

Stericycle®

**2023 Q3
INCINERATION
REPORT**



Stericycle, ULC

95 Deerhurst Drive
Brampton, ON
L6T 5R7

Tel.: (905) 789-6008

Fax: (905) 789-5549

October 20, 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 third quarter of 2023.

During July 2023 there were 6 occurrences of the 4-hour CO alarm & 0 occurrences of the 12-hour CO alarm. In August 2023 there were 0 occurrences of the 4-hour CO alarm and 0 occurrences of the 12-hour CO alarm. In September 2023 there were 9 occurrences of the 4-hour CO alarm and 3 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 was 1 occurrence of the 24-hour NOx alarm triggered in Q3 of 2023.

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

THIRD QUARTER 2023

INCINERATOR QUARTERLY REPORT - SUPPLEMENTAL INFORMATION

- The Emergency Bypass stack was used four (4) times during Q3 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 third 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 third quarter of 2023.
- Stericycle Inc. operated the incinerator on the following days during the third quarter:

Startup		Shutdown	
date	time	date	time
		7/1/2023	10:43
7/3/2023	23:40	7/4/2023	21:46
7/5/2023	5:27	7/6/2023	3:04
7/6/2023	8:32	7/7/2023	0:47
7/7/2023	4:57	7/7/2023	18:56
7/10/2023	10:39	7/11/2023	18:00
7/11/2023	22:11	7/12/2023	4:24
7/12/2023	10:21	7/14/2023	3:08
7/14/2023	10:13	7/15/2023	0:34
7/15/2023	5:47	7/16/2023	8:07
7/16/2023	12:21	7/17/2023	3:30
7/17/2023	22:53	7/18/2023	8:37
7/18/2023	14:01	7/19/2023	16:47
7/19/2023	21:13	7/20/2023	7:58
7/20/2023	12:23	7/21/2023	18:06
7/21/2023	22:44	7/22/2023	16:25
7/22/2023	20:44	7/23/2023	19:27
7/23/2023	23:57	7/24/2023	19:34
7/25/2023	3:27	7/26/2023	4:07
7/26/2023	11:43	7/27/2023	9:04
7/27/2023	13:17	7/28/2023	11:49
7/28/2023	17:47	7/31/2023	11:20
7/31/2023	19:28		

Startup		Shutdown	
date	time	date	time
		8/1/2023	11:21
8/1/2023	16:33	8/2/2023	5:31
8/2/2023	11:55	8/3/2023	7:59
8/3/2023	13:33	8/4/2023	15:02
8/9/2023	5:39	8/9/2023	14:04
8/10/2023	9:18	8/11/2023	1:48
8/11/2023	8:19	8/11/2023	13:42
8/11/2023	19:54	8/14/2023	16:05
8/14/2023	22:21	8/15/2023	11:23
8/15/2023	14:05	8/16/2023	16:51
8/16/2023	21:18	8/17/2023	18:02
8/18/2023	1:21	8/19/2023	18:50
8/19/2023	23:00	8/20/2023	19:32
8/20/2023	23:40	8/21/2023	19:37
8/22/2023	0:49	8/22/2023	19:37
8/23/2023	0:03	8/23/2023	16:52
8/23/2023	21:13	8/24/2023	18:08
8/24/2023	22:27	8/25/2023	18:33
8/25/2023	22:48	8/26/2023	17:17

Startup		Shutdown	
Date	Time	Date	Time
9/1/2023	9:08	9/5/2023	17:49
9/5/2023	22:08	9/6/2023	17:36
9/6/2023	23:32	9/8/2023	7:58
9/8/2023	19:09	9/9/2023	13:53
9/9/2023	20:21	9/11/2023	6:50
9/11/2023	13:32	9/12/2023	14:36
9/12/2023	18:52	9/13/2023	4:44
9/13/2023	13:45	9/14/2023	17:05
9/14/2023	22:09	9/15/2023	0:08
9/15/2023	0:25	9/15/2023	18:51
9/15/2023	23:03	9/16/2023	16:44
9/16/2023	21:03	9/17/2023	17:33
9/17/2023	21:49	9/18/2023	8:25
9/18/2023	13:59	9/19/2023	15:42
9/20/2023	7:28	9/21/2023	3:44

During Q3 of 2023 routine maintenance was performed on the incinerator during the scheduled shutdowns along with the following:

- Repair of the cooling tower.
- Repair to the primary chamber, secondary chamber and transition stack refractory.
- Rebuilding of the rotary atomizers

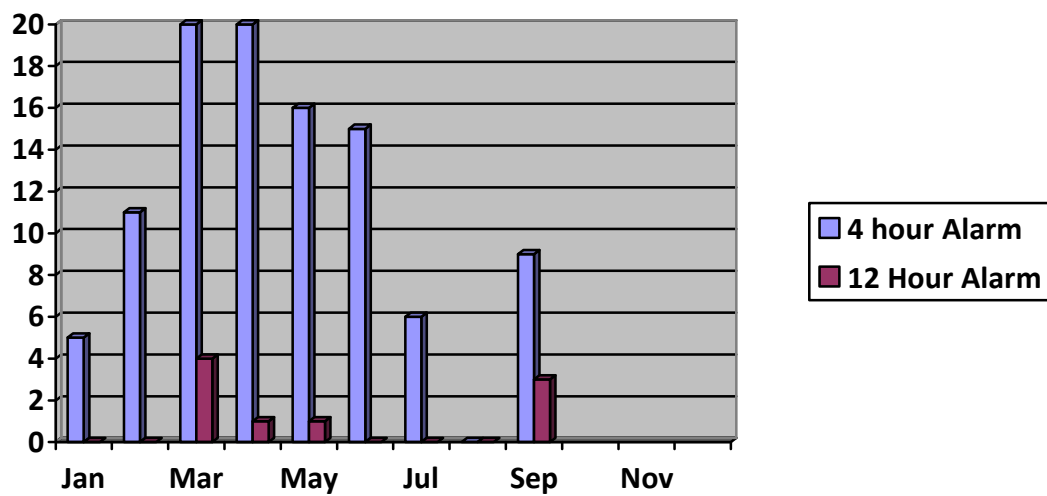
Emergency Bypass Summary

Date	Start Time	End Time	Duration	Emission Volume (m ³)	Reason	Corrective Action
07/23/2023	18:47	20:02	1:37	353.65	At approximately 18:47 the , the operator on duty, started the process of bringing the incinerator to a controlled shutdown. As the operator proceed with the shut down sequence, he pushed the emergency bypass button in error	At around 8 pm, the Operations supervisor went through the conversation with the TMs and realized that the messages/pictures sent indicated it was the bypass button that was pushed. The Operations Supervisor the incinerator operators close the emergency

						bypass stack and proceed with the correct controlled shutdown sequence.
08/10/2023	10:52	11:00	0:08	29.17	At approximately 10:52 an electrical fault occurred on the incinerator control panel which caused the emergency bypass stack cap to open.	Stericycle's maintenance team trouble shot the fault and closed the emergency bypass stack cap. A third party electrician was called into the site of repair the breakers on the electrical panel.
08/11/2023	04:47	05:50	1:03	229.69	At approximately 04:47 a pipe burst on the Air Pollution Control (APC) System on the back end of unit at approximately 2 hours and 57 minutes into a controlled shutdown. The decision was made to shutdown the APC system and open the emergency bypass stack cap in order to prevent further damage to the equipment.	The incinerator was brought into a complete shutdown to allow the maintenance team to make the repairs to the APC system. Once the repairs were completed the APC system and the incinerator were restarted and normal operations were resumed once all parameters were in the normal operating range.
09/03/2023	12:04	12:40	0:36	131.25	At approximately 12:04 the emergency bypass stack opened due to a loss of oil pressure in the rotary atomizer	Stericycle maintenance trouble shot the pressure loss and replaced the oil filter. Once the repairs were completed the APC system and the incinerator were restarted and normal operations were resumed once all parameters were in the normal operating range.

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	20	1
May	16	1
June	15	0
July	6	0
August	0	0
September	9	3
October		
November		
December		



2022 CO alarms vs. 2023 CO alarms

	2022		202	
Month	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	20	1
May	10	5	16	1
June	18	7	15	0
July	19	4	6	0
August	10	0	0	0
September	11	1	9	3
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 Q3 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



August 1st, 2023

Christelle Broux Senior Environmental Officer
Ministry of Environment, Conservation and Parks
Halton-Peel District Office
4145 North Service Road, Suite 300
Burlington, Ontario
L7L 6A3

Dear Christelle Broux,

RE: Stericycle Site Certificate of Approval No. A680324
Use of the Emergency Bypass Stack
Ref #: 1-3NWB11

On July 23rd 2023, at approximately 18:47 the emergency bypass stack cap opened due to operator error.

As required by conditions 36 and 38(1) (b) & (2) of the above referenced ECA, the incinerator was brought into a controlled shutdown during this time. The emergency bypass stack was open for a duration of one (1) hour and thirty-seven (37) minutes. During this period, no waste was injected into the incinerator and the upper chamber was maintained at 1000°C by natural gas only.

On July 23rd, 2023, a call was placed to the Spills Action Control center by Stericycle Operations Supervisor Emeka Onyeka to report the use of the emergency bypass stack. At approximately 18:47 the , the operator on duty, started the process of bringing the incinerator to a controlled shutdown. As the operator proceed with the shut down sequence, he pushed the emergency bypass button in error. At around 8 pm, the Operations supervisor went through the conversation with the TMs and realized that the messages/pictures sent indicated it was the bypass button that was pushed. The Operations Supervisor the incinerator operators close the emergency bypass stack and proceed with the correct controlled shutdown sequence.

During the bypass, approximately 353.65m³ of flue gas was emitted from the emergency bypass stack.

If you require any additional information, please do not hesitate to call me directly at (905) 595-8532.

Yours truly,

Dan Kokol

Operational EHS Manager
Stericycle ULC
905-595-8532
dkokol@stericycle.com



August 11th 2023

Christelle Broux Senior Environmental Officer
Ministry of Environment, Conservation and Parks
Halton-Peel District Office
4145 North Service Road, Suite 300
Burlington, Ontario
L7L 6A3

Dear Christelle Broux,

RE: Stericycle Site Certificate of Approval No. A680324
Use of the Emergency Bypass Stack
Ref #: 1-3Q47FL

On August 10 2023, at approximately 10:52 the emergency bypass stack cap opened due to an electrical fault.

As required by conditions 36 and 38(1) (b) & (2) of the above referenced ECA, the incinerator was brought into a controlled shutdown during this time. The emergency bypass stack was open for a duration of eight (8) minutes. During this period, no waste was injected into the incinerator and the upper chamber was maintained at 1000°C by natural gas only.

On August 10, 2023, a call was placed to the Spills Action Control center by Stericycle Operations Supervisor Akeim Nugent to report the use of the emergency bypass stack. At approximately 10:52 an electrical fault occurred on the incinerator control panel which caused the emergency bypass stack cap to open. Stericycle's maintenance team trouble shot the fault and closed the emergency bypass stack cap. A third party electrician was called into the site of repair the breakers on the electrical panel.

During the bypass, approximately 29.17m³ of flue gas was emitted from the emergency bypass stack.

If you require any additional information, please do not hesitate to call me directly at (905) 595-8532.

Yours truly,

Dan Kokol

Operational EHS Manager
Stericycle ULC
905-595-8532
dkokol@stericycle.com



August 11th 2023

Christelle Broux Senior Environmental Officer
Ministry of Environment, Conservation and Parks
Halton-Peel District Office
4145 North Service Road, Suite 300
Burlington, Ontario
L7L 6A3

Dear Christelle Broux,

RE: Stericycle Site Certificate of Approval No. A680324
Use of the Emergency Bypass Stack
Ref #: 1-3Q4V25

On August 11 2023, at approximately 04:57 the emergency bypass stack cap was opened due to an burst pipe on the Air Pollution Control System.

