

Stericycle[®]

**2023 Q1
INCINERATION
REPORT**

April 28, 2023

District Manager
Ministry of the Environment, Conservation and Parks
Halton-Peel District Office
300-4145 North Service Road
Burlington, ON
L7L 6A3

Dear District Manager,

**Re: Stericycle, ULC.
Certificate of Approval for a Waste Disposal Site No. A680324**

As required by Condition 52 of the above-mentioned Certificate of Approval, please find attached the incinerator quarterly report for the first quarter of 2023.

During January 2023 there were 4 occurrences of the 4-hour CO alarm & 0 occurrences of the 12-hour CO alarm. In February 2023 there were 5 occurrences of the 4-hour CO alarm and 0 occurrences of the 12-hour CO alarm. In March 2023 there were 20 occurrences of the 4-hour CO alarm and 4 occurrences of the 12-hour CO alarm. Stericycle will continue to work with the incinerator operators to further reduce the number of CO alarms.

There were 0 occurrences of the 24-hour NOX alarm triggered in Q1 of 2023.

Details on the above noted alarms are available in the body of the attached report.

**FIRST QUARTER 2023
INCINERATOR QUARTERLY REPORT - SUPPLEMENTAL INFORMATION**

- The Emergency Bypass stack was used three (3) times during Q1 2023. A detailed description is provided in this report.
- Throughout the quarter, minor issues with either the waste feed or the proper operation of certain pieces of equipment caused alarm conditions. In all cases, the problems were fixed, and normal operations resumed. Corrective actions included adjustments to the waste feed mix and rate and corrective maintenance on affected systems.
- Throughout the first quarter of 2023, the incinerator was run by trained Stericycle operators Emilio Perez, Raminderpal Singh, Said M. Said & Lamek Abraha.
- There were no complaints received regarding the operation of the incinerator during the first quarter of 2023.
- Stericycle Inc. operated the incinerator on the following days during the first quarter:

Start-up	Shut Down
	12/31/2022 @ 10:30
01/02/2023 @ 11:08	01/06/2023 @ 12:06
01/08/2023 @ 14:07	01/11/2023 @ 17:19
01/12/2023 @ 09:04	01/13/2023 @ 02:29
01/13/2023 @ 07:25	01/15/2023 @ 17:10
01/16/2023 @ 09:56	01/20/2023 @ 22:37
01/21/2023 @ 02:06	01/21/2023 @ 09:07
01/27/2023 @ 12:54	01/27/2023 @ 18:35
01/28/2023 @ 05:21	01/28/2023 @ 21:39
01/30/2023 @ 11:05	02/02/2023 @ 09:07
02/02/2023 @ 14:17	02/03/2023 @ 08:12
02/03/2023 @ 09:20	02/06/2023 @ 04:02
02/06/2023 @ 10:01	02/13/2023 @ 03:58
02/13/2023 @ 13:34	02/13/2023 @ 23:04
02/14/2023 @ 04:15	02/15/2023 @ 15:55
02/15/2023 @ 20:07	02/16/2023 @ 13:42
02/16/2023 @ 18:02	02/17/2023 @ 14:47
02/17/2023 @ 19:02	02/19/2023 @ 23:19
02/20/2023 @ 03:30	02/21/2023 @ 14:29
02/22/2023 @ 13:54	02/23/2023 @ 23:47
02/24/2023 @ 03:54	02/24/2023 @ 23:51
02/25/2023 @ 04:01	02/27/2023 @ 11:40
02/28/2023 @ 07:08	03/01/2023 @ 13:05
03/01/2023 @ 19:10	03/02/2023 @ 07:32

Start-up	Shut Down
03/02/2023 @ 09:32	03/02/2023 @ 15:29
03/02/2023 @ 17:58	03/03/2023 @ 12:59
03/03/2023 @ 17:17	03/05/2023 @ 04:55
03/05/2023 @ 10:04	03/06/2023 @ 19:57
03/07/2023 @ 00:05	03/07/2023 @ 10:12
03/07/2023 @ 14:49	03/08/2023 @ 14:30
03/08/2023 @ 19:15	03/10/2023 @ 20:34
03/11/2023 @ 01:01	03/12/2023 @ 09:36
03/12/2023 @ 14:13	03/14/2023 @ 13:53
03/14/2023 @ 18:11	03/15/2023 @ 10:07
03/15/2023 @ 14:29	03/16/2023 @ 07:03
03/16/2023 @ 11:18	03/17/2023 @ 10:01
03/17/2023 @ 14:30	03/18/2023 @ 20:46
03/19/2023 @ 01:04	03/19/2023 @ 02:32
03/23/2023 @ 08:39	03/23/2023 @ 16:41
03/24/2023 @ 07:42	03/25/2023 @ 11:00
03/25/2023 @ 15:18	03/26/2023 @ 14:59
03/26/2023 @ 19:10	03/27/2023 @ 21:49
03/28/2023 @ 02:29	03/28/2023 @ 17:28
03/28/2023 @ 22:07	03/28/2023 @ 23:41
03/29/2023 @ 05:55	03/29/2023 @ 19:14
03/29/2023 @ 19:24	03/30/2023 @ 08:27
03/30/2023 @ 13:02	03/31/2023 @ 07:44
03/31/2023 @ 12:05	

During Q1 of 2023 routine maintenance was performed on the incinerator during the scheduled shutdowns along with the following:

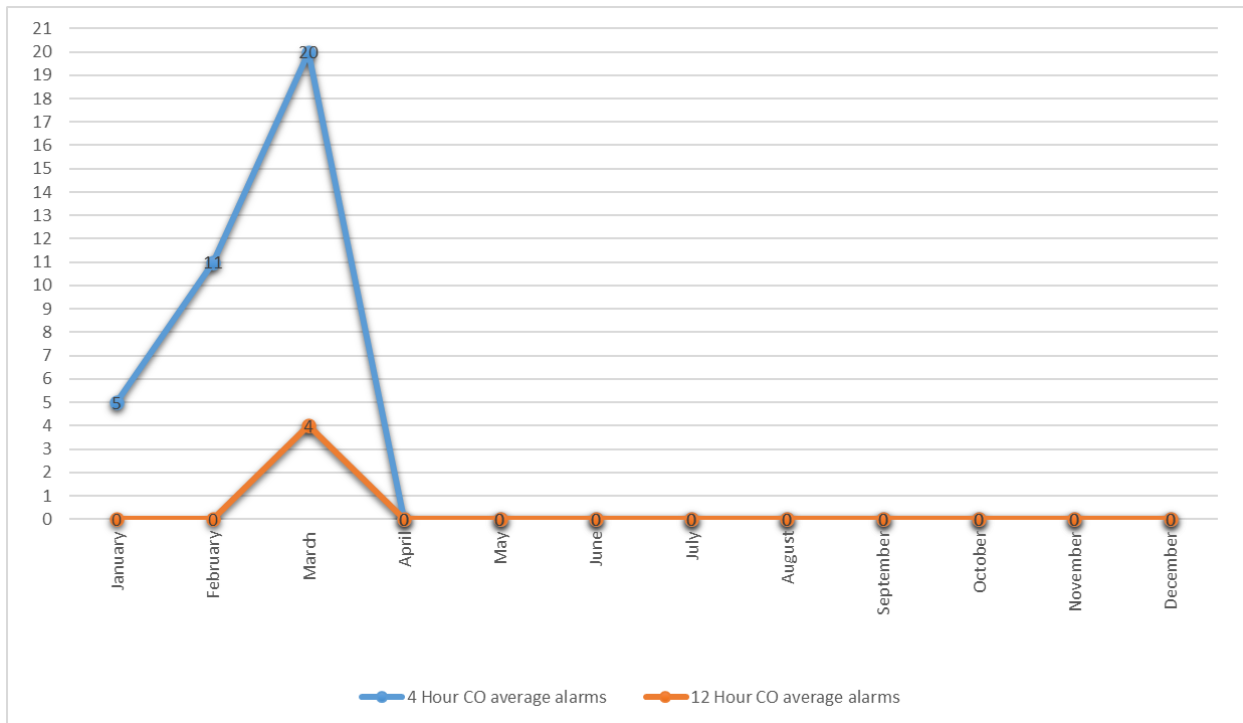
- Replacement of the lower ram

Emergency Bypass Summary

Date	Start Time	End Time	Duration	Emission Volume (m ³)	Reason	Corrective Action
1/15/2023	16:07:00	16:23:00	0:16:00	58.33	stack opened due to loss of ID fan.	Maintenance trouble shot and restarted the ID fan. Called into MECP spills action, reference number 1-2GBD8D
1/21/2023	8:47	8:55	0:08:00	29.17	The emergency bypass stack cap opened due to a malfunction of the pump that circulates water in the quench tank which caused hot water to recirculate back into the quench tank. This inturn caused an increase in the quench tank temperature which triggered the opening of the emergency bypass stack cap.	Stericycle operations and maintenance brought the incinerator to a controlled shutdown. MECP reference number 1-2GQG34
3/9/2023	4:02	4:06	0:04	14.58	The night shift supervisor reported that he was carrying out his hourly check and checking the ram settings. While on the ram settings screen, he clicked on the F9 button (which is one of the usual buttons to go back, See attached) to exit the settings screen, but instead the stack cap opened.	Investigation into the event found that the supervisor on shift had inadvertently navigated to the wrong screen on the PLC controller and shut-down the APC system. The system was immediately restarted at the time of the event.. MECP reference number 1-32J5P0

CO Alarm Chart Q1 2023

Month	4 Hour CO average alarms	12 Hour CO average alarms
January	5	0
February	11	0
March	20	4
April		
May		
June		
July		
August		
September		
October		
November		
December		



2022 CO alarms vs. 2023 CO alarms

Month	2022		2023	
	4 Hr. Alarm	12 Hr. Alarm	4 Hr. Alarm	12 Hr. Alarm
January	17	3	5	0
February	13	4	11	0
March	7	1	20	4
April	15	3		
May	10	5		
June	18	7		
July	19	4		
August	10	0		
September	11	1		
October	17	3		
November	14	1		
December	11	3		

Stericycle warrants that it has exercised best efforts to adhere to all the applicable Terms & Conditions of its Waste Disposal Site Certificate of Approval including all inspection and reporting requirements through Q1 of 2023.


Stericycle is very committed to the full compliance with all conditions of its Provisional Certificate of Approval, throughout the year, whenever a situation of possible non-compliance was identified; immediate actions were taken to ensure full compliance. Stericycle has mechanisms in place to always ensure full compliance. Employees are aware of their responsibilities and are trained appropriately.

Stericycle believes that the current monitoring program is sufficient and enables both Stericycle and the MECP to have a good understanding of the Site operations and to assess its compliance with the Certificate of Approval and all the relevant regulations.

However, Stericycle is very committed to looking for ways to improve its operations through better procedures, training, inspections, and monitoring programs and will continue to do so.

I trust that this is the information required and that it meets with your approval. Should you have any questions or require additional information, please do not hesitate to contact me accordingly.

