0338
<u>Acetaldehyde</u>			
Catch	ug	9.95	9.95
Mass Concentration	mg/dscm	0.141	0.141
Volumetric Concentration	ppmv	0.0772	0.0772
Mass Emission Rate	lb/hr	0.0495	0.0495

* Measured during simultaneous isokinetic sampling per CARB Method 428.

TABLE 1-3. SUMMARY OF TEST RESULTS
CARB 429 (Polycyclic Aromatic Hydrocarbons)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

TEST DATA	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	6/1-5/12	--
Sampling Data*			
Stack Temperature	°F	113	--
Moisture	%	1.3	--
Sample Volume	dscf	334	--
Oxygen**	% v/v	20.7	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	2,945	--
Stack Flow Rate	acfm	102,794	--
Stack Flow Rate	dscfm	93,426	--
CARB Method 429, PAH CONCENTRATION			
Naphthalene	ug/dscm	146	146
2-Methylnaphthalene	ug/dscm	17.0	17.0
Acenaphthylene	ug/dscm	11.1	11.1
Acenaphthene	ug/dscm	0.948	0.948
Fluorene	ug/dscm	3.85	3.85
Phenanthrene	ug/dscm	23.6	23.6
Anthracene	ug/dscm	1.37	1.37
Fluoranthene	ug/dscm	3.11	3.11
Pyrene	ug/dscm	1.25	1.25
Benz(a)anthracene	ug/dscm	0.0559	0.0559
Chrysene	ug/dscm	0.188	0.188
Benzo(b)fluoranthene	ug/dscm	0.00580	0.00580
Benzo(k)fluoranthene	ug/dscm	0.00397	0.00397
Benzo(e)pyrene	ug/dscm	0.00308	0.00308
Benzo(a)pyrene	ug/dscm	0.000922	0.000922
Perylene	ug/dscm	< 0.00106	0
Indeno(1,2,3-cd)pyrene	ug/dscm	< 0.00106	0
Dibenz(a,h)anthracene	ug/dscm	< 0.00106	0
Benzo(g,h,i)perylene	ug/dscm	< 0.00106	0
CARB Method 429, PAH MASS EMISSION RATE			
Naphthalene	lb/hr	5.10E-02	5.10E-02
2-Methylnaphthalene	lb/hr	5.95E-03	5.95E-03
Acenaphthylene	lb/hr	3.88E-03	3.88E-03
Acenaphthene	lb/hr	3.31E-04	3.31E-04
Fluorene	lb/hr	1.35E-03	1.35E-03
Phenanthrene	lb/hr	8.26E-03	8.26E-03
Anthracene	lb/hr	4.79E-04	4.79E-04
Fluoranthene	lb/hr	1.09E-03	1.09E-03
Pyrene	lb/hr	4.38E-04	4.38E-04
Benz(a)anthracene	lb/hr	1.95E-05	1.95E-05
Chrysene	lb/hr	6.59E-05	6.59E-05
Benzo(b)fluoranthene	lb/hr	2.02E-06	2.02E-06
Benzo(k)fluoranthene	lb/hr	1.39E-06	1.39E-06
Benzo(e)pyrene	lb/hr	1.08E-06	1.08E-06
Benzo(a)pyrene	lb/hr	3.23E-07	3.23E-07
Perylene	lb/hr	< 3.69E-07	0
Indeno(1,2,3-cd)pyrene	lb/hr	< 3.69E-07	0
Dibenz(a,h)anthracene	lb/hr	< 3.69E-07	0
Benzo(g,h,i)perylene	lb/hr	< 3.69E-07	0

* Performed during isokinetic sampling (e.g. CARB Method 429).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - not detected, reporting limit reported.

TABLE 1-4. SUMMARY OF TEST RESULTS
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	6/1-5/12	--
Sampling Data*			
Stack Temperature	°F	117	--
Moisture	%	1.1	--
Sample Volume	dscf	366	--
Oxygen**	% v/v	20.7	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	2,959	--
Stack Flow Rate	acfm	103,278	--
Stack Flow Rate	dscfm	93,339	--
CARB Method 428			
CONCENTRATION			
2,3,7,8-TCDD	ug/dscm	< 2.17E-07	0
1,2,3,7,8-PeCDD	ug/dscm	< 1.65E-07	0
1,2,3,4,7,8-HxCDD	ug/dscm	< 1.71E-07	0
1,2,3,6,7,8-HxCDD	ug/dscm	< 1.74E-07	0
1,2,3,7,8,9-HxCDD	ug/dscm	< 1.71E-07	0
1,2,3,4,6,7,8,-HpCDD	ug/dscm	1.38E-07	1.38E-07
OCDD	ug/dscm	6.12E-07	6.12E-07
2,3,7,8-TCDF	ug/dscm	7.10E-07	7.10E-07
1,2,3,7,8-PeCDF	ug/dscm	1.72E-07	1.72E-07
2,3,4,7,8-PeCDF	ug/dscm	< 1.77E-07	0
1,2,3,4,7,8-HxCDF	ug/dscm	< 9.54E-08	0
1,2,3,6,7,8-HxCDF	ug/dscm	< 8.64E-08	0
2,3,4,6,7,8-HxCDF	ug/dscm	< 9.94E-08	0
1,2,3,7,8,9-HxCDF	ug/dscm	< 1.23E-07	0
1,2,3,4,6,7,8-HpCDF	ug/dscm	< 1.82E-07	0
1,2,3,4,7,8,9-HpCDF	ug/dscm	< 2.35E-07	0
OCDF	ug/dscm	< 2.05E-07	0
TEQ (Min) as 2,3,7,8-TCDD	ug/dscm	7.49E-08	7.49E-08
Total TCDD	ug/dscm	8.78E-06	8.78E-06
Total PeCDD	ug/dscm	5.60E-07	5.60E-07
Total HxCDD	ug/dscm	< 1.74E-07	0
Total HpCDD	ug/dscm	1.66E-07	1.66E-07
Total TCDF	ug/dscm	2.61E-05	2.61E-05
Total PeCDF	ug/dscm	1.39E-06	1.39E-06
Total HxCDF	ug/dscm	1.10E-07	1.10E-07
Total HpCDF	ug/dscm	< 2.35E-07	0
PCBs			
Total monoCB	ug/dscm	7.88E-02	7.88E-02
Total diCB	ug/dscm	3.36E-02	3.36E-02
Total triCB	ug/dscm	4.04E-02	4.04E-02
Total tetraCB	ug/dscm	3.78E-02	3.78E-02
Total pentaCB	ug/dscm	2.95E-02	2.95E-02
Total hexaCB	ug/dscm	5.79E-03	5.79E-03
Total heptaCB	ug/dscm	2.33E-04	2.33E-04
Total octaCB	ug/dscm	1.97E-05	1.97E-05
Total nonaCB	ug/dscm	< 3.53E-05	0
Total decaCB	ug/dscm	< 3.53E-05	0
Total PCBs	ug/dscm	2.26E-01	2.26E-01

TABLE 1-4. SUMMARY OF TEST RESULTS, Continued
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	6/1-5/12	--
CARB Method 428			
MASS EMISSION RATE			
2,3,7,8-TCDD	lb/hr	< 7.59E-11	0
1,2,3,7,8-PeCDD	lb/hr	< 5.77E-11	0
1,2,3,4,7,8-HxCDD	lb/hr	< 5.97E-11	0
1,2,3,6,7,8-HxCDD	lb/hr	< 6.08E-11	0
1,2,3,7,8,9-HxCDD	lb/hr	< 5.99E-11	0
1,2,3,4,6,7,8,-HpCDD	lb/hr	4.81E-11	4.81E-11
OCDD	lb/hr	2.14E-10	2.14E-10
2,3,7,8-TCDF	lb/hr	2.48E-10	2.48E-10
1,2,3,7,8-PeCDF	lb/hr	6.01E-11	6.01E-11
2,3,4,7,8-PeCDF	lb/hr	< 6.20E-11	0
1,2,3,4,7,8-HxCDF	lb/hr	< 3.34E-11	0
1,2,3,6,7,8-HxCDF	lb/hr	< 3.02E-11	0
2,3,4,6,7,8-HxCDF	lb/hr	< 3.47E-11	0
1,2,3,7,8,9-HxCDF	lb/hr	< 4.28E-11	0
1,2,3,4,6,7,8-HpCDF	lb/hr	< 6.37E-11	0
1,2,3,4,7,8,9-HpCDF	lb/hr	< 8.21E-11	0
OCDF	lb/hr	< 7.17E-11	0
TEQ (Min) as 2,3,7,8-TCDD	lb/hr	2.62E-11	2.62E-11
Total TCDD	lb/hr	3.07E-09	3.07E-09
Total PeCDD	lb/hr	1.95E-10	1.95E-10
Total HxCDD	lb/hr	< 6.08E-11	0
Total HpCDD	lb/hr	5.80E-11	5.80E-11
Total TCDF	lb/hr	9.13E-09	9.13E-09
Total PeCDF	lb/hr	4.86E-10	4.86E-10
Total HxCDF	lb/hr	3.84E-11	3.84E-11
Total HpCDF	lb/hr	< 8.21E-11	0
PCBs			
Total monoCB	lb/hr	2.75E-05	2.75E-05
Total diCB	lb/hr	1.18E-05	1.18E-05
Total triCB	lb/hr	1.41E-05	1.41E-05
Total tetraCB	lb/hr	1.32E-05	1.32E-05
Total pentaCB	lb/hr	1.03E-05	1.03E-05
Total hexaCB	lb/hr	2.02E-06	2.02E-06
Total heptaCB	lb/hr	8.12E-08	8.12E-08
Total octaCB	lb/hr	6.89E-09	6.89E-09
Total nonaCB	lb/hr	< 1.24E-08	0
Total decaCB	lb/hr	< 1.24E-08	0
Total PCBs	lb/hr	7.90E-05	7.90E-05

* Performed during isokinetic sampling (e.g. CARB Method 428).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - not detected, reporting limit reported.

TEQ based on (2005) WHO Toxic Equivalent Factors (WHO).

TEQ (Min)-The "Min" indicates that a zero was used in the equation when an analyte was not detected.

TABLE 1-5. SUMMARY OF TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

TEST DATA	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	05/2-4/12	--
<u>Sampling Data*</u>			
Stack Temperature	°F	113	--
Moisture	%	1.4	--
Sample Volume	dscf	378	--
Oxygen**	% v/v	20.5	--
Carbon Dioxide**	% v/v	0.3	--
Gas Velocity	ft/min	3,029	--
Stack Flow Rate	acfm	105,736	--
Stack Flow Rate	dscfm	96,135	--
<u>CARB Method 425</u>			
<u>CONCENTRATION</u>			
Chromium VI	ug/dscm	< 0.0114	0
<u>CARB Method 425</u>			
<u>MASS EMISSION RATE</u>			
Chromium VI	lb/hr	< 4.09E-06	0

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

TABLE 1-6. SUMMARY OF TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead
 Test Date: 06/18/12

Parameter	Units	Average	AB2588/HRA Avg. Reporting Values
Sampling Conditions			
Standard Temperature, Tstd	deg.F	68	--
Standard Pressure, Pstd	in.Hg	29.92	--
Stack Gas Flow Rate *	DSCFM	96,548	--
Laboratory Data			
Acetone	ppbv	28.3	28.3
Benzene	ppbv	450	450
Benzyl Chloride	ppbv	< 3.00	0
Bromodichloromethane	ppbv	< 1.00	0
Bromoform	ppbv	< 1.00	0
Bromomethane	ppbv	4.73	4.73
1,3-Butadiene**	ppbv	184	184
2-Butanone	ppbv	2.20	2.20
Carbon Disulfide	ppbv	28.7	28.7
Carbon Tetrachloride	ppbv	< 1.00	0
Chlorobenzene	ppbv	0.66	0.657
Chloroethane	ppbv	1.53	1.53
Chloroform	ppbv	< 1.00	0
Chloromethane	ppbv	17.7	17.7
Dibromochloromethane	ppbv	< 1.00	0
Dichlorodifluoromethane	ppbv	< 1.00	0
1,1-Dichloroethane	ppbv	< 1.00	0
1,1-Dichloroethene	ppbv	< 1.00	0
1,2-Dibromoethane	ppbv	< 1.00	0
Dichlorotetrafluoroethane	ppbv	< 4.00	0
1,2-Dichlorobenzene	ppbv	< 1.00	0
1,2-Dichloroethane	ppbv	< 1.00	0
1,2-Dichloropropane	ppbv	< 1.00	0
1,3-Dichlorobenzene	ppbv	< 1.00	0
1,4-Dichlorobenzene	ppbv	< 1.00	0
1,4-Dioxane**	ppbv	< 1.00	0
c-1,3-Dichloropropene	ppbv	< 1.00	0
c-1,2-Dichloroethene	ppbv	< 1.00	0
t-1,2-Dichloroethene	ppbv	< 1.00	0
t-1,3-Dichloropropene	ppbv	< 2.00	0
Ethylbenzene	ppbv	80.7	80.7
4-Ethyltoluene	ppbv	0.630	0.630
Hexachloro-1,3-Butadiene	ppbv	< 3.00	0
2-Hexanone	ppbv	< 3.00	0
Methyl-t-Butyl Ether (MTBE)	ppbv	< 4.00	0
Methylene Chloride	ppbv	< 10.0	0
4-Methyl-2-Pentanone	ppbv	< 3.00	0
Naphthalene	ppbv	37.3	37.3
o-Xylene	ppbv	6.9	6.87
p/m-Xylene	ppbv	17.5	17.5
Styrene	ppbv	780	780
Tetrachloroethene	ppbv	< 1.00	0
Toluene	ppbv	193	193
Trichloroethene	ppbv	< 1.00	0
Trichlorofluoromethane	ppbv	< 2.00	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	ppbv	< 3.00	0
1,1,1-Trichloroethane	ppbv	< 1.00	0
1,1,2-Trichloroethane	ppbv	< 1.00	0
1,3,5-Trimethylbenzene	ppbv	5.67	5.67
1,1,2,2-Tetrachloroethane	ppbv	< 2.00	0
1,2,4-Trimethylbenzene	ppbv	< 3.00	0
1,2,4-Trichlorobenzene	ppbv	< 4.00	0
Vinyl Acetate	ppbv	< 4.00	0
Vinyl Chloride	ppbv	< 1.00	0

TABLE 1-6. SUMMARY OF TEST RESULTS, Continued
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Hard Lead

Test Date: 06/18/12

Emissions Data	Units	Average	
Acetone	lb/hr	2.48E-02	2.48E-02
Benzene	lb/hr	5.30E-01	5.30E-01
Benzyl Chloride	lb/hr	< 5.73E-03	0
Bromodichloromethane	lb/hr	< 2.47E-03	0
Bromoform	lb/hr	< 3.81E-03	0
Bromomethane	lb/hr	6.78E-03	6.78E-03
1,3-Butadiene**	lb/hr	1.50E-01	1.50E-01
2-Butanone	lb/hr	2.39E-03	2.39E-03
Carbon Disulfide	lb/hr	3.29E-02	3.29E-02
Carbon Tetrachloride	lb/hr	< 2.32E-03	0
Chlorobenzene	lb/hr	1.11E-03	1.11E-03
Chloroethane	lb/hr	1.49E-03	1.49E-03
Chloroform	lb/hr	< 1.80E-03	0
Chloromethane	lb/hr	1.35E-02	1.35E-02
Dibromochloromethane	lb/hr	< 3.14E-03	0
Dichlorodifluoromethane	lb/hr	< 1.82E-03	0
1,1-Dichloroethane	lb/hr	< 1.49E-03	0
1,1-Dichloroethene	lb/hr	< 1.46E-03	0
1,2-Dibromoethane	lb/hr	< 2.83E-03	0
Dichlorotetrafluoroethane	lb/hr	< 1.03E-02	0
1,2-Dichlorobenzene	lb/hr	< 2.22E-03	0
1,2-Dichloroethane	lb/hr	< 1.49E-03	0
1,2-Dichloropropane	lb/hr	< 1.70E-03	0
1,3-Dichlorobenzene	lb/hr	< 2.22E-03	0
1,4-Dichlorobenzene	lb/hr	< 2.22E-03	0
1,4-Dioxane**	lb/hr	< 1.33E-03	0
c-1,3-Dichloropropene	lb/hr	< 1.67E-03	0
c-1,2-Dichloroethene	lb/hr	< 1.46E-03	0
t-1,2-Dichloroethene	lb/hr	< 1.46E-03	0
t-1,3-Dichloropropene	lb/hr	< 3.35E-03	0
Ethylbenzene	lb/hr	1.29E-01	1.29E-01
4-Ethyltoluene	lb/hr	1.14E-03	1.14E-03
Hexachloro-1,3-Butadiene	lb/hr	< 1.18E-02	0
2-Hexanone	lb/hr	< 4.53E-03	0
Methyl-t-Butyl Ether (MTBE)	lb/hr	< 5.32E-03	0
Methylene Chloride	lb/hr	< 1.28E-02	0
4-Methyl-2-Pentanone	lb/hr	< 4.53E-03	0
Naphthalene	lb/hr	7.22E-02	7.22E-02
o-Xylene	lb/hr	1.10E-02	1.10E-02
p/m-Xylene	lb/hr	2.80E-02	2.80E-02
Styrene	lb/hr	1.22E+00	1.22E+00
Tetrachloroethene	lb/hr	< 2.50E-03	0
Toluene	lb/hr	2.69E-01	2.69E-01
Trichloroethene	lb/hr	< 1.98E-03	0
Trichlorofluoromethane	lb/hr	< 4.15E-03	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	lb/hr	< 8.48E-03	0
1,1,1-Trichloroethane	lb/hr	< 2.01E-03	0
1,1,2-Trichloroethane	lb/hr	< 2.01E-03	0
1,3,5-Trimethylbenzene	lb/hr	1.03E-02	1.03E-02
1,1,2,2-Tetrachloroethane	lb/hr	< 5.07E-03	0
1,2,4-Trimethylbenzene	lb/hr	< 5.44E-03	0
1,2,4-Trichlorobenzene	lb/hr	< 1.10E-02	0
Vinyl Acetate	lb/hr	< 5.20E-03	0
Vinyl Chloride	lb/hr	< 9.43E-04	0

* Performed during sampling per SCAQMD Methods 1-4.

** Analyzed via onsite GC using direct injection.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd (dscfh)} * \text{MW}_i / 385 / 1000000$$

TABLE 6-1. TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead
 Location: Exhaust

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values	
Run Number	--	Run 1	Run 2	Run 3		--	--
Test Date	m/d/y	05/02/12	05/03/12	05/04/12	--	--	--
Test Time	h/m	8:10-16:47	7:00-15:35	6:45-15:20	--	--	--
Sampling Data*							
Stack Temperature	°F	108	115	115	112		--
Moisture	%	1.4	1.5	1.5	1.5		--
Sample Volume	dscf	378	376	376	377		--
Oxygen**	% v/v	20.6	20.6	20.5	20.5		--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3		--
Gas Velocity	ft/min	3,000	3,015	3,017	3,011		--
Stack Flow Rate	acf m	104,703	105,256	105,314	105,091		--
Stack Flow Rate	dscfm	95,913	95,439	95,502	95,618		--
CARB Method 436 CONCENTRATION							
Aluminum	ug/dscm	NDb	Total 0.935	NDb 0.940	NDb 0.938	< 0.938	0
Antimony	ug/dscm		0.0561	ND 0.0526	ND 0.0469	0.0441	0.0441
Arsenic	ug/dscm		23.4	122	31.9	59.1	59.1
Barium	ug/dscm	NDb	0.0187	NDb 0.0188	NDb 0.0188	< 0.0188	0
Beryllium	ug/dscm	ND	0.0935	ND 0.0940	ND 0.0938	< 0.0938	0
Cadmium	ug/dscm		0.150	0.113	0.113	0.125	0.125
Chromium	ug/dscm	NDb	0.0505	NDb 0.0507	NDb 0.0507	< 0.0506	0
Cobalt	ug/dscm	ND	0.0187	ND 0.0188	ND 0.0188	< 0.0188	0
Copper	ug/dscm	ND	0.187	ND 0.188	ND 0.188	< 0.188	0
Lead	ug/dscm		5.12	4.96	4.95	5.01	5.01
Manganese	ug/dscm		0.196	0.00940	0.00938	0.0717	0.0717
Mercury	ug/dscm		0.918	0.321	0.185	0.475	0.475
Nickel	ug/dscm		0.963	0.207	0.0750	0.415	0.415
Phosphorus	ug/dscm		1.68	1.79	1.69	1.72	1.72
Selenium	ug/dscm	ND	0.0374	ND 0.0376	ND 0.0375	< 0.0375	0
Silver	ug/dscm	ND	0.0187	ND 0.0188	ND 0.0188	< 0.0188	0
Thallium	ug/dscm	ND	0.0187	ND 0.0188	ND 0.0188	< 0.0188	0
Vanadium	ug/dscm	ND	0.0935	ND 0.0940	ND 0.0938	< 0.0938	0
Zinc	ug/dscm		0.832	0.545	0.563	0.647	0.647
Iron	ug/dscm	ND	5.05	ND 5.07	ND 5.07	< 5.06	0
CARB Method 436 MASS EMISSION RATE							
Aluminum	lb/hr	NDb	Total 3.36E-04	NDb 3.36E-04	NDb 3.36E-04	< 3.36E-04	0
Antimony	lb/hr		2.02E-05	1.88E-05	ND 1.68E-05	1.58E-05	1.58E-05
Arsenic	lb/hr		8.40E-03	4.37E-02	1.14E-02	2.12E-02	2.12E-02
Barium	lb/hr	NDb	6.72E-06	NDb 6.72E-06	NDb 6.71E-06	< 6.72E-06	0
Beryllium	lb/hr	ND	3.36E-05	ND 3.36E-05	ND 3.36E-05	< 3.36E-05	0
Cadmium	lb/hr		5.38E-05	4.03E-05	4.03E-05	4.48E-05	4.48E-05
Chromium	lb/hr	NDb	1.81E-05	NDb 1.81E-05	NDb 1.81E-05	< 1.81E-05	0
Cobalt	lb/hr	ND	6.72E-06	ND 6.72E-06	ND 6.71E-06	< 6.72E-06	0
Copper	lb/hr	ND	6.72E-05	ND 6.72E-05	ND 6.71E-05	< 6.72E-05	0
Lead	lb/hr		1.84E-03	1.77E-03	1.77E-03	1.80E-03	1.80E-03
Manganese	lb/hr		7.05E-05	3.36E-06	3.36E-06	2.58E-05	2.58E-05
Mercury	lb/hr		3.30E-04	1.15E-04	6.63E-05	1.70E-04	1.70E-04
Nickel	lb/hr		3.46E-04	7.39E-05	2.68E-05	1.49E-04	1.49E-04
Phosphorus	lb/hr		6.05E-04	6.38E-04	6.04E-04	6.16E-04	6.16E-04
Selenium	lb/hr	ND	1.34E-05	ND 1.34E-05	ND 1.34E-05	< 1.34E-05	0
Silver	lb/hr	ND	6.72E-06	ND 6.72E-06	ND 6.71E-06	< 6.72E-06	0
Thallium	lb/hr	ND	6.72E-06	ND 6.72E-06	ND 6.71E-06	< 6.72E-06	0
Vanadium	lb/hr	ND	3.36E-05	ND 3.36E-05	ND 3.36E-05	< 3.36E-05	0
Zinc	lb/hr		2.99E-04	1.95E-04	2.01E-04	2.32E-04	2.32E-04
Iron	lb/hr	ND	1.81E-03	ND 1.81E-03	ND 1.81E-03	< 1.81E-03	0

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - Not detected, reporting limit reported.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 6-2. TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Hard Lead

Test Data	Units	Symbol	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	--	Run 1	Run 2	Run 3	--	--
Test Date	m/d/y	--	06/01/12	06/04/12	06/05/12	--	--
Time:	h/m	--	8:35-16:35	7:45-15:45	7:05-15:05	--	--
<u>Sampling Data:</u>							
Stack Flow Rate*	dscfm	Qsd	94,024	92,757	93,235	93,339	--
Stack Temperature*	°F	Ts	108	123	120	117	--
Gas Sample Volume	dscm	Vm,std	0.070	0.071	0.070	0.070	--
<u>Formaldehyde</u>							
Catch	ug	Cbcs,f	6.73	4.47	9.18	6.79	6.79
Mass Concentration	mg/dscm	Cm,f	0.0956	0.0633	0.131	0.0965	0.0965
Volumetric Concentration	ppmv	Cv,f	0.0766	0.0507	0.105	0.0774	0.0774
Mass Emission Rate	lb/hr	Ef	0.0337	0.0220	0.0457	0.0338	0.0338
<u>Acetaldehyde</u>							
Catch	ug	Cbcs,a	15.51	7.90	6.45	9.95	9.95
Mass Concentration	mg/dscm	Cm,a	0.220	0.112	0.0919	0.141	0.141
Volumetric Concentration	ppmv	Cv,a	0.120	0.0611	0.0502	0.0772	0.0772
Mass Emission Rate	lb/hr	Ea	0.0776	0.0389	0.0321	0.0495	0.0495

* Measured during simultaneous isokinetic sampling per CARB Method 428.

TABLE 6-3. TEST RESULTS
CARB 429 (Polycyclic Aromatic Hydrocarbons)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	06/01/12	06/04/12	06/05/12	--	--
Test Time	hh:mm	8:35-16:49	7:45-15:50	7:05-15:10	--	--
Sampling Data*						
Stack Temperature	°F	109	115	114	113	--
Moisture	%	1.7	1.3	1.1	1.3	--
Sample Volume	dscf	334	337	332	334	--
Oxygen**	% v/v	20.4	20.8	20.8	20.7	--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--
Gas Velocity	ft/min	2,935	2,985	2,915	2,945	--
Stack Flow Rate	acfm	102,443	104,185	101,755	102,794	--
Stack Flow Rate	dscfm	93,417	94,212	92,650	93,426	--
CARB Method 429, PAH						
CONCENTRATION		Total	Total	Total		
Naphthalene	ug/dscm	146	133	158	146	146
2-Methylnaphthalene	ug/dscm	16.6	14.5	20.0	17.0	17.0
Acenaphthylene	ug/dscm	7.79	11.8	13.6	11.1	11.1
Acenaphthene	ug/dscm	0.917	0.852	1.07	0.948	0.948
Fluorene	ug/dscm	3.33	4.20	4.01	3.85	3.85
Phenanthrene	ug/dscm	18.5	24.2	28.2	23.6	23.6
Anthracene	ug/dscm	1.09	1.39	1.63	1.37	1.37
Fluoranthene	ug/dscm	2.09	3.42	3.81	3.11	3.11
Pyrene	ug/dscm	0.876	1.424	1.46	1.25	1.25
Benz(a)anthracene	ug/dscm	0.0402	0.0615	0.0659	0.0559	0.0559
Chrysene	ug/dscm	0.1311	0.205	0.229	0.188	0.188
Benzo(b)fluoranthene	ug/dscm	0.00468	0.00413	0.00858	0.00580	0.00580
Benzo(k)fluoranthene	ug/dscm	0.00153	0.00787	0.00250	0.00397	0.00397
Benzo(e)pyrene	ug/dscm	0.00211	0.00339	0.00372	0.00308	0.00308
Benzo(a)pyrene	ug/dscm	ND	0.00106	0.001079	0.00116	0.000922
Perylene	ug/dscm	ND	0.00106	ND	0.00106	< 0.00106
Indeno(1,2,3-cd)pyrene	ug/dscm	ND	0.00106	ND	0.00106	< 0.00106
Dibenz(a,h)anthracene	ug/dscm	ND	0.00106	ND	0.00106	< 0.00106
Benzo(g,h,i)perylene	ug/dscm	ND	0.00106	ND	0.00106	< 0.00106
CARB Method 429, PAH						
MASS EMISSION RATE		Total	Total	Total		
Naphthalene	lb/hr	5.10E-02	4.69E-02	5.50E-02	5.10E-02	5.10E-02
2-Methylnaphthalene	lb/hr	5.81E-03	5.10E-03	6.94E-03	5.95E-03	5.95E-03
Acenaphthylene	lb/hr	2.73E-03	4.18E-03	4.72E-03	3.88E-03	3.88E-03
Acenaphthene	lb/hr	3.21E-04	3.00E-04	3.73E-04	3.31E-04	3.31E-04
Fluorene	lb/hr	1.16E-03	1.48E-03	1.39E-03	1.35E-03	1.35E-03
Phenanthrene	lb/hr	6.47E-03	8.54E-03	9.78E-03	8.26E-03	8.26E-03
Anthracene	lb/hr	3.81E-04	4.92E-04	5.65E-04	4.79E-04	4.79E-04
Fluoranthene	lb/hr	7.32E-04	1.21E-03	1.32E-03	1.09E-03	1.09E-03
Pyrene	lb/hr	3.07E-04	5.03E-04	5.06E-04	4.38E-04	4.38E-04
Benz(a)anthracene	lb/hr	1.41E-05	2.17E-05	2.29E-05	1.95E-05	1.95E-05
Chrysene	lb/hr	4.59E-05	7.24E-05	7.93E-05	6.59E-05	6.59E-05
Benzo(b)fluoranthene	lb/hr	1.64E-06	1.46E-06	2.98E-06	2.02E-06	2.02E-06
Benzo(k)fluoranthene	lb/hr	5.36E-07	2.78E-06	8.67E-07	1.39E-06	1.39E-06
Benzo(e)pyrene	lb/hr	7.40E-07	1.20E-06	1.29E-06	1.08E-06	1.08E-06
Benzo(a)pyrene	lb/hr	ND	3.70E-07	3.81E-07	4.02E-07	3.23E-07
Perylene	lb/hr	ND	3.70E-07	ND	3.69E-07	< 3.69E-07
Indeno(1,2,3-cd)pyrene	lb/hr	ND	3.70E-07	ND	3.69E-07	< 3.69E-07
Dibenz(a,h)anthracene	lb/hr	ND	3.70E-07	ND	3.69E-07	< 3.69E-07
Benzo(g,h,i)perylene	lb/hr	ND	3.70E-07	ND	3.69E-07	< 3.69E-07

* Performed during isokinetic sampling (e.g. CARB Method 429).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - not detected, reporting limit reported.

TABLE 6-4. TEST RESULTS
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	06/01/12	06/04/12	06/05/12	--	--
Test Time	hh:mm	8:35-16:49	7:45-15:50	7:05-15:10	--	--
Sampling Data*						
Stack Temperature	°F	108	123	120	117	--
Moisture	%	1.3	1.1	1.0	1.1	--
Sample Volume	dscf	369	364	365	366	--
Oxygen**	% v/v	20.4	20.8	20.8	20.7	--
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--
Gas Velocity	ft/min	2,942	2,972	2,962	2,959	--
Stack Flow Rate	acfm	102,707	103,745	103,381	103,278	--
Stack Flow Rate	dscfm	94,024	92,757	93,235	93,339	--
CARB Method 428						
CONCENTRATION						
2,3,7,8-TCDD	ug/dscm	ND	1.97E-07	ND	2.51E-07	< 2.17E-07
1,2,3,7,8-PeCDD	ug/dscm	ND	1.82E-07	ND	1.55E-07	< 1.65E-07
1,2,3,4,7,8-HxCDD	ug/dscm	ND	1.78E-07	ND	1.46E-07	< 1.71E-07
1,2,3,6,7,8-HxCDD	ug/dscm	ND	1.82E-07	ND	1.49E-07	< 1.74E-07
1,2,3,7,8,9-HxCDD	ug/dscm	ND	1.79E-07	ND	1.47E-07	< 1.71E-07
1,2,3,4,6,7,8,-HpCDD	ug/dscm	EMPC	1.97E-07	J	2.14E-07	ND
OCDD	ug/dscm	J	5.99E-07	J	7.04E-07	J
2,3,7,8-TCDF	ug/dscm	J	5.56E-07	J	7.56E-07	J
1,2,3,7,8-PeCDF	ug/dscm	EMPC	1.80E-07	J	2.92E-07	EMPC
2,3,4,7,8-PeCDF	ug/dscm	ND	1.45E-07	ND	1.96E-07	ND
1,2,3,4,7,8-HxCDF	ug/dscm	ND	9.53E-08	ND	9.33E-08	ND
1,2,3,6,7,8-HxCDF	ug/dscm	ND	8.63E-08	ND	8.45E-08	ND
2,3,4,6,7,8-HxCDF	ug/dscm	ND	9.95E-08	ND	9.70E-08	ND
1,2,3,7,8,9-HxCDF	ug/dscm	ND	1.22E-07	ND	1.19E-07	ND
1,2,3,4,6,7,8-HpCDF	ug/dscm	ND	1.89E-07	ND	2.08E-07	ND
1,2,3,4,7,8,9-HpCDF	ug/dscm	ND	2.43E-07	ND	2.68E-07	ND
OCDF	ug/dscm	ND	1.97E-07	ND	2.18E-07	ND
TEQ (Min) as 2,3,7,8-TCDD	ug/dscm		5.58E-08		8.68E-08	
Total TCDD	ug/dscm		8.02E-06		9.70E-06	
Total PeCDD	ug/dscm	EMPC	3.74E-07		9.54E-07	EMPC
Total HxCDD	ug/dscm	ND	1.82E-07	ND	1.91E-07	ND
Total HpCDD	ug/dscm	EMPC	1.97E-07		2.14E-07	
Total TCDF	ug/dscm		1.97E-05		2.99E-05	
Total PeCDF	ug/dscm		9.95E-07		1.57E-06	
Total HxCDF	ug/dscm	ND	1.22E-07		1.92E-07	EMPC
Total HpCDF	ug/dscm	ND	2.43E-07	ND	2.68E-07	ND
PCBs						
Total monoCB	ug/dscm		9.03E-02		8.05E-02	
Total diCB	ug/dscm		3.60E-02		3.65E-02	
Total triCB	ug/dscm		4.16E-02		4.43E-02	
Total tetraCB	ug/dscm		3.22E-02		4.51E-02	
Total pentaCB	ug/dscm		1.39E-02		2.71E-02	
Total hexaCB	ug/dscm		3.06E-03		7.18E-03	
Total heptaCB	ug/dscm		8.49E-05		2.83E-04	
Total octaCB	ug/dscm	ND	4.78E-05	ND	4.85E-05	
Total nonaCB	ug/dscm	ND	4.78E-05	ND	4.85E-05	ND
Total decaCB	ug/dscm	ND	4.78E-05	ND	4.85E-05	ND
Total PCBs	ug/dscm		2.17E-01		2.41E-01	

TABLE 6-4. TEST RESULTS, Continued
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values	
Run Number	-	Run 1	Run 2	Run 3			
Test Date	m/d/y	06/01/12	06/04/12	06/05/12	--	--	
Test Time	hh:mm	8:35-16:49	7:45-15:50	7:05-15:10	--	--	
CARB Method 428							
MASS EMISSION RATE							
2,3,7,8-TCDD	lb/hr	ND	6.94E-11	ND	8.78E-11	< 7.59E-11 0	
1,2,3,7,8-PeCDD	lb/hr	ND	6.40E-11	ND	5.40E-11	< 5.77E-11 0	
1,2,3,4,7,8-HxCDD	lb/hr	ND	6.27E-11	ND	5.10E-11	< 5.97E-11 0	
1,2,3,6,7,8-HxCDD	lb/hr	ND	6.40E-11	ND	5.20E-11	< 6.08E-11 0	
1,2,3,7,8,9-HxCDD	lb/hr	ND	6.30E-11	ND	5.13E-11	< 5.99E-11 0	
1,2,3,4,6,7,8,-HpCDD	lb/hr	EMPC	6.94E-11	J	7.45E-11	ND 4.81E-11 4.81E-11	
OCDD	lb/hr	J	2.11E-10	J	2.44E-10	J 1.86E-10 2.14E-10 2.14E-10	
2,3,7,8-TCDF	lb/hr	J	1.96E-10	J	2.63E-10	J 2.86E-10 2.48E-10 2.48E-10	
1,2,3,7,8-PeCDF	lb/hr	EMPC	6.34E-11	J	1.01E-10	EMPC 9.46E-11 6.01E-11 6.01E-11	
2,3,4,7,8-PeCDF	lb/hr	ND	5.12E-11	ND	6.81E-11	ND 6.65E-11 < 6.20E-11 0	
1,2,3,4,7,8-HxCDF	lb/hr	ND	3.36E-11	ND	3.24E-11	ND 3.41E-11 < 3.34E-11 0	
1,2,3,6,7,8-HxCDF	lb/hr	ND	3.04E-11	ND	2.94E-11	ND 3.08E-11 < 3.02E-11 0	
2,3,4,6,7,8-HxCDF	lb/hr	ND	3.50E-11	ND	3.37E-11	ND 3.55E-11 < 3.47E-11 0	
1,2,3,7,8,9-HxCDF	lb/hr	ND	4.31E-11	ND	4.15E-11	ND 4.39E-11 < 4.28E-11 0	
1,2,3,4,6,7,8-HpCDF	lb/hr	ND	6.67E-11	ND	7.22E-11	ND 5.23E-11 < 6.37E-11 0	
1,2,3,4,7,8,9-HpCDF	lb/hr	ND	8.56E-11	ND	9.31E-11	ND 6.75E-11 < 8.21E-11 0	
OCDF	lb/hr	ND	6.94E-11	ND	7.59E-11	ND 6.99E-11 < 7.17E-11 0	
TEQ (Min) as 2,3,7,8-TCDD	lb/hr		1.96E-11		3.01E-11		2.87E-11 2.62E-11 2.62E-11
Total TCDD	lb/hr		2.82E-09		3.37E-09		3.01E-09 3.07E-09 3.07E-09
Total PeCDD	lb/hr	EMPC	1.32E-10		3.31E-10		1.88E-10 1.95E-10 1.95E-10
Total HxCDD	lb/hr	ND	6.40E-11	ND	6.64E-11	ND	5.20E-11 < 6.08E-11 0
Total HpCDD	lb/hr	EMPC	6.94E-11		7.45E-11		6.48E-11 5.80E-11 5.80E-11
Total TCDF	lb/hr		6.94E-09		1.04E-08		1.01E-08 9.13E-09 9.13E-09
Total PeCDF	lb/hr		3.50E-10		5.46E-10		5.61E-10 4.86E-10 4.86E-10
Total HxCDF	lb/hr	ND	4.31E-11		6.68E-11	EMPC	5.40E-11 3.84E-11 3.84E-11
Total HpCDF	lb/hr	ND	8.56E-11	ND	9.31E-11	ND	6.75E-11 < 8.21E-11 0
PCBs							
Total monoCB	lb/hr		3.18E-05		2.80E-05		2.28E-05 2.75E-05 2.75E-05
Total diCB	lb/hr		1.27E-05		1.27E-05		9.96E-06 1.18E-05 1.18E-05
Total triCB	lb/hr		1.47E-05		1.54E-05		1.23E-05 1.41E-05 1.41E-05
Total tetraCB	lb/hr		1.14E-05		1.57E-05		1.26E-05 1.32E-05 1.32E-05
Total pentaCB	lb/hr		4.89E-06		9.41E-06		1.66E-05 1.03E-05 1.03E-05
Total hexaCB	lb/hr		1.08E-06		2.49E-06		2.49E-06 2.02E-06 2.02E-06
Total heptaCB	lb/hr		2.99E-08		9.84E-08		1.15E-07 8.12E-08 8.12E-08
Total octaCB	lb/hr	ND	1.68E-08	ND	1.69E-08		3.82E-09 6.89E-09 6.89E-09
Total nonaCB	lb/hr	ND	1.68E-08	ND	1.69E-08	ND	3.38E-09 < 1.24E-08 0
Total decaCB	lb/hr	ND	1.68E-08	ND	1.69E-08	ND	3.38E-09 < 1.24E-08 0
Total PCBs	lb/hr		7.65E-05		8.36E-05		7.70E-05 7.90E-05 7.90E-05

* Performed during isokinetic sampling (e.g. CARB Method 428).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - not detected, reporting limit reported.