As required by conditions 36 and 38(1) (b) & (2) of the above referenced ECA, the incinerator was brought into a controlled shutdown during this time. The emergency bypass stack was open for a duration of one (1) hour and three (3) minutes. During this period, no waste was injected into the incinerator and the upper chamber was maintained at 1000°C by natural gas only.

On August 11, 2023, a call was placed to the Spills Action Control center by Stericycle Operations Supervisor Samuel Arthur to report the use of the emergency bypass stack. At approximately 04:47 a pipe burst on the Air Pollution Control (APC) System on the back end of unit at approximately 2 hours and 57 minutes into a controlled shutdown. The decision was made to shutdown the APC system and open the emergency bypass stack cap in order to prevent further damage to the equipment. The incinerator was brought into a complete shutdown to allow the maintenance team to make the repairs to the APC system. Once the repairs were completed the APC system and the incinerator were restarted and normal operations were resumed once all parameters were in the normal operating range.

During the bypass, approximately 229.69m³ of flue gas was emitted from the emergency bypass stack.

If you require any additional information, please do not hesitate to call me directly at (905) 595-8532.

Yours truly,

Dan Kokol

Operational EHS Manager
Stericycle ULC
905-595-8532
dkokol@stericycle.com



September 7, 2023

Christelle Broux Senior Environmental Officer
Ministry of Environment, Conservation and Parks
Halton-Peel District Office
4145 North Service Road, Suite 300
Burlington, Ontario
L7L 6A3

Dear Christelle Broux,

RE: Stericycle Site Certificate of Approval No. A680324
Use of the Emergency Bypass Stack
Ref #: 1-3SX4OE

On September 3, 2023, at approximately 12:04 the emergency bypass stack cap was opened due to a loss of oil pressure in the rotary atomizer.

As required by conditions 36 and 38(1) (b) & (2) of the above referenced ECA, the incinerator was brought into a controlled shutdown during this time. The emergency bypass stack was open for a duration of thirty-six (36) minutes. During this period, no waste was injected into the incinerator and the upper chamber was maintained at 1000°C by natural gas only.

On September 3, 2023, a call was placed to the Spills Action Control center by Stericycle Operations to report the use of the emergency bypass stack. At approximately 12:04 the emergency bypass stack opened due to a loss of oil pressure in the rotary atomizer. Stericycle maintenance trouble shot the pressure loss and replaced the oil filter. Once the repairs were completed the APC system and the incinerator were restarted and normal operations were resumed once all parameters were in the normal operating range.

During the bypass, approximately 131.25m³ of flue gas was emitted from the emergency bypass stack.

If you require any additional information, please do not hesitate to call me directly at (905) 595-8532.

Yours truly,

Dan Kokol

Operational EHS Manager
Stericycle ULC
905-595-8532
dkokol@stericycle.com



July 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
1-Jul-23	Average	16.12	0.03	21.86	783.74	743.96	7.64	41.83	50.24	8.41	40.66	7.98	8.52	5.83	0.10	27.92	0.21	Normal(ON)/Shutdown/Off
	Min	10.69	0.00	0.00	259.62	179.61	7.19	33.37	33.00	-17.33	28.04	6.90	7.59	0.00	0.10	0.00	0.00	
	Max	20.41	29.82	91.73	1120.45	1074.18	8.50	55.89	58.06	16.43	46.11	9.36	9.54	8.26	0.10	40.84	1.00	
2-Jul-23	Average	20.25	0.00	0.00	138.53	104.02	8.57	30.48	30.54	0.07	26.54	9.40	9.50	0.00	0.10	0.00	0.00	Off
	Min	20.07	0.00	0.00	80.17	65.42	8.49	29.11	29.36	-0.38	25.13	9.36	9.50	0.00	0.10	0.00	0.00	
	Max	20.42	0.00	0.00	259.28	179.39	8.60	33.36	33.00	0.34	28.03	9.40	9.50	0.00	0.10	0.00	0.00	
3-Jul-23	Average	20.26	0.00	0.00	61.27	57.16	8.30	46.37	43.09	-3.28	26.17	9.44	9.50	2.24	0.10	0.00	0.00	Off/Preheat
	Min	20.10	0.00	0.00	50.13	47.22	8.20	27.22	27.50	-14.66	23.39	9.38	9.50	0.00	0.09	0.00	0.00	
	Max	20.40	0.00	0.00	80.12	555.96	8.49	69.40	60.82	0.45	30.19	9.50	9.50	8.03	0.10	0.00	0.00	
4-Jul-23	Average	14.80	1.35	67.79	702.94	831.09	7.83	47.32	49.85	2.53	37.05	7.95	8.18	7.81	0.10	26.85	0.03	Preheat/Normal(ON)/Shutdown
	Min	8.21	0.00	0.00	66.52	285.36	7.10	30.56	27.08	-31.24	21.62	6.42	7.40	7.70	0.07	0.00	0.00	
	Max	20.40	630.46	276.33	933.37	1176.54	8.40	69.17	61.57	26.75	47.70	9.40	9.50	7.94	0.10	40.68	1.00	
5-Jul-23	Average	14.09	1.91	71.87	870.69	927.28	7.50	42.65	53.57	10.93	41.59	7.17	7.83	8.13	0.10	34.81	0.13	Shutdown/Off/Preheat/Normal(ON)
	Min	8.21	0.00	0.00	66.52	85.97	6.81	30.56	27.08	-31.24	21.62	1.52	7.18	7.70	0.07	0.00	0.00	
	Max	20.40	765.63	276.33	1047.45	1176.54	8.40	69.17	61.57	26.75	47.70	9.40	11.10	8.53	0.10	40.68	1.00	
6-Jul-23	Average	13.70	1.82	92.51	899.15	1016.50	7.58	38.49	54.30	15.81	42.22	9.55	8.47	8.36	0.10	39.03	0.13	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	10.10	0.00	0.00	646.58	416.91	7.23	30.00	48.87	11.40	36.67	6.92	7.34	8.06	0.10	28.87	0.00	
	Max	20.37	509.51	227.97	1061.91	1093.29	7.82	42.62	56.73	19.23	44.38	12.99	11.28	9.10	0.10	41.41	1.00	
7-Jul-23	Average	14.40	0.03	66.28	997.57	1014.96	7.13	39.94	58.07	18.13	42.89	7.66	7.43	8.29	0.10	39.00	0.86	Shutdown/Off/Preheat/Normal(ON)/Shutdown/Off
	Min	11.82	0.00	-4.47	679.51	289.33	6.88	30.96	52.64	4.88	38.31	3.24	7.13	8.12	0.10	27.24	0.00	
	Max	20.37	13.52	213.55	1122.62	1083.59	7.74	47.76	67.38	31.67	47.00	9.31	7.81	8.48	0.10	40.00	1.00	
8-Jul-23	Average	20.25	0.00	0.00	204.95	96.08	8.01	33.09	31.80	-1.29	25.73	10.25	9.31	8.35	0.09	1.17	0.01	Off
	Min	20.07	0.00	0.00	64.10	48.93	7.15	23.18	26.74	-15.75	20.17	8.26	7.82	8.20	0.05	0.00	0.00	
	Max	20.41	0.00	0.00	677.42	288.12	8.17	55.44	52.57	4.60	38.24	12.52	9.40	8.48	0.10	27.03	1.00	
9-Jul-23	Average	20.25	0.00	0.00	45.96	41.22	7.78	25.02	26.42	1.41	23.58	12.30	9.40	8.31	0.05	0.00	0.00	Off
	Min	20.07	0.00	0.00	37.45	36.94	7.63	23.78	25.38	0.60	20.27	12.10	9.30	8.20	0.01	0.00	0.00	
	Max	20.42	0.00	0.00	64.05	48.89	8.04	26.36	28.03	3.02	26.68	12.55	9.52	8.41	0.10	0.00	0.00	
10-Jul-23	Average	18.67	0.11	11.99	381.79	510.95	7.52	32.27	37.52	5.25	32.70	10.76	8.96	6.33	0.06	15.93	0.38	Off/Preheat/Normal(ON)
	Min	9.63	0.00	-17.60	33.75	33.37	7.10	23.43	25.33	0.60	20.27	7.49	7.38	0.00	0.00	0.00	0.00	
	Max	20.42	121.86	159.88	1053.60	1085.48	8.04	46.31	61.01	17.78	46.92	12.55	11.39	8.41	0.10	39.87	1.00	
11-Jul-23	Average	13.48	0.02	78.33	1040.03	1033.60	7.42	45.01	59.84	14.83	47.05	10.10	7.66	8.12	0.10	39.51	1.00	Normal(ON)/Shutdown/Off/Preheat
	Min	9.91	0.00	-2.88	714.53	731.37	7.21	40.65	56.57	11.48	43.89	9.56	7.38	8.00	0.10	38.66	1.00	
	Max	20.30	12.67	234.93	1127.94	1081.31	7.62	49.36	62.88	19.96	50.56	10.44	8.75	8.54	0.10	40.18	1.00	
12-Jul-23	Average	13.50	1.66	86.82	934.21	983.49	6.84	41.24	54.86	13.62	42.00	10.27	8.19	8.45	0.10	28.29	0.83	Preheat/Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	10.20	0.00	0.00	572.99	75.84	6.20	28.89	42.63	-7.60	30.20	9.82	7.36	8.30	0.10	0.00	0.00	
	Max	20.37	765.15	280.23	1143.84	1128.11	7.62	50.50	62.88	19.96	50.56	11.40	9.63	8.70	0.10	40.18	1.00	
13-Jul-23	Average	12.79	5.18	50.57	995.31	1047.07	7.15	42.25	58.34	16.09	43.86	9.25	8.71	8.60	0.10	39.27	1.00	Normal(ON)
	Min	8.53	0.00	-1.59	699.81	917.60	6.97	37.96	55.41	13.70	41.67	8.34	7.36	8.30	0.10	38.50	0.00	
	Max	16.06	994.17	242.12	1148.95	1105.70	7.54	45.93	61.21	19.81	46.10	10.67	9.40	8.82	0.10	39.60	1.00	
14-Jul-23	Average	14.73	4.48	30.58	777.35	781.82	7.00	46.79	51.56	4.77	38.13	10.04	8.92	8.50	0.41	27.31	0.48	Normal(ON)/Shutdown/Preheat/Normal(ON)
	Min	6.36	0.00	-1.64	431.89	69.22	6.44	32.09	36.83	-28.63	27.72	8.73	8.11	8.12	0.07	0.00	0.00	
	Max	20.41	979.22	152.13	1086.59	1072.22	7.53	66.52	63.33	21.19	49.47	12.52	9.78	8.70	2.61	40.02	1.00	
15-Jul-23	Average	13.33	4.37	55.37	947.02	963.44	7.47	44.43	59.86	15.43	45.72	9.26	8.69	8.73	0.10	38.69	0.90	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	9.79	0.00	0.00	621.77	309.50	6.92	33.90	55.19	9.68	40.53	7.76	8.08	8.60	0.10	37.85	0.00	
	Max	20.37	3371.50	140.99	1168.09	1095.98	7.78	48.64	63.28	22.05	48.38	10.62	9.90	8.98	0.10	39.98	1.00	
16-Jul-23	Average	14.02	7.52	32.50	885.68	1011.59	7.43	42.13	59.47	17.34	44.79	9.46	8.91	8.93	0.10	39.71	1.00	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	9.96	0.00	-1.10	396.85	727.14	7.36	38.46	57.40	14.30	43.28	8.80	7.84	8.62	0.10	39.13	1.00	
	Max	20.30	4663.16	130.31	1148.71	1088.68	7.51	45.89	61.10	18.97	46.72	10.01	9.53	9.18	0.10	40.17	1.00	
17-Jul-23	Average	15.97	2.63	16.78	774.56	761.83	7.33	48.96	50.82	1.86	39.38	9.61	9.02	8.77	0.10	22.93	0.58	Normal(ON)/Shutdown/Off/Preheat
	Min	8.33	0.00	-14.30	363.00	94.66	6.92	41.03	34.70	-28.78	25.95	8.95	7.59	8.60	0.10	0.00	0.00	
	Max	20.37	301.40	136.98	1139.10	1087.40	8.17	66.60	61.17	18.12	46.28	9.90	9.94	9.07	0.10	39.94	1.00	
18-Jul-23	Average	14.04	20.04	23.25	909.39	1001.04	6.99	39.85	54.37	14.52	39.82	9.63	8.92	8.87	0.10	37.10	0.66	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	8.67	0.00	-16.50	369.99	443.64	6.50	24.62	40.31	-13.44	27.02	9.19	8.46	8.40	0.10	10.67	0.00	
	Max	20.37	774.25	84.57	1100.87	1087.86	7.75	53.75	57.58	28.89	43.55	9.97	9.93	9.13	0.10	42.66	1.00	