Regards,



Dan Kokol
Operational EHS Manager
Phone: 905-595-8532
Email: dkokol@stericycle.com



January 2023 Incineration Averages and Ranges

Date		OX6min	COmin	NOXmin	PrimTemp°C	SecTemp°C	SNCR	DemTemp°C	CarbTemp°C	DiffTemp°C	IDFanTemp°C	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
1/1/2023	Average	20.25	0.00	0.00	120.53	61.10	6.74	67.72	19.06	-48.65	8.74	9.01	7.38	7.08	0.00	0.00	0.00	Off
	Min	20.07	0.00	0.00	65.45	41.11	6.64	63.39	16.10	-50.07	7.81	8.80	7.30	7.01	0.00	0.00	0.00	
	Max	20.42	0.00	0.00	234.56	100.13	6.81	72.21	23.58	-46.61	10.12	9.20	7.40	7.10	0.02	0.00	0.00	
1/2/2023	Average	17.20	3.14	8.89	257.39	467.56	6.46	56.19	37.92	-18.27	23.04	8.32	7.29	7.15	0.04	16.27	0.35	Off/Start-up/Normal(ON)
	Min	9.08	0.00	0.00	48.97	36.11	4.63	21.25	22.76	-48.61	9.72	6.53	6.74	6.09	0.00	0.00	0.00	
	Max	20.39	501.34	67.70	750.67	1064.40	6.90	77.99	54.57	28.61	44.28	9.63	7.51	7.44	0.10	40.09	1.00	
1/3/2023	Average	12.08	0.03	43.09	946.77	1054.83	6.51	36.84	54.47	17.63	43.31	8.07	7.24	6.90	0.10	39.47	1.00	Normal(ON)
	Min	10.01	0.00	20.58	751.03	997.28	6.50	34.24	54.34	13.66	41.73	7.18	7.03	6.64	0.10	39.32	1.00	
	Max	14.50	17.83	99.11	1011.24	1090.89	6.53	41.00	54.70	20.19	45.96	8.62	7.36	7.14	0.10	39.66	1.00	
1/4/2023	Average	12.51	0.06	41.47	1002.04	1054.18	6.51	37.06	54.48	17.41	43.87	7.86	7.39	6.77	0.10	39.38	1.57	Normal(ON)
	Min	10.26	0.00	0.00	979.77	993.43	6.48	31.50	54.27	13.48	41.67	7.57	7.24	6.62	0.10	39.20	1.00	
	Max	15.83	26.85	103.54	1036.93	1118.51	6.53	41.12	54.68	22.82	46.36	8.03	7.63	7.00	0.10	39.78	2.00	
1/5/2023	Average	13.32	0.92	39.94	871.92	1046.28	6.51	35.85	54.44	18.60	44.59	7.78	7.28	6.72	0.10	40.01	2.57	Normal(ON)
	Min	10.62	0.00	18.62	652.10	994.32	6.49	31.69	54.30	14.57	42.46	6.12	6.34	6.32	0.10	39.78	2.00	
	Max	15.41	329.30	104.18	1014.92	1130.19	6.53	39.89	54.51	22.75	46.89	8.58	7.62	7.02	0.10	40.13	4.00	
1/6/2023	Average	16.34	2.38	27.27	811.98	668.71	6.50	46.87	44.43	-2.44	30.90	7.36	6.96	6.97	0.07	24.29	1.43	Normal(ON)/Shutdown/Off
	Min	11.05	0.00	0.00	306.09	88.89	6.10	28.38	24.51	-46.17	10.15	6.20	6.42	6.55	0.00	0.00	0.00	
	Max	20.41	794.89	111.76	1147.72	1134.10	6.90	73.23	54.58	26.01	45.65	8.37	7.43	7.30	0.10	40.10	3.00	
1/7/2023	Average	20.25	0.00	0.00	150.05	54.03	6.99	75.48	29.83	-45.64	11.57	7.01	6.60	7.37	0.00	0.00	0.00	Off
	Min	20.07	0.00	0.00	71.01	35.90	6.90	70.83	24.64	-48.04	7.17	6.90	6.60	7.30	0.00	0.00	0.00	
	Max	20.42	0.00	0.00	305.70	88.71	7.07	79.68	37.80	-41.86	15.52	7.10	6.60	7.50	0.02	0.00	0.00	
1/8/2023	Average	18.30	0.33	5.33	170.07	358.06	6.67	59.87	29.98	-29.89	13.71	7.31	6.89	7.54	0.01	11.69	0.80	Off/Preheat/Normal(ON)
	Min	0.00	0.00	0.00	-17.78	-17.78	0.00	-17.78	-17.78	-48.19	-17.78	0.00	0.00	0.00	0.00	0.00	0.00	
	Max	20.40	430.59	64.34	610.17	1056.86	6.90	75.25	44.87	27.78	40.53	9.50	9.57	8.30	0.07	41.90	3.00	
1/9/2023	Average	12.15	2.96	53.00	968.04	1067.07	6.49	34.60	50.74	16.14	42.79	7.76	7.32	6.69	0.08	40.18	1.07	Normal(ON)
	Min	9.29	0.00	16.44	611.90	999.50	6.45	30.63	43.30	6.31	40.24	6.67	7.00	6.14	0.05	39.84	1.00	
	Max	15.27	504.61	116.39	1045.15	1166.51	6.54	41.63	54.51	23.81	45.53	8.40	7.53	7.21	0.10	40.56	2.00	
1/10/2023	Average	12.80	2.01	55.07	975.13	1064.13	6.48	33.62	54.44	20.82	44.40	7.64	7.41	6.74	0.09	39.86	1.94	Normal(ON)
	Min	10.54	0.00	21.35	874.74	1031.14	6.44	30.94	54.35	17.83	43.09	6.22	6.84	6.39	0.07	39.62	1.00	
	Max	15.04	588.25	109.47	1012.02	1125.88	6.51	36.62	54.51	23.51	45.94	8.48	8.75	7.48	0.10	40.18	3.00	
1/11/2023	Average	15.18	1.73	31.97	882.85	838.72	6.48	41.23	49.19	7.96	37.38	9.07	8.42	6.97	0.08	31.42	2.72	Normal(ON)/Shutdown/Off
	Min	9.62	0.00	0.00	458.37	121.29	6.43	31.60	25.39	-43.32	8.33	7.11	7.13	6.38	0.00	0.00	0.00	
	Max	20.39	344.59	96.95	1065.08	1208.36	6.85	69.25	54.54	22.78	45.76	12.00	9.88	7.52	0.10	39.94	4.00	
1/12/2023	Average	15.58	0.88	22.01	530.43	632.53	6.69	51.00	40.53	-10.47	27.35	10.30	9.79	7.88	0.02	22.34	2.56	Off/Preheat/Normal(ON)
	Min	8.20	0.00	0.00	203.96	65.57	6.10	28.41	18.89	-48.79	7.22	8.37	8.74	7.49	0.00	0.00	0.00	
	Max	20.41	231.28	106.02	918.57	1084.24	7.00	72.65	54.51	22.76	45.23	12.52	12.47	8.41	0.08	40.41	6.00	
1/13/2023	Average	14.49	0.56	30.78	836.30	1006.88	6.13	35.39	54.11	18.73	39.41	9.28	9.07	7.64	0.06	34.06	3.33	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	9.65	0.00	0.00	590.33	489.91	4.07	22.85	49.70	8.19	31.41	8.18	8.53	6.85	0.01	0.00	0.00	
	Max	20.37	360.32	96.01	990.28	1125.29	6.54	41.56	59.89	36.93	42.75	11.83	10.70	8.37	0.10	40.40	7.00	
1/14/2023	Average	12.46	1.72	50.79	1041.93	1060.40	6.44	42.09	55.38	13.29	44.09	8.83	8.46	6.75	0.07	39.62	0.01	Normal(ON)
	Min	9.77	0.00	21.28	990.42	991.59	6.42	36.33	54.39	9.80	40.09	8.31	7.63	6.44	0.04	39.38	0.00	
	Max	15.22	397.37	114.36	1075.34	1131.51	6.46	46.51	56.40	18.11	46.81	9.04	9.00	6.93	0.10	40.77	1.00	
1/15/2023	Average	14.31	0.03	36.46	882.29	988.39	6.14	39.76	54.75	15.00	42.31	9.00	8.66	7.39	0.07	39.12	0.00	Normal(ON)/Shutdown/Off
	Min	10.84	0.00	0.00	531.23	399.61	4.98	27.66	33.48	-13.62	14.27	8.47	7.60	6.62	0.03	11.27	0.00	
	Max	20.37	17.30	106.35	1052.09	1109.59	6.60	49.13	58.41	26.49	50.04	11.45	10.68	8.32	0.09	41.18	0.00	
1/16/2023	Average	15.80	0.73	16.30	583.32	681.95	5.65	43.50	35.72	-7.77	23.04	10.29	9.94	8.17	0.02	22.49	0.00	Off/Preheat/Normal(ON)
	Min	9.71	0.00	0.00	241.78	164.26	5.00	14.31	9.74	-43.87	-0.91	8.43	8.17	6.86	0.00	0.00	0.00	
	Max	20.41	481.10	77.64	946.20	1082.63	6.10	58.02	55.06	36.61	47.16	12.12	11.83	8.81	0.08	41.00	0.00	
1/17/2023	Average	12.35	1.63	52.44	984.87	1067.36	6.01	38.68	54.79	16.12	43.77	8.68	8.28	6.70	0.09	39.79	0.00	Normal(ON)
	Min	10.61	0.00	19.24	928.82	1004.99	6.00	31.77	54.36	11.78	41.36	8.50	8.03	6.56	0.06	39.54	0.00	
	Max	15.46	699.29	113.08	1033.60	1131.47	6.05	43.62	55.55	22.61	46.11	8.93	8.81	6.97	0.10	39.87	0.00	
1/18/2023	Average	12.72	0.13	53.23	939.88	1057.22	6.01	37.70	54.80	17.10	45.63	8.87	8.43	6.80	0.10	39.48	0.42	Normal(ON)
	Min	10.95	0.00	0.00	782.39	1023.23	6.00	29.56	54.35	12.72	42.17	8.42	7.99	6.51	0.08	39.34	0.00	
	Max	15.33	113.34	128.67	986.66	1104.54	6.03	42.64	55.51	24.85	48.82	9.25	9.31	7.41	0.10	39.59	1.00	



