

December 22, 2020

Project No. 20409062

Mack Borchardt

City of Frisco
6101 Frisco Square Boulevard
Frisco, Texas 75034

**RE: 2020 THIRD QUARTER FRENCH DRAIN OPERATIONAL REPORT, FORMER EXIDE FRISCO
RECYCLING FACILITY, 7471 OLD FIFTH STREET, FRISCO, TEXAS**

Dear Mr. Borchardt

Golder Associates Inc. (Golder) has prepared this quarterly operational report for the French Drain System (FDS) at the former Exide Technologies, Inc. (Exide) Frisco Recycling Facility located at 7471 Old Fifth Street in Frisco, Texas (Site). This report has been prepared in response to the Texas Commission on Environmental Quality (TCEQ) comments to Exide on the 2013 Affected Property Assessment Report (APAR) dated October 8th, 2013 which requested additional information regarding the performance of the French Drain and the TCEQ comments to Exide to the 2014 APAR dated May 5, 2015 which requested quarterly reports on the operation of the FDS.

This report includes general FDS background information and summarizes operation of the FDS system during the third quarter 2020. Specifically, the quarterly report includes a discussion of the performance of the system, gallons of water intercepted, concentrations of constituents in the water, the presence and/or absence of leakage along the flood wall into Stewart Creek, the presence or absence of white crystalline substance and sample results (if applicable), and a determination as to whether ongoing discharges to Stewart Creek are continuing to occur. As stated in previous quarterly reports, survey data for the French Drain and Stewart Creek and specific notes on which days the French Drain was pumped, as requested by the TCEQ, are included in this report.

1.0 FRENCH DRAIN SYSTEM HISTORY

According to historical information contained in the French Drain Construction Report (W&M Environmental Group, Inc. [W&M], 2013), the concrete retaining wall along the southern edge of the operating area was constructed in the late 1980s to keep Stewart Creek floodwaters from entering the operating portion of the facility and to retain storm water from the operating portion of the facility for subsequent collection and treatment at the onsite water treatment plants. After construction of the retaining wall, areas of seepage along the Stewart Creek side of the retaining wall were previously observed by Exide and its consultants; primarily between the Battery Receiving Building and the Slag Treatment Building. In response, Exide sealed numerous cracks in the retaining wall. In 2011, W&M designed the FDS and associated repairs to drain any water that collected below the pavement on the north side of the FDS and eliminate seepage through the flood wall. Water from the FDS is pumped to mobile storage tanks adjacent to the wastewater treatment area for offsite disposal. Additional FDS information, including system specifications, is included in the June 2014 French Drain Monitoring Plan (FDMP) that was previously provided to the TCEQ.

2.0 DESCRIPTION OF MONITORING AND INSPECTION ACTIVITIES

Activities completed by Exide and Golder during the third quarter 2020 included the following:

- Daily (weekday) Inspections and Maintenance – Inspection of the flowmeter and recording flow rate and totalizer reading.
- Weekly Inspections and Maintenance – Inspection and maintenance of the FDS collection sump.
- Quarterly Inspections and Maintenance –
 - Inspection of the FDS for sedimentation.
 - Inspection of the Flood Wall waterstop and joint fillers.
 - Inspection of the Flood Wall for signs of seepage through the wall, cracks or other signs of damage.

Monitoring and inspection activities completed for the FDS in accordance with the FDMP during the third quarter 2020 were completed by both Exide Site personnel as well as Golder staff. Exide Site personnel conducted daily and weekly activities and Golder personnel conducted the quarterly inspection. Due to high vegetation at the time of quarterly inspection, Golder was not able to assess the outside portion of the flood wall in third quarter 2020.

A more detailed description of the results of data collection activities and inspections is included in Section 3.0 below.

3.0 OBSERVATIONS AND RESULTS

3.1 Gallons of Water Intercepted

The flow rate and totalizer reading for the FDS were generally recorded each weekday. Table 1 summarizes the recorded flows of the FDS and the offsite daily precipitation based on data recorded at a local weather station located in Frisco, Texas (data obtained from <https://www.wunderground.com/dashboard/pws/KTXDALLA25>).

3.2 Groundwater and Perched Water Level Observations

Water levels for MW-26, MW-29, MW-31, MW-32, MW-33, MW-34, MW-35, and MW-46 were measured and recorded during the third quarter 2020. Table 2 summarizes the groundwater depths and elevations from this sampling event as well as previous data and includes the elevations of the banks and bottom of Stewart Creek at transects located near the upstream, midpoint and downstream end of the FDS. Monitoring well locations, transect locations and Stewart Creek elevations are shown on Figure 1. Water levels were generally lower during the third quarter of 2020 than in the previous event.

3.3 Floodwall Seepage

Due to high vegetation limiting access, a partial wall inspection (interior only) was performed on August 27, 2020. The flood wall waterstops and joint fillers were generally in good condition and no major cracks were recorded.

3.4 White Crystalline Material Observations

White crystalline material was not observed on the flood wall during the Golder inspection conducted on August 27, 2020. As such, no samples of white crystalline material were collected or analyzed.

3.5 Laboratory Analytical Results

Water samples were collected by Exide Site personnel from the FDS during the third quarter 2020. Sampling of the French Drain was conducted on August 6, 2020. All analytical results from these samples are included in Table 3 and Attachment A.

4.0 SUMMARY OF SYSTEM PERFORMANCE

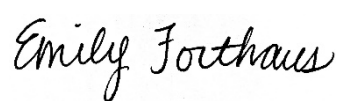
Based on the results of the inspection and monitoring activities for the third quarter 2020 described above, the FDS appears to be operating as designed. Water was removed from the FDS as designed other than as noted on Table 1.

5.0 CLOSURE

Golder appreciates the opportunity to assist the Frisco Community Development Corporation with this project. Please contact us if you have any questions or comments concerning this quarterly operational report.