July 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
19-Jul-23	Average	13.99	2.26	29.21	1041.33	1046.78	6.94	39.44	54.65	15.21	40.58	8.82	8.51	8.91	0.10	40.13	1.00	Normal(ON)/Shutdo
	Min	10.90	0.00	-16.50	688.73	631.87	6.57	35.37	51.76	14.18	38.15	7.21	7.51	8.62	0.10	38.04	1.00	wn/Off/Preheat/Nor
	Max	20.36	299.23	98.76	1155.67	1112.83	7.21	43.03	57.81	18.66	43.16	9.39	10.09	9.20	0.10	41.60	1.00	mal(ON)
20-Jul-23	Average	13.52	1.03	24.22	967.18	1028.44	7.22	40.54	57.43	16.89	43.38	9.55	9.00	9.05	0.10	39.40	0.90	Normal(ON)/Shutdo
	Min	8.90	0.00	0.00	682.51	662.47	6.84	33.08	51.68	12.20	37.57	8.39	8.01	8.66	0.10	19.57	0.00	wn/Off/Preheat/Nor
	Max	20.37	177.44	66.00	1121.35	1083.31	7.63	47.59	66.80	29.31	50.01	9.81	9.52	9.20	0.10	41.42	1.00	mal(ON)
21-Jul-23	Average	12.57	3.79	47.84	1068.40	1053.85	7.17	40.71	56.25	15.53	43.85	8.23	8.10	8.64	0.10	40.78	0.96	Normal(ON)/Shutdo
	Min	10.05	0.00	0.00	825.31	679.60	6.83	32.06	52.86	12.41	39.27	6.88	7.35	8.40	0.10	40.57	0.00	wn/Off/Preheat/Nor
	Max	20.37	887.00	147.39	1109.99	1093.53	7.29	45.67	58.47	20.80	45.91	9.47	11.34	9.18	0.10	41.03	1.00	mal(ON)
22-Jul-23	Average	12.37	2.93	50.29	1050.10	1057.29	7.00	39.91	56.06	16.15	43.61	9.84	8.06	8.78	0.10	40.65	0.78	Normal(ON)/Shutdo
	Min	6.70	0.00	0.00	701.94	844.32	6.70	30.28	51.39	14.26	38.83	7.81	7.31	8.58	0.10	40.30	0.00	wn/Off/Preheat/Nor
	Max	20.36	1062.72	149.45	1140.80	1145.97	7.24	45.26	59.96	21.11	47.22	11.03	11.39	9.30	0.10	40.96	1.00	mal(ON)
23-Jul-23	Average	13.19	0.69	84.11	1018.53	1052.51	7.00	40.55	55.51	14.97	43.97	9.08	7.68	8.68	0.10	40.34	0.80	Normal(ON)/Shutdo
	Min	8.81	0.00	0.00	708.11	967.16	6.65	29.48	36.46	5.72	34.03	7.55	7.27	8.55	0.10	40.12	0.00	wn/Off/Preheat
	Max	20.37	305.16	233.20	1125.50	1105.11	7.40	46.36	60.39	21.40	48.49	9.90	8.25	8.80	0.10	40.58	1.00	
24-Jul-23	Average	12.70	1.01	74.30	1035.06	1047.28	7.25	42.00	58.17	16.17	44.96	7.99	7.93	8.56	0.10	39.11	0.84	Normal(ON)/Shutdo
	Min	9.46	0.00	-1.82	695.09	709.31	6.83	28.99	44.69	11.30	36.26	7.08	7.04	8.18	0.10	38.75	0.00	wn/Off
	Max	20.28	303.78	207.05	1118.01	1537.10	7.45	47.34	63.10	23.23	48.86	8.47	8.37	8.77	0.10	40.20	1.00	
25-Jul-23	Average	13.67	3.07	40.93	940.32	928.72	7.32	44.97	54.85	9.88	42.63	8.38	8.33	8.60	0.11	34.41	0.85	
	Min	7.82	0.00	-13.20	513.48	215.14	6.74	38.33	41.22	-12.25	26.88	6.90	7.12	8.19	0.10	2.00	0.00	Preheat/Normal(ON)
	Max	20.37	746.79	195.18	1192.11	1086.04	7.65	53.49	61.11	16.11	48.89	10.75	10.30	8.81	0.16	40.87	1.00	
26-Jul-23	Average	13.72	2.08	71.49	970.84	984.28	7.64	45.55	53.84	8.29	43.52	10.08	7.64	7.84	0.10	34.53	0.72	Normal(ON)/Shutdo
	Min	10.06	0.00	0.00	597.62	434.00	7.36	35.53	36.24	-29.69	31.61	5.99	7.44	7.17	0.10	0.00	0.00	wn/Off/Preheat/No
	Max	20.37	824.11	184.62	1147.27	1122.17	8.21	65.94	63.62	17.83	51.21	12.90	8.68	8.21	0.10	40.77	1.00	rml(ON)
27-Jul-23	Average	12.41	5.34	54.19	1020.37	1063.40	7.65	41.33	55.71	14.38	44.89	8.52	7.50	7.67	0.10	39.72	0.99	Normal(ON)/Shutdo
	Min	7.90	0.00	-2.59	820.37	833.41	7.49	36.02	53.30	12.61	42.14	7.38	7.50	7.28	0.10	39.53	0.00	wn/Off/Preheat/No
	Max	20.30	717.12	193.89	1123.25	1130.68	7.78	45.08	58.21	17.49	47.49	10.99	7.50	8.16	0.10	39.82	1.00	rml(ON)
28-Jul-23	Average	13.25	3.73	52.10	1005.50	985.72	7.69	42.59	55.52	12.92	45.04	8.79	7.50	7.77	0.10	38.21	1.16	Normal(ON)/Shutdo
	Min	6.97	0.00	-19.80	635.77	83.13	7.26	32.33	49.63	-2.57	38.35	7.37	7.49	7.51	0.10	15.08	0.00	wn/Off/Preheat/No
	Max	20.37	665.72	286.00	1105.73	1113.11	8.20	53.21	59.67	18.55	48.97	10.95	7.50	7.94	0.10	40.33	2.00	rml(ON)
29-Jul-23	Average	12.13	5.97	51.93	1099.67	1064.93	7.39	39.57	53.69	14.12	42.84	8.38	7.45	7.48	0.10	40.50	1.49	
	Min	9.47	0.00	-3.57	920.02	975.61	6.66	29.28	45.55	12.37	36.36	7.09	7.40	7.08	0.10	39.30	1.00	Normal(ON)
	Max	17.16	1038.16	228.23	1161.74	1102.84	7.94	46.25	58.66	17.25	47.06	11.49	7.50	7.81	0.10	40.82	2.00	
30-Jul-23	Average	12.52	3.85	26.20	1035.69	1058.94	6.84	37.74	51.88	14.14	40.32	9.29	7.40	7.61	0.10	40.24	1.23	
	Min	9.32	0.00	-2.71	749.59	997.27	6.50	31.87	46.09	7.89	36.28	7.74	7.40	7.38	0.10	39.90	0.00	Normal(ON)
	Max	16.61	739.21	98.65	1130.74	1096.63	7.10	42.10	56.51	17.15	44.04	10.39	7.40	7.84	0.10	40.54	2.00	
31-Jul-23	Average	14.89	0.42	17.16	907.46	891.89	6.82	37.04	48.92	11.88	38.06	9.44	7.40	7.48	1.42	32.68	0.96	
	Min	9.75	0.00	0.00	507.79	71.84	6.21	28.30	31.05	-10.41	25.05	7.13	7.39	7.20	0.10	0.00	0.00	Normal(ON)/Shutdo
	Max	20.39	252.36	101.35	1136.85	1088.67	7.23	48.75	57.20	20.56	44.81	11.60	7.40	7.75	10.67	40.43	2.00	wn/Off/Preheat