J - The amount detected is below the Low Calibration Limit.

EMPC = Estimated Maximum Possible Concentration.

TEQ based on (2005) WHO Toxic Equivalent Factors (WHO).

TEQ (Min)-The "Min" indicates that a zero was used in the equation when an analyte was not detected.

TABLE 6-5. TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead

TEST DATA	Units	Test Results			Average	AB2588/HRA Avg. Reporting Values				
Run Number	-	Run 1	Run 2	Run 3						
Test Date	m/d/y	05/02/12	05/03/12	05/04/12	--	--				
Test Time	h/m	8:10-16:47	7:00-15:35	6:45-15:20	--	--				
Sampling Data*										
Stack Temperature	°F	111	115	113	113	--				
Moisture	%	1.4	1.4	1.5	1.4	--				
Sample Volume	dscf	381	375	379	378	--				
Oxygen**	% v/v	20.6	20.6	20.5	20.5	--				
Carbon Dioxide**	% v/v	0.3	0.3	0.3	0.3	--				
Gas Velocity	ft/min	3,041	3,012	3,034	3,029	--				
Stack Flow Rate	acfmin	106,138	105,155	105,916	105,736	--				
Stack Flow Rate	dscfm	96,769	95,332	96,306	96,135	--				
CARB Method 425										
CONCENTRATION										
Chromium VI	ug/dscm	NDb	0.0116	NDb	0.0114	NDb	0.0111	<	0.0114	0
CARB Method 425										
MASS EMISSION RATE										
Chromium VI	lb/hr	NDb	4.20E-06	NDb	4.07E-06	NDb	4.00E-06	<	4.09E-06	0

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

TABLE 6-6. TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Hard Lead

Test Date: 06/18/12

Parameter	Units	Data	Data	Data	Average	AB2588/HRA Avg. Reporting Values
Run Number		1	2	3		
<u>Sampling Conditions</u>						
Standard Temperature, Tstd	deg.F	68	68	68	68	--
Standard Pressure, Pstd	in.Hg	29.92	29.92	29.92	29.92	--
Stack Gas Flow Rate *	DSCFM	97,097	96,819	95,729	96,548	--
<u>Laboratory Data</u>						
Acetone	ppbv	43.0	18.0	24.0	28.3	28.3
Benzene	ppbv	700	340.0	310.0	450	450
Benzyl Chloride	ppbv	ND	6	1.5	<	3.00
Bromodichloromethane	ppbv	ND	2	0.5	<	1.00
Bromoform	ppbv	ND	2	0.5	<	1.00
Bromomethane	ppbv	10	1.7	2.5	4.73	4.73
1,3-Butadiene**	ppbv	370	111.2	71.2	184.1	184
2-Butanone	ppbv	ND	6.0	1.60	2.20	2.20
Carbon Disulfide	ppbv	50.0	18.00	18.0	29	29
Carbon Tetrachloride	ppbv	ND	2.0	0.50	<	1.00
Chlorobenzene	ppbv	ND	2.0	0.50	0.66	0.657
Chloroethane	ppbv	2.3	0.70	1.60	1.53	1.53
Chloroform	ppbv	ND	2.0	0.50	<	1.00
Chloromethane	ppbv	28.0	9.10	16.00	17.7	17.7
Dibromochloromethane	ppbv	ND	2.0	0.50	<	1.00
Dichlorodifluoromethane	ppbv	ND	2.0	0.50	<	1.00
1,1-Dichloroethane	ppbv	ND	2.0	0.50	<	1.00
1,1-Dichloroethene	ppbv	ND	2.0	0.50	<	1.00
1,2-Dibromoethane	ppbv	ND	2.0	0.50	<	1.00
Dichlorotetrafluoroethane	ppbv	ND	8.0	2.00	<	4.00
1,2-Dichlorobenzene	ppbv	ND	2.0	0.50	<	1.00
1,2-Dichloroethane	ppbv	ND	2.0	0.50	<	1.00
1,2-Dichloropropane	ppbv	ND	2.0	0.50	<	1.00
1,3-Dichlorobenzene	ppbv	ND	2.0	0.50	<	1.00
1,4-Dichlorobenzene	ppbv	ND	2.0	0.50	<	1.00
1,4-Dioxane**	ppbv	ND	1.0	1.00	<	1.00
c-1,3-Dichloropropene	ppbv	ND	2.0	0.50	<	1.00
c-1,2-Dichloroethene	ppbv	ND	2.0	0.50	<	1.00
t-1,2-Dichloroethene	ppbv	ND	2.0	0.50	<	1.00
t-1,3-Dichloropropene	ppbv	ND	4.0	1.00	<	2.00
Ethylbenzene	ppbv	150.0	32.00	60.00	80.7	80.7
4-Ethyltoluene	ppbv	ND	2.0	0.50	0.630	0.630
Hexachloro-1,3-Butadiene	ppbv	ND	6.0	1.50	<	3.00
2-Hexanone	ppbv	ND	6.0	1.50	<	3.00
Methyl-t-Butyl Ether (MTBE)	ppbv	ND	8.0	2.00	<	4.00
Methylene Chloride	ppbv	ND	20.0	5.00	<	10.0
4-Methyl-2-Pentanone	ppbv	ND	6.0	1.50	<	3.00
Naphthalene	ppbv	ND	56.0	34.00	22.00	37
o-Xylene	ppbv	ND	12.0	3.40	5.20	6.9
p/m-Xylene	ppbv	ND	32.0	9.40	11.00	17.5
Styrene	ppbv	ND	1400.0	380.00	560.00	780
Tetrachloroethene	ppbv	ND	2.0	0.50	<	1.00
Toluene	ppbv	ND	340.0	110.00	130.00	193
Trichloroethene	ppbv	ND	2.0	0.50	<	1.00
Trichlorofluoromethane	ppbv	ND	4.0	1.00	<	2.00
1,1,2-Trichloro-1,2,2-Trifluoroethane	ppbv	ND	6.0	1.50	<	3.00
1,1,1-Trichloroethane	ppbv	ND	2.0	0.50	<	1.00
1,1,2-Trichloroethane	ppbv	ND	2.0	0.50	<	1.00
1,3,5-Trimethylbenzene	ppbv	ND	10.0	2.90	4.10	5.67
1,1,2,2-Tetrachloroethane	ppbv	ND	4.0	1.00	<	2.00
1,2,4-Trimethylbenzene	ppbv	ND	6.0	1.50	<	3.00
1,2,4-Trichlorobenzene	ppbv	ND	8.0	2.00	<	4.00
Vinyl Acetate	ppbv	ND	8.0	2.00	<	4.00
Vinyl Chloride	ppbv	ND	2.0	0.50	<	1.00

TABLE 6-6. TEST RESULTS, Continued
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Hard Lead
 Test Date: 06/18/12

Parameter	Units	Data	Data	Data	Average	AB2588/HRA Avg. Reporting Values
Run Number		1	2	3		
Emissions Data						
Acetone	lb/hr	3.78E-02	1.58E-02	2.08E-02	2.48E-02	2.48E-02
Benzene	lb/hr	8.27E-01	4.01E-01	3.61E-01	5.30E-01	5.30E-01
Benzyl Chloride	lb/hr	ND 1.15E-02	ND 2.86E-03	ND 2.83E-03	< 5.73E-03	0
Bromodichloromethane	lb/hr	ND 4.96E-03	ND 1.24E-03	ND 1.22E-03	< 2.47E-03	0
Bromoform	lb/hr	ND 7.65E-03	ND 1.91E-03	ND 1.89E-03	< 3.81E-03	0
Bromomethane	lb/hr	1.44E-02	2.44E-03	3.54E-03	6.78E-03	6.78E-03
1,3-Butadiene**	lb/hr	3.03E-01	9.07E-02	5.74E-02	1.50E-01	1.50E-01
2-Butanone	lb/hr	ND 6.55E-03	ND 1.74E-03	ND 2.15E-03	2.39E-03	2.39E-03
Carbon Disulfide	lb/hr	5.76E-02	2.07E-02	2.04E-02	3.29E-02	3.29E-02
Carbon Tetrachloride	lb/hr	ND 4.66E-03	ND 1.16E-03	ND 1.15E-03	< 2.32E-03	0
Chlorobenzene	lb/hr	ND 3.41E-03	ND 8.49E-04	ND 1.21E-03	1.11E-03	1.11E-03
Chloroethane	lb/hr	2.25E-03	6.81E-04	1.54E-03	1.49E-03	1.49E-03
Chloroform	lb/hr	ND 3.61E-03	ND 9.01E-04	ND 8.91E-04	< 1.80E-03	0
Chloromethane	lb/hr	2.14E-02	6.93E-03	1.21E-02	1.35E-02	1.35E-02
Dibromochloromethane	lb/hr	ND 6.30E-03	ND 1.57E-03	ND 1.55E-03	< 3.14E-03	0
Dichlorodifluoromethane	lb/hr	ND 3.66E-03	ND 9.12E-04	ND 9.02E-04	< 1.82E-03	0
1,1-Dichloroethane	lb/hr	ND 3.00E-03	ND 7.47E-04	ND 7.38E-04	< 1.49E-03	0
1,1-Dichloroethene	lb/hr	ND 2.93E-03	ND 7.31E-04	ND 7.23E-04	< 1.46E-03	0
1,2-Dibromoethane	lb/hr	ND 5.69E-03	ND 1.42E-03	ND 1.40E-03	< 2.83E-03	0
Dichlorotetrafluoroethane	lb/hr	ND 2.07E-02	ND 5.16E-03	ND 5.10E-03	< 1.03E-02	0
1,2-Dichlorobenzene	lb/hr	ND 4.45E-03	ND 1.11E-03	ND 1.10E-03	< 2.22E-03	0
1,2-Dichloroethane	lb/hr	ND 2.99E-03	ND 7.47E-04	ND 7.38E-04	< 1.49E-03	0
1,2-Dichloropropane	lb/hr	ND 3.42E-03	ND 8.52E-04	ND 8.43E-04	< 1.70E-03	0
1,3-Dichlorobenzene	lb/hr	ND 4.45E-03	ND 1.11E-03	ND 1.10E-03	< 2.22E-03	0
1,4-Dichlorobenzene	lb/hr	ND 4.45E-03	ND 1.11E-03	ND 1.10E-03	< 2.22E-03	0
1,4-Dioxane**	lb/hr	ND 1.33E-03	ND 1.33E-03	ND 1.31E-03	< 1.33E-03	0
c-1,3-Dichloropropene	lb/hr	ND 3.36E-03	ND 8.37E-04	ND 8.28E-04	< 1.67E-03	0
c-1,2-Dichloroethene	lb/hr	ND 2.93E-03	ND 7.31E-04	ND 7.23E-04	< 1.46E-03	0
t-1,2-Dichloroethene	lb/hr	ND 2.93E-03	ND 7.31E-04	ND 7.23E-04	< 1.46E-03	0
t-1,3-Dichloropropene	lb/hr	ND 6.72E-03	ND 1.67E-03	ND 1.66E-03	< 3.35E-03	0
Ethylbenzene	lb/hr	2.41E-01	5.13E-02	9.50E-02	1.29E-01	1.29E-01
4-Ethyltoluene	lb/hr	ND 3.64E-03	ND 9.07E-04	ND 1.15E-03	1.14E-03	1.14E-03
Hexachloro-1,3-Butadiene	lb/hr	ND 2.37E-02	ND 5.90E-03	ND 5.84E-03	< 1.18E-02	0
2-Hexanone	lb/hr	ND 9.09E-03	ND 2.27E-03	ND 2.24E-03	< 4.53E-03	0
Methyl-t-Butyl Ether (MTBE)	lb/hr	ND 1.07E-02	ND 2.66E-03	ND 2.63E-03	< 5.32E-03	0
Methylene Chloride	lb/hr	ND 2.57E-02	ND 6.41E-03	ND 6.34E-03	< 1.28E-02	0
4-Methyl-2-Pentanone	lb/hr	ND 9.09E-03	ND 2.27E-03	ND 2.24E-03	< 4.53E-03	0
Naphthalene	lb/hr	1.09E-01	6.58E-02	4.21E-02	7.22E-02	7.22E-02
o-Xylene	lb/hr	1.93E-02	5.45E-03	8.24E-03	1.10E-02	1.10E-02
p/m-Xylene	lb/hr	5.14E-02	1.51E-02	1.74E-02	2.80E-02	2.80E-02
Styrene	lb/hr	2.21E+00	5.97E-01	8.70E-01	1.22E+00	1.22E+00
Tetrachloroethene	lb/hr	ND 5.02E-03	ND 1.25E-03	ND 1.24E-03	< 2.50E-03	0
Toluene	lb/hr	4.74E-01	1.53E-01	1.79E-01	2.69E-01	2.69E-01
Trichloroethene	lb/hr	ND 3.98E-03	ND 9.91E-04	ND 9.80E-04	< 1.98E-03	0
Trichlorofluoromethane	lb/hr	ND 8.31E-03	ND 2.07E-03	ND 2.05E-03	< 4.15E-03	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	lb/hr	ND 1.70E-02	ND 4.24E-03	ND 4.19E-03	< 8.48E-03	0
1,1,1-Trichloroethane	lb/hr	ND 4.04E-03	ND 1.01E-03	ND 9.95E-04	< 2.01E-03	0
1,1,2-Trichloroethane	lb/hr	ND 4.04E-03	ND 1.01E-03	ND 9.95E-04	< 2.01E-03	0
1,3,5-Trimethylbenzene	lb/hr	1.82E-02	5.26E-03	7.35E-03	1.03E-02	1.03E-02
1,1,2,2-Tetrachloroethane	lb/hr	ND 1.02E-02	ND 2.53E-03	ND 2.50E-03	< 5.07E-03	0
1,2,4-Trimethylbenzene	lb/hr	ND 1.09E-02	ND 2.72E-03	ND 2.69E-03	< 5.44E-03	0
1,2,4-Trichlorobenzene	lb/hr	ND 2.20E-02	ND 5.48E-03	ND 5.41E-03	< 1.10E-02	0
Vinyl Acetate	lb/hr	ND 1.04E-02	ND 2.60E-03	ND 2.57E-03	< 5.20E-03	0
Vinyl Chloride	lb/hr	ND 1.89E-03	ND 4.72E-04	ND 4.66E-04	< 9.43E-04	0

* Performed during sampling per SCAQMD Methods 1-4.

** Analyzed via onsite GC using direct injection.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd} (\text{dscfh}) * \text{MW}_i / 385 / 1000000$$

TABLE 1-1. SUMMARY OF TEST RESULTS
CARB 436 (Multiple Metals)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber
 Location: Exhaust

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	5/8-10/12	5/8-10/12
Sampling Data*			
Stack Temperature	°F	137	--
Moisture	%	18	--
Sample Volume	dscf	347	--
Oxygen**	% v/v	16.8	--
Carbon Dioxide**	% v/v	3.6	--
Gas Velocity	ft/min	2,876	--
Stack Flow Rate	acfm	32,473	--
Stack Flow Rate	dscfm	23,476	--
CARB Method 436			
CONCENTRATION			
Aluminum	ug/dscm	2.74	2.74
Antimony	ug/dscm	0.0441	0.0441
Arsenic	ug/dscm	0.0302	0.0302
Barium	ug/dscm	0.366	0.366
Beryllium	ug/dscm	< 0.0508	0
Cadmium	ug/dscm	0.0989	0.0989
Chromium	ug/dscm	0.0555	0.0555
Cobalt	ug/dscm	< 0.0203	0
Copper	ug/dscm	< 0.203	0
Lead	ug/dscm	9.30	9.30
Manganese	ug/dscm	0.102	0.102
Mercury	ug/dscm	0.138	0.138
Nickel	ug/dscm	0.115	0.115
Phosphorus	ug/dscm	< 1.42	0
Selenium	ug/dscm	0.0577	0.0577
Silver	ug/dscm	0.0268	0.0268
Thallium	ug/dscm	< 0.0203	0
Vanadium	ug/dscm	< 0.102	0
Zinc	ug/dscm	1.04	1.04
Iron	ug/dscm	4.71	4.71
CARB Method 436			
MASS EMISSION RATE			
Aluminum	lb/hr	2.40E-04	2.40E-04
Antimony	lb/hr	3.88E-06	3.88E-06
Arsenic	lb/hr	2.65E-06	2.65E-06
Barium	lb/hr	3.22E-05	3.22E-05
Beryllium	lb/hr	< 4.47E-06	0
Cadmium	lb/hr	8.70E-06	8.70E-06
Chromium	lb/hr	4.87E-06	4.87E-06
Cobalt	lb/hr	< 1.79E-06	0
Copper	lb/hr	< 1.79E-05	0
Lead	lb/hr	8.19E-04	8.19E-04
Manganese	lb/hr	8.94E-06	8.94E-06
Mercury	lb/hr	1.22E-05	1.22E-05
Nickel	lb/hr	1.02E-05	1.02E-05
Phosphorus	lb/hr	< 1.25E-04	0
Selenium	lb/hr	5.06E-06	5.06E-06
Silver	lb/hr	2.35E-06	2.35E-06
Thallium	lb/hr	< 1.79E-06	0
Vanadium	lb/hr	< 8.94E-06	0
Zinc	lb/hr	9.19E-05	9.19E-05
Iron	lb/hr	4.14E-04	4.14E-04

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - Not detected, reporting limit reported.

TABLE 1-2. SUMMARY OF TEST RESULTS
CARB 430 (Formaldehyde and Acetaldehyde)

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Neptune Scrubber

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	5/23, 29-30/12	--
Sampling Data:			
Stack Flow Rate:*	dscfm	23,063	--
Stack Temperature*	°F	134	--
Gas Sample Volume	dscm	0.070	--
Formaldehyde			
Catch	ug	0.753	0.753
Mass Concentration:	mg/dscm	0.0108	0.0108
Volumetric Concentration:	ppmv	0.00864	0.00864
Mass Emission Rate:	lb/hr	0.000928	0.000928
Acetaldehyde			
Catch	ug	1.51	1.51
Mass Concentration:	mg/dscm	0.0216	0.0216
Volumetric Concentration:	ppmv	0.0118	0.0118
Mass Emission Rate:	lb/hr	0.00186	0.00186

* Measured during simultaneous isokinetic sampling per CARB Method 428.

TABLE 1-3. SUMMARY OF TEST RESULTS
CARB 429 (Polycyclic Aromatic Hydrocarbons)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	5/23, 29-30/12	--
Sampling Data*			
Stack Temperature	°F	135	--
Moisture	%	14.9	--
Sample Volume	dscf	332	--
Oxygen**	% v/v	16.8	--
Carbon Dioxide**	% v/v	3.2	--
Gas Velocity	ft/min	2,753	--
Stack Flow Rate	acfm	31,085	--
Stack Flow Rate	dscfm	23,396	--
CARB Method 429, PAH			
CONCENTRATION			
Naphthalene	ug/dscm	0.241	0.241
2-Methylnaphthalene	ug/dscm	0.0536	0.0536
Acenaphthylene	ug/dscm	0.00761	0.00761
Acenaphthene	ug/dscm	0.00533	0.00533
Fluorene	ug/dscm	0.0179	0.0179
Phenanthrene	ug/dscm	0.397	0.397
Anthracene	ug/dscm	0.0106	0.0106
Fluoranthene	ug/dscm	0.563	0.563
Pyrene	ug/dscm	0.339	0.339
Benz(a)anthracene	ug/dscm	0.0286	0.0286
Chrysene	ug/dscm	0.276	0.276
Benzo(b)fluoranthene	ug/dscm	0.0198	0.0198
Benzo(k)fluoranthene	ug/dscm	0.00398	0.00398
Benzo(e)pyrene	ug/dscm	0.0122	0.0122
Benzo(a)pyrene	ug/dscm	< 0.00106	0
Perylene	ug/dscm	< 0.00106	0
Indeno(1,2,3-cd)pyrene	ug/dscm	< 0.00106	0
Dibenz(a,h)anthracene	ug/dscm	< 0.00106	0
Benzo(ghi)perylene	ug/dscm	< 0.00106	0
CARB Method 429, PAH			
MASS EMISSION RATE			
Naphthalene	lb/hr	2.11E-05	2.11E-05
2-Methylnaphthalene	lb/hr	4.70E-06	4.70E-06
Acenaphthylene	lb/hr	6.70E-07	6.70E-07
Acenaphthene	lb/hr	4.68E-07	4.68E-07
Fluorene	lb/hr	1.57E-06	1.57E-06
Phenanthrene	lb/hr	3.49E-05	3.49E-05
Anthracene	lb/hr	9.39E-07	9.39E-07
Fluoranthene	lb/hr	4.95E-05	4.95E-05
Pyrene	lb/hr	2.98E-05	2.98E-05
Benz(a)anthracene	lb/hr	2.52E-06	2.52E-06
Chrysene	lb/hr	2.43E-05	2.43E-05
Benzo(b)fluoranthene	lb/hr	1.74E-06	1.74E-06
Benzo(k)fluoranthene	lb/hr	3.50E-07	3.50E-07
Benzo(e)pyrene	lb/hr	1.07E-06	1.07E-06
Benzo(a)pyrene	lb/hr	< 9.32E-08	0
Perylene	lb/hr	< 9.32E-08	0
Indeno(1,2,3-cd)pyrene	lb/hr	< 9.32E-08	0
Dibenz(a,h)anthracene	lb/hr	< 9.32E-08	0
Benzo(ghi)perylene	lb/hr	< 9.32E-08	0

* Performed during isokinetic sampling (e.g. CARB Method 429).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - not detected, reporting limit reported.

TABLE 1-4. SUMMARY OF TEST RESULTS
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	5/23, 29-30/12	--
Sampling Data*			
Stack Temperature	°F	134	--
Moisture	%	16.5	--
Sample Volume	dscf	335	--
Oxygen**	% v/v	16.8	--
Carbon Dioxide**	% v/v	3.2	--
Gas Velocity	ft/min	2,764	--
Stack Flow Rate	acfm	31,209	--
Stack Flow Rate	dscfm	23,063	--
CARB Method 428			
CONCENTRATION			
2,3,7,8-TCDD	ug/dscm	3.94E-06	3.94E-06
1,2,3,7,8-PeCDD	ug/dscm	4.55E-06	4.55E-06
1,2,3,4,7,8-HxCDD	ug/dscm	6.42E-07	6.42E-07
1,2,3,6,7,8-HxCDD	ug/dscm	1.06E-06	1.06E-06
1,2,3,7,8,9-HxCDD	ug/dscm	7.18E-07	7.18E-07
1,2,3,4,6,7,8,-HpCDD	ug/dscm	7.21E-07	7.21E-07
OCDD	ug/dscm	5.32E-07	5.32E-07
2,3,7,8-TCDF	ug/dscm	1.33E-04	1.33E-04
1,2,3,7,8-PeCDF	ug/dscm	1.21E-04	1.21E-04
2,3,4,7,8-PeCDF	ug/dscm	1.11E-04	1.11E-04
1,2,3,4,7,8-HxCDF	ug/dscm	3.54E-05	3.54E-05
1,2,3,6,7,8-HxCDF	ug/dscm	4.01E-05	4.01E-05
2,3,4,6,7,8-HxCDF	ug/dscm	1.76E-05	1.76E-05
1,2,3,7,8,9-HxCDF	ug/dscm	8.13E-06	8.13E-06
1,2,3,4,6,7,8-HpCDF	ug/dscm	1.30E-05	1.30E-05
1,2,3,4,7,8,9-HpCDF	ug/dscm	1.95E-06	1.95E-06
OCDF	ug/dscm	4.78E-07	4.78E-07
TEQ (Min) as 2,3,7,8-TCDD	ug/dscm	6.94E-05	6.94E-05
Total TCDD	ug/dscm	1.46E-04	1.46E-04
Total PeCDD	ug/dscm	7.11E-05	7.11E-05
Total HxCDD	ug/dscm	1.69E-05	1.69E-05
Total HpCDD	ug/dscm	1.74E-06	1.74E-06
Total TCDF	ug/dscm	3.46E-03	3.46E-03
Total PeCDF	ug/dscm	1.63E-03	1.63E-03
Total HxCDF	ug/dscm	3.32E-04	3.32E-04
Total HpCDF	ug/dscm	2.13E-05	2.13E-05
PCBs			
Total monoCB	ug/dscm	8.20E-03	8.20E-03
Total diCB	ug/dscm	3.13E-03	3.13E-03
Total triCB	ug/dscm	4.27E-03	4.27E-03
Total tetraCB	ug/dscm	6.92E-03	6.92E-03
Total pentaCB	ug/dscm	1.10E-02	1.10E-02
Total hexaCB	ug/dscm	4.63E-03	4.63E-03
Total heptaCB	ug/dscm	3.30E-04	3.30E-04
Total octaCB	ug/dscm	9.19E-05	9.19E-05
Total nonaCB	ug/dscm	4.78E-05	4.78E-05
Total decaCB	ug/dscm	1.05E-04	0
Total PCBs	ug/dscm	3.85E-02	3.85E-02

TABLE 1-4. SUMMARY OF TEST RESULTS, Continued
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

Test Data	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	5/23, 29-30/12	--
CARB Method 428			
MASS EMISSION RATE			
2,3,7,8-TCDD	lb/hr	3.40E-10	3.40E-10
1,2,3,7,8-PeCDD	lb/hr	3.93E-10	3.93E-10
1,2,3,4,7,8-HxCDD	lb/hr	5.55E-11	5.55E-11
1,2,3,6,7,8-HxCDD	lb/hr	9.13E-11	9.13E-11
1,2,3,7,8,9-HxCDD	lb/hr	6.19E-11	6.19E-11
1,2,3,4,6,7,8,-HpCDD	lb/hr	6.22E-11	6.22E-11
OCDD	lb/hr	4.60E-11	4.60E-11
2,3,7,8-TCDF	lb/hr	1.15E-08	1.15E-08
1,2,3,7,8-PeCDF	lb/hr	1.05E-08	1.05E-08
2,3,4,7,8-PeCDF	lb/hr	9.62E-09	9.62E-09
1,2,3,4,7,8-HxCDF	lb/hr	3.05E-09	3.05E-09
1,2,3,6,7,8-HxCDF	lb/hr	3.46E-09	3.46E-09
2,3,4,6,7,8-HxCDF	lb/hr	1.52E-09	1.52E-09
1,2,3,7,8,9-HxCDF	lb/hr	7.01E-10	7.01E-10
1,2,3,4,6,7,8-HpCDF	lb/hr	1.12E-09	1.12E-09
1,2,3,4,7,8,9-HpCDF	lb/hr	1.68E-10	1.68E-10
OCDF	lb/hr	4.12E-11	4.12E-11
TEQ (Min) as 2,3,7,8-TCDD	lb/hr	5.99E-09	5.99E-09
Total TCDD	lb/hr	1.26E-08	1.26E-08
Total PeCDD	lb/hr	6.13E-09	6.13E-09
Total HxCDD	lb/hr	1.46E-09	1.46E-09
Total HpCDD	lb/hr	1.50E-10	1.50E-10
Total TCDF	lb/hr	2.99E-07	2.99E-07
Total PeCDF	lb/hr	1.41E-07	1.41E-07
Total HxCDF	lb/hr	2.87E-08	2.87E-08
Total HpCDF	lb/hr	1.83E-09	1.83E-09
PCBs			
Total monoCB	lb/hr	7.10E-07	7.10E-07
Total diCB	lb/hr	2.70E-07	2.70E-07
Total triCB	lb/hr	3.69E-07	3.69E-07
Total tetraCB	lb/hr	5.97E-07	5.97E-07
Total pentaCB	lb/hr	9.44E-07	9.44E-07
Total hexaCB	lb/hr	3.99E-07	3.99E-07
Total heptaCB	lb/hr	2.85E-08	2.85E-08
Total octaCB	lb/hr	7.95E-09	7.95E-09
Total nonaCB	lb/hr	4.13E-09	4.13E-09
Total decaCB	lb/hr	9.11E-09	0
Total PCBs	lb/hr	3.33E-06	3.33E-06

* Performed during isokinetic sampling (e.g. CARB Method 428).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - not detected, reporting limit reported.

TEQ based on (2005) WHO Toxic Equivalent Factors (WHO).

TEQ (Min)-The "Min" indicates that a zero was used in the equation when an analyte was not detected.

TABLE 1-5. SUMMARY OF TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

TEST DATA	Units	Average	AB2588/HRA Avg. Reporting Values
Test Date	m/d/y	05/8-10/12	--
Sampling Data*			
Stack Temperature	°F	138	--
Moisture	%	19	--
Sample Volume	dscf	347	--
Oxygen**	% v/v	16.8	--
Carbon Dioxide**	% v/v	3.6	--
Gas Velocity	ft/min	2,883	--
Stack Flow Rate	acfm	32,552	--
Stack Flow Rate	dscfm	23,200	--
CARB Method 425			
CONCENTRATION			
Chromium VI	ug/dscm	0.539	0.539
Maximum Chromium VI (M436)***	ug/dscm	0.0555	0.0555
CARB Method 425			
MASS EMISSION RATE			
Chromium VI	lb/hr	4.68E-05	4.68E-05
Maximum Chromium VI (M436)***	lb/hr	4.87E-06	4.87E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

*** Hexavalent chromium results should not be greater than the simultaneously measured total chromium based on M436.

Therefore, simultaneous total chromium results based on M436 were reported as maximum hexavalent chromium.

TABLE 1-6. SUMMARY OF TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber
 Test Date: 06/19/12

Parameter	Units	Average	AB2588/HRA Avg. Reporting Values
<u>Sampling Conditions</u>			
Standard Temperature, Tstd	deg.F	68	--
Standard Pressure, Pstd	in.Hg	29.92	--
Stack Gas Flow Rate *	DSCFM	22,937	--
<u>Laboratory Data</u>			
Acetone	ppbv	7.80	7.8
Benzene	ppbv	0.51	0.51
Benzyl Chloride	ppbv	< 1.50	0
Bromodichloromethane	ppbv	< 0.50	0
Bromoform	ppbv	< 0.50	0
Bromomethane	ppbv	0.51	0.51
1,3-Butadiene**	ppbv	< 1.00	0
2-Butanone	ppbv	< 1.50	0
Carbon Disulfide	ppbv	< 2.00	0
Carbon Tetrachloride	ppbv	< 0.50	0
Chlorobenzene	ppbv	< 0.50	0
Chloroethane	ppbv	< 0.50	0
Chloroform	ppbv	< 0.50	0
Chloromethane	ppbv	1.93	1.9
Dibromochloromethane	ppbv	< 0.50	0
Dichlorodifluoromethane	ppbv	< 0.50	0
1,1-Dichloroethane	ppbv	< 0.50	0
1,1-Dichloroethene	ppbv	< 0.50	0
1,2-Dibromoethane	ppbv	< 0.50	0
Dichlorotetrafluoroethane	ppbv	< 2.00	0
1,2-Dichlorobenzene	ppbv	< 0.50	0
1,2-Dichloroethane	ppbv	< 0.50	0
1,2-Dichloropropane	ppbv	< 0.50	0
1,3-Dichlorobenzene	ppbv	< 0.50	0
1,4-Dichlorobenzene	ppbv	< 0.50	0
1,4-Dioxane**	ppbv	< 1.00	0
c-1,3-Dichloropropene	ppbv	< 0.50	0
c-1,2-Dichloroethene	ppbv	< 0.50	0
t-1,2-Dichloroethene	ppbv	< 0.50	0
t-1,3-Dichloropropene	ppbv	< 1.00	0
Ethylbenzene	ppbv	< 0.50	0
4-Ethyltoluene	ppbv	< 0.50	0
Hexachloro-1,3-Butadiene	ppbv	< 1.50	0
2-Hexanone	ppbv	< 1.50	0
Methyl-t-Butyl Ether (MTBE)	ppbv	< 2.00	0
Methylene Chloride	ppbv	< 5.00	0
4-Methyl-2-Pentanone	ppbv	< 1.50	0
Naphthalene	ppbv	< 5.00	0
o-Xylene	ppbv	< 0.50	0
p/m-Xylene	ppbv	< 2.00	0
Styrene	ppbv	< 1.50	0
Tetrachloroethene	ppbv	< 0.50	0
Toluene	ppbv	1.42	1.4
Trichloroethene	ppbv	< 0.50	0
Trichlorofluoromethane	ppbv	< 1.00	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	ppbv	< 1.50	0
1,1,1-Trichloroethane	ppbv	< 0.50	0
1,1,2-Trichloroethane	ppbv	< 0.50	0
1,3,5-Trimethylbenzene	ppbv	< 0.50	0
1,1,2,2-Tetrachloroethane	ppbv	< 1.00	0
1,2,4-Trimethylbenzene	ppbv	< 1.50	0
1,2,4-Trichlorobenzene	ppbv	< 2.00	0
Vinyl Acetate	ppbv	< 2.00	0
Vinyl Chloride	ppbv	< 0.50	0

TABLE 1-6. SUMMARY OF TEST RESULTS, Continued
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber
 Test Date: 06/19/12

Emissions Data	Units	Average	
Acetone	lb/hr	1.62E-03	1.62E-03
Benzene	lb/hr	1.43E-04	1.43E-04
Benzyl Chloride	lb/hr	< 6.79E-04	0
Bromodichloromethane	lb/hr	< 2.93E-04	0
Bromoform	lb/hr	< 4.52E-04	0
Bromomethane	lb/hr	1.72E-04	1.72E-04
1,3-Butadiene**	lb/hr	< 1.93E-04	0
2-Butanone	lb/hr	< 3.87E-04	0
Carbon Disulfide	lb/hr	< 5.44E-04	0
Carbon Tetrachloride	lb/hr	< 2.75E-04	0
Chlorobenzene	lb/hr	< 2.01E-04	0
Chloroethane	lb/hr	< 1.15E-04	0
Chloroform	lb/hr	< 2.13E-04	0
Chloromethane	lb/hr	3.47E-04	3.47E-04
Dibromochloromethane	lb/hr	< 3.72E-04	0
Dichlorodifluoromethane	lb/hr	< 2.16E-04	0
1,1-Dichloroethane	lb/hr	< 1.77E-04	0
1,1-Dichloroethene	lb/hr	< 1.73E-04	0
1,2-Dibromoethane	lb/hr	< 3.36E-04	0
Dichlorotetrafluoroethane	lb/hr	< 1.22E-03	0
1,2-Dichlorobenzene	lb/hr	< 2.63E-04	0
1,2-Dichloroethane	lb/hr	< 1.77E-04	0
1,2-Dichloropropane	lb/hr	< 2.02E-04	0
1,3-Dichlorobenzene	lb/hr	< 2.63E-04	0
1,4-Dichlorobenzene	lb/hr	< 2.63E-04	0
1,4-Dioxane**	lb/hr	< 3.15E-04	0
c-1,3-Dichloropropene	lb/hr	< 1.98E-04	0
c-1,2-Dichloroethene	lb/hr	< 1.73E-04	0
t-1,2-Dichloroethene	lb/hr	< 1.73E-04	0
t-1,3-Dichloropropene	lb/hr	< 3.97E-04	0
Ethylbenzene	lb/hr	< 1.90E-04	0
4-Ethyltoluene	lb/hr	< 2.15E-04	0
Hexachloro-1,3-Butadiene	lb/hr	< 1.40E-03	0
2-Hexanone	lb/hr	< 5.37E-04	0
Methyl-t-Butyl Ether (MTBE)	lb/hr	< 6.30E-04	0
Methylene Chloride	lb/hr	< 1.52E-03	0
4-Methyl-2-Pentanone	lb/hr	< 5.37E-04	0
Naphthalene	lb/hr	< 2.29E-03	0
o-Xylene	lb/hr	< 1.90E-04	0
p/m-Xylene	lb/hr	< 7.59E-04	0
Styrene	lb/hr	< 5.58E-04	0
Tetrachloroethene	lb/hr	< 2.96E-04	0
Toluene	lb/hr	4.61E-04	4.61E-04
Trichloroethene	lb/hr	< 2.35E-04	0
Trichlorofluoromethane	lb/hr	< 4.91E-04	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	lb/hr	< 1.00E-03	0
1,1,1-Trichloroethane	lb/hr	< 2.38E-04	0
1,1,2-Trichloroethane	lb/hr	< 2.38E-04	0
1,3,5-Trimethylbenzene	lb/hr	< 2.15E-04	0
1,1,2,2-Tetrachloroethane	lb/hr	< 6.00E-04	0
1,2,4-Trimethylbenzene	lb/hr	< 6.44E-04	0
1,2,4-Trichlorobenzene	lb/hr	< 1.30E-03	0
Vinyl Acetate	lb/hr	< 6.15E-04	0
Vinyl Chloride	lb/hr	< 1.12E-04	0

* Performed during sampling per SCAQMD Methods 1-4.

