Annual Report for Year 1 (2022-2023) of the Time Limited Water Quality Standard for Chloride

June 23, 2023

Prepared by City of Crest Hill

Crest Hill is a member of the Lower Des Plaines Watershed Group

1.0 Introduction to Chloride Issue in LDPR

This Pollutant Minimization Plan (PMP) has been prepared by The City of Crest Hill to reduce the environmental impacts from the organization's chloride related operations. The City of Crest Hill is a discharger covered under the Time Limited Water Quality Standard for Chloride for the Chicago Area Waterways System and Lower Des Plaines River watersheds. This PMP has been prepared to meet the requirements laid out in the Time Limited Water Quality Standard (TLWQS) for Chloride. The term of this PMP covers the first 5-years of the TLWQS period and will be updated following the re-evaluations at Years 4 ½, 9 ½, and 14 ½.

Chloride is a permanent pollutant. It does not degrade over time and continues to accumulate in the environment. Proactive measures to reduce the amount of chloride discharged can help reduce the impacts from chloride on receiving waterways and the environment. Chloride impacts aquatic life, vegetation, and infrastructure. As the chloride concentrations increase and our waters become saltier, aquatic and plant biodiversity decreases, and native species are overtaken by salt tolerant invasive species.

Chlorides are commonly found in road salt, fertilizers, water softeners, dust suppressants, and certain industrial processes. Chloride-based deicers, like rock salt, are used on parking lots, sidewalks, and roads to provide safe surfaces to the public during the winter months. These deicers are one of most common sources of chloride in the Chicago region.

The water quality standard for chloride for the Chicago Area Waterway System (CAWS) was updated as part of the rulemaking process related to changing the designated use of the CAWS. The chloride standard was updated from 1,500 mg/L during the winter and 500 mg/L during the summer to 500 mg/L all year round. The change in the chloride water quality standard took effect in 2018. Because portions of the CAWS were not going to meet this new standard due to the need to maintain public safety on roads, highways, sidewalks and parking lots during the winter months, a joint submittal and supporting individual petitions were submitted between 2015 and 2018 to the Illinois Pollution Control Board for a variance from the chloride standard. The joint petition laid out best management practices that can be achieved by the petitioners to reduce their chloride use while maintaining public safety during winter storms. In addition to the CAWS, portions of the Lower Des Plaines River watershed were included as it receives water from the CAWS.

On November 4, 2021, the IPCB issued an Opinion and Order for a Time Limited Water Quality Standard (TLWQS) for Chloride for portions of the CAWS and Lower Des Plains River watersheds. The TLWQS for Chloride watersheds are defined in the Opinion and Order as the Des Plaines River watershed from the Kankakee River to the Will County Line (except for the DuPage River watershed) and the CAWS watershed (except the North Branch Chicago River watershed upstream of the North Shore Channel and those portions of the watershed located in Indiana). This is a watershed-based approach to reduce the chloride concentrations in the CAWS and Lower Des Plaines River. The TLWQS for Chloride requires all dischargers covered under the TLWQS for Chloride to create PMPs and implement specific best management practices based on their operations to reduce their chloride discharges.

2.0 Organization, Facility Information

Agency Name: City of Crest Hill		
Facility Name: Public Works		Permit Number: ILG103027
Facility Address: 2090 Oakland Ave		
City: Crest Hill	State: Illinois	Zip Code: 60403

2.1 Level of Service for Winter Maintenance Activities

It is the mission of the Department of Public Works to provide safe streets through efficient and timely snow and ice control. This is accomplished by being appropriately equipped with the latest advancements in snow fighting equipment, technology, and materials, utilizing a well-trained, professional staff, following best management practices, and being well-organized and prepared for any winter storm event.

The City of Crest Hill is situated within the moderate snowfall band, receiving an annual average snowfall of approximately 40 inches, although snowfall totals in excess of 90 inches and less than 14 inches per year have occurred. The task of keeping Crest Hill's 83 centerline miles of streets safe for vehicular traffic during and following winter storms is the responsibility of the Department of Public Works. The Department takes this charge seriously and has no single program that utilizes all of the resources available as completely as the snow and ice control program does. This plan outlines the procedures and resources utilized to achieve the goal of keeping the streets as safe as possible during snow events.

For the purpose of coverage under the plan, the City is divided into six (6) zones consisting of five (5) residential routes and one (1) arterial route. One plow truck and driver is assigned to each route to maximize familiarity and provide a consistent level of service. An additional truck assists in the arterial route if necessary. These routes are utilized for all plowing and salting applications. Plow trucks will commence plowing operations as necessary. Drivers will shift to full width plowing at the end of a storm should conditions warrant.

The City of Crest Hill uses a newly constructed salt barn to safely store all salt used by the City as part of the snow removal process. This structure was constructed in 2020 and holds 1800 tons of salt. It is enclosed on 3 sides with a front-loading opening. It also has a conveyor belt for salt loading.

2.2 Chloride Sources

The City of Crest Hill chloride sources are winter road maintenance and salt storage.

The City of Crest Hill provides winter maintenance for roads, parking lots, and sidewalks on all City streets and owned properties. All winter storm maintenance is done per the winter operations manual.

The City of Crest Hill uses a newly constructed salt barn to safely store all salt used by the City as part of the snow removal process. This structure was constructed in 2020 and hold 1800 tons of salt. It is enclosed on 3 sides with a front-loading opening. It also has a conveyor belt for salt loading.

2.3 Level of Service for Winter Maintenance Activities

The winter operations manual details all steps taken during any winter event and how we respond as a department. We have plans in place for any type of winter event and a response that is appropriate for that event. All events are different, and we determine the appropriate plan of action based on up to date forecasts and predictions from reputable weather sources.

3.0 Best Management Practices

Details regarding The City of Crest Hill's implementation of the best management practices (BMPs) identified as part of the TLWQS for Chloride are included below.

Workgroup BMP

BMP	Agency Description of Current Implementation or Status Update to the Plan to Implement the BMP
The permittee must participate in a Chlorides workgroup for the CAWS or LDPR, depending on the watershed within which the facility's discharge is located.	The City of Crest Hill has been a member of the Lower Des Plaines Watershed Group since 2017. Staff attends meetings, workshops, and trainings provided by Lower Des Plaines Watershed Group.

Salt Storage and Handling BMPs

BMP	Agency Description of Current Implementation or Status Update to the Plan to Implement the BMP
Store all salt on an impermeable pad that must be constructed to ensure that minimal stormwater is coming into contact with salt unless the salt is stored in a container that ensures stormwater does not come into contact with the salt.	All salt is stored on site in a covered building. Building has three sides and a front opening for loading. Storm flaps hang from opening to block wind, rain, and snow from entering. Concrete blocks secure front of building when not in use.
Cover salt piles at all times except when in active use, unless stored indoors.	Salt is covered by salt building, trucks with salt are parked indoors.
For working areas, provide berms and or sufficient slope to allow snow melt and stormwater to drain away from the area. If snow melt and stormwater cannot be drained away from the working area, channeling water to a collection point such as a sump, holding tank or lined basin for	Lined catch basin is used at nearest point to salt building to catch runoff. Future construction plans to implement capture of snow melt/stormwater has been discussed and will be budgeted in the near future as of now.

collection, discharge at a later time, use for prewetting, and use for make-up water for brine must be considered.	
MS4/CSO Only - Use deicing material storage structures for all communities covered under General Permit ILR40 for MS4 communities.	All liquid materials are stored properly in containers.
Good housekeeping practices must be implemented at the site, including: • cleanup of salt at the end of each day or conclusion of a storm event; • tarping of trucks for transportation of bulk chloride; • maintaining the pad and equipment; • good practices during loading and unloading; • cleanup of loading and spreading equipment after each snow/ice event; • a written inspection program for storage facility, structures and work area; • removing surplus materials from the site when winter activity finished where applicable; • annual inspection and repairs completed when practical; • evaluate the opportunity to reduce or reuse the wash water.	Staff practices good housekeeping during and after each event. Staff works to contain as much salt as possible during loading and uses the sweeper to contain salt after and event, preventing as little runoff as possible. Hand containment is also done in smaller areas where large equipment won't fit. Staff will document all loading amounts per event per truck. Staff enacts closing procedures at end of winter season and makes any necessary improvements or repairs as needed.