July 2023 Incineration Feed Log

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-Jul-23	557.10	510.50	550.20	526.20	557.30	508.40	452.20	617.90	578.40	0.00	569.20	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	5427.40	227628.60
02-Jul-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	
03-Jul-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	
04-Jul-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.60	393.50	625.90	605.40	601.60	476.90	616.70	667.40	601.40	601.70	600.20	601.50	600.00	601.10	0.00	0.00	0.00	7609.90	
05-Jul-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	423.00	611.90	603.90	607.00	500.30	504.40	301.50	504.90	516.50	460.70	540.50	504.00	509.30	508.70	168.50	506.40	406.40	8177.90		
06-Jul-23	516.00	502.20	508.50	20.60	0.00	0.00	0.00	0.00	0.00	124.30	614.30	600.70	599.70	600.00	655.00	659.30	649.20	652.70	651.60	654.10	654.20	656.30	651.00	0.00	9969.70		
07-Jul-23	0.00	0.00	0.00	0.00	0.00	570.90	420.00	0.00	451.70	402.30	0.00	0.00	400.70	437.70	399.50	505.70	508.00	502.80	508.20	0.00	0.00	0.00	0.00	0.00	5107.50		
08-Jul-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		
09-Jul-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	
10-Jul-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	92.80	625.70	0.00	105.90	561.00	560.30	505.50	605.60	606.90	601.60	609.30	391.70	5266.30		
11-Jul-23	602.50	606.00	605.60	602.90	604.80	600.50	611.90	75.10	533.40	503.10	503.80	503.30	557.20	553.30	551.90	576.10	550.40	572.30	285.90	0.00	0.00	0.00	0.00	0.00	10000.00		
12-Jul-23	409.70	556.40	565.90	555.60	40.80	0.00	0.00	0.00	0.00	0.00	6.80	602.40	606.20	607.00	616.40	607.80	603.70	607.20	615.40	603.60	603.50	601.60	623.10	566.90	10000.00		
13-Jul-23	508.70	0.00	0.00	0.00	0.00	0.00	0.00	601.50	612.00	606.10	605.40	606.30	603.90	605.70	604.80	601.50	604.40	600.90	603.90	603.70	605.60	606.40	0.00	0.00	9580.80		
14-Jul-23	651.60	655.50	665.80	659.90	0.00	0.00	0.00	292.80	0.00	0.00	0.00	0.00	244.20	0.00	0.00	0.00	0.00	0.00	554.30	520.70	541.30	555.50	553.70	421.00	6316.30		
15-Jul-23	540.20	0.00	0.00	0.00	0.00	0.00	603.40	0.00	30.00	395.40	506.70	602.90	185.90	556.20	603.50	601.10	616.60	578.50	603.30	209.20	504.90	510.10	504.80	310.00	8462.70		
16-Jul-23	505.70	503.80	509.90	517.50	505.80	507.90	504.00	500.10	502.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	275.00	488.10	507.00	439.80	6266.60		
17-Jul-23	505.10	545.10	505.40	515.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	502.60	551.80	552.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3677.70		
18-Jul-23	0.00	109.60	518.70	547.40	529.40	536.00	564.30	505.80	598.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.80	621.60	612.60	568.90	564.20	564.30	549.50	320.50	7775.30		
19-Jul-23	536.80	551.50	552.20	551.40	558.60	552.20	514.10	563.80	611.70	607.60	606.40	600.60	601.10	610.10	606.70	600.10	604.30	170.80	0.00	0.00	0.00	0.00	0.00	0.00	10000.00		
20-Jul-23	515.90	558.20	564.80	563.40	546.60	532.40	519.60	553.50	332.90	0.00	0.00	0.00	0.00	0.00	520.80	552.90	551.60	560.30	554.60	512.90	554.90	532.00	519.60	377.70	9924.60		
21-Jul-23	500.90	538.80	519.50	513.70	515.90	508.30	501.40	304.60	599.20	601.40	605.20	514.50	524.70	606.80	504.70	521.40	553.10	571.00	494.90	0.00	0.00	0.00	0.00	0.00	10000.00		
22-Jul-23	505.60	500.40	507.60	500.00	510.20	552.50	504.70	618.40	604.90	601.10	608.00	605.00	602.40	605.10	604.20	607.60	612.20	350.10	0.00	0.00	0.00	0.00	0.00	0.00	10000.00		
23-Jul-23	503.50	500.60	506.20	507.70	503.00	495.60	542.00	0.00	606.80	601.30	609.80	615.80	614.20	605.80	603.00	605.80	603.60	604.90	370.40	0.00	0.00	0.00	0.00	0.00	0.00	10000.00	
24-Jul-23	194.10	510.50	500.30	504.40	503.00	500.70	507.90	370.00	606.40	501.80	420.20	0.00	440.00	602.50	601.80	627.10	610.80	619.20	605.60	585.90	187.80	0.00	0.00	0.00	10000.00		
25-Jul-23	12.80	0.00	0.00	0.00	511.80	505.40	503.10	503.30	522.50	501.40	501.40	521.30	557.20	600.90	613.90	603.00	607.20	603.80	600.50	632.90	613.20	0.00	213.90	0.00	9729.50		
26-Jul-23	559.30	548.20	529.10	548.50	523.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	553.70	603.10	603.40	609.70	564.20	505.70	513.50	500.10	502.20	517.60	0.00	8181.80		
27-Jul-23	215.80	522.40	514.30	506.30	513.70	516.10	515.60	604.50	607.00	326.30	88.50	0.00	0.00	0.00	435.20	610.30	604.30	615.70	477.50	604.10	605.30	632.70	484.40	0.00	10000.00		
28-Jul-23	515.40	505.90	503.50	501.60	512.20	419.30	516.90	472.00	600.80	544.10	427.30	608.40	658.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	602.40	560.60	600.30	411.40	8960.90		
29-Jul-23	501.40	505.60	501.40	505.50	512.00	505.60	503.40	556.10	551.00	576.20	551.70	551.80	552.50	607.30	610.50	606.80	603.00	613.00	85.20	0.00	0.00	0.00	0.00	0.00	10000.00		
30-Jul-23	505.20	508.80	518.30	504.60	507.20	517.90	529.40	599.20	601.70	602.50	614.20	613.50	631.40	600.70	599.60	608.90	600.10	336.80	0.00	0.00	0.00	0.00	0.00	0.00	10000.00		
31-Jul-23	507.20	509.70	504.80	507.80	510.30	506.70	518.00	603.20	601.30	611.30	604.60	601.10	607.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7193.70		



Stericycle®

O2 6 minute average < 7.5

O2 < 7.5

	Start	Stop		Op.	Stack		Actions
Date	Time	Time	Duration	Mode	O2 %	Explanation	Taken
7/22/2023	1:10	1:12	0:02	Normal	6.7	Low O2% was caused by a spike in CO levels.	No waste was fest until the O2% returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm



Carbon Monoxide > 8ppm 4 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O2	as mg/m ³	Explanation	Taken
7/21/2023	13:30	18:00	4:30	Normal	9.6	11.1	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.
7/27/2023	7:00	11:00	4:00	Normal	20.1	23.2	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.
7/27/2023	20:01	0:00	3:59	Normal	15.3	17.7	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.
7/28/2023	11:30	15:00	3:30	Normal/Shutdown	9.7	11.2	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.
7/29/2023	22:00	2:00	4:00	Normal	21.6	24.9	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.
7/30/2023	15:01	20:00	4:59	Normal	13.3	15.3	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.

Secondary Chamber Temperature < 1000°C

Date	Start Time	Stop Time	Duration	Op. Mode	Temp. °C	Explanation	Actions Taken
7/1/2023	11:48	14:42	2:54	Shutdown	959	Low secondary chamber temperature caused by an incorrect flame-port air setting during shutdown	No waste was fed at this time. The incinerator was brought to a controlled shutdown.
7/7/2023	1:04	2:41	1:37	Shutdown	975	Low secondary chamber temperature caused by an incorrect flame-port air setting during shutdown	No waste was fed at this time. The incinerator was brought to a controlled shutdown.
7/11/2023	19:47	20:40	0:53	Shutdown	972	Low secondary chamber temperature caused by an incorrect flame-port air setting during shutdown	No waste was fed at this time. The incinerator was brought to a controlled shutdown.
7/14/2023	4:06	5:15	1:09	Shutdown	957	Low secondary chamber temperature caused by an incorrect flame-port air setting during shutdown	No waste was fed at this time. The incinerator was brought to a controlled shutdown.
7/14/2023	23:50	0:33	0:43	Normal	947	Low secondary chamber temperature caused by an incorrect flame-port air setting.	The operator adjusted the flame-port air setting. No waste was fed until the secondary chamber temperature returned to the normal operating range.
7/15/2023	1:04	4:34	3:30	Shutdown	859	Low secondary chamber temperature caused by an incorrect flame-port air setting during shutdown	No waste was fed at this time. The incinerator was brought to a controlled shutdown.
7/17/2023	15:17	15:51	0:34	Shutdown	992	Low secondary chamber temperature caused by an incorrect flame-port air setting during shutdown	No waste was fed at this time. The incinerator was brought to a controlled shutdown.

7/22/2023	19:22	20:25	1:03	Shutdown	984	Low secondary chamber temperature caused by an incorrect flame-port air setting during shutdown	No waste was fed at this time. The incinerator was brought to a controlled shutdown.
7/23/2023	19:56	20:29	0:33	Normal	982	Low secondary chamber temperature caused by an incorrect flame-port air setting.	The operator adjusted the flame-port air setting. No waste was fed until the secondary chamber temperature returned to the normal operating range.

Quench pH out of Range (<6.4pH / >10.4pH)



Quench pH out of Range (<6.4pH / >10.4pH)

	Start	Stop		Op.	Quench		Action
Date	Time	Time	Duration	Mode	pH	Explanation	Taken
7/6/2023	0:43	7:04	6:21	Normal/Shutdown	12.6		

Atomizer Amps < 36

	Start	Stop		Op.	Atom. A	Atom. B		Action
Date	Time	Time	Duration	Mode	amps	amps	Explanation	Taken
7/12/2023	3:36:00	8:23:00	4:47:00	Normal/Shutd own		8.9	Atomizer amperge dropped during the shutdown process.	The incinerator was brought to a controlled shutown. No waste was fed at this time.

Carbon Bed Inlet Temperature <57C

	Start	Stop		Op.	Carbon bed		Actions
Date	Time	Time	Duration	Mode	inlet °C	Explanation	Taken
7/7/2023	6:29	10:05	3:36	Normal/Sh utdown	57.8	high carbon inlet temperatures were caused by a deficiency of the cooling tower.	Maintenance monitored the temperature and the cooling tower operation.
7/7/2023	1:05	4:48	3:43	Shutdown	65.5	high carbon inlet temperatures were caused by a deficiency of the cooling tower.	Maintenance monitored the temperature and the cooling tower operation.
7/10/2023	22:17	22:55	0:38	Normal/Sh utdown	60	high carbon inlet temperatures were caused by a deficiency of the cooling tower.	Maintenance monitored the temperature and the cooling tower operation.
7/14/2023	21:00	4:34	7:34	Normal/Sh utdown	61.3	high carbon inlet temperatures were caused by a deficiency of the cooling tower.	Maintenance monitored the temperature and the cooling tower operation.
7/15/2023	11:59	12:06	25:30:00	Normal/Sh utdown	60.1	high carbon inlet temperatures were caused by a deficiency of the cooling tower.	Maintenance monitored the temperature and the cooling tower operation.
7/20/2023	14:10	3:48	13:38	Normal	58.7	high carbon inlet temperatures were caused by a deficiency of the cooling tower.	Maintenance monitored the temperature and the cooling tower operation.
7/24/2023	7:55	23:42	15:47	Normal/Sh utdown	60.5	high carbon inlet temperatures were caused by a deficiency of the cooling tower.	Maintenance monitored the temperature and the cooling tower operation.