** Analyzed via onsite GC using direct injection.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd} (\text{dscfh}) * \text{MWi} / 385 / 1000000$$

**TABLE 6-1. TEST RESULTS
 CARB 436 (Multiple Metals)**

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber
 Location: Exhaust

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values	
Run Number	--	Run 1	Run 2	Run 3			
Test Date	m/d/y	05/08/12	05/09/12	05/10/12	--	--	
Test Time	hh:mm	7:30-16:06	7:00-15:35	6:50-15:22	--	--	
Sampling Data*							
Stack Temperature	°F	138	136	137	137	--	
Moisture	%	17.5	18.6	18.1	18	--	
Sample Volume	dscf	347	349	347	347	--	
Oxygen**	% v/v	17.0	16.4	17.0	16.8	--	
Carbon Dioxide**	% v/v	3.5	3.8	3.5	3.6	--	
Gas Velocity	ft/min	2,875	2,888	2,865	2,876	--	
Stack Flow Rate	acfmin	32,466	32,607	32,347	32,473	--	
Stack Flow Rate	dscfm	23,592	23,431	23,406	23,476	--	
CARB Method 436							
CONCENTRATION							
Aluminum	ug/dscm	NDb	Total 0.204	Total 5.07	Total 3.05	2.74	2.74
Antimony	ug/dscm		0.0550	ND 0.0507	0.0519	0.0441	0.0441
Arsenic	ug/dscm		0.0275		0.0324	0.0302	0.0302
Barium	ug/dscm		0.295		0.355	0.366	0.366
Beryllium	ug/dscm	ND	0.0509	ND 0.0507	ND 0.0509	< 0.0508	0
Cadmium	ug/dscm		0.099		0.101	0.0989	0.0989
Chromium	ug/dscm	NDb	0.0550		0.111	NDb 0.0550	0.0555
Cobalt	ug/dscm	ND	0.0204	ND 0.0203	ND 0.0204	< 0.0203	0
Copper	ug/dscm	ND	0.204	ND 0.203	ND 0.204	< 0.203	0
Lead	ug/dscm		13.12		5.96	8.84	9.30
Manganese	ug/dscm		0.0916		0.111	0.102	0.102
Mercury	ug/dscm		0.195		0.111	0.109	0.138
Nickel	ug/dscm		0.265		0.061	0.0204	0.115
Phosphorus	ug/dscm	ND	1.43	ND 1.42	ND 1.43	< 1.42	0
Selenium	ug/dscm	ND	0.0407	ND 0.0405		0.1324	0.0577
Silver	ug/dscm		0.0265		0.0324	0.0214	0.0268
Thallium	ug/dscm	ND	0.0204	ND 0.0203	ND 0.0204	< 0.0203	0
Vanadium	ug/dscm	ND	0.1018	ND 0.1013	ND 0.1018	< 0.102	0
Zinc	ug/dscm		1.43		0.952	0.753	1.04
Iron	ug/dscm	ND	5.50		5.88	5.50	4.71
CARB Method 436							
MASS EMISSION RATE							
Aluminum	lb/hr	NDb	Total 1.80E-05	Total 4.45E-04	Total 2.68E-04	2.40E-04	2.40E-04
Antimony	lb/hr		4.86E-06	ND 4.45E-06	4.55E-06	3.88E-06	3.88E-06
Arsenic	lb/hr		2.43E-06		2.85E-06	2.68E-06	2.65E-06
Barium	lb/hr		2.61E-05		3.11E-05	3.93E-05	3.22E-05
Beryllium	lb/hr	ND	4.50E-06	ND 4.45E-06	ND 4.46E-06	< 4.47E-06	0
Cadmium	lb/hr		8.73E-06		8.89E-06	8.48E-06	8.70E-06
Chromium	lb/hr	NDb	4.86E-06		9.78E-06	NDb 4.82E-06	4.87E-06
Cobalt	lb/hr	ND	1.80E-06	ND 1.78E-06	ND 1.79E-06	< 1.79E-06	0
Copper	lb/hr	ND	1.80E-05	ND 1.78E-05	ND 1.79E-05	< 1.79E-05	0
Lead	lb/hr		1.16E-03		5.23E-04	7.75E-04	8.19E-04
Manganese	lb/hr		8.10E-06		9.78E-06	8.93E-06	8.94E-06
Mercury	lb/hr		1.72E-05		9.78E-06	9.58E-06	1.22E-05
Nickel	lb/hr		2.34E-05		5.34E-06	1.79E-06	1.02E-05
Phosphorus	lb/hr	ND	1.26E-04	ND 1.24E-04	ND 1.25E-04	< 1.25E-04	0
Selenium	lb/hr	ND	3.60E-06	ND 3.56E-06		1.16E-05	5.06E-06
Silver	lb/hr		2.34E-06		2.85E-06	1.87E-06	2.35E-06
Thallium	lb/hr	ND	1.80E-06	ND 1.78E-06	ND 1.79E-06	< 1.79E-06	0
Vanadium	lb/hr	ND	9.00E-06	ND 8.89E-06	ND 8.93E-06	< 8.94E-06	0
Zinc	lb/hr		1.26E-04		8.36E-05	6.61E-05	9.19E-05
Iron	lb/hr	ND	4.86E-04		5.16E-04	4.82E-04	4.14E-04

* Performed during isokinetic sampling (e.g. CARB Method 436).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - Not detected, reporting limit reported.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

**TABLE 6-2. SUMMARY OF TEST RESULTS
 CARB 430 (Formaldehyde and Acetaldehyde)**

Facility: Exide Technologies
 City: Vernon, CA
 Unit: Neptune Scrubber

Test Data	Units	Symbol	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	--	--	Run 1	Run 2	Run 3		
Test Date	m/d/y	--	05/23/12	05/29/12	05/30/12	--	--
Time:	hh:mm	--	7:45 - 15:45	7:30 - 15:30	7:15 - 15:15	--	--
Sampling Data:							
Stack Flow Rate:*	dscfm	Qsd	23,156	23,131	22,902	23,063	--
Stack Temperature*	°F	Ts	132	139	133	134	--
Gas Sample Volume	dscm	Vm,std	0.070	0.070	0.070	0.070	--
Formaldehyde	<u>units</u>	<u>Symbol</u>					
Catch	ug	Cbcs,f	RL 0.535	RL 0.535	1.72	0.753	0.753
Mass Concentration:	mg/dscm	Cm,f	RL 0.00766	RL 0.00763	0.0247	0.0108	0.0108
Volumetric Concentration:	ppmv	Cv,f	RL 0.00614	RL 0.00612	0.0198	0.00864	0.00864
Mass Emission Rate:	lb/hr	Ef	RL 0.000665	RL 0.000662	0.00212	0.000928	0.000928
Acetaldehyde	<u>units</u>	<u>Symbol</u>					
Catch	ug	Cbcs,a	1.40	1.57	1.56	1.51	1.51
Mass Concentration:	mg/dscm	Cm,a	0.0200	0.0224	0.0223	0.0216	0.0216
Volumetric Concentration:	ppmv	Cv,a	0.0110	0.0122	0.0122	0.0118	0.0118
Mass Emission Rate:	lb/hr	Ea	0.00174	0.00194	0.00191	0.00186	0.00186

* Measured during simultaneous isokinetic sampling per CARB Method 428.

RL- Sample to Field Blank ratio was less than five, reporting limit is reported per Method.

TABLE 6-3. TEST RESULTS
CARB 429 (Polycyclic Aromatic Hydrocarbons)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	05/23/12	05/29/12	05/30/12	--	--
Test Time	hh:mm	07:45- 16:05	07:30-15:44	07:15-15:29	--	--
Sampling Data*						
Stack Temperature	°F	134	136	135	135	--
Moisture	%	15.3	13.9	15.6	14.9	--
Sample Volume	dscf	332	328	336	332	--
Oxygen**	% v/v	16.6	16.8	17.0	16.8	--
Carbon Dioxide**	% v/v	3.1	3.5	2.9	3.2	--
Gas Velocity	ft/min	2,743	2,742	2,773	2,753	--
Stack Flow Rate	acfm	30,971	30,967	31,317	31,085	--
Stack Flow Rate	dscfm	23,197	23,633	23,358	23,396	--
CARB Method 429, PAH CONCENTRATION						
Naphthalene	ug/dscm	0.215	0.175	0.334	0.241	0.241
2-Methylnaphthalene	ug/dscm	0.0493	0.0641	0.0473	0.0536	0.0536
Acenaphthylene	ug/dscm	0.00257	0.0126	0.00767	0.00761	0.00761
Acenaphthene	ug/dscm	0.00414	0.00722	0.00463	0.00533	0.00533
Fluorene	ug/dscm	0.0111	0.0236	0.0189	0.0179	0.0179
Phenanthrene	ug/dscm	0.121	0.565	0.506	0.397	0.397
Anthracene	ug/dscm	0.00187	0.0222	0.00790	0.0106	0.0106
Fluoranthene	ug/dscm	0.0842	0.943	0.661	0.563	0.563
Pyrene	ug/dscm	0.0326	0.6498	0.334	0.339	0.339
Benz(a)anthracene	ug/dscm	ND	0.00106	0.0460	0.0393	0.0286
Chrysene	ug/dscm	0.0312	0.328	0.469	0.276	0.276
Benzo(b)fluoranthene	ug/dscm	0.00240	0.0141	0.0429	0.0198	0.0198
Benzo(k)fluoranthene	ug/dscm	ND	0.00106	0.00341	0.00801	0.00398
Benzo(e)pyrene	ug/dscm	0.00137	0.0107	0.0246	0.0122	0.0122
Benzo(a)pyrene	ug/dscm	ND	0.00106	ND	0.00105	< 0.00106
Perylene	ug/dscm	ND	0.00106	ND	0.00105	< 0.00106
Indeno(1,2,3-cd)pyrene	ug/dscm	ND	0.00106	ND	0.00105	< 0.00106
Dibenz(a,h)anthracene	ug/dscm	ND	0.00106	ND	0.00105	< 0.00106
Benzo(ghi)perylene	ug/dscm	ND	0.00106	ND	0.00105	< 0.00106
CARB Method 429, PAH MASS EMISSION RATE						
Naphthalene	lb/hr	1.87E-05	1.55E-05	2.92E-05	2.11E-05	2.11E-05
2-Methylnaphthalene	lb/hr	4.28E-06	5.68E-06	4.13E-06	4.70E-06	4.70E-06
Acenaphthylene	lb/hr	2.23E-07	1.11E-06	6.71E-07	6.70E-07	6.70E-07
Acenaphthene	lb/hr	3.60E-07	6.39E-07	4.05E-07	4.68E-07	4.68E-07
Fluorene	lb/hr	9.60E-07	2.09E-06	1.66E-06	1.57E-06	1.57E-06
Phenanthrene	lb/hr	1.05E-05	5.00E-05	4.43E-05	3.49E-05	3.49E-05
Anthracene	lb/hr	1.63E-07	1.96E-06	6.91E-07	9.39E-07	9.39E-07
Fluoranthene	lb/hr	7.31E-06	8.35E-05	5.78E-05	4.95E-05	4.95E-05
Pyrene	lb/hr	2.83E-06	5.75E-05	2.92E-05	2.98E-05	2.98E-05
Benz(a)anthracene	lb/hr	ND	9.23E-08	4.08E-06	3.43E-06	2.52E-06
Chrysene	lb/hr	2.71E-06	2.90E-05	4.11E-05	2.43E-05	2.43E-05
Benzo(b)fluoranthene	lb/hr	2.09E-07	1.25E-06	3.76E-06	1.74E-06	1.74E-06
Benzo(k)fluoranthene	lb/hr	ND	9.23E-08	3.02E-07	7.01E-07	3.50E-07
Benzo(e)pyrene	lb/hr	1.19E-07	9.46E-07	2.15E-06	1.07E-06	1.07E-06
Benzo(a)pyrene	lb/hr	ND	9.23E-08	ND	9.21E-08	< 9.32E-08
Perylene	lb/hr	ND	9.23E-08	ND	9.21E-08	< 9.32E-08
Indeno(1,2,3-cd)pyrene	lb/hr	ND	9.23E-08	ND	9.21E-08	< 9.32E-08
Dibenz(a,h)anthracene	lb/hr	ND	9.23E-08	ND	9.21E-08	< 9.32E-08
Benzo(ghi)perylene	lb/hr	ND	9.23E-08	ND	9.21E-08	< 9.32E-08

* Performed during isokinetic sampling (e.g. CARB Method 429).

** Measured via SCAQMD Method 10.1.

Flags

ND or "<" - not detected, reporting limit reported.

TABLE 6-4. TEST RESULTS
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
City: Vernon, CA
Source: Neptune Scrubber

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	05/23/12	05/29/12	05/30/12	--	--
Test Time	hh:mm	7:45-16:05	7:30-15:44	7:15-15:29	--	--
Sampling Data*						
Stack Temperature	°F	132	139	133	134	--
Moisture	%	16.5	15.9	17.2	16.5	--
Sample Volume	dscf	336	334	335	335	--
Oxygen**	% v/v	16.6	16.8	17.0	16.8	--
Carbon Dioxide**	% v/v	3.1	3.5	2.9	3.2	--
Gas Velocity	ft/min	2,767	2,761	2,764	2,764	--
Stack Flow Rate	acfm	31,241	31,171	31,214	31,209	--
Stack Flow Rate	dscfm	23,156	23,131	22,902	23,063	--
CARB Method 428 CONCENTRATION						
2,3,7,8-TCDD	ug/dscm	4.28E-06	2.34E-06	5.19E-06	3.94E-06	3.94E-06
1,2,3,7,8-PeCDD	ug/dscm	J 5.09E-06	J 2.17E-06	J 6.40E-06	4.55E-06	4.55E-06
1,2,3,4,7,8-HxCDD	ug/dscm	J 8.75E-07	J 5.28E-07	EMPC 1.05E-06	6.42E-07	6.42E-07
1,2,3,6,7,8-HxCDD	ug/dscm	J 1.20E-06	J 5.85E-07	J 1.39E-06	1.06E-06	1.06E-06
1,2,3,7,8,9-HxCDD	ug/dscm	J 7.21E-07	J 4.28E-07	J 1.00E-06	7.18E-07	7.18E-07
1,2,3,4,6,7,8,-HpCDD	ug/dscm	J 6.19E-07	J 6.28E-07	J 9.15E-07	7.21E-07	7.21E-07
OCDD	ug/dscm	J 5.72E-07	EMPC 8.27E-07	J 6.11E-07	5.32E-07	5.32E-07
2,3,7,8-TCDF	ug/dscm	1.47E-04	9.18E-05	1.61E-04	1.33E-04	1.33E-04
1,2,3,7,8-PeCDF	ug/dscm	1.43E-04	6.34E-05	1.57E-04	1.21E-04	1.21E-04
2,3,4,7,8-PeCDF	ug/dscm	1.30E-04	5.22E-05	1.52E-04	1.11E-04	1.11E-04
1,2,3,4,7,8-HxCDF	ug/dscm	4.12E-05	1.77E-05	4.74E-05	3.54E-05	3.54E-05
1,2,3,6,7,8-HxCDF	ug/dscm	4.61E-05	1.97E-05	5.47E-05	4.01E-05	4.01E-05
2,3,4,6,7,8-HxCDF	ug/dscm	1.90E-05	J 8.83E-06	2.50E-05	1.76E-05	1.76E-05
1,2,3,7,8,9-HxCDF	ug/dscm	J 8.43E-06	J 4.13E-06	1.18E-05	8.13E-06	8.13E-06
1,2,3,4,6,7,8-HpCDF	ug/dscm	J 1.40E-05	J 8.32E-06	J 1.66E-05	1.30E-05	1.30E-05
1,2,3,4,7,8,9-HpCDF	ug/dscm	J 1.71E-06	J 1.29E-06	J 2.85E-06	1.95E-06	1.95E-06
OCDF	ug/dscm	ND 2.91E-07	J 4.09E-07	J 8.79E-07	4.78E-07	4.78E-07
TEQ (Min) as 2,3,7,8-TCDD	ug/dscm	7.93E-05	3.65E-05	9.24E-05	6.94E-05	6.94E-05
Total TCDD	ug/dscm	1.54E-04	1.15E-04	1.68E-04	1.46E-04	1.46E-04
Total PeCDD	ug/dscm	7.75E-05	4.32E-05	9.25E-05	7.11E-05	7.11E-05
Total HxCDD	ug/dscm	1.89E-05	1.05E-05	2.13E-05	1.69E-05	1.69E-05
Total HpCDD	ug/dscm	1.60E-06	1.47E-06	2.16E-06	1.74E-06	1.74E-06
Total TCDF	ug/dscm	4.03E-03	2.28E-03	4.06E-03	3.46E-03	3.46E-03
Total PeCDF	ug/dscm	1.95E-03	7.70E-04	2.16E-03	1.63E-03	1.63E-03
Total HxCDF	ug/dscm	3.79E-04	1.58E-04	4.60E-04	3.32E-04	3.32E-04
Total HpCDF	ug/dscm	2.20E-05	1.33E-05	2.84E-05	2.13E-05	2.13E-05
PCBs						
Total monoCB	ug/dscm	7.70E-03	1.44E-02	2.53E-03	8.20E-03	8.20E-03
Total diCB	ug/dscm	3.72E-03	3.07E-03	2.59E-03	3.13E-03	3.13E-03
Total triCB	ug/dscm	3.60E-03	4.84E-03	4.36E-03	4.27E-03	4.27E-03
Total tetraCB	ug/dscm	6.95E-03	7.06E-03	6.73E-03	6.92E-03	6.92E-03
Total pentaCB	ug/dscm	6.12E-03	8.49E-03	1.83E-02	1.10E-02	1.10E-02
Total hexaCB	ug/dscm	9.61E-04	6.24E-03	6.69E-03	4.63E-03	4.63E-03
Total heptaCB	ug/dscm	ND 1.05E-04	5.01E-04	4.37E-04	3.30E-04	3.30E-04
Total octaCB	ug/dscm	ND 1.05E-04	1.85E-04	3.81E-05	9.19E-05	9.19E-05
Total nonaCB	ug/dscm	ND 1.05E-04	3.53E-05	5.55E-05	4.78E-05	4.78E-05
Total decaCB	ug/dscm	ND 1.05E-04	1.06E-04	ND 1.06E-04	<	1.05E-04
Total PCBs	ug/dscm	2.91E-02	4.48E-02	4.18E-02	3.85E-02	3.85E-02

TABLE 6-4. TEST RESULTS, Continued
CARB 428 (Dioxins, Furans & PCBs)

Facility: Exide Technologies
City: Vernon, CA
Source: Neptune Scrubber

Test Data	Units	Source Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	05/23/12	05/29/12	05/30/12	--	--
Test Time	hh:mm	7:45-16:05	7:30-15:44	7:15-15:29	--	--
CARB Method 428						
MASS EMISSION RATE						
2,3,7,8-TCDD	lb/hr	3.72E-10	2.02E-10	4.45E-10	3.40E-10	3.40E-10
1,2,3,7,8-PeCDD	lb/hr	J 4.42E-10	J 1.88E-10	J 5.49E-10	3.93E-10	3.93E-10
1,2,3,4,7,8-HxCDD	lb/hr	J 7.59E-11	J 4.57E-11	EMPC 8.99E-11	5.55E-11	5.55E-11
1,2,3,6,7,8-HxCDD	lb/hr	J 1.04E-10	J 5.06E-11	J 1.20E-10	9.13E-11	9.13E-11
1,2,3,7,8,9-HxCDD	lb/hr	J 6.26E-11	J 3.71E-11	J 8.61E-11	6.19E-11	6.19E-11
1,2,3,4,6,7,8-HpCDD	lb/hr	J 5.37E-11	J 5.44E-11	J 7.85E-11	6.22E-11	6.22E-11
OCDD	lb/hr	J 4.96E-11	EMPC 7.16E-11	J 5.24E-11	4.60E-11	4.60E-11
2,3,7,8-TCDF	lb/hr	1.27E-08	7.95E-09	1.39E-08	1.15E-08	1.15E-08
1,2,3,7,8-PeCDF	lb/hr	1.24E-08	5.50E-09	1.35E-08	1.05E-08	1.05E-08
2,3,4,7,8-PeCDF	lb/hr	1.13E-08	4.52E-09	1.30E-08	9.62E-09	9.62E-09
1,2,3,4,7,8-HxCDF	lb/hr	3.57E-09	1.53E-09	4.07E-09	3.05E-09	3.05E-09
1,2,3,6,7,8-HxCDF	lb/hr	4.00E-09	1.70E-09	4.69E-09	3.46E-09	3.46E-09
2,3,4,6,7,8-HxCDF	lb/hr	1.65E-09	J 7.65E-10	2.15E-09	1.52E-09	1.52E-09
1,2,3,7,8,9-HxCDF	lb/hr	J 7.31E-10	J 3.58E-10	1.01E-09	7.01E-10	7.01E-10
1,2,3,4,6,7,8-HpCDF	lb/hr	J 1.21E-09	J 7.21E-10	J 1.42E-09	1.12E-09	1.12E-09
1,2,3,4,7,8,9-HpCDF	lb/hr	J 1.48E-10	J 1.12E-10	J 2.44E-10	1.68E-10	1.68E-10
OCDF	lb/hr	ND 2.52E-11	J 3.54E-11	J 7.54E-11	4.12E-11	4.12E-11
TEQ (Min) as 2,3,7,8-TCDD	lb/hr	6.88E-09	3.16E-09	7.92E-09	5.99E-09	5.99E-09
Total TCDD	lb/hr	1.34E-08	9.98E-09	1.44E-08	1.26E-08	1.26E-08
Total PeCDD	lb/hr	6.72E-09	3.75E-09	7.93E-09	6.13E-09	6.13E-09
Total HxCDD	lb/hr	1.64E-09	9.08E-10	1.83E-09	1.46E-09	1.46E-09
Total HpCDD	lb/hr	1.38E-10	1.27E-10	1.86E-10	1.50E-10	1.50E-10
Total TCDF	lb/hr	3.50E-07	1.98E-07	3.49E-07	2.99E-07	2.99E-07
Total PeCDF	lb/hr	1.69E-07	6.67E-08	1.86E-07	1.41E-07	1.41E-07
Total HxCDF	lb/hr	3.29E-08	1.36E-08	3.95E-08	2.87E-08	2.87E-08
Total HpCDF	lb/hr	1.91E-09	1.15E-09	2.44E-09	1.83E-09	1.83E-09
PCBs						
Total monoCB	lb/hr	6.68E-07	1.25E-06	2.17E-07	7.10E-07	7.10E-07
Total diCB	lb/hr	3.23E-07	2.66E-07	2.22E-07	2.70E-07	2.70E-07
Total triCB	lb/hr	3.12E-07	4.19E-07	3.74E-07	3.69E-07	3.69E-07
Total tetraCB	lb/hr	6.03E-07	6.12E-07	5.78E-07	5.97E-07	5.97E-07
Total pentaCB	lb/hr	5.31E-07	7.35E-07	1.57E-06	9.44E-07	9.44E-07
Total hexaCB	lb/hr	8.33E-08	5.40E-07	5.74E-07	3.99E-07	3.99E-07
Total heptaCB	lb/hr	ND 9.11E-09	4.34E-08	3.75E-08	2.85E-08	2.85E-08
Total octaCB	lb/hr	ND 9.11E-09	1.60E-08	3.27E-09	7.95E-09	7.95E-09
Total nonaCB	lb/hr	ND 9.11E-09	3.06E-09	4.76E-09	4.13E-09	4.13E-09
Total decaCB	lb/hr	ND 9.11E-09	ND 9.16E-09	ND 9.05E-09	< 9.11E-09	0
Total PCBs	lb/hr	2.52E-06	3.88E-06	3.58E-06	3.33E-06	3.33E-06

* Performed during isokinetic sampling (e.g. CARB Method 428).

** Measured via SCAQMD Method 10.1

Flags

ND or "<" - not detected, reporting limit reported.

J - The amount detected is below the Low Calibration Limit.

EMPC = Estimated Maximum Possible Concentration.

TEQ based on (2005) WHO Toxic Equivalent Factors (WHO).

TEQ (Min)-The "Min" indicates that a zero was used in the equation when an analyte was not detected.

TABLE 6-5. TEST RESULTS
CARB 425 (Hexavalent Chromium)

Facility: Exide Technologies
 City: Vernon, CA
 Source: Neptune Scrubber

TEST DATA	Units	Test Results			Average	AB2588/HRA Avg. Reporting Values
Run Number	-	Run 1	Run 2	Run 3		
Test Date	m/d/y	05/08/12	05/09/12	05/10/12	--	--
Test Time	h/m	7:30-16:06	6:45-15:20	6:50-15:22	--	--
Sampling Data*						
Stack Temperature	°F	138	138	138	138	--
Moisture	%	19	19	19	19	--
Sample Volume	dscf	347	346	347	347	--
Oxygen**	% v/v	17.0	16.4	17.0	16.8	--
Carbon Dioxide**	% v/v	3.5	3.8	3.5	3.6	--
Gas Velocity	ft/min	2,880	2,884	2,885	2,883	--
Stack Flow Rate	acfm	32,522	32,562	32,572	32,552	--
Stack Flow Rate	dscfm	23,155	23,130	23,314	23,200	--
CARB Method 425						
CONCENTRATION		Total	Total	Total		
Chromium VI	ug/dscm	0.387	0.630	0.599	0.539	0.539
Maximum Chromium VI (M436)***	ug/dscm	NDb	0.0550	0.111	NDb	0.0550
CARB Method 425						
MASS EMISSION RATE		Total	Total	Total		
Chromium VI	lb/hr	3.35E-05	5.46E-05	5.23E-05	4.68E-05	4.68E-05
Maximum Chromium VI (M436)***	lb/hr	NDb	4.86E-06	9.78E-06	NDb	4.82E-06

* Performed during isokinetic sampling (e.g. CARB Method 425).

** Measured via SCAQMD Method 10.1.

NDb - Reagent blank corrected result is less than RL. RL is substituted.

*** Hexavalent chromium results should not be greater than the simultaneously measured total chromium based on M436.

Therefore, simultaneous total chromium results based on M436 was reported as maximum hexavalent chromium for all three test runs.

TABLE 6-6. TEST RESULTS
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Neptune Scrubber

Test Date: 06/19/12

Parameter	Units	Data	Data	Data	Average	AB2588/HRA Avg. Reporting Values
Run Number		1	2	3		
<u>Sampling Conditions</u>						
Standard Temperature, Tstd	deg.F	68	68	68	68	--
Standard Pressure, Pstd	in.Hg	29.92	29.92	29.92	29.92	--
Stack Gas Flow Rate *	DSCFM	22,275	23,328	23,207	22,937	--
<u>Laboratory Data</u>						
Acetone	ppbv	6.6	7.0	9.8	7.8	7.8
Benzene	ppbv	0.51	ND	0.50	0.51	0.51
Benzyl Chloride	ppbv	ND	1.50	ND	< 1.50	0
Bromodichloromethane	ppbv	ND	0.50	ND	< 0.50	0
Bromoform	ppbv	ND	0.50	ND	< 0.50	0
Bromomethane	ppbv	0.70	ND	0.50	0.51	0.51
1,3-Butadiene**	ppbv	ND	1.00	ND	< 1.00	0
2-Butanone	ppbv	ND	1.50	ND	< 1.50	0
Carbon Disulfide	ppbv	ND	2.00	ND	< 2.00	0
Carbon Tetrachloride	ppbv	ND	0.50	ND	< 0.50	0
Chlorobenzene	ppbv	ND	0.50	ND	< 0.50	0
Chloroethane	ppbv	ND	0.50	ND	< 0.50	0
Chloroform	ppbv	ND	0.50	ND	< 0.50	0
Chloromethane	ppbv	2.6	1.1	2.1	1.9	1.9
Dibromochloromethane	ppbv	ND	0.50	ND	< 0.50	0
Dichlorodifluoromethane	ppbv	ND	0.50	ND	< 0.50	0
1,1-Dichloroethane	ppbv	ND	0.50	ND	< 0.50	0
1,1-Dichloroethene	ppbv	ND	0.50	ND	< 0.50	0
1,2-Dibromoethane	ppbv	ND	0.50	ND	< 0.50	0
Dichlorotetrafluoroethane	ppbv	ND	2.00	ND	< 2.00	0
1,2-Dichlorobenzene	ppbv	ND	0.50	ND	< 0.50	0
1,2-Dichloroethane	ppbv	ND	0.50	ND	< 0.50	0
1,2-Dichloropropane	ppbv	ND	0.50	ND	< 0.50	0
1,3-Dichlorobenzene	ppbv	ND	0.50	ND	< 0.50	0
1,4-Dichlorobenzene	ppbv	ND	0.50	ND	< 0.50	0
1,4-Dioxane**	ppbv	ND	1.00	ND	< 1.00	0
c-1,3-Dichloropropene	ppbv	ND	0.50	ND	< 0.50	0
c-1,2-Dichloroethene	ppbv	ND	0.50	ND	< 0.50	0
t-1,2-Dichloroethene	ppbv	ND	0.50	ND	< 0.50	0
t-1,3-Dichloropropene	ppbv	ND	1.00	ND	< 1.00	0
Ethylbenzene	ppbv	ND	0.50	ND	< 0.50	0
4-Ethyltoluene	ppbv	ND	0.50	ND	< 0.50	0
Hexachloro-1,3-Butadiene	ppbv	ND	1.50	ND	< 1.50	0
2-Hexanone	ppbv	ND	1.50	ND	< 1.50	0
Methyl-t-Butyl Ether (MTBE)	ppbv	ND	2.00	ND	< 2.00	0
Methylene Chloride	ppbv	ND	5.00	ND	< 5.00	0
4-Methyl-2-Pentanone	ppbv	ND	1.50	ND	< 1.50	0
Naphthalene	ppbv	ND	5.00	ND	< 5.00	0
o-Xylene	ppbv	ND	0.50	ND	< 0.50	0
p/m-Xylene	ppbv	ND	2.00	ND	< 2.00	0
Styrene	ppbv	ND	1.50	ND	< 1.50	0
Tetrachloroethene	ppbv	ND	0.50	ND	< 0.50	0
Toluene	ppbv	2.60	0.55	1.10	1.4	1.4
Trichloroethene	ppbv	ND	0.50	ND	< 0.50	0
Trichlorofluoromethane	ppbv	ND	1.00	ND	< 1.00	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	ppbv	ND	1.50	ND	< 1.50	0
1,1,1-Trichloroethane	ppbv	ND	0.50	ND	< 0.50	0
1,1,2-Trichloroethane	ppbv	ND	0.50	ND	< 0.50	0
1,3,5-Trimethylbenzene	ppbv	ND	0.50	ND	< 0.50	0
1,1,2,2-Tetrachloroethane	ppbv	ND	1.00	ND	< 1.00	0
1,2,4-Trimethylbenzene	ppbv	ND	1.50	ND	< 1.50	0
1,2,4-Trichlorobenzene	ppbv	ND	2.00	ND	< 2.00	0
Vinyl Acetate	ppbv	ND	2.00	ND	< 2.00	0
Vinyl Chloride	ppbv	ND	0.50	ND	< 0.50	0

TABLE 6-6. TEST RESULTS, Continued
EPA TO-15 (Volatile Organic Compounds)

Facility: Exide Technologies

City: Vernon, CA

Source: Neptune Scrubber

Test Date: 06/19/12

Parameter	Units	Data	Data	Data	Average	AB2588/HRA Avg. Reporting Values
Run Number		1	2	3		
Emissions Data						
Acetone	lb/hr	1.33E-03	1.48E-03	2.06E-03	1.62E-03	1.62E-03
Benzene	lb/hr	1.38E-04	ND	1.42E-04	1.43E-04	1.43E-04
Benzyl Chloride	lb/hr	ND	6.59E-04	ND	6.87E-04	< 6.79E-04
Bromodichloromethane	lb/hr	ND	2.84E-04	ND	2.98E-04	< 2.93E-04
Bromoform	lb/hr	ND	4.39E-04	ND	4.59E-04	< 4.52E-04
Bromomethane	lb/hr	2.31E-04	ND	1.73E-04	1.99E-04	1.72E-04
1,3-Butadiene**	lb/hr	ND	1.88E-04	ND	1.97E-04	< 1.93E-04
2-Butanone	lb/hr	ND	3.75E-04	ND	3.93E-04	< 3.87E-04
Carbon Disulfide	lb/hr	ND	5.29E-04	ND	5.54E-04	< 5.44E-04
Carbon Tetrachloride	lb/hr	ND	2.67E-04	ND	2.80E-04	< 2.75E-04
Chlorobenzene	lb/hr	ND	1.95E-04	ND	2.05E-04	< 2.01E-04
Chloroethane	lb/hr	ND	1.12E-04	ND	1.17E-04	< 1.15E-04
Chloroform	lb/hr	ND	2.07E-04	ND	2.17E-04	< 2.13E-04
Chloromethane	lb/hr	4.56E-04		2.02E-04	3.83E-04	3.47E-04
Dibromochloromethane	lb/hr	ND	3.62E-04	ND	3.79E-04	< 3.72E-04
Dichlorodifluoromethane	lb/hr	ND	2.10E-04	ND	2.20E-04	< 2.16E-04
1,1-Dichloroethane	lb/hr	ND	1.72E-04	ND	1.80E-04	< 1.77E-04
1,1-Dichloroethene	lb/hr	ND	1.68E-04	ND	1.76E-04	< 1.73E-04
1,2-Dibromoethane	lb/hr	ND	3.26E-04	ND	3.41E-04	< 3.36E-04
Dichlorotetrafluoroethane	lb/hr	ND	1.19E-03	ND	1.24E-03	< 1.22E-03
1,2-Dichlorobenzene	lb/hr	ND	2.55E-04	ND	2.67E-04	< 2.63E-04
1,2-Dichloroethane	lb/hr	ND	1.72E-04	ND	1.80E-04	< 1.77E-04
1,2-Dichloropropane	lb/hr	ND	1.96E-04	ND	2.05E-04	< 2.02E-04
1,3-Dichlorobenzene	lb/hr	ND	2.55E-04	ND	2.67E-04	< 2.63E-04
1,4-Dichlorobenzene	lb/hr	ND	2.55E-04	ND	2.67E-04	< 2.63E-04
1,4-Dioxane**	lb/hr	ND	3.06E-04	ND	3.20E-04	< 3.15E-04
c-1,3-Dichloropropene	lb/hr	ND	1.93E-04	ND	2.02E-04	< 1.98E-04
c-1,2-Dichloroethene	lb/hr	ND	1.68E-04	ND	1.76E-04	< 1.73E-04
t-1,2-Dichloroethene	lb/hr	ND	1.68E-04	ND	1.76E-04	< 1.73E-04
t-1,3-Dichloropropene	lb/hr	ND	3.85E-04	ND	4.03E-04	< 3.97E-04
Ethylbenzene	lb/hr	ND	1.84E-04	ND	1.93E-04	< 1.90E-04
4-Ethyltoluene	lb/hr	ND	2.09E-04	ND	2.18E-04	< 2.15E-04
Hexachloro-1,3-Butadiene	lb/hr	ND	1.36E-03	ND	1.42E-03	< 1.40E-03
2-Hexanone	lb/hr	ND	5.22E-04	ND	5.46E-04	< 5.37E-04
Methyl-t-Butyl Ether (MTBE)	lb/hr	ND	6.12E-04	ND	6.41E-04	< 6.30E-04
Methylene Chloride	lb/hr	ND	1.47E-03	ND	1.54E-03	< 1.52E-03
4-Methyl-2-Pentanone	lb/hr	ND	5.22E-04	ND	5.46E-04	< 5.37E-04
Naphthalene	lb/hr	ND	2.22E-03	ND	2.33E-03	< 2.29E-03
o-Xylene	lb/hr	ND	1.84E-04	ND	1.93E-04	< 1.90E-04
p/m-Xylene	lb/hr	ND	7.37E-04	ND	7.72E-04	< 7.59E-04
Styrene	lb/hr	ND	5.42E-04	ND	5.68E-04	< 5.58E-04
Tetrachloroethene	lb/hr	ND	2.88E-04	ND	3.01E-04	< 2.96E-04
Toluene	lb/hr		8.32E-04		1.84E-04	3.67E-04
Trichloroethene	lb/hr	ND	2.28E-04	ND	2.39E-04	< 2.35E-04
Trichlorofluoromethane	lb/hr	ND	4.77E-04	ND	4.99E-04	< 4.91E-04
1,1,2-Trichloro-1,2,2-Trifluoroethane	lb/hr	ND	9.76E-04	ND	1.02E-03	< 1.00E-03
1,1,1-Trichloroethane	lb/hr	ND	2.32E-04	ND	2.43E-04	< 2.41E-04
1,1,2-Trichloroethane	lb/hr	ND	2.32E-04	ND	2.43E-04	< 2.38E-04
1,3,5-Trimethylbenzene	lb/hr	ND	2.09E-04	ND	2.18E-04	< 2.15E-04
1,1,2,2-Tetrachloroethane	lb/hr	ND	5.83E-04	ND	6.10E-04	< 6.07E-04
1,2,4-Trimethylbenzene	lb/hr	ND	6.26E-04	ND	6.55E-04	< 6.52E-04
1,2,4-Trichlorobenzene	lb/hr	ND	1.26E-03	ND	1.32E-03	< 1.31E-03
Vinyl Acetate	lb/hr	ND	5.98E-04	ND	6.26E-04	< 6.23E-04
Vinyl Chloride	lb/hr	ND	1.08E-04	ND	1.14E-04	< 1.13E-04

* Performed during sampling per SCAQMD Methods 1-4.

** Analyzed via onsite GC using direct injection.

ND or "<" - None detected, RL is reported.

CALCULATIONS:

$$\text{lb/hr} = (\text{ppbv}/1000) * \text{Qsd} (\text{dscfh}) * \text{MW}_i / 385 / 1000000$$

Appendix A2a
Roadway Dust Laboratory Reports: PTS



8100 Secura Way • Santa Fe Springs, CA 90670
Telephone (562) 347-2500 • Fax (562) 907-3610

September 29, 2011

Yi Tian
ENVIRON
18100 Von Karman Ave., Suite 600
Irvine, CA 92612

Re: PTS File No: 41654
Physical Properties Data
07-24850A

Dear Ms. Tian:

Please find enclosed report for Physical Properties analyses conducted upon samples received from your 07-24850A project. All analyses were performed by applicable ASTM, EPA, or API methodologies. An electronic version of the report has previously been sent to your attention via the internet. Please note that the vacuum bags and sample splits have been returned to Doug Johnson/ENVIRON.

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please contact Rachel Spitz at (562) 347-2504.

Sincerely,
PTS Laboratories



Michael Mark Brady, P.G.
District Manager

Encl.

PTS Laboratories

Project Name: EXIDE
Project Number: 07-24850A

PTS File No: 41654
Client: ENVIRON

TEST PROGRAM - 20110919

CORE ID	Depth ft.	Weigh Empty Vacuum Bags	Monitor Dry Weight of Used Vacuum Bags	Split-Pass/ Retain #200 Sieve			Notes
Date Received: 20110913							
Bag #1	N/A	Complete	X	X			
Bag #2	N/A	Complete	X	X			
Bag #3	N/A	Complete	X	X			
Bag #4	N/A	Complete	X	X			
Bag #5	N/A	Complete	X	X			
Bag #6	N/A	Complete	X	X			
Bag #7	N/A	Complete	X	X			
Bag #8	N/A	Complete	X	X			
TOTALS:	8 bags	8	8	8	0	0	8

Laboratory Test Program Notes

Standard TAT for basic analysis is 10-15 business days.