January 2023 Incineration Averages and Ranges

Date		OX6min	COmin	NOXmin	PrimTemp°C	SecTemp°C	SNCR	DemTemp°C	CarbTemp°C	DiffTemp°C	IDFanTemp°C	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
1/19/2023	Average	12.76	1.70	51.85	991.03	1063.11	6.02	42.33	56.39	14.06	47.15	9.10	8.49	6.69	0.09	39.46	0.93	Normal(ON)
	Min	10.76	0.00	19.56	945.24	992.12	6.01	38.55	54.90	11.90	43.98	8.82	7.95	6.06	0.06	39.29	0.00	
	Max	15.39	533.94	120.48	1055.27	1143.84	6.04	47.52	59.79	17.92	51.01	9.34	9.06	6.96	0.10	39.60	1.00	
1/20/2023	Average	12.81	1.04	70.80	963.77	1075.87	5.99	42.68	57.89	15.21	47.48	9.23	8.21	7.00	0.09	38.71	0.92	Normal(ON)/Shutdown
	Min	10.13	0.00	0.00	864.28	996.23	5.95	34.68	54.80	12.25	42.69	8.88	7.74	6.29	0.07	37.20	0.00	
	Max	20.16	354.83	170.12	1027.90	1153.33	6.02	48.29	61.22	20.13	51.63	9.72	9.51	7.82	0.10	41.51	1.00	
1/21/2023	Average	17.57	0.22	14.34	683.37	660.63	6.31	47.07	46.83	-0.24	31.58	9.89	9.30	8.26	0.08	25.02	0.40	Shutdown/Normal(ON)/Shutdown/Off
	Min	10.79	0.00	0.00	270.22	95.24	5.87	23.85	23.18	-43.43	6.57	8.02	7.88	7.76	0.00	0.00	0.00	
	Max	20.41	303.63	92.62	990.97	1119.77	6.64	78.46	62.77	30.62	52.42	13.20	10.09	8.65	0.10	41.31	1.00	
1/22/2023	Average	20.25	0.00	0.00	143.27	56.25	6.68	60.81	42.95	-17.85	25.90	13.20	9.50	8.05	0.02	0.00	0.00	Off
	Min	20.07	0.00	0.00	75.61	35.56	6.54	35.77	20.96	-51.18	16.07	13.15	9.20	7.19	0.00	0.00	0.00	
	Max	20.42	0.00	0.00	269.89	95.02	6.70	77.19	71.83	35.56	40.53	13.20	10.20	8.24	0.07	0.00	0.00	
1/23/2023	Average	20.26	0.00	0.00	68.26	34.73	6.61	65.42	19.86	-45.56	17.22	13.03	9.18	8.20	0.00	0.00	0.00	Off
	Min	20.10	0.00	0.00	61.85	32.78	6.60	64.60	19.32	-47.43	16.18	12.76	9.11	7.72	0.00	0.00	0.00	
	Max	20.37	0.00	0.00	75.56	36.01	6.64	68.36	20.93	-45.06	17.99	13.15	9.20	8.27	0.00	0.00	0.00	
1/24/2023	Average	20.26	0.00	0.00	68.20	34.72	6.61	65.40	19.85	-45.55	17.23	13.03	9.18	8.20	0.00	0.00	0.00	Off
	Min	20.10	0.00	0.00	61.85	32.78	6.60	64.60	19.32	-47.43	16.18	12.76	9.11	7.72	0.00	0.00	0.00	
	Max	20.37	0.00	0.00	75.56	36.01	6.64	68.36	20.93	-45.06	17.99	13.15	9.20	8.27	0.00	0.00	0.00	
1/25/2023	Average	20.26	0.00	0.00	68.15	34.71	6.61	65.38	19.84	-45.54	17.24	13.03	9.18	8.21	0.00	0.00	0.00	Off
	Min	20.10	0.00	0.00	61.85	32.78	6.60	64.60	19.32	-47.43	16.18	12.76	9.11	7.72	0.00	0.00	0.00	
	Max	20.37	0.00	0.00	75.56	36.01	6.64	68.36	20.93	-45.06	17.99	13.15	9.20	8.27	0.00	0.00	0.00	
1/26/2023	Average	20.26	0.00	0.00	68.10	34.70	6.61	65.37	19.84	-45.53	17.24	13.03	9.18	8.21	0.00	0.00	0.00	Off
	Min	20.10	0.00	0.00	61.85	32.78	6.60	64.60	19.32	-47.43	16.18	12.76	9.11	7.72	0.00	0.00	0.00	
	Max	20.37	0.00	0.00	75.56	36.01	6.64	68.36	20.93	-45.06	17.99	13.15	9.20	8.27	0.00	0.00	0.00	
1/27/2023	Average	20.25	0.00	0.00	208.51	390.67	5.32	43.55	24.24	-19.31	19.98	10.53	8.16	7.64	0.08	0.28	0.00	Off/Preheat/Shutdown/Off
	Min	20.07	0.00	0.00	17.78	18.89	4.15	18.48	18.54	-44.24	17.90	9.00	7.75	7.43	0.00	0.00	0.00	
	Max	20.41	0.00	0.00	400.51	723.31	6.60	73.81	30.33	0.56	22.53	12.12	8.72	8.10	0.33	1.10	0.00	
1/28/2023	Average	16.55	0.05	0.98	433.86	711.67	5.63	51.44	42.76	-8.68	33.95	8.37	7.96	7.91	21.61	23.20	0.00	Off/Preheat/Normal(ON)/Shutdown
	Min	11.25	0.00	-2.55	79.02	79.17	3.93	25.26	23.28	-48.56	16.75	6.07	5.65	7.07	0.00	0.00	0.00	
	Max	20.40	69.88	19.06	774.99	1038.79	6.67	74.94	58.29	21.78	52.05	9.03	9.23	8.40	40.02	42.27	0.00	
1/29/2023	Average	19.74	0.00	1.24	272.70	264.01	6.72	49.47	20.71	-28.76	9.96	8.49	9.79	8.52	5.63	5.62	0.00	Shutdown/Off
	Min	13.61	0.00	0.00	105.47	79.44	6.34	38.32	10.95	-40.16	0.79	7.81	9.09	7.86	0.00	0.00	0.00	
	Max	20.41	0.00	19.71	634.82	1010.13	6.87	54.42	55.30	16.75	45.71	9.45	9.90	8.98	38.88	38.92	0.00	
1/30/2023	Average	17.71	0.04	5.47	319.38	484.40	6.50	43.57	24.42	-19.15	14.14	8.40	10.07	8.40	13.24	13.04	0.00	Off/Preheat/Normal(ON)
	Min	0.00	0.00	0.00	-17.78	-17.78	0.00	-17.78	-17.78	-40.95	-17.78	0.00	0.00	0.00	0.00	0.00	0.00	
	Max	20.42	36.89	36.50	799.48	1061.32	6.65	51.35	59.81	32.96	50.71	10.50	12.68	8.70	40.64	40.00	0.00	
1/31/2023	Average	12.61	0.15	38.34	950.60	1046.27	5.96	42.34	56.34	14.00	47.74	8.27	7.86	6.86	39.89	41.12	0.00	Normal(ON)
	Min	9.66	0.00	8.43	718.83	929.93	5.88	35.26	54.43	11.36	43.89	7.95	7.31	6.68	37.51	39.95	0.00	
	Max	15.87	70.23	104.89	1090.55	1094.83	6.19	46.62	58.47	19.33	51.19	8.47	8.55	7.22	40.57	41.57	0.00	



January 2023 Incineration Feed Data

TheDate	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DailySum	Monthly Sum	
01-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	286.20	521.50	508.60	505.80	1822.1		
03-Jan-23	506.60	510.50	504.80	510.00	507.60	507.30	428.30	180.60	556.00	554.70	438.40	561.70	465.20	126.20	550.70	552.80	213.90	484.30	70.20	590.20	477.20	342.40	299.80	60.50	9999.9		
04-Jan-23	505.80	509.60	503.60	525.60	505.80	501.80	366.90	273.80	562.20	573.40	454.20	496.10	566.20	234.80	508.20	367.80	269.00	555.80	219.60	359.00	601.40	539.40	0.00	0.00	10000.0		
05-Jan-23	610.20	602.30	618.10	605.10	602.50	150.80	0.00	0.00	0.00	0.00	0.00	346.40	502.40	0.00	0.00	301.20	549.40	546.70	60.40	508.70	502.20	551.80	558.40	511.90	8128.5		
06-Jan-23	554.40	559.40	559.90	555.20	551.20	553.60	574.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3908.2		
07-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
08-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	230.60	513.50	782.5		
09-Jan-23	506.20	501.00	507.80	505.10	500.60	505.80	338.00	0.00	503.30	550.90	357.80	550.50	413.20	559.00	554.70	197.60	342.70	518.40	101.30	611.00	587.70	633.60	153.80	0.00	10000.0		
10-Jan-23	0.00	0.00	510.10	608.40	613.50	635.70	276.00	253.60	561.70	576.60	578.80	571.70	568.20	578.50	633.40	557.00	502.60	452.00	275.70	607.60	638.80	0.10	0.00	0.00	10000.0		
11-Jan-23	0.00	603.40	601.40	602.60	605.40	197.90	400.80	401.70	574.80	558.50	567.80	559.70	576.70	628.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6878.9	
12-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	570.50	508.50	553.20	452.60	550.30	510.60	105.40	481.40	607.40	356.00	441.60	566.50	5704.0		
13-Jan-23	620.40	601.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	543.90	553.10	0.00	264.10	402.90	220.40	566.10	334.90	606.80	607.80	606.00	554.50	501.20	6983.2		
14-Jan-23	528.60	534.10	500.60	507.20	521.30	549.40	104.80	210.30	555.40	527.40	0.00	0.00	255.20	529.00	505.50	501.90	506.80	428.50	314.00	516.00	501.10	633.40	567.00	1.10	9798.6		
15-Jan-23	502.70	528.40	520.20	519.00	513.00	0.00	0.00	0.00	0.00	183.10	499.60	506.60	502.70	508.60	376.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5160.4	
16-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	577.10	571.20	502.50	553.30	400.20	300.40	500.60	501.20	506.00	503.60	255.40	5171.5	149408.9	
17-Jan-23	505.60	506.20	502.00	505.20	506.00	503.80	335.40	412.10	553.50	555.10	551.70	570.20	551.20	84.10	559.60	474.70	284.20	542.60	503.00	517.70	476.10	0.00	0.00	0.00	10000.0		
18-Jan-23	0.00	503.50	502.40	539.70	553.40	513.70	410.80	196.50	553.10	551.90	581.50	464.70	553.00	103.40	565.30	425.90	465.00	553.60	545.40	271.80	322.50	589.50	233.40	0.00	10000.0		
19-Jan-23	504.00	530.60	501.60	507.30	499.10	517.90	261.00	0.00	509.50	557.40	513.30	514.00	510.30	555.50	531.90	501.90	542.60	515.00	275.00	649.10	503.00	0.00	0.00	0.00	10000.0		
20-Jan-23	0.00	554.70	554.70	555.60	558.20	552.70	244.60	435.80	504.10	502.80	512.40	503.90	504.30	505.10	512.90	507.30	501.50	507.00	0.00	555.70	606.80	319.90	0.00	0.00	10000.0		
21-Jan-23	0.00	0.00	262.40	504.10	497.30	554.00	461.50	317.80	424.50	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3024.8	
22-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	361.60	85.60	413.50	289.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1150.5	
29-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30-Jan-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	191.60	558.20	0.00	146.00	895.8		
31-Jan-23	551.70	564.40	553.20	557.40	552.30	558.20	186.00	505.90	502.20	502.80	5.60	0.00	0.00	0.00	511.20	557.90	573.90	507.30	5.40	600.60	603.70	508.80	589.00	502.50	10000.0		

Carbon Monoxide > 8ppm 4 hour alarm



Carbon Monoxide > 8ppm 4 hour alarm

Date	Start Time	Stop Time	Duration	Op. Mode	Stack CO @ 11% O2	Stack CO as mg/m ³	Explanation	Actions Taken
1/9/2023	3:00	4:00	1:00	Normal	8.2	9.5	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
1/9/2023	16:00	20:00	4:00	Normal	13.1	15.1	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
1/10/2023	13:31	18:00	4:29	Normal	13.8	15.9	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
1/13/2023	2:30	4:00	1:30	Normal	10.7	12.3	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
1/14/2023	5:00	9:00	4:00	Normal	10.5	12.1	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.

Secondary Chamber Temperature < 1000°C

Date	Start Time	Stop Time	Duration	Op. Mode	Temp. °C	Explanation	Actions Taken
1/6/2023	13:07	16:06	2:59	Shutdown	361	Low secondary chamber temperature was caused by an incorrect flameport air setting during shutdown.	No waste was fed, the incinerator was brought to a complete shutdown.
1/11/2023	17:27	21:19	3:52	Shutdown	287	Low secondary chamber temperature was caused by an incorrect flameport air setting during shutdown.	No waste was fed, the incinerator was brought to a complete shutdown.
1/21/2023	0:18	1:09	0:51	shutdown	966	Low secondary chamber temperature was caused by an incorrect flameport air setting during shutdown.	No waste was fed, the incinerator was brought to a complete shutdown.
1/21/2023	11:37	13:06	1:29	Shutdown	969	Low secondary chamber temperature was caused by an incorrect flameport air setting during shutdown.	No waste was fed, the incinerator was brought to a complete shutdown.
1/28/2023	15:29	17:42	2:13	Normal	986	Low secondary chamber temperature was caused by an incorrect flameport air setting.	No waste was fed until the secondary chamber temperature was brought back to the normal operating range.
1/30/2023	22:05	23:15	1:10	Normal	984	Low secondary chamber temperature was caused by an incorrect flameport air setting.	No waste was fed until the secondary chamber temperature was brought back to the normal operating range.