August 2023 Incinerator 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
8/1/2023	Average	13.86	1.72	20.83	928.23	1004.61	6.68	40.05	49.20	9.14	37.40	9.05	7.40	7.46	9.08	33.54	1.45	Preheat/Normal(ON) /Shutdown/Preheat/ Normal(ON)
	Min	7.82	0.00	-15.40	601.76	511.38	6.39	32.70	38.28	-19.32	22.42	7.56	7.30	7.20	0.10	0.00	0.00	
	Max	20.41	45.10	118.22	1121.55	1107.70	6.94	57.60	54.67	16.43	42.70	10.68	8.40	7.70	40.31	40.62	2.00	
8/2/2023	Average	17.29	0.13	11.18	780.76	771.86	7.11	45.85	45.86	0.02	34.32	8.34	7.30	7.55	20.24	17.47	0.75	Normal(ON)/Shutdo wn/Preheat
	Min	10.08	0.00	0.00	397.26	66.30	6.48	30.94	34.42	-27.73	27.71	7.81	7.30	7.31	0.10	0.00	0.00	
	Max	20.41	11.65	113.69	1153.17	1075.36	7.92	62.57	54.76	16.70	42.06	9.05	7.30	7.70	40.49	39.89	2.00	
8/3/2023	Average	20.23	0.29	-0.82	338.36	307.53	7.42	47.43	46.74	-0.67	32.20	8.47	7.39	7.61	11.63	0.03	0.10	Preheat/Shutdown/ Preheat
	Min	20.00	0.00	-15.40	141.51	45.63	6.66	20.56	34.67	-28.20	26.11	7.94	7.30	7.42	0.10	0.00	0.00	
	Max	20.41	26.40	113.69	1153.17	1075.36	8.78	64.58	69.83	33.32	42.06	9.05	7.64	7.90	41.77	39.89	2.00	
8/4/2023	Average	20.21	0.90	-1.58	381.73	508.01	7.33	45.04	44.51	-0.53	32.13	8.07	7.31	7.61	0.14	11.62	0.27	Preheat/Shutdown/ Off
	Min	20.00	0.00	-16.50	125.35	45.03	6.78	29.70	33.16	-26.67	23.83	7.51	7.30	7.40	0.03	0.00	0.00	
	Max	20.41	137.50	0.00	541.41	874.26	8.75	60.00	70.05	34.06	41.81	8.55	7.33	7.72	1.31	42.65	1.00	
8/5/2023	Average	20.25	0.00	0.00	116.91	87.34	7.70	48.61	60.87	12.25	30.65	8.40	7.30	7.46	0.08	0.00	0.00	Off
	Min	20.07	0.00	0.00	66.88	53.89	7.39	30.58	31.89	-27.56	23.04	8.10	7.30	7.40	0.04	0.00	0.00	
	Max	20.41	0.00	0.00	226.05	178.02	7.90	59.82	70.35	39.41	40.74	8.78	7.30	7.63	0.10	0.00	0.00	
8/6/2023	Average	20.25	0.00	0.00	52.41	43.11	7.92	55.50	62.57	7.06	27.59	8.83	7.30	7.38	0.09	0.00	0.00	Off
	Min	20.07	0.00	0.00	43.58	36.89	7.80	54.59	61.64	6.37	25.78	8.74	7.30	7.28	0.06	0.00	0.00	
	Max	20.42	0.00	0.00	66.85	53.89	8.10	56.37	63.67	7.85	29.43	8.97	7.30	7.52	0.10	0.00	0.00	
8/7/2023	Average	20.26	0.00	0.00	39.58	36.00	8.16	56.04	63.28	7.24	28.63	8.93	7.30	7.36	0.10	0.00	0.00	Off
	Min	20.07	0.00	0.00	36.80	33.89	8.10	55.07	62.78	6.46	27.72	8.80	7.30	7.30	0.08	0.00	0.00	
	Max	20.44	0.00	0.00	43.57	37.22	8.30	56.67	63.89	7.75	29.80	9.01	7.30	7.40	0.10	0.00	0.00	
8/8/2023	Average	20.25	0.00	0.00	34.18	33.39	8.09	49.12	57.28	8.16	26.46	8.99	7.22	7.40	0.07	0.00	0.00	Off
	Min	20.05	0.00	0.00	33.33	32.22	8.00	34.24	40.89	4.59	24.93	8.92	7.20	7.30	0.02	0.00	0.00	
	Max	20.43	0.00	0.00	36.80	35.09	8.30	56.47	65.20	12.94	28.23	9.07	7.30	7.50	0.10	0.00	0.00	
8/9/2023	Average	20.21	12.86	-1.44	203.44	256.43	7.13	53.05	48.02	-5.03	29.97	8.61	7.22	7.58	0.09	6.21	0.02	Off/Preheat/Shutdo wn/Off
	Min	20.00	0.00	-15.40	32.15	32.22	6.26	25.20	31.50	-26.23	23.89	7.32	7.20	7.30	0.07	0.00	0.00	
	Max	20.43	784.30	0.00	568.33	1046.66	8.10	66.98	61.89	28.75	37.59	9.45	7.30	7.71	0.10	39.77	1.00	
8/10/2023	Average	16.18	0.31	20.53	513.34	614.31	7.49	52.40	48.34	-4.07	35.53	8.42	7.20	7.46	19.90	0.00	0.50	Off/Preheat/Normal (ON)/Preheat
	Min	7.96	0.00	-16.50	68.11	55.00	6.70	28.02	33.42	-30.64	23.30	6.74	7.20	7.15	0.09	0.00	0.00	
	Max	20.40	196.39	110.91	1075.14	1080.31	8.78	66.51	68.24	21.98	54.77	9.41	7.20	7.77	40.63	0.00	2.00	
8/11/2023	Average	16.39	10.52	24.59	714.40	832.82	8.58	49.69	60.33	10.64	44.39	6.44	7.19	6.60	18.02	0.00	0.67	Preheat/Shutdown/ Off/Preheat/Normal (ON)
	Min	10.04	0.00	-13.20	485.18	285.28	5.92	26.95	35.47	-19.70	24.23	1.57	7.01	4.65	0.09	0.00	0.00	
	Max	20.39	3316.50	95.20	1075.11	1068.87	14.98	79.26	92.70	23.22	75.42	8.86	7.36	7.26	41.10	0.00	2.00	
8/12/2023	Average	12.91	0.48	71.79	1050.32	1051.30	7.37	42.50	55.26	12.76	43.76	8.28	6.99	7.21	39.08	0.00	1.00	Normal(ON)
	Min	10.30	0.00	-4.13	854.64	989.22	7.11	38.18	53.24	11.32	42.05	5.94	6.79	7.09	38.85	0.00	1.00	
	Max	17.33	185.34	240.17	1139.97	1097.67	7.65	45.54	57.18	15.05	45.73	10.14	7.01	7.29	39.73	0.00	1.00	
8/13/2023	Average	14.53	0.38	55.54	935.61	883.02	6.98	36.16	49.90	13.74	40.27	8.40	6.99	7.04	37.12	0.00	1.11	Normal(ON)
	Min	10.34	0.00	0.00	393.89	124.32	6.35	20.63	33.90	12.18	30.55	7.22	6.93	6.87	19.20	0.00	1.00	
	Max	20.38	110.57	245.43	1109.75	1086.80	7.25	42.98	55.19	15.81	43.47	13.86	7.00	7.13	41.09	0.00	2.00	
8/14/2023	Average	19.76	0.15	-1.27	177.78	95.76	6.25	26.74	40.27	13.54	28.68	9.56	6.74	6.04	12.65	0.00	1.10	Normal(ON)/Shutdo wn/Off/Preheat
	Min	0.00	0.00	-14.30	-17.78	-17.78	0.00	-17.78	-17.78	-22.80	-17.78	0.00	0.00	0.00	0.00	0.00	0.00	
	Max	20.41	58.30	0.00	393.18	627.78	7.30	46.84	63.89	26.67	35.56	13.84	7.00	7.08	36.42	0.00	3.00	
8/15/2023	Average	16.34	2.45	22.93	512.35	747.51	7.10	41.47	47.95	6.48	34.50	8.79	6.88	7.19	17.03	0.00	0.22	Preheat/Shutdown/ Off/Preheat/Normal (ON)
	Min	9.12	0.00	-12.10	196.99	0.00	5.44	20.65	24.08	-29.37	16.92	4.78	6.04	6.26	0.07	0.00	0.00	
	Max	20.41	378.02	136.29	990.10	1767.78	10.06	56.55	79.26	32.10	51.57	12.64	7.01	7.90	40.84	0.00	1.00	
8/16/2023	Average	13.72	0.59	51.73	993.72	1051.63	7.18	39.78	53.96	14.17	43.04	7.65	6.98	7.08	39.89	0.00	0.88	Normal(ON)Shutdow n/Off/Preheat/Norm al(ON)
	Min	10.80	0.00	-15.40	697.66	787.43	6.79	24.32	47.06	11.93	38.89	5.73	6.84	6.99	39.47	0.00	0.00	
	Max	20.36	325.04	258.44	1112.65	1088.57	7.36	46.93	59.65	23.12	45.53	12.21	7.00	7.10	40.50	0.00	1.00	
8/17/2023	Average	13.22	0.58	56.42	1013.57	1040.84	7.22	39.70	53.61	13.91	43.15	7.42	6.89	7.09	39.16	0.00	0.82	Normal(ON)Shutdow n/Off
	Min	10.25	0.00	0.00	701.10	503.70	6.90	24.75	46.72	-1.06	34.03	4.87	6.72	7.00	20.70	0.00	0.00	
	Max	20.37	340.51	176.43	1098.93	1102.89	7.45	47.78	57.38	22.84	46.56	10.82	7.00	7.10	39.94	0.00	1.00	
8/18/2023	Average	13.72	0.27	85.51	971.98	1004.02	6.83	41.71	50.61	8.90	38.68	8.26	6.88	7.09	34.73	0.00	0.84	Off/Preheat/Normal (ON)
	Min	9.21	0.00	-15.40	540.31	356.17	6.53	34.44	32.99	-30.37	22.92	1.12	6.70	6.70	0.10	0.00	0.00	
	Max	20.37	252.23	219.68	1124.45	1100.17	7.75	63.37	54.70	17.50	42.58	11.34	6.90	7.20	41.09	0.00	1.00	



August 2023 Incinerator 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
8/19/2023	Average	13.41	0.43	92.80	1026.39	1065.26	6.72	37.44	52.01	14.56	40.85	7.88	6.88	7.13	39.57	0.00	0.90	Normal(ON)/Shutdo wn/Off/Preheat
	Min	10.30	0.00	-4.07	754.93	921.32	6.22	25.46	46.57	11.81	35.14	6.15	6.78	7.08	38.87	0.00	0.00	
	Max	20.28	350.96	216.95	1129.45	1114.16	7.06	42.33	55.07	23.17	44.42	10.79	6.92	7.18	39.87	0.00	1.00	
8/20/2023	Average	13.11	0.43	89.64	1040.16	1062.26	7.25	39.33	53.81	14.48	42.97	6.07	6.90	7.10	39.32	0.00	0.95	Preheat/Normal(ON) /Shutdown/Off/Preh eat
	Min	10.24	0.00	42.31	761.18	1028.38	6.50	25.29	48.39	12.09	37.96	4.42	6.88	7.07	38.93	0.00	0.00	
	Max	15.76	446.18	189.04	1106.10	1084.01	7.81	45.29	57.42	23.24	47.36	7.54	6.90	7.14	39.49	0.00	1.00	
8/21/2023	Average	13.07	3.20	111.69	1059.79	1070.94	7.14	39.95	54.21	14.25	42.18	6.72	6.90	7.10	39.18	0.00	1.00	Preheat/Normal(ON) /Shutdown/Off
	Min	10.32	0.00	0.00	755.39	950.99	6.61	35.08	51.29	12.04	38.13	5.50	6.88	7.10	39.08	0.00	1.00	
	Max	20.28	785.89	231.76	1157.45	1133.63	7.54	46.30	58.33	17.83	45.68	7.90	6.90	7.10	39.77	0.00	1.00	
8/22/2023	Average	13.60	0.65	70.42	1043.60	1060.87	6.69	37.77	52.05	14.28	40.25	7.25	6.90	7.10	39.88	0.00	1.00	Preheat/Normal(ON) /Shutdown/Off
	Min	11.19	0.00	0.00	922.03	996.62	6.31	29.06	47.40	11.78	35.73	6.98	6.90	7.10	39.03	0.00	1.00	
	Max	20.37	245.65	248.77	1115.97	1104.58	7.02	44.22	56.40	18.69	44.28	7.63	6.92	7.10	40.49	0.00	1.00	
8/23/2023	Average	13.32	1.97	51.15	998.25	1055.31	6.86	40.83	55.28	14.45	42.86	7.25	6.92	7.10	40.05	0.00	1.08	Preheat/Normal(ON) /Shutdown/Off/Preh eat/Normal(ON)
	Min	9.72	0.00	-14.30	701.61	803.27	6.60	24.69	48.33	11.73	35.00	6.99	6.90	7.10	39.59	0.00	0.00	
	Max	20.33	330.83	202.47	1096.08	1103.80	7.03	46.72	59.86	23.64	45.92	7.44	7.00	7.10	40.36	0.00	2.00	
8/24/2023	Average	13.04	0.37	36.44	994.60	1057.19	7.22	44.82	57.71	12.89	46.40	7.58	6.91	7.10	39.98	0.01	1.67	Normal(ON)/Shutdo wn/Off/Preheat
	Min	10.62	0.00	-4.91	699.89	756.97	6.61	25.54	48.41	11.02	35.22	7.30	6.90	7.01	39.80	0.00	0.00	
	Max	20.36	192.05	91.43	1116.80	1110.29	7.54	49.57	60.99	22.87	49.45	7.74	7.00	7.12	40.22	0.07	2.00	
8/25/2023	Average	13.21	1.67	42.74	978.91	1058.14	7.37	45.05	58.99	13.95	46.70	7.52	6.90	7.01	40.01	0.00	1.71	Normal(ON)/Shutdo wn/Off/Preheat
	Min	9.78	0.00	-12.87	694.56	762.84	6.87	33.56	53.03	11.37	40.34	7.03	6.90	7.00	39.75	0.00	1.00	
	Max	20.30	661.90	156.73	1101.30	1099.91	7.55	50.25	62.79	20.14	49.98	8.49	6.92	7.04	40.40	0.00	2.00	
8/26/2023	Average	13.54	0.71	59.24	981.98	1011.53	7.07	42.60	57.20	14.60	45.14	7.23	6.91	7.00	39.65	0.00	1.35	Normal(ON)/Shutdo wn/Off
	Min	10.36	0.00	-3.37	600.10	385.02	6.19	32.75	47.09	7.55	35.23	7.13	6.90	6.94	26.05	0.00	1.00	
	Max	20.37	449.48	191.52	1123.24	1100.91	7.37	46.71	60.50	19.81	47.86	8.40	6.97	7.01	40.11	0.00	3.00	
8/27/2023	Average	20.25	0.00	0.00	218.01	1762.19	7.11	48.24	37.64	-10.60	22.87	9.73	6.91	6.90	1.14	0.00	0.02	Off
	Min	20.08	0.00	0.00	78.11	381.36	6.05	26.87	27.78	-27.35	21.09	8.41	6.90	6.90	0.07	0.00	0.00	
	Max	20.41	0.00	0.00	598.72	1767.78	7.50	68.85	52.87	7.30	35.12	10.06	7.00	6.94	25.83	0.00	1.00	
8/28/2023	Average	20.25	0.00	0.00	58.15	883.88	7.66	48.08	52.48	4.42	23.16	9.99	6.90	3.22	0.06	0.00	0.00	Off
	Min	20.07	0.00	0.00	45.35	0.00	7.50	43.67	47.22	-8.28	21.67	9.55	6.90	0.00	0.01	0.00	0.00	
	Max	20.42	0.00	0.00	598.72	1767.78	7.96	68.85	56.98	9.92	35.12	10.19	7.00	6.94	25.83	0.00	1.00	
8/29/2023	Average	20.25	0.00	0.00	36.54	115.45	7.86	45.63	56.12	10.49	24.29	5.88	6.90	0.00	0.04	0.00	0.00	Off
	Min	20.07	0.00	0.00	32.38	0.00	7.70	43.85	53.81	9.06	21.84	0.00	6.88	0.00	0.00	0.00	0.00	
	Max	20.42	0.00	0.00	45.35	1767.78	8.10	47.58	58.51	11.75	27.39	11.08	6.90	0.00	0.09	0.00	0.00	
8/30/2023	Average	20.26	0.00	0.00	30.87	100.08	8.00	47.51	51.04	3.53	23.87	10.30	6.90	0.00	0.04	0.00	0.00	Off
	Min	20.09	0.00	0.00	29.41	0.00	7.90	41.40	38.19	-9.69	22.26	10.02	6.89	0.00	0.00	0.00	0.00	
	Max	20.40	0.00	0.00	33.15	1767.78	8.10	48.94	60.48	19.08	27.13	10.93	6.90	0.00	0.10	0.00	0.00	
8/31/2023	Average	20.25	0.00	0.00	28.50	30.58	7.70	44.48	46.67	2.19	22.08	10.12	7.61	0.00	0.01	0.00	0.00	Off
	Min	20.07	0.00	0.00	27.05	28.33	7.60	30.34	28.15	-18.47	15.33	8.16	6.00	0.00	0.00	0.00	0.00	
	Max	20.44	0.00	0.00	29.99	32.67	7.90	47.95	62.69	32.32	29.38	10.50	8.40	0.00	0.06	0.00	0.00	