Winter Maintenance Operations BMPs

BMP	Agency Description of Current Implementation or Status Update to the Plan to Implement the BMP
Calibrate all salt spreading equipment at least annually before November 30th. Records of the calibration results must	Fleet team calibrates all salt spreading by the end of November and logs all maintenance done.

be maintained for each piece of spreading equipment.	
Pre-wet road salt before use, either by applying liquids to the salt stockpile, or by applying liquids by way of the spreading equipment as the salt is deposited on the road.	Staff has tanks on trucks to apply pre wet to salt during storm events.
Use equipment to measure the pavement temperature unless such equipment has already been installed on road salt spreading vehicles.	Staff uses handheld Fluke IR Thermometers to measure pavement temperatures.
Develop and implement a protocol to vary the salt application rate based on pavement temperature, existing weather conditions, and forecasted weather conditions.	Staff has material usage guidelines on the manual to follow based on type and rate of precipitation.
Track and record salt quantity used and storm conditions from each call-out.	Staff uses fleet management software to track this.
Develop a written plan for implementation of anti-icing, with milestones. The plan should consider increased use of liquids (e.g., carbohydrate products) beginning with critical locations such as bridges over streams.	Staff has plans for anti-icing before all applicable storm events in the winter manual.
Provide employees involved in winter maintenance operations with annual training before November 30th on best management practices in the use of road salt in operations, including the practice of plowing first and applying salt only after snow has been cleared.	Staff uses both in person and online annual training to provide them with the most up to date winter operations training. Staff tracks all training attendance annually
Be responsible for complying with all applicable BMPs even when deicing practices are contracted out and ensure that contractors are property trained and comply with all applicable BMPs.	The City of Crest Hill does not currently contract any deicing services.

Complete an annual report, as required by paragraph 3(B) of this order, which is standardized in an electronic format and submitted to the IEPA's website and to the watershed group.	First report will be doe for the 22-23 season. This is the first report.
Obtain and put into place equipment necessary to implement all salt spreading/deicing measure specified in this BMP, such as any new or retrofitted salt spreading equipment necessary to allow for pre- wetting and proper rates of application.	Staff currently has up to date equipment to meet this BMP. Staff will continue to follow up on the newest technologies and budget annually for improvements.
MS4/CSO/IDOT/TOLLWAY Only - Install equipment to measure the pavement temperature on the winter maintenance fleet for a sufficient number of vehicles to provide sufficient information to adjust application rates for the most efficient levels. Develop and complete a plan to equip the winter maintenance fleet before the first re-evaluation.	Plow trucks have pavement temperature devices.
MS4/CSO/IDOT/TOLLWAY Only - Before the first re-evaluation, develop a method for conducting a post-winter review to identify areas of success and areas in need of improvement. Items to be completed as part of the review must include, but are not limited to, an evaluation of each salt spreader's application rate, variations in application rates, and discussion of the variation compared to the recommended rates. Once developed, the review should occur annually in the spring/early summer following each winter season.	Staff watches application rate per truck/driver for discrepancies per storm and at the end of the season. Staff checks equipment regularly for proper application rate and meets with drivers as needed if application rates do not match storm intensity.

Additional BMPs Identified for Agency/Facility

BMP	Agency Description of Current Implementation
Street Sweeping	Staff uses street sweeper as much as possible to collect excess materials after events throughout town.

3.1 Analysis of BMPs Implemented

The City of Crest Hill saw a rather light snow removal season so we were successful in achieving our BMPs. The warmer temperatures did make it difficult to spread anti ice as often as we would like and some snow events were preceded by rain events so we did struggle to apply anti ice at times. We believe that we can achieve a higher spread rate of liquids in the future and will plan on spreading further ahead of a snow removal event in the future. Adding another tank to pre storm liquid spreading would increase our coverage.

Most of our equipment held up well because the snow events weren't larger ones, so we only saw one vehicle issue during an event that slowed down our snow removal. We also used significantly less road salt because these were small events not much salt was used during some of the events.

3.2 Analysis of Alternative Treatments or New Technology

We feel if we could add another liquid spreading tank to our pre storm preparation we could cover more lane miles and slow down our response to the snow event and use less road salt during the event. Providing more real time snow data may help the plow drivers better spread liquid as they can see what is predicted and how more or less spreading will be impacted by the storm.

4.0 Deicing/Anti-Icing Agents Used

Materials used by The City of Crest Hill for the 2022-2023 winter season are included as Appendix 1.

4.1 Application Rates

The application rates used by The City of Crest Hill for the 2022-2023 winter season are included as Appendix 2.

4.1.1 Application Rate Analysis

There is always room for improvement on application rates. Better helping our drivers understand the spreading rates will provide them with the knowledge to better control how much they apply. We continue to stress using more liquid before and during an event to minimize road salt usage and extend the life of the salt being spread. We believe we can continue to increase our liquid application rate by training staff on applying.

4.2 Application Practices

The City of Crest Hill uses the following practices to apply deicing and anti-icing materials:

1. Anti-icing, following the anti-icing application decision flowchart. InfernalMelt w/Residucron: This fluid contains a blend of chlorides, an organic accelerator, and a corrosion inhibitor (40-50% corrosion reduction). This fluid is road ready and need no further mixing.
2. Deicing with dry salt loaded into 9/11 ton dump trucks with spreading equipment.
3. Deicing with pre-wet salt spread from 9/11 ton dump trucks with spreading and pre-wetting equipment. CryoBlend 80/20: Sodium chloride brine blended with an agriculturally derived bio-polymer organic material. CryoBlend products are road ready and need no further mixing. This fluid is green in color and has a mild, pleasant odor. Contains no calcium or magnesium chlorides
4. Deicing with dry salt loaded into walk behind salt spreaders.
    - Public roads and parking lots were cleared using practices 1 thru 3. Public walkways were cleared using practice 4.

4.3 Call Outs

A total of 13.9 inches of snow was reported in Crest Hill for the 2022-2023 winter. There was one freezing rain event and nine snow events for the 2022-2023 winter. The City of Crest Hill had eleven call outs completed during the 2022-2023 winter. A log of all call outs completed by Public Works are included as Appendix 3.

4.4 Use of Liquids

Liquids are used pre storm to slow the impact of the snow and to lessen the response time of plows for snow removal. When conditions allow we use liquids on all major out roads, hills, and bridges pre storm event. If time and conditions allow, we then spread liquid on all side streets. We have a 1-ton truck with a tank used to spread directly onto the pavement. We follow the recommended anti-icing application decision flowchart before each snow event to determine if spreading liquid is possible and effective.

5.0 Training

The City of Crest Hill completed annual training for nine employees out of nine employees who are part of the winter maintenance operations on the following dates. January 9, October 9, November 14, December 12. A list of annual training topics by type of employee is included as Appendix 4.

6.0 Deicing and Snow Removal Equipment and Maintenance

The City of Crest Hill uses equipment listed in Appendix 5 during winter maintenance activities.

6.1 Description of Equipment Washing and Wash Water Collection

The City of Crest Hill has a triple catch basin wash bay that is used to clean all equipment, it is located indoors and features hot and cold water options.

7.0 Material Storage

The City of Crest Hill maintains one storage area for road salt. Information regarding the storage area is included in Appendix 6.

8.0 Capital Purchases

Identified capital purchases from The City of Crest Hill's PMP to implement the BMPs and reduce chlorides in our operations over the first 5-year term of the Chloride TLWQS are included as Appendix 7.

Staff would like to purchase canopy covers to protect the road salt in the back of the plow trucks while out during a snow event.

8.1 Explanation of Capital Purchases Unable to Be Made According to the Reported Plan

Staff did not have any capital purchases planned to meet the BMP as we had sufficient equipment. Staff would like to add covered plow beds to protect road salt in the future.

9.0 Environmental Monitoring Data

Chloride monitoring data is collected for the CAWS and Lower Des Plaines River watersheds per the IPCB order. The data is maintained by the workgroups.. The Lower Des Plaines Watershed Group also maintains a USGS monitoring station in the Des Plaines River at Channahon, IL that collects continuous conductivity data to estimate chloride concentrations.

Chloride monitoring data reports are posted to https://www.cawswatershed.org/reports/ and https://ldpwatersheds.org/about-us/lower-des-plaines-watershed-group/our-work/chloride-tlwqs/.

9.1 Organization Specific Chloride Monitoring Data

The City of Crest Hill collects chloride monitoring data as part of its NPDES effluent data and the data is included as Appendix 8.

9.2 Changes to the Facility's NPDES Treatment Technologies for Chloride

No changes.

10.0 Program Evaluation

Continue to evaluate responses to storms based on forecasted and actual storm totals to better serve call out responses to limit amount of time spent at each snow event. Analyze each individual plow drivers spread rates and speeds to determine the lowest possible setting to effectively treat the roads with salt while accomplishing using reduced chloride amounts. Plan to set rates of pre-wet on all trucks to accomplish prolonged effectiveness of road salt thus reducing amount chlorides used per snow event.

10.1 Proposed Steps for the Coming Year

Sit down with each snow plow driver to analyze previous years results and set goals per individual for the 23-24 season. Take into account whether individual is on side streets or main roads. Work with fleet management to ensure settings are maintained on all vehicles before and after each snow event.

11.0 Workgroup Participation

- Attend bi-monthly membership meetings via Zoom or in person
- Share NPDES permits to discuss specific LDWG language and work with EPA as needed
- Participate in Chloride TLWQS Mentoring Sessions
- Send key staff to Winter Deicing Workshops (required for Chloride TLWQS)
- Utilize Seasonal Outreach Materials available on the Member tab of the website and provide input on other outreach needs or formats

SUBURBAN LABORATORIES, Inc.