Atomizer Amps < 36

	Start	Stop		Op.	Atom. A	Atom. B		Action
Date	Time	Time	Duration	Mode	amps	amps	Explanation	Taken
1/11/2023	17:42:00	21:18:00	3:36:00	Shutdown		13.6	The unit lost amperage during shutdown of the incinerator and APC system.	The incinerator was brought to a complete shutdown.

Carbon Bed Inlet Temperature <57C

	Start	Stop		Op.	Carbon bed		Actions
Date	Time	Time	Duration	Mode	inlet °C	Explanation	Taken
1/30/2023	21:22	0:32	3:10	Normal	58	High Carbon Bed inlet temperatures were caused by an incorrect reheat steam setting.	The reheat steam setting was adjusted to bring the temperature back to the normal operating range.

Differential from Demister < 10 C



Differential from Demister < 10°C

	Start	Stop		Op.	Differential Temp		Actions
Date	Time	Time	Duration	Mode	Outlet °C	Explanation	Taken
1/9/2023	0:02	8:19	8:17	Normal	7.6	The low differential temperature was caused by an incorrect reheat steam setting.	The reheat steam setting was adjusted to bring the differential temperature back into the normal operating range.



February 2023 Incineration Averages and Ranges

TheDate		OX6min	COmin	NOXmin	PrimTemp°C	SecTemp°C	SNCR	DemTemp°C	CarbTemp°C	DiffTemp	IDFanTemp°C	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
2/1/2023	Average	12.60	0.60	31.19	987.44	1061.68	5.90	38.40	54.73	16.33	44.82	7.92	8.12	7.50	39.66	41.20	0.00	Normal(ON)
	Min	10.47	0.00	7.17	752.78	986.94	5.87	32.86	52.49	13.42	43.01	7.21	7.32	6.84	39.22	40.92	0.00	
	Max	15.41	621.92	115.05	1031.49	1111.37	5.93	42.06	55.81	21.58	46.41	8.66	9.30	8.33	40.35	41.59	0.00	
2/2/2023	Average	13.68	0.19	17.15	848.47	1010.38	6.00	43.90	53.42	9.52	41.37	7.88	8.46	7.73	14.38	36.06	0.00	Normal(ON)/Shut down/Preheat/Normal(ON)
	Min	9.95	0.00	0.00	566.93	446.60	5.88	34.01	38.48	-32.69	18.30	7.34	7.21	7.06	0.00	1.18	0.00	
	Max	20.37	90.33	98.17	1015.88	1112.01	6.56	71.39	57.65	20.60	48.20	8.66	9.39	8.33	39.32	42.74	0.00	
2/3/2023	Average	13.34	2.12	27.84	888.11	1054.65	5.90	39.13	55.27	16.14	43.10	7.80	7.95	7.39	0.07	40.12	0.00	Normal(ON)/Shut down/Normal(ON)
	Min	10.24	0.00	7.46	547.12	913.74	5.53	29.25	54.26	12.65	39.50	6.04	7.22	7.06	0.05	39.70	0.00	
	Max	17.05	593.45	87.58	1051.94	1158.88	5.95	43.83	56.62	26.86	45.65	8.02	8.50	7.84	0.10	40.42	0.00	
2/4/2023	Average	13.49	0.56	16.91	1039.15	1049.74	5.93	41.51	55.76	14.25	43.47	7.83	8.25	7.62	0.08	40.09	0.00	Normal(ON)
	Min	10.52	0.00	5.90	739.01	985.92	5.86	35.57	54.50	11.98	39.73	7.42	7.30	7.19	0.05	39.95	0.00	
	Max	15.53	214.23	61.94	1133.74	1112.88	6.02	45.06	57.05	18.93	45.98	8.27	9.01	7.98	0.10	40.29	0.00	
2/5/2023	Average	13.14	0.54	24.12	1074.43	1054.71	6.01	39.68	55.09	15.41	42.74	7.52	7.72	7.17	0.10	40.03	0.00	Normal(ON)
	Min	11.20	0.00	8.29	1032.66	1010.01	5.96	33.46	54.39	12.13	39.83	6.47	6.73	6.87	0.10	39.85	0.00	
	Max	14.96	183.83	68.31	1103.16	1091.68	6.04	43.56	55.96	21.01	44.93	8.17	8.20	7.34	0.10	40.15	0.00	
2/6/2023	Average	16.33	1.44	10.67	851.16	943.66	5.86	44.44	43.42	-1.02	28.82	8.71	8.50	7.54	1.42	24.23	0.00	Normal(ON)/Shut down/Off/Preheat/Normal(ON)
	Min	10.47	0.00	0.00	545.15	506.90	5.21	31.47	15.85	-38.19	4.11	7.80	7.29	6.96	0.00	0.00	0.00	
	Max	20.41	572.18	49.98	1110.34	1080.90	6.41	60.68	56.91	22.75	46.75	10.25	9.85	7.84	8.12	39.93	0.00	
2/7/2023	Average	13.25	1.94	25.58	1059.07	1060.84	6.00	40.40	55.06	14.66	43.19	8.08	7.39	7.02	0.10	39.75	0.00	Normal(ON)
	Min	11.14	0.00	8.66	842.26	1002.22	5.95	31.88	54.41	10.68	39.62	7.84	7.28	6.89	0.08	38.41	0.00	
	Max	15.53	726.89	82.02	1106.81	1134.50	6.02	45.66	56.33	22.53	46.76	8.38	7.49	7.21	0.10	40.06	0.00	
2/8/2023	Average	13.34	2.90	30.93	964.81	1062.02	6.00	32.57	54.34	21.77	42.54	7.77	7.58	7.02	0.10	39.84	0.14	Normal(ON)
	Min	11.55	0.00	0.00	721.80	982.46	5.70	29.39	53.89	18.95	39.30	6.52	6.97	6.63	0.10	39.69	0.00	
	Max	15.97	618.17	91.75	1079.72	1143.90	6.01	35.53	54.62	24.96	45.02	8.39	8.16	7.59	0.12	39.99	1.00	
2/9/2023	Average	13.18	3.15	29.66	1000.94	1067.53	6.00	28.93	54.05	25.12	42.09	7.77	7.39	6.77	0.08	39.69	0.20	Normal(ON)
	Min	10.66	0.00	5.08	789.23	1017.22	5.98	21.07	53.48	20.34	38.16	7.33	7.21	6.65	0.02	39.34	0.00	
	Max	15.86	602.87	80.70	1095.46	1158.07	6.02	34.08	54.48	32.93	44.72	8.15	7.65	7.14	0.12	40.00	1.00	
2/10/2023	Average	13.22	2.94	29.49	1065.03	1057.87	6.01	31.53	54.36	22.82	44.78	7.71	7.36	6.78	0.10	40.07	0.98	Normal(ON)
	Min	11.03	0.00	9.52	992.09	1002.82	5.99	28.96	54.06	20.50	43.27	7.64	7.26	6.70	0.08	39.97	0.00	
	Max	15.62	701.15	104.78	1103.68	1125.94	6.03	33.97	54.52	25.15	45.90	7.79	7.44	6.86	0.10	40.21	1.00	
2/11/2023	Average	13.88	0.36	24.09	1063.09	1043.68	6.02	33.12	54.38	21.25	44.15	7.72	7.36	6.80	0.09	40.07	1.00	Normal(ON)
	Min	11.63	0.00	8.50	981.94	990.89	5.98	29.90	53.87	18.97	41.81	7.52	7.27	6.58	0.05	39.82	1.00	
	Max	16.21	388.83	90.61	1105.03	1111.07	6.05	35.48	54.51	24.52	46.01	8.00	7.45	6.93	0.10	40.18	1.00	
2/12/2023	Average	13.89	2.35	19.71	977.11	1047.23	6.01	30.97	54.37	23.39	42.91	7.50	7.34	6.94	0.09	39.88	1.00	Normal(ON)
	Min	10.75	0.00	6.90	788.88	984.02	5.98	26.90	53.99	20.13	40.39	7.13	7.19	6.76	0.05	39.62	1.00	
	Max	15.76	907.93	62.30	1118.78	1138.77	6.04	34.30	54.51	27.13	45.06	7.89	7.66	7.15	0.10	40.10	1.00	
2/13/2023	Average	15.33	0.01	23.57	838.45	908.44	5.86	35.15	54.08	9.93	33.90	7.65	7.43	6.58	12.95	30.72	0.64	Normal(ON)/Shut down/Off/Preheat/Normal(ON)/Shut
	Min	9.79	0.00	0.00	522.22	409.74	4.50	20.41	20.45	-47.77	9.71	6.05	7.01	4.21	0.00	0.00	0.00	
	Max	20.39	13.46	98.62	1065.02	1101.52	6.13	72.62	54.45	28.43	46.11	8.30	7.99	7.46	40.37	41.41	1.00	
2/14/2023	Average	13.46	0.63	29.18	935.99	1025.82	5.98	30.28	53.90	23.63	43.56	7.59	7.35	6.83	3.64	39.73	0.98	Shutdown/Off/Pre heat/Normal(ON)
	Min	11.06	0.00	0.00	580.24	392.33	5.00	21.11	48.33	7.20	33.04	7.26	7.20	6.60	0.04	27.94	0.00	
	Max	20.37	446.93	85.17	1066.49	1126.69	6.18	42.70	54.69	27.78	46.33	7.85	7.70	7.40	30.14	43.06	1.00	
2/15/2023	Average	13.25	2.57	30.19	1003.24	1054.53	6.12	30.75	54.36	23.61	43.78	7.30	7.38	6.78	0.10	39.60	1.00	Normal(ON)/Shut down/Off/Preheat/Normal(ON)
	Min	10.99	0.00	0.00	749.46	766.02	5.99	23.24	54.05	18.99	40.65	7.18	7.01	6.67	0.06	39.39	1.00	
	Max	20.30	556.72	100.76	1049.15	1092.71	6.43	35.27	55.46	30.94	46.31	7.51	7.65	7.16	0.10	39.74	1.00	
2/16/2023	Average	13.43	3.43	31.73	987.51	1049.60	6.01	30.85	54.22	23.37	43.88	7.20	7.39	6.76	0.09	39.52	1.02	Normal(ON)/Shut down/Off/Preheat/Normal(ON)
	Min	10.49	0.00	0.00	745.94	639.83	5.77	24.52	52.35	15.00	41.23	7.10	6.99	6.54	0.07	39.27	1.00	
	Max	20.36	2150.08	104.40	1071.22	1104.20	6.10	38.33	54.58	29.55	46.63	7.28	7.95	7.11	0.10	39.73	2.00	
2/17/2023	Average	14.08	3.40	22.84	968.56	1039.22	5.95	33.16	54.12	20.97	43.38	7.35	7.47	7.02	0.09	37.70	0.95	Normal(ON)/Shut down/Off/Preheat/Normal(ON)
	Min	11.17	0.00	-13.20	631.17	647.58	5.51	25.32	50.31	-2.93	29.51	7.20	7.21	6.54	0.05	21.52	0.00	
	Max	20.37	1061.80	88.60	1097.43	1124.50	6.19	53.93	56.52	28.87	47.57	11.50	8.73	8.00	0.10	39.50	1.00	
2/18/2023	Average	13.35	2.41	35.38	1011.84	1054.74	6.01	31.26	54.36	23.09	43.59	8.32	7.24	6.84	0.10	39.12	1.00	Normal(ON)
	Min	11.62	0.00	8.36	864.05	979.21	5.98	25.84	53.95	15.52	41.55	8.11	7.12	6.68	0.10	38.83	1.00	
	Max	16.12	859.55	93.49	1047.47	1087.47	6.06	38.92	54.55	28.57	47.60	8.50	7.78	7.10	0.12	39.28	1.00	