August 2023 Incineration Feed Log

TheDate	Hour1	Hour2	Hour3	Hour4	Hour5	Hour6	Hour7	Hour8	Hour9	Hour10	Hour11	Hour12	Hour13	Hour14	Hour15	Hour16	Hour17	Hour18	Hour19	Hour20	Hour21	Hour22	Hour23	Hour24	DailySum	Monthly Sum
01-Aug-23	0.00	0.00	508.00	501.60	514.40	500.80	508.60	605.30	608.70	601.70	670.00	627.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	600.30	606.10	621.10	610.90	626.50	8711.1	151665.7
02-Aug-23	602.00	602.40	604.30	606.60	606.30	602.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.00	182.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3816.3	
03-Aug-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	0.0	
04-Aug-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	0.0	
05-Aug-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	0.0	
06-Aug-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	0.0	
07-Aug-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	0.0	
08-Aug-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	0.0	
09-Aug-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	0.0	
10-Aug-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	514.80	533.80	545.20	500.20	503.30	517.20	508.80	0.00	513.30	4136.6	
11-Aug-23	508.10	516.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.00	274.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	511.10	530.60	2374.3		
12-Aug-23	500.50	504.80	513.80	504.40	506.20	502.00	507.20	559.90	556.60	553.00	557.00	553.90	553.50	550.50	553.20	554.70	562.80	547.30	358.70	0.00	0.00	0.00	0.00	0.00	10000.0	
13-Aug-23	509.00	509.90	510.60	505.20	504.70	502.20	503.20	604.20	601.90	603.70	605.90	599.90	606.60	601.20	599.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8367.5	
14-Aug-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	605.20	0.00	605.2		
15-Aug-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	258.20	398.90	509.30	515.20	512.50	502.50	565.30	506.00	3767.9	
16-Aug-23	508.40	501.00	506.70	502.10	512.70	512.80	504.20	611.90	613.50	600.80	603.40	603.50	605.80	614.70	608.40	614.70	515.90	459.50	0.00	0.00	0.00	0.00	0.00	0.00	10000.0	
17-Aug-23	506.50	506.00	503.00	501.60	504.70	513.50	502.30	603.50	604.20	614.20	510.00	500.20	501.90	501.00	603.00	604.00	605.60	612.30	202.50	0.00	0.00	0.00	0.00	0.00	10000.0	
18-Aug-23	0.00	0.00	263.90	500.90	450.40	518.50	505.50	500.80	501.30	503.90	504.00	502.70	501.90	503.00	609.20	604.10	604.40	654.30	661.40	602.40	507.40	0.00	0.00	0.00	10000.0	
19-Aug-23	0.00	0.00	506.90	501.60	508.90	506.80	500.20	605.30	606.10	600.70	601.30	629.30	600.30	621.70	612.30	612.00	608.80	611.20	603.80	162.80	0.00	0.00	0.00	0.00	10000.0	
20-Aug-23	503.10	500.20	502.70	501.40	500.20	509.40	501.00	172.10	520.70	508.20	501.90	515.40	502.10	508.80	509.10	506.60	502.10	557.20	507.40	601.10	69.30	0.00	0.00	0.00	10000.0	
21-Aug-23	501.70	501.70	504.50	500.40	501.50	500.70	235.30	411.30	506.50	322.90	604.30	603.50	607.80	160.50	603.60	604.60	601.10	629.60	609.80	333.10	155.60	0.00	0.00	0.00	10000.0	
22-Aug-23	409.40	517.00	521.60	503.60	501.80	503.80	504.80	501.30	551.60	555.60	397.50	0.00	600.50	603.40	604.40	600.80	602.60	511.80	502.20	506.30	0.00	0.00	0.00	0.00	10000.0	
23-Aug-23	250.30	563.90	560.00	553.20	557.90	560.30	562.30	602.50	602.20	608.90	603.10	603.40	639.40	602.10	605.70	600.50	604.70	319.60	0.00	0.00	0.00	0.00	0.00	0.00	10000.0	
24-Aug-23	613.60	610.70	611.20	611.80	601.60	607.50	605.40	555.70	560.20	561.30	345.50	430.40	556.20	0.00	558.80	580.50	594.00	541.60	454.00	0.00	0.00	0.00	0.00	0.00	10000.0	
25-Aug-23	511.80	0.00	0.00	506.80	502.00	503.60	502.20	585.10	600.90	603.00	605.00	607.50	603.40	622.00	601.80	605.00	622.40	608.40	611.00	198.10	0.00	0.00	0.00	0.00	10000.0	
26-Aug-23	501.00	507.00	501.70	502.20	502.30	508.40	183.30	604.20	609.10	602.40	601.50	605.00	609.00	605.20	603.40	607.90	605.60	623.30	0.00	0.00	0.00	0.00	0.00	0.00	9882.5	
27-Aug-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	0.0	
28-Aug-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	0.0	
29-Aug-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	0.0	
30-Aug-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	0.0	
31-Aug-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.30	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	

Oxides of Nitrogen > 98ppm 24 hr average

	Start	Stop		Op.	Stack NOx	Stack NOx		Actions
Date	Time	Time	Duration	Mode	@ 11% O2	as mg/m ³	Explanation	Taken
8/19/2023	12:01	20:00	7:59	Normal	100.34	180.6	High NOx was caused by low ammonia flow in the SNCR system.	Stericycle maintenance troubleshoot and corrected the issue. No waste was fed until the NOx levels returned to the normal operating range.
			0:00			0.0		

Secondary Chamber Temperature < 1000°C

Date	Start Time	Stop Time	Duration	Op. Mode	Temp. °C	Explanation	Actions Taken
8/11/2023	4:59	5:48	0:49	Shutdown	928	Low secondary chamber temperature caused by an incorrect flame-port air setting during shutdown	No waste was fed at this time. The incinerator was brought to a controlled shutdown.
8/13/2023	18:51	21:52	27:01:00	Normal	109	The incinerator was shutdown due to hot spots in the transfer stack .	No waste was fed at this time. The incinerator was brought to a controlled shutdown.
8/26/2023	19:34	21:17	1:43	Normal	957	Low secondary chamber temperature caused by an incorrect flame-port air setting during shutdown	No waste was fed at this time. The incinerator was brought to a controlled shutdown.

Quench pH out of Range (<6.4pH / >10.4pH)



Quench pH out of Range (<6.4pH / >10.4pH)

	Start	Stop		Op.	Quench		Action
Date	Time	Time	Duration	Mode	pH	Explanation	Taken
8/11/2023	1:41	5:47	4:06	Normal/Shutdown	4.7	Low Quench pH caused by the caustic pump losing its prime during shutdown	No waste was fed at this time. The incinerator was brought to a controlled shutdown.
8/13/2023	20:22	6:12	9:50	Normal	12.9	Low Quench pH was due to the probe going out of calibration while the unit was idle for refractory repair.	No waste was fed at this time. Maintenance calibrated the pH probe.
8/15/2023	19:38	1:43	6:05	Normal	11.8	Low Quench pH was due to the probe going out of calibration.	Maintenance calibrated the pH probe.

Atomizer pH out of Range (<6.4pH / > 10.4pH)



Atomizer pH out of Range (<6.4pH / > 10.4pH)

[illegible]

Atomizer Amps < 36

	Start	Stop		Op.	Atom. A	Atom. B		Action
Date	Time	Time	Duration	Mode	amps	amps	Explanation	Taken
8/11/2023	2:05:00	5:48:00	3:43:00	Shutdown	12.6		Atomizer amperge dropped during the shutdown process.	The incinerator was brought to a controlled shutown. No waste was fed at this time.
8/13/2023	19:27:00	5:20:00	9:53:00	Normal	23.5		Atomizer amperage dropped while the icinerator was idle	No waste was fed until the atomoizer amperage returned to the normal operating range.
8/14/2023	7:01:00	21:51:00	14:50:00	Normal	7.8		Atomizer amperage dropped while the icinerator was idle	No waste was fed until the atomoizer amperage returned to the normal operating range.

Carbon Bed Inlet Temperature <57C

	Start	Stop		Op.	Carbon bed		Actions
Date	Time	Time	Duration	Mode	inlet °C	Explanation	Taken
8/11/2023	0:56	5:48	4:52	Normal/Sh utdown	89.4	High carbon inlet temperatures were caused by a burst water pipe leading to the heat exchanger.	The incinerator was brought to a controlled shutdown to allow maintenance to repair the piping.
8/25/2023	3:00	21:17	18:17	Normal	60.7	high carbon inlet temperatures were caused by a deficiency of the cooling tower.	Maintenance monitored the temperature and the cooling tower operation.