Dry empty vacuum bags in oven at 110°C +/- 5°C, for 24-36 hours or until stable weight is reached.
Ship dry bags to Doug Johnson/ENVIRON.

Dry used vacuum bags in oven at 110°C +/- 5°C, for 24-36 hours or until stable weight is reached.
Split samples on the 200 mesh sieve. Return splits to Doug Johnson/ENVIRON.

PTS File No: 41654
Client: ENVIRON

PTS Laboratories

Particle Size Data, Percent Passing / Retained U.S. Standard Sieve No. 200

(Methodology: Mod. ASTM D422)

PROJECT NAME: N/A
PROJECT NO: 07-24850A

Analysis Date	Sample ID	U.S. No. 200 Sieve Tare grams	Pan Tare Weight grams	U.S. No. 200 Sieve grams	Sample + Pan Weight grams	Total Sample Weight grams	Sample Retained on U.S. No. 200 Sieve		Sample Passing U.S. No. 200 Sieve percent	
							grams	percent	grams	percent
20110923	Bag #1	511.39	355.98	518.61	361.36	12.60	7.22	57.30	5.38	42.70
20110923	Bag #2	491.90	362.20	515.31	371.20	32.41	23.41	72.23	9.00	27.77
20110923	Bag #3	504.14	354.04	523.65	361.22	26.69	19.51	73.10	7.18	26.90
20110923	Bag #4	511.39	356.00	518.09	363.90	14.60	6.70	45.89	7.90	54.11
20110923	Bag #5	491.86	362.19	505.26	368.77	19.98	13.40	67.07	6.58	32.93
20110923	Bag #6	504.01	354.06	512.45	362.25	16.63	8.44	50.75	8.19	49.25
20110923	Bag #7	511.36	356.00	530.14	376.60	39.38	18.78	47.69	20.60	52.31
20110923	Bag #8	511.38	355.99	540.08	363.80	36.51	28.70	78.61	7.81	21.39



PTS File No: 41654

QC DATA

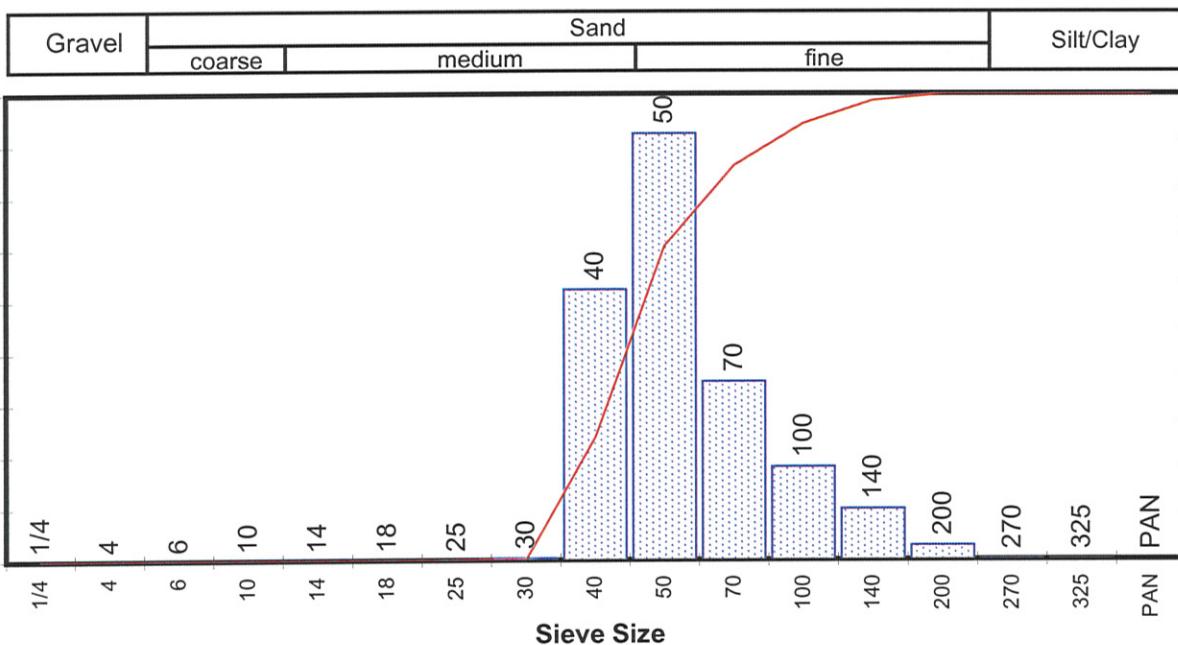
8100 Secura Way – Santa Fe Springs, CA 90670
Phone 562.347.2500 Fax 562.907.3610
www.ptslabs.com

PTS Laboratories, Inc.

Sieve Analysis Results - ASTM D422

Client: Internal QC
 Project: Multiple QC
 Project No: Multiple QC

PTS File No: 41000
 Sample ID: Run 09_019; Matl. A
 Depth, ft: N/A



Opening		Phi of Screen	U.S. Sieve No.	Sample Weight grams	Incremental Weight, percent	Cumulative Weight, percent
Inches	Millimeters					
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0557	1.414	-0.50	14	0.00	0.00	0.00
0.0394	1.000	0.00	18	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.22	0.19	0.19
0.0166	0.420	1.25	40	30.32	26.12	26.31
0.0117	0.297	1.75	50	47.77	41.16	67.47
0.0083	0.210	2.25	70	19.99	17.22	84.70
0.0059	0.149	2.75	100	10.36	8.93	93.62
0.0041	0.105	3.25	140	5.71	4.92	98.54
0.0029	0.074	3.75	200	1.60	1.38	99.92
0.0021	0.053	4.25	270	0.07	0.06	99.98
0.0017	0.044	4.50	325	0.02	0.02	100.00
			PAN	0.00	0.00	100.00

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size	
		Inches	Millimeters
5	0.84	0.0220	0.558
10	0.94	0.0206	0.522
16	1.05	0.0190	0.482
25	1.22	0.0168	0.428
40	1.42	0.0148	0.375
50	1.54	0.0136	0.344
60	1.66	0.0125	0.317
75	1.97	0.0101	0.256
84	2.23	0.0084	0.213
90	2.55	0.0067	0.171
95	2.89	0.0053	0.135

Measure	Trask	Inman	Folk-Ward
Median, phi	1.54	1.54	1.54
Median, in.	0.0136	0.0136	0.0136
Median, mm	0.344	0.344	0.344
Mean, phi	1.55	1.64	1.61
Mean, in.	0.0135	0.0126	0.0129
Mean, mm	0.342	0.321	0.328
Sorting	0.773	0.589	0.605
Skewness	0.960	0.176	0.248
Kurtosis	0.246	0.740	1.129

Grain Size Description (ASTM-USCS Scale) Fine sand (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	26.31
Fine Sand	200	73.61
Silt/Clay	<200	0.08
Total		100

TOTALS

116.06 100.00 100.00

© PTS Laboratories, Inc.

Phone: (562) 907-3607

Fax: (562) 907-3610

Dry Sieve Controls NIST 8010 Reference Material - September 2011

RUN DATA											
Date	Run	SIZE FRACTIONS						Pan Median			
		30	40	50	70	100	140	Aver UCL	LCL	Aver UCL	LCL
9/11	001	0.3	26.8	42.1	16.6	8.4	4.5	1.2	0.0	0.0	0.3
9/11	002	0.1	26.9	42.1	16.7	8.4	4.6	1.1	0.1	0.0	0.3
9/12	003	0.3	27.3	41.6	16.7	8.4	4.6	1.1	0.1	0.0	0.3
9/12	004	0.3	27.2	41.9	16.7	8.4	4.6	1.2	0.0	0.0	0.3
9/16	004	0.0	27.2	41.9	16.7	8.4	4.6	1.2	0.0	0.0	0.3
9/17	005	0.0	27.2	41.6	17.7	8.5	4.5	1.1	0.0	0.0	0.3
9/18	006	0.2	24.0	37.1	17.7	9.3	5.2	1.6	0.3	0.0	0.3
9/18	007	0.2	25.5	41.4	17.4	8.7	5.0	1.5	0.3	0.0	0.3
9/19	008	0.3	25.4	40.9	17.5	8.9	5.1	1.5	0.3	0.0	0.3
9/19	009	0.0	25.5	40.9	17.4	8.8	5.1	1.5	0.3	0.0	0.3
9/12	010	0.2	25.5	41.0	17.6	8.8	5.0	1.5	0.3	0.0	0.3
9/13	011	0.2	26.5	41.0	17.3	9.1	5.0	1.4	0.2	0.0	0.3
9/14	012	0.2	25.8	41.1	17.3	8.7	5.0	1.4	0.2	0.0	0.3
9/15	013	0.3	26.1	40.6	17.7	8.7	5.0	1.4	0.2	0.0	0.3
9/15	014	0.3	25.9	40.9	17.5	8.5	5.0	1.4	0.2	0.0	0.3
9/19	015	0.2	26.0	40.9	17.5	8.8	4.9	1.4	0.2	0.0	0.3
9/20	016	0.2	26.1	40.9	17.5	8.8	5.0	1.4	0.0	0.0	0.3
9/21	017	0.2	26.2	40.9	17.5	8.8	5.0	1.4	0.1	0.0	0.3
9/22	018	0.2	26.2	40.9	17.5	8.8	5.0	1.4	0.0	0.0	0.3
9/23	019	0.2	26.1	41.2	17.2	8.9	4.9	1.4	0.1	0.0	0.3

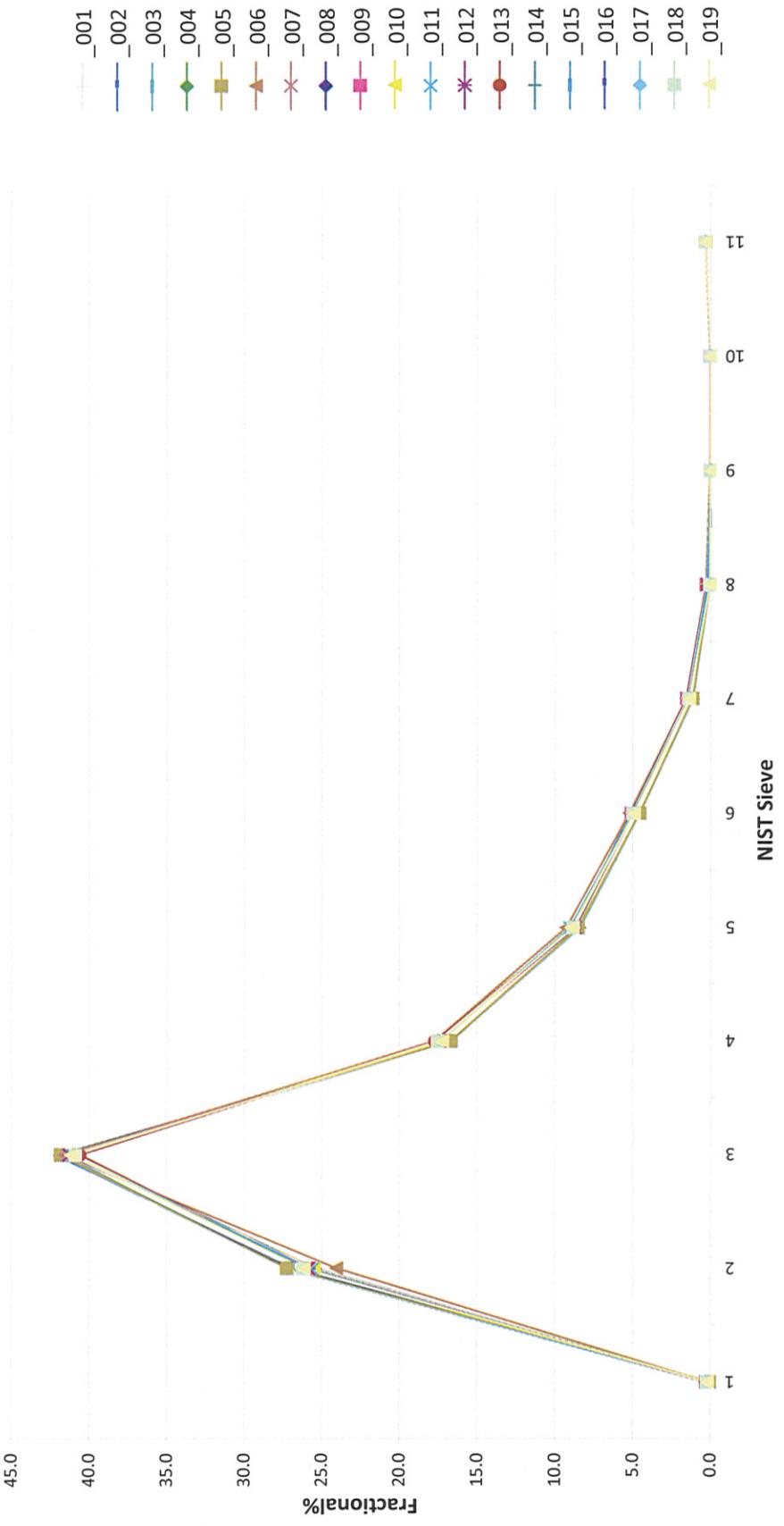
NIST Reference Material 8010

TEST SITE	NIST DATA, %	LPSA DATA, %
M. Sand	22.7	26.3
F. Sand	77.2	73.5
Silt	0.2	0.3
Clay	0.1	0.0
100	9.2	8.7
325	0.0	0.0
Pan	0.1	0.0

Med Sand = 12-40 sieves
 Fine Sand = 45-200 sieves
 Silt = 230-325 sieves
 Clay = Pan
 140 = 120+140 sieve fraction
 325 = 325 sieve fraction
 Clay = Pan
 Median = calculated from Nit

A2a.6

Overlay Graph



41654

RACHEL -

PLEASE DRY & WEIGH IN VACUUM

BAGS & LABEL ON CARDBOARD FLAP.

PLEASE SEND BACK TO ME THIS WEEK

ENVIRON CORP.

18100 WDN KARMAK AVE

STE 600

IRVINE, CA. 92612

(714) 261-5151

JOB # / P.O. # 07-24850 A

THANKS DOUG

949-246-6265

Received by:

Joel Perez
PTS Labs, Inc
9/13/11 1630

Released by: Joel Perez
Ampl 9/16/11 1331

* DRIED FOR 24-36 HRS @ 110°C ± 5° IN DRYING
OVEN & PRE-WEIGHTED. PRIOR TO ENVIRON USE

ASTM D422 200 MESH SIEVE >200 MESH IS SIFT
SIZE & SEND BACK TO ENVIRON.
A2a.8

ENVIRON

1800 Von Karman Ave., Ste 600
Irvine, CA 92612
(949) 261-6202 (fax)
(949) 261-5151

707 Wilshire Blvd., Suite 4950
Los Angeles, Calif. 90017
(213) 943-6300
(213) 943-6301 (fax)

CHAIN-of-CUSTODY

No. 06896

PAGE 2 of 2

REQUISITIONED BY: Douglas Johnson TIME/DATE: 1540 9-18-11 RECEIVED BY: Tool Rn p. Lashke TIME/DATE: 9/19/11 1540
RELINQUISHED BY: Douglas Johnson TIME/DATE: 1540 9-18-11 RECEIVED BY: Tool Rn p. Lashke TIME/DATE: 9/19/11 1540

PROJECT NAME / FACILITY ID: EXISTEPROJECT NUMBER: 07-24350ADATE: 9-19-11PROJECT LOCATION: PTS

MSA #: W0#: Dougl FIELD PERSON: Dougl PROJECT MANAGER: HT TAN
LABORATORY: PTs

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #:

SAMPLE I.D. NUMBER	SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH	MATRIX	NUMBER OF CONTAINERS	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED	COMMENTS
IR-1-110919	9/19/11	1125	/		1		X	
IR-2-110919	9/19/11	1247	/		1		X	PT5 TRCT #
IR-3-110919	9/19/11	1203	/		1		X	4/654
IR-4-110919	9/19/11	1245	/		1		X	
IR-5-110919	9/19/11	1345	/		1		X	200 mlss
IR-6-110919	9/19/11	1326	/		1		X	5160L
IR-7-110919	9/19/11	1433	/		1		X	
IR-8-110919	9/19/11	1324	/		1		X	* SEND SAMPLE
TOTAL					8			TO Doug Johnson 14271 Yurba St Trustin, CA 92780

REQUISITIONED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:	TURNAROUND TIME (CIRCLE ONE)	SAMEDAY	72 HOURS
Douglas Johnson	1540 9-18-11	Tool Rn p. Lashke	9/19/11 1540	5-DAYS NORMAL	24 HOURS	48 HOURS
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:	SAMPLE INTEGRITY	IF SEALED, SEAL INTEGRITY	
Douglas Johnson	1540 9-18-11	Tool Rn p. Lashke	9/19/11 1540	INTACT: <u>Y</u>	INTACT: <u>Y</u>	INTEGRITY: <u>N/A</u>

Appendix A2b

Roadway Dust Laboratory Reports: Test America

LABORATORY REPORT

Prepared For: Environ - Irvine
18100 Von Karman Ave, Ste 600
Irvine, CA 92612
Attention: Yi Tian

Project: Exide
07-24850A

Sampled: 09/30/11
Received: 09/30/11
Issued: 10/13/11 13:33

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

- SAMPLE RECEIPT: Samples were received intact, at 22°C and with chain of custody documentation.
- HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.
- PRESERVATION: Samples requiring preservation were verified prior to sample analysis.
- QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.
- COMMENTS: The Redox potential and pH tests were not done for Hexavalent Chromium samples due to limited sample amounts. These additional tests are usually performed along with Hexavalent Chromium analysis to determine if sample matrix is reductive in nature, and would yield low QC recoveries.
- SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

LABORATORY ID	CLIENT ID	MATRIX
IUI2818-01	R-1-110919	Solid
IUI2818-02	R-2-110919	Solid
IUI2818-03	R-3-110919	Solid
IUI2818-04	R-4-110919	Solid
IUI2818-05	R-5-110919	Solid
IUI2818-06	R-6-110919	Solid
IUI2818-07	R-7-110919	Solid
IUI2818-08	R-8-110919	Solid

Reviewed By:

TestAmerica Irvine

Patty Mata
Project Manager

Environ - Irvine
18100 Von Karman Ave, Ste 600
Irvine, CA 92612
Attention: Yi Tian

Project ID: Exide
07-24850A
Report Number: IUI2818
Sampled: 09/30/11
Received: 09/30/11

METALS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUI2818-01 (R-1-110919 - Solid)								
Reporting Units: mg/kg								
Aluminum	EPA 6020	11J0668	500	6700	99.5	10/6/2011	10/11/2011	
Antimony	EPA 6020	11J0668	100	1900	99.5	10/6/2011	10/11/2011	
Arsenic	EPA 6020	11J0668	50	290	99.5	10/6/2011	10/11/2011	
Barium	EPA 6020	11J0668	50	350	99.5	10/6/2011	10/11/2011	
Beryllium	EPA 6020	11J0668	30	ND	99.5	10/6/2011	10/11/2011	RL1
Cadmium	EPA 6020	11J0668	50	170	99.5	10/6/2011	10/11/2011	
Chromium	EPA 6020	11J0668	100	140	99.5	10/6/2011	10/11/2011	
Cobalt	EPA 6020	11J0668	50	ND	99.5	10/6/2011	10/11/2011	RL1
Copper	EPA 6020	11J0668	100	1600	99.5	10/6/2011	10/11/2011	
Lead	EPA 6020	11J0668	50	46000	99.5	10/6/2011	10/11/2011	
Manganese	EPA 6020	11J0668	50	600	99.5	10/6/2011	10/11/2011	
Mercury	EPA 7471A	11J0175	0.020	0.24	1	10/4/2011	10/4/2011	
Phosphorus	EPA 6010B	11J0666	25	880	4.98	10/6/2011	10/8/2011	
Nickel	EPA 6020	11J0668	100	460	99.5	10/6/2011	10/11/2011	
Selenium	EPA 6020	11J0668	100	130	99.5	10/6/2011	10/11/2011	
Silver	EPA 6020	11J0668	50	ND	99.5	10/6/2011	10/11/2011	RL1
Thallium	EPA 6020	11J0668	50	ND	99.5	10/6/2011	10/11/2011	RL1
Vanadium	EPA 6020	11J0668	100	ND	99.5	10/6/2011	10/11/2011	RL1
Zinc	EPA 6020	11J0668	1000	2500	99.5	10/6/2011	10/11/2011	

Sample ID: IUI2818-02 (R-2-110919 - Solid)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Reporting Units: mg/kg								
Aluminum	EPA 6020	11J0668	490	8500	98	10/6/2011	10/11/2011	
Antimony	EPA 6020	11J0668	0.98	600	0.98	10/6/2011	10/10/2011	
Arsenic	EPA 6020	11J0668	0.49	100	0.98	10/6/2011	10/10/2011	
Barium	EPA 6020	11J0668	0.49	390	0.98	10/6/2011	10/10/2011	RL1
Beryllium	EPA 6020	11J0668	29	ND	98	10/6/2011	10/11/2011	
Cadmium	EPA 6020	11J0668	0.49	54	0.98	10/6/2011	10/10/2011	
Chromium	EPA 6020	11J0668	0.98	140	0.98	10/6/2011	10/10/2011	
Cobalt	EPA 6020	11J0668	0.49	11	0.98	10/6/2011	10/10/2011	
Copper	EPA 6020	11J0668	0.98	450	0.98	10/6/2011	10/10/2011	
Lead	EPA 6020	11J0668	49	44000	98	10/6/2011	10/11/2011	
Manganese	EPA 6020	11J0668	0.49	400	0.98	10/6/2011	10/10/2011	
Mercury	EPA 7471A	11J0175	0.020	0.18	0.98	10/4/2011	10/4/2011	
Phosphorus	EPA 6010B	11J0666	25	990	4.9	10/6/2011	10/10/2011	
Nickel	EPA 6020	11J0668	0.98	170	0.98	10/6/2011	10/10/2011	
Selenium	EPA 6020	11J0668	0.98	22	0.98	10/6/2011	10/10/2011	
Silver	EPA 6020	11J0668	0.49	2.0	0.98	10/6/2011	10/10/2011	
Thallium	EPA 6020	11J0668	0.49	0.83	0.98	10/6/2011	10/10/2011	
Vanadium	EPA 6020	11J0668	0.98	30	0.98	10/6/2011	10/10/2011	
Zinc	EPA 6020	11J0668	980	2800	98	10/6/2011	10/11/2011	

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Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUI2818-03 (R-3-110919 - Solid)								
Reporting Units: mg/kg								
Aluminum	EPA 6020	11J0668	490	6800	98.5	10/6/2011	10/11/2011	
Antimony	EPA 6020	11J0668	0.99	990	0.985	10/6/2011	10/10/2011	
Arsenic	EPA 6020	11J0668	0.49	150	0.985	10/6/2011	10/10/2011	
Barium	EPA 6020	11J0668	0.49	390	0.985	10/6/2011	10/10/2011	
Beryllium	EPA 6020	11J0668	0.30	ND	0.985	10/6/2011	10/10/2011	C
Cadmium	EPA 6020	11J0668	0.49	79	0.985	10/6/2011	10/10/2011	
Chromium	EPA 6020	11J0668	0.99	220	0.985	10/6/2011	10/10/2011	
Cobalt	EPA 6020	11J0668	0.49	11	0.985	10/6/2011	10/10/2011	
Copper	EPA 6020	11J0668	0.99	670	0.985	10/6/2011	10/10/2011	
Lead	EPA 6020	11J0668	49	52000	98.5	10/6/2011	10/11/2011	
Manganese	EPA 6020	11J0668	0.49	360	0.985	10/6/2011	10/10/2011	
Mercury	EPA 7471A	11J0175	0.020	0.19	1	10/4/2011	10/4/2011	
Phosphorus	EPA 6010B	11J0666	25	840	4.93	10/6/2011	10/10/2011	
Nickel	EPA 6020	11J0668	0.99	260	0.985	10/6/2011	10/10/2011	
Selenium	EPA 6020	11J0668	0.99	44	0.985	10/6/2011	10/10/2011	
Silver	EPA 6020	11J0668	0.49	3.0	0.985	10/6/2011	10/10/2011	
Thallium	EPA 6020	11J0668	0.49	1.5	0.985	10/6/2011	10/10/2011	
Vanadium	EPA 6020	11J0668	0.99	35	0.985	10/6/2011	10/10/2011	
Zinc	EPA 6020	11J0668	990	1200	98.5	10/6/2011	10/11/2011	

Sample ID: IUI2818-04 (R-4-110919 - Solid)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Reporting Units: mg/kg								
Aluminum	EPA 6020	11J0668	500	7300	101	10/6/2011	10/11/2011	
Antimony	EPA 6020	11J0668	1.0	830	1.01	10/6/2011	10/10/2011	
Arsenic	EPA 6020	11J0668	0.50	150	1.01	10/6/2011	10/10/2011	
Barium	EPA 6020	11J0668	0.50	410	1.01	10/6/2011	10/10/2011	
Beryllium	EPA 6020	11J0668	30	ND	101	10/6/2011	10/11/2011	RL1
Cadmium	EPA 6020	11J0668	0.50	80	1.01	10/6/2011	10/10/2011	
Chromium	EPA 6020	11J0668	1.0	360	1.01	10/6/2011	10/10/2011	
Cobalt	EPA 6020	11J0668	0.50	14	1.01	10/6/2011	10/10/2011	
Copper	EPA 6020	11J0668	1.0	810	1.01	10/6/2011	10/10/2011	
Lead	EPA 6020	11J0668	50	44000	101	10/6/2011	10/11/2011	
Manganese	EPA 6020	11J0668	0.50	350	1.01	10/6/2011	10/10/2011	
Mercury	EPA 7471A	11J0175	0.020	0.19	1.02	10/4/2011	10/4/2011	
Phosphorus	EPA 6010B	11J0666	25	780	5.03	10/6/2011	10/10/2011	
Nickel	EPA 6020	11J0668	1.0	390	1.01	10/6/2011	10/10/2011	
Selenium	EPA 6020	11J0668	1.0	59	1.01	10/6/2011	10/10/2011	
Silver	EPA 6020	11J0668	0.50	3.0	1.01	10/6/2011	10/10/2011	
Thallium	EPA 6020	11J0668	0.50	1.1	1.01	10/6/2011	10/10/2011	
Vanadium	EPA 6020	11J0668	1.0	40	1.01	10/6/2011	10/10/2011	
Zinc	EPA 6020	11J0668	1000	2500	101	10/6/2011	10/11/2011	

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Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUI2818-05 (R-5-110919 - Solid)								
Reporting Units: mg/kg								
Aluminum	EPA 6020	11J0668	500	6100	99.5	10/6/2011	10/12/2011	
Antimony	EPA 6020	11J0668	1.0	440	0.995	10/6/2011	10/10/2011	
Arsenic	EPA 6020	11J0668	0.50	96	0.995	10/6/2011	10/10/2011	
Barium	EPA 6020	11J0668	0.50	320	0.995	10/6/2011	10/10/2011	
Beryllium	EPA 6020	11J0668	0.30	ND	0.995	10/6/2011	10/10/2011	C
Cadmium	EPA 6020	11J0668	0.50	54	0.995	10/6/2011	10/10/2011	
Chromium	EPA 6020	11J0668	1.0	420	0.995	10/6/2011	10/10/2011	
Cobalt	EPA 6020	11J0668	0.50	21	0.995	10/6/2011	10/10/2011	
Copper	EPA 6020	11J0668	1.0	1100	0.995	10/6/2011	10/10/2011	
Lead	EPA 6020	11J0668	50	45000	99.5	10/6/2011	10/11/2011	
Manganese	EPA 6020	11J0668	0.50	430	0.995	10/6/2011	10/10/2011	
Mercury	EPA 7471A	11J0175	0.020	0.16	1.02	10/4/2011	10/4/2011	
Phosphorus	EPA 6010B	11J0666	25	740	4.98	10/6/2011	10/10/2011	
Nickel	EPA 6020	11J0668	1.0	400	0.995	10/6/2011	10/10/2011	
Selenium	EPA 6020	11J0668	1.0	42	0.995	10/6/2011	10/10/2011	
Silver	EPA 6020	11J0668	0.50	1.8	0.995	10/6/2011	10/10/2011	
Thallium	EPA 6020	11J0668	0.50	0.83	0.995	10/6/2011	10/10/2011	
Vanadium	EPA 6020	11J0668	1.0	41	0.995	10/6/2011	10/10/2011	
Zinc	EPA 6020	11J0668	1000	2100	99.5	10/6/2011	10/11/2011	

Sample ID: IUI2818-06 (R-6-110919 - Solid)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed
Reporting Units: mg/kg							
Aluminum	EPA 6020	11J0668	500	8400	99.5	10/6/2011	10/12/2011
Antimony	EPA 6020	11J0668	1.0	330	0.995	10/6/2011	10/10/2011
Arsenic	EPA 6020	11J0668	0.50	100	0.995	10/6/2011	10/10/2011
Barium	EPA 6020	11J0668	0.50	400	0.995	10/6/2011	10/10/2011
Beryllium	EPA 6020	11J0668	30	ND	99.5	10/6/2011	10/11/2011
Cadmium	EPA 6020	11J0668	0.50	45	0.995	10/6/2011	10/10/2011
Chromium	EPA 6020	11J0668	1.0	68	0.995	10/6/2011	10/10/2011
Cobalt	EPA 6020	11J0668	0.50	12	0.995	10/6/2011	10/10/2011
Copper	EPA 6020	11J0668	1.0	560	0.995	10/6/2011	10/10/2011
Lead	EPA 6020	11J0668	50	40000	99.5	10/6/2011	10/11/2011
Manganese	EPA 6020	11J0668	0.50	260	0.995	10/6/2011	10/10/2011
Mercury	EPA 7471A	11J0175	0.020	0.14	0.98	10/4/2011	10/4/2011
Phosphorus	EPA 6010B	11J0666	25	640	4.98	10/6/2011	10/10/2011
Nickel	EPA 6020	11J0668	1.0	120	0.995	10/6/2011	10/10/2011
Selenium	EPA 6020	11J0668	1.0	34	0.995	10/6/2011	10/10/2011
Silver	EPA 6020	11J0668	0.50	1.4	0.995	10/6/2011	10/10/2011
Thallium	EPA 6020	11J0668	0.50	0.51	0.995	10/6/2011	10/10/2011
Vanadium	EPA 6020	11J0668	1.0	34	0.995	10/6/2011	10/10/2011
Zinc	EPA 6020	11J0668	1000	5100	99.5	10/6/2011	10/11/2011

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Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUI2818-07 (R-7-110919 - Solid)								
Reporting Units: mg/kg								
Aluminum	EPA 6020	11J0668	500	8600	99	10/6/2011	10/12/2011	
Antimony	EPA 6020	11J0668	99	1500	99	10/6/2011	10/11/2011	
Arsenic	EPA 6020	11J0668	0.50	230	0.99	10/6/2011	10/10/2011	
Barium	EPA 6020	11J0668	0.50	340	0.99	10/6/2011	10/10/2011	
Beryllium	EPA 6020	11J0668	0.30	ND	0.99	10/6/2011	10/10/2011	C, RL1
Cadmium	EPA 6020	11J0668	0.50	120	0.99	10/6/2011	10/10/2011	
Chromium	EPA 6020	11J0668	0.99	100	0.99	10/6/2011	10/10/2011	
Cobalt	EPA 6020	11J0668	0.50	12	0.99	10/6/2011	10/10/2011	
Copper	EPA 6020	11J0668	0.99	980	0.99	10/6/2011	10/10/2011	
Lead	EPA 6020	11J0668	50	47000	99	10/6/2011	10/11/2011	
Manganese	EPA 6020	11J0668	0.50	330	0.99	10/6/2011	10/10/2011	
Mercury	EPA 7471A	11J0175	0.020	0.18	1	10/4/2011	10/4/2011	
Phosphorus	EPA 6010B	11J0666	25	690	4.95	10/6/2011	10/10/2011	
Nickel	EPA 6020	11J0668	0.99	360	0.99	10/6/2011	10/10/2011	
Selenium	EPA 6020	11J0668	0.99	110	0.99	10/6/2011	10/10/2011	
Silver	EPA 6020	11J0668	0.50	3.4	0.99	10/6/2011	10/10/2011	
Thallium	EPA 6020	11J0668	0.50	1.4	0.99	10/6/2011	10/10/2011	
Vanadium	EPA 6020	11J0668	0.99	35	0.99	10/6/2011	10/10/2011	
Zinc	EPA 6020	11J0668	990	2000	99	10/6/2011	10/11/2011	

Sample ID: IUI2818-08 (R-8-110919 - Solid)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Reporting Units: mg/kg								
Aluminum	EPA 6020	11J0668	500	4000	100	10/6/2011	10/12/2011	
Antimony	EPA 6020	11J0668	100	1800	100	10/6/2011	10/11/2011	
Arsenic	EPA 6020	11J0668	0.50	200	1	10/6/2011	10/10/2011	
Barium	EPA 6020	11J0668	0.50	310	1	10/6/2011	10/10/2011	
Beryllium	EPA 6020	11J0668	0.30	ND	1	10/6/2011	10/10/2011	C, RL1
Cadmium	EPA 6020	11J0668	0.50	120	1	10/6/2011	10/10/2011	
Chromium	EPA 6020	11J0668	1.0	290	1	10/6/2011	10/10/2011	
Cobalt	EPA 6020	11J0668	0.50	15	1	10/6/2011	10/10/2011	
Copper	EPA 6020	11J0668	100	1300	100	10/6/2011	10/11/2011	
Lead	EPA 6020	11J0668	50	58000	100	10/6/2011	10/11/2011	
Manganese	EPA 6020	11J0668	0.50	360	1	10/6/2011	10/10/2011	
Mercury	EPA 7471A	11J0176	0.020	0.11	0.98	10/4/2011	10/4/2011	
Phosphorus	EPA 6010B	11J0666	25	730	5	10/6/2011	10/10/2011	
Nickel	EPA 6020	11J0668	1.0	470	1	10/6/2011	10/10/2011	
Selenium	EPA 6020	11J0668	1.0	93	1	10/6/2011	10/10/2011	
Silver	EPA 6020	11J0668	0.50	4.9	1	10/6/2011	10/10/2011	
Thallium	EPA 6020	11J0668	0.50	1.8	1	10/6/2011	10/10/2011	
Vanadium	EPA 6020	11J0668	1.0	35	1	10/6/2011	10/10/2011	
Zinc	EPA 6020	11J0668	1000	ND	100	10/6/2011	10/11/2011	RL1

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Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUI2818-01 (R-1-110919 - Solid)								
Chromium VI	EPA 7199	11J1115	0.20	ND	1	10/10/2011	10/10/2011	Reporting Units: mg/kg
Sample ID: IUI2818-02 (R-2-110919 - Solid)								
Chromium VI	EPA 7199	11J1115	0.20	ND	1	10/10/2011	10/10/2011	Reporting Units: mg/kg
Sample ID: IUI2818-03 (R-3-110919 - Solid)								
Chromium VI	EPA 7199	11J1115	0.20	ND	1	10/10/2011	10/10/2011	Reporting Units: mg/kg
Sample ID: IUI2818-04 (R-4-110919 - Solid)								
Chromium VI	EPA 7199	11J1115	0.20	ND	1	10/10/2011	10/10/2011	Reporting Units: mg/kg
Sample ID: IUI2818-05 (R-5-110919 - Solid)								
Chromium VI	EPA 7199	11J1115	0.20	ND	1	10/10/2011	10/10/2011	Reporting Units: mg/kg
Sample ID: IUI2818-06 (R-6-110919 - Solid)								
Chromium VI	EPA 7199	11J1115	0.20	ND	1	10/10/2011	10/10/2011	Reporting Units: mg/kg
Sample ID: IUI2818-07 (R-7-110919 - Solid)								
Chromium VI	EPA 7199	11J1115	0.20	ND	1	10/10/2011	10/10/2011	Reporting Units: mg/kg
Sample ID: IUI2818-08 (R-8-110919 - Solid)								
Chromium VI	EPA 7199	11J1115	0.20	ND	1	10/10/2011	10/10/2011	Reporting Units: mg/kg

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 11J0175 Extracted: 10/04/11</u>										
Blank Analyzed: 10/04/2011 (11J0175-BLK1)										
Mercury	ND	0.020	mg/kg							
LCS Analyzed: 10/04/2011 (11J0175-BS1)										
Mercury	0.821	0.020	mg/kg	0.800		103	80-120			
Matrix Spike Analyzed: 10/04/2011 (11J0175-MS1)										
Mercury	0.868	0.020	mg/kg	0.800	ND	109	70-130			
Matrix Spike Dup Analyzed: 10/04/2011 (11J0175-MSD1)										
Mercury	0.846	0.020	mg/kg	0.800	ND	106	70-130	3	20	
<u>Batch: 11J0176 Extracted: 10/04/11</u>										
Blank Analyzed: 10/04/2011 (11J0176-BLK1)										
Mercury	ND	0.020	mg/kg							
LCS Analyzed: 10/04/2011 (11J0176-BS1)										
Mercury	0.824	0.020	mg/kg	0.800		103	80-120			
Matrix Spike Analyzed: 10/04/2011 (11J0176-MS1)										
Mercury	2.89	0.10	mg/kg	0.800	1.43	183	70-130			M1
Matrix Spike Dup Analyzed: 10/04/2011 (11J0176-MSD1)										
Mercury	2.82	0.098	mg/kg	0.784	1.43	177	70-130	3	20	M1

Batch: 11J0666 Extracted: 10/06/11

Blank Analyzed: 10/07/2011 (11J0666-BLK1)	ND	5.0	mg/kg
Phosphorus			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
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Batch: 11J0666 Extracted: 10/06/11

LCS Analyzed: 10/07/2011 (11J0666-BS1)

Phosphorus	50.1	5.0	mg/kg	49.5		101	80-120			M-3
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Batch: 11J0668 Extracted: 10/06/11

Blank Analyzed: 10/10/2011 (11J0668-BLK1)

Aluminum	ND	5.0	mg/kg							
Antimony	ND	1.0	mg/kg							
Arsenic	ND	0.50	mg/kg							
Barium	ND	0.50	mg/kg							
Beryllium	ND	0.30	mg/kg							
Cadmium	ND	0.50	mg/kg							
Chromium	ND	1.0	mg/kg							
Cobalt	ND	0.50	mg/kg							
Copper	ND	1.0	mg/kg							
Lead	ND	0.50	mg/kg							
Manganese	ND	0.50	mg/kg							
Nickel	ND	1.0	mg/kg							
Selenium	ND	1.0	mg/kg							
Silver	ND	0.50	mg/kg							
Thallium	ND	0.50	mg/kg							
Vanadium	ND	1.0	mg/kg							
Zinc	ND	10	mg/kg							