1950 S. Batavia Ave., Suite 150 Geneva, Illinois 60134
Tel. (708) 544-3260 • Toll Free (800) 783-LABS
Fax (708) 544-8587
www.suburbanlabs.com

February 06, 2023

Workorder: 2301156

Mark Siefert
City of Crest Hill STP
1610 Plainfield Road
Crest Hill, IL 60403

TEL: (815) 723-8671
FAX:
RE: EWRF Monthly NPDES

Dear Mark Siefert:

Suburban Laboratories, Inc. received 3 sample(s) on 1/4/2023 for the analyses presented in the following report.

All data for the associated quality control (QC) met EPA, method, or internal laboratory specifications except where noted in the case narrative. If you are comparing these results to external QC specifications or compliance limits and have any questions, please contact us.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation including, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call me at (708) 544-3260.

Sincerely,

Dan Galeher
Vice President of Sales and Service
708-544-3260 ext 216
dan@SuburbanLabs.com

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Case Narrative

Client: City of Crest Hill STP
Project: EWRF Monthly NPDES
WorkOrder: 2301156
Temperature of samples upon receipt at SLI: C

Date: February 06, 2023
PO #:
QC Level: LEVEL I
Chain of Custody #:

General Comments:
- All results reported in wet weight unless otherwise indicated. (dry = Dry Weight)
- Sample results relate only to the analytes of interest tested and to sample as received by the laboratory.
- Environmental compliance sample results meet the requirements of 35 IAC Part 186 unless otherwise indicated.
- Waste water analysis follows the rules set forth in 40 CFR part 136 except where otherwise noted.
- Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated.
- For more information about the laboratories' scope of accreditation, please contact us at (708) 544-3260 or the Agency at (217) 782-6455.
- All radiological results are reported to the 95% confidence level.

Abbreviations:
- Reporting Limit: The concentration at which an analyte can be routinely detected on a day to day basis, and which also meets regulatory and client needs.
- Quantitation Limit: The lowest concentration at which results can be accurately quantitated.
- J: The analyte was positively identified above our Method Detection Limit and is considered detectable and usable; however, the associated numerical value is the approximate concentration of the analyte in the sample.
- ATC: Automatic Temperature Correction. - TNTC: Too Numerous To Count
- TIC: Tentatively Identified Compound (GCMS library search identification, concentration estimated to nearest internal standard).
- SS (Surrogate Standard): Quality control compound added to the sample by the lab.

Method References:
For a complete list of method references please contact us.
- E: USEPA Reference methods
- SW: USEPA, Test Methods for Evaluating Solid Waste (SW-846)
- M: Standard Methods for the Examination of Water and Wastewater
- USP: Latest version of United States Pharmacopeia

Workorder Specific Comments:

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client ID: City of Crest Hill STP
Project Name: EWRF Monthly NPDES

Report Date: February 06, 2023
Workorder: 2301156

Client Sample ID: EWRF Raw Influent
Lab ID: 2301156-001 **Date Received:** 01/04/2023 10:05 AM

Matrix: WASTEWATER
Collection Date: 01/04/2023 7:47 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
BOD, 5 DAY, 20°C		Method: SM-5210B-Rev 2001				Analyst: SZ	
Biochemical Oxygen Demand	62.7	30.0		mg/L	1	01/09/2023 10:35 AM	87189

Client Sample ID: EWRF Final Effluent
Lab ID: 2301156-002 **Date Received:** 01/04/2023 10:05 AM

Matrix: WASTEWATER
Collection Date: 01/04/2023 7:50 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
ALKALINITY, TOTAL		Method: SM-2320B-Rev 21st Ed. (1997)				Analyst: ESI	
Alkalinity, Total (As CaCO3)	275	20.0		mg/L CaCO3	1	01/09/2023 9:22 AM	R157833
CARBONACEOUS BOD, 5 DAY, 20°C		Method: SM-5210B-Rev 2001				Analyst: SZ	
Carbonaceous BOD	2.3	2.0		mg/L	1	01/09/2023 10:35 AM	87190
CHLORIDE		Method: SM-4500Cl-E--Rev 1997				Analyst: EM	
Chloride	301	13.4		mg/L	2	01/05/2023 1:51 PM	R157769
CONDUCTIVITY AT 25 DEGREES C.		Method: SM-2510B-Rev 1997				Analyst: ESI	
Specific Conductivity	1,380	1.00		µmhos/cm	1	01/04/2023 10:24 AM	R157693
DISSOLVED		Method:				Analyst: mmh	
Filtered and Preserved	Completed	0	V		1	02/04/2023 11:33 AM	R158438

Client Sample ID: EWRF Dissolved
Lab ID: 2301156-003 **Date Received:** 01/04/2023 10:05 AM

Matrix: WASTEWATER
Collection Date: 01/04/2023 7:53 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
PHOSPHORUS, DISSOLVED OR SOLUABLE		Method: SM-M4500P BE-Rev 18Ed, 1992				Analyst: ESI	
Phosphorus (As P)	0.20	0.024		mg/L	1	01/06/2023 10:52 AM	R157796

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

PREP DATES REPORT

Client: City of Crest Hill STP
Project: EWRF Monthly NPDES

Report Date: February 06, 2023
Lab Order: 2301156

Sample ID	Collection Date	Batch ID	Prep Test Name	TCLP Date	Prep Date
2301156-001A	1/4/2023 7:47:00 AM	87189	BOD SETUP		1/4/2023
2301156-002A	1/4/2023 7:50:00 AM	87190	CBOD Setup		1/4/2023

Created: 2/6/2023 9:09:09 AM

Qualifier Definitions

WO#: **2301156**
Date: **2/6/2023**

Qualifiers:

*/x	Value exceeds Maximum Contaminant Level
B	Analyte detected in the associated Method Blank
C	Value is below Minimum Concentration Limit
c	Analyte not in TNI/NELAC scope of accreditation
E	Estimated, detected above quantitation range
G	Refer to case narrative page for specific comments
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit (QL)
N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit
P	Present
Q	Accreditation is not available from Wisconsin
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
T	Analyte detected in sample trip blank
V	EPA requires field analysis/filtration. Lab analysis would be considered past hold time.
WI	This sample was ran at the Wisconsin Laboratory, WI DNR Certified #246179890

SUBURBAN LABORATORIES, Inc.

4140 Litt Drive Hillside, IL 60162 Tel. 708.544.3260 · Fax 708.544.8587 Toll Free: 800.783.LABS www.suburbanlabs.com

CHAIN OF CUSTODY RECORD

Electronic Version

Page of

PO No.

Shipping Method

QC Reporting Level ☐ 1 ☐ 2 ☐ 3

LAB USE ONLY

SLI Order No. 2301156

Sample containers supplied by customer? ☐ Yes

Temperature of Received Samples 8.3 °C

Samples received within 24 hours of collection? ☑ Yes

Company Name: City of Crest Hill

Company Address: 1610 Plainfield Road

City: Crest Hill ST: IL Zip: 60403

Phone: 815-723-8671 Fax: 815-726-0081 ☐ Fax Report

Email Address: msiefert@cityofcresthill.com

Project ID / Location: East Water Reclamation Facility NPDES

Project Manager (Report to): Mark Siefert

Sample Collector(s): Joe Brown

TURNAROUND TIME REQUESTED

☑ Normal ☐ RUSH* *Additional Rush Charges Approved.

*Date & Time Needed:

Normal TAT is 5-7 work days for most work. Rush work must be pre-approved and additional charges apply.

Specify Regulatory Program: (Required) ☐ None/Info only

☐ LUST ☐ SRP ☐ SDWA

☐ 503 Sludge ☑ NPDES ☐ MWRDGC

☐ Disposal ☐ Other *Please specify in comment section below.

ANALYSIS & METHOD REQUESTED

Enter an "X" in box below for request

	SAMPLE IDENTIFICATION *Use One Line Per Preservation & Container Type	COLLECTION DATE	COLLECTION TIME	MATRIX	GRAB/ COMP.	CONTAINERS Qty	CONTAINERS SIZE & TYPE	PRESERVATIVE	BOD	cBOD	Dissolved Phosphorus (Filtered)	Alkalinity (specific conductance)	TOTALS	R	Condition	Spill	LAB #
1	Ewrf Raw Influent	1-4-23	7:47a	WW	Comp	1	1000ml P	ICE	X								
2	Ewrf Final Effluent	1-4-23	7:50a	WW	Comp	1	1000ml P	ICE		X							
3	Ewrf Final Effluent	1-4-23	7:50a	WW	Comp	1	1000ml P	ICE			X						
4	Ewrf Final Effluent	1-4-23	7:53a	WW	Comp	1	1000ml P	ICE				X					
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

MATRIX: Drinking Water (DW), Soil (S), Waste Water (WW), Surface Water(SW), Ground Water (GW), Solid Waste (WA), Sludge (U), Wipe (P) CONTAINER: 2oz, 4oz, 8oz, 40ml Vial, 500ml, Liter (L), Tube, Glass (G), Plastic (P) PRESERVATIVE: H_2SO_4, HCl, HNO_3, Methanol (MeOH) NaOH, Sodium Bisulfate (NaB), NaThio

COMMENTS & SPECIAL INSTRUCTIONS:

CONDITION CODES
1. Improper/damaged container/cap
2. Improper preservation
3. Insufficient sample volume
4. Headspace/air bubbles for VOCs
5. Received past holding time
6. Received frozen
7. Label conflicts with COC

1. Relinquished By	Date	2. Relinquished By	Date	3. Relinquished By	Date	4. Relinquished By	Date
	1-4-23		1/4/23				
Received By ☐ Ice	**Time**	**Received By** ☑ Ice	**Time**	**Received By** ☐ Ice	**Time**	**Received By** ☐ Ice	**Time**
	9:30		10:50				

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February 14, 2023

Workorder: 2302058

Mark Siefert
City of Crest Hill STP
1610 Plainfield Road
Crest Hill, IL 60403

TEL: (815) 723-8671
FAX:
RE: EWRF Monthly NPDES

Dear Mark Siefert:

Suburban Laboratories, Inc. received 3 sample(s) on 2/1/2023 for the analyses presented in the following report.