September 2023 Incineration Averages 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
09/01/23	Average	18.45	32.57	13.13	239.05	453.42	7.10	61.61	57.57	-4.04	37.21	9.83	8.45	4.28	12.90	0.60	0.52	Off/Preheat/Normal(ON)
	Min	9.55	0.00	-16.50	26.85	27.69	6.06	30.41	31.24	-28.75	18.94	6.51	8.37	0.00	0.00	0.00	0.00	
	Max	20.43	912.93	137.84	734.93	1083.33	7.80	75.54	95.01	32.00	74.17	10.64	8.60	6.96	40.54	4.81	2.00	
09/02/23	Average	18.65	0.94	9.47	511.59	658.79	6.47	52.36	66.30	13.94	44.29	10.19	8.42	6.90	26.43	0.00	0.40	Preheat/Normal(ON)
	Min	9.87	0.00	-14.30	249.13	172.49	5.82	27.98	31.09	-32.15	24.26	8.59	8.40	6.90	0.09	0.00	0.00	
	Max	20.41	94.60	108.01	737.85	1081.53	7.09	75.51	95.00	46.35	73.74	12.10	8.50	6.93	40.02	0.00	2.00	
09/03/23	Average	15.71	5.98	23.16	654.00	820.63	7.67	52.87	51.91	-0.96	36.99	10.08	8.41	6.90	20.75	0.00	0.00	Preheat/Normal(ON)
	Min	9.34	0.00	-14.30	247.46	174.51	7.02	30.19	30.31	-36.32	23.15	8.66	6.97	6.90	0.10	0.00	0.00	
	Max	20.40	774.48	106.49	968.44	1087.67	8.27	72.07	64.92	33.70	45.63	11.98	10.06	6.90	40.06	0.00	0.00	
09/04/23	Average	13.31	2.28	37.96	979.63	1060.26	7.76	42.38	61.37	18.99	47.76	8.64	7.45	6.93	39.45	0.00	0.90	Normal(ON)
	Min	11.49	0.00	0.00	730.61	990.83	7.51	38.21	60.33	16.33	44.57	7.61	7.04	6.90	38.73	0.00	0.00	
	Max	20.27	584.17	118.15	1076.15	1098.11	8.00	48.15	64.63	22.43	50.00	9.00	8.00	7.05	39.97	0.00	1.00	
09/05/23	Average	14.06	1.88	68.78	1021.46	1064.55	7.81	42.73	61.52	18.78	48.35	8.95	7.48	6.94	39.51	0.00	0.99	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	12.11	0.00	-19.80	823.96	828.52	7.38	34.44	58.68	17.52	45.19	7.61	7.00	6.90	38.70	0.00	0.00	
	Max	20.36	473.71	215.68	1077.35	1138.62	8.05	44.97	63.07	24.25	49.96	10.50	7.72	7.00	40.08	0.00	1.00	
09/06/23	Average	14.04	0.69	55.21	937.74	1021.98	7.86	42.53	61.12	18.59	47.81	7.65	7.49	6.92	38.95	0.00	0.88	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	11.75	0.00	-18.70	607.32	392.30	7.68	32.53	50.54	-0.61	37.32	6.88	7.21	6.86	18.70	0.00	0.00	
	Max	20.37	313.41	178.89	1034.75	1089.69	8.09	51.32	63.97	25.48	50.07	8.83	8.15	6.97	40.09	0.00	1.00	
09/07/23	Average	14.07	0.76	49.73	800.01	1036.90	7.63	42.71	56.52	13.80	43.34	8.31	7.45	6.89	35.21	0.00	0.78	Normal(ON)
	Min	9.50	0.00	-15.40	438.33	720.32	6.92	34.25	47.12	-8.17	33.18	7.32	7.00	6.80	11.90	0.00	0.00	
	Max	20.37	129.20	131.91	1015.69	1092.22	7.87	55.73	60.22	22.60	49.26	9.14	8.20	7.06	40.37	0.00	1.00	
09/08/23	Average	15.25	10.46	31.26	798.82	860.62	6.33	37.01	45.62	8.62	36.11	9.19	8.31	6.81	24.01	0.00	0.52	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	9.69	0.00	-2.20	373.63	269.54	5.80	23.02	26.27	-31.64	22.90	5.51	5.85	6.68	0.08	0.00	0.00	
	Max	20.39	2207.82	141.33	1028.25	1211.98	6.92	60.60	56.13	25.02	43.77	12.10	12.80	6.90	40.30	0.00	1.00	
09/09/23	Average	14.50	0.73	35.66	937.69	978.82	6.75	40.13	54.00	13.87	40.50	8.88	7.50	6.88	35.92	0.00	0.88	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	10.65	0.00	0.00	543.82	332.81	6.49	31.34	47.86	-3.21	31.78	8.77	7.18	6.80	14.14	0.00	0.00	
	Max	20.37	286.12	133.61	1124.58	1097.61	7.15	55.25	59.93	22.25	44.18	9.84	8.59	6.90	39.77	0.00	1.00	
09/10/23	Average	13.23	2.82	62.21	1016.22	1066.70	7.00	39.35	56.17	16.82	42.95	7.86	7.48	6.90	39.27	0.00	1.00	Normal(ON)
	Min	11.46	0.00	11.94	729.03	1022.26	6.63	31.16	51.68	13.89	38.72	6.45	7.16	6.90	37.92	0.00	1.00	
	Max	15.61	791.86	134.52	1131.40	1092.11	7.25	42.41	58.05	21.38	44.95	10.20	8.10	6.90	39.97	0.00	1.00	
09/11/23	Average	14.04	1.34	66.00	887.28	1011.69	6.97	41.36	53.75	12.39	41.74	8.17	7.23	6.90	35.65	0.00	0.91	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	11.52	0.00	0.00	607.71	473.81	6.63	31.13	40.38	-17.21	30.44	7.71	7.00	6.90	9.04	0.00	0.00	
	Max	20.37	1397.42	146.45	1026.14	1096.47	7.22	58.07	58.33	21.15	45.44	9.60	7.41	6.90	39.80	0.00	2.00	
09/12/23	Average	13.49	1.45	59.87	963.87	1063.33	7.09	38.05	55.43	17.37	43.03	8.21	7.29	6.82	39.01	0.00	1.00	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	9.48	0.00	-2.55	745.65	842.48	6.74	28.49	51.67	14.32	38.23	7.20	6.99	6.80	38.81	0.00	1.00	
	Max	20.36	167.11	378.40	1086.53	1092.78	7.31	44.44	58.92	23.33	45.81	8.86	8.80	6.90	39.88	0.00	2.00	
09/13/23	Average	16.24	0.15	11.04	741.33	845.86	6.84	44.03	43.91	-0.11	33.78	8.16	7.29	6.80	18.37	0.00	0.72	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	10.42	0.00	0.00	332.27	265.78	5.90	24.47	24.82	-33.60	18.78	7.71	7.01	6.80	0.00	0.00	0.00	
	Max	20.41	3.85	50.36	1027.62	1088.42	7.73	60.81	55.08	24.96	44.20	9.47	7.42	6.80	40.15	0.00	2.00	
09/14/23	Average	13.80	0.15	30.30	1009.20	1045.63	6.30	36.13	52.29	16.16	40.19	8.51	7.67	6.80	38.79	0.00	1.58	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	11.57	0.00	-1.13	651.99	478.11	5.96	33.67	46.94	10.61	32.16	7.82	6.77	6.80	29.00	0.00	1.00	
	Max	20.37	20.93	65.31	1110.94	1110.59	6.52	38.69	54.39	18.39	42.04	11.00	8.78	6.81	39.97	0.00	2.00	
09/15/23	Average	13.72	1.55	29.17	984.49	1065.10	6.23	34.46	52.02	17.56	38.93	8.53	7.02	6.81	38.69	0.00	2.41	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	10.47	0.00	-0.60	648.60	866.01	5.40	23.89	43.89	12.15	30.88	7.40	6.52	6.80	25.18	0.00	1.00	
	Max	20.30	1039.19	65.62	1053.59	1093.40	6.75	38.35	54.69	22.06	41.96	10.98	7.98	6.84	39.74	0.00	3.00	
09/16/23	Average	14.25	3.88	29.12	995.47	1068.06	6.37	33.91	51.04	19.37	39.37	7.20	7.23	6.80	38.41	0.00	2.85	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	10.47	0.00	-6.60	648.60	749.97	5.40	23.89	35.94	5.00	30.88	6.94	6.52	6.80	23.62	0.00	1.00	
	Max	20.36	1039.19	70.62	1138.65	1149.28	6.75	38.35	54.74	24.37	42.09	10.98	8.20	6.84	40.70	0.00	4.00	
09/17/23	Average	16.07	7.11	19.31	967.63	1062.30	6.71	36.15	53.92	17.77	41.27	8.51	10.02	6.80	39.77	0.00	3.37	Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	11.12	0.00	-8.80	700.66	893.80	6.06	24.13	48.79	15.06	37.44	6.08	6.34	6.80	39.47	0.00	1.00	
	Max	20.36	332.33	66.00	1047.16	1089.79	7.00	39.86	55.55	24.72	44.36	12.94	10.69	6.81	40.73	0.00	5.00	