February 2023 Incineration Averages and Ranges

TheDate		OX6min	COmin	NOXmin	PrimTemp°C	SecTemp°C	SNCR	DemTemp°C	CarbTemp°C	DiffTemp	IDFanTemp°C	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
2/19/2023	Average	13.23	3.58	24.85	990.08	1049.51	6.01	29.79	54.34	24.55	43.45	8.16	7.20	6.87	0.10	38.90	1.00	Normal(ON)/Shutdown
	Min	9.80	0.00	7.11	810.86	1004.94	5.97	23.06	53.94	19.86	40.85	6.58	6.96	6.75	0.10	38.64	1.00	
	Max	16.09	788.33	75.36	1041.12	1081.58	6.03	34.59	54.51	31.38	45.31	8.61	7.28	7.02	0.10	39.05	1.00	
2/20/2023	Average	13.65	1.84	28.87	949.34	1046.53	6.01	28.73	54.31	25.58	43.66	8.24	7.31	6.85	0.10	38.71	1.03	Shutdown/Off/Preheat/Normal(ON)
	Min	10.49	0.00	0.00	709.09	815.21	5.99	20.77	53.93	20.74	40.51	7.79	7.19	6.54	0.10	38.51	1.00	
	Max	20.30	528.00	97.52	1079.83	1096.56	6.03	33.58	54.58	33.79	45.99	8.49	7.46	7.08	0.10	38.93	2.00	
2/21/2023	Average	13.57	3.01	42.38	933.73	1051.18	6.00	29.27	54.03	24.76	43.16	7.95	7.26	6.83	0.10	38.76	1.24	Shutdown/Off/Preheat/Normal(ON)
	Min	9.09	0.00	0.00	783.17	826.90	5.91	22.96	52.85	22.01	40.43	6.45	6.83	6.57	0.10	38.51	1.00	
	Max	20.33	622.95	129.52	1033.19	1143.33	6.04	32.35	54.47	30.56	44.91	8.67	7.47	7.05	0.10	39.23	2.00	
2/22/2023	Average	13.57	2.16	43.77	978.52	1050.08	6.02	31.17	53.35	22.18	42.63	7.93	7.42	6.19	0.10	39.21	1.83	Shutdown/Off/Preheat/Normal(ON)
	Min	10.57	0.00	0.00	697.45	730.67	5.71	22.95	51.29	18.80	38.32	6.79	7.01	0.04	0.10	39.07	1.00	
	Max	20.30	804.22	92.43	1067.73	1107.91	6.05	35.66	54.48	28.52	45.17	8.66	8.07	7.42	0.10	39.35	2.00	
2/23/2023	Average	13.45	0.37	40.01	1074.04	1056.14	6.00	30.58	53.22	22.64	41.27	7.62	7.58	7.34	0.10	39.31	2.07	Normal(ON)Shutdown
	Min	10.24	0.00	18.76	980.32	996.99	5.96	28.13	51.57	19.87	39.88	7.20	6.76	6.99	0.07	39.12	2.00	
	Max	15.69	172.16	89.68	1161.02	1157.43	6.40	34.50	54.43	24.79	43.15	7.99	8.17	7.66	0.10	39.57	3.00	
2/24/2023	Average	13.93	1.75	50.87	1004.53	1062.42	5.98	29.86	52.70	22.84	40.04	7.68	7.42	7.16	0.10	39.36	2.50	Shutdown/Off/Preheat/Normal(ON)/Shutdown
	Min	10.74	0.00	0.00	718.02	874.76	5.50	23.99	50.33	17.64	37.51	7.08	6.86	6.76	0.09	39.22	2.00	
	Max	20.27	741.25	121.24	1137.05	1175.81	6.05	36.73	55.00	28.68	43.24	8.03	11.17	7.69	0.10	39.53	3.00	
2/25/2023	Average	14.46	0.02	33.11	866.88	1043.20	6.00	31.06	53.87	22.81	40.13	7.36	7.21	7.53	0.09	40.67	2.85	Shutdown/Off/Preheat/Normal(ON)
	Min	11.90	0.00	0.00	642.65	841.62	5.72	27.71	52.76	19.35	39.07	6.14	6.51	7.19	0.02	39.42	2.00	
	Max	20.28	10.36	84.38	1054.35	1079.10	6.43	35.10	54.51	26.41	41.98	8.02	7.90	7.71	0.11	41.71	3.00	
2/26/2023	Average	13.14	0.03	38.03	1026.85	1049.89	6.02	29.69	52.47	22.79	36.04	7.83	7.29	7.31	0.10	41.42	0.80	Normal(ON)
	Min	10.65	0.00	18.68	953.43	1000.49	6.01	25.30	51.49	20.08	33.99	7.02	6.67	6.52	0.10	41.26	0.00	
	Max	16.34	22.70	97.50	1077.45	1087.60	6.04	33.47	53.97	26.65	39.64	8.07	7.50	7.51	0.10	41.59	4.00	
2/27/2023	Average	15.58	0.16	17.90	624.66	894.88	6.02	36.40	48.24	11.84	31.84	7.57	7.73	5.09	0.08	32.00	0.06	Normal(ON)/Shutdown/Off/Preheat/Shutdown
	Min	9.38	0.00	-1.10	293.38	297.24	5.10	20.98	25.72	-43.67	6.56	6.65	7.25	0.00	0.00	0.00	0.00	
	Max	20.37	158.61	48.96	1037.77	1061.03	6.70	71.67	54.39	28.44	40.22	7.90	9.09	7.54	0.10	41.48	1.00	
2/28/2023	Average	14.61	0.21	24.71	639.14	784.11	6.11	46.43	44.23	-2.21	30.66	7.78	7.44	0.67	0.06	24.60	0.25	Shutdown/Off/Preheat/Normal(ON)
	Min	7.79	0.00	-1.10	167.27	182.37	4.56	12.87	18.33	-44.93	5.68	2.60	5.13	0.00	0.00	0.00	0.00	
	Max	20.41	158.61	113.86	1056.41	1114.34	6.85	79.04	55.19	36.46	47.78	10.25	11.33	7.54	0.10	41.48	1.00	



February 2023 Incineration Feed Data

TheDate	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DailySum	Monthly Sum	
01-Feb-23	505.00	566.40	504.40	504.70	501.80	609.60	212.80	333.70	555.30	554.30	551.20	550.90	551.10	553.80	551.40	552.80	550.60	551.90	303.80	434.50	0.00	0.00	0.00	0.00	10000.0	229510.8	
02-Feb-23	502.40	504.40	507.60	524.40	500.60	507.90	234.80	270.90	510.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	453.70	593.10	603.40	559.00	551.00	550.80	540.30	287.60	8202.3		
03-Feb-23	553.20	552.60	0.00	552.50	0.00	0.00	0.00	0.00	0.00	335.40	614.70	604.90	604.00	175.40	0.00	586.50	602.60	610.40	604.20	402.40	605.30	197.60	0.00	604.50	8206.2		
04-Feb-23	0.00	0.00	0.00	0.00	603.10	670.00	477.90	400.60	487.70	212.80	38.50	522.80	518.60	504.30	207.40	402.30	233.90	633.20	307.60	414.80	605.80	508.80	517.50	520.40	8788.0		
05-Feb-23	552.10	504.60	503.80	504.50	501.70	504.80	102.40	503.20	508.00	505.00	505.40	389.40	507.00	335.00	502.50	411.60	0.00	501.90	203.50	511.40	382.10	591.40	334.70	134.00	10000.0		
06-Feb-23	611.90	628.40	608.50	602.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	297.30	555.10	559.00	555.40	288.80	4707.0		
07-Feb-23	504.50	507.00	504.40	514.00	506.10	513.60	252.10	410.80	530.10	327.20	554.40	523.20	576.00	551.80	552.30	484.00	506.20	538.20	500.60	452.80	190.70	0.00	0.00	0.00	10000.0		
08-Feb-23	570.30	550.80	557.00	554.70	556.30	570.80	186.00	0.00	0.00	0.00	468.40	616.50	637.00	456.30	489.10	159.40	606.30	592.80	295.00	483.60	647.40	499.50	208.70	145.60	9851.5		
09-Feb-23	655.90	584.00	619.50	605.00	602.30	615.90	440.50	282.50	514.60	506.30	0.00	607.20	0.00	0.00	0.00	504.50	393.10	509.20	509.70	428.90	507.90	550.30	441.90	116.70	9995.9		
10-Feb-23	505.10	535.00	503.60	561.20	627.00	312.50	281.60	349.80	414.40	464.10	503.40	509.90	363.20	279.70	325.80	412.70	426.40	121.10	19.80	583.20	603.50	593.10	576.50	127.40	10000.0		
11-Feb-23	504.40	500.40	572.00	443.00	507.00	500.60	211.10	527.60	506.80	506.60	517.00	509.80	504.30	511.90	503.90	512.20	501.30	518.40	253.90	611.50	276.30	0.00	0.00	0.00	10000.0		
12-Feb-23	540.50	553.10	320.80	370.60	553.60	558.50	205.60	446.20	353.60	0.00	0.00	0.00	29.00	498.40	450.80	514.60	511.40	495.00	256.60	0.00	0.00	317.40	549.70	399.20	7924.6		
13-Feb-23	558.60	550.20	568.40	553.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	622.00	646.80	333.20	528.50	573.30	533.00	502.00	0.00	5969.0		
14-Feb-23	0.00	0.00	0.00	0.00	0.00	502.60	257.80	228.70	506.10	511.20	502.90	503.70	505.20	324.30	511.90	484.50	224.30	502.70	522.00	562.80	574.10	601.20	600.10	511.00	8937.1		
15-Feb-23	530.80	502.10	493.20	512.70	510.50	511.00	375.10	470.40	542.80	563.50	504.50	512.00	509.80	221.90	510.20	505.30	0.00	0.00	0.00	0.00	623.20	621.50	627.30	0.00	9647.8		
16-Feb-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	506.50	666.60	357.10	455.10	0.00	0.00	0.00	261.00	625.40	619.60	621.90	583.70	300.90	0.00	4997.8		
17-Feb-23	507.50	520.10	0.00	0.00	0.00	0.00	0.00	629.00	657.90	483.70	502.00	645.00	505.70	506.90	521.90	0.00	0.00	0.00	0.00	0.00	0.00	587.90	551.50	403.40	7022.5		
18-Feb-23	580.30	558.20	557.70	549.50	553.60	570.90	379.30	506.00	522.80	517.10	283.70	517.10	507.80	300.40	515.10	530.30	414.50	414.00	259.20	506.30	456.20	0.00	0.00	0.00	10000.0		
19-Feb-23	498.20	507.20	503.20	507.10	503.60	512.80	383.00	505.60	403.20	515.60	312.80	405.80	512.20	251.00	501.40	503.20	308.50	64.00	0.00	313.90	506.00	504.00	616.20	361.50	10000.0		
20-Feb-23	0.00	0.00	0.00	0.00	195.20	536.60	191.20	97.10	150.00	115.80	501.80	502.10	515.60	193.50	508.20	236.00	303.70	170.70	131.70	254.00	91.30	0.00	236.00	71.00	5001.5		
21-Feb-23	143.00	124.00	113.20	0.00	248.80	123.40	167.40	500.50	477.40	466.70	503.10	556.40	508.90	517.60	0.00	0.00	0.00	0.00	0.00	551.00	562.70	563.40	554.30	331.30	7013.1		
22-Feb-23	547.20	552.40	574.40	564.30	554.60	552.20	213.40	427.50	550.60	532.00	527.20	513.30	587.40	546.20	0.00	0.00	0.00	0.00	174.70	557.00	504.00	512.60	617.70	391.30	10000.0		
23-Feb-23	552.80	507.80	499.10	502.60	501.80	498.10	247.20	407.90	407.20	0.00	557.00	306.40	44.00	500.20	509.80	568.90	35.20	287.20	276.00	0.00	469.60	491.50	427.50	0.00	8597.8		
24-Feb-23	0.00	0.00	0.00	0.00	568.20	529.80	285.20	132.00	509.60	512.30	503.20	503.10	512.50	378.10	573.90	504.10	512.00	517.90	271.40	265.30	508.10	519.00	609.00	510.30	9225.0		
25-Feb-23	0.00	0.00	0.00	0.00	0.00	401.40	216.90	516.40	406.60	428.70	509.90	520.90	448.20	491.40	450.60	488.20	0.00	504.00	409.50	515.20	505.70	504.10	499.90	365.00	8182.6		
26-Feb-23	501.20	519.20	0.00	500.90	503.50	501.00	313.10	510.80	515.60	516.70	501.80	507.20	401.00	446.60	510.00	227.60	216.20	228.60	208.10	552.50	500.10	515.20	520.40	31.00	9748.3		
27-Feb-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	509.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		509.8
28-Feb-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	195.10	510.50	504.00	429.50	506.40	512.10	510.80	502.60	501.40	560.40	554.60	558.70	579.40	557.50	6983.0		

Carbon Monoxide > 8ppm 4 hour alarm



Carbon Monoxide > 8ppm 4 hour alarm

Date	Start Time	Stop Time	Duration	Op. Mode	Stack CO @ 11% O2	Stack CO as mg/m ³	Explanation	Actions Taken
2/6/2023	6:30	10:00	3:30	Shutdown	15.2	17.5	High CO levels were caused by low upperchamber temperatures.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
2/7/2023	11:30	15:00	3:30	Normal	9.6	11.1	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
2/9/2023	15:30	18:00	2:30	Normal	15.2	17.5	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
2/10/2023	6:30	11:00	4:30	Normal	17	19.6	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
2/12/2023	6:00	10:00	4:00	Normal	20.1	23.2	High CO levels were caused by low upperchamber temperatures.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
2/17/2023	6:30	11:00	4:30	Normal	18.9	21.8	High CO levels were caused by low upperchamber temperatures.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm

2/18/2023	20:30	1:00	4:30	Normal	14.2	16.4	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
2/19/2023	22:00	2:00	4:00	Normal	29.4	33.9	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
2/20/2023	14:30	19:00	4:30	Normal	17	19.6	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
2/21/2023	16:00	19:00	3:00	Normal	13.8	15.9	High CO levels were caused by low upperchamber temperatures.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
2/22/2023	6:30	10:00	3:30	Normal	8.2	9.5	High CO levels were caused by low upperchamber temperatures.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.



Secondary Chamber Temperature < 1000°C

Date	Start Time	Stop Time	Duration	Op. Mode	Temp. °C	Explanation	Actions Taken
2/3/2023	5:28	7:27	1:59	Normal	970	Low secondary chamber temperature was caused by an incorrect flameport air setting.	No waste was fed until the secondary chamber temperature was brought back to the normal operating range.
2/22/2023	6:55	7:27	0:32	Normal	972	Low secondary chamber temperature was caused by an incorrect flameport air setting.	No waste was fed until the secondary chamber temperature was brought back to the normal operating range.

Atomizer Amps < 36

	Start	Stop		Op.	Atom. A	Atom. B		Action
Date	Time	Time	Duration	Mode	amps	amps	Explanation	Taken
2/2/2023	7:31:00	13:07:00	5:36:00	Normal	11.1		Low amperage in atomizer A was caused by the shutdown of the unit due to an oil leak.	Stericycle maintenance took the unit out of service.
2/27/2023	21:14:00	0:35:00	3:21:00	Shutdown		1.5	Low amperage in atomizer B occurred during the shutdown of the unit to install a new Japanese valve.	The incinerator was brought to a complete shutdown.

Differential from Demister < 10 C



Differential from Demister < 10°C

	Start	Stop		Op.	Differential Temp		Actions
Date	Time	Time	Duration	Mode	Outlet °C	Explanation	Taken
2/27/2023	21:19	0:34	3:15	Shutdown	0	The low differential temperature was caused by an incorrect reheat steam setting during shutdown.	The incinerator and APC system were brought to a complete shutdown.



March 2023 Incineration Averages and Ranges

TheDate	OX6min	COmin	NOXmin	PrimTemp°C	SecTemp°C	SNCR	DemTemp°C	CarbTemp°C	DiffTemp°C	IDFanTemp°C	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode	
3/19/2023	Average	12.80	11.76	67.72	979.04	1049.80	6.00	38.39	54.79	16.40	44.76	9.06	8.11	0.00	0.10	40.09	1.09	Shutdown/Off/PreheatNormal(ON)/Shutdown
	Min	9.87	0.00	0.00	703.75	732.19	5.92	32.86	54.34	11.55	41.90	8.85	7.71	0.00	0.10	39.96	1.00	
	Max	20.28	4875.20	211.67	1071.64	1097.58	6.04	43.88	55.58	21.55	48.34	9.71	8.96	0.00	0.10	40.21	2.00	
3/20/2023	Average	19.62	0.29	5.22	485.97	306.34	6.17	38.18	45.27	7.09	22.48	9.16	9.32	0.00	0.04	7.80	0.26	Shutdown/Off
	Min	13.63	0.00	0.00	263.33	93.22	5.93	23.33	18.89	-38.91	6.29	8.83	7.82	0.00	0.00	0.00	0.00	
	Max	20.41	7.35	95.00	1069.21	1058.98	6.30	67.15	68.89	31.73	44.09	9.36	9.60	0.00	0.10	40.20	2.00	
3/21/2023	Average	20.25	0.00	0.00	167.27	60.97	6.65	32.62	52.61	19.99	27.19	9.11	9.60	0.00	0.00	0.00	0.00	Off
	Min	20.07	0.00	0.00	90.00	38.88	6.30	19.30	23.16	3.70	23.30	9.10	9.60	0.00	0.00	0.00	0.00	
	Max	20.42	0.00	0.00	263.33	93.33	6.99	37.22	68.89	31.67	30.00	9.19	9.60	0.00	0.00	0.00	0.00	
3/22/2023	Average	20.26	0.00	0.00	64.48	35.01	6.79	35.27	59.97	24.70	30.75	9.11	9.60	3.68	0.01	0.00	0.00	Off
	Min	20.09	0.00	0.00	42.78	30.04	6.67	32.51	48.33	13.89	25.00	9.10	9.59	0.00	0.00	0.00	0.00	
	Max	20.40	0.00	0.00	90.00	70.29	6.90	43.95	69.68	36.30	36.45	9.19	9.60	7.38	0.03	0.00	0.00	
3/23/2023	Average	19.41	0.00	9.04	35.83	29.35	6.67	49.63	62.10	12.47	29.47	9.12	9.66	7.23	0.01	0.00	0.00	Off/Preheat/Shutdown/Off
	Min	11.50	0.00	0.00	29.55	27.19	6.59	33.89	46.67	-31.11	17.22	9.10	9.60	7.10	0.00	0.00	0.00	
	Max	20.44	0.00	95.00	42.78	62.97	6.70	78.06	69.51	34.44	36.11	9.19	9.70	7.30	0.06	0.00	0.00	
3/24/2023	Average	14.60	4.19	26.81	371.28	666.17	5.69	45.02	49.46	4.44	28.37	8.57	8.82	7.18	0.08	23.30	0.59	Off/Preheat/Normal(ON)
	Min	2.87	0.00	-14.30	27.98	24.96	3.70	13.30	26.52	-43.06	6.82	6.61	6.59	6.41	0.04	0.00	0.00	
	Max	20.41	662.88	373.43	872.46	1205.76	6.75	78.19	54.90	38.22	43.26	10.43	10.90	8.11	0.10	40.57	2.00	
3/25/2023	Average	12.23	5.60	24.61	907.37	1050.71	6.01	26.44	52.66	26.22	39.90	7.36	7.61	7.46	0.10	39.78	1.16	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	8.72	0.00	0.00	800.25	761.28	5.99	22.75	52.04	21.05	38.77	3.81	4.50	7.20	0.10	39.38	1.00	
	Max	20.36	2137.62	91.64	1007.45	1100.07	6.04	32.36	53.53	29.99	41.98	10.03	10.63	7.84	0.10	40.39	2.00	
3/26/2023	Average	12.38	0.94	22.77	922.18	1050.30	6.00	27.78	53.36	25.58	41.54	8.16	8.81	7.57	0.10	40.37	1.49	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	9.30	0.00	0.00	751.56	838.48	5.99	22.08	52.39	20.39	39.79	6.20	7.15	7.27	0.10	39.87	1.00	
	Max	20.25	625.18	69.99	1018.16	1085.06	6.01	33.80	54.24	31.28	43.89	11.13	11.55	7.98	0.10	41.10	2.00	
3/27/2023	Average	12.22	2.80	46.78	978.91	1059.82	6.01	28.17	52.61	24.45	41.37	7.24	8.25	7.38	0.10	39.99	1.95	Normal(ON)/Shutdown
	Min	9.59	0.00	9.03	874.67	976.98	5.98	26.47	51.77	22.55	40.73	5.83	7.37	7.25	0.10	39.75	1.00	
	Max	15.11	716.53	179.05	1034.42	1120.81	6.02	29.99	53.49	26.23	42.27	8.94	9.36	7.59	0.12	40.26	2.00	
3/28/2023	Average	12.88	9.41	36.50	942.80	1041.87	6.00	27.23	52.26	25.04	40.79	8.29	8.57	7.37	0.10	39.86	1.85	Shutdown/Off/Preheat/Normal(ON)/Shutdown/Off/Preheat/Normal(ON)/Shutdown
	Min	7.52	0.00	0.00	776.26	663.09	5.98	21.67	50.75	21.72	39.22	6.30	7.55	7.24	0.10	39.60	1.00	
	Max	20.37	5759.60	184.49	1019.14	1119.23	6.03	30.93	53.06	29.44	41.67	10.93	9.94	7.58	0.10	40.00	2.00	
3/29/2023	Average	13.40	6.78	31.41	824.89	992.24	6.06	31.86	50.66	18.80	39.05	7.54	8.41	7.32	0.10	36.77	1.88	Shutdown/Off/Preheat/Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	6.51	0.00	0.00	513.53	221.40	5.96	26.56	39.29	-15.81	21.16	6.82	7.84	7.21	0.10	12.53	0.00	
	Max	20.37	2548.56	131.08	1003.64	1100.42	6.49	55.70	52.92	25.67	42.62	8.33	9.10	7.40	0.10	40.70	3.00	
3/30/2023	Average	13.81	4.88	51.16	933.12	963.75	6.01	35.08	51.64	16.56	39.81	6.74	8.52	7.45	0.10	36.07	2.72	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	7.48	0.00	0.00	548.46	131.76	5.88	28.59	36.72	-25.03	21.44	2.45	6.01	7.27	0.10	3.38	0.00	
	Max	20.39	1973.40	139.93	1098.34	1075.97	6.50	61.85	54.14	24.10	43.44	9.13	10.29	7.75	0.10	40.45	4.00	
3/31/2023	Average	12.62	15.08	61.73	952.49	1037.64	5.99	27.87	51.93	24.05	40.74	9.43	8.38	7.41	0.10	39.49	2.37	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	8.89	0.00	0.00	738.02	699.67	5.86	20.02	50.56	18.05	38.89	5.74	6.52	7.26	0.10	39.30	1.00	
	Max	20.36	3055.84	199.58	1020.20	1155.77	6.08	32.60	53.23	33.20	43.06	10.72	10.10	7.61	0.10	39.65	4.00	



March 2023 Incineration Feed Data

TheDate	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DailySum	Monthly Sum	
01-Mar-23	506.00	539.90	506.80	506.40	510.60	560.70	301.50	508.30	567.20	502.30	508.00	505.00	504.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.20	509.40	505.10	507.90	510.20	8599.90	231703.70
02-Mar-23	513.10	512.60	508.50	505.90	504.00	514.40	417.50	412.00	0.00	0.00	553.80	268.80	0.00	0.00	0.00	0.00	0.00	0.00	180.00	531.80	532.00	457.70	539.60	412.70	7364.40		
03-Mar-23	0.00	0.00	522.20	551.20	551.90	264.00	0.00	557.20	510.00	500.60	454.50	510.90	464.90	0.00	0.00	0.00	0.00	532.40	146.80	557.00	553.80	551.80	0.10	320.10	7549.40		
04-Mar-23	523.00	522.40	528.20	534.20	554.10	529.90	316.80	503.10	512.80	509.00	502.20	501.40	507.20	0.00	321.90	401.00	514.40	507.10	464.90	665.10	286.00	112.00	155.00	28.30	10000.00		
05-Mar-23	611.50	609.80	560.40	582.10	659.80	0.00	0.00	0.00	0.00	0.00	0.00	219.50	502.70	577.60	502.10	503.80	536.30	542.50	524.30	601.50	622.60	647.70	649.60	546.20	10000.00		
06-Mar-23	208.90	211.90	205.70	314.00	249.90	604.40	73.70	0.00	153.20	238.20	348.10	513.00	528.80	539.40	174.00	0.00	502.10	520.30	543.40	639.30	0.00	0.00	0.00	0.00	6568.30		
07-Mar-23	0.00	608.00	602.40	605.00	602.90	614.90	531.30	438.40	535.50	530.00	475.10	0.00	0.00	0.00	0.00	549.10	562.60	520.00	553.00	549.50	558.20	549.00	567.00	9951.90			
08-Mar-23	551.00	551.00	556.50	556.60	562.40	559.20	551.00	457.70	554.80	562.60	551.70	560.90	556.40	559.70	557.20	0.00	0.00	0.00	0.00	0.00	0.00	89.70	555.00	551.70	9445.10		
09-Mar-23	555.90	552.40	551.10	550.80	550.20	556.60	554.60	467.00	508.00	508.00	462.80	452.00	0.00	0.00	0.00	0.00	0.00	513.40	508.20	551.40	551.20	552.80	565.90	487.70	10000.00		
10-Mar-23	502.10	503.80	509.10	548.30	503.20	502.20	501.80	79.10	502.80	386.70	566.20	532.50	505.00	505.70	441.10	0.00	505.20	505.20	431.00	630.30	488.60	0.00	0.00	0.00	9649.90		
11-Mar-23	0.00	11.80	500.20	502.10	503.60	549.70	471.60	500.60	520.50	664.00	472.10	570.20	506.10	626.00	526.00	510.00	502.90	512.80	346.00	317.70	251.10	220.10	210.30	204.60	10000.00		
12-Mar-23	554.80	0.00	551.60	0.00	0.00	0.00	0.00	506.30	516.90	670.00	606.80	504.70	502.00	539.30	505.90	522.30	510.30	603.00	327.70	582.20	665.80	665.50	305.90	359.00	10000.00		
13-Mar-23	557.90	553.90	566.00	559.20	548.80	666.80	552.70	502.30	508.90	508.90	0.00	0.00	0.00	0.00	433.20	506.60	501.00	507.90	514.20	547.60	557.80	611.20	183.00	112.10	10000.00		
14-Mar-23	549.40	552.00	556.80	550.50	551.40	553.90	559.00	325.90	512.90	536.40	504.60	509.80	521.40	572.30	29.80	0.00	0.00	0.00	165.00	555.90	558.30	522.80	610.10	201.80	10000.00		
15-Mar-23	501.60	506.60	558.80	594.20	605.80	546.20	238.50	514.40	541.00	556.30	25.00	0.00	0.00	151.70	59.20	270.40	565.00	525.20	542.90	552.70	558.80	590.60	625.20	369.90	10000.00		
16-Mar-23	515.80	502.50	600.40	557.60	553.30	560.50	516.00	30.10	0.00	0.00	0.00	165.00	507.40	510.80	500.30	509.60	511.80	506.30	578.80	616.20	608.90	600.90	394.00	153.80	10000.00		
17-Mar-23	555.80	551.70	563.30	551.70	577.20	549.40	552.70	536.10	501.60	500.10	594.50	1.00	0.00	0.00	0.00	510.70	504.20	0.00	511.20	557.80	556.60	548.60	624.00	151.80	10000.00		
18-Mar-23	550.40	547.30	551.30	549.00	550.30	558.10	605.80	504.70	514.70	583.50	228.60	502.30	502.30	259.10	509.40	507.30	0.00	506.10	307.20	551.00	611.50	0.00	0.00	0.00	9999.90		
19-Mar-23	0.00	500.30	558.60	556.00	566.60	552.80	458.30	456.90	504.40	503.90	551.80	510.50	304.40	369.90	426.10	69.00	304.50	403.00	302.70	507.80	512.80	522.20	557.50	0.00	10000.00		
20-Mar-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
21-Mar-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
22-Mar-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
23-Mar-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
24-Mar-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	165.10	360.70	0.00	0.00	0.00	412.60	503.40	350.00	0.00	507.80	500.90	527.50	500.90	507.10	4336.00		
25-Mar-23	501.10	510.40	510.30	515.00	501.80	503.40	511.10	502.30	553.40	554.00	0.00	0.00	0.00	0.00	0.00	0.00	405.70	568.80	511.30	511.60	107.30	0.00	0.00	300.40	7567.90		
26-Mar-23	502.60	519.10	513.80	516.00	517.40	504.70	504.50	328.60	550.20	504.50	501.40	401.40	403.30	411.00	41.00	0.00	0.00	0.00	305.90	502.90	516.50	505.50	266.00	8816.30			
27-Mar-23	506.70	341.00	0.00	0.00	509.20	506.30	510.90	378.80	470.00	312.90	502.60	504.20	525.90	503.80	391.80	561.70	553.60	553.50	559.30	570.10	555.50	554.30	127.90	0.00	10000.00		
28-Mar-23	0.00	0.00	0.00	459.00	518.30	512.40	516.40	238.10	516.50	612.10	602.60	504.70	505.70	149.90	501.00	501.70	502.20	551.70	0.00	0.00	0.00	290.30	574.30	8056.90			
29-Mar-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	502.50	517.60	508.40	225.60	505.40	505.80	201.20	505.20	240.60	0.00	0.00	0.00	130.80	510.50	549.10	548.40	503.00	5954.10		
30-Mar-23	511.30	503.60	524.30	546.50	511.30	530.40	531.20	506.40	505.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	619.80	541.40	557.50	551.30	551.60	108.50	243.40	7843.70		
31-Mar-23	557.00	551.40	556.00	566.10	556.30	555.90	554.90	308.80	0.00	0.00	0.00	0.00	0.00	311.90	542.40	553.60	584.90	408.20	477.70	555.40	551.00	596.30	552.60	552.80	9893.20		



March 2023 CEM Calibration Log

TheDate	COspanRes	CO Calgas	COspan%Drift	NOxSpanRes	NOX Calgas	NOxSpan%drift	O2SpanRes	O2 Calgas	O2SpanDrift	COZeroRes	COZero%Drift	NOxZeroRes	NOxZero%Drift	O2ZeroRes	O2 Zerogas	O2ZeroDrift	Comment
3/1/23 14:52	0	90.4	0	0	779	0	0	8.08	0	0	0	1	0.1	2.4	0	2.4	
3/1/23 15:03	12	90.4	7.84	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/1/23 15:07	12	90.4	7.84	773	779	0.6	0	8.08	0	0	0	0	0	0	0	0	
3/1/23 15:12	0	90.4	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
3/1/23 16:08	0	90.4	0	0	779	0	0	8.08	0	8	2.666667	4	0.4	2.4	0	2.4	
3/1/23 16:13	86	90.4	0.4400001	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/1/23 16:24	0	90.4	0	0	779	0	0	8.08	0	0	0	3	0.3	7	0	7	
3/1/23 16:30	0	90.4	9.04	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/1/23 16:34	0	90.4	0	0	779	0	8.2	8.08	0.1199999	0	0	0	0	0	0	0	
3/1/23 16:39	0	90.4	0	0	779	0	8	8.08	0.07999992	0	0	0	0	0	0	0	
3/1/23 16:42	0	90.4	0	0	779	0	9.1	8.08	1.02	0	0	0	0	0	0	0	
3/23/23 12:13	86	90.4	0.4400001	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/23/23 12:39	0	90.4	0	0	779	0	0	8.08	0	0	0	0	0	-0.2	0	0.2	
3/23/23 12:51	0	90.4	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
3/23/23 12:52	0	90.4	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
3/23/23 13:04	0	90.4	0	782	779	0.3	0	8.08	0	0	0	0	0	0	0	0	
3/23/23 13:29	999	90.4	90.86	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/23/23 15:22	0	90.4	0	492	779	28.7	0	8.08	0	0	0	0	0	0	0	0	
3/23/23 15:34	0	90.4	0	788	779	0.9	0	8.08	0	0	0	0	0	0	0	0	
3/23/23 15:49	0	90.4	0	0	779	0	0	8.08	0	0	0	0	0	0.1	0	0.1	
3/23/23 15:58	91	90.4	0.05999985	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/23/23 16:06	0	90.4	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
3/23/23 16:16	0	90.4	0	779	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/24/23 10:27	0	90.4	0	0	779	0	0	8.08	0	0	0	-1	-0.1	0.1	0	0.1	
3/24/23 10:37	0	90.4	0	0	779	0	0	8.08	0	999	333	-1	-0.1	0.1	0	0.1	
3/24/23 11:09	0	90.4	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
3/24/23 11:27	0	90.4	0	0	779	0	0	8.08	0	999	333	0	0	0.1	0	0.1	
3/24/23 11:37	0	90.4	0	0	779	0	0	8.08	0	0	0	0	0	0.1	0	0.1	
3/24/23 11:47	91	90.4	0.05999985	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/24/23 11:53	0	90.4	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
3/24/23 11:59	0	90.4	0	780	779	0.1	0	8.08	0	0	0	0	0	0	0	0	
3/24/23 12:05	0	90.4	0	0	779	0	0	8.08	0	0	0	1	0.1	0.1	0	0.1	
3/24/23 12:35	0	90.4	0	0	779	0	0	8.08	0	0	0	1	0.1	0.1	0	0.1	
3/24/23 12:41	90	90.4	0.04000015	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/24/23 12:58	0	90.4	0	0	779	0	0	8.08	0	0	0	0	0	0.1	0	0.1	
3/1/23 16:52	0	90.4	0	0	779	0	0	8.08	0	0	0	2	0.2	11.7	0	11.7	
3/1/23 16:55	94	90.4	0.3599998	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/1/23 17:00	0	90.4	0	838	779	5.9	0	8.08	0	0	0	0	0	0	0	0	
3/1/23 17:05	0	90.4	0	0	779	0	7.4	8.08	0.6799998	0	0	0	0	0	0	0	
3/1/23 17:38	0	90.4	0	0	779	0	0	8.08	0	0	0	-1	-0.1	0.9	0	0.9	
3/1/23 17:45	68	90.4	2.24	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/1/23 17:49	89	90.4	0.1400001	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/2/23 12:07	0	90.4	0	0	779	0	0	8.08	0	0	0	-1	-0.1	-0.2	0	0.2	
3/2/23 12:28	999	90.4	90.86	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/2/23 12:37	0	90.4	0	0	779	0	8.2	8.08	0.1199999	0	0	0	0	0	0	0	
3/2/23 14:15	0	90.4	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
3/2/23 14:20	0	90.4	0	0	779	0	0	8.08	0	0	0	0	0	0.1	0	0.1	
3/2/23 14:25	92	90.4	0.1599998	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/2/23 14:29	0	90.4	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
3/2/23 14:33	0	90.4	0	780	779	0.1	0	8.08	0	0	0	0	0	0	0	0	
3/8/23 18:16	0	90.4	0	0	779	0	0	8.08	0	999	333	0	0	-0.4	0	0.4	
3/8/23 18:34	0	90.4	0	0	779	0	0	8.08	0	999	333	0	0	-0.1	0	0.1	
3/8/23 18:50	0	90.4	0	0	779	0	8.3	8.08	0.2200003	0	0	0	0	0	0	0	
3/8/23 20:14	0	90.4	0	0	779	0	0	8.08	0	0	0	1	0.1	0	0	0	



March 2023 CEM Calibration Log

TheDate	COspanRes	CO Calgas	COspan%Drift	NOxSpanRes	NOX Calgas	NOxSpan%drift	O2SpanRes	O2 Calgas	O2SpanDrift	COZeroRes	COZero%Drift	NOxZeroRes	NOxZero%Drift	O2ZeroRes	O2 Zerogas	O2ZeroDrift	Comment
3/8/23 21:16	0	90.4	0	0	779	0	0	8.08	0	0	0	1	0.1	-0.1	0	0.1	
3/8/23 21:19	91	90.4	0.05999985	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/8/23 21:24	0	90.4	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
3/8/23 21:27	0	90.4	0	781	779	0.2	0	8.08	0	0	0	0	0	0	0	0	
3/9/23 16:07	0	90.4	0	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/14/23 15:24	0	90.4	0	0	779	0	0	8.08	0	0	0	-1	-0.1	0	0	0	
3/14/23 15:29	0	90.4	0	0	779	77.9	0	8.08	0	0	0	0	0	0	0	0	
3/14/23 15:32	0	90.4	0	-1	779	78	0	8.08	0	0	0	0	0	0	0	0	
3/14/23 15:35	0	90.4	0	-1	779	78	0	8.08	0	0	0	0	0	0	0	0	
3/14/23 15:39	91	90.4	0.05999985	-1	779	78	0	8.08	0	0	0	0	0	0	0	0	
3/14/23 15:44	0	90.4	0	783	779	0.4	0	8.08	0	0	0	0	0	0	0	0	
3/14/23 15:49	0	90.4	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
3/15/23 13:03	0	90.4	0	0	779	0	0	8.08	0	0	0	0	0	-0.1	0	0.1	
3/15/23 13:07	92	90.4	0.1599998	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/15/23 13:11	0	90.4	0	781	779	0.2	0	8.08	0	0	0	0	0	0	0	0	
3/15/23 13:16	0	90.4	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
3/15/23 13:29	0	90.4	0	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/15/23 13:33	92	90.4	0.1599998	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/15/23 13:37	92	90.4	0.1599998	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/17/23 11:45	0	90.4	0	0	779	0	0	8.08	0	0	0	-1	-0.1	0	0	0	
3/17/23 11:49	0	90.4	0	0	779	0	0	8.08	0	1	0.3333333	-1	-0.1	0	0	0	
3/17/23 11:53	91	90.4	0.05999985	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/17/23 11:58	0	90.4	0	779	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/17/23 12:04	0	90.4	0	0	779	0	8	8.08	0.07999992	0	0	0	0	0	0	0	
3/23/23 11:40	0	90.4	0	0	779	0	0	8.08	0	0	0	0	0	0.1	0	0.1	
3/23/23 12:00	88	90.4	0.2400002	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
3/23/23 12:05	0	90.4	0	0	779	0	0	8.08	0	0	0	0	0	-0.1	0	0.1	




Stericycle®

O2 6 minute average < 7.5

O2 < 7.5

Date	Start Time	Stop Time	Duration	Op. Mode	Stack O2 %	Explanation	Actions Taken
3/1/2023	21:31	22:35	1:04	Normal	6.4	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/1/2023	22:38	0:28	1:50	Normal	6.6	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	0:35	1:56	1:21	Normal	6.9	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	2:31	4:10	1:39	Normal	6.8	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	4:10	4:43	0:33	Normal	6.8	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	4:52	5:59	1:07	Normal	6.7	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	6:44	6:45	0:01	Normal	7.4	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	6:53	6:57	0:04	Normal	7.4	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	7:12	7:20	0:08	Normal	7.2	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	7:26	7:32	0:06	Normal	7.2	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.



Stericycle® O2 6 minute average < 7.5

3/2/2023	7:34	7:36	0:02	Shutdown	7.4	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	7:37	7:41	0:04	Shutdown	7.3	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	7:58	10:02	2:04	Normal	7.2	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	10:05	10:30	0:25	Normal	7.3	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	10:35	10:36	0:01	Normal	7.4	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/2/2023	10:57	12:04	1:07	Normal	6.4	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/3/2023	21:43	21:47	0:04	Normal	6.7	Low O2% readings were caused by an analyser calibration error	3rd party tech was called in to troubleshoot and repair the unit.
3/14/2023	15:44	15:45	0:01	Shutdown	7.3	Low O2% was caused by a CO spike.	No waste was fed until the O2% returned to the normal operating range.
3/15/2023	13:13	13:14	0:01	Shutdown	6.6	Low O2% was caused by a CO spike.	No waste was fed until the O2% returned to the normal operating range.
3/15/2023	13:39	13:40	0:01	Shutdown	7.1	Low O2% was caused by a CO spike.	No waste was fed until the O2% returned to the normal operating range.
3/29/2023	11:01	11:06	0:05	Normal	6.9	Low O2% was caused by a CO spike.	No waste was fed until the O2% returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm



Carbon Monoxide > 8ppm 4 hour alarm

Date	Start Time	Stop Time	Duration	Op. Mode	Stack CO @ 11% O2	Stack CO as mg/m ³	Explanation	Actions Taken
3/1/2023	15:03	17:00	1:57	Shutdown	11.6	13.4	Multiple large CO spikes occurred during the cycling of the internal rams during the shutdown process.	The incinerator was brought to a complete shutdown.
3/2/2023	0:00	2:00	2:00	Normal	8.7	10.0	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/2/2023	13:00	17:00	4:00	Normal	19.9	23.0	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/6/2023	18:30	0:00	5:30	Normal	28	32.3	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/7/2023	7:00	15:00	8:00	Normal	14.1	16.3	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/8/2023	16:00	19:00	3:00	Shutdown	358	413.1	Multiple large CO spikes occurred during the cycling of the internal rams during the shutdown process.	The incinerator was brought to a complete shutdown.
3/11/2023	19:31	21:00	1:29	Normal	8.1	9.3	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm

3/12/2023	1:30	6:00	4:30	Normal	21.4	24.7	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/12/2023	14:30	19:00	4:30	Normal	18	20.8	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/13/2023	12:00	14:00	2:00	Shutdown	11.9	13.7	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/14/2023	13:30	18:00	4:30	Normal	9.5	11.0	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/15/2023	10:30	15:00	4:30	Shutdown	10.3	11.9	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/16/2023	7:00	12:00	5:00	Normal	19.3	22.3	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/17/2023	11:01	15:00	3:59	Normal	10.5	12.1	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm

3/19/2023	16:00	20:00	4:00	Normal	16.2	18.7	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/25/2023	4:00	0:00	20:00	Normal	16.4	18.9	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/27/2023	20:00	23:00	3:00	Normal	11.5	13.3	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/28/2023	13:00	16:00	3:00	Normal	9.4	10.8	A CO spike occurred after waste was fed into the primary chamber.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/29/2023	11:00	16:00	5:00	Normal	13.3	15.3	Multiple CO spikes occurred during the cycling of the internal rams.	The incinerator operator paused feeding and monitored the unit until the CO levels returned to the normal operating range.
3/31/2023	8:00	12:00	4:00	Shutdown	109.1	125.9	High CO levels were caused by malfunctions of the upper chamber burner.	The incinerator was brought to a shutdown to allow for the troubleshooting / correction of the upper chamber burner.

Carbon Monoxide > 8ppm 12 hour alarm



Carbon Monoxide > 8ppm 12 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O2	as mg/m ³	Explanation	Taken
3/7/2023	11:04	15:00	3:56	Shutdown	8.2	9.5	Multiple large CO spikes occurred during the cycling of the internal rams during the shutdown process.	The incinerator was brought to a complete shutdown.
3/28/2023	18:00	22:00	4:00	Shutdown	10.6	12.2	Multiple large CO spikes occurred during the cycling of the internal rams during the shutdown process.	The incinerator was brought to a complete shutdown.
3/29/2023	12:00	19:00	7:00	Normal/Shutdown	9.5	11.0	High CO levels were caused by malfunctions of the upper chamber burner.	The incinerator was brought to a shutdown to allow for the troubleshooting / correction of the upper chamber burner.
3/31/2023	8:00	21:00	13:00	Normal/Shutdown	22.2	25.6	High CO levels were caused by malfunctions of the upper chamber burner.	The incinerator was brought to a shutdown to allow for the troubleshooting / correction of the upper chamber burner.



Secondary Chamber Temperature < 1000°C

Date	Start Time	Stop Time	Duration	Op. Mode	Temp. °C	Explanation	Actions Taken
3/9/2023	14:48	15:51	1:03	Normal	989	Low secondary chamber temperature was caused by an incorrect flameport air setting.	No waste was fed until the secondary chamber temperature was brought back to the normal operating range.
3/13/2023	12:30	13:06	0:36	Normal	992	Low secondary chamber temperature was caused by an incorrect flameport air setting.	No waste was fed until the secondary chamber temperature was brought back to the normal operating range.
3/31/2023	9:33	11:01	1:28	Shutdown	811	Low secondary chamber temperatures were caused by repeated failures of the secondary chamber burner.	The incinerator was brought to a shutdown. Great Lakes combustion was called in to repair the secondary chamber burner.

Condenser pH out of range (<6.4pH / >10.4pH)



Condenser pH out of range (<6.4pH / >10.4pH)

	Start	Stop		Op.	Condenser		Action
Date	Time	Time	Duration	Mode	pH	Explanation	Taken
3/25/2023	23:45	4:32	4:47	Normal	11.2	Low pH reading caused by a calibration error on the pH probe	Stericycle maintenance corrected the pH calibration.