All data for the associated quality control (QC) met EPA, method, or internal laboratory specifications except where noted in the case narrative. If you are comparing these results to external QC specifications or compliance limits and have any questions, please contact us.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation including, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call me at (708) 544-3260.

Sincerely,

Dan Galeher
Vice President of Sales and Service
708-544-3260 ext 216
dan@SuburbanLabs.com

Client: City of Crest Hill STP
Project: EWRF Monthly NPDES
WorkOrder: 2302058
Temperature of samples upon receipt at SLI: C

Date: February 14, 2023
PO #:
QC Level: LEVEL I
Chain of Custody #:

General Comments:
- All results reported in wet weight unless otherwise indicated. (dry = Dry Weight)
- Sample results relate only to the analytes of interest tested and to sample as received by the laboratory.
- Environmental compliance sample results meet the requirements of 35 IAC Part 186 unless otherwise indicated.
- Waste water analysis follows the rules set forth in 40 CFR part 136 except where otherwise noted.
- Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated.
- For more information about the laboratories' scope of accreditation, please contact us at (708) 544-3260 or the Agency at (217) 782-6455.
- All radiological results are reported to the 95% confidence level.

Abbreviations:
- Reporting Limit: The concentration at which an analyte can be routinely detected on a day to day basis, and which also meets regulatory and client needs.
- Quantitation Limit: The lowest concentration at which results can be accurately quantitated.
- J: The analyte was positively identified above our Method Detection Limit and is considered detectable and usable; however, the associated numerical value is the approximate concentration of the analyte in the sample.
- ATC: Automatic Temperature Correction. - TNTC: Too Numerous To Count
- TIC: Tentatively Identified Compound (GCMS library search identification, concentration estimated to nearest internal standard).
- SS (Surrogate Standard): Quality control compound added to the sample by the lab.

Method References:
For a complete list of method references please contact us.
- E: USEPA Reference methods
- SW: USEPA, Test Methods for Evaluating Solid Waste (SW-846)
- M: Standard Methods for the Examination of Water and Wastewater
- USP: Latest version of United States Pharmacopeia

Workorder Specific Comments:

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client ID: City of Crest Hill STP
Project Name: EWRF Monthly NPDES

Report Date: February 14, 2023
Workorder: 2302058

Client Sample ID: EWRF Raw Influent **Matrix:** WASTEWATER
Lab ID: 2302058-001 **Date Received:** 02/01/2023 10:03 AM **Collection Date:** 02/01/2023 7:06 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
BOD, 5 DAY, 20°C		Method: SM-5210B-Rev 2001				Analyst: SZ	
Biochemical Oxygen Demand	123	60.0		mg/L	1	02/06/2023 11:51 AM	87487

Client Sample ID: EWRF Final Effluent **Matrix:** WASTEWATER
Lab ID: 2302058-002 **Date Received:** 02/01/2023 10:03 AM **Collection Date:** 02/01/2023 7:10 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
ALKALINITY, TOTAL		Method: SM-2320B-Rev 21st Ed. (1997)				Analyst: ESI	
Alkalinity, Total (As CaCO3)	328	20.0		mg/L CaCO3	1	02/09/2023 10:56 AM	R158676
CARBONACEOUS BOD, 5 DAY, 20°C		Method: SM-5210B-Rev 2001				Analyst: SZ	
Carbonaceous BOD	<2	2.0		mg/L	1	02/06/2023 11:51 AM	87488
CHLORIDE		Method: SM-4500Cl-E--Rev 1997				Analyst: EM	
Chloride	390	13.4		mg/L	2	02/06/2023 1:32 PM	R158527
CONDUCTIVITY AT 25 DEGREES C.		Method: SM-2510B-Rev 1997				Analyst: ESI	
Specific Conductivity	2,270	1.00		µmhos/cm	1	02/08/2023 5:30 PM	R158685
DISSOLVED		Method:				Analyst: ESI	
Filtered and Preserved	ND	0	H		1	02/06/2023 11:27 AM	R158498

Client Sample ID: EWRF Dissolved **Matrix:** WASTEWATER
Lab ID: 2302058-003 **Date Received:** 02/01/2023 10:03 AM **Collection Date:** 02/01/2023 7:14 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
PHOSPHORUS, DISSOLVED OR SOLUABLE		Method: SM-M4500P BE-Rev 18Ed, 1992				Analyst: ESI	
Phosphorus (As P)	0.46	0.024		mg/L	1	02/06/2023 11:14 AM	R158494

Created: 2/14/2023 3:33:52 PM

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

PREP DATES REPORT

Client: City of Crest Hill STP
Project: EWRF Monthly NPDES

Report Date: February 14, 2023
Lab Order: 2302058

Sample ID	Collection Date	Batch ID	Prep Test Name	TCLP Date	Prep Date
2302058-001A	2/1/2023 7:06:42 AM	87487	BOD SETUP		2/1/2023
2302058-002A	2/1/2023 7:10:42 AM	87488	CBOD Setup		2/1/2023

Created: 2/14/2023 3:33:52 PM

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Qualifier Definitions

WO#: **2302058**
Date: **2/14/2023**

Qualifiers:

*/x	Value exceeds Maximum Contaminant Level
B	Analyte detected in the associated Method Blank
C	Value is below Minimum Concentration Limit
c	Analyte not in TNI/NELAC scope of accreditation
E	Estimated, detected above quantitation range
G	Refer to case narrative page for specific comments
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit (QL)
N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit
P	Present
Q	Accreditation is not available from Wisconsin
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
T	Analyte detected in sample trip blank
V	EPA requires field analysis/filtration. Lab analysis would be considered past hold time.
WI	This sample was ran at the Wisconsin Laboratory, WI DNR Certified #246179890

SUBURBAN LABORATORIES, Inc.

4140 Litt Drive Hillside, IL 60162 Tel. 708.544.3260 Fax 708.544.8587 Toll Free: 800.783.LABS www.suburbanlabs.com

CHAIN OF CUSTODY RECORD

Electronic Version

Page of

PO No.

Shipping Method

Page 6 of 6

QC Reporting Level ☐ 1 ☐ 2 ☐ 3

LAB USE ONLY

SLI Order No. 2302058

Sample containers supplied by customer? ☐ Yes

Temperature of Received Samples 5.6 °C

Samples received within 24 hours of collection? ☑ Yes

Company Name: City of Crest Hill

Company Address: 1610 Plainfield Road

City: Crest Hill ST: IL Zip: 60403

Phone: 815-723-8671 Fax: 815-726-0081 ☐ Fax Report

Email Address: msiefert@cityofcresthill.com

Project ID / Location: East Water Reclamation Facility NPDES

Project Manager (Report to): Mark Siefert

Sample Collector(s): JB Brown

TURNAROUND TIME REQUESTED

☑ Normal ☐ RUSH* *Additional Rush Charges Approved.

*Date & Time Needed:

Normal TAT is 5-7 work days for most work. Rush work must be pre-approved and additional charges apply.

Specify Regulatory Program: (Required) ☐ None/Info only

☐ LUST ☐ SRP ☐ SDWA

☐ 503 Sludge ☑ NPDES ☐ MWRDGC

☐ Disposal ☐ Other *Please specify in comment section below.