LCS Analyzed: 10/10/2011-10/11/2011 (11J0668-BS1)

Aluminum	46.5	5.0	mg/kg	49.5		94	80-120			M-3
Antimony	46.2	0.99	mg/kg	49.5		93	80-120			
Arsenic	43.5	0.50	mg/kg	49.5		88	80-120			
Barium	47.8	0.50	mg/kg	49.5		96	80-120			
Beryllium	45.9	0.30	mg/kg	49.5		93	80-120			
Cadmium	44.8	0.50	mg/kg	49.5		91	80-120			
Chromium	47.7	0.99	mg/kg	49.5		96	80-120			
Cobalt	46.2	0.50	mg/kg	49.5		93	80-120			
Copper	50.0	0.99	mg/kg	49.5		101	80-120			
Lead	47.9	0.50	mg/kg	49.5		97	80-120			
Manganese	47.0	0.50	mg/kg	49.5		95	80-120			
Nickel	46.5	0.99	mg/kg	49.5		94	80-120			
Selenium	40.6	0.99	mg/kg	49.5		82	80-120			

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Irvine, CA 92612
Attention: Yi Tian

Project ID: Exide
07-24850A
Report Number: IUI2818

Sampled: 09/30/11
Received: 09/30/11

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-----------------

Batch: 11J0668 Extracted: 10/06/11

LCS Analyzed: 10/10/2011-10/11/2011 (11J0668-BS1)

Silver	23.3	0.50	mg/kg	24.8		94	80-120			
Thallium	47.7	0.50	mg/kg	49.5		96	80-120			
Vanadium	45.7	0.99	mg/kg	49.5		92	80-120			
Zinc	42.0	9.9	mg/kg	49.5		85	80-120			

Matrix Spike Analyzed: 10/10/2011-10/11/2011 (11J0668-MS1)

Antimony	48.7	0.99	mg/kg	49.5	1.41	96	75-125			
Arsenic	45.7	0.50	mg/kg	49.5	1.20	90	75-125			
Barium	126	0.50	mg/kg	49.5	74.3	105	75-125			
Beryllium	57.8	0.30	mg/kg	49.5	0.0498	117	75-125			
Cadmium	45.1	0.50	mg/kg	49.5	0.494	90	75-125			
Chromium	54.9	0.99	mg/kg	49.5	7.62	95	75-125			
Cobalt	45.3	0.50	mg/kg	49.5	0.550	90	75-125			
Copper	193	0.99	mg/kg	49.5	139	109	75-125			
Lead	405	0.50	mg/kg	49.5	10.1	797	75-125			M1
Manganese	86.4	0.50	mg/kg	49.5	38.5	97	75-125			
Nickel	51.8	0.99	mg/kg	49.5	3.80	97	75-125			
Selenium	41.2	0.99	mg/kg	49.5	1.66	80	75-125			
Silver	23.1	0.50	mg/kg	24.8	0.663	91	75-125			
Thallium	45.4	0.50	mg/kg	49.5	0.102	92	75-125			
Vanadium	53.1	0.99	mg/kg	49.5	6.61	94	75-125			
Zinc	267	9.9	mg/kg	49.5	194	146	75-125			MHA

Matrix Spike Dup Analyzed: 10/10/2011-10/11/2011 (11J0668-MSD1)

Antimony	43.2	0.99	mg/kg	49.3	1.41	85	75-125	12	20	
Arsenic	45.4	0.49	mg/kg	49.3	1.20	90	75-125	0.9	20	
Barium	126	0.49	mg/kg	49.3	74.3	104	75-125	0.4	20	
Beryllium	60.3	0.30	mg/kg	49.3	0.0498	122	75-125	4	20	
Cadmium	44.8	0.49	mg/kg	49.3	0.494	90	75-125	0.7	20	
Chromium	54.2	0.99	mg/kg	49.3	7.62	95	75-125	1	20	
Cobalt	46.5	0.49	mg/kg	49.3	0.550	93	75-125	3	20	
Copper	193	0.99	mg/kg	49.3	139	111	75-125	0.4	20	
Lead	235	0.49	mg/kg	49.3	10.1	456	75-125	53	20	M1
Manganese	86.6	0.49	mg/kg	49.3	38.5	98	75-125	0.2	20	
Nickel	51.3	0.99	mg/kg	49.3	3.80	96	75-125	1	20	
Selenium	41.4	0.99	mg/kg	49.3	1.66	81	75-125	0.3	20	
Silver	23.4	0.49	mg/kg	24.6	0.663	92	75-125	1	20	

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Attention: Yi Tian

Project ID: Exide
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Report Number: IUI2818
Sampled: 09/30/11
Received: 09/30/11

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 11J0668 Extracted: 10/06/11</u>										
Matrix Spike Dup Analyzed: 10/10/2011-10/11/2011 (11J0668-MSD1)										
Source: IUI2691-05										
Thallium	46.2	0.49	mg/kg	49.3	0.102	94	75-125	2	20	
Vanadium	55.3	0.99	mg/kg	49.3	6.61	99	75-125	4	20	
Zinc	267	9.9	mg/kg	49.3	194	148	75-125	0.3	20	MHA

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Environ - Irvine
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Attention: Yi Tian

Project ID: Exide
07-24850A
Report Number: IUI2818

Sampled: 09/30/11
Received: 09/30/11

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 11J1115 Extracted: 10/10/11</u>										
Blank Analyzed: 10/10/2011 (11J1115-BLK1)										
Chromium VI	ND	0.20	mg/kg							
LCS Analyzed: 10/10/2011 (11J1115-BS1)										
Chromium VI	12.7	0.20	mg/kg	16.0		79	65-110			
LCS Dup Analyzed: 10/10/2011 (11J1115-BSD1)										
Chromium VI	13.6	0.20	mg/kg	16.0		85	65-110	7	20	MNR1

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Attention: Yi Tian

Project ID: Exide
07-24850A
Report Number: IUI2818

Sampled: 09/30/11
Received: 09/30/11

DATA QUALIFIERS AND DEFINITIONS

- C** Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- M1** The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M-3** Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
- MHA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- RL1** Reporting limit raised due to sample matrix effects.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

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Project ID: Exide
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Sampled: 09/30/11
Received: 09/30/11

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Solid	X	X
EPA 6020	Solid	X	X
EPA 7199	Solid		
EPA 7471A	Solid	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

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2.3 Laboratory Analysis for the Metals

The silt-size materials will be sent from PTS to Test America for metal analyses. The following metals will be analyzed: aluminum, nickel, antimony, chromium, vanadium, arsenic, cobalt, phosphorus, barium, copper, manganese, selenium, thallium, zinc, beryllium, silver, cadmium, lead. The specific analysis methods are listed below in Table 1.

Table 1: Metal Analysis Methods

Metals	Analysis Method	Detection Limit	Reporting Limit
		mg/kg	
Aluminum	EPA 6020	4.3	5
Antimony		0.15	1
Arsenic		0.45	0.5
Barium		0.15	0.5
Beryllium		0.050	0.3
Cadmium		0.050	0.5
Chromium (total)		0.45	1
Cobalt		0.050	0.5
Copper		0.25	1
Lead		0.10	0.5
Manganese		0.35	0.5
Nickel		0.25	1
Selenium		0.25	1
Silver		0.050	0.5
Thallium		0.10	0.5
Vanadium		0.40	1
Zinc		2.0	10
Mercury	EPA 7471A	0.012	0.02
Phosphorus	EPA 6010B	2.5	5
Chromium VI	7199	0.12	0.2

References

AP-42, Appendix C.1. Procedures for Sampling Surface/Bulk Dust Loading. July, 1993 (reformatted January 1995).

AP-42, Appendix C.2. Procedures For Laboratory Analysis Of Surface/Bulk Dust Loading Samples. July, 1993 (reformatted January 1995).

ASTM D422, Standard Test Method for Particle Size Analysis of Soils. American Society for Testing and Materials, West Conshohocken, PA, 1998.

NIOSH 7300, NIOSH Manual of Analytical Methods (NMAM), Fourth Edition, NIOSH, 2003.

Appendix B
Roadway Dust Emission Calculation

Table B1. Vehicle Travel Schedule inside the Facility

Exide Technologies
Vernon, California

Segment	Sampling location	Daily # of Vehicle Transits	Travel Hours	Numer of Days of Travel /WK	Weight of Vehicles (tons)	Daily # of Vehicle Transits	Weight of Vehicles (tons)	Daily # of Vehicle Transits	Weight of Vehicles (tons)	Peak Day Vehicle Weight (tons)	Annual Average Vehicle Weight (tons)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits
		Delivery Trucks and Yard Goats				Forklift		Golf carts					
1	2	32	7:00-16:00	6	34	100	5	50	1	9	8	182	64734
2	1	32	7:00-16:00	6	34	100	5	50	1	9	8	182	64734
3	1	32	7:00-16:00	6	34	100	5	50	1	9	8	182	64734
4	1	32	7:00-16:00	6	34	100	5	50	1	9	8	182	64734
5	3	20	0:00-23:00	7	15	100	5	50	1	5	5	170	62030
6	3	20	0:00-23:00	7	15	100	5	50	1	5	5	170	62030
7	3	20	0:00-23:00	7	15	100	5	50	1	5	5	170	62030
8	3	20	0:00-23:00	7	15	100	5	50	1	5	5	170	62030
9	3	20	0:00-23:00	7	15	100	5	50	1	5	5	170	62030
10	3	20	0:00-23:00	7	15	100	5	50	1	5	5	170	62030
11	4	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
12	4	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
13	8	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
14	8	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
15	8	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
16	8	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
17	5	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
18	5	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
19	5	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
20	5	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
21	6	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
22	6	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
23	6	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
24	6	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
25	6	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
26	6	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
27	5	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
28	6	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
29	5	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
30	5	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
31	5	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
32	7	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
33	7	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
34	7	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
35	7	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
36	7	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
37	7	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782

Table B1. Vehicle Travel Schedule inside the Facility

Exide Technologies
Vernon, California

Segment	Sampling location	Daily # of Vehicle Transits	Travel Hours	Numer of Days of Travel /WK	Weight of Vehicles (tons)	Daily # of Vehicle Transits	Weight of Vehicles (tons)	Daily # of Vehicle Transits	Weight of Vehicles (tons)	Peak Day Vehicle Weight (tons)	Annual Average Vehicle Weight (tons)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits
		Delivery Trucks and Yard Goats					Forklift		Golf carts				
38	7	61	5:00-21:30	6	34	100	5	50	1	12	11	211	73782
39	1	18	7:00-16:00	5	34	100	5	50	1	7	6	168	59430
40	1	18	7:00-16:00	5	34	100	5	50	1	7	6	168	59430

Note:

1. Traffic data provided in the table was obtained from Kunzman Associates, Inc.'s May 31, 2012 report: "Exide Technologies Recycling Facility Focused Traffic Analysis."

Table B2. Emission Factors for Metal Fraction in the Entrained Road Dust

Exide Technologies
Vernon, California

Sampling Location	Vehicle Types	Chemicals	Location + Analyte	CAS #	Silt-size Road Dust Mass (g/sample)	Analyte Concentration (mg/kg)	Analyte Mass (g)	Sampling Area (m ²)	Analyte Silt Loading (g/m ²)
1	Delivery Trucks	Phosphorus	1_Phosphorus	7723-14-0	5.38	880	4.73E-03	50.73	1.06E-01
1	Delivery Trucks	Aluminum	1_Aluminum	7429-90-5	5.38	6700	3.60E-02	50.73	1.06E-01
1	Delivery Trucks	Antimony	1_Antimony	7440-36-0	5.38	1900	1.02E-02	50.73	1.06E-01
1	Delivery Trucks	Arsenic	1_Arsenic	7440-38-2	5.38	290	1.56E-03	50.73	1.06E-01
1	Delivery Trucks	Barium	1_Barium	7440-39-3	5.38	350	1.88E-03	50.73	1.06E-01
1	Delivery Trucks	Beryllium	1_Beryllium	7440-41-7	5.38	0	0.00E+00	50.73	1.06E-01
1	Delivery Trucks	Cadmium	1_Cadmium	7440-43-9	5.38	170	9.15E-04	50.73	1.06E-01
1	Delivery Trucks	Chromium	1_Chromium	7440-47-3	5.38	140	7.53E-04	50.73	1.06E-01
1	Delivery Trucks	Cobalt	1_Cobalt	7440-48-4	5.38	25	1.35E-04	50.73	1.06E-01
1	Delivery Trucks	Copper	1_Copper	7440-50-8	5.38	1600	8.61E-03	50.73	1.06E-01
1	Delivery Trucks	Lead	1_Lead	7439-92-1	5.38	46000	2.47E-01	50.73	1.06E-01
1	Delivery Trucks	Manganese	1_Manganese	7439-96-5	5.38	600	3.23E-03	50.73	1.06E-01
1	Delivery Trucks	Nickel	1_Nickel	7440-02-0	5.38	460	2.47E-03	50.73	1.06E-01
1	Delivery Trucks	Selenium	1_Selenium	7782-49-2	5.38	130	6.99E-04	50.73	1.06E-01
1	Delivery Trucks	Silver	1_Silver	7440-22-4	5.38	25	1.35E-04	50.73	1.06E-01
1	Delivery Trucks	Thallium	1_Thallium	7440-28-0	5.38	0	0.00E+00	50.73	1.06E-01
1	Delivery Trucks	Zinc	1_Zinc	7440-66-6	5.38	2500	1.35E-02	50.73	1.06E-01
1	Delivery Trucks	Chromium VI	1_Chromium VI	18540-29-9	5.38	0	0.00E+00	50.73	1.06E-01
1	Delivery Trucks	Mercury	1_Mercury	7439-97-6	5.38	0.24	1.29E-06	50.73	1.06E-01
2	Delivery Trucks	Phosphorus	2_Phosphorus	7723-14-0	9	990	8.91E-03	44.59	2.02E-01
2	Delivery Trucks	Aluminum	2_Aluminum	7429-90-5	9	8500	7.65E-02	44.59	2.02E-01
2	Delivery Trucks	Antimony	2_Antimony	7440-36-0	9	600	5.40E-03	44.59	2.02E-01
2	Delivery Trucks	Arsenic	2_Arsenic	7440-38-2	9	100	9.00E-04	44.59	2.02E-01
2	Delivery Trucks	Barium	2_Barium	7440-39-3	9	390	3.51E-03	44.59	2.02E-01
2	Delivery Trucks	Beryllium	2_Beryllium	7440-41-7	9	0	0.00E+00	44.59	2.02E-01
2	Delivery Trucks	Cadmium	2_Cadmium	7440-43-9	9	54	4.86E-04	44.59	2.02E-01
2	Delivery Trucks	Chromium	2_Chromium	7440-47-3	9	140	1.26E-03	44.59	2.02E-01
2	Delivery Trucks	Cobalt	2_Cobalt	7440-48-4	9	11	9.90E-05	44.59	2.02E-01
2	Delivery Trucks	Copper	2_Copper	7440-50-8	9	450	4.05E-03	44.59	2.02E-01
2	Delivery Trucks	Lead	2_Lead	7439-92-1	9	44000	3.96E-01	44.59	2.02E-01
2	Delivery Trucks	Manganese	2_Manganese	7439-96-5	9	400	3.60E-03	44.59	2.02E-01
2	Delivery Trucks	Nickel	2_Nickel	7440-02-0	9	170	1.53E-03	44.59	2.02E-01
2	Delivery Trucks	Selenium	2_Selenium	7782-49-2	9	22	1.98E-04	44.59	2.02E-01
2	Delivery Trucks	Silver	2_Silver	7440-22-4	9	2.0	1.80E-05	44.59	2.02E-01
2	Delivery Trucks	Thallium	2_Thallium	7440-28-0	9	0.83	7.47E-06	44.59	2.02E-01
2	Delivery Trucks	Zinc	2_Zinc	7440-66-6	9	2800	2.52E-02	44.59	2.02E-01
2	Delivery Trucks	Chromium VI	2_Chromium VI	18540-29-9	9	0	0.00E+00	44.59	2.02E-01
2	Delivery Trucks	Mercury	2_Mercury	7439-97-6	9	0.18	1.62E-06	44.59	2.02E-01
3	Yard Goat	Phosphorus	3_Phosphorus	7723-14-0	7.18	840	6.03E-03	27.31	2.63E-01
3	Yard Goat	Aluminum	3_Aluminum	7429-90-5	7.18	6800	4.88E-02	27.31	2.63E-01
3	Yard Goat	Antimony	3_Antimony	7440-36-0	7.18	990	7.11E-03	27.31	2.63E-01
3	Yard Goat	Arsenic	3_Arsenic	7440-38-2	7.18	150	1.08E-03	27.31	2.63E-01
3	Yard Goat	Barium	3_Barium	7440-39-3	7.18	390	2.80E-03	27.31	2.63E-01
3	Yard Goat	Beryllium	3_Beryllium	7440-41-7	7.18	0	0.00E+00	27.31	2.63E-01
3	Yard Goat	Cadmium	3_Cadmium	7440-43-9	7.18	79	5.67E-04	27.31	2.63E-01
3	Yard Goat	Chromium	3_Chromium	7440-47-3	7.18	220	1.58E-03	27.31	2.63E-01
3	Yard Goat	Cobalt	3_Cobalt	7440-48-4	7.18	11	7.90E-05	27.31	2.63E-01
3	Yard Goat	Copper	3_Copper	7440-50-8	7.18	670	4.81E-03	27.31	2.63E-01
3	Yard Goat	Lead	3_Lead	7439-92-1	7.18	52000	3.73E-01	27.31	2.63E-01
3	Yard Goat	Manganese	3_Manganese	7439-96-5	7.18	360	2.58E-03	27.31	2.63E-01
3	Yard Goat	Nickel	3_Nickel	7440-02-0	7.18	260	1.87E-03	27.31	2.63E-01
3	Yard Goat	Selenium	3_Selenium	7782-49-2	7.18	44	3.16E-04	27.31	2.63E-01
3	Yard Goat	Silver	3_Silver	7440-22-4	7.18	3.0	2.15E-05	27.31	2.63E-01
3	Yard Goat	Thallium	3_Thallium	7440-28-0	7.18	1.5	1.08E-05	27.31	2.63E-01

Table B2. Emission Factors for Metal Fraction in the Entrained Road Dust

Exide Technologies
Vernon, California

Sampling Location	Vehicle Types	Chemicals	Location + Analyte	CAS #	Silt-size Road Dust Mass (g/sample)	Analyte Concentration (mg/kg)	Analyte Mass (g)	Sampling Area (m ²)	Analyte Silt Loading (g/m ²)
3	Yard Goat	Zinc	3_Zinc	7440-66-6	7.18	1200	8.62E-03	27.31	2.63E-01
3	Yard Goat	Chromium VI	3_Chromium VI	18540-29-9	7.18	0	0.00E+00	27.31	2.63E-01
3	Yard Goat	Mercury	3_Mercury	7439-97-6	7.18	0.19	1.36E-06	27.31	2.63E-01
4	Delivery Trucks	Phosphorus	4_Phosphorus	7723-14-0	7.9	780	6.16E-03	43.48	1.82E-01
4	Delivery Trucks	Aluminum	4_Aluminum	7429-90-5	7.9	7300	5.77E-02	43.48	1.82E-01
4	Delivery Trucks	Antimony	4_Antimony	7440-36-0	7.9	830	6.56E-03	43.48	1.82E-01
4	Delivery Trucks	Arsenic	4_Arsenic	7440-38-2	7.9	150	1.19E-03	43.48	1.82E-01
4	Delivery Trucks	Barium	4_Barium	7440-39-3	7.9	410	3.24E-03	43.48	1.82E-01
4	Delivery Trucks	Beryllium	4_Beryllium	7440-41-7	7.9	0	0.00E+00	43.48	1.82E-01
4	Delivery Trucks	Cadmium	4_Cadmium	7440-43-9	7.9	80	6.32E-04	43.48	1.82E-01
4	Delivery Trucks	Chromium	4_Chromium	7440-47-3	7.9	360	2.84E-03	43.48	1.82E-01
4	Delivery Trucks	Cobalt	4_Cobalt	7440-48-4	7.9	14	1.11E-04	43.48	1.82E-01
4	Delivery Trucks	Copper	4_Copper	7440-50-8	7.9	810	6.40E-03	43.48	1.82E-01
4	Delivery Trucks	Lead	4_Lead	7439-92-1	7.9	44000	3.48E-01	43.48	1.82E-01
4	Delivery Trucks	Manganese	4_Manganese	7439-96-5	7.9	350	2.76E-03	43.48	1.82E-01
4	Delivery Trucks	Nickel	4_Nickel	7440-02-0	7.9	390	3.08E-03	43.48	1.82E-01
4	Delivery Trucks	Selenium	4_Selenium	7782-49-2	7.9	59	4.66E-04	43.48	1.82E-01
4	Delivery Trucks	Silver	4_Silver	7440-22-4	7.9	3.0	2.37E-05	43.48	1.82E-01
4	Delivery Trucks	Thallium	4_Thallium	7440-28-0	7.9	1.1	8.69E-06	43.48	1.82E-01
4	Delivery Trucks	Zinc	4_Zinc	7440-66-6	7.9	2500	1.97E-02	43.48	1.82E-01
4	Delivery Trucks	Chromium VI	4_Chromium VI	18540-29-9	7.9	0	0.00E+00	43.48	1.82E-01
4	Delivery Trucks	Mercury	4_Mercury	7439-97-6	7.9	0.19	1.50E-06	43.48	1.82E-01
5	Delivery Trucks	Phosphorus	5_Phosphorus	7723-14-0	6.58	740	4.87E-03	42.36	1.55E-01
5	Delivery Trucks	Aluminum	5_Aluminum	7429-90-5	6.58	6100	4.01E-02	42.36	1.55E-01
5	Delivery Trucks	Antimony	5_Antimony	7440-36-0	6.58	440	2.90E-03	42.36	1.55E-01
5	Delivery Trucks	Arsenic	5_Arsenic	7440-38-2	6.58	96	6.32E-04	42.36	1.55E-01
5	Delivery Trucks	Barium	5_Barium	7440-39-3	6.58	320	2.11E-03	42.36	1.55E-01
5	Delivery Trucks	Beryllium	5_Beryllium	7440-41-7	6.58	0	0.00E+00	42.36	1.55E-01
5	Delivery Trucks	Cadmium	5_Cadmium	7440-43-9	6.58	54	3.55E-04	42.36	1.55E-01
5	Delivery Trucks	Chromium	5_Chromium	7440-47-3	6.58	420	2.76E-03	42.36	1.55E-01
5	Delivery Trucks	Cobalt	5_Cobalt	7440-48-4	6.58	21	1.38E-04	42.36	1.55E-01
5	Delivery Trucks	Copper	5_Copper	7440-50-8	6.58	1100	7.24E-03	42.36	1.55E-01
5	Delivery Trucks	Lead	5_Lead	7439-92-1	6.58	45000	2.96E-01	42.36	1.55E-01
5	Delivery Trucks	Manganese	5_Manganese	7439-96-5	6.58	430	2.83E-03	42.36	1.55E-01
5	Delivery Trucks	Nickel	5_Nickel	7440-02-0	6.58	400	2.63E-03	42.36	1.55E-01
5	Delivery Trucks	Selenium	5_Selenium	7782-49-2	6.58	42	2.76E-04	42.36	1.55E-01
5	Delivery Trucks	Silver	5_Silver	7440-22-4	6.58	1.8	1.18E-05	42.36	1.55E-01
5	Delivery Trucks	Thallium	5_Thallium	7440-28-0	6.58	0.83	5.46E-06	42.36	1.55E-01
5	Delivery Trucks	Zinc	5_Zinc	7440-66-6	6.58	2100	1.38E-02	42.36	1.55E-01
5	Delivery Trucks	Chromium VI	5_Chromium VI	18540-29-9	6.58	0	0.00E+00	42.36	1.55E-01
5	Delivery Trucks	Mercury	5_Mercury	7439-97-6	6.58	0.16	1.05E-06	42.36	1.55E-01
6	Delivery Trucks	Phosphorus	6_Phosphorus	7723-14-0	8.19	640	5.24E-03	66.89	1.22E-01
6	Delivery Trucks	Aluminum	6_Aluminum	7429-90-5	8.19	8400	6.88E-02	66.89	1.22E-01
6	Delivery Trucks	Antimony	6_Antimony	7440-36-0	8.19	330	2.70E-03	66.89	1.22E-01
6	Delivery Trucks	Arsenic	6_Arsenic	7440-38-2	8.19	100	8.19E-04	66.89	1.22E-01
6	Delivery Trucks	Barium	6_Barium	7440-39-3	8.19	400	3.28E-03	66.89	1.22E-01
6	Delivery Trucks	Beryllium	6_Beryllium	7440-41-7	8.19	0	0.00E+00	66.89	1.22E-01
6	Delivery Trucks	Cadmium	6_Cadmium	7440-43-9	8.19	45	3.69E-04	66.89	1.22E-01
6	Delivery Trucks	Chromium	6_Chromium	7440-47-3	8.19	68	5.57E-04	66.89	1.22E-01
6	Delivery Trucks	Cobalt	6_Cobalt	7440-48-4	8.19	12	9.83E-05	66.89	1.22E-01
6	Delivery Trucks	Copper	6_Copper	7440-50-8	8.19	560	4.59E-03	66.89	1.22E-01
6	Delivery Trucks	Lead	6_Lead	7439-92-1	8.19	40000	3.28E-01	66.89	1.22E-01
6	Delivery Trucks	Manganese	6_Manganese	7439-96-5	8.19	260	2.13E-03	66.89	1.22E-01
6	Delivery Trucks	Nickel	6_Nickel	7440-02-0	8.19	120	9.83E-04	66.89	1.22E-01

Table B2. Emission Factors for Metal Fraction in the Entrained Road Dust

Exide Technologies
Vernon, California

Sampling Location	Vehicle Types	Chemicals	Location + Analyte	CAS #	Silt-size Road Dust Mass (g/sample)	Analyte Concentration (mg/kg)	Analyte Mass (g)	Sampling Area (m ²)	Analyte Silt Loading (g/m ²)
6	Delivery Trucks	Selenium	6_Selenium	7782-49-2	8.19	34	2.78E-04	66.89	1.22E-01
6	Delivery Trucks	Silver	6_Silver	7440-22-4	8.19	1.4	1.15E-05	66.89	1.22E-01
6	Delivery Trucks	Thallium	6_Thallium	7440-28-0	8.19	0.51	4.18E-06	66.89	1.22E-01
6	Delivery Trucks	Zinc	6_Zinc	7440-66-6	8.19	5100	4.18E-02	66.89	1.22E-01
6	Delivery Trucks	Chromium VI	6_Chromium VI	18540-29-9	8.19	0	0.00E+00	66.89	1.22E-01
6	Delivery Trucks	Mercury	6_Mercury	7439-97-6	8.19	0.14	1.15E-06	66.89	1.22E-01
7	Delivery Trucks	Phosphorus	7_Phosphorus	7723-14-0	20.6	690	1.42E-02	33.45	6.16E-01
7	Delivery Trucks	Aluminum	7_Aluminum	7429-90-5	20.6	8600	1.77E-01	33.45	6.16E-01
7	Delivery Trucks	Antimony	7_Antimony	7440-36-0	20.6	1500	3.09E-02	33.45	6.16E-01
7	Delivery Trucks	Arsenic	7_Arsenic	7440-38-2	20.6	230	4.74E-03	33.45	6.16E-01
7	Delivery Trucks	Barium	7_Barium	7440-39-3	20.6	340	7.00E-03	33.45	6.16E-01
7	Delivery Trucks	Beryllium	7_Beryllium	7440-41-7	20.6	0	0.00E+00	33.45	6.16E-01
7	Delivery Trucks	Cadmium	7_Cadmium	7440-43-9	20.6	120	2.47E-03	33.45	6.16E-01
7	Delivery Trucks	Chromium	7_Chromium	7440-47-3	20.6	100	2.06E-03	33.45	6.16E-01
7	Delivery Trucks	Cobalt	7_Cobalt	7440-48-4	20.6	12	2.47E-04	33.45	6.16E-01
7	Delivery Trucks	Copper	7_Copper	7440-50-8	20.6	980	2.02E-02	33.45	6.16E-01
7	Delivery Trucks	Lead	7_Lead	7439-92-1	20.6	47000	9.68E-01	33.45	6.16E-01
7	Delivery Trucks	Manganese	7_Manganese	7439-96-5	20.6	330	6.80E-03	33.45	6.16E-01
7	Delivery Trucks	Nickel	7_Nickel	7440-02-0	20.6	360	7.42E-03	33.45	6.16E-01
7	Delivery Trucks	Selenium	7_Selenium	7782-49-2	20.6	110	2.27E-03	33.45	6.16E-01
7	Delivery Trucks	Silver	7_Silver	7440-22-4	20.6	3.4	7.00E-05	33.45	6.16E-01
7	Delivery Trucks	Thallium	7_Thallium	7440-28-0	20.6	1.4	2.88E-05	33.45	6.16E-01
7	Delivery Trucks	Zinc	7_Zinc	7440-66-6	20.6	2000	4.12E-02	33.45	6.16E-01
7	Delivery Trucks	Chromium VI	7_Chromium VI	18540-29-9	20.6	0	0.00E+00	33.45	6.16E-01
7	Delivery Trucks	Mercury	7_Mercury	7439-97-6	20.6	0.18	3.71E-06	33.45	6.16E-01
8	Delivery Trucks	Phosphorus	8_Phosphorus	7723-14-0	7.81	730	5.70E-03	37.90	2.06E-01
8	Delivery Trucks	Aluminum	8_Aluminum	7429-90-5	7.81	4000	3.12E-02	37.90	2.06E-01
8	Delivery Trucks	Antimony	8_Antimony	7440-36-0	7.81	1800	1.41E-02	37.90	2.06E-01
8	Delivery Trucks	Arsenic	8_Arsenic	7440-38-2	7.81	200	1.56E-03	37.90	2.06E-01
8	Delivery Trucks	Barium	8_Barium	7440-39-3	7.81	310	2.42E-03	37.90	2.06E-01
8	Delivery Trucks	Beryllium	8_Beryllium	7440-41-7	7.81	0	0.00E+00	37.90	2.06E-01
8	Delivery Trucks	Cadmium	8_Cadmium	7440-43-9	7.81	120	9.37E-04	37.90	2.06E-01
8	Delivery Trucks	Chromium	8_Chromium	7440-47-3	7.81	290	2.26E-03	37.90	2.06E-01
8	Delivery Trucks	Cobalt	8_Cobalt	7440-48-4	7.81	15	1.17E-04	37.90	2.06E-01
8	Delivery Trucks	Copper	8_Copper	7440-50-8	7.81	1300	1.02E-02	37.90	2.06E-01
8	Delivery Trucks	Lead	8_Lead	7439-92-1	7.81	58000	4.53E-01	37.90	2.06E-01
8	Delivery Trucks	Manganese	8_Manganese	7439-96-5	7.81	360	2.81E-03	37.90	2.06E-01
8	Delivery Trucks	Nickel	8_Nickel	7440-02-0	7.81	470	3.67E-03	37.90	2.06E-01
8	Delivery Trucks	Selenium	8_Selenium	7782-49-2	7.81	93	7.26E-04	37.90	2.06E-01
8	Delivery Trucks	Silver	8_Silver	7440-22-4	7.81	4.9	3.83E-05	37.90	2.06E-01
8	Delivery Trucks	Thallium	8_Thallium	7440-28-0	7.81	1.8	1.41E-05	37.90	2.06E-01
8	Delivery Trucks	Zinc	8_Zinc	7440-66-6	7.81	500	3.91E-03	37.90	2.06E-01
8	Delivery Trucks	Chromium VI	8_Chromium VI	18540-29-9	7.81	0	0.00E+00	37.90	2.06E-01
8	Delivery Trucks	Mercury	8_Mercury	7439-97-6	7.81	0.11	8.59E-07	37.90	2.06E-01

Notes:

1. TSP Emission Factor is calculated using the AP-42 reentrained dust emission factor calculation equation for paved road- $E = k (sL)^{0.91} \times (W)^{1.02}$ Where, $k = 3.23$ g/VKT, particle size multiplier for PM30 sL = silt loading factor, presented in the table

W = vehicle weight, presented in the table

2. Metal Emission Factor is the product of TSP EF and metal fraction in the silt (metal concentration).

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A1	Entrained Road Dust	Phosphorus	7723-14-0	1	2_Phosphorus	2	25.0	182	64734	4.55	4.43	6.89	6.38	6.82E-03	6.31E-03	3.10E-02	7.59E-06	9.57E-07	2.25E-02	3.24E-07
A1	Entrained Road Dust	Aluminum	7429-90-5	1	2_Aluminum	2	25.0	182	64734	4.55	4.43	6.89	6.38	5.85E-02	5.42E-02	2.66E-01	6.52E-05	8.22E-06	1.93E-01	2.78E-06
A1	Entrained Road Dust	Antimony	7440-36-0	1	2_Antimony	2	25.0	182	64734	4.55	4.43	6.89	6.38	4.13E-03	3.83E-03	1.88E-02	4.60E-06	5.80E-07	1.36E-02	1.96E-07
A1	Entrained Road Dust	Arsenic	7440-38-2	1	2_Arsenic	2	25.0	182	64734	4.55	4.43	6.89	6.38	6.89E-04	6.38E-04	3.13E-03	7.67E-07	9.67E-08	2.27E-03	3.27E-08
A1	Entrained Road Dust	Barium	7440-39-3	1	2_Barium	2	25.0	182	64734	4.55	4.43	6.89	6.38	2.69E-03	2.49E-03	1.22E-02	2.99E-06	3.77E-07	8.87E-03	1.28E-07
A1	Entrained Road Dust	Beryllium	7440-41-7	1	2_Beryllium	2	25.0	182	64734	4.55	4.43	6.89	6.38	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A1	Entrained Road Dust	Cadmium	7440-43-9	1	2_Cadmium	2	25.0	182	64734	4.55	4.43	6.89	6.38	3.72E-04	3.44E-04	1.69E-03	4.14E-07	5.22E-08	1.23E-03	1.77E-08
A1	Entrained Road Dust	Chromium	7440-47-3	1	2_Chromium	2	25.0	182	64734	4.55	4.43	6.89	6.38	9.64E-04	8.93E-04	4.38E-03	1.07E-06	1.35E-07	3.18E-03	4.58E-08
A1	Entrained Road Dust	Cobalt	7440-48-4	1	2_Cobalt	2	25.0	182	64734	4.55	4.43	6.89	6.38	7.57E-05	7.01E-05	3.44E-04	8.44E-08	1.06E-08	2.50E-04	3.60E-09
A1	Entrained Road Dust	Copper	7440-50-8	1	2_Copper	2	25.0	182	64734	4.55	4.43	6.89	6.38	3.10E-03	2.87E-03	1.41E-02	3.45E-06	4.35E-07	1.02E-02	1.47E-07
A1	Entrained Road Dust	Lead	7439-92-1	1	2_Lead	2	25.0	182	64734	4.55	4.43	6.89	6.38	3.03E-01	2.81E-01	1.38E+00	3.38E-04	4.25E-05	1.00E+00	1.44E-05
A1	Entrained Road Dust	Manganese	7439-96-5	1	2_Manganese	2	25.0	182	64734	4.55	4.43	6.89	6.38	2.75E-03	2.55E-03	1.25E-02	3.07E-06	3.87E-07	9.09E-03	1.31E-07
A1	Entrained Road Dust	Nickel	7440-02-0	1	2_Nickel	2	25.0	182	64734	4.55	4.43	6.89	6.38	1.17E-03	1.08E-03	5.32E-03	1.30E-06	1.64E-07	3.87E-03	5.56E-08
A1	Entrained Road Dust	Selenium	7782-49-2	1	2_Selenium	2	25.0	182	64734	4.55	4.43	6.89	6.38	1.51E-04	1.40E-04	6.89E-04	1.69E-07	2.13E-08	5.00E-04	7.19E-09
A1	Entrained Road Dust	Silver	7440-22-4	1	2_Silver	2	25.0	182	64734	4.55	4.43	6.89	6.38	1.38E-05	1.28E-05	6.26E-05	1.53E-08	1.93E-09	4.55E-05	6.54E-10
A1	Entrained Road Dust	Thallium	7440-28-0	1	2_Thallium	2	25.0	182	64734	4.55	4.43	6.89	6.38	5.72E-06	5.29E-06	2.60E-05	6.37E-09	8.02E-10	1.89E-05	2.71E-10
A1	Entrained Road Dust	Zinc	7440-66-6	1	2_Zinc	2	25.0	182	64734	4.55	4.43	6.89	6.38	1.93E-02	1.79E-02	8.77E-02	2.15E-05	2.71E-06	6.37E-02	9.16E-07
A1	Entrained Road Dust	Mercury	7439-97-6	1	2_Mercury	2	25.0	182	64734	4.55	4.43	6.89	6.38	1.24E-06	1.15E-06	5.64E-06	1.38E-09	1.74E-10	4.09E-06	5.89E-11
A1	Entrained Road Dust	Chromium VI	18540-29-9	1	2_Chromium VI	2	25.0	182	64734	4.55	4.43	6.89	6.38	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A2	Entrained Road Dust	Phosphorus	7723-14-0	2	1_Phosphorus	1	25.0	182	64734	4.55	4.43	3.83	3.55	3.37E-03	3.12E-03	1.54E-02	3.76E-06	4.74E-07	1.11E-02	1.60E-07
A2	Entrained Road Dust	Aluminum	7429-90-5	2	1_Aluminum	1	25.0	182	64734	4.55	4.43	3.83	3.55	2.57E-02	2.38E-02	1.17E-01	2.86E-05	3.61E-06	8.49E-02	1.22E-06
A2	Entrained Road Dust	Antimony	7440-36-0	2	1_Antimony	1	25.0	182	64734	4.55	4.43	3.83	3.55	7.29E-03	6.75E-03	3.31E-02	8.12E-06	1.02E-06	2.41E-02	3.46E-07
A2	Entrained Road Dust	Arsenic	7440-38-2	2	1_Arsenic	1	25.0	182	64734	4.55	4.43	3.83	3.55	1.11E-03	1.03E-03	5.06E-03	1.24E-06	1.56E-07	3.67E-03	5.28E-08
A2	Entrained Road Dust	Barium	7440-39-3	2	1_Barium	1	25.0	182	64734	4.55	4.43	3.83	3.55	1.34E-03	1.24E-03	6.11E-03	1.50E-06	1.88E-07	4.43E-03	6.38E-08
A2	Entrained Road Dust	Beryllium	7440-41-7	2	1_Beryllium	1	25.0	182	64734	4.55	4.43	3.83	3.55	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A2	Entrained Road Dust	Cadmium	7440-43-9	2	1_Cadmium	1	25.0	182	64734	4.55	4.43	3.83	3.55	6.52E-04	6.04E-04	2.97E-03	7.27E-07	9.15E-08	2.15E-03	3.10E-08
A2	Entrained Road Dust	Chromium	7440-47-3	2	1_Chromium	1	25.0	182	64734	4.55	4.43	3.83	3.55	5.37E-04	4.97E-04	2.44E-03	5.98E-07	7.54E-08	1.77E-03	2.55E-08
A2	Entrained Road Dust	Cobalt	7440-48-4	2	1_Cobalt	1	25.0	182	64734	4.55	4.43	3.83	3.55	9.59E-05	8.88E-05	4.36E-04	1.07E-07	1.35E-08	3.17E-04	4.55E-09
A2	Entrained Road Dust	Copper	7440-50-8	2	1_Copper	1	25.0	182	64734	4.55	4.43	3.83	3.55	6.14E-03	5.68E-03	2.79E-02	6.84E-06	8.62E-07	2.03E-02	2.91E-07
A2	Entrained Road Dust	Lead	7439-92-1	2	1_Lead	1	25.0	182	64734	4.55	4.43	3.83	3.55	1.76E-01	1.63E-01	8.03E-01	1.97E-04	2.48E-05	5.83E-01	8.38E-06
A2	Entrained Road Dust	Manganese	7439-96-5	2	1_Manganese	1	25.0	182	64734	4.55	4.43	3.83	3.55	2.30E-03	2.13E-03	1.05E-02	2.56E-06	3.23E-07	7.60E-03	1.09E-07
A2	Entrained Road Dust	Nickel	7440-02-0	2	1_Nickel	1	25.0	182	64734	4.55	4.43	3.83	3.55	1.76E-03	1.63E-03	8.03E-03	1.97E-06	2.48E-07	5.83E-03	8.38E-08
A2	Entrained Road Dust	Selenium	7782-49-2	2	1_Selenium	1	25.0	182	64734	4.55	4.43	3.83	3.55							

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A4	Entrained Road Dust	Cadmium	7440-43-9	4	1_Cadmium	1	25.0	182	64734	4.55	4.43	3.83	3.55	6.52E-04	6.04E-04	2.97E-03	7.27E-07	9.15E-08	2.15E-03	3.10E-08
A4	Entrained Road Dust	Chromium	7440-47-3	4	1_Chromium	1	25.0	182	64734	4.55	4.43	3.83	3.55	5.37E-04	4.97E-04	2.44E-03	5.98E-07	7.54E-08	1.77E-03	2.55E-08
A4	Entrained Road Dust	Cobalt	7440-48-4	4	1_Cobalt	1	25.0	182	64734	4.55	4.43	3.83	3.55	9.59E-05	8.88E-05	4.36E-04	1.07E-07	1.35E-08	3.17E-04	4.55E-09
A4	Entrained Road Dust	Copper	7440-50-8	4	1_Copper	1	25.0	182	64734	4.55	4.43	3.83	3.55	6.14E-03	5.68E-03	2.79E-02	6.84E-06	8.62E-07	2.03E-02	2.91E-07
A4	Entrained Road Dust	Lead	7439-92-1	4	1_Lead	1	25.0	182	64734	4.55	4.43	3.83	3.55	1.76E-01	1.63E-01	8.03E-01	1.97E-04	2.48E-05	5.83E-01	8.38E-06
A4	Entrained Road Dust	Manganese	7439-96-5	4	1_Manganese	1	25.0	182	64734	4.55	4.43	3.83	3.55	2.30E-03	2.13E-03	1.05E-02	2.56E-06	3.23E-07	7.60E-03	1.09E-07
A4	Entrained Road Dust	Nickel	7440-02-0	4	1_Nickel	1	25.0	182	64734	4.55	4.43	3.83	3.55	1.76E-03	1.63E-03	8.03E-03	1.97E-06	2.48E-07	5.83E-03	8.38E-08
A4	Entrained Road Dust	Selenium	7782-49-2	4	1_Selenium	1	25.0	182	64734	4.55	4.43	3.83	3.55	4.99E-04	4.62E-04	2.27E-03	5.56E-07	7.00E-08	1.65E-03	2.37E-08
A4	Entrained Road Dust	Silver	7440-22-4	4	1_Silver	1	25.0	182	64734	4.55	4.43	3.83	3.55	9.59E-05	8.88E-05	4.36E-04	1.07E-07	1.35E-08	3.17E-04	4.55E-09
A4	Entrained Road Dust	Thallium	7440-28-0	4	1_Thallium	1	25.0	182	64734	4.55	4.43	3.83	3.55	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A4	Entrained Road Dust	Zinc	7440-66-6	4	1_Zinc	1	25.0	182	64734	4.55	4.43	3.83	3.55	9.59E-03	8.88E-03	4.36E-02	1.07E-05	1.35E-06	3.17E-02	4.55E-07
A4	Entrained Road Dust	Mercury	7439-97-6	4	1_Mercury	1	25.0	182	64734	4.55	4.43	3.83	3.55	9.20E-07	8.52E-07	4.19E-06	1.03E-09	1.29E-10	3.04E-06	4.37E-11
A4	Entrained Road Dust	Chromium VI	18540-29-9	4	1_Chromium VI	1	25.0	182	64734	4.55	4.43	3.83	3.55	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A5	Entrained Road Dust	Phosphorus	7723-14-0	5	3_Phosphorus	3	25.0	170	62030	4.25	4.25	4.81	4.81	4.04E-03	4.04E-03	1.72E-02	1.58E-06	1.99E-07	1.38E-02	1.99E-07
A5	Entrained Road Dust	Aluminum	7429-90-5	5	3_Aluminum	3	25.0	170	62030	4.25	4.25	4.81	4.81	3.27E-02	3.27E-02	1.39E-01	1.28E-05	1.61E-06	1.12E-01	1.61E-06
A5	Entrained Road Dust	Antimony	7440-36-0	5	3_Antimony	3	25.0	170	62030	4.25	4.25	4.81	4.81	4.76E-03	4.76E-03	2.02E-02	1.86E-06	2.34E-07	1.63E-02	2.34E-07
A5	Entrained Road Dust	Arsenic	7440-38-2	5	3_Arsenic	3	25.0	170	62030	4.25	4.25	4.81	4.81	7.21E-04	7.21E-04	3.07E-03	2.82E-07	3.55E-08	2.47E-03	3.55E-08
A5	Entrained Road Dust	Barium	7440-39-3	5	3_Barium	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.88E-03	1.87E-03	7.98E-03	7.33E-07	9.23E-08	6.41E-03	9.22E-08
A5	Entrained Road Dust	Beryllium	7440-41-7	5	3_Beryllium	3	25.0	170	62030	4.25	4.25	4.81	4.81	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A5	Entrained Road Dust	Cadmium	7440-43-9	5	3_Cadmium	3	25.0	170	62030	4.25	4.25	4.81	4.81	3.80E-04	3.80E-04	1.62E-03	1.48E-07	1.87E-08	1.30E-03	1.87E-08
A5	Entrained Road Dust	Chromium	7440-47-3	5	3_Chromium	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.73E-03	1.73E-03	7.36E-03	6.76E-07	8.52E-08	5.92E-03	8.51E-08
A5	Entrained Road Dust	Nickel	7440-02-0	5	3_Nickel	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.25E-03	1.25E-03	5.32E-03	4.88E-07	6.15E-08	4.27E-03	6.15E-08
A5	Entrained Road Dust	Selenium	7782-49-2	5	3_Selenium	3	25.0	170	62030	4.25	4.25	4.81	4.81	2.12E-04	2.11E-04	9.00E-04	8.27E-08	1.04E-08	7.23E-04	1.04E-08
A5	Entrained Road Dust	Silver	7440-22-4	5	3_Silver	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.44E-05	1.44E-05	6.14E-05	5.64E-09	7.10E-10	4.93E-05	7.09E-10
A5	Entrained Road Dust	Thallium	7440-28-0	5	3_Thallium	3	25.0	170	62030	4.25	4.25	4.81	4.81	7.21E-06	7.21E-06	3.07E-05	2.82E-09	3.55E-10	2.47E-05	3.55E-10
A5	Entrained Road Dust	Zinc	7440-66-6	5	3_Zinc	3	25.0	170	62030	4.25	4.25	4.81	4.81	5.77E-03	5.77E-03	2.45E-02	2.25E-06	2.84E-07	1.97E-02	2.84E-07
A5	Entrained Road Dust	Mercury	7439-97-6	5	3_Mercury	3	25.0	170	62030	4.25	4.25	4.81	4.81	9.14E-07	9.13E-07	3.89E-06	3.57E-10	4.50E-11	3.12E-06	4.49E-11
A5	Entrained Road Dust	Chromium VI	18540-29-9	5	3_Chromium VI	3	25.0	170	62030	4.25	4.25	4.81	4.81	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A6	Entrained Road Dust	Phosphorus	7723-14-0	6	3_Phosphorus	3	25.0	170	62030	4.25	4.25	4.81	4.81	4.04E-03	4.04E-03	1.72E-02	1.58E-06	1.99E-07	1.38E-02	1.98E-07
A6	Entrained Road Dust	Aluminum	7429-90-5	6	3_Aluminum	3	25.0	170	62030	4.25	4.25	4.81	4.81	3.27E-02	3.27E-02	1.39E-01	1.28E-05	1.61E-06	1.12E-01	1.61E-06
A6	Entrained Road Dust	Antimony	7440-36-0	6	3_Antimony	3	25.0	170	62030	4.25	4.25	4.81	4.81	4.76E-03	4.76E-03	2.02E-02	1.86E-06	2.34E-07	1.63E-02	2.34E-07
A6	Entrained Road Dust	Arsenic	7440-38-2	6	3_Arsenic	3	25.0	170	62030	4.25	4.25	4.81	4.81	7.21E-04	7.21E-04	3.06E-03	2.81E-07	3.55E-08	2.46E-03	3.54E-08
A6	Entrained Road Dust	Barium	7440-39-3	6	3_Barium	3	25.0	170	62030	4.25	4.25	4.81								

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A7	Entrained Road Dust	Nickel	7440-02-0	7	3_Nickel	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.25E-03	1.25E-03	5.31E-03	4.88E-07	6.15E-08	4.27E-03	6.14E-08
A7	Entrained Road Dust	Selenium	7782-49-2	7	3_Selenium	3	25.0	170	62030	4.25	4.25	4.81	4.81	2.12E-04	2.11E-04	8.99E-04	8.26E-08	1.04E-08	7.23E-04	1.04E-08
A7	Entrained Road Dust	Silver	7440-22-4	7	3_Silver	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.44E-05	1.44E-05	6.13E-05	5.63E-09	7.10E-10	4.93E-05	7.09E-10
A7	Entrained Road Dust	Thallium	7440-28-0	7	3_Thallium	3	25.0	170	62030	4.25	4.25	4.81	4.81	7.21E-06	7.21E-06	3.07E-05	2.82E-09	3.55E-10	2.46E-05	3.54E-10
A7	Entrained Road Dust	Zinc	7440-66-6	7	3_Zinc	3	25.0	170	62030	4.25	4.25	4.81	4.81	5.77E-03	5.77E-03	2.45E-02	2.25E-06	2.84E-07	1.97E-02	2.84E-07
A7	Entrained Road Dust	Mercury	7439-97-6	7	3_Mercury	3	25.0	170	62030	4.25	4.25	4.81	4.81	9.14E-07	9.13E-07	3.88E-06	3.57E-10	4.49E-11	3.12E-06	4.49E-11
A7	Entrained Road Dust	Chromium VI	18540-29-9	7	3_Chromium VI	3	25.0	170	62030	4.25	4.25	4.81	4.81	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A8	Entrained Road Dust	Phosphorus	7723-14-0	8	3_Phosphorus	3	25.0	170	62030	4.25	4.25	4.81	4.81	4.04E-03	4.04E-03	1.72E-02	1.58E-06	1.99E-07	1.38E-02	1.99E-07
A8	Entrained Road Dust	Aluminum	7429-90-5	8	3_Aluminum	3	25.0	170	62030	4.25	4.25	4.81	4.81	3.27E-02	3.27E-02	1.39E-01	1.28E-05	1.61E-06	1.12E-01	1.61E-06
A8	Entrained Road Dust	Antimony	7440-36-0	8	3_Antimony	3	25.0	170	62030	4.25	4.25	4.81	4.81	4.76E-03	4.76E-03	2.02E-02	1.86E-06	2.34E-07	1.63E-02	2.34E-07
A8	Entrained Road Dust	Arsenic	7440-38-2	8	3_Arsenic	3	25.0	170	62030	4.25	4.25	4.81	4.81	7.21E-04	7.21E-04	3.07E-03	2.82E-07	3.55E-08	2.46E-03	3.54E-08
A8	Entrained Road Dust	Barium	7440-39-3	8	3_Barium	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.88E-03	1.87E-03	7.97E-03	7.32E-07	9.23E-08	6.41E-03	9.22E-08
A8	Entrained Road Dust	Beryllium	7440-41-7	8	3_Beryllium	3	25.0	170	62030	4.25	4.25	4.81	4.81	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A8	Entrained Road Dust	Cadmium	7440-43-9	8	3_Cadmium	3	25.0	170	62030	4.25	4.25	4.81	4.81	3.80E-04	3.80E-04	1.61E-03	1.48E-07	1.87E-08	1.30E-03	1.87E-08
A8	Entrained Road Dust	Chromium	7440-47-3	8	3_Chromium	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.06E-03	1.06E-03	4.50E-03	4.13E-07	5.20E-08	3.61E-03	5.20E-08
A8	Entrained Road Dust	Cobalt	7440-48-4	8	3_Cobalt	3	25.0	170	62030	4.25	4.25	4.81	4.81	5.29E-05	5.29E-05	2.25E-04	2.07E-08	2.60E-09	1.81E-04	2.60E-09
A8	Entrained Road Dust	Copper	7440-50-8	8	3_Copper	3	25.0	170	62030	4.25	4.25	4.81	4.81	3.22E-03	3.22E-03	1.37E-02	1.26E-06	1.58E-07	1.10E-02	1.58E-07
A8	Entrained Road Dust	Lead	7439-92-1	8	3_Lead	3	25.0	170	62030	4.25	4.25	4.81	4.81	2.50E-01	2.50E-01	1.06E+00	9.76E-05	1.23E-05	8.54E-01	1.23E-05
A8	Entrained Road Dust	Manganese	7439-96-5	8	3_Manganese	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.73E-03	1.73E-03	7.36E-03	6.76E-07	8.52E-08	5.91E-03	8.51E-08
A8	Entrained Road Dust	Nickel	7440-02-0	8	3_Nickel	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.25E-03	1.25E-03	5.31E-03	4.88E-07	6.15E-08	4.27E-03	6.14E-08
A8	Entrained Road Dust	Selenium	7782-49-2	8	3_Selenium	3	25.0	170	62030	4.25	4.25	4.81	4.81	2.12E-04	2.11E-04	8.99E-04	8.26E-08	1.04E-08	7.23E-04	1.04E-08
A8	Entrained Road Dust	Silver	7440-22-4	8	3_Silver	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.44E-05	1.44E-05	6.13E-05	5.63E-09	7.10E-10	4.93E-05	7.09E-10
A9	Entrained Road Dust	Phosphorus	7723-14-0	9	3_Phosphorus	3	25.0	170	62030	4.25	4.25	4.81	4.81	4.04E-03	4.04E-03	1.72E-02	1.58E-06	1.99E-07	1.38E-02	1.99E-07
A9	Entrained Road Dust	Aluminum	7429-90-5	9	3_Aluminum	3	25.0	170	62030	4.25	4.25	4.81	4.81	3.27E-02	3.27E-02	1.39E-01	1.28E-05	1.61E-06	1.12E-01	1.61E-06
A9	Entrained Road Dust	Antimony	7440-36-0	9	3_Antimony	3	25.0	170	62030	4.25	4.25	4.81	4.81	4.76E-03	4.76E-03	2.02E-02	1.86E-06	2.34E-07	1.63E-02	2.34E-07
A9	Entrained Road Dust	Arsenic	7440-38-2	9	3_Arsenic	3	25.0	170	62030	4.25	4.25	4.81	4.81	7.21E-04	7.21E-04	3.07E-03	2.82E-07	3.55E-08	2.46E-03	3.54E-08
A9	Entrained Road Dust	Barium	7440-39-3	9	3_Barium	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.88E-03	1.87E-03	7.97E-03	7.32E-07	9.23E-08	6.41E-03	9.22E-08
A9	Entrained Road Dust	Beryllium	7440-41-7	9	3_Beryllium	3	25.0	170	62030	4.25	4.25	4.81	4.81	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A9	Entrained Road Dust	Cadmium	7440-43-9	9	3_Cadmium	3	25.0	170	62030	4.25	4.25	4.81	4.81	3.80E-04	3.80E-04	1.61E-03	1.48E-07	1.87E-08	1.30E-03	1.87E-08
A9	Entrained Road Dust	Chromium	7440-47-3	9	3_Chromium	3	25.0	170	62030	4.25	4.25	4.81	4.81	1.06E-03	1.06E-03	4.50E-03	4.13E-07	5.20E-08	3.61E-03	5.20E-08
A9	Entrained Road Dust	Cobalt	7440-48-4	9	3_Cobalt	3	25.0	170	62030	4.25	4.25	4.81	4.81	5.29E-05	5.29E-05	2.25E-04	2.07E-08	2.60E-09	1.81E-04	2.60E-09
A9	Entrained Road Dust	Copper	7440-50-8	9	3_Copper	3	25.0	170	62030	4.25	4.25	4.81	4.81	3.22E-03	3.22E-03	1.37E-02	1.26E-06	1.58E-07	1.10E-02	1.58E-07
A9	Entrained Road Dust	Lead	7439-92-1	9	3_Lead	3	25.0	170	62030	4.25	4.25	4.81	4.81							

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A10	Entrained Road Dust	Chromium VI	18540-29-9	10	3_Chromium VI	3	24.9	170	62030	4.24	4.24	4.81	4.81	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
A11	Entrained Road Dust	Phosphorus	7723-14-0	11	4_Phosphorus	4	25.0	211	73782	5.27	5.05	8.70	8.03	6.79E-03	6.26E-03	3.58E-02	4.78E-06	6.03E-07	2.55E-02	
A11	Entrained Road Dust	Aluminum	7429-90-5	11	4_Aluminum	4	25.0	211	73782	5.27	5.05	8.70	8.03	6.35E-02	5.86E-02	3.35E-01	4.48E-05	5.64E-06	2.38E-01	
A11	Entrained Road Dust	Antimony	7440-36-0	11	4_Antimony	4	25.0	211	73782	5.27	5.05	8.70	8.03	7.22E-03	6.66E-03	3.81E-02	5.09E-06	6.42E-07	2.71E-02	
A11	Entrained Road Dust	Arsenic	7440-38-2	11	4_Arsenic	4	25.0	211	73782	5.27	5.05	8.70	8.03	1.31E-03	1.20E-03	6.89E-03	9.20E-07	1.16E-07	4.90E-03	
A11	Entrained Road Dust	Barium	7440-39-3	11	4_Barium	4	25.0	211	73782	5.27	5.05	8.70	8.03	3.57E-03	3.29E-03	1.88E-02	2.52E-06	3.17E-07	1.34E-02	
A11	Entrained Road Dust	Beryllium	7440-41-7	11	4_Beryllium	4	25.0	211	73782	5.27	5.05	8.70	8.03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
A11	Entrained Road Dust	Cadmium	7440-43-9	11	4_Cadmium	4	25.0	211	73782	5.27	5.05	8.70	8.03	6.96E-04	6.42E-04	3.67E-03	4.91E-07	6.18E-08	2.61E-03	
A11	Entrained Road Dust	Chromium	7440-47-3	11	4_Chromium	4	25.0	211	73782	5.27	5.05	8.70	8.03	3.13E-03	2.89E-03	1.65E-02	2.21E-06	2.78E-07	1.18E-02	
A11	Entrained Road Dust	Cobalt	7440-48-4	11	4_Cobalt	4	25.0	211	73782	5.27	5.05	8.70	8.03	1.22E-04	1.12E-04	6.43E-04	8.59E-08	1.08E-08	4.57E-04	
A11	Entrained Road Dust	Copper	7440-50-8	11	4_Copper	4	25.0	211	73782	5.27	5.05	8.70	8.03	7.05E-03	6.50E-03	3.72E-02	4.97E-06	6.26E-07	2.64E-02	
A11	Entrained Road Dust	Lead	7439-92-1	11	4_Lead	4	25.0	211	73782	5.27	5.05	8.70	8.03	3.83E-01	3.53E-01	2.02E+00	2.70E-04	3.40E-05	1.44E+00	
A11	Entrained Road Dust	Manganese	7439-96-5	11	4_Manganese	4	25.0	211	73782	5.27	5.05	8.70	8.03	3.05E-03	2.81E-03	1.61E-02	2.15E-06	2.71E-07	1.14E-02	
A11	Entrained Road Dust	Nickel	7440-02-0	11	4_Nickel	4	25.0	211	73782	5.27	5.05	8.70	8.03	3.39E-03	3.13E-03	1.79E-02	2.39E-06	3.01E-07	1.27E-02	
A11	Entrained Road Dust	Selenium	7782-49-2	11	4_Selenium	4	25.0	211	73782	5.27	5.05	8.70	8.03	5.14E-04	4.74E-04	2.71E-03	3.62E-07	4.56E-08	1.93E-03	
A11	Entrained Road Dust	Silver	7440-22-4	11	4_Silver	4	25.0	211	73782	5.27	5.05	8.70	8.03	2.61E-05	2.41E-05	1.38E-04	1.84E-08	2.32E-09	9.80E-05	
A11	Entrained Road Dust	Thallium	7440-28-0	11	4_Thallium	4	25.0	211	73782	5.27	5.05	8.70	8.03	9.57E-06	8.83E-06	5.05E-05	6.75E-09	8.50E-10	3.59E-05	
A11	Entrained Road Dust	Zinc	7440-66-6	11	4_Zinc	4	25.0	211	73782	5.27	5.05	8.70	8.03	2.18E-02	2.01E-02	1.15E-01	1.53E-05	1.93E-06	8.16E-02	
A11	Entrained Road Dust	Mercury	7439-97-6	11	4_Mercury	4	25.0	211	73782	5.27	5.05	8.70	8.03	1.65E-06	1.53E-06	8.72E-06	1.17E-09	1.47E-10	6.20E-06	
A11	Entrained Road Dust	Chromium VI	18540-29-9	11	4_Chromium VI	4	25.0	211	73782	5.27	5.05	8.70	8.03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
A12	Entrained Road Dust	Phosphorus	7723-14-0	12	4_Phosphorus	4	25.0	211	73782	5.27	5.05	8.70	8.03	6.79E-03	6.26E-03	3.58E-02	4.78E-06	6.03E-07	2.55E-02	
A12	Entrained Road Dust	Aluminum	7429-90-5	12	4_Aluminum	4	25.0	211	73782	5.27	5.05	8.70	8.03	6.35E-02	5.86E-02	3.35E-01	4.48E-05	5.64E-06	2.38E-01	
A12	Entrained Road Dust	Antimony	7440-36-0	12	4_Antimony	4	25.0	211	73782	5.27	5.05	8.70	8.03	7.22E-03	6.66E-03	3.81E-02	5.09E-06	6.42E-07	2.71E-02	
A12	Entrained Road Dust	Arsenic	7440-38-2	12	4_Arsenic	4	25.0	211	73782	5.27	5.05	8.70	8.03	1.31E-03	1.20E-03	6.89E-03	9.20E-07	1.16E-07	4.90E-03	
A12	Entrained Road Dust	Barium	7440-39-3	12	4_Barium	4	25.0	211	73782	5.27	5.05	8.70	8.03	3.57E-03	3.29E-03	1.88E-02	2.52E-06	3.17E-07	1.34E-02	
A12	Entrained Road Dust	Beryllium	7440-41-7	12	4_Beryllium	4	25.0	211	73782	5.27	5.05	8.70	8.03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
A12	Entrained Road Dust	Cadmium	7440-43-9	12	4_Cadmium	4	25.0	211	73782	5.27	5.05	8.70	8.03	6.96E-04	6.42E-04	3.67E-03	4.91E-07	6.18E-08	2.61E-03	
A12	Entrained Road Dust	Chromium	7440-47-3	12	4_Chromium	4	25.0	211	73782	5.27	5.05	8.70	8.03	3.13E-03	2.89E-03	1.65E-02	2.21E-06	2.78E-07	1.18E-02	
A12	Entrained Road Dust	Cobalt	7440-48-4	12	4_Cobalt	4	25.0	211	73782	5.27	5.05	8.70	8.03	1.22E-04	1.12E-04	6.43E-04	8.59E-08	1.08E-08	4.57E-04	
A12	Entrained Road Dust	Copper	7440-50-8	12	4_Copper	4	25.0	211	73782	5.27	5.05	8.70	8.03	7.05E-03	6.50E-03	3.72E-02	4.97E-06	6.26E-07	2.64E-02	
A12	Entrained Road Dust	Lead	7439-92-1	12	4_Lead	4	25.0	211	73782	5.27	5.05	8.70	8.03	3.83E-01	3.53E-01	2.02E+00	2.70E-04	3.40E-05	1.44E+00	
A12	Entrained Road Dust	Manganese	7439-96-5	12	4_Manganese	4	25.0	211	73782	5.27	5.05	8.70	8.03	3.05E-03	2.81E-03	1.61E-02	2.15E-06	2.71E-07	1.14E-02	
A12	Entrained Road Dust	Nickel	7440-02-0	12	4_Nickel	4	25.0	211	73782	5.27	5.05	8.70	8.03	3.39E-03	3.13E-03	1.79E-02	2.39E-06	3.01E-07	1.27E-02	
A12	Entrained Road Dust	Selenium	7782-49-2	12	4_Selenium	4	25.0	211	73782	5.27	5.05	8.70	8.03	5.14E-04	4.74E-04	2.71E-03	3.62E-07	4.56E-08	1.93E-03	
A12	Entrained Road Dust	Silver	7440-22-4	12	4_Silver	4														

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A14	Entrained Road Dust	Beryllium	7440-41-7	14	8_Beryllium	8	25.0	211	73782	5.27	5.05	9.76	9.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
A14	Entrained Road Dust	Cadmium	7440-43-9	14	8_Cadmium	8	25.0	211	73782	5.27	5.05	9.76	9.00	1.17E-03	1.08E-03	6.17E-03	8.25E-07	1.04E-07	4.39E-03	6.32E-08
A14	Entrained Road Dust	Chromium	7440-47-3	14	8_Chromium	8	25.0	211	73782	5.27	5.05	9.76	9.00	2.83E-03	2.61E-03	1.49E-02	1.99E-06	2.51E-07	1.06E-02	1.53E-07
A14	Entrained Road Dust	Cobalt	7440-48-4	14	8_Cobalt	8	25.0	211	73782	5.27	5.05	9.76	9.00	1.46E-04	1.35E-04	7.72E-04	1.03E-07	1.30E-08	5.49E-04	7.89E-09
A14	Entrained Road Dust	Copper	7440-50-8	14	8_Copper	8	25.0	211	73782	5.27	5.05	9.76	9.00	1.27E-02	1.17E-02	6.69E-02	8.94E-06	1.13E-06	4.76E-02	6.84E-07
A14	Entrained Road Dust	Lead	7439-92-1	14	8_Lead	8	25.0	211	73782	5.27	5.05	9.76	9.00	5.66E-01	5.22E-01	2.98E+00	3.99E-04	5.02E-05	2.12E+00	3.05E-05
A14	Entrained Road Dust	Manganese	7439-96-5	14	8_Manganese	8	25.0	211	73782	5.27	5.05	9.76	9.00	3.51E-03	3.24E-03	1.85E-02	2.47E-06	3.12E-07	1.32E-02	1.89E-07
A14	Entrained Road Dust	Nickel	7440-02-0	14	8_Nickel	8	25.0	211	73782	5.27	5.05	9.76	9.00	4.59E-03	4.23E-03	2.42E-02	3.23E-06	4.07E-07	1.72E-02	2.47E-07
A14	Entrained Road Dust	Selenium	7782-49-2	14	8_Selenium	8	25.0	211	73782	5.27	5.05	9.76	9.00	9.08E-04	8.37E-04	4.78E-03	6.39E-07	8.06E-08	3.40E-03	4.89E-08
A14	Entrained Road Dust	Silver	7440-22-4	14	8_Silver	8	25.0	211	73782	5.27	5.05	9.76	9.00	4.78E-05	4.41E-05	2.52E-04	3.37E-08	4.24E-09	1.79E-04	2.58E-09
A14	Entrained Road Dust	Thallium	7440-28-0	14	8_Thallium	8	25.0	211	73782	5.27	5.05	9.76	9.00	1.76E-05	1.62E-05	9.26E-05	1.24E-08	1.56E-09	6.59E-05	9.47E-10
A14	Entrained Road Dust	Zinc	7440-66-6	14	8_Zinc	8	25.0	211	73782	5.27	5.05	9.76	9.00	4.88E-03	4.50E-03	2.57E-02	3.44E-06	4.33E-07	1.83E-02	2.63E-07
A14	Entrained Road Dust	Mercury	7439-97-6	14	8_Mercury	8	25.0	211	73782	5.27	5.05	9.76	9.00	1.07E-06	9.90E-07	5.66E-06	7.56E-10	9.53E-11	4.03E-06	5.79E-11
A14	Entrained Road Dust	Chromium VI	18540-29-9	14	8_Chromium VI	8	25.0	211	73782	5.27	5.05	9.76	9.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A15	Entrained Road Dust	Phosphorus	7723-14-0	15	8_Phosphorus	8	25.0	211	73782	5.28	5.06	9.76	9.00	7.12E-03	6.57E-03	3.76E-02	5.02E-06	6.33E-07	2.67E-02	3.85E-07
A15	Entrained Road Dust	Aluminum	7429-90-5	15	8_Aluminum	8	25.0	211	73782	5.28	5.06	9.76	9.00	3.90E-02	3.60E-02	2.06E-01	2.75E-05	3.47E-06	1.47E-01	2.11E-06
A15	Entrained Road Dust	Antimony	7440-36-0	15	8_Antimony	8	25.0	211	73782	5.28	5.06	9.76	9.00	1.76E-02	1.62E-02	9.27E-02	1.24E-05	1.56E-06	6.59E-02	9.48E-07
A15	Entrained Road Dust	Arsenic	7440-38-2	15	8_Arsenic	8	25.0	211	73782	5.28	5.06	9.76	9.00	1.95E-03	1.80E-03	1.03E-02	1.38E-06	1.73E-07	7.33E-03	1.05E-07
A15	Entrained Road Dust	Barium	7440-39-3	15	8_Barium	8	25.0	211	73782	5.28	5.06	9.76	9.00	3.03E-03	2.79E-03	1.60E-02	2.13E-06	2.69E-07	1.14E-02	1.63E-07
A15	Entrained Road Dust	Beryllium	7440-41-7	15	8_Beryllium	8	25.0	211	73782	5.28	5.06	9.76	9.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A15	Entrained Road Dust	Cadmium	7440-43-9	15	8_Cadmium	8	25.0	211	73782	5.28	5.06	9.76	9.00	1.17E-03	1.08E-03	5.22E-01	2.99E+00	3.99E-04	5.03E-05	2.12E+00
A15	Entrained Road Dust	Chromium	7440-47-3	15	8_Chromium	8	25.0	211	73782	5.28	5.06	9.76	9.00	2.83E-03	2.61E-03	1.49E-02	2.00E-06	2.51E-07	1.06E-02	1.53E-07
A15	Entrained Road Dust	Cobalt	7440-48-4	15	8_Cobalt	8	25.0	211	73782	5.28	5.06	9.76	9.00	1.46E-04	1.35E-04	7.73E-04	1.03E-07	1.30E-08	5.49E-04	7.90E-09
A15	Entrained Road Dust	Copper	7440-50-8	15	8_Copper	8	25.0	211	73782	5.28	5.06	9.76	9.00	1.27E-02	1.17E-02	6.70E-02	8.95E-06	1.13E-06	4.76E-02	6.85E-07
A15	Entrained Road Dust	Lead	7439-92-1	15	8_Lead	8	25.0	211	73782	5.28	5.06	9.76	9.00	5.66E-01	5.22E-01	2.99E+00	3.99E-04	5.03E-05	2.12E+00	3.06E-05
A15	Entrained Road Dust	Manganese	7439-96-5	15	8_Manganese	8	25.0	211	73782	5.28	5.06	9.76	9.00	3.51E-03	3.24E-03	1.85E-02	2.48E-06	3.12E-07	1.32E-02	1.90E-07
A15	Entrained Road Dust	Nickel	7440-02-0	15	8_Nickel	8	25.0	211	73782	5.28	5.06	9.76	9.00	4.59E-03	4.23E-03	2.42E-02	3.23E-06	4.08E-07	1.72E-02	2.48E-07
A15	Entrained Road Dust	Selenium	7782-49-2	15	8_Selenium	8	25.0	211	73782	5.28	5.06	9.76	9.00	9.08E-04	8.37E-04	4.79E-03	6.40E-07	8.06E-08	3.41E-03	4.90E-08
A15	Entrained Road Dust	Silver	7440-22-4	15	8_Silver	8	25.0	211	73782	5.28	5.06	9.76	9.00	4.78E-05	4.41E-05	2.52E-04	3.37E-08	4.25E-09	1.80E-04	2.58E-09
A15	Entrained Road Dust	Thallium	7440-28-0	15	8_Thallium	8	25.0	211	73782	5.28	5.06	9.76	9.00	1.76E-05	1.62E-05	9.27E-05	1.24E-08	1.56E-09	6.59E-05	9.48E-10
A15	Entrained Road Dust	Zinc	7440-66-6	15	8_Zinc	8	25.0	211	73782	5.28	5.06	9.76	9.00	4.88E-03	4.50E-03	2.58E-02	3.44E-06	4.34E-07	1.83E-02	2.63E-07
A15	Entrained Road Dust	Mercury	7439-97-6	15	8_Mercury	8	25.0	211	73782	5.28	5.06	9.76	9.00	1.07E-06	9.90E-07	5.67E-06	7.57E-10	9.54E-11	4.03E-06	5.80E-11
A15	Entrained Road Dust	Chromium VI	18540-29-9	15	8_Chromium VI	8	25.0													