September 2023 Incineration Averages 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
09/18/23	Average	14.04	0.62	58.31	895.09	1024.47	6.55	35.10	51.88	16.78	38.36	8.16	7.96	6.80	37.25	0.00	3.03	Preheat/Normal(ON)/Shutdown/Off/Preheat/Normal(ON)
	Min	8.36	0.00	-384.91	629.15	508.38	6.32	26.01	34.37	-13.31	27.98	7.58	6.94	6.80	10.54	0.00	0.00	
	Max	20.37	132.35	394.23	1045.73	1087.43	6.89	48.36	54.66	25.21	41.29	8.41	10.20	6.81	39.85	0.00	6.00	
09/19/23	Average	14.13	1.31	-95.55	881.07	976.09	6.24	35.31	51.11	15.80	35.84	9.09	7.35	6.80	36.52	0.00	0.85	Normal(ON)/Shutdown/Off
	Min	8.73	0.00	-446.75	471.26	235.40	6.03	28.84	31.02	-30.14	18.36	7.97	6.86	6.80	0.10	0.00	0.00	
	Max	20.37	172.23	448.18	1034.67	1114.04	6.64	61.16	54.35	22.11	39.51	11.74	9.24	6.80	39.49	0.00	1.00	
09/20/23	Average	15.69	5.90	36.00	633.44	681.08	6.53	46.49	42.77	-3.71	28.86	9.96	8.21	6.77	23.03	0.00	0.54	Off/Preheat/Normal(ON)
	Min	6.48	0.00	-33.00	232.86	55.00	5.81	27.57	21.38	-39.96	11.80	5.81	6.60	6.70	0.00	0.00	0.00	
	Max	20.41	68.52	385.17	1093.03	1097.16	6.80	62.11	59.73	26.30	42.73	12.03	9.52	6.80	40.03	0.00	1.00	
09/21/23	Average	18.12	7.67	14.43	603.04	543.04	6.90	43.73	67.71	23.98	35.33	10.90	7.98	6.78	7.23	0.00	0.35	Normal(ON)/Shutdown/Off
	Min	10.62	0.00	0.00	191.70	87.51	6.11	31.24	47.76	8.52	25.67	8.70	7.49	6.58	0.00	0.00	0.00	
	Max	20.41	1463.03	142.14	1072.82	1094.76	7.77	61.39	81.36	36.05	41.60	12.24	8.20	6.80	39.73	0.00	1.00	
09/22/23	Average	20.25	0.00	0.00	116.41	58.38	7.65	33.59	64.17	30.58	28.63	12.63	7.97	6.35	0.00	0.00	0.00	Off
	Min	20.07	0.00	0.00	73.12	41.67	7.50	26.71	45.44	8.46	22.99	12.24	7.80	5.25	0.00	0.00	0.00	
	Max	20.42	0.00	0.00	191.52	87.78	7.80	61.24	80.26	49.36	37.20	12.80	8.10	6.80	0.01	0.00	0.00	
09/23/23	Average	20.26	0.00	0.00	54.60	35.77	7.45	26.57	72.29	45.72	38.97	12.89	7.80	5.10	0.00	0.00	0.00	Off
	Min	20.09	0.00	0.00	43.04	32.22	7.40	25.95	71.38	44.67	37.11	12.80	7.80	5.03	0.00	0.00	0.00	
	Max	20.40	0.00	0.00	73.08	41.67	7.58	27.44	73.14	46.70	40.21	12.90	7.80	5.25	0.01	0.00	0.00	
09/24/23	Average	20.25	0.00	0.00	36.93	30.37	7.38	26.16	72.59	46.43	39.44	12.97	7.80	4.94	0.00	0.00	0.00	Off
	Min	20.07	0.00	0.00	33.30	28.33	7.30	24.38	71.78	45.19	38.33	12.90	7.80	4.77	0.00	0.00	0.00	
	Max	20.44	0.00	0.00	43.02	32.37	7.48	27.77	73.76	47.79	40.83	13.00	7.80	5.03	0.01	0.00	0.00	
09/25/23	Average	20.25	0.00	0.00	30.88	29.76	7.39	26.55	72.62	46.07	39.80	13.00	7.80	4.94	0.00	0.00	0.00	Off
	Min	20.05	0.00	0.00	29.65	28.33	7.30	25.23	71.35	44.99	38.36	13.00	7.80	4.82	0.00	0.00	0.00	
	Max	20.43	0.00	0.00	33.36	31.11	7.50	28.29	74.27	47.21	41.85	13.00	7.80	5.00	0.00	0.00	0.00	
09/26/23	Average	20.25	0.00	0.00	27.16	27.75	7.36	26.15	70.90	44.76	33.93	13.00	7.80	4.87	0.00	0.00	0.00	Off
	Min	20.07	0.00	0.00	26.00	26.66	7.30	23.31	64.44	35.51	26.14	13.00	7.80	4.70	0.00	0.00	0.00	
	Max	20.42	0.00	0.00	29.64	30.01	7.50	29.03	73.13	48.30	40.72	13.00	7.80	5.00	0.00	0.00	0.00	
09/27/23	Average	20.24	0.00	0.00	25.35	26.15	7.02	30.61	50.83	20.22	24.90	12.84	8.14	5.47	0.00	0.00	0.00	Off
	Min	20.09	0.00	0.00	24.95	24.02	6.58	20.45	22.23	1.40	20.01	12.50	7.80	4.69	0.00	0.00	0.00	
	Max	20.39	0.00	0.00	26.10	28.24	7.30	55.36	71.45	45.00	29.57	13.00	8.90	6.80	0.00	0.00	0.00	
09/28/23	Average	20.25	0.00	0.00	25.39	30.93	7.20	54.76	47.68	-7.09	23.36	12.49	8.81	6.80	0.00	0.00	0.00	Off
	Min	20.10	0.00	0.00	24.96	25.49	6.90	51.47	29.42	-25.79	19.68	12.40	8.70	6.80	0.00	0.00	0.00	
	Max	20.42	0.00	0.00	25.67	297.80	7.30	56.64	61.30	5.06	26.25	12.60	8.90	6.80	0.00	0.00	0.00	
09/29/23	Average	20.25	0.00	0.00	25.46	27.10	7.33	48.27	36.26	-12.02	21.34	12.22	8.68	6.80	0.00	0.00	0.00	Off
	Min	20.04	0.00	0.00	24.97	26.10	7.30	24.98	25.91	-16.17	20.19	11.85	8.60	6.80	0.00	0.00	0.00	
	Max	20.42	0.00	0.00	26.17	28.33	7.40	53.77	39.62	0.92	22.89	12.40	8.70	6.80	0.00	0.00	0.00	
09/30/23	Average	20.24	0.00	0.00	26.04	26.78	7.37	35.86	30.41	-5.44	23.23	11.58	8.48	6.75	0.00	0.00	0.00	Off
	Min	20.02	0.00	0.00	25.56	25.48	7.30	22.59	23.24	-15.59	21.28	11.50	8.30	6.70	0.00	0.00	0.00	
	Max	20.45	0.00	0.00	26.81	28.83	7.60	56.49	43.47	0.95	25.91	11.85	8.60	6.80	0.02	0.00	0.00	

September 2023 CEMS 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
12-Sep-23	0	92.06	0	0	779	0	0	8.08	0	194	64.66666	-1	-0.1	0.1	0	0.1	
12-Sep-23	0	92.06	0	0	779	0	0	8.08	0	0	0	-1	-0.1	0.1	0	0.1	
12-Sep-23	94	92.06	0.1940002	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
12-Sep-23	0	92.06	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
12-Sep-23	0	92.06	0	0	779	0	8	8.08	0.07999992	0	0	0	0	0	0	0	
12-Sep-23	0	92.06	0	0	779	0	0	8.08	0	155	51.66667	-1	-0.1	0	0	0	
12-Sep-23	93	92.06	0.09400024	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
18-Sep-23	0	92.06	0	0	779	0	0	8.08	0	1	0.3333333	0	0	0	0	0	
18-Sep-23	94	92.06	0.1940002	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
18-Sep-23	0	92.06	0	77	779	70.2	0	8.08	0	0	0	0	0	0	0	0	
18-Sep-23	0	92.06	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
18-Sep-23	0	92.06	0	55	779	72.4	0	8.08	0	0	0	0	0	0	0	0	
18-Sep-23	0	92.06	0	50	779	72.9	0	8.08	0	0	0	0	0	0	0	0	
18-Sep-23	0	92.06	0	0	779	0	0	8.08	0	0	0	-2	-0.2	0.1	0	0.1	
18-Sep-23	0	92.06	0	-2	779	78.1	0	8.08	0	0	0	0	0	0	0	0	
18-Sep-23	93	92.06	0.09400024	-2	779	78.1	0	8.08	0	0	0	0	0	0	0	0	
18-Sep-23	0	92.06	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
19-Sep-23	0	92.06	0	-250	779	102.9	0	8.08	0	0	0	0	0	0	0	0	
19-Sep-23	0	92.06	0	0	779	0	0	8.08	0	1	0.3333333	95	9.5	0	0	0	
19-Sep-23	0	92.06	0	0	779	0	0	8.08	0	0	0	97	9.7	0.1	0	0.1	
19-Sep-23	0	92.06	0	0	779	0	0	8.08	0	0	0	91	9.1	0.1	0	0.1	
19-Sep-23	93	92.06	0.09400024	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
19-Sep-23	0	92.06	0	0	779	0	0	8.08	0	97	32.33333	99	9.9	0.1	0	0.1	
19-Sep-23	93	92.06	0.09400024	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
19-Sep-23	0	92.06	0	85	779	69.4	0	8.08	0	0	0	0	0	0	0	0	
19-Sep-23	0	92.06	0	0	779	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
19-Sep-23	0	92.06	0	40	779	73.9	0	8.08	0	0	0	0	0	0	0	0	
19-Sep-23	0	92.06	0	89	779	69	0	8.08	0	0	0	0	0	0	0	0	
20-Sep-23	0	92.06	0	0	779	0	8.2	8.08	0.1199999	0	0	0	0	0	0	0	
20-Sep-23	0	92.06	0	681	779	9.8	0	8.08	0	0	0	0	0	0	0	0	
20-Sep-23	0	92.06	0	0	752	0	0	8.08	0	0	0	-1	-0.1	0	0	0	
20-Sep-23	92	92.06	0.005999756	0	752	0	0	8.08	0	0	0	0	0	0	0	0	
20-Sep-23	0	92.06	0	0	752	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
20-Sep-23	0	92.06	0	750	752	0.2	0	8.08	0	0	0	0	0	0	0	0	
20-Sep-23	0	92.06	0	0	752	0	0	8.08	0	0	0	1	0.1	0.1	0	0.1	
20-Sep-23	91	92.06	0.1059998	0	752	0	0	8.08	0	0	0	0	0	0	0	0	
20-Sep-23	0	92.06	0	0	752	0	8.1	8.08	0.02000046	0	0	0	0	0	0	0	
20-Sep-23	0	92.06	0	753	752	0.1	0	8.08	0	0	0	0	0	0	0	0	
20-Sep-23	0	92.06	0	0	752	0	0	8.08	0	1	0.3333333	1	0.1	0.1	0	0.1	
20-Sep-23	0	92.06	0	0	752	0	0	8.08	0	0	0	0	0	0.1	0	0.1	
20-Sep-23	93	92.06	0.09400024	0	752	0	0	8.08	0	0	0	0	0	0	0	0	

Carbon Monoxide > 8ppm 4 hour alarm



Carbon Monoxide > 8ppm 4 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O2	as mg/m ³	Explanation	Taken
9/3/2023	19:33	0:00	4:27	Normal	14.4	16.6	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.
9/4/2023	16:00	17:00	1:00	Normal	14.5	16.7	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.
9/4/2023	19:31	23:00	3:29	Normal	11	12.7	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.
9/5/2023	2:31	5:00	2:29	Normal	8.8	10.2	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.
9/8/2023	2:00	13:00	11:00	Normal	11	12.7	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.
9/11/2023	17:15	19:00	1:45	Normal	21.4	24.7	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.
9/12/2023	16:00	20:00	4:00	Shutdown	21.9	25.3	High CO levels were caused by turbulence in the primary chamber during ram cycles.	No waste was fed at this time. The incinerator was brought to a controlled shutdown.
9/19/2023	12:30	15:00	2:30	Normal	17.3	20.0	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm

9/21/2023	5:00	9:00	4:00	Shutdown	54.9	63.4	High CO levels were caused by turbulence in the primary chamber during ram cycles.	No waste was fed at this time. The incinerator was brought to a controlled shutdown.
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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% O ₂	as mg/m ³	Explanation	Taken
9/3/2023	20:00	23:00	3:00	Normal	9.8	11.3	High CO levels were caused by turbulence in the primary chamber during ram cycles.	The operator monitored the CO level and suspended feed until they returned to the normal operating range.
9/8/2023	2:00	13:00	11:00	Normal	17.4	20.1	High CO levels were caused by problems with the draft control.	No waste was fed at this time. The incinerator was brought to a controlled shutdown and the draft control was corrected.
9/21/2023	5:00	9:00	4:00	Normal	16.8	19.4	High CO levels were caused by multiple CO spikes that occurred during shutdown.	The incinerator was brought to a controlled shutdown.

Secondary Chamber Temperature < 1000°C

Date	Start Time	Stop Time	Duration	Op. Mode	Temp. °C	Explanation	Actions Taken
9/8/2023	23:33	0:14	0:41	Normal	954	Low secondary chamber temperature caused by an incorrect flame-port air setting.	The operator adjusted the flame-port air setting. No waste was fed until the secondary chamber temperature returned to the normal operating range.
9/13/2023	1:55	8:44	6:49	Normal/Shutdown	933	Low secondary chamber temperature caused by an incorrect flame-port air setting.	No waste was fed at this time. The incinerator was brought to a controlled shutdown.

Atomizer Amps < 36

	Start	Stop		Op.	Atom. A	Atom. B		Action
Date	Time	Time	Duration	Mode	amps	amps	Explanation	Taken
9/8/2023	8:39:00	11:58:00	3:19:00	Shutdown	14.5		Atomizer amperage dropped during the shutdown process.	The incinerator was brought to a controlled shutown. No waste was fed at this time.
9/13/2023	1:49:00	8:44:00	6:55:00	Shutdown	6.4		Atomizer amperage dropped during the shutdown process.	The incinerator was brought to a controlled shutown. No waste was fed at this time.
9/21/2023	3:36:00	7:44:00	4:08:00	Normal/Shutd own	10.5		Atomizer was shutdown due to failure of the gearbox.	The incinerator was brought to a controlled shutown. No waste was fed at this time.

Carbon Bed Inlet Temperature <57C

	Start	Stop		Op.	Carbon bed		Actions
Date	Time	Time	Duration	Mode	inlet °C	Explanation	Taken
9/4/2023	3:07	21:48	18:41	Normal	61.4	high carbon inlet temperatures were caused by a deficiency of the cooling tower.	Maintenance monitored the temperature and the cooling tower operation.