NPDES Pretreatment Compliance Sampling Inspection Report

Henkel Corporation – Geneva Site
(formerly Zotos International)

300 Forge Avenue, Geneva, NY 14456

Permit #: NYP000301

Inspection Dates: June 8-9, 2021

Report Prepared by:

THUAN TRAN Digitally signed by THUAN TRAN Date: 2021.08.10 08:52:40 -04'00'

Thuan Tran; Physical Scientist

Date: _Friday, July 30, 2021_

Report Approved by:

PHILIP COCUZZA Digitally signed by PHILIP COCUZZA Date: 2021.08.10 08:43:01 -04'00'

Phil Cocuzza, Chief
Monitoring Operations Section

Date: _____

1.0 OBJECTIVE

On June 8-9, 2021, at the request of the New York State Department of Environmental Conservation (NYSDEC), the United States Environmental Protection Agency (USEPA) conducted a Pretreatment Compliance Sampling Inspection (CSI) at Henkel Corporation – Geneva Site. The objective of the CSI was to gather information necessary to determine compliance with the requirements and limitations of the City of Geneva Marsh Creek Wastewater Treatment Plant 2021 Industrial Waste Discharge Permit and related Federal Regulations.

2.0 KEY PARTICIPANTS

Listed below are key inspection participants and contact information, grouped by organization.

U.S. Environmental Protection Agency
Thuan Tran; Physical Scientist, Lead Inspector
732-321-4455; email: tran.thuan@epa.gov
Robert Morrell; Geologist

New York State Department of Environmental Conservation (NYSDEC)
Pradeep Jangbari; Environmental Engineer
858-226-5321; email: Pradeep.jangbari@dec.ny.gov

Henkel Corporation – Geneva Site
Emily Johnson; Engineering Manager – Geneva Beauty Care Site
315-781-9300; email: Emily.johnson@henkel.com
Jonathan Alackna; Safety, Health & Environmental Engineer – Geneva Beauty Care Site
315-230-5232; email: Jonathan.alackna@henkel.com
Sarah Baker; Plant Manager – Geneva Beauty Care Site

Marsh Creek Wastewater Treatment Plant (WWTP)
William Czaplak; Chief Plant Operator
315-789-8040; email: wcc@geneva.ny.us
Nick DeMaria; Assistant Plant Operator

3.0 FACILITY DESCRIPTION

3.1 General Information

Henkel Corporation – Geneva Site is located at 300 Forge Avenue and began operations in 1929 as Zotos International which was founded by Ralph Evans for the invention of "permanent waves." Conair Corporation purchased Zotos International in 1982, then sold it to Shiseido in 1988. Henkel Corporation purchased the Geneva site in 2019. The Geneva Site is a manufacturer of personal/health care (moisturizers, deodorants, hair colors, conditioners, shampoos) products and is categorized as Standard Industrial Classification (SIC) 2844 – Perfumes, Cosmetics, and Other Toilet Preparations. Henkel Corporation – Geneva Site employs 451 full-time and 112 temporary personnel and operates under three main shifts; 6:30AM to 2:30PM; 2:30PM to 10:30PM; and 10:30PM to 6:30AM. Departmental shifts are staggered around the main shifts to limit contact due to the coronavirus pandemic.

3.2 Process Information

Raw materials arrive at the facility's Receiving/Storage/Quality Assurance (QA) Dock via tankers, totes, 55-gallon and 30-gallon drums, buckets, boxes, and bags in liquid and powder forms. A pallet of the material is moved to the QA sampling room where the raw materials are sampled and verified for identification. QA/QC tests to verify acceptance quality consist of IR Spectrometer, oder, active ingredients, pH, viscosity, acid content, HPLC, etc. Once confirmed, the raw material is moved to the storage area of the warehouse where appropriate locations are assigned.

Raw materials are gathered from storage to one of the pre-weight booths. Materials are transported via forklift or hand cart to the compounding and mixing areas. Each batch is created based on order specifications. Depending on material storage requirements, certain raw materials are not weighted up until the time of addition to the batch. Once a batch is produced at one of the six (6) decks, a sample is tested for QA. Deck 1 consists of hair color and hair care batching tanks. Deck 2 consists of storage vessels for hair care. Deck 3 consists of hair care and liquid hand soap batching tanks. Deck 4 consists of neutralizer and perm batching tanks. Deck 5 consists of hair color batching tanks. Finally, Deck 6 consists of hair stylers. All 6 decks were in operation during the June 8-9, 2021 Pretreatment Compliance Sampling Inspections. Each deck consists of multiple kettles, each kettle or batch ranges between 100-5,000 gallons. Approximately 10-15 batches are generated per day. Once the batch is approved, the product is transferred into totes, drums, or a storage tank that is connected to the filling line.