Sincerely,

Golder Associates Inc.



Emily P. Forthaus
Project Geological Engineer



Anne M. Faeth-Boyd, P.G.
Associate and Senior Consultant

EPF/AMF

CC: Brad Weaver

Attachments: Table 1: French Drain Daily Flow Volumes

Table 2: Perched and Groundwater Monitoring Well Water Elevations

Table 3: French Drain Water Analytical Data

Figure 1: Stewart Creek Transects

Attachment A: French Drain Water Laboratory Analytical Results

Table 1
French Drain Daily Flow Volumes

Jul-20			Aug-20			Sep-20		
Total Flow/Water Removed (gal)		Total Precip (in)	Total Flow/Water Removed (gal)		Total Precip (in)	Total Flow/Water Removed (gal)		Total Precip (in)
7,383		3.42	4,836		1.82	18,004		4.93
Date	Daily Flow (gal)	Daily Precip (in)	Date	Daily Flow (gal)	Daily Precip (in)	Date	Daily Flow (gal)	Daily Precip (in)
Wednesday, July 1, 2020	205	0.00	Saturday, August 1, 2020	NR	0.00	Tuesday, September 1, 2020	475	2.89
Thursday, July 2, 2020	255	0.84	Sunday, August 2, 2020	NR	0.00	Wednesday, September 2, 2020	2,562	0.42
Friday, July 3, 2020	898	0.01	Monday, August 3, 2020	1,779	0.00	Thursday, September 3, 2020	877	0.00
Saturday, July 4, 2020	NR	0.00	Tuesday, August 4, 2020	203	0.00	Friday, September 4, 2020	517	0.00
Sunday, July 5, 2020	NR	0.00	Wednesday, August 5, 2020	254	0.00	Saturday, September 5, 2020	NR	0.00
Monday, July 6, 2020	717	0.62	Thursday, August 6, 2020	166	0.00	Sunday, September 6, 2020	NR	0.00
Tuesday, July 7, 2020	560	0.01	Friday, August 7, 2020	101	0.00	Monday, September 7, 2020	NR	0.00
Wednesday, July 8, 2020	453	0.00	Saturday, August 8, 2020	NR	0.00	Tuesday, September 8, 2020	1,266	0.00
Thursday, July 9, 2020	359	0.00	Sunday, August 9, 2020	NR	0.00	Wednesday, September 9, 2020	273	0.89
Friday, July 10, 2020	258	0.00	Monday, August 10, 2020	359	0.00	Thursday, September 10, 2020	2,203	0.46
Saturday, July 11, 2020	566	0.00	Tuesday, August 11, 2020	51	0.00	Friday, September 11, 2020	1,211	0.00
Sunday, July 12, 2020	NR	0.00	Wednesday, August 12, 2020	103	0.00	Saturday, September 12, 2020	NR	0.00
Monday, July 13, 2020	51	0.00	Thursday, August 13, 2020	97	0.00	Sunday, September 13, 2020	NR	0.00
Tuesday, July 14, 2020	155	0.00	Friday, August 14, 2020	47	0.00	Monday, September 14, 2020	2,355	0.00
Wednesday, July 15, 2020	155	0.00	Saturday, August 15, 2020	NR	0.00	Tuesday, September 15, 2020	658	0.00
Thursday, July 16, 2020	103	0.00	Sunday, August 16, 2020	NR	0.23	Wednesday, September 16, 2020	607	0.00
Friday, July 17, 2020	102	0.00	Monday, August 17, 2020	414	0.00	Thursday, September 17, 2020	476	0.00
Saturday, July 18, 2020	NR	0.00	Tuesday, August 18, 2020	197	0.00	Friday, September 18, 2020	509	0.00
Sunday, July 19, 2020	NR	0.00	Wednesday, August 19, 2020	46	0.00	Saturday, September 19, 2020	NR	0.00
Monday, July 20, 2020	260	0.00	Thursday, August 20, 2020	73	0.00	Sunday, September 20, 2020	NR	0.00
Tuesday, July 21, 2020	103	0.00	Friday, August 21, 2020	20	0.00	Monday, September 21, 2020	699	0.15
Wednesday, July 22, 2020	53	0.00	Saturday, August 22, 2020	NR	0.00	Tuesday, September 22, 2020	943	0.11
Thursday, July 23, 2020	52	0.00	Sunday, August 23, 2020	NR	0.00	Wednesday, September 23, 2020	723	0.01
Friday, July 24, 2020	101	0.00	Monday, August 24, 2020	100	0.00	Thursday, September 24, 2020	249	0.00
Saturday, July 25, 2020	NR	0.00	Tuesday, August 25, 2020	93	0.00	Friday, September 25, 2020	496	0.00
Sunday, July 26, 2020	NR	0.00	Wednesday, August 26, 2020	66	0.03	Saturday, September 26, 2020	NR	0.00
Monday, July 27, 2020	156	0.00	Thursday, August 27, 2020	54	0.00	Sunday, September 27, 2020	NR	0.00
Tuesday, July 28, 2020	261	1.45	Friday, August 28, 2020	0	0.00	Monday, September 28, 2020	588	0.00
Wednesday, July 29, 2020	521	0.00	Saturday, August 29, 2020	NR	0.00	Tuesday, September 29, 2020	142	0.00
Thursday, July 30, 2020	255	0.29	Sunday, August 30, 2020	NR	1.56	Wednesday, September 30, 2020	175	0.00
Friday, July 31, 2020	784	0.20	Monday, August 31, 2020	613	0.00			

Notes:

Precipitation data obtained from: <https://www.wunderground.com/dashboard/pws/KTXDALLA25>

Daily flow volumes provided by Site.

NR - Not Recorded.