ANALYSIS & METHOD REQUESTED

Enter an "X" in box below for request

	SAMPLE IDENTIFICATION *Use One Line Per Preservation & Container Type	COLLECTION DATE	COLLECTION TIME	MATRIX	GRAB/ COMP.	CONTAINERS Qty	CONTAINERS SIZE & TYPE	PRESERVATIVE	R	Condition	Split	LAB #
1	Bwtp Raw Influent	2-1-23	7:05a	WW	Comp	1	1000ml P	ICE				
2	Bwtp Final Effluent	2-1-23	7:10a	WW	Comp	1	1000ml P	ICE				
3	Bwtp Final Effluent	2-1-23	7:10a	WW	Comp	1	1000ml P	ICE				
4	Bwtp Final Effluent	2-1-23	7:14a	WW	Grab	1	1000ml P	ICE				
5												
6												
7												
8												
9												
10												
11												
12												

MATRIX: Drinking Water (DW), Soil (S), Waste Water (WW), Surface Water(SW), Ground Water (GW), Solid Waste (WA), Sludge (U), Wipe (P) CONTAINER: 2oz, 4oz, 8oz, 40ml Vial, 500ml, Liter (L), Tube, Glass (G), Plastic (P) PRESERVATIVE: H_2SO_4, HCl, HNO_3, Methanol (MeOH) NaOH, Sodium Bisulfate (NaB), NaThio

COMMENTS & SPECIAL INSTRUCTIONS:

CONDITION CODES
1. Improper/damaged container/cap
2. Improper preservation
3. Insufficient sample volume
4. Headspace/air bubbles for VOCs
5. Received past holding time
6. Received frozen
7. Label conflicts with COC

1. Relinquished By	Date	2. Relinquished By	Date	3. Relinquished By	Date	4. Relinquished By	Date
	2-1-23		2/1/23				
Received By ☒ Ice	Time 9:45	Received By ☐ Ice	Time 11:40	Received By ☐ Ice	Time	Received By ☐ Ice	Time

SUBURBAN LABORATORIES, Inc.

1950 S. Batavia Ave., Suite 150 Geneva, Illinois 60134
Tel. (708) 544-3260 • Toll Free (800) 783-LABS
Fax (708) 544-8587
www.suburbanlabs.com

March 10, 2023

Workorder: 2303039

Mark Siefert
City of Crest Hill STP
1610 Plainfield Road
Crest Hill, IL 60403

TEL: (815) 723-8671
FAX:
RE: EWRF Monthly NPDES

Dear Mark Siefert:

Suburban Laboratories, Inc. received 3 sample(s) on 3/1/2023 for the analyses presented in the following report.

All data for the associated quality control (QC) met EPA, method, or internal laboratory specifications except where noted in the case narrative. If you are comparing these results to external QC specifications or compliance limits and have any questions, please contact us.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation including, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call me at (708) 544-3260.

Sincerely,

Dan Galeher
Project Manager
708-544-3260 ext 216
dan@SuburbanLabs.com

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client ID: City of Crest Hill STP
Project Name: EWRF Monthly NPDES

Report Date: March 10, 2023
Workorder: 2303039

Client Sample ID: EWRF Raw Influent
Lab ID: 2303039-001 **Date Received:** 03/01/2023 10:28 AM

Matrix: WASTEWATER
Collection Date: 03/01/2023 7:13 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
BOD, 5 DAY, 20°C		Method: SM-5210B-Rev 2001				Analyst: SZ	
Biochemical Oxygen Demand	50.0	30.0		mg/L	1	03/06/2023 10:30 AM	88163

Client Sample ID: EWRF Final Effluent
Lab ID: 2303039-002 **Date Received:** 03/01/2023 10:28 AM

Matrix: WASTEWATER
Collection Date: 03/01/2023 7:16 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
ALKALINITY, TOTAL		Method: SM-2320B-Rev 21st Ed. (1997)				Analyst: ESI	
Alkalinity, Total (As CaCO3)	279	20.0		mg/L CaCO3	1	03/08/2023 10:19 AM	R159719
CARBONACEOUS BOD, 5 DAY, 20°C		Method: SM-5210B-Rev 2001				Analyst: SZ	
Carbonaceous BOD	<2	2.0		mg/L	1	03/06/2023 10:30 AM	88164
CHLORIDE		Method: SM-4500Cl-E--Rev 1997				Analyst: EM	
Chloride	262	13.4		mg/L	2	03/06/2023 1:57 PM	R159657
CONDUCTIVITY AT 25 DEGREES C.		Method: SM-2510B-Rev 1997				Analyst: ESI	
Specific Conductivity	1,340	1.00		µmhos/cm	1	03/09/2023 9:40 AM	R159767
DISSOLVED		Method:				Analyst: EM	
Filtered and Preserved	complete	0	V		1	03/06/2023 4:01 PM	R159660

Client Sample ID: EWRF Dissolved
Lab ID: 2303039-003 **Date Received:** 03/01/2023 10:28 AM

Matrix: WASTEWATER
Collection Date: 03/01/2023 7:21 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
PHOSPHORUS, DISSOLVED OR SOLUABLE		Method: SM-M4500P BE-Rev 18Ed, 1992				Analyst: ESI	
Phosphorus (As P)	0.30	0.024		mg/L	1	03/08/2023 10:13 AM	R159718

Created: 3/10/2023 10:29:47 AM

SUBURBAN LABORATORIES, Inc.

4140 Litt Drive Hillside, IL 60162 Tel. 708.544.3260 Fax 708.544.8587 Toll Free: 800.783.LABS www.suburbanlabs.com

CHAIN OF CUSTODY RECORD

Electronic Version

Page of
Page 6 of 6

PO No.

Shipping Method

QC Reporting Level ☐ 1 ☐ 2 ☐ 3

Company Name: City of Crest Hill
Company Address: 1610 Plainfield Road
City: Crest Hill ST: IL Zip: 60403
Phone: 815-723-8671 Fax: 815-726-0081 ☐ Fax Report
Email Address: msiefert@cityofcresthill.com
Project ID / Location: East Water Reclamation Facility NPDES
Project Manager (Report to): Mark Siefert
Sample Collector(s): Joe Brown

TURNAROUND TIME REQUESTED

☑ Normal ☐ RUSH* *Additional Rush Charges Approved.

*Date & Time Needed:

Normal TAT is 5-7 work days for most work. Rush work must be pre-approved and additional charges apply.

Specify Regulatory Program: (Required) ☐ None/Info only

☐ LUST ☐ SRP ☐ SDWA
☐ 503 Sludge ☑ NPDES ☐ MWRDGC
☐ Disposal ☐ Other *Please specify in comment section below.

ANALYSIS & METHOD REQUESTED

Enter an "X" in box below for request

LAB USE ONLY

SLI Order No. 2303039
Sample containers supplied by customer? ☐ Yes
Temperature of Received Samples: 6 °C
Samples received within 24 hours of collection? ☑ Yes

	SAMPLE IDENTIFICATION *Use One Line Per Preservation & Container Type	COLLECTION DATE	COLLECTION TIME	MATRIX	GRAB/ COMP.	CONTAINERS Qty	CONTAINERS SIZE & TYPE	PRESERVATIVE	BOD	CBOD	Dissolved Phosphorus / Chloride	Alkalinity / Specific Conductivity	R	Condition	Split	LAB #
1	EWRF Raw Influent	3-1-23	7:13a	WW	Comp	1	1000ml P	ICE	X							
2	EWRF Final Effluent	3-1-23	7:16a	WW	Comp	1	1000ml P	ICE		X						
3	EWRF Final Effluent	3-1-23	7:16a	WW	Comp	1	1000ml P	ICE			X					
4	EWRF Final Effluent	3-1-23	7:2?a	WW	Grab	1	1000ml P	ICE				X				
5																
6																
7																
8																
9																
10																
11																
12																

MATRIX: Drinking Water (DW), Soil (S), Waste Water (WW), Surface Water(SW), Ground Water (GW), Solid Waste (WA), Sludge (U), Wipe (P) CONTAINER: 2oz, 4oz, 8oz, 40ml Vial, 500ml, Liter (L), Tube, Glass (G), Plastic (P) PRESERVATIVE: H_2SO_4, HCl, HNO_3, Methanol (MeOH) NaOH, Sodium Bisulfate (NaB), NaThio

COMMENTS & SPECIAL INSTRUCTIONS:

CONDITION CODES:
1. Improper/damaged container/cap
2. Improper preservation
3. Insufficient sample volume
4. Headspace/air bubbles for VOCs
5. Received past holding time
6. Received frozen
7. Label conflicts with COC

1. Relinquished By	Date	2. Relinquished By	Date	3. Relinquished By	Date	4. Relinquished By	Date
[signature]	3-1-23	Robert J. [signature]	3-1-23				
Received By ☐ Ice	Time	Received By ☑ Ice	Time	Received By ☐ Ice	Time	Received By ☐ Ice	Time
Robert J. [signature]	1015	MT	1220				

SUBURBAN LABORATORIES, Inc.

1950 S. Batavia Ave., Suite 150 Geneva, Illinois 60134
Tel. (708) 544-3260 • Toll Free (800) 783-LABS
Fax (708) 544-8587
www.suburbanlabs.com

April 12, 2023

Workorder: 2304260

Mark Siefert
City of Crest Hill STP
1610 Plainfield Road
Crest Hill, IL 60403

TEL: (815) 723-8671
FAX:
RE: EWRF Monthly NPDES

Dear Mark Siefert:

Suburban Laboratories, Inc. received 3 sample(s) on 4/5/2023 for the analyses presented in the following report.

All data for the associated quality control (QC) met EPA, method, or internal laboratory specifications except where noted in the case narrative. If you are comparing these results to external QC specifications or compliance limits and have any questions, please contact us.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation including, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call me at (708) 544-3260.