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A17	Entrained Road Dust	Manganese	7439-96-5	17	5_Manganese	5	28.6	211	73782	6.03	5.78	7.55	6.96	3.24E-03	2.99E-03	1.96E-02	2.62E-06	3.30E-07	1.39E-02	2.00E-07
A17	Entrained Road Dust	Nickel	7440-02-0	17	5_Nickel	5	28.6	211	73782	6.03	5.78	7.55	6.96	3.02E-03	2.78E-03	1.82E-02	2.43E-06	3.07E-07	1.30E-02	1.86E-07
A17	Entrained Road Dust	Selenium	7782-49-2	17	5_Selenium	5	28.6	211	73782	6.03	5.78	7.55	6.96	3.17E-04	2.92E-04	1.91E-03	2.55E-07	3.22E-08	1.36E-03	1.96E-08
A17	Entrained Road Dust	Silver	7440-22-4	17	5_Silver	5	28.6	211	73782	6.03	5.78	7.55	6.96	1.36E-05	1.25E-05	8.20E-05	1.09E-08	1.38E-09	5.83E-05	8.38E-10
A17	Entrained Road Dust	Thallium	7440-28-0	17	5_Thallium	5	28.6	211	73782	6.03	5.78	7.55	6.96	6.26E-06	5.78E-06	3.78E-05	5.05E-09	6.36E-10	2.69E-05	3.87E-10
A17	Entrained Road Dust	Zinc	7440-66-6	17	5_Zinc	5	28.6	211	73782	6.03	5.78	7.55	6.96	1.58E-02	1.46E-02	9.56E-02	1.28E-05	1.61E-06	6.80E-02	9.78E-07
A17	Entrained Road Dust	Mercury	7439-97-6	17	5_Mercury	5	28.6	211	73782	6.03	5.78	7.55	6.96	1.21E-06	1.11E-06	7.28E-06	9.73E-10	1.23E-10	5.18E-06	7.45E-11
A17	Entrained Road Dust	Chromium VI	18540-29-9	17	5_Chromium VI	5	28.6	211	73782	6.03	5.78	7.55	6.96	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A18	Entrained Road Dust	Phosphorus	7723-14-0	18	5_Phosphorus	5	25.0	211	73782	5.28	5.06	7.55	6.96	5.58E-03	5.15E-03	2.95E-02	3.94E-06	4.96E-07	2.10E-02	3.02E-07
A18	Entrained Road Dust	Aluminum	7429-90-5	18	5_Aluminum	5	25.0	211	73782	5.28	5.06	7.55	6.96	4.60E-02	4.25E-02	2.43E-01	3.25E-05	4.09E-06	1.73E-01	2.49E-06
A18	Entrained Road Dust	Antimony	7440-36-0	18	5_Antimony	5	25.0	211	73782	5.28	5.06	7.55	6.96	3.32E-03	3.06E-03	1.75E-02	2.34E-06	2.95E-07	1.25E-02	1.79E-07
A18	Entrained Road Dust	Arsenic	7440-38-2	18	5_Arsenic	5	25.0	211	73782	5.28	5.06	7.55	6.96	7.24E-04	6.68E-04	3.83E-03	5.11E-07	6.44E-08	2.72E-03	3.91E-08
A18	Entrained Road Dust	Barium	7440-39-3	18	5_Barium	5	25.0	211	73782	5.28	5.06	7.55	6.96	2.41E-03	2.23E-03	1.28E-02	1.70E-06	2.15E-07	9.07E-03	1.30E-07
A18	Entrained Road Dust	Beryllium	7440-41-7	18	5_Beryllium	5	25.0	211	73782	5.28	5.06	7.55	6.96	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A18	Entrained Road Dust	Cadmium	7440-43-9	18	5_Cadmium	5	25.0	211	73782	5.28	5.06	7.55	6.96	4.07E-04	3.76E-04	2.15E-03	2.88E-07	3.62E-08	1.53E-03	2.20E-08
A18	Entrained Road Dust	Chromium	7440-47-3	18	5_Chromium	5	25.0	211	73782	5.28	5.06	7.55	6.96	3.17E-03	2.92E-03	1.67E-02	2.24E-06	2.82E-07	1.19E-02	1.71E-07
A18	Entrained Road Dust	Cobalt	7440-48-4	18	5_Cobalt	5	25.0	211	73782	5.28	5.06	7.55	6.96	1.58E-04	1.46E-04	8.37E-04	1.12E-07	1.41E-08	5.95E-04	8.56E-09
A18	Entrained Road Dust	Copper	7440-50-8	18	5_Copper	5	25.0	211	73782	5.28	5.06	7.55	6.96	8.30E-03	7.66E-03	4.38E-02	5.86E-06	7.38E-07	3.12E-02	4.48E-07
A18	Entrained Road Dust	Lead	7439-92-1	18	5_Lead	5	25.0	211	73782	5.28	5.06	7.55	6.96	3.40E-01	3.13E-01	1.79E+00	2.40E-04	3.02E-05	1.28E+00	1.83E-05
A18	Entrained Road Dust	Manganese	7439-96-5	18	5_Manganese	5	25.0	211	73782	5.28	5.06	7.55	6.96	3.24E-03	2.99E-03	1.71E-02	2.29E-06	2.88E-07	1.22E-02	1.75E-07
A18	Entrained Road Dust	Nickel	7440-02-0	18	5_Nickel	5	25.0	211	73782	5.28	5.06	7.55	6.96	3.02E-03	2.78E-03	1.59E-02	2.13E-06	2.68E-07	1.13E-02	1.63E-07
A18	Entrained Road Dust	Selenium	7782-49-2	18	5_Selenium	5	25.0	211	73782	5.28	5.06	7.55	6.96	3.17E-04	2.92E-04	1.67E-03	2.24E-07	2.82E-08	1.19E-03	1.71E-08
A18	Entrained Road Dust	Silver	7440-22-4	18	5_Silver	5	25.0	211	73782	5.28	5.06	7.55	6.96	1.36E-05	1.25E-05	7.19E-05	9.61E-09	1.21E-09	5.11E-05	7.36E-10
A18	Entrained Road Dust	Thallium	7440-28-0	18	5_Thallium	5	25.0	211	73782	5.28	5.06	7.55	6.96	6.26E-06	5.78E-06	3.32E-05	4.43E-09	5.58E-10	2.36E-05	3.39E-10
A18	Entrained Road Dust	Zinc	7440-66-6	18	5_Zinc	5	25.0	211	73782	5.28	5.06	7.55	6.96	3.32E-03	3.06E-03	1.76E-02	2.35E-06	2.96E-07	1.25E-02	1.80E-07
A18	Entrained Road Dust	Mercury	7439-97-6	18	5_Mercury	5	25.0	211	73782	5.28	5.06	7.55	6.96	7.24E-04	6.68E-04	3.83E-03	5.12E-07	6.46E-08	2.73E-03	3.92E-08
A18	Entrained Road Dust	Chromium VI	18540-29-9	18	5_Chromium VI	5	25.0	211	73782	5.28	5.06	7.55	6.96	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A19	Entrained Road Dust	Phosphorus	7723-14-0	19	5_Phosphorus	5	25.1	211	73782	5.29	5.07	7.55	6.96	5.58E-03	5.15E-03	2.96E-02	3.95E-06	4.98E-07	2.10E-02	3.02E-07
A19	Entrained Road Dust	Aluminum	7429-90-5	19	5_Aluminum	5	25.1	211	73782	5.29	5.07	7.55	6.96	4.60E-02	4.25E-02	2.44E-01	3.26E-05	4.10E-06	1.73E-01	2.49E-06
A19	Entrained Road Dust	Antimony	7440-36-0	19	5_Antimony	5	25.1	211	73782	5.29	5.07	7.55	6.96	3.32E-03	3.06E-03	1.76E-02	2.35E-06	2.96E-07	1.25E-02	1.80E-07
A19	Entrained Road Dust	Arsenic	7440-38-2	19	5_Arsenic	5	25.1	211	73782	5.29	5.07	7.55	6.96	7.24E-04	6.68E-04	3.83E-03	5.12E-07	6.46E-08	2.73E-03	3.92E-08
A19	Entrained Road Dust	Barium	7440-39-3	19	5_Barium	5	25.1	211	73782	5.29	5.07	7.55	6.96	2.41E-03	2.23E-03	1.28E-02	1.71E-06	2.15E-07	9.09E-03	1.31E-07
A19	Entrained Road Dust	Beryllium	7440-41-7	19	5_Bery															

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A20	Entrained Road Dust	Mercury	7439-97-6	20	5_Mercury	5	24.4	211	73782	5.15	4.93	7.55	6.96	1.21E-06	1.11E-06	6.21E-06	8.30E-10	1.05E-10	4.42E-06	6.35E-11
A20	Entrained Road Dust	Chromium VI	18540-29-9	20	5_Chromium VI	5	24.4	211	73782	5.15	4.93	7.55	6.96	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A21	Entrained Road Dust	Phosphorus	7723-14-0	21	6_Phosphorus	6	23.0	211	73782	4.85	4.65	6.08	5.61	3.89E-03	3.59E-03	1.89E-02	2.52E-06	3.18E-07	1.34E-02	1.93E-07
A21	Entrained Road Dust	Aluminum	7429-90-5	21	6_Aluminum	6	23.0	211	73782	4.85	4.65	6.08	5.61	5.11E-02	4.71E-02	2.48E-01	3.31E-05	4.17E-06	1.76E-01	2.53E-06
A21	Entrained Road Dust	Antimony	7440-36-0	21	6_Antimony	6	23.0	211	73782	4.85	4.65	6.08	5.61	2.01E-03	1.85E-03	9.72E-03	1.30E-06	1.64E-07	6.92E-03	9.95E-08
A21	Entrained Road Dust	Arsenic	7440-38-2	21	6_Arsenic	6	23.0	211	73782	4.85	4.65	6.08	5.61	6.08E-04	5.61E-04	2.95E-03	3.94E-07	4.96E-08	2.10E-03	3.01E-08
A21	Entrained Road Dust	Barium	7440-39-3	21	6_Barium	6	23.0	211	73782	4.85	4.65	6.08	5.61	2.43E-03	2.24E-03	1.18E-02	1.57E-06	1.98E-07	8.38E-03	1.21E-07
A21	Entrained Road Dust	Beryllium	7440-41-7	21	6_Beryllium	6	23.0	211	73782	4.85	4.65	6.08	5.61	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A21	Entrained Road Dust	Cadmium	7440-43-9	21	6_Cadmium	6	23.0	211	73782	4.85	4.65	6.08	5.61	2.73E-04	2.52E-04	1.33E-03	1.77E-07	2.23E-08	9.43E-04	1.36E-08
A21	Entrained Road Dust	Chromium	7440-47-3	21	6_Chromium	6	23.0	211	73782	4.85	4.65	6.08	5.61	4.13E-04	3.81E-04	2.00E-03	2.68E-07	3.37E-08	1.43E-03	2.05E-08
A21	Entrained Road Dust	Cobalt	7440-48-4	21	6_Cobalt	6	23.0	211	73782	4.85	4.65	6.08	5.61	7.29E-05	6.73E-05	3.54E-04	4.72E-08	5.95E-09	2.51E-04	3.62E-09
A21	Entrained Road Dust	Copper	7440-50-8	21	6_Copper	6	23.0	211	73782	4.85	4.65	6.08	5.61	3.40E-03	3.14E-03	1.65E-02	2.20E-06	2.78E-07	1.17E-02	1.69E-07
A21	Entrained Road Dust	Lead	7439-92-1	21	6_Lead	6	23.0	211	73782	4.85	4.65	6.08	5.61	2.43E-01	2.24E-01	1.18E+00	1.57E-04	1.98E-05	8.38E-01	1.21E-05
A21	Entrained Road Dust	Manganese	7439-96-5	21	6_Manganese	6	23.0	211	73782	4.85	4.65	6.08	5.61	1.58E-03	1.46E-03	7.66E-03	1.02E-06	1.29E-07	5.45E-03	7.84E-08
A21	Entrained Road Dust	Nickel	7440-02-0	21	6_Nickel	6	23.0	211	73782	4.85	4.65	6.08	5.61	7.29E-04	6.73E-04	3.54E-03	4.72E-07	5.95E-08	2.51E-03	3.62E-08
A21	Entrained Road Dust	Selenium	7782-49-2	21	6_Selenium	6	23.0	211	73782	4.85	4.65	6.08	5.61	2.07E-04	1.91E-04	1.00E-03	1.34E-07	1.69E-08	7.13E-04	1.02E-08
A21	Entrained Road Dust	Silver	7440-22-4	21	6_Silver	6	23.0	211	73782	4.85	4.65	6.08	5.61	8.51E-06	7.85E-06	4.13E-05	5.51E-09	6.95E-10	2.93E-05	4.22E-10
A21	Entrained Road Dust	Thallium	7440-28-0	21	6_Thallium	6	23.0	211	73782	4.85	4.65	6.08	5.61	3.10E-06	2.86E-06	1.50E-05	2.01E-09	2.53E-10	1.07E-05	1.54E-10
A21	Entrained Road Dust	Zinc	7440-66-6	21	6_Zinc	6	23.0	211	73782	4.85	4.65	6.08	5.61	3.10E-02	2.86E-02	1.50E-01	2.01E-05	2.53E-06	1.07E-01	1.54E-06
A21	Entrained Road Dust	Mercury	7439-97-6	21	6_Mercury	6	23.0	211	73782	4.85	4.65	6.08	5.61	8.51E-07	7.85E-07	4.13E-06	5.51E-10	6.95E-11	2.93E-06	4.22E-11
A21	Entrained Road Dust	Chromium VI	18540-29-9	21	6_Chromium VI	6	23.0	211	73782	4.85	4.65	6.08	5.61	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A22	Entrained Road Dust	Phosphorus	7723-14-0	22	6_Phosphorus	6	24.2	211	73782	5.11	4.90	6.08	5.61	3.89E-03	3.59E-03	1.99E-02	2.66E-06	3.35E-07	1.41E-02	2.03E-07
A22	Entrained Road Dust	Aluminum	7429-90-5	22	6_Aluminum	6	24.2	211	73782	5.11	4.90	6.08	5.61	5.11E-02	4.71E-02	2.61E-01	3.49E-05	4.39E-06	1.86E-01	2.67E-06
A22	Entrained Road Dust	Antimony	7440-36-0	22	6_Antimony	6	24.2	211	73782	5.11	4.90	6.08	5.61	2.01E-03	1.85E-03	1.03E-02	1.37E-06	1.73E-07	7.29E-03	1.05E-07
A22	Entrained Road Dust	Arsenic	7440-38-2	22	6_Arsenic	6	24.2	211	73782	5.11	4.90	6.08	5.61	6.08E-04	5.61E-04	3.11E-03	4.15E-07	5.23E-08	2.21E-03	3.18E-08
A22	Entrained Road Dust	Barium	7440-39-3	22	6_Barium	6	24.2	211	73782	5.11	4.90	6.08	5.61	2.43E-03	2.24E-03	1.24E-02	1.66E-06	2.09E-07	8.84E-03	1.27E-07
A22	Entrained Road Dust	Beryllium	7440-41-7	22	6_Beryllium	6	24.2	211	73782	5.11	4.90	6.08	5.61	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A22	Entrained Road Dust	Cadmium	7440-43-9	22	6_Cadmium	6	24.2	211	73782	5.11	4.90	6.08	5.61	2.73E-04	2.52E-04	1.40E-03	1.87E-07	2.35E-08	9.94E-04	1.43E-08
A22	Entrained Road Dust	Chromium	7440-47-3	22	6_Chromium	6	24.2	211	73782	5.11	4.90	6.08	5.61	4.13E-04	3.81E-04	2.11E-03	2.82E-07	3.56E-08	1.50E-03	2.16E-08
A22	Entrained Road Dust	Cobalt	7440-48-4	22	6_Cobalt	6	24.2	211	73782	5.11	4.90	6.08	5.61	7.29E-05	6.73E-05	3.73E-04	4.98E-08	6.28E-09	2.65E-04	3.81E-09
A22	Entrained Road Dust	Copper	7440-50-8	22	6_Copper	6	24.2	211	73782	5.11	4.90	6.08	5.61	3.40E-03	3.14E-03	1.74E-02	2.32E-06	2.93E-07	1.24E-02	1.78E-07
A22	Entrained Road Dust	Lead	7439-92-1	22	6_Lead	6	24.2	211	73782	5.11	4.90	6.08	5.61	2.43E-01	2.24E-01	1.24E+00	1.66E-04	2.09E-05	8.84E-01	1.27E-05
A22	Entrained Road Dust	Manganese	7439-96-5	22	6_M															

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A24	Entrained Road Dust	Barium	7440-39-3	24	6_Barium	6	24.8	211	73782	5.24	5.02	6.08	5.61	2.43E-03	2.24E-03	1.27E-02	1.70E-06	2.14E-07	9.05E-03	1.30E-07
A24	Entrained Road Dust	Beryllium	7440-41-7	24	6_Beryllium	6	24.8	211	73782	5.24	5.02	6.08	5.61	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A24	Entrained Road Dust	Cadmium	7440-43-9	24	6_Cadmium	6	24.8	211	73782	5.24	5.02	6.08	5.61	2.73E-04	2.52E-04	1.43E-03	1.91E-07	2.41E-08	1.02E-03	1.46E-08
A24	Entrained Road Dust	Chromium	7440-47-3	24	6_Chromium	6	24.8	211	73782	5.24	5.02	6.08	5.61	4.13E-04	3.81E-04	2.16E-03	2.89E-07	3.64E-08	1.54E-03	2.21E-08
A24	Entrained Road Dust	Cobalt	7440-48-4	24	6_Cobalt	6	24.8	211	73782	5.24	5.02	6.08	5.61	7.29E-05	6.73E-05	3.82E-04	5.10E-08	6.43E-09	2.72E-04	3.91E-09
A24	Entrained Road Dust	Copper	7440-50-8	24	6_Copper	6	24.8	211	73782	5.24	5.02	6.08	5.61	3.40E-03	3.14E-03	1.78E-02	2.38E-06	3.00E-07	1.27E-02	1.82E-07
A24	Entrained Road Dust	Lead	7439-92-1	24	6_Lead	6	24.8	211	73782	5.24	5.02	6.08	5.61	2.43E-01	2.24E-01	1.27E+00	1.70E-04	2.14E-05	9.05E-01	1.30E-05
A24	Entrained Road Dust	Manganese	7439-96-5	24	6_Manganese	6	24.8	211	73782	5.24	5.02	6.08	5.61	1.58E-03	1.46E-03	8.27E-03	1.11E-06	1.39E-07	5.88E-03	8.46E-08
A24	Entrained Road Dust	Nickel	7440-02-0	24	6_Nickel	6	24.8	211	73782	5.24	5.02	6.08	5.61	7.29E-04	6.73E-04	3.82E-03	5.10E-07	6.43E-08	2.72E-03	3.91E-08
A24	Entrained Road Dust	Selenium	7782-49-2	24	6_Selenium	6	24.8	211	73782	5.24	5.02	6.08	5.61	2.07E-04	1.91E-04	1.08E-03	1.45E-07	1.82E-08	7.69E-04	1.11E-08
A24	Entrained Road Dust	Silver	7440-22-4	24	6_Silver	6	24.8	211	73782	5.24	5.02	6.08	5.61	8.51E-06	7.85E-06	4.46E-05	5.95E-09	7.50E-10	3.17E-05	4.56E-10
A24	Entrained Road Dust	Thallium	7440-28-0	24	6_Thallium	6	24.8	211	73782	5.24	5.02	6.08	5.61	3.10E-06	2.86E-06	1.62E-05	2.17E-09	2.73E-10	1.15E-05	1.66E-10
A24	Entrained Road Dust	Zinc	7440-66-6	24	6_Zinc	6	24.8	211	73782	5.24	5.02	6.08	5.61	3.10E-02	2.86E-02	1.62E-01	2.17E-05	2.73E-06	1.15E-01	1.66E-06
A24	Entrained Road Dust	Mercury	7439-97-6	24	6_Mercury	6	24.8	211	73782	5.24	5.02	6.08	5.61	8.51E-07	7.85E-07	4.46E-06	5.95E-10	7.50E-11	3.17E-06	4.56E-11
A24	Entrained Road Dust	Chromium VI	18540-29-9	24	6_Chromium VI	6	24.8	211	73782	5.24	5.02	6.08	5.61	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A25	Entrained Road Dust	Phosphorus	7723-14-0	25	6_Phosphorus	6	25.0	211	73782	5.28	5.06	6.08	5.61	3.89E-03	3.59E-03	2.06E-02	2.75E-06	3.46E-07	1.46E-02	2.10E-07
A25	Entrained Road Dust	Aluminum	7429-90-5	25	6_Aluminum	6	25.0	211	73782	5.28	5.06	6.08	5.61	5.11E-02	4.71E-02	2.70E-01	3.60E-05	4.54E-06	1.92E-01	2.76E-06
A25	Entrained Road Dust	Antimony	7440-36-0	25	6_Antimony	6	25.0	211	73782	5.28	5.06	6.08	5.61	2.01E-03	1.85E-03	1.06E-02	1.42E-06	1.78E-07	7.54E-03	1.08E-07
A25	Entrained Road Dust	Arsenic	7440-38-2	25	6_Arsenic	6	25.0	211	73782	5.28	5.06	6.08	5.61	6.08E-04	5.61E-04	3.21E-03	4.29E-07	5.41E-08	2.28E-03	3.29E-08
A25	Entrained Road Dust	Barium	7440-39-3	25	6_Barium	6	25.0	211	73782	5.28	5.06	6.08	5.61	2.43E-03	2.24E-03	1.28E-02	1.72E-06	2.16E-07	9.14E-03	1.31E-07
A25	Entrained Road Dust	Beryllium	7440-41-7	25	6_Beryllium	6	25.0	211	73782	5.28	5.06	6.08	5.61	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A25	Entrained Road Dust	Cadmium	7440-43-9	25	6_Cadmium	6	25.0	211	73782	5.28	5.06	6.08	5.61	2.73E-04	2.52E-04	1.45E-03	1.93E-07	2.43E-08	1.03E-03	1.48E-08
A25	Entrained Road Dust	Chromium	7440-47-3	25	6_Chromium	6	25.0	211	73782	5.28	5.06	6.08	5.61	4.13E-04	3.81E-04	2.18E-03	2.92E-07	3.68E-08	1.55E-03	2.23E-08
A25	Entrained Road Dust	Cobalt	7440-48-4	25	6_Cobalt	6	25.0	211	73782	5.28	5.06	6.08	5.61	7.29E-05	6.73E-05	3.85E-04	5.15E-08	6.49E-09	2.74E-04	3.94E-09
A25	Entrained Road Dust	Copper	7440-50-8	25	6_Copper	6	25.0	211	73782	5.28	5.06	6.08	5.61	3.40E-03	3.14E-03	1.80E-02	2.40E-06	3.03E-07	1.28E-02	1.84E-07
A25	Entrained Road Dust	Lead	7439-92-1	25	6_Lead	6	25.0	211	73782	5.28	5.06	6.08	5.61	2.43E-01	2.24E-01	1.28E+00	1.72E-04	2.16E-05	9.14E-01	1.31E-05
A25	Entrained Road Dust	Manganese	7439-96-5	25	6_Manganese	6	25.0	211	73782	5.28	5.06	6.08	5.61	1.58E-03	1.46E-03	8.35E-03	1.12E-06	1.41E-07	5.94E-03	8.54E-08
A25	Entrained Road Dust	Nickel	7440-02-0	25	6_Nickel	6	25.0	211	73782	5.28	5.06	6.08	5.61	7.29E-04	6.73E-04	3.85E-03	5.15E-07	6.49E-08	2.74E-03	3.94E-08
A25	Entrained Road Dust	Selenium	7782-49-2	25	6_Selenium	6	25.0	211	73782	5.28	5.06	6.08	5.61	2.07E-04	1.91E-04	1.09E-03	1.46E-07	1.84E-08	7.77E-04	1.12E-08
A25	Entrained Road Dust	Silver	7440-22-4	25	6_Silver	6	25.0	211	73782	5.28	5.06	6.08	5.61	8.51E-06	7.85E-06	4.50E-05	6.01E-09	7.57E-10	3.20E-05	4.60E-10
A25	Entrained Road Dust	Thallium	7440-28-0	25	6_Thallium	6	25.0	211	73782	5.28	5.06	6.08	5.61	3.10E-06	2.86E-06	1.64E-05	2.19E-09	2.76E-10	1.16E-05	1.68E-10
A25	Entrained Road Dust	Zinc	7440-66-6	25	6_Zinc	6	25.0	211	73782	5.28	5.06	6.08	5.61	3.10E-02	2.86E-02	1.64E-01	2.19E-05	2.76E-06	1.16E-01	1.68E-06
A25	Entrained Road Dust	Mercury	7439-97-6	25	6_Mercury															

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A27	Entrained Road Dust	Lead	7439-92-1	27	5_Lead	5	25.0	211	73782	5.28	5.06	7.55	6.96	3.40E-01	3.13E-01	1.79E+00	2.40E-04	3.02E-05	1.28E+00	1.84E-05
A27	Entrained Road Dust	Manganese	7439-96-5	27	5_Manganese	5	25.0	211	73782	5.28	5.06	7.55	6.96	3.24E-03	2.99E-03	1.71E-02	2.29E-06	2.89E-07	1.22E-02	1.75E-07
A27	Entrained Road Dust	Nickel	7440-02-0	27	5_Nickel	5	25.0	211	73782	5.28	5.06	7.55	6.96	3.02E-03	2.78E-03	1.59E-02	2.13E-06	2.69E-07	1.13E-02	1.63E-07
A27	Entrained Road Dust	Selenium	7782-49-2	27	5_Selenium	5	25.0	211	73782	5.28	5.06	7.55	6.96	3.17E-04	2.92E-04	1.67E-03	2.24E-07	2.82E-08	1.19E-03	1.71E-08
A27	Entrained Road Dust	Silver	7440-22-4	27	5_Silver	5	25.0	211	73782	5.28	5.06	7.55	6.96	1.36E-05	1.25E-05	7.18E-05	9.59E-09	1.21E-09	5.10E-05	7.34E-10
A27	Entrained Road Dust	Thallium	7440-28-0	27	5_Thallium	5	25.0	211	73782	5.28	5.06	7.55	6.96	6.26E-06	5.78E-06	3.31E-05	4.42E-09	5.57E-10	2.35E-05	3.39E-10
A27	Entrained Road Dust	Zinc	7440-66-6	27	5_Zinc	5	25.0	211	73782	5.28	5.06	7.55	6.96	1.58E-02	1.46E-02	8.37E-02	1.12E-05	1.41E-06	5.96E-02	8.57E-07
A27	Entrained Road Dust	Mercury	7439-97-6	27	5_Mercury	5	25.0	211	73782	5.28	5.06	7.55	6.96	1.21E-06	1.11E-06	6.38E-06	8.52E-10	1.07E-10	4.54E-06	6.53E-11
A27	Entrained Road Dust	Chromium VI	18540-29-9	27	5_Chromium VI	5	25.0	211	73782	5.28	5.06	7.55	6.96	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A28	Entrained Road Dust	Phosphorus	7723-14-0	28	6_Phosphorus	6	14.4	211	73782	3.04	2.92	6.08	5.61	3.89E-03	3.59E-03	1.18E-02	1.58E-06	1.99E-07	8.42E-03	1.21E-07
A28	Entrained Road Dust	Aluminum	7429-90-5	28	6_Aluminum	6	14.4	211	73782	3.04	2.92	6.08	5.61	5.11E-02	4.71E-02	1.55E-01	2.08E-05	2.62E-06	1.11E-01	1.59E-06
A28	Entrained Road Dust	Antimony	7440-36-0	28	6_Antimony	6	14.4	211	73782	3.04	2.92	6.08	5.61	2.01E-03	1.85E-03	6.11E-03	8.16E-07	1.03E-07	4.34E-03	6.25E-08
A28	Entrained Road Dust	Arsenic	7440-38-2	28	6_Arsenic	6	14.4	211	73782	3.04	2.92	6.08	5.61	6.08E-04	5.61E-04	1.85E-03	2.47E-07	3.11E-08	1.32E-03	1.89E-08
A28	Entrained Road Dust	Barium	7440-39-3	28	6_Barium	6	14.4	211	73782	3.04	2.92	6.08	5.61	2.43E-03	2.24E-03	7.40E-03	9.89E-07	1.25E-07	5.26E-03	7.57E-08
A28	Entrained Road Dust	Beryllium	7440-41-7	28	6_Beryllium	6	14.4	211	73782	3.04	2.92	6.08	5.61	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A28	Entrained Road Dust	Cadmium	7440-43-9	28	6_Cadmium	6	14.4	211	73782	3.04	2.92	6.08	5.61	2.73E-04	2.52E-04	8.33E-04	1.11E-07	1.40E-08	5.92E-04	8.52E-09
A28	Entrained Road Dust	Chromium	7440-47-3	28	6_Chromium	6	14.4	211	73782	3.04	2.92	6.08	5.61	4.13E-04	3.81E-04	1.26E-03	1.68E-07	2.12E-08	8.95E-04	1.29E-08
A28	Entrained Road Dust	Cobalt	7440-48-4	28	6_Cobalt	6	14.4	211	73782	3.04	2.92	6.08	5.61	7.29E-05	6.73E-05	2.22E-04	2.97E-08	3.74E-09	1.58E-04	2.27E-09
A28	Entrained Road Dust	Copper	7440-50-8	28	6_Copper	6	14.4	211	73782	3.04	2.92	6.08	5.61	3.40E-03	3.14E-03	1.04E-02	1.38E-06	1.74E-07	7.37E-03	1.06E-07
A28	Entrained Road Dust	Lead	7439-92-1	28	6_Lead	6	14.4	211	73782	3.04	2.92	6.08	5.61	2.43E-01	2.24E-01	7.40E-01	9.89E-05	1.25E-05	5.26E-01	7.57E-06
A28	Entrained Road Dust	Manganese	7439-96-5	28	6_Manganese	6	14.4	211	73782	3.04	2.92	6.08	5.61	1.58E-03	1.46E-03	4.81E-03	6.43E-07	8.10E-08	3.42E-03	4.92E-08
A28	Entrained Road Dust	Nickel	7440-02-0	28	6_Nickel	6	14.4	211	73782	3.04	2.92	6.08	5.61	7.29E-04	6.73E-04	2.22E-03	2.97E-07	3.74E-08	1.58E-03	2.27E-08
A28	Entrained Road Dust	Selenium	7782-49-2	28	6_Selenium	6	14.4	211	73782	3.04	2.92	6.08	5.61	2.07E-04	1.91E-04	6.29E-04	8.41E-08	1.06E-08	4.47E-04	6.44E-09
A28	Entrained Road Dust	Silver	7440-22-4	28	6_Silver	6	14.4	211	73782	3.04	2.92	6.08	5.61	8.51E-06	7.85E-06	2.59E-05	3.46E-09	4.36E-10	1.84E-05	2.65E-10
A28	Entrained Road Dust	Thallium	7440-28-0	28	6_Thallium	6	14.4	211	73782	3.04	2.92	6.08	5.61	3.10E-06	2.86E-06	9.44E-06	1.26E-09	1.59E-10	6.71E-06	9.65E-11
A28	Entrained Road Dust	Zinc	7440-66-6	28	6_Zinc	6	14.4	211	73782	3.04	2.92	6.08	5.61	3.10E-02	2.86E-02	9.44E-02	1.26E-05	1.59E-06	6.71E-02	9.65E-07
A28	Entrained Road Dust	Mercury	7439-97-6	28	6_Mercury	6	14.4	211	73782	3.04	2.92	6.08	5.61	8.51E-07	7.85E-07	2.59E-06	3.46E-10	4.36E-11	1.84E-06	2.65E-11
A28	Entrained Road Dust	Chromium VI	18540-29-9	28	6_Chromium VI	6	14.4	211	73782	3.04	2.92	6.08	5.61	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A29	Entrained Road Dust	Phosphorus	7723-14-0	29	5_Phosphorus	5	25.0	211	73782	5.28	5.06	7.55	6.96	5.58E-03	5.15E-03	2.95E-02	3.94E-06	4.97E-07	2.10E-02	3.02E-07
A29	Entrained Road Dust	Aluminum	7429-90-5	29	5_Aluminum	5	25.0	211	73782	5.28	5.06	7.55	6.96	4.60E-02	4.25E-02	2.43E-01	3.25E-05	4.09E-06	1.73E-01	2.49E-06
A29	Entrained Road Dust	Antimony	7440-36-0	29	5_Antimony	5	25.0	211	73782	5.28	5.06	7.55	6.96	3.32E-03	3.06E-03	1.75E-02	2.34E-06	2.95E-07	1.25E-02	1.79E-07
A29	Entrained Road Dust	Arsenic	7440-38-2	29	5_Arsenic	5	25.0	211	73782	5.28	5.06	7.55	6.96	7.24E-04	6.68E-04	3.83E-03	5.11E-07	6.44E-08	2.72E-03	3.92E-08
A29	Entrained Road Dust	Barium	7440-39-3	29	5_Barium</td															

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A30	Entrained Road Dust	Zinc	7440-66-6	30	5_Zinc	5	12.5	211	73782	2.65	2.53	7.55	6.96	1.58E-02	1.46E-02	4.19E-02	5.60E-06	7.06E-07	2.98E-02	4.29E-07
A30	Entrained Road Dust	Mercury	7439-97-6	30	5_Mercury	5	12.5	211	73782	2.65	2.53	7.55	6.96	1.21E-06	1.11E-06	3.19E-06	4.27E-10	5.38E-11	2.27E-06	3.27E-11
A30	Entrained Road Dust	Chromium VI	18540-29-9	30	5_Chromium VI	5	12.5	211	73782	2.65	2.53	7.55	6.96	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A31	Entrained Road Dust	Phosphorus	7723-14-0	31	5_Phosphorus	5	15.1	211	73782	3.20	3.06	7.55	6.96	5.58E-03	5.15E-03	1.78E-02	2.38E-06	3.00E-07	1.27E-02	1.83E-07
A31	Entrained Road Dust	Aluminum	7429-90-5	31	5_Aluminum	5	15.1	211	73782	3.20	3.06	7.55	6.96	4.60E-02	4.25E-02	1.47E-01	1.97E-05	2.48E-06	1.05E-01	1.50E-06
A31	Entrained Road Dust	Antimony	7440-36-0	31	5_Antimony	5	15.1	211	73782	3.20	3.06	7.55	6.96	3.32E-03	3.06E-03	1.06E-02	1.42E-06	1.79E-07	7.55E-03	1.09E-07
A31	Entrained Road Dust	Arsenic	7440-38-2	31	5_Arsenic	5	15.1	211	73782	3.20	3.06	7.55	6.96	7.24E-04	6.68E-04	2.32E-03	3.09E-07	3.90E-08	1.65E-03	2.37E-08
A31	Entrained Road Dust	Barium	7440-39-3	31	5_Barium	5	15.1	211	73782	3.20	3.06	7.55	6.96	2.41E-03	2.23E-03	7.72E-03	1.03E-06	1.30E-07	5.49E-03	7.89E-08
A31	Entrained Road Dust	Beryllium	7440-41-7	31	5_Beryllium	5	15.1	211	73782	3.20	3.06	7.55	6.96	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A31	Entrained Road Dust	Cadmium	7440-43-9	31	5_Cadmium	5	15.1	211	73782	3.20	3.06	7.55	6.96	4.07E-04	3.76E-04	1.30E-03	1.74E-07	2.19E-08	9.26E-04	1.33E-08
A31	Entrained Road Dust	Chromium	7440-47-3	31	5_Chromium	5	15.1	211	73782	3.20	3.06	7.55	6.96	3.17E-03	2.92E-03	1.01E-02	1.35E-06	1.71E-07	7.20E-03	1.04E-07
A31	Entrained Road Dust	Cobalt	7440-48-4	31	5_Cobalt	5	15.1	211	73782	3.20	3.06	7.55	6.96	1.58E-04	1.46E-04	5.06E-04	6.77E-08	8.53E-09	3.60E-04	5.18E-09
A31	Entrained Road Dust	Copper	7440-50-8	31	5_Copper	5	15.1	211	73782	3.20	3.06	7.55	6.96	8.30E-03	7.66E-03	2.65E-02	3.54E-06	4.47E-07	1.89E-02	2.71E-07
A31	Entrained Road Dust	Lead	7439-92-1	31	5_Lead	5	15.1	211	73782	3.20	3.06	7.55	6.96	3.40E-01	3.13E-01	1.09E+00	1.45E-04	1.83E-05	7.72E-01	1.11E-05
A31	Entrained Road Dust	Manganese	7439-96-5	31	5_Manganese	5	15.1	211	73782	3.20	3.06	7.55	6.96	3.24E-03	2.99E-03	1.04E-02	1.39E-06	1.75E-07	7.37E-03	1.06E-07
A31	Entrained Road Dust	Nickel	7440-02-0	31	5_Nickel	5	15.1	211	73782	3.20	3.06	7.55	6.96	3.02E-03	2.78E-03	9.65E-03	1.29E-06	1.62E-07	6.86E-03	9.87E-08
A31	Entrained Road Dust	Selenium	7782-49-2	31	5_Selenium	5	15.1	211	73782	3.20	3.06	7.55	6.96	3.17E-04	2.92E-04	1.01E-03	1.35E-07	1.71E-08	7.20E-04	1.04E-08
A31	Entrained Road Dust	Silver	7440-22-4	31	5_Silver	5	15.1	211	73782	3.20	3.06	7.55	6.96	1.36E-05	1.25E-05	4.34E-05	5.80E-09	7.31E-10	3.09E-05	4.44E-10
A31	Entrained Road Dust	Thallium	7440-28-0	31	5_Thallium	5	15.1	211	73782	3.20	3.06	7.55	6.96	6.26E-06	5.78E-06	2.00E-05	2.67E-09	3.37E-10	1.42E-05	2.05E-10
A31	Entrained Road Dust	Zinc	7440-66-6	31	5_Zinc	5	15.1	211	73782	3.20	3.06	7.55	6.96	1.58E-02	1.46E-02	5.06E-02	6.77E-06	8.53E-07	3.60E-02	5.18E-07
A31	Entrained Road Dust	Mercury	7439-97-6	31	5_Mercury	5	15.1	211	73782	3.20	3.06	7.55	6.96	1.21E-06	1.11E-06	3.86E-06	5.16E-10	6.50E-11	2.74E-06	3.95E-11
A31	Entrained Road Dust	Chromium VI	18540-29-9	31	5_Chromium VI	5	15.1	211	73782	3.20	3.06	7.55	6.96	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A32	Entrained Road Dust	Phosphorus	7723-14-0	32	7_Phosphorus	7	22.6	211	73782	4.76	4.56	26.44	24.39	1.82E-02	1.68E-02	8.68E-02	1.16E-05	1.46E-06	6.17E-02	8.88E-07
A32	Entrained Road Dust	Aluminum	7429-90-5	32	7_Aluminum	7	22.6	211	73782	4.76	4.56	26.44	24.39	2.27E-01	2.10E-01	1.08E+00	1.45E-04	1.82E-05	7.70E-01	1.11E-05
A32	Entrained Road Dust	Antimony	7440-36-0	32	7_Antimony	7	22.6	211	73782	4.76	4.56	26.44	24.39	3.97E-02	3.66E-02	1.89E-01	2.52E-05	3.18E-06	1.34E-01	1.93E-06
A32	Entrained Road Dust	Arsenic	7440-38-2	32	7_Arsenic	7	22.6	211	73782	4.76	4.56	26.44	24.39	6.08E-03	5.61E-03	2.89E-02	3.87E-06	4.87E-07	2.06E-02	2.96E-07
A32	Entrained Road Dust	Barium	7440-39-3	32	7_Barium	7	22.6	211	73782	4.76	4.56	26.44	24.39	8.99E-03	8.29E-03	4.28E-02	5.72E-06	7.20E-07	3.04E-02	4.38E-07
A32	Entrained Road Dust	Beryllium	7440-41-7	32	7_Beryllium	7	22.6	211	73782	4.76	4.56	26.44	24.39	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A32	Entrained Road Dust	Cadmium	7440-43-9	32	7_Cadmium	7	22.6	211	73782	4.76	4.56	26.44	24.39	3.17E-03	2.93E-03	1.51E-02	2.02E-06	2.54E-07	1.07E-02	1.54E-07
A32	Entrained Road Dust	Chromium	7440-47-3	32	7_Chromium	7	22.6	211	73782	4.76	4.56	26.44	24.39	2.64E-03	2.44E-03	1.26E-02	1.68E-06	2.12E-07	8.95E-03	1.29E-07
A32	Entrained Road Dust	Cobalt	7440-48-4	32	7_Cobalt	7	22.6	211	73782	4.76	4.56	26.44	24.39	3.17E-04	2.93E-04	1.51E-03	2.02E-07	2.54E-08	1.07E-03	1.54E-08
A32	Entrained Road Dust	Copper	7440-50-8	32	7_Copper	7	22.6	211	73782	4.76	4.56	26.44	24.39	2.59E-02	2.39E-02	1.23E-01	1.65E-05	2.08E-06	8.77E-02	1.26E-06
A32	Entrained Road Dust	Lead	743																	

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A34	Entrained Road Dust	Arsenic	7440-38-2	34	7_Arsenic	7	25.1	211	73782	5.30	5.08	26.44	24.39	6.08E-03	5.61E-03	3.22E-02	4.31E-06	5.42E-07	2.29E-02	3.30E-07
A34	Entrained Road Dust	Barium	7440-39-3	34	7_Barium	7	25.1	211	73782	5.30	5.08	26.44	24.39	8.99E-03	8.29E-03	4.76E-02	6.36E-06	8.02E-07	3.39E-02	4.87E-07
A34	Entrained Road Dust	Beryllium	7440-41-7	34	7_Beryllium	7	25.1	211	73782	5.30	5.08	26.44	24.39	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A34	Entrained Road Dust	Cadmium	7440-43-9	34	7_Cadmium	7	25.1	211	73782	5.30	5.08	26.44	24.39	3.17E-03	2.93E-03	1.68E-02	2.25E-06	2.83E-07	1.20E-02	1.72E-07
A34	Entrained Road Dust	Chromium	7440-47-3	34	7_Chromium	7	25.1	211	73782	5.30	5.08	26.44	24.39	2.64E-03	2.44E-03	1.40E-02	1.87E-06	2.36E-07	9.96E-03	1.43E-07
A34	Entrained Road Dust	Cobalt	7440-48-4	34	7_Cobalt	7	25.1	211	73782	5.30	5.08	26.44	24.39	3.17E-04	2.93E-04	1.68E-03	2.25E-07	2.83E-08	1.20E-03	1.72E-08
A34	Entrained Road Dust	Copper	7440-50-8	34	7_Copper	7	25.1	211	73782	5.30	5.08	26.44	24.39	2.59E-02	2.39E-02	1.37E-01	1.83E-05	2.31E-06	9.77E-02	1.40E-06
A34	Entrained Road Dust	Lead	7439-92-1	34	7_Lead	7	25.1	211	73782	5.30	5.08	26.44	24.39	1.24E+00	1.15E+00	6.58E+00	8.80E-04	1.11E-04	4.68E+00	6.74E-05
A34	Entrained Road Dust	Manganese	7439-96-5	34	7_Manganese	7	25.1	211	73782	5.30	5.08	26.44	24.39	8.72E-03	8.05E-03	4.62E-02	6.18E-06	7.78E-07	3.29E-02	4.73E-07
A34	Entrained Road Dust	Nickel	7440-02-0	34	7_Nickel	7	25.1	211	73782	5.30	5.08	26.44	24.39	9.52E-03	8.78E-03	5.04E-02	6.74E-06	8.49E-07	3.59E-02	5.16E-07
A34	Entrained Road Dust	Selenium	7782-49-2	34	7_Selenium	7	25.1	211	73782	5.30	5.08	26.44	24.39	2.91E-03	2.68E-03	1.54E-02	2.06E-06	2.59E-07	1.10E-02	1.58E-07
A34	Entrained Road Dust	Silver	7440-22-4	34	7_Silver	7	25.1	211	73782	5.30	5.08	26.44	24.39	8.99E-05	8.29E-05	4.76E-04	6.36E-08	8.02E-09	3.39E-04	4.87E-09
A34	Entrained Road Dust	Thallium	7440-28-0	34	7_Thallium	7	25.1	211	73782	5.30	5.08	26.44	24.39	3.70E-05	3.41E-05	1.96E-04	2.62E-08	3.30E-09	1.40E-04	2.01E-09
A34	Entrained Road Dust	Zinc	7440-66-6	34	7_Zinc	7	25.1	211	73782	5.30	5.08	26.44	24.39	5.29E-02	4.88E-02	2.80E-01	3.74E-05	4.72E-06	1.99E-01	2.87E-06
A34	Entrained Road Dust	Mercury	7439-97-6	34	7_Mercury	7	25.1	211	73782	5.30	5.08	26.44	24.39	4.76E-06	4.39E-06	2.52E-05	3.37E-09	4.25E-10	1.79E-05	2.58E-10
A34	Entrained Road Dust	Chromium VI	18540-29-9	34	7_Chromium VI	7	25.1	211	73782	5.30	5.08	26.44	24.39	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A35	Entrained Road Dust	Phosphorus	7723-14-0	35	7_Phosphorus	7	22.7	211	73782	4.80	4.60	26.44	24.39	1.82E-02	1.68E-02	8.75E-02	1.17E-05	1.47E-06	6.22E-02	8.95E-07
A35	Entrained Road Dust	Aluminum	7429-90-5	35	7_Aluminum	7	22.7	211	73782	4.80	4.60	26.44	24.39	2.27E-01	2.10E-01	1.09E+00	1.46E-04	1.84E-05	7.76E-01	1.12E-05
A35	Entrained Road Dust	Antimony	7440-36-0	35	7_Antimony	7	22.7	211	73782	4.80	4.60	26.44	24.39	3.97E-02	3.66E-02	1.90E-01	2.54E-05	3.20E-06	1.35E-01	1.95E-06
A35	Entrained Road Dust	Arsenic	7440-38-2	35	7_Arsenic	7	22.7	211	73782	4.80	4.60	26.44	24.39	6.08E-03	5.61E-03	2.92E-02	3.90E-06	4.91E-07	2.07E-02	2.98E-07
A35	Entrained Road Dust	Barium	7440-39-3	35	7_Barium	7	22.7	211	73782	4.80	4.60	26.44	24.39	8.99E-03	8.29E-03	4.31E-02	5.76E-06	7.26E-07	3.07E-02	4.41E-07
A35	Entrained Road Dust	Beryllium	7440-41-7	35	7_Beryllium	7	22.7	211	73782	4.80	4.60	26.44	24.39	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A35	Entrained Road Dust	Cadmium	7440-43-9	35	7_Cadmium	7	22.7	211	73782	4.80	4.60	26.44	24.39	3.17E-03	2.93E-03	1.52E-02	2.03E-06	2.56E-07	1.08E-02	1.56E-07
A35	Entrained Road Dust	Chromium	7440-47-3	35	7_Chromium	7	22.7	211	73782	4.80	4.60	26.44	24.39	2.64E-03	2.44E-03	1.27E-02	1.69E-06	2.14E-07	9.02E-03	1.30E-07
A35	Entrained Road Dust	Cobalt	7440-48-4	35	7_Cobalt	7	22.7	211	73782	4.80	4.60	26.44	24.39	3.17E-04	2.93E-04	1.52E-03	2.03E-07	2.56E-08	1.08E-03	1.56E-08
A35	Entrained Road Dust	Copper	7440-50-8	35	7_Copper	7	22.7	211	73782	4.80	4.60	26.44	24.39	2.59E-02	2.39E-02	1.24E-01	1.66E-05	2.09E-06	8.84E-02	1.27E-06
A35	Entrained Road Dust	Lead	7439-92-1	35	7_Lead	7	22.7	211	73782	4.80	4.60	26.44	24.39	1.24E+00	1.15E+00	5.96E+00	7.97E-04	1.00E-04	4.24E+00	6.10E-05
A35	Entrained Road Dust	Manganese	7439-96-5	35	7_Manganese	7	22.7	211	73782	4.80	4.60	26.44	24.39	8.72E-03	8.05E-03	4.19E-02	5.59E-06	7.05E-07	2.98E-02	4.28E-07
A35	Entrained Road Dust	Nickel	7440-02-0	35	7_Nickel	7	22.7	211	73782	4.80	4.60	26.44	24.39	9.52E-03	8.78E-03	4.57E-02	6.10E-06	7.69E-07	3.25E-02	4.67E-07
A35	Entrained Road Dust	Selenium	7782-49-2	35	7_Selenium	7	22.7	211	73782	4.80	4.60	26.44	24.39	2.91E-03	2.68E-03	1.40E-02	1.86E-06	2.35E-07	9.92E-03	1.43E-07
A35	Entrained Road Dust	Silver	7440-22-4	35	7_Silver	7	22.7	211	73782	4.80	4.60	26.44	24.39	8.99E-05	8.29E-05	4.31E-04	5.76E-08	7.26E-09	3.07E-04	4.41E-09
A35	Entrained Road Dust	Thallium	7440-28-0	35	7_Thallium	7	22.7	211	73782	4.80	4.60	26.44	24.39	3.70E-05	3.41E-05	1.78E-04	2.37E-08	2.99E-09	1.26E-04	1.82

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A37	Entrained Road Dust	Copper	7440-50-8	37	7_Copper	7	25.0	211	73782	5.27	5.05	26.44	24.39	2.59E-02	2.39E-02	1.37E-01	1.83E-05	2.30E-06	9.72E-02	1.40E-06
A37	Entrained Road Dust	Lead	7439-92-1	37	7_Lead	7	25.0	211	73782	5.27	5.05	26.44	24.39	1.24E+00	1.15E+00	6.55E+00	8.76E-04	1.10E-04	4.66E+00	6.70E-05
A37	Entrained Road Dust	Manganese	7439-96-5	37	7_Manganese	7	25.0	211	73782	5.27	5.05	26.44	24.39	8.72E-03	8.05E-03	4.60E-02	6.15E-06	7.75E-07	3.27E-02	4.71E-07
A37	Entrained Road Dust	Nickel	7440-02-0	37	7_Nickel	7	25.0	211	73782	5.27	5.05	26.44	24.39	9.52E-03	8.78E-03	5.02E-02	6.71E-06	8.45E-07	3.57E-02	5.14E-07
A37	Entrained Road Dust	Selenium	7782-49-2	37	7_Selenium	7	25.0	211	73782	5.27	5.05	26.44	24.39	2.91E-03	2.68E-03	1.53E-02	2.05E-06	2.58E-07	1.09E-02	1.57E-07
A37	Entrained Road Dust	Silver	7440-22-4	37	7_Silver	7	25.0	211	73782	5.27	5.05	26.44	24.39	8.99E-05	8.29E-05	4.74E-04	6.33E-08	7.98E-09	3.37E-04	4.85E-09
A37	Entrained Road Dust	Thallium	7440-28-0	37	7_Thallium	7	25.0	211	73782	5.27	5.05	26.44	24.39	3.70E-05	3.41E-05	1.95E-04	2.61E-08	3.29E-09	1.39E-04	2.00E-09
A37	Entrained Road Dust	Zinc	7440-66-6	37	7_Zinc	7	25.0	211	73782	5.27	5.05	26.44	24.39	5.29E-02	4.88E-02	2.79E-01	3.73E-05	4.69E-06	1.98E-01	2.85E-06
A37	Entrained Road Dust	Mercury	7439-97-6	37	7_Mercury	7	25.0	211	73782	5.27	5.05	26.44	24.39	4.76E-06	4.39E-06	2.51E-05	3.35E-09	4.23E-10	1.79E-05	2.57E-10
A37	Entrained Road Dust	Chromium VI	18540-29-9	37	7_Chromium VI	7	25.0	211	73782	5.27	5.05	26.44	24.39	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A38	Entrained Road Dust	Phosphorus	7723-14-0	38	7_Phosphorus	7	25.0	211	73782	5.28	5.06	26.44	24.39	1.82E-02	1.68E-02	9.63E-02	1.29E-05	1.62E-06	6.85E-02	9.85E-07
A38	Entrained Road Dust	Aluminum	7429-90-5	38	7_Aluminum	7	25.0	211	73782	5.28	5.06	26.44	24.39	2.27E-01	2.10E-01	1.20E+00	1.60E-04	2.02E-05	8.53E-01	1.23E-05
A38	Entrained Road Dust	Antimony	7440-36-0	38	7_Antimony	7	25.0	211	73782	5.28	5.06	26.44	24.39	3.97E-02	3.66E-02	2.09E-01	2.80E-05	3.52E-06	1.49E-01	2.14E-06
A38	Entrained Road Dust	Arsenic	7440-38-2	38	7_Arsenic	7	25.0	211	73782	5.28	5.06	26.44	24.39	6.08E-03	5.61E-03	3.21E-02	4.29E-06	5.40E-07	2.28E-02	3.28E-07
A38	Entrained Road Dust	Barium	7440-39-3	38	7_Barium	7	25.0	211	73782	5.28	5.06	26.44	24.39	8.99E-03	8.29E-03	4.74E-02	6.34E-06	7.99E-07	3.37E-02	4.85E-07
A38	Entrained Road Dust	Beryllium	7440-41-7	38	7_Beryllium	7	25.0	211	73782	5.28	5.06	26.44	24.39	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A38	Entrained Road Dust	Cadmium	7440-43-9	38	7_Cadmium	7	25.0	211	73782	5.28	5.06	26.44	24.39	3.17E-03	2.93E-03	1.67E-02	2.24E-06	2.82E-07	1.19E-02	1.71E-07
A38	Entrained Road Dust	Chromium	7440-47-3	38	7_Chromium	7	25.0	211	73782	5.28	5.06	26.44	24.39	2.64E-03	2.44E-03	1.40E-02	1.86E-06	2.35E-07	9.92E-03	1.43E-07
A38	Entrained Road Dust	Cobalt	7440-48-4	38	7_Cobalt	7	25.0	211	73782	5.28	5.06	26.44	24.39	3.17E-04	2.93E-04	1.67E-03	2.24E-07	2.82E-08	1.19E-03	1.71E-08
A38	Entrained Road Dust	Copper	7440-50-8	38	7_Copper	7	25.0	211	73782	5.28	5.06	26.44	24.39	2.59E-02	2.39E-02	1.37E-01	1.83E-05	2.30E-06	9.73E-02	1.40E-06
A38	Entrained Road Dust	Lead	7439-92-1	38	7_Lead	7	25.0	211	73782	5.28	5.06	26.44	24.39	1.24E+00	1.15E+00	6.56E+00	8.76E-04	1.10E-04	4.66E+00	6.71E-05
A38	Entrained Road Dust	Manganese	7439-96-5	38	7_Manganese	7	25.0	211	73782	5.28	5.06	26.44	24.39	8.72E-03	8.05E-03	4.60E-02	6.15E-06	7.75E-07	3.28E-02	4.71E-07
A38	Entrained Road Dust	Nickel	7440-02-0	38	7_Nickel	7	25.0	211	73782	5.28	5.06	26.44	24.39	9.52E-03	8.78E-03	5.02E-02	6.71E-06	8.46E-07	3.57E-02	5.14E-07
A38	Entrained Road Dust	Selenium	7782-49-2	38	7_Selenium	7	25.0	211	73782	5.28	5.06	26.44	24.39	2.91E-03	2.68E-03	1.53E-02	2.05E-06	2.58E-07	1.09E-02	1.57E-07
A38	Entrained Road Dust	Silver	7440-22-4	38	7_Silver	7	25.0	211	73782	5.28	5.06	26.44	24.39	8.99E-05	8.29E-05	4.74E-04	6.34E-08	7.99E-09	3.37E-04	4.85E-09
A38	Entrained Road Dust	Thallium	7440-28-0	38	7_Thallium	7	25.0	211	73782	5.28	5.06	26.44	24.39	3.70E-05	3.41E-05	1.95E-04	2.61E-08	3.29E-09	1.39E-04	2.00E-09
A38	Entrained Road Dust	Zinc	7440-66-6	38	7_Zinc	7	25.0	211	73782	5.28	5.06	26.44	24.39	5.29E-02	4.88E-02	2.79E-01	3.73E-05	4.70E-06	1.98E-01	2.85E-06
A38	Entrained Road Dust	Mercury	7439-97-6	38	7_Mercury	7	25.0	211	73782	5.28	5.06	26.44	24.39	4.76E-06	4.39E-06	2.51E-05	3.36E-09	4.23E-10	1.79E-05	2.57E-10
A38	Entrained Road Dust	Chromium VI	18540-29-9	38	7_Chromium VI	7	25.0	211	73782	5.28	5.06	26.44	24.39	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
A39	Entrained Road Dust	Phosphorus	7723-14-0	39	1_Phosphorus	1	22.5	168	59430	3.78	3.66	2.93	2.56	2.58E-03	2.25E-03	9.75E-03	2.39E-06	3.01E-07	6.64E-03	9.55E-08
A39	Entrained Road Dust	Aluminum	7429-90-5	39	1_Aluminum	1	22.5	168	59430	3.78	3.66	2.93	2.56	1.96E-02	1.71E-02	7.43E-02	1.82E-05	2.29E-06	5.06E-02	7.27E-07
A39	Entrained Road Dust	Antimony	7440-36-0	39	1_Antimony	1	22.5	168	59430	3.78	3.66	2.93	2.56	5.57E-03	4.86E-03	2.11E-02	5.16E-06	6.50E-07	1.43E-02	2.06E-07</td

Table B3. Emission Rate by Substance and Source - Area Sources

Exide Technologies
Vernon, California

Source ID	Source Name	Chemicals	CAS Number	Road Segment	Location+Analyte	Sampling Location	Segment Length (m)	Peak Daily # of Vehicle Transits	Annual # of Vehicle Transits	Peak VKT (VKT/day)	Average VKT (VKT/day)	Peak Day TSP Emission Factor (g/VKT)	Annual Average TSP Emission Factor (g/VKT)	Peak Day Emission Factor (g/VKT)	Annual Average Emission Factor (g/VKT)	Peak Emission (g/day)	Peak Hourly Emission (lb/hr)	Peak Hourly Emission (g/s)	Annual Average (lb/yr)	Annual Average (g/s)
A40	Entrained Road Dust	Thallium	7440-28-0	40	1_Thallium	1	22.3	168	59430	3.74	3.63	2.93	2.56	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
A40	Entrained Road Dust	Zinc	7440-66-6	40	1_Zinc	1	22.3	168	59430	3.74	3.63	2.93	2.56	7.33E-03	6.40E-03	2.74E-02	6.72E-06	8.47E-07	1.87E-02	2.69E-07
A40	Entrained Road Dust	Mercury	7439-97-6	40	1_Mercury	1	22.3	168	59430	3.74	3.63	2.93	2.56	7.04E-07	6.14E-07	2.63E-06	6.45E-10	8.13E-11	1.79E-06	2.58E-11
A40	Entrained Road Dust	Chromium VI	18540-29-9	40	1_Chromium VI	1	22.3	168	59430	3.74	3.63	2.93	2.56	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	

Appendix C

Annual and Maximum Hourly Concentrations at MEIR, MEIW, and PMI

Table C1. Annual Average Concentrations at MEIR-Cancer and Chronic
Exide Technologies
Vernon, California

Chemical Name	Annual Average Concentration (ug/m ³)
Aluminum	7.26E-03
Lead	3.12E-03
Manganese	2.75E-05
Mercury	1.24E-05
Nickel	4.21E-05
Silver	1.21E-06
Thallium	5.98E-08
Antimony	8.48E-05
Arsenic	1.08E-03
Barium	6.38E-05
Beryllium	0.00E+00
Cadmium	1.53E-05
Chromium	6.08E-05
Cobalt	7.37E-06
Copper	7.02E-05
Zinc	1.80E-04
Phosphorus	1.14E-04
Selenium	5.43E-06
Chromium VI	6.80E-06
Formaldehyde	1.50E-03
Benzo(a)pyrene	7.68E-09
Dibenz(a,h)anthracene	0.00E+00
Carbon Tetrachloride	0.00E+00
Benz(a)anthracene	3.98E-07
Phenanthrene	3.20E-04
Fluorene	6.69E-05
Hexachloro-1,3-Butadiene	0.00E+00
Naphthalene	2.78E-03
2-Methylnaphthalene	2.98E-04
1,2-Dichlorobenzene	0.00E+00
1,2,4-Trimethylbenzene	1.07E-04
Ethylbenzene	2.12E-03
Styrene	2.22E-02
Benzyl Chloride	0.00E+00
1,4-Dichlorobenzene	0.00E+00
1,2-Dibromoethane	0.00E+00
1,3-Butadiene	8.76E-03
1,2-Dichloroethane	0.00E+00
Vinyl Acetate	2.58E-04
4-Methyl-2-Pentanone	4.96E-05
Toluene	7.08E-03
Chloro benzene	1.19E-05
Anthracene	1.95E-05
1,2,4-Trichlorobenzene	0.00E+00
1,4-Dioxane	0.00E+00

Table C1. Annual Average Concentrations at MEIR-Cancer and Chronic
Exide Technologies
Vernon, California

Chemical Name	Annual Average Concentration (ug/m ³)
Tetrachloroethene	8.62E-05
Chloroform	1.78E-05
Benzene	3.05E-02
1,1,1 -Trichloroethane	0.00E+00
Bromomethane	1.50E-04
Chloro methane	3.16E-04
Chloroethane	2.55E-05
Vinyl Chloride	1.22E-05
Acetaldehyde	1.10E-03
Methylene Chloride	0.00E+00
Carbon Disulfide	2.88E-03
Bromoform	0.00E+00
1,1-Dichloroethane	0.00E+00
1,1-Dichloroethene	1.24E-05
Trichlorofluoro methane	0.00E+00
Dichlorodifluoromethane	2.21E-05
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00E+00
1,2-Dichloropropane	0.00E+00
2-Butanone	3.24E-04
1,1,2-Trichloroethane	0.00E+00
Trichloroethene	4.23E-05
1,1,2,2-Tetrachloroethane	0.00E+00
Acenaphthene	1.29E-05
Pyrene	1.06E-05
Benzo[ghi]perylene	0.00E+00
Benzo(e)pyrene	6.92E-08
Indeno(1,2,3-cd)pyrene	1.80E-08
Perylene	0.00E+00
Benzo(b)fluoranthene	1.15E-07
Fluoranthene	3.27E-05
Benzo(k)fluoranthene	3.87E-08
Acenaphthylene	2.09E-04
Chrysene	2.23E-06
1,3-Dichlorobenzene	0.00E+00
Xylenes	1.83E-03
Methyl-t-Butyl Ether (MTBE)	0.00E+00
TEQ (Min) as 2,3,7,8-TCDD	1.43E-10
Total PCBs, as MonoCB	3.55E-05
Vanadium	1.84E-07
Total PAHs (excluding Naphthalene)	2.04E-09
Acrolein	5.52E-08
Hexane	1.29E-07
Ammonia	3.68E-04

Table C2. Maximum Chemical Concentrations at MEIW and PMI Cancer

Exide Technologies

Vernon, California

Chemical Name	Annual Average Concentration ($\mu\text{g}/\text{m}^3$)
Aluminum	1.65E-01
Lead	5.11E-02
Manganese	3.77E-04
Mercury	5.48E-04
Nickel	1.24E-03
Silver	2.48E-05
Thallium	8.96E-07
Antimony	1.29E-03
Arsenic	7.68E-02
Barium	1.46E-03
Beryllium	0.00E+00
Cadmium	4.02E-04
Chromium	2.03E-03
Cobalt	2.51E-04
Copper	1.39E-03
Zinc	3.76E-03
Phosphorus	3.20E-03
Selenium	1.14E-04
Chromium VI	2.27E-04
Formaldehyde	5.64E-02
Benzo(a)pyrene	4.15E-07
Dibenz(a,h)anthracene	0.00E+00
Carbon Tetrachloride	0.00E+00
Benz(a)anthracene	2.69E-05
Phenanthrene	1.95E-02
Fluorene	4.44E-03
Hexachloro-1,3-Butadiene	0.00E+00
Naphthalene	1.57E-01
2-Methylnaphthalene	1.83E-02
1,2-Dichlorobenzene	0.00E+00
1,2,4-Trimethylbenzene	7.86E-03
Ethylbenzene	1.51E-01
Styrene	1.62E+00
Benzyl Chloride	0.00E+00
1,4-Dichlorobenzene	0.00E+00
1,2-Dibromoethane	0.00E+00
1,3-Butadiene	4.81E-01
1,2-Dichloroethane	0.00E+00
Vinyl Acetate	7.77E-03
4-Methyl-2-Pentanone	8.62E-04
Toluene	4.81E-01

Table C2. Maximum Chemical Concentrations at MEIW and PMI Cancer

Exide Technologies

Vernon, California

Chemical Name	Annual Average Concentration ($\mu\text{g}/\text{m}^3$)
Chloro benzene	8.73E-04
Anthracene	1.41E-03
1,2,4-Trichlorobenzene	0.00E+00
1,4-Dioxane	0.00E+00
Tetrachloroethene	3.28E-03
Chloroform	3.10E-04
Benzene	1.71E+00
1,1,1 -Trichloroethane	0.00E+00
Bromomethane	8.94E-03
Chloro methane	2.05E-02
Chloroethane	1.87E-03
Vinyl Chloride	2.12E-04
Acetaldehyde	5.57E-02
Methylene Chloride	0.00E+00
Carbon Disulfide	1.92E-01
Bromoform	0.00E+00
1,1-Dichloroethane	0.00E+00
1,1-Dichloroethene	2.16E-04
Trichlorofluoro methane	0.00E+00
Dichlorodifluoromethane	6.12E-04
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00E+00
1,2-Dichloropropane	0.00E+00
2-Butanone	1.13E-02
1,1,2-Trichloroethane	0.00E+00
Trichloroethene	1.90E-03
1,1,2,2-Tetrachloroethane	0.00E+00
Acenaphthene	8.92E-04
Pyrene	6.70E-04
Benzo[ghi]perylene	0.00E+00
Benzo(e)pyrene	3.22E-06
Indeno(1,2,3-cd)pyrene	7.62E-07
Perylene	0.00E+00
Benzo(b)fluoranthene	5.67E-06
Fluoranthene	1.94E-03
Benzo(k)fluoranthene	2.20E-06
Acenaphthylene	1.39E-02
Chrysene	1.22E-04
1,3-Dichlorobenzene	0.00E+00
Xylenes	1.25E-01
Methyl-t-Butyl Ether (MTBE)	0.00E+00
TEQ (Min) as 2,3,7,8-TCDD	5.38E-09

Table C2. Maximum Chemical Concentrations at MEIW and PMI Cancer

Exide Technologies

Vernon, California

Chemical Name	Annual Average Concentration ($\mu\text{g}/\text{m}^3$)
Total PCBs, as MonoCB	9.53E-04
Vanadium	3.20E-06
Total PAHs (excluding Naphthalene)	9.94E-08
Acrolein	2.68E-06
Hexane	6.26E-06
Ammonia	1.79E-02

Table C3. Annual Average Concentrations at MEIW and PMI-Chronic
 Exide Technologies
 Vernon, California

Chemical Name	Annual Average Concentration ($\mu\text{g}/\text{m}^3$)
Aluminum	1.65E-01
Lead	5.11E-02
Manganese	3.77E-04
Mercury	5.48E-04
Nickel	1.24E-03
Silver	2.48E-05
Thallium	8.96E-07
Antimony	1.29E-03
Arsenic	7.68E-02
Barium	1.46E-03
Beryllium	0.00E+00
Cadmium	4.02E-04
Chromium	2.03E-03
Cobalt	2.51E-04
Copper	1.39E-03
Zinc	3.76E-03
Phosphorus	3.20E-03
Selenium	1.14E-04
Chromium VI	2.27E-04
Formaldehyde	5.64E-02
Benzo(a)pyrene	4.15E-07
Dibenz(a,h)anthracene	0.00E+00
Carbon Tetrachloride	0.00E+00
Benz(a)anthracene	2.69E-05
Phenanthrene	1.95E-02
Fluorene	4.44E-03
Hexachloro-1,3-Butadiene	0.00E+00
Naphthalene	1.57E-01
2-Methylnaphthalene	1.83E-02
1,2-Dichlorobenzene	0.00E+00
1,2,4-Trimethylbenzene	7.86E-03
Ethylbenzene	1.51E-01
Styrene	1.62E+00
Benzyl Chloride	0.00E+00
1,4-Dichlorobenzene	0.00E+00
1,2-Dibromoethane	0.00E+00
1,3-Butadiene	4.81E-01
1,2-Dichloroethane	0.00E+00
Vinyl Acetate	7.77E-03
4-Methyl-2-Pentanone	8.62E-04
Toluene	4.81E-01

Table C3. Annual Average Concentrations at MEIW and PMI-Chronic
 Exide Technologies
 Vernon, California

Chemical Name	Annual Average Concentration ($\mu\text{g}/\text{m}^3$)
Chloro benzene	8.73E-04
Anthracene	1.41E-03
1,2,4-Trichlorobenzene	0.00E+00
1,4-Dioxane	0.00E+00
Tetrachloroethene	3.28E-03
Chloroform	3.10E-04
Benzene	1.71E+00
1,1,1 -Trichloroethane	0.00E+00
Bromomethane	8.94E-03
Chloro methane	2.05E-02
Chloroethane	1.87E-03
Vinyl Chloride	2.12E-04
Acetaldehyde	5.57E-02
Methylene Chloride	0.00E+00
Carbon Disulfide	1.92E-01
Bromoform	0.00E+00
1,1-Dichloroethane	0.00E+00
1,1-Dichloroethene	2.16E-04
Trichlorofluoro methane	0.00E+00
Dichlorodifluoromethane	6.12E-04
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00E+00
1,2-Dichloropropane	0.00E+00
2-Butanone	1.13E-02
1,1,2-Trichloroethane	0.00E+00
Trichloroethene	1.90E-03
1,1,2,2-Tetrachloroethane	0.00E+00
Acenaphthene	8.92E-04
Pyrene	6.70E-04
Benzo[ghi]perylene	0.00E+00
Benzo(e)pyrene	3.22E-06
Indeno(1,2,3-cd)pyrene	7.62E-07
Perylene	0.00E+00
Benzo(b)fluoranthene	5.67E-06
Fluoranthene	1.94E-03
Benzo(k)fluoranthene	2.20E-06
Acenaphthylene	1.39E-02
Chrysene	1.22E-04
1,3-Dichlorobenzene	0.00E+00
Xylenes	1.25E-01
Methyl-t-Butyl Ether (MTBE)	0.00E+00
TEQ (Min) as 2,3,7,8-TCDD	5.38E-09

Table C3. Annual Average Concentrations at MEIW and PMI-Chronic
Exide Technologies
Vernon, California

Chemical Name	Annual Average Concentration ($\mu\text{g}/\text{m}^3$)
Total PCBs, as MonoCB	9.53E-04
Vanadium	3.20E-06
Total PAHs (excluding Naphthalene)	9.94E-08
Acrolein	2.68E-06
Hexane	6.26E-06
Ammonia	1.79E-02

Table C4. Maximum Hourly Concentrations at MEIR-Acute

Exide Technologies
Vernon, California

Chemical Name	Max 1-hr Average Concentration (ug/m ³)
Aluminum	3.06E-01
Lead	2.30E-01
Manganese	1.81E-03
Mercury	2.74E-04
Nickel	2.21E-03
Silver	6.09E-05
Thallium	4.98E-06
Antimony	6.47E-03
Arsenic	2.87E-02
Barium	3.59E-03
Beryllium	0.00E+00
Cadmium	7.42E-04
Chromium	2.53E-03
Cobalt	3.12E-04
Copper	5.22E-03
Zinc	1.32E-02
Phosphorus	5.77E-03
Selenium	3.98E-04
Chromium VI	2.23E-04
Formaldehyde	3.17E-02
Benzo(a)pyrene	1.74E-07
Dibenz(a,h)anthracene	0.00E+00
Carbon Tetrachloride	0.00E+00
Benz(a)anthracene	1.00E-05
Phenanthrene	7.65E-03
Fluorene	1.67E-03
Hexachloro-1,3-Butadiene	0.00E+00
Naphthalene	6.57E-02
2-Methylnaphthalene	7.25E-03
1,2-Dichlorobenzene	0.00E+00
1,2,4-Trimethylbenzene	2.80E-03
Ethylbenzene	5.48E-02
Styrene	5.80E-01
Benzyl Chloride	0.00E+00
1,4-Dichlorobenzene	0.00E+00
1,2-Dibromoethane	0.00E+00
1,3-Butadiene	2.02E-01
1,2-Dichloroethane	0.00E+00
Vinyl Acetate	5.24E-03
4-Methyl-2-Pentanone	9.28E-04
Toluene	1.80E-01
Chloro benzene	3.11E-04
Anthracene	5.07E-04
1,2,4-Trichlorobenzene	0.00E+00
1,4-Dioxane	0.00E+00

Table C4. Maximum Hourly Concentrations at MEIR-Acute

Exide Technologies
Vernon, California

Chemical Name	Max 1-hr Average Concentration (ug/m ³)
Tetrachloroethene	1.71E-03
Chloroform	3.34E-04
Benzene	7.24E-01
1,1,1 -Trichloroethane	0.00E+00
Bromomethane	3.65E-03
Chloro methane	7.87E-03
Chloroethane	6.67E-04
Vinyl Chloride	2.28E-04
Acetaldehyde	2.52E-02
Methylene Chloride	0.00E+00
Carbon Disulfide	7.28E-02
Bromoform	0.00E+00
1,1-Dichloroethane	0.00E+00
1,1-Dichloroethene	2.32E-04
Trichlorofluoro methane	0.00E+00
Dichlorodifluoromethane	3.95E-04
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00E+00
1,2-Dichloropropane	0.00E+00
2-Butanone	6.81E-03
1,1,2-Trichloroethane	0.00E+00
Trichloroethene	9.36E-04
1,1,2,2-Tetrachloroethane	0.00E+00
Acenaphthene	3.28E-04
Pyrene	2.59E-04
Benzo[ghi]perylene	0.00E+00
Benzo(e)pyrene	1.49E-06
Indeno(1,2,3-cd)pyrene	3.74E-07
Perylene	0.00E+00
Benzo(b)fluoranthene	2.54E-06
Fluoranthene	7.77E-04
Benzo(k)fluoranthene	8.98E-07
Acenaphthylene	5.21E-03
Chrysene	5.14E-05
1,3-Dichlorobenzene	0.00E+00
Xylenes	4.64E-02
Methyl-t-Butyl Ether (MTBE)	0.00E+00
TEQ (Min) as 2,3,7,8-TCDD	2.83E-09
Total PCBs, as MonoCB	7.09E-04
Vanadium	3.44E-06
Total PAHs (excluding Naphthalene)	4.09E-08
Acrolein	1.10E-06
Hexane	2.58E-06
Ammonia	7.36E-03

Table C5. Maximum Hourly Concentrations at MEIW and PMI-Acute
 Exide Technologies
 Vernon, California

Chemical Name	Max 1-hr Average Concentration (ug/m ³)
Aluminum	2.24E+00
Lead	3.77E+00
Manganese	3.03E-02
Mercury	6.39E-03
Nickel	3.53E-02
Silver	6.73E-04
Thallium	8.90E-05
Antimony	1.08E-01
Arsenic	7.43E-01
Barium	3.77E-02
Beryllium	0.00E+00
Cadmium	1.23E-02
Chromium	2.56E-02
Cobalt	3.33E-03
Copper	8.35E-02
Zinc	1.81E-01
Phosphorus	8.45E-02
Selenium	7.75E-03
Chromium VI	2.21E-03
Formaldehyde	6.33E-01
Benzo(a)pyrene	4.94E-06
Dibenz(a,h)anthracene	0.00E+00
Carbon Tetrachloride	0.00E+00
Benz(a)anthracene	2.69E-04
Phenanthrene	2.02E-01
Fluorene	4.40E-02
Hexachloro-1,3-Butadiene	0.00E+00
Naphthalene	1.59E+00
2-Methylnaphthalene	1.82E-01
1,2-Dichlorobenzene	0.00E+00
1,2,4-Trimethylbenzene	7.42E-02
Ethylbenzene	1.44E+00
Styrene	1.53E+01
Benzyl Chloride	0.00E+00
1,4-Dichlorobenzene	0.00E+00
1,2-Dibromoethane	0.00E+00
1,3-Butadiene	5.20E+00
1,2-Dichloroethane	0.00E+00
Vinyl Acetate	9.31E-02
4-Methyl-2-Pentanone	1.20E-02
Toluene	4.63E+00
Chloro benzene	8.23E-03
Anthracene	1.34E-02
1,2,4-Trichlorobenzene	0.00E+00

Table C5. Maximum Hourly Concentrations at MEIW and PMI-Acute

Exide Technologies

Vernon, California

Chemical Name	Max 1-hr Average Concentration (ug/m ³)
1,4-Dioxane	0.00E+00
Tetrachloroethene	5.19E-02
Chloroform	4.32E-03
Benzene	1.71E+01
1,1,1 -Trichloroethane	0.00E+00
Bromomethane	8.80E-02
Chloro methane	2.01E-01
Chloroethane	1.77E-02
Vinyl Chloride	2.95E-03
Acetaldehyde	5.84E-01
Methylene Chloride	0.00E+00
Carbon Disulfide	1.84E+00
Bromoform	0.00E+00
1,1-Dichloroethane	0.00E+00
1,1-Dichloroethene	3.00E-03
Trichlorofluoro methane	0.00E+00
Dichlorodifluoromethane	1.06E-02
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.00E+00
1,2-Dichloropropane	0.00E+00
2-Butanone	1.26E-01
1,1,2-Trichloroethane	0.00E+00
Trichloroethene	2.07E-02
1,1,2,2-Tetrachloroethane	0.00E+00
Acenaphthene	8.64E-03
Pyrene	6.85E-03
Benzo[ghi]perylene	0.00E+00
Benzo(e)pyrene	4.20E-05
Indeno(1,2,3-cd)pyrene	1.06E-05
Perylene	0.00E+00
Benzo(b)fluoranthene	7.02E-05
Fluoranthene	2.04E-02
Benzo(k)fluoranthene	2.52E-05
Acenaphthylene	1.38E-01
Chrysene	1.35E-03
1,3-Dichlorobenzene	0.00E+00
Xylenes	1.21E+00
Methyl-t-Butyl Ether (MTBE)	0.00E+00
TEQ (Min) as 2,3,7,8-TCDD	8.48E-08
Total PCBs, as MonoCB	1.13E-02
Hexane	1.40E-04
Ammonia	4.00E-01

Appendix D
CD Content List

Appendix D – Description of Submitted Files in CD-ROM

1. EXIDE-HARP-2013Jan03.tra – Provides facility, device, process, emissions, and stack data.
2. AERMOD modeling run input files
 - o Run for grid and boundary receptors:
 - Exide HRA 2012-discrete.dat
 - Discrete_receptors_plus_boundary.inr
 - o Run for sensitive receptors:
 - Exide HRA 2012 - sensitive - 2013.dat
 - Sensitive_Receptors_Cancer_2013.inr
 - o Run for census receptors:
 - Exide HRA 2012 - census - 2013.dat; Exide HRA 2012 - census - 2013 - add.dat
 - Census_Receptors_Cancer_2013.inr; Census_Receptors_Cancer_2013 - add.inr
3. AERMOD output files (*.plt) used for HARP Onramp processing
4. Source-receptor files created by HARP On-Ramp.
5. Point estimate risk values generated by HARP:
 - o For grid and boundary receptors:
 - GRIDRECEPTOR_Residential.RSK;
 - GRIDRECEPTOR_Worker.RSK
 - o For sensitive receptors:
 - SENSITIVERECEPTOR.RSK.
 - o For census receptors:
 - CENSUSRECEPTOR.RSK
6. Emission files (.ems) generated by HARP
7. X/Q values generated by HARP On-RAMP using the AERMOD plt files:
 - o For grid and boundary receptors: GRIDRECEPTOR.XOQ ;
 - o For sensitive receptors: EXIDE 2013JAN SENSITIVE RECEPTORS.XOQ
 - o For census receptors: EXIDE 2013JAN CENSUS.XOQ
8. Site specific parameters:
 - o project-resident-census.sit – Site-specific parameters used for residential risk modeling scenario
 - o project-worker-sensitive.sit – Site-specific parameters used for worker risk modeling scenario
9. Meteorological data used for facility air dispersion modeling:
 - o Cela.PFL
 - o Cela.SFC
10. NED_65220825.tif – Map showing terrain profile
11. Table CD-1 Sensitive Receptors and Risk Analysis Results.pdf – Provides risks and addresses of sensitive receptors
12. Table CD-2 Average Annual Concentrations at Sensitive Receptors
13. Table CD-3 Maximum Hourly Concentrations at Sensitive Receptors
14. Table CD-4 census blocks.xlsx – Provides the list of census blocks
15. Cancer Population Exposure and Cancer Burden