Prepared by: AMM 08/11/2020, BTT 09/08/2020, KAB 11/30/2020

Checked by: EPF 12/01/2020

Reviewed by: AMF 12/02/2020

Table 2
Perched and Groundwater Monitoring Well Water Elevations

Stewart Creek Elevations					
Survey Point			Measurement Date	Elevation (ft msl)	
Transect 1					
Top of North Bank			3/7/2016	628.74	
Toe of North Bank			3/7/2016	624.79	
Creek Centerline			3/7/2016	622.79	
Toe of South Bank			3/7/2016	624.27	
Top of South Bank			3/7/2016	634.09	
Transect 2					
Top of North Bank			3/7/2016	627.97	
Toe of North Bank			3/7/2016	623.57	
Toe of South Bank			3/7/2016	624.04	
Top of South Bank			3/7/2016	630.52	
Transect 3					
Top of North Bank			3/7/2016	628.20	
Toe of North Bank			3/7/2016	622.70	
Toe of South Bank			3/7/2016	622.88	
Top of South Bank			3/7/2016	628.18	
Well ID	TOC Elevation (ft msl)	Screen Interval (ft bgs)	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft msl)
MW-26 (Groundwater)	631.93	5-15	3/11/2013	9.98	621.95
			4/5/2013	9.52	622.41
			4/29/2013	9.21	622.72
			1/21/2014	5.80	626.13
			7/29/2014	5.79	626.14
			9/23/2014	8.9	623.03
			6/12/2015	5.32	626.61
			9/8/2015	5.72	626.21
			12/17/2015	5.32	626.61
			2/29/2016	5.41	626.52
			6/1/2016	5.47	626.46
			9/8/2016	5.51	626.42
			12/2/2016	5.65	626.28
			3/2/2017	5.81	626.12
			5/4/2017	6.21	625.72
			8/28/2017	5.56	626.37
			11/27/2017	5.71	626.22
			2/15/2018	5.75	626.18
			5/9/2018	5.65	626.28
			9/24/2018	NA	NA
			12/4/2018	5.60	626.33
			3/7/2019	5.64	626.29
			6/3/2019	5.92	626.01
			9/9/2019	5.87	626.06
			12/2/2019	5.63	626.30
			2/26/2020	5.71	626.22
			5/27/2020	4.67	627.26
			8/27/2020	6.12	625.81

Table 2
Perched and Groundwater Monitoring Well Water Elevations

Well ID	TOC Elevation (ft msl)	Screen Interval (ft bgs)	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft msl)
MW-29 (Groundwater)	633.51	4.5-14.5	3/11/2013	13.08	620.43
			4/5/2013	6.96	626.55
			4/29/2013	6.56	626.95
			1/21/2014	6.62	626.89
			7/29/2014	6.57	626.94
			9/23/2014	6.04	627.47
			6/12/2015	5.21	628.30
			9/8/2015	6.35	627.16
			12/17/2015	5.67	627.84
			2/29/2016	5.79	627.72
			6/1/2016	5.69	627.82
			9/8/2016	5.67	627.84
			12/2/2016	6.25	627.26
			3/2/2017	6.51	627.00
			5/4/2017	5.80	627.71
			8/28/2017	5.90	627.61
			11/27/2017	6.77	626.74
			2/15/2018	6.77	626.74
			5/9/2018	5.95	627.56
			9/24/2018	NA	NA
			12/4/2018	6.12	627.39
			3/7/2019	6.07	627.44
			6/3/2019	6.27	627.24
			9/9/2019	6.25	627.26
			12/2/2019	6.27	627.24
			2/26/2020	5.18	628.33
			5/27/2020	5.09	628.42
			8/27/2020	6.96	626.55
MW-31 (Groundwater)	636.71	8-23	5/13/2013	10.58	626.13
			1/21/2014	10.87	625.84
			7/29/2014	10.81	625.90
			9/23/2014	11.32	625.39
			6/12/2015	9.61	627.10
			9/8/2015	10.53	626.18
			12/17/2015	9.42	627.29
			2/29/2016	9.78	626.93
			6/1/2016	9.82	626.89
			9/8/2016	9.90	626.81
			12/2/2016	10.21	626.50
			3/2/2017	12.23	624.48
			5/4/2017	10.58	626.13
			8/28/2017	9.99	626.72
			11/27/2017	10.82	625.89
			2/15/2018	10.90	625.81
			5/9/2018	10.19	626.52
			9/24/2018	NA	NA
			12/4/2018	10.42	626.29
			3/7/2019	10.13	626.58
			6/3/2019	10.31	626.40
			9/9/2019	10.51	626.20
			12/2/2019	9.85	626.86
			2/26/2020	8.96	627.75
			5/27/2020	8.54	628.17
			8/27/2020	10.56	626.15

Table 2
Perched and Groundwater Monitoring Well Water Elevations

Well ID	TOC Elevation (ft msl)	Screen Interval (ft bgs)	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft msl)
MW-32 (Perched)	630.96	2.5-5	1/21/2014	4.16	626.80
			7/29/2014	4.59	626.37
			9/23/2014	4.59	626.37
			6/12/2015	3.79	627.17
			9/8/2015	R	R
			2/29/2016	3.57	627.39
			6/1/2016	3.62	627.34
			9/8/2016	3.83	627.13
			12/2/2016	3.40	627.56
			3/2/2017	3.26	627.70
			5/4/2017	3.49	627.47
			8/28/2017	3.55	627.41
			11/27/2017	3.54	627.42
			2/15/2018	3.21	627.75
			5/9/2018	3.30	627.66
			9/24/2018	NA	NA
			12/4/2018	2.70	628.26
			3/7/2019	3.88	627.08
			6/3/2019	3.67	627.29
			9/9/2019	3.92	627.04
			12/2/2019	3.32	627.64
			2/26/2020	2.92	628.04
			5/27/2020	2.39	628.57
			8/27/2020	3.86	627.10
MW-33 (Perched)	632.59	2.5-5	1/21/2014	1.09	631.50
			7/29/2014	2.14	630.45
			9/23/2014	1.55	631.04
			12/17/2015	1.21	631.38
			2/29/2016	1.07	631.52
			6/1/2016	1.09	631.50
			9/8/2016	1.07	631.52
			12/2/2016	0.95	631.64
			3/2/2017	0.88	631.71
			5/4/2017	0.91	631.68
			8/28/2017	0.86	631.73
			11/27/2017	0.85	631.74
			2/15/2018	0.81	631.78
			5/9/2018	0.80	631.79
			9/24/2018	NA	NA
			12/4/2018	0.95	631.64
			3/7/2019	0.64	631.95
			6/3/2019	0.92	631.67
			9/9/2019	1.13	631.46
			12/2/2019	0.33	632.26
			2/26/2020	0.39	632.20
			5/27/2020	0.16	632.43
			8/27/2020	0.99	631.60
MW-34 (Perched)	632.83	2.5-5	1/21/2014	4.31	628.52
			7/29/2014	4.45	628.38
			9/23/2014	4.45	628.38
			6/12/2015	3.42	629.41
			12/17/2015	3.03	629.80
			2/29/2016	1.95	630.88
			6/1/2016	2.04	630.79
			9/8/2016	2.59	630.24
			12/2/2016	2.50	630.33
			3/2/2017	2.75	630.08
			5/4/2017	3.93	628.90
			8/28/2017	2.95	629.88
			11/27/2017	3.62	629.21
			2/15/2018	3.71	629.12
			5/9/2018	3.57	629.26
			9/24/2018	NA	NA
			12/4/2018	3.08	629.75
			3/7/2019	3.41	629.42
			6/3/2019	3.17	629.66
			9/9/2019	3.31	629.52
			12/2/2019	2.89	629.94
			2/26/2020	1.37	631.46
			5/27/2020	1.86	630.97
			8/27/2020	3.49	629.34

Table 2
Perched and Groundwater Monitoring Well Water Elevations

Well ID	TOC Elevation (ft msl)	Screen Interval (ft bgs)	Measurement Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft msl)
MW-35 (Perched)	632.55	2.5-5	1/21/2014	DRY	DRY
			7/29/2014	DRY	DRY
			9/23/2014	DRY	DRY
			6/12/2015	4.97	627.58
			9/8/2015	DRY	DRY
			12/17/2015	4.10	628.45
			2/29/2016	3.86	628.69
			6/1/2016	3.99	628.56
			9/8/2016	4.13	628.42
			12/2/2016	3.85	628.70
			3/2/2017	3.94	628.61
			5/4/2017	4.58	627.97
			8/28/2017	4.16	628.39
			11/27/2017	3.98	628.57
			2/15/2018	3.81	628.74
			5/9/2018	3.92	628.63
			9/24/2018	NA	NA
			12/4/2018	3.74	628.81
			3/7/2019	3.65	628.90
			6/3/2019	3.91	628.64
			9/9/2019	4.05	628.50
			12/2/2019	4.06	628.49
			2/26/2020	3.89	628.66
			5/27/2020	2.95	629.60
			8/27/2020	4.52	628.03
MW-46 (Groundwater)	630.98	10-20	1/21/2014	5.21	625.77
			7/29/2014	5.47	625.51
			9/23/2014	5.08	625.90
			6/12/2015	5.50	625.48
			9/8/2015	4.17	626.81
			2/29/2016	5.23	625.75
			6/1/2016	5.30	625.68
			9/8/2016	5.41	625.57
			12/2/2016	4.96	626.02
			3/2/2017	5.00	625.98
			5/4/2017	5.50	625.48
			8/28/2017	4.44	626.54
			11/27/2017	5.41	625.57
			2/15/2018	5.81	625.17
			5/9/2018	4.24	626.74
			9/24/2018	NA	NA
			12/4/2018	4.61	626.37
			3/7/2019	4.29	626.69
			6/3/2019	4.61	626.37
			9/9/2019	4.41	626.57
			12/2/2019	4.32	626.66
			2/26/2020	3.29	627.69
			5/27/2020	3.26	627.72
			8/27/2020	4.89	626.09

Notes:

1. bgs - below ground surface.
2. msl - above mean sea level.
3. btoc - below top of casing.
4. R - depth to groundwater was disqualified as a field error because depth was greater than total depth of the well.
5. NA - not accessible due to Site conditions.

Prepared by: AMM 09/15/2020

Checked by: EPF 12/01/2020

Reviewed by: AMF 12/02/2020

Table 3
French Drain Water
Analytical Data

	Sample ID FD080620-01		Sample ID FD080620-02	
	Laboratory ID 20080131-001		Laboratory ID 20080131-002	
	Date Collected 8/6/2020 11:15		Date Collected 8/6/2020 11:15	
Metals				
Parameter:	Result	Units	Result	Units
Arsenic	NA	mg/L	ND	mg/L
Barium	NA	mg/L	0.063	mg/L
Cadmium	NA	mg/L	0.0006 J-5	mg/L
Chromium	NA	mg/L	0.010	mg/L
Copper	NA	mg/L	0.0041 J-5	mg/L
Iron	NA	mg/L	ND	mg/L
Lead	NA	mg/L	0.014	mg/L
Manganese	NA	mg/L	0.001 J-5	mg/L
Nickel	NA	mg/L	ND	mg/L
Selenium	NA	mg/L	0.0134	mg/L
Silver	NA	mg/L	ND	mg/L
Zinc	NA	mg/L	ND	mg/L
Mercury	NA	mg/L	ND	mg/L
General Chemistry				
Parameter:	Result	Units	Result	Units
Total Suspended Solids	1,280	mg/L	NA	mg/L
Total Dissolved Solids	42.8	mg/L	NA	mg/L

Notes:

1) NA - Not Analyzed

2) ND - Not Detected

3) mg/L - milligrams per liter

4) J-5 - the associated concentration is an estimated value between the sample detection limit and the adjusted method quantitation limit.

Prepared by: KAB 11/30/2020

Checked by: EPF 12/01/2020

Reviewed by: AMF 12/02/2020

Friday, August 14, 2020

Exide Technologies

Eduardo Salazar

P.O. Box 250

Frisco, TX 75034

Tel: (972) 335-2121 Fax: (972) 377-2707

Re: Project Name: Raw Grab Samples Quarterly

Oxidor received 6 liquid sample(s). The analysis performed were as follows:

<u>Sample</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Analysis</u>
20080131-001	FD080620-01	Liquid	8/6/2020 11:15	Total Dissolved Solids, Total Suspended Solids
20080131-002	FD080620-02	Liquid	8/6/2020 11:15	Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Zinc
20080131-003	SO080620-01	Liquid	8/6/2020 11:30	Total Dissolved Solids, Total Suspended Solids
20080131-004	SO080620-02	Liquid	8/6/2020 11:30	Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Zinc
20080131-005	L080620-01	Liquid	8/6/2020 11:45	Total Dissolved Solids, Total Suspended Solids
20080131-006	L080620-02	Liquid	8/6/2020 11:45	Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Zinc

To the best of my knowledge, all problems/ anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified via associated flags and/ or in the case narrative. The analyses and data met requirements of NELAP except where noted. All non-NELAP methods are identified accordingly and all estimated uncertainties of test results are within method or EPA specifications.

Respectfully submitted,



Charles Brungardt

President

Exide Technologies
Eduardo Salazar

Analytical Report

Project Name: **Raw Grab Samples Quarterly**

Customer Sample ID: **FD080620-01**

Oxidor Sample ID: 20080131-001

Sample Received: 8/7/2020

Matrix: **Liquid**

Sample Collected: **8/6/2020 11:15**

Parameter	SDL	MQL	Result	Units	Date Analyzed	Method	Analyst	Flags
General Chemistry								
Total Dissolved Solids	50.0	25	1280	mg/L	08/11/20 16:15	SM-2540-C	K.V.	
Total Suspended Solids	1.0	5	42.8	mg/L	08/11/20 09:30	SM-2540-D	K.V.	

Exide Technologies

Eduardo Salazar

Analytical Report

Project Name: **Raw Grab Samples Quarterly**

Customer Sample ID: **FD080620-02**

Oxidor Sample ID: 20080131-002

Sample Received: 8/7/2020

Matrix: **Liquid**

Sample Collected: **8/6/2020 11:15**

Parameter	SDL	ML	Result	Units	Date Analyzed	Method	Analyst	Flags
Metals								
<i>Digested by method 200.8 on 08/10/20 at 09:14</i>								
Arsenic	0.003	0.005	ND	mg/L	08/10/20 14:43	200.8	K.E.L.	
Barium	0.003	0.005	0.063	mg/L	08/10/20 14:43	200.8	K.E.L.	
Cadmium	0.0005	0.001	0.0006	mg/L	08/10/20 14:43	200.8	K.E.L.	J-5
Chromium	0.003	0.005	0.010	mg/L	08/10/20 14:43	200.8	K.E.L.	
Copper	0.0025	0.005	0.0041	mg/L	08/10/20 14:43	200.8	K.E.L.	J-5
Iron	0.25	0.5	ND	mg/L	08/10/20 14:43	200.8	K.E.L.	
Lead	0.003	0.005	0.014	mg/L	08/10/20 14:43	200.8	K.E.L.	
Manganese	0.001	0.002	0.001	mg/L	08/10/20 14:43	200.8	K.E.L.	J-5
Nickel	0.003	0.005	ND	mg/L	08/10/20 14:43	200.8	K.E.L.	
Selenium	0.0025	0.005	0.0134	mg/L	08/10/20 14:43	200.8	K.E.L.	
Silver	0.001	0.001	ND	mg/L	08/10/20 14:43	200.8	K.E.L.	
Zinc	0.003	0.005	ND	mg/L	08/10/20 14:43	200.8	K.E.L.	
<i>Digested by method 245.1 on 08/12/20 at 08:55</i>								
Mercury	0.0001	0.0002	ND	mg/L	08/12/20 15:05	245.1	L.Z.	

Exide Technologies

Eduardo Salazar

Sample Cross Reference

Project Name: **Raw Grab Samples Quarterly**

Customer ID:	Lab ID:	Test	Method	QCBatchID:
FD080620-01	20080131-001	Total Dissolved Solids	SM-2540-C	TDS__06427_L
		Total Suspended Solids	SM-2540-D	TSS__06344_L
FD080620-02	20080131-002	Mercury	245.1	MERC_04746_L
		Arsenic	200.8	META_05479_L
		Selenium	200.8	META_05479_L
		Silver	200.8	META_05479_L
		Zinc	200.8	META_05479_L
		Manganese	200.8	META_05479_L
		Lead	200.8	META_05479_L
		Iron	200.8	META_05479_L
		Copper	200.8	META_05479_L
		Chromium	200.8	META_05479_L
		Nickel	200.8	META_05479_L
		Barium	200.8	META_05479_L
		Cadmium	200.8	META_05479_L
SO080620-01	20080131-003	Total Dissolved Solids	SM-2540-C	TDS__06527_L
		Total Suspended Solids	SM-2540-D	TSS__06344_L
SO080620-02	20080131-004	Mercury	245.1	MERC_04746_L
		Copper	200.8	META_05479_L
		Silver	200.8	META_05479_L
		Selenium	200.8	META_05479_L
		Nickel	200.8	META_05479_L
		Manganese	200.8	META_05479_L
		Iron	200.8	META_05479_L
		Chromium	200.8	META_05479_L
		Zinc	200.8	META_05479_L
		Cadmium	200.8	META_05479_L
		Barium	200.8	META_05479_L
		Arsenic	200.8	META_05479_L
		Lead	200.8	META_05479_L
L080620-01	20080131-005	Total Dissolved Solids	SM-2540-C	TDS__06527_L
		Total Suspended Solids	SM-2540-D	TSS__06344_L
L080620-02	20080131-006	Mercury	245.1	MERC_04746_L
		Lead	200.8	META_05479_L
		Arsenic	200.8	META_05479_L
		Barium	200.8	META_05479_L
		Cadmium	200.8	META_05479_L
		Chromium	200.8	META_05479_L
		Iron	200.8	META_05479_L
		Manganese	200.8	META_05479_L
		Nickel	200.8	META_05479_L
		Selenium	200.8	META_05479_L
		Silver	200.8	META_05479_L
		Zinc	200.8	META_05479_L
		Copper	200.8	META_05479_L

Exide Technologies

Eduardo Salazar

QC Summary

Project Name: **Raw Grab Samples Quarterly**

QC Type	Parameter	Result	Reference Value	Spike Conc	Rec	Rec Limits	RPD	RPD Limits	Flags
QCBatchID TDS__06427_L									
Blank	Total Dissolved Solids	ND mg/L							
LCS	Total Dissolved Solids	985 mg/L		1000 mg/L	99%	90-110%			
LCSD	Total Dissolved Solids	990 mg/L		1000 mg/L	99%	90-110%	0.5%	0-5%	
Replicate	Total Dissolved Solids	1040 mg/L	1060 mg/L				1.4%	0-5%	
QCBatchID TDS__06527_L									
Blank	Total Dissolved Solids	ND mg/L							
LCS	Total Dissolved Solids	990 mg/L		1000 mg/L	99%	90-110%			
LCSD	Total Dissolved Solids	985 mg/L		1000 mg/L	99%	90-110%	0.5%	0-5%	
Replicate	Total Dissolved Solids	995 mg/L	1000 mg/L				0.5%	0-5%	
QCBatchID TSS__06344_L									
Blank	Total Suspended Solids	ND mg/L							
LCS	Total Suspended Solids	509 mg/L		500 mg/L	102%	85-115%			
LCSD	Total Suspended Solids	509 mg/L		500 mg/L	102%	85-115%	0.0%	0-15%	
Replicate	Total Suspended Solids	3770 mg/L	4030 mg/L				6.7%	0-15%	
QCBatchID MERC_04746_L									
Blank	Mercury	ND mg/L							
LCS	Mercury	0.0093 mg/L		0.01 mg/L	93%	85-115%			
LCSD	Mercury	0.0093 mg/L		0.01 mg/L	93%	85-115%	0.2%	0-25%	
MS	Mercury	0.0091 mg/L	ND	0.01 mg/L	91%	80-120%			
MSD	Mercury	0.0092 mg/L	ND	0.01 mg/L	92%	80-120%	1.0%	0-25%	
QCBatchID META_05479_L									
Blank	Arsenic	ND mg/L							
	Barium	ND mg/L							
	Cadmium	ND mg/L							
	Chromium	ND mg/L							
	Copper	ND mg/L							
	Iron	ND mg/L							
	Lead	ND mg/L							
	Manganese	ND mg/L							
	Nickel	ND mg/L							
	Selenium	ND mg/L							
	Silver	ND mg/L							
	Zinc	ND mg/L							
LCS	Arsenic	0.514 mg/L		0.5 mg/L	103%	85-115%			
	Barium	0.488 mg/L		0.5 mg/L	98%	85-115%			
	Cadmium	0.5226 mg/L		0.5 mg/L	105%	85-115%			
	Chromium	0.504 mg/L		0.5 mg/L	101%	85-115%			
	Copper	0.5318 mg/L		0.5 mg/L	106%	85-115%			
	Iron	48.8 mg/L		50.5 mg/L	97%	85-115%			
	Lead	0.507 mg/L		0.5 mg/L	101%	85-115%			

Exide Technologies

Eduardo Salazar

QC Summary

Project Name: **Raw Grab Samples Quarterly**

QC Type	Parameter	Result	Reference Value	Spike Conc	Rec	Rec Limits	RPD	RPD Limits	Flags
QCBatchID META_05479_L									
	Manganese	0.488 mg/L		0.5 mg/L	98%	85-115%			
	Nickel	0.520 mg/L		0.5 mg/L	104%	85-115%			
	Selenium	0.5117 mg/L		0.5 mg/L	102%	85-115%			
	Silver	0.537 mg/L		0.5 mg/L	107%	85-115%			
	Zinc	0.500 mg/L		0.5 mg/L	100%	85-115%			
LCSD	Arsenic	0.507 mg/L		0.5 mg/L	101%	85-115%	1.4%	0-20%	
	Barium	0.492 mg/L		0.5 mg/L	98%	85-115%	0.8%	0-20%	
	Cadmium	0.5265 mg/L		0.5 mg/L	105%	85-115%	0.7%	0-20%	
	Chromium	0.504 mg/L		0.5 mg/L	101%	85-115%	0.0%	0-20%	
	Copper	0.5369 mg/L		0.5 mg/L	107%	85-115%	1.0%	0-20%	
	Iron	50.4 mg/L		50.5 mg/L	100%	85-115%	3.3%	0-20%	
	Lead	0.508 mg/L		0.5 mg/L	102%	85-115%	0.2%	0-20%	
	Manganese	0.502 mg/L		0.5 mg/L	100%	85-115%	2.8%	0-20%	
	Nickel	0.536 mg/L		0.5 mg/L	107%	85-115%	3.0%	0-20%	
	Selenium	0.5070 mg/L		0.5 mg/L	101%	85-115%	0.9%	0-20%	
	Silver	0.551 mg/L		0.5 mg/L	110%	85-115%	2.6%	0-20%	
	Zinc	0.502 mg/L		0.5 mg/L	100%	85-115%	0.4%	0-20%	
MS	Arsenic	0.516 mg/L	0.002 mg/L	0.5 mg/L	103%	80-120%			
	Barium	0.532 mg/L	0.063 mg/L	0.5 mg/L	94%	80-120%			
	Cadmium	0.5110 mg/L	ND	0.5 mg/L	102%	80-120%			
	Chromium	0.495 mg/L	0.01 mg/L	0.5 mg/L	97%	80-120%			
	Copper	0.5180 mg/L	0.004 mg/L	0.5 mg/L	103%	80-120%			
	Iron	48.8 mg/L	0.135 mg/L	50.5 mg/L	96%	80-120%			
	Lead	0.522 mg/L	0.014 mg/L	0.5 mg/L	102%	80-120%			
	Manganese	0.488 mg/L	0.001 mg/L	0.5 mg/L	97%	80-120%			
	Nickel	0.511 mg/L	ND	0.5 mg/L	102%	80-120%			
	Selenium	0.5086 mg/L	0.013 mg/L	0.5 mg/L	99%	80-120%			
	Silver	0.525 mg/L	ND	0.5 mg/L	105%	80-120%			
	Zinc	0.490 mg/L	0.002 mg/L	0.5 mg/L	98%	80-120%			
MSD	Arsenic	0.516 mg/L	0.002 mg/L	0.5 mg/L	103%	80-120%	0.0%	0-20%	
	Barium	0.544 mg/L	0.063 mg/L	0.5 mg/L	96%	80-120%	2.2%	0-20%	
	Cadmium	0.5112 mg/L	ND	0.5 mg/L	102%	80-120%	0.0%	0-20%	
	Chromium	0.514 mg/L	0.01 mg/L	0.5 mg/L	101%	80-120%	3.8%	0-20%	
	Copper	0.5200 mg/L	0.004 mg/L	0.5 mg/L	103%	80-120%	0.4%	0-20%	
	Iron	49.4 mg/L	0.135 mg/L	50.5 mg/L	98%	80-120%	1.2%	0-20%	
	Lead	0.513 mg/L	0.014 mg/L	0.5 mg/L	100%	80-120%	1.7%	0-20%	
	Manganese	0.491 mg/L	0.001 mg/L	0.5 mg/L	98%	80-120%	0.6%	0-20%	
	Nickel	0.526 mg/L	ND	0.5 mg/L	105%	80-120%	2.9%	0-20%	
	Selenium	0.5120 mg/L	0.013 mg/L	0.5 mg/L	100%	80-120%	0.7%	0-20%	
	Silver	0.525 mg/L	ND	0.5 mg/L	105%	80-120%	0.0%	0-20%	
	Zinc	0.488 mg/L	0.002 mg/L	0.5 mg/L	97%	80-120%	0.4%	0-20%	



Exide Technologies

Eduardo Salazar

Case Narrative

Project Name: Raw Grab Samples Quarterly

J-5	The associated concentration is an estimated value detected between the SDL and the Adjusted MQL
Dx [Value]	Sample diluted by [Value] amount
ppm	Parts per million = mg/Kg or mg/L
ppb	Parts per billion = ug/Kg or ug/L
MQL	Method quantitation limit
SDL	Sample detection limit (reflects any laboratory adjustments made to the sample during analysis such as dry weight or dilutions)
SQL	Sample quantitation limit (reflects any laboratory adjustments made to the sample during analysis such as dry weight or dilution)
ND	Analyte not detected at or above SDL
LCS/LCSD	Laboratory control spike / Laboratory control spike duplicate
MS/MSD	Matrix spike / Matrix spike duplicate
RPD	Relative percent difference
Sub	Analysis performed by subcontract laboratory

Solid samples submitted to the laboratory for analysis by SW-846 Method 8260 should be collected by SW-846 Method 5035. Those samples in which concentrations are less than or equal to 200 ug/kg should be collected in accordance with SW-846 Method 5035, Section 6.2.1. For samples with higher concentrations (> 200 ug/kg), collect samples by SW-846 Method 5035, Section 6.2.2 or 6.2.3. Sample results may not accurately reflect volatile concentrations if collection is not performed according to the referenced methodologies.

Solid samples submitted to the laboratory for analysis by TNRCC Method 1005 should be collected in accordance to the methodology. Those samples in which concentrations of C6 to C12 are known to be absent, or fall under the Petroleum Storage Tank (PST) rule, may be collected in bulk sample jars in accordance with TNRCC Method 1005, Revision 3 clarifications. For samples with concentrations of C6 to C12, or where knowledge of the site does not exist, collect samples by TNRCC Method 1005, Section 6.1. Sample results may not accurately reflect TPH concentrations if collection is not performed according to the referenced methodologies.

Solid sample results reported on a dry weight basis for all applicable analysis, unless otherwise noted. Dry weight calculations based upon % solids obtained as outlined in EPA method 5035 section 7.5.

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Oxidior Laboratories, LLC certifies to the best of its knowledge that all results contained in this report are consistent with the National Environmental Laboratory Accreditation Program, except where otherwise noted.

Exide Technologies

Eduardo Salazar

Sample Preservation Verification

Project Name: **Raw Grab Samples Quarterly**

Receipt temp: **3.4 °C on Ice**

Receipt method: **Customer Courier**

Custody seal intact: **Yes**

All samples / labels received intact: **Yes**

Customer Sample ID: **FD080620-01**

Oxidor Sample ID: **20080131-001**

Collected: **08/06/20 11:15**

Collected By: **Greg Henderson**

Collector Affiliation: **Exide Technologies**

Matrix: **Liquid**

<u>Bottle Type</u>	<u>Count</u>	<u>Collection Method</u>	<u>Parts / Interval</u>	<u>Indicated / Observed Preservation</u>	<u>pH</u>
1000 mL Plastic	1	Grab		Temp	-

Customer Sample ID: **FD080620-02**

Oxidor Sample ID: **20080131-002**

Collected: **08/06/20 11:15**

Collected By: **Greg Henderson**

Collector Affiliation: **Exide Technologies**

Matrix: **Liquid**

<u>Bottle Type</u>	<u>Count</u>	<u>Collection Method</u>	<u>Parts / Interval</u>	<u>Indicated / Observed Preservation</u>	<u>pH</u>
250 mL Plastic	1	Grab		HNO3	<2

Customer Sample ID: **SO080620-01**

Oxidor Sample ID: **20080131-003**

Collected: **08/06/20 11:30**

Collected By: **Greg Henderson**

Collector Affiliation: **Exide Technologies**

Matrix: **Liquid**

<u>Bottle Type</u>	<u>Count</u>	<u>Collection Method</u>	<u>Parts / Interval</u>	<u>Indicated / Observed Preservation</u>	<u>pH</u>
1000 mL Plastic	1	Grab		Temp	-

Customer Sample ID: **SO080620-02**

Oxidor Sample ID: **20080131-004**

Collected: **08/06/20 11:30**

Collected By: **Greg Henderson**

Collector Affiliation: **Exide Technologies**

Matrix: **Liquid**

<u>Bottle Type</u>	<u>Count</u>	<u>Collection Method</u>	<u>Parts / Interval</u>	<u>Indicated / Observed Preservation</u>	<u>pH</u>
250 mL Plastic	1	Grab		HNO3	<2

Customer Sample ID: **L080620-01**

Oxidor Sample ID: **20080131-005**

Collected: **08/06/20 11:45**

Collected By: **Greg Henderson**

Collector Affiliation: **Exide Technologies**

Matrix: **Liquid**

<u>Bottle Type</u>	<u>Count</u>	<u>Collection Method</u>	<u>Parts / Interval</u>	<u>Indicated / Observed Preservation</u>	<u>pH</u>
1000 mL Plastic	1	Grab		Temp	-

Exide Technologies
Eduardo Salazar

Sample Preservation Verification

Project Name: **Raw Grab Samples Quarterly**

Customer Sample ID: **L080620-02**

Collected By: **Greg Henderson**

Oxidor Sample ID: **20080131-006**

Collector Affiliation: **Exide Technologies**

Collected: **08/06/20 11:45**

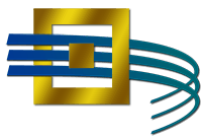
Matrix: **Liquid**

Indicated / Observed

<u>Bottle Type</u>	<u>Count</u>	<u>Collection Method</u>	<u>Parts / Interval</u>	<u>Preservation</u>	<u>pH</u>
250 mL Plastic	1	Grab		HNO3	<2

Sample conditions at time of receipt at laboratory verified in part or in whole by:

A.J.



Documentation

PROJECT DESCRIPTION: **Raw Grab Samples Quarterly**



7471 Fifth Street
Frisco, TX 75034
Telephone 972-335-2121
Facsimile 972-377-2707

CHAIN OF CUSTODY RECORD

INDUSTRY: EXIDE Technologies	OUTFALL: Influent water flows	SAMPLER: Greg Henderson
ADDRESS: 7471 Fifth Street Frisco, Texas 75034	NATURE OF INDUSTRY: Secondary Smelting	REPRESENTING: EXIDE Technologies
INDUSTRY REPRESENTATIVE (S): Eduardo Salazar	SIGNATURE: <i>[Signature]</i>	

SAMPLE No. / IDENTIFICATION	DATE (S)	TIME (S)	SAMPLE TYPE **	ANALYSES REQUESTED	pH	DATE TIME	INITIALS	PRESERVATION/REMARKS/CONTAINERS / ALL SAMPLES COOL ≤ 6° C	INITIALS
20080131									
FD080620-01	08/06/20	11:15 am	Grab	TDS-TSS	10.1			None/1 liter	GH
FD080620-02	08/06/20	11:15 am	Grab	As,Cd,Cu,Mn, Ni,Ag,Fe,Ba,C r,Pb,Hg,Se,Zn	10.1			HN03//250ml/plastic	GH
SO080620-01	08/06/20	11:30 am	Grab	TDS-TSS	4.7			None/1 liter	GH
SO080620-02	08/06/20	11:30 am	Grab	As,Cd,Cu,Mn, Ni,Ag,Fe,Ba,C r,Pb,Hg,Se,Zn	4.7			HN03//250ml/plastic	GH
L080620-01	08/06/20	11:45 am	Grab	TDS-TSS	13.3			None/1 liter	GH
L080620-02	08/06/20	11:45 am	Grab	As,Cd,Cu,Mn, Ni,Ag,Fe,Ba,C r,Pb,Hg,Se,Zn	13.3			HN03//250ml/plastic	GH

001
002
003
004
005
006

FIELD INFORMATION: Raw Grab Samples Quarterly	E-MAIL RESULTS TO Billy.king@exide.com
USE WASTE WATER REPORT FORMAT	

RELINQUISHED BY: (Signature) <i>[Signature]</i>	REPRESENTING EXIDE	DATE 8-7-20	TIME 9:20 AM	RECEIVED BY: (Signature) <i>[Signature]</i>	REPRESENTING JCS6	DATE 8/7/20	TIME 9:20
RELINQUISHED BY: (Signature) <i>[Signature]</i>	REPRESENTING JCS6	DATE 8/7/20	TIME 11:30 AM	RECEIVED BY: (Signature) <i>[Signature]</i>	REPRESENTING Oxidor	DATE 8/7/20	TIME 11:30

OX-104 3-4pc

** TC = TIME COMPOSITE (96 PARTS) FC = FLOW WEIGHTED COMPOSITE (96 PARTS) G = GRAB