Sincerely,

Dan Galeher
Project Manager
708-544-3260 ext 216
dan@SuburbanLabs.com

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Case Narrative

Client: City of Crest Hill STP
Project: EWRF Monthly NPDES
WorkOrder: 2304260
Temperature of samples upon receipt at SLI: C

Date: April 12, 2023
PO #:
QC Level: LEVEL I
Chain of Custody #:

General Comments:
- All results reported in wet weight unless otherwise indicated. (dry = Dry Weight)
- Sample results relate only to the analytes of interest tested and to sample as received by the laboratory.
- Environmental compliance sample results meet the requirements of 35 IAC Part 186 unless otherwise indicated.
- Waste water analysis follows the rules set forth in 40 CFR part 136 except where otherwise noted.
- Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated.
- For more information about the laboratories' scope of accreditation, please contact us at (708) 544-3260 or the Agency at (217) 782-6455.
- All radiological results are reported to the 95% confidence level.

Abbreviations:
- Reporting Limit: The concentration at which an analyte can be routinely detected on a day to day basis, and which also meets regulatory and client needs.
- Quantitation Limit: The lowest concentration at which results can be accurately quantitated.
- J: The analyte was positively identified above our Method Detection Limit and is considered detectable and usable; however, the associated numerical value is the approximate concentration of the analyte in the sample.
- ATC: Automatic Temperature Correction. - TNTC: Too Numerous To Count
- TIC: Tentatively Identified Compound (GCMS library search identification, concentration estimated to nearest internal standard).
- SS: (Surrogate Standard): Quality control compound added to the sample by the lab.
-LA: Lab Accident - No valid data to report.
-VO: Insufficient Volume provided
-BR: Received broken
-IP: Invalid Sampling

Method References:
For a complete list of method references please contact us.
- E: USEPA Reference methods
- SW: USEPA, Test Methods for Evaluating Solid Waste (SW-846)
- M: Standard Methods for the Examination of Water and Wastewater
- USP: Latest version of United States Pharmacopeia

Workorder Specific Comments:

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client ID: City of Crest Hill STP
Project Name: EWRF Monthly NPDES

Report Date: April 12, 2023
Workorder: 2304260

Client Sample ID: EWRF Raw Influent
Lab ID: 2304260-001 **Date Received:** 04/05/2023 9:30 AM

Matrix: WASTEWATER
Collection Date: 04/05/2023 7:10 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
BOD, 5 DAY, 20°C		Method: SM-5210B-Rev 2001				Analyst: VA	
Biochemical Oxygen Demand	73.8	30.0		mg/L	1	04/10/2023 1:29 PM	88920

Client Sample ID: EWRF Final Effluent
Lab ID: 2304260-002 **Date Received:** 04/05/2023 9:30 AM

Matrix: WASTEWATER
Collection Date: 04/05/2023 7:18 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
ALKALINITY, TOTAL		Method: SM-2320B-Rev 21st Ed. (1997)				Analyst: ESI	
Alkalinity, Total (As CaCO3)	344	20.0		mg/L CaCO3	1	04/10/2023 10:22 AM	R161028
CARBONACEOUS BOD, 5 DAY, 20°C		Method: SM-5210B-Rev 2001				Analyst: VA	
Carbonaceous BOD	<2	2.0		mg/L	1	04/10/2023 1:29 PM	88921
CHLORIDE		Method: SM-4500Cl-E--Rev 1997				Analyst: EM	
Chloride	332	13.4		mg/L	2	04/06/2023 2:28 PM	R160944
CONDUCTIVITY AT 25 DEGREES C.		Method: SM-2510B-Rev 1997				Analyst: ESI	
Specific Conductivity	1,680	1.00		µmhos/cm	1	04/07/2023 10:42 AM	R160972
DISSOLVED		Method:				Analyst: ESI	
Filtered and Preserved	Completed	0	V		1	04/06/2023 8:41 AM	R160906

Client Sample ID: EWRF Dissolved
Lab ID: 2304260-003 **Date Received:** 04/05/2023 9:30 AM

Matrix: WASTEWATER
Collection Date: 04/05/2023 7:13 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
PHOSPHORUS, DISSOLVED OR SOLUABLE		Method: SM-M4500P BE-Rev 18Ed, 1992				Analyst: ESI	
Phosphorus (As P)	0.68	0.024		mg/L	1	04/11/2023 12:33 PM	R161085

Created: 4/12/2023 1:05:30 PM

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

PREP DATES REPORT

Client: City of Crest Hill STP
Project: EWRF Monthly NPDES

Report Date: April 12, 2023
Lab Order: 2304260

Sample ID	Collection Date	Batch ID	Prep Test Name	TCLP Date	Prep Date
2304260-001A	4/5/2023 7:10:00 AM	88920	BOD SETUP		4/5/2023
2304260-002A	4/5/2023 7:18:00 AM	88921	CBOD Setup		4/5/2023

Created: 4/12/2023 1:05:31 PM

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Qualifier Definitions

WO#: **2304260**
Date: **4/12/2023**

Qualifiers:

*/x	Value exceeds Maximum Contaminant Level
B	Analyte detected in the associated Method Blank
C	Value is below Minimum Concentration Limit
c	Analyte not in TNI/NELAC scope of accreditation
E	Estimated, detected above quantitation range
G	Refer to case narrative page for specific comments
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit (QL)
N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit
P	Present
Q	Accreditation is not available from Wisconsin
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
T	Analyte detected in sample trip blank
V	EPA requires field analysis/filtration. Lab analysis would be considered past hold time.
WI	This sample was ran at the Wisconsin Laboratory, WI DNR Certified #246179890

SUBURBAN LABORATORIES, Inc.

4140 Litt Drive Hillside, IL 60162 Tel. 708.544.3260 · Fax 708.544.8587 Toll Free: 800.783.LABS www.suburbanlabs.com

CHAIN OF CUSTODY RECORD

Electronic Version

Company Name: City of Crest Hill
Company Address: 1610 Plainfield Road
City: Crest Hill ST: IL Zip: 60403
Phone: 815-723-8671 Fax: 815-726-0081 ☐ Fax Report
Email Address: msiefert@cityofcresthill.com
Project ID / Location: East Water Reclamation Facility NPDES
Project Manager (Report to): Mark Siefert
Sample Collector(s): Joe Brown

TURNAROUND TIME REQUESTED

☑ Normal ☐ RUSH* *Additional Rush Charges Approved.

*Date & Time Needed:

Normal TAT is 5-7 work days for most work. Rush work must be pre-approved and additional charges apply.

Specify Regulatory Program: (Required) ☐ None/Info only

☐ LUST ☐ SRP ☐ SDWA
☐ 503 Sludge ☑ NPDES ☐ MWRDGC
☐ Disposal ☐ Other *Please specify in comment section below.

ANALYSIS & METHOD REQUESTED

Enter an "X" in box below for request

SAMPLE IDENTIFICATION *Use One Line Per Preservation & Container Type	COLLECTION DATE	COLLECTION TIME	MATRIX	GRAB/ COMP.	CONTAINERS Qty	CONTAINERS SIZE & TYPE	PRESERVATIVE	BOD	CBOD	Chlorides / Disinfection Byproducts	Ammonia/Specific conductivity	1011.1	R	Condition	Split	LAB #
1 Ewre Raw Influent	4-5-23	7:10a	WW	Comp	1	1000ml P	ICE	X								
2 Ewre Final Effluent	4-5-23	7:13a	WW	Comp	1	1000ml P	ICE		X							
3 Ewre Final Effluent	4-5-23	7:13a	WW	Comp	1	1000ml P	ICE			X						
4 Ewre Final Effluent	4-5-23	7:13a	WW	Comp	1	1000ml P	ICE				X					
5																
6																
7																
8																
9																
10																
11																
12																

Page 1 of 1
PO No.
Page 6 of 6
Shipping Method
QC Reporting Level ☐ 1 ☐ 2 ☐ 3

LAB USE ONLY

SLI Order No. 240-230360
Sample containers supplied by customer? ☐ Yes
Temperature of Received Samples 96 °C
Samples received within 24 hours of collection? ☐ Yes

MATRIX: Drinking Water (DW), Soil (S), Waste Water (WW), Surface Water(SW), Ground Water (GW), Solid Waste (WA), Sludge (U), Wipe (P) CONTAINER: 2oz, 4oz, 8oz, 40ml Vial, 500ml, Liter (L), Tube, Glass (G), Plastic (P) PRESERVATIVE: H_2SO_4, HCl, HNO_3, Methanol (MeOH) NaOH, Sodium Bisulfate (NaB), NaThio

COMMENTS & SPECIAL INSTRUCTIONS:

CONDITION CODES
1. Improper/damaged container/cap
2. Improper preservation
3. Insufficient sample volume
4. Headspace/air bubbles for VOCs
5. Received past holding time
6. Received frozen
7. Label conflicts with COC

1. Relinquished By	Date	2. Relinquished By	Date	3. Relinquished By	Date	4. Relinquished By	Date
	4-5-2023		4/5/23				
Received By ☐ Ice	Time	Received By ☐ Ice	Time	Received By ☐ Ice	Time	Received By ☐ Ice	Time
	9:30		11:40				

SUBURBAN LABORATORIES, Inc.

1950 S. Batavia Ave., Suite 150 Geneva, Illinois 60134
Tel. (708) 544-3260 • Toll Free (800) 783-LABS
Fax (708) 544-8587
www.suburbanlabs.com

May 09, 2023

Workorder: 2305289

Mark Siefert
City of Crest Hill STP
1610 Plainfield Road
Crest Hill, IL 60403

TEL: (815) 723-8671
FAX:
RE: East Water Reclamation Facility NPDES

Dear Mark Siefert:

Suburban Laboratories, Inc. received 3 sample(s) on 5/3/2023 for the analyses presented in the following report.

All data for the associated quality control (QC) met EPA, method, or internal laboratory specifications except where noted in the case narrative. If you are comparing these results to external QC specifications or compliance limits and have any questions, please contact us.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation including, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call me at (708) 544-3260.

Sincerely,

Dan Galeher
Project Manager
708-544-3260 ext 216
dan@SuburbanLabs.com

Sample 2305289-001A: B=The method blank contained 0.38 mg/L (MDL is 0.20 mg/L).

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

PREP DATES REPORT

Client: City of Crest Hill STP
Project: East Water Reclamation Facility N

Report Date: May 09, 2023
Lab Order: 2305289

Sample ID	Collection Date	Batch ID	Prep Test Name	TCLP Date	Prep Date
2305289-001A	5/3/2023 7:24:12 AM	89522	BOD SETUP		5/3/2023
2305289-002A	5/3/2023 7:31:12 AM	89523	CBOD Setup		5/3/2023

Created: 5/9/2023 5:07:53 PM

SUBURBAN LABORATORIES, Inc.

CHAIN OF CUSTODY RECORD

4140 Litt Drive Hillside, IL 60162 Tel. 708.544.3260 Fax 708.544.8587 Toll Free: 800.783.LABS www.suburbanlabs.com

Electronic Version

Page 1 of 1

PO No.

Shipping Method

QC Reporting Level ☐ 1 ☐ 2 ☐ 3

LAB USE ONLY

SLI Order No. 2305289

Sample containers supplied by customer? ☐ Yes

Temperature of Received Samples 4.7 °C

Samples received within 24 hours of collection? ☐ Yes

Company Name	City of Crest Hill
Company Address	1610 Plainfield Road
City / ST / Zip	Crest Hill / IL / 60403
Phone / Fax	815-723-8671 / 815-726-0081 ☐ Fax Report
Email Address	msiefert@cityofcresthill.com
Project ID / Location	East Water Reclamation Facility NPDES
Project Manager (Report to)	Mark Siefert
Sample Collector(s)	JOE PREMO

TURNAROUND TIME REQUESTED

☑ Normal ☐ RUSH** *Additional Rush Charges Approved.

*Date & Time Needed:

Normal TAT is 5-7 work days for most work. Rush work must be pre-approved and additional charges apply.

Specify Regulatory Program: (Required) ☐ None/Info only

☐ LUST ☐ SRP ☐ SDWA

☐ 503 Sludge ☑ NPDES ☐ MWRDGC

☐ Disposal ☐ Other *Please specify in comment section below.

ANALYSIS & METHOD REQUESTED

Enter an "X" in box below for request

	SAMPLE IDENTIFICATION *Use One Line Per Preservation & Container Type	COLLECTION DATE	COLLECTION TIME	MATRIX	GRAB/ COMP.	CONTAINERS Qty	CONTAINERS SIZE & TYPE	PRESERVATIVE	BOD	CBOD	CHLORIDE	D Solved Phosphorus	ALKALINITY	Specific Conductivity	R	Condition	Spill	LAB #
1	EWRF Raw Influent	5-3-23	7:24am	DW	Comp	1	1000mlP	ICE	X									
2	EWRF Final Effluent	5-3-23	7:31am	WW	Comp	1	1000mlP	ICE		X								
3	EWRF Final Effluent	5-3-23	7:31am	WW	Comp	1	1000mlP	ICE			XX							
4	EWRF Final Effluent	5-3-23	7:37am	WW	Grab	1	1000mlP	ICE					X	X				
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

MATRIX: Drinking Water (DW), Soil (S), Waste Water (WW), Surface Water(SW), Ground Water (GW), Solid Waste (WA), Sludge (U), Wipe (P) CONTAINER: 2oz, 4oz, 8oz, 40ml Vial, 500ml, Liter (L), Tube, Glass (G), Plastic (P) PRESERVATIVE: H_2SO_4, HCl, HNO_3, Methanol (MeOH) NaOH, Sodium Bisulfate (NaB), NaThio

COMMENTS & SPECIAL INSTRUCTIONS:

CONDITION CODES
1. Improper/damaged container/cap
2. Improper preservation
3. Insufficient sample volume
4. Headspace/air bubbles for VOCs
5. Received past holding time
6. Received frozen
7. Label conflicts with COC

1. Relinquished By	Date	2. Relinquished By	Date	3. Relinquished By	Date	4. Relinquished By	Date
	5-3-23		5/3/23				
Received By ☑ Ice	Time 9:25	Received By ☐ Ice	Time 11:30	Received By ☐ Ice	Time	Received By ☐ Ice	Time

SUBURBAN LABORATORIES, Inc.

1950 S. Batavia Ave., Suite 150 Geneva, Illinois 60134
Tel. (708) 544-3260 • Toll Free (800) 783-LABS
Fax (708) 544-8587
www.suburbanlabs.com

June 12, 2023

Workorder: 2306516

Mark Siefert
City of Crest Hill STP
1610 Plainfield Road
Crest Hill, IL 60403

TEL: (815) 723-8671
FAX:
RE: East Water Reclamation Facility NPDES

Dear Mark Siefert:

Suburban Laboratories, Inc. received 3 sample(s) on 6/7/2023 for the analyses presented in the following report.

All data for the associated quality control (QC) met EPA, method, or internal laboratory specifications except where noted in the case narrative. If you are comparing these results to external QC specifications or compliance limits and have any questions, please contact us.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation including, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call me at (708) 544-3260.

Sincerely,

Dan Galeher
Project Manager
708-544-3260 ext 216
dan@SuburbanLabs.com

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Case Narrative

Client: City of Crest Hill STP
Project: East Water Reclamation Facility NPDES
WorkOrder: 2306516
Temperature of samples upon receipt at SLI: C

Date: June 12, 2023
PO #:
QC Level: LEVEL I
Chain of Custody #:

General Comments:
- All results reported in wet weight unless otherwise indicated. (dry = Dry Weight)
- Sample results relate only to the analytes of interest tested and to sample as received by the laboratory.
- Environmental compliance sample results meet the requirements of 35 IAC Part 186 unless otherwise indicated.
- Waste water analysis follows the rules set forth in 40 CFR part 136 except where otherwise noted.
- Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated.
- For more information about the laboratories' scope of accreditation, please contact us at (708) 544-3260 or the Agency at (217) 782-6455.
- All radiological results are reported to the 95% confidence level.

Abbreviations:
- Reporting Limit: The concentration at which an analyte can be routinely detected on a day to day basis, and which also meets regulatory and client needs.
- Quantitation Limit: The lowest concentration at which results can be accurately quantitated.
- J: The analyte was positively identified above our Method Detection Limit and is considered detectable and usable; however, the associated numerical value is the approximate concentration of the analyte in the sample.
- ATC: Automatic Temperature Correction. - TNTC: Too Numerous To Count
- TIC: Tentatively Identified Compound (GCMS library search identification, concentration estimated to nearest internal standard).
- SS: (Surrogate Standard): Quality control compound added to the sample by the lab.
-LA: Lab Accident - No valid data to report.
-VO: Insufficient Volume provided
-BR: Received broken
-IP: Invalid Sampling

Method References:
For a complete list of method references please contact us.
- E: USEPA Reference methods
- SW: USEPA, Test Methods for Evaluating Solid Waste (SW-846)
- M: Standard Methods for the Examination of Water and Wastewater
- USP: Latest version of United States Pharmacopeia

Workorder Specific Comments:

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client ID: City of Crest Hill STP
Project Name: East Water Reclamation Facility NPDES

Report Date: June 12, 2023
Workorder: 2306516

Client Sample ID: EWRF Raw Influent
Lab ID: 2306516-001 **Date Received:** 06/07/2023 10:53 AM

Matrix: WASTEWATER
Collection Date: 06/07/2023 7:11 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
BOD, 5 DAY, 20°C		Method: SM-5210B-Rev 2001				Analyst: BT	
Biochemical Oxygen Demand	143	60.0		mg/L	1	06/12/2023 12:05 PM	90224

Client Sample ID: EWRF Final Effluent
Lab ID: 2306516-002 **Date Received:** 06/07/2023 10:53 AM

Matrix: WASTEWATER
Collection Date: 06/07/2023 7:19 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
CARBONACEOUS BOD, 5 DAY, 20°C		Method: SM-5210B-Rev 2001				Analyst: BT	
Carbonaceous BOD	<2	2.0		mg/L	1	06/12/2023 12:05 PM	90225
CHLORIDE		Method: SM-4500Cl-E--Rev 1997				Analyst: EM	
Chloride	320	13.4		mg/L	2	06/08/2023 12:20 PM	R163393
DISSOLVED		Method:				Analyst: EM	
Filtered and Preserved	complete	0	V		1	06/07/2023 3:23 PM	R163349
PHOSPHORUS, DISSOLVED OR SOLUABLE		Method: SM-M4500P BE-Rev 18Ed, 1992				Analyst: ESI	
Phosphorus (As P)	0.70	0.024		mg/L	1	06/09/2023 8:42 AM	R163429

Client Sample ID: EWRF Final Effluent
Lab ID: 2306516-003 **Date Received:** 06/07/2023 10:53 AM

Matrix: WASTEWATER
Collection Date: 06/07/2023 7:24 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
ALKALINITY, TOTAL		Method: SM-2320B-Rev 21st Ed. (1997)				Analyst: ESI	
Alkalinity, Total (As CaCO3)	348	20.0		mg/L CaCO3	1	06/08/2023 9:56 AM	R163369
CONDUCTIVITY AT 25 DEGREES C.		Method: SM-2510B-Rev 1997				Analyst: ESI	
Specific Conductivity	2,060	1.00		µmhos/cm	1	06/12/2023 10:21 AM	R163512

Created: 6/12/2023 6:39:02 PM

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

PREP DATES REPORT

Client: City of Crest Hill STP
Project: East Water Reclamation Facility N

Report Date: June 12, 2023
Lab Order: 2306516

Sample ID	Collection Date	Batch ID	Prep Test Name	TCLP Date	Prep Date
2306516-001A	6/7/2023 7:11:00 AM	90224	BOD SETUP		6/7/2023
2306516-002A	6/7/2023 7:19:00 AM	90225	CBOD Setup		6/7/2023

Created: 6/12/2023 6:39:03 PM

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Qualifier Definitions

WO#: **2306516**
Date: **6/12/2023**

Qualifiers:

*/x	Value exceeds Maximum Contaminant Level
B	Analyte detected in the associated Method Blank
C	Value is below Minimum Concentration Limit
c	Analyte not in TNI/NELAC scope of accreditation
E	Estimated, detected above quantitation range
G	Refer to case narrative page for specific comments
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit (QL)
N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit
P	Present
Q	Accreditation is not available from Wisconsin
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
T	Analyte detected in sample trip blank
V	EPA requires field analysis/filtration. Lab analysis would be considered past hold time.
WI	This sample was ran at the Wisconsin Laboratory, WI DNR Certified #246179890

SUBURBAN LABORATORIES, Inc.

4140 Litt Drive Hillside, IL 60162 Tel. 708.544.3260 · Fax 708.544.8587 Toll Free: 800.783.LABS www.suburbanlabs.com

CHAIN OF CUSTODY RECORD

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Page 1 of 1

PO No.

Shipping Method

QC Reporting Level ☐ 1 ☐ 2 ☐ 3

Page 6 of 6

LAB USE ONLY

SLI Order No. 23C516

Sample containers supplied by customer? ☐ Yes

Temperature of Received Samples 7.4 °C

Samples received within 24 hours of collection? ☐ Yes

Company Name	City of Crest Hill
Company Address	1610 Plainfield Road
City / ST / Zip	Crest Hill / IL / 60403
Phone / Fax	815-723-8671 / 815-726-0081 ☐ Fax Report
Email Address	msiefert@cityofcresthill.com
Project ID / Location	East Water Reclamation Facility NPDES
Project Manager (Report to)	Mark Siefert
Sample Collector(s)	Joe Brown

TURNAROUND TIME REQUESTED

☑ Normal ☐ RUSH* *Additional Rush Charges Approved.

*Date & Time Needed:

Normal TAT is 5-7 work days for most work. Rush work must be pre-approved and additional charges apply.

Specify Regulatory Program: (Required) ☐ None/Info only

☐ LUST ☐ SRP ☐ SDWA

☐ 503 Sludge ☑ NPDES ☐ MWRDGC

☐ Disposal ☐ Other *Please specify in comment section below.

ANALYSIS & METHOD REQUESTED

Enter an "X" in box below for request

SAMPLE IDENTIFICATION (*Use One Line Per Preservation & Container Type)	COLLECTION DATE	COLLECTION TIME	MATRIX	GRAB/ COMP.	CONTAINERS Qty	CONTAINERS SIZE & TYPE	PRESERVATIVE	BOD	COD	Dissolved Phosphorus	CHLORIDE	ALKALINITY	Specific Conductivity	Total 7	R	Condition	Split	LAB #
1 EWRF Raw Influent	6-7-23	7:11a	WW	Comp	1	1000ml P	ICE	X										
2 EWRF Final Effluent	6-7-23	7:19a	WW	Comp	1	1000ml P	ICE		X									
3 EWRF Final Effluent	6-7-23	7:19a	WW	Comp	1	1000ml P	ICE			X	X							
4 EWRF Final Effluent	6-7-23	7:24a	WW	Grab	1	1000ml P	ICE					X	X					
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

MATRIX: Drinking Water (DW), Soil (S), Waste Water (WW), Surface Water(SW), Ground Water (GW), Solid Waste (WA), Sludge (U), Wipe (P) CONTAINER: 2oz, 4oz, 8oz, 40ml Vial, 500ml, Liter (L), Tube, Glass (G), Plastic (P) PRESERVATIVE: H_2SO_4, HCl, HNO_3, Methanol (MeOH) NaOH, Sodium Bisulfate (NaB), NaThio

COMMENTS & SPECIAL INSTRUCTIONS:

CONDITION CODES

1. Improper/damaged container/cap
2. Improper preservation
3. Insufficient sample volume
4. Headspace/air bubbles for VOCs
5. Received past holding time
6. Received frozen
7. Label conflicts with COC

1. Relinquished By	Date	2. Relinquished By	Date	3. Relinquished By	Date	4. Relinquished By	Date
	6-7-23		6/7/23				
Received By ☐ Ice	Time 9:40	Received By ☐ Ice	Time 11:09	Received By ☐ Ice	Time	Received By ☐ Ice	Time

Crest Hill
PUBLIC WORKS

Snow Event

Call Outs 22-23

12/15/22- 4 Staff for 2 hours, salt only

12/16/22- 4 Staff for 1 hour, salt only

12/20/22- 1 Staff for anti ice, 6 hours

12/21/22- 1 Staff for ant ice, 6 hours

12/22/22- 6 Staff for snow event, blowing and drifting snow, 8+ hours

12/26/22- 4 Staff for snow event, 6-8 hours

1/24/23- 1 Staff for anti ice, 6 hours

1/25/23- 7 Staff for snow event, 8+ hours

1/26/23- 4 Staff for salt only, 4 hours

2/16/23- 4 Staff for salt only, 3 hours

2/17/23- 4 Staff for salt only, 2 hours

Organization Name:

Chloride TLWQS Annual Report
Appendix 1 - Deicing/Anti-Icing Agents Used

Material or Product	Dry, Pre-Wet, Pretreated, or Liquid	Lane Miles Treated with the Product for 2022-2023	Parking Lot and Sidewalk Area (Sq. Ft.) Treated with the Product for 2022-2023	Total Amount used for 2022-2023 (Year 1) in Tons or Gallons	Total Amount used for 2023-2024 (Year 2) in Tons or Gallons	Total Amount used for 2023-2024 (Year 3) in Tons or Gallons	Total Amount used for 2023-2024 (Year 4) in Tons or Gallons	Total Amount used for 2023-2024 (Year 5) in Tons or Gallons	Total Amount Used Over First 5-Year Term
Infernal Melt w/ Residucron	Liquids								0
Cryoblend 80/20	Pre-Wet								0
Rock Salt	Dry								0
									0
									0
									0
									0
									0
									0
									0
									0
									0
									0
									0
									0

Estimates of Relative Material Amounts Applied and Coverage Achieved

Year	Total Lane Miles Maintained	Total Parking Lot and Sidewalk Area (Sq. Ft.) Maintained	Percent of Total Lane Miles Treated with Dry Materials	Percent of Total Lane Miles Treated with Pre-Wet or Pretreated Materials	Percent of Total Lane Miles Treated with Liquids	Percent of Total Parking Lot and Sidewalk Area Treated with Dry	Percent of Total Parking Lot and Sidewalk Area Treated with Pre-wet or Pretreated Materials	Percent of Total Parking Lot and Sidewalk Area Treated with Liquids	

Organization Name:

Chloride TLWQS Annual Report

Appendix 1 - Deicing/Anti-Icing Agents Used

2022-2023			0%	0%	0%	0%	0%	0%	