Bulk products are connected to the filling lines via stainless steel overhead pipes. Through a combination of automated and manual processes, lot codes are assigned, closures are applied, units are package in corrugated cartons and are pelletized. Upon completion of the pallet, the

inventory is electronically identified, moved to the distribution center. The main distributors of Henkel Corporation - Geneva Site are Beauty Supply Group and Sally Beauty Holdings to retailers, such as Cosmoprof, Ulta Beauty, and Sally Beauty Supply.

City water is used for sanitary and manufacturing operation process. Sanitary wastewater is drained into the City of Geneva Sewer Collection System to the Marsh Creek Wastewater Treatment Plant.

Before City water can be used in the manufacturing process, it is treated through filtration, followed by Reverse Osmosis (RO). After RO, the treated City water is disinfected with Ultraviolet Rays (UV), then stored in 14,000 gallon holding tanks.

The kettle goes through a cleaning process after each batch. The kettle is filled with treated City water, heated to 180°C, while mixing for 30 minutes. The hot washed water is drained. Micro-swaps are taken of the washed kettle to determine the sterility of the cleaning process. After the micro-swap, the kettle is rinsed with treated City water and drained. Most of the generated process waste streams from the 6 decks are pumped to the on-site wastewater treatment system. The manufacturing process waste streams from the liquid hand soap batching tanks in Deck 3 and the hair color batching tanks in Deck 5 are segregated and hauled out as non-hazardous waste for incineration.

As the process waste streams are pumped to the on-site wastewater treatment system, the process wastewater is conveyed into the influent sump tank where hydrogen peroxide (H_2O_2) and a defoamer are added to control sulfide and phenols built-up. The influent sump tank operates on a hi-low water level sensor which triggers the pump at the designated water levels. As the process wastewater is pumped from the influent sump tank, it is screened to remove large matters from potentially damaging downstream equipment to the influent equalization (IEQ) tanks. An air blower provides constant mixing and agitation to maintain a homogeneous content in the IEQ tanks where process side-streams are also received. The wastewater in the IEQ tanks is pumped to the Dissolved Air Floatation (DAF) treatment system. Polymer and caustic (NaOH) are injected in-line at the head of the DAF to create an optimum solid removal condition as it enters the DAF. Aeration is provided from the bottom of the DAF system to allow solids in the water column to adhere to the fine air bubbles to lift the solids to the surface. The effluent from the DAF system flows to the DAF sump tank where H_2O_2 is added. The DAF sump tank operates on a hi-lo water level sensor that pumps pretreated process wastewater through a magnetic flow meter before discharging through a dedicated sewer line to the Marsh Creek WWTP.

Solids from the DAF system are collected in the raw sludge storage tank. From the storage tank, the sludge is pumped onto the belt filter press. Anionic and cationic polymers are mixed with the sludge at the head of the belt filter press. The sludge cake is collected, hauled, and disposed of by Casella as an alternative daily cover for local landfill through a

Beneficial Reuse Determination (BUD). The filtrate from the belt filter press is pumped to the influent sump tank.

3.3 Facility Self-Monitoring Information

Safety, Health & Environmental (SHE) Department of Henkel Corporation – Geneva Site conducts sampling at the designated monitoring location to comply with the City of Geneva Marsh Creek WWTP 2021 Industrial Waste Discharge Permit. The facility utilizes a multi-bottles composite sampler to collect an aliquot sample every hour during the twenty-four (24) hour sampling duration. The bottles are distributed between the preserved and unpreserved sample containers provided by Pace Laboratories in Melville, New York. The parameters are 5-Day Biochemical Oxygen Demand (BOD_5), Total Suspended Solids (TSS), Volatile Organic Compounds (VOAs), Hexavalent Chromium (Cr^{+6}), Chemical Oxygen Demand (COD), Total Phosphorus, Sulfide, Total Phenolics, Total Cyanides, Total Organic Carbon (TOC), and Low Level Mercury, and Metals. Grab samples for Oil & Grease (O&G), hydrogen ion (pH), and temperature are collected using the composite sampler assembly. The samples are packed into the cooler and shipped to Pace Laboratories for analysis.

Temperature and pH are analyzed by the SHE Department of Henkel Corporation – Geneva Site for process control. When samples arrived at Pace Laboratories, an analyst checked the pH of the preserved samples. The pH results are provided to the Marsh Creek WWTP by Henkel Corporation – Geneva Site to determine compliance with their industrial user permit.

4.0 EPA SAMPLING/INSPECTION ACTIVITIES

4.1 Sampling Activities

ISCO automatic composite samplers were programmed to take 96 sample aliquots during the 24-hour sampling event from the pretreated effluent monitoring location at Marsh Creek Wastewater Treatment Plant. The 24-hour composite sample was collected and analyzed for 5-Day Biochemical Oxygen Demand (BOD_5), Total Suspended Solids (TSS), Phosphorus, Chemical Oxygen Demand (COD), Total Organic Carbon (TOC), Sulfide, Hexavalent Chromium, Mercury, and Metals (Arsenic, Cadmium, Iron, Chromium, Copper, Lead, Nickel, Selenium, Silver, Zinc, Aluminum and Barium). Grab-Composite samples were collected and analyzed for Cyanide and Total Phenolics. Multiple grab samples were collected or Volatile Organic Analytes (VOAs). The VOA grab samples were composited in the laboratory. Grab sample was collected and analyzed for Oil and Grease (O&G).

On-site grab samples of the pretreated discharge to the Marsh Creek WWTP were collected and analyzed for pH, Temperature and Total Residual Chlorine (TRC).

All sample containers, preservation techniques and holding times were in accordance with USEPA requirements specified in 40 CFR Part 136. Signed and dated custody seals were placed across the lids and along the sides of the sample containers. The custody sealed sample containers were placed inside plastic sample bags and sealed up. All samples were

packed inside a lined cooler with wet ice and the chain of custody attached to the underside of the lid. The cooler was wrapped with strapping tape and affixed with custody seal tapes for shipping via UPS for overnight delivery to the USEPA Laboratory in Edison, New Jersey for analysis.

Flow data was obtained directly from a dedicated instrumentation at the Marsh Creek Wastewater Treatment Plant for the Henkel Corporation – Geneva Site discharge that was last calibrated on August 3, 2020.

Split samples were collected and given to the facility representative.

4.2 Inspection Activities

A Pretreatment Compliance Sampling Inspection at Henkel Corporation – Geneva Site was conducted on June 8-9, 2021. The inspectors met with Emily Johnson; Engineering Manager, Johnathan Alackna; Safety Health and Environmental Engineer (SHE), Sarah Baker; Plant Manager, William Czaplak; Marsh Creek WWTP Chief Plant Operator, Nick DeMaria; Marsh Creek WWTP Assistant Plant Operator, and Pradeep Jangbari; NYSDEC Environmental Engineer. Inspector's credentials were shown, and business cards were provided. The facility's representatives were explained that the inspection purpose with supporting on-site activities was to determine if Henkel Corporation – Geneva Site is in compliance with the City of Geneva Marsh Creek Wastewater Treatment Plant 2021 Industrial Waste Discharge Permit and related Federal Regulations.

Supporting on-site activities consist of collecting samples from the pretreated process wastewater discharge at the alternate monitoring location, observing and evaluating the monitoring location and the alternate monitoring location, observing and evaluating the flow monitoring equipment, observation and evaluation of the facility's sampling protocol, touring and evaluating the manufacturing operation process, and the on-site Dissolved Air Floatation treatment system, reviewing and evaluating the chain-of-custody, sample containers, sample preservation inside the containers, and analytical data, and interviewing the facility's representatives.

The facility's representatives were briefed on the inspection activities throughout the inspection and during the closing conference. On-site sample results and concerns discovered during the inspection were communicated so that the facility's representatives understood their responsibilities to comply with the conditions and limitations set forth in the City of Geneva Marsh Creek Wastewater Treatment Plant 2021 Industrial Waste Discharge Permit and the related Federal Regulations.

4.3 Deviations and/or Environmental Conditions

During the observation and evaluation process of the monitoring location, the facility's automatic sampler is attached to a fixed nozzle that is connected to the discharge pipe. No other access points were available before or after the monitoring location to obtain grab

and/or grab-composite samples for certain parameters that are in the 2021 Industrial Waste Discharge Permit.

The alternate monitoring location, a dedicated sewer line connecting from the facility's discharge pipe to Marsh Creek WWTP, was observed and evaluated. A professional judgement was made to collect Henkel Corporation – Geneva Site compliance samples at the alternate monitoring location.

No discharge was observed for a short period of time on the morning of the 2nd day of the inspection. Henkel's representatives explained that during shift change, the pretreated discharge is temporary shut-down so that the next crew can perform a maintenance service check and supply check before resuming operation as part of their normal procedure. As a result, the discharge timeframes during the sampling event was between 8:30AM to 3:30PM on June 8th, 6PM on June 8th to 5:45AM on June 9th, and 8:50AM on June 9th to sample completion.

In addition, Henkel is required to analyzed low-level mercury using EPA Method 1631. EPA Laboratory will be analyzing low-level mercury using EPA Method 245.1. The low-level mercury result will only be use as data and not for permit compliance.

5.0 ANALYTICAL RESULTS

Henkel Corporation – Geneva Site
Inspection Dates: June 8-9, 2021

Parameter	Units	Permit Limit	EPA Result
Arsenic (As)	mg/L	</= 0.10	U
Cadmium (Cd)	"	</= 0.20	U
Hexavalent Chromium (Cr+6)	"	</= 0.10	0.024 J
Total Chromium (Cr)	"	</= 1.00	U
Copper (Cu)	"	</= 1.00	0.013
Total Cyanide (CN)	"	</= 0.80	U
Iron (Fe)	"	</= 10.0	0.47
Lead (Pb)	"	</= 0.10	U
Mercury (Hg)	"	</= 0.001	U
Nickel (Ni)	"	</= 2.00	U
Oil & Grease	"	</= 100	90.2 J
Phenolic Compounds	"	</= 5.00	**6.59**
Total Phosphorus	"	</= 24.0	0.191
Selenium (Se)	"	</= 0.05	U
Silver (Ag)	"	</= 0.10	U
Sulfides (S)	"	</= 3.00	0.307
Zinc (Zn)	"	</= 0.60	0.051
BOD	"	</= 2878	389
COD	"	</= 5995	967
TOC	"	</= 1439	273
TSS	"	</=360	34
BOD	lbs/day	</= 1680	146

Parameter	Units	Permit Limit	EPA Result
COD	lbs/day	</= 3500	363
TOC	"	</= 840	102
TSS	"	</= 210	12.8
Aluminum (Al)	mg/L	Monitor	1.870
Barium (Ba)	"	Monitor	U
Bromodichloromethane	"	Monitor	U
Dibromochloromethane	"	Monitor	U
1,1,1-Trichloroethane	"	Monitor	U
Benzene	"	Monitor	U
Ethyl Benzene	"	Monitor	U
Dichlorobenzene	"	Monitor	U
Bromoform	"	Monitor	U
Xylenes	"	Monitor	U
Chloroform	"	Monitor	U
Methyl Chloride	"	Monitor	U
Toluene	"	Monitor	U
Temperature	°C	< 40 (104°F)	D1: 27 D2: 27
pH	SU	> 6.0 to </= 9.5	D1: 6.79 D2: 7.11
Flow	GPD	</= 70,000	45,460 (0.045 MGD)
Ethyl Acetate	mg/L	Monitor	No data
Isopropyl Acetate	"	Monitor	No data
N-Amyl Acetate	"	Monitor	No data
Acetone	"	Monitor	30.4 J
Methylene Chloride	"	Monitor	U
TRC	"	For Sample Preservation	Zero

U = analyte was not detected at or above the reporting limit.
J = estimated value
D1 = Day 1
D2 = Day 2

6.0 FINDINGS

6.1 Sampling Result Findings

The EPA analytical results obtained during this inspection show the following parameter(s) as being outside of the acceptable limits:

6.1.1 According to the City of Geneva Marsh Creek WWTP 2021 Industrial User Permit, the limitation for total phenols is less than or equal to 5.00 milligrams per liter (mg/L). The analytical data was determined to be 6.59 mg/L.

6.2 Inspection Findings

In addition to the samples, an inspection of the facility operations was conducted as discussed in Section 4.2. During this inspection the following observations were noted which may contravene the requirements of the permit or the applicable regulations:

6.2.1 The facility's multiple-bottles composite sampler is not refrigerated or chilled during the sampling event. Preservation is necessary to ensure that the composite sample is chilled to </= 6°C during the twenty-four (24) hour sampling duration. According to 40 CFR Part 136 footnote 2 of Table II- Required Containers, Preservation Techniques, and Holding Times, it states, " *Except when noted in this Table II and the method of the parameter, preserve each grab sample within 15 minutes of collection. For a composite sample collected with automated sample (e.g. using a 24-hr composite; see 40 CFR Part 122.21(g)(7)(i) or 40 CFR Part 403 appendix E), refrigerate the sample </= 6°C during collection unless specified otherwise in this Table II or in the method(s)."*

6.2.2 Dirty sampling tube and composite sample bottles were observed during the inspection. Algae growth was observed inside the sample bottles, as well. The sampling equipment should be clean and algae-free to ensure representative sample aliquots are collected of the discharged waste stream so that the sample is not contaminated and/or bias the results. Under Section 4.7 Sample Point Locations of the 2021 Industrial Waste Discharge Permit, it states, "*The primary sampling location for Henkel shall be the point of discharge from the Dissolved Air Floatation pretreatment system at the Henkel facility. Care must be taken to gather samples that are representative of the flow loadings that are sent to the treatment plant*." Furthermore, the 2021 Industrial Waste Discharge Permit references to 40 CFR Part 122 through 40 CFR Part 136. According to 40 CFR Part 122.41(j)(1) Monitoring and Records, it states, "*Samples and measurements taken for the purpose of monitoring shall be representative of the monitoring activity*."

6.2.3 The discharged wastewater is monitored by a magnetic flow meter to the Marsh Creek Wastewater Treatment Plant. The flow meter is calibrated but does not have a calibration sticker/tag indicating when it was last calibrated or when it is to be calibrated. Under Section 1.1 Monitoring and Recording of the 2021 Industrial Waste Discharge Permit, it states, "*……At least once every calendar year, Henkel shall be required to have all wastewater discharge flow meters calibrated by a third-party calibration service provider who is approved by the Director of Public Works or the Chief Operator*." This includes the calibration sticker/tag with the necessary information. Furthermore, 40 CFR Part 136 references 40 CFR Part 122. According to the 40 CFR Part 122.41(e) – Proper Operation and Maintenance, it states, " *The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit*."

6.2.4 According to the 2021 Industrial Waste Discharge Permit, Total Phenols, Cyanide, and Volatile Organic Compounds are collected as 24-hour composite samples using an automatic composite sampler. This is incorrect. According to 40 CFR Part 403.12(g)(3) – Monitoring

and analysis to demonstrate continued compliance, it states, "…..*Grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide, and volatile organic compounds. For all other pollutants, 24-hr composite sample must be obtained through flow-proportional composite sampling techniques, unless time-proportional composite sampling or grab sampling is authorized by the Control Authority. When time-proportional sampling is authorized by the Control Authority, the samples must be representative of the Discharge and the decision to allow the alternative sampling must be documented in the Industrial User file for that facility or facilities. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, multiple grab samples collected during a 24-hr period may be composited prior to the analysis as follows: For cyanide, total phenols, and sulfides the samples may be composited in the laboratory or in the field; for volatile organics and oil and grease the samples may be composited in the laboratory. Composite samples for other parameters unaffected by the compositing procedures as documented in approved EPA methodologies may be authorized by the Control Authority, as appropriate*."

6.2.5 Henkel Corporation – Geneva Site is submitting pH results that Pace Laboratories checked on the received samples to Marsh Creek WWTP to show compliance with their permit. This is incorrect. According to 40 CFR Part 136 Table II – Required Containers, Preservation Techniques, and Holding Times, hydrogen ion (pH) readings must be "*analyzed within 15 minutes*" or immediately at the discharged waste stream.

6.2.6 Samples for Oil & Grease cannot be collected using the automatic sampler. According to EPA Method 1664A: N-Hexane Extractable Materials (HEM; Oil and Grease) and Silica Gel Treated N-Hexane Extractable Material (SGTHEM; Non-polar Material) by Extraction and Gravimetry, Section 8.3 for Sample Collection, Preservation & Storage*;* It states, "*The high probability that extractable matter may adhere to sampling equipment and result in measurements that are biased low precludes the collection of composite samples for determination of oil and grease. Therefore, samples must be collected as grab samples. If a composite measurement is required, individual grab samples collected at prescribed time intervals must be analyzed separately and the concentrations averaged. Alternatively, samples can be collected in the field and composited in the laboratory*."

7.0 ATTACHMENTS

Attachment #1. Henkel Corporation – Geneva Site overview map shows the building breakdown.

Attachment #2. The manufacturing operation flow process shows the work areas within the facility.

Attachment #3. Process wastewater is generated from various areas of the manufacturing operation.

Attachment #4. Process wastewater is pretreated by the on-site pretreatment wastewater system before discharging to Marsh Creek WWTP.

Attachment #5. The Chain of Custody for Samples was submitted and received by the USEPA Region 2 Laboratory on Thursday, June 10, 2021.

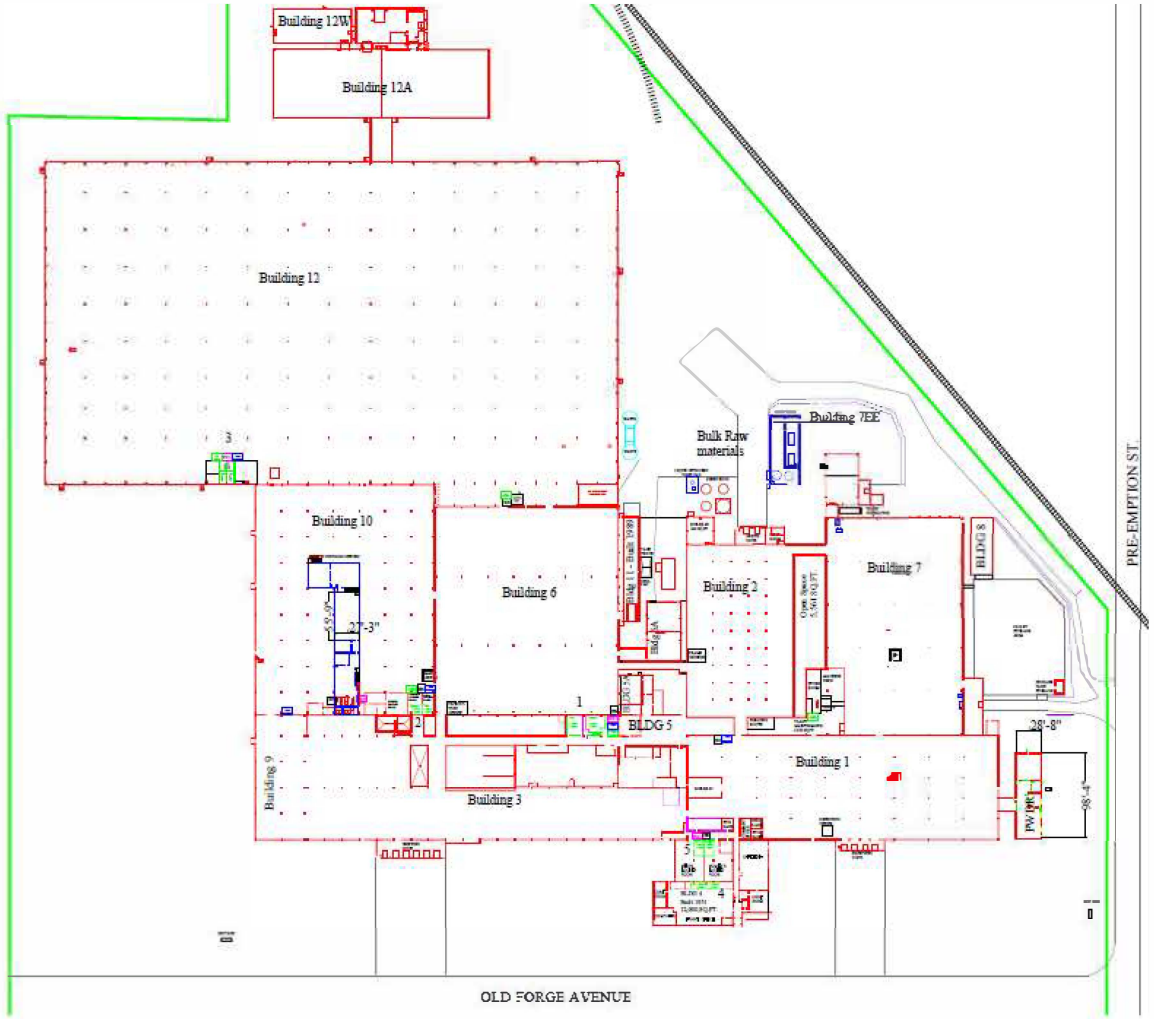
Attachment #6. The Analytical Data of the Henkel Corporation – Geneva Site sampling inspection was received on July 7, 2021.

8.0 PHOTOGRAPHS

Photo #1: Henkel Corporation – Geneva Site compliance samples for the 2021 Industrial Waste Discharge Permit are collected at the designated discharge monitoring location at the facility.

Photo #2: Alternate discharge monitoring location for Henkel Corporation – Geneva Site is located at the Marsh Creek WWTP.

Attachment #1. An overview map of Henkel Corporation - Geneva Site shows the building breakdown.



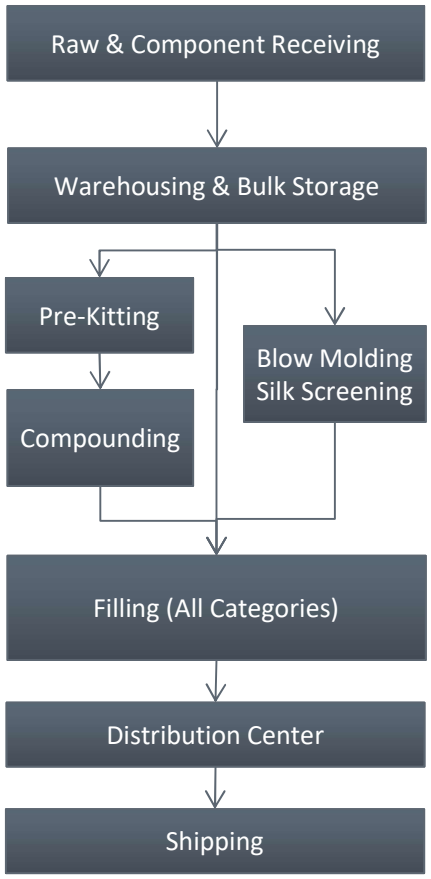
Building 1	48,802 SQ.FT.	4,534 SQ. m
Building 2	28,076 SQ.FT.	2,608 SQ. m
Building 3	63,547 SQ.FT.	5,904 SQ. m
Building 4	11,834 SQ.FT.	1,099 SQ. m
Building 5	3,018 SQ.FT.	280 SQ. m
Building 5A	2,286 SQ.FT.	212 SQ. m
Building 6	51,187 SQ.FT.	4,755 SQ. m
Building 6A	3,268 SQ.FT.	304 SQ. m
Building 7	38,459 SQ.FT.	3,573 SQ. m
Building 8	1,791 SQ.FT.	166 SQ. m
Building 9	8,707 SQ.FT.	809 SQ. m
Building 10	55,393 SQ.FT.	5,146 SQ. m
Building 11	2,194 SQ.FT.	204 SQ. m
Building 12	254,712 SQ.FT.	23,664 SQ. m
Building 12A	21,000 SQ.FT.	1,951 SQ. m
Building 12W	3978 SQ.FT.	369 SQ. m
PWDR	2842 SQ.FT.	264 SQ. m
Total	601,094 SQ.FT.	55,843 SQ. m

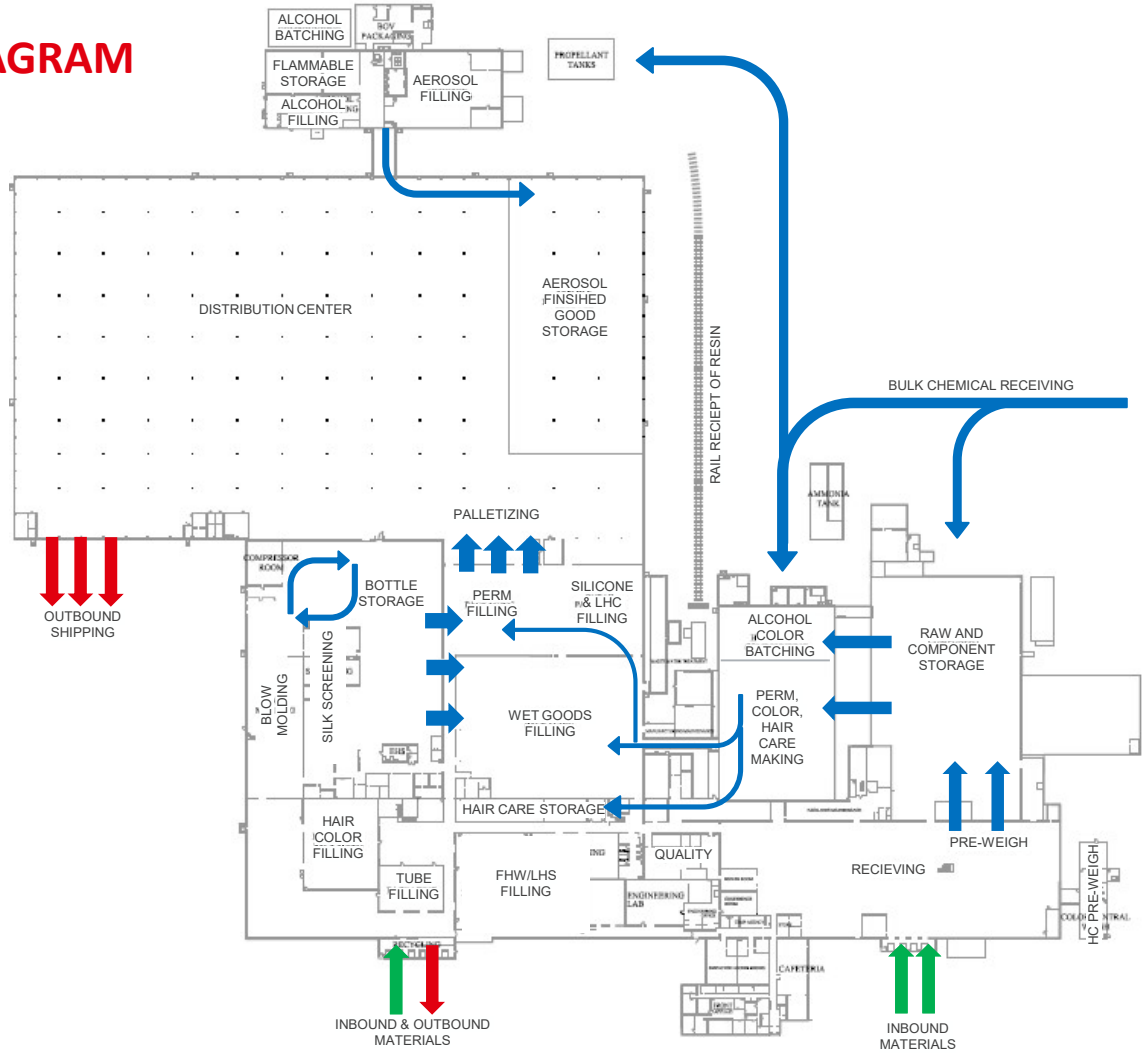
Compounding	14,700 SQ.FT.	1,365.7 SQ. m
Compounding XP	1,800 SQ.FT.	167.2 SQ. m
Hair Color - Comp.	772 SQ.FT.	71.7 SQ. m
Hair Color - Prod.	4,280 SQ.FT.	397.6 SQ. m
Blow Molding	8,655 SQ.FT.	804.1 SQ. m
Silk Screening	9,800 SQ.FT.	910.4 SQ. m
Production	50,740 SQ.FT.	4,713.9 SQ. m
Production XP	2,800 SQ.FT.	260.1 SQ. m

OFFICE	AREA (SQ FT)	WORK STATIONS
Supply Chain/Training Office	5,570	28
Shipping Office	660	7
SS/BM Manager Office	163	1
Bldg 1 Receiving Office	144	2
Bldg 7 Receiving Office	164	2
Bldg 12 Receiving Office	292	4
Production Office	554	5
Maintainance Office	163	2
Plant Maintainance Office	142	4
Quality Control	3,212	11
Silk Screening	1,237	2
Front Office	5,726	16

Attachment #2. The manufacturing operation process flows within the facility's work areas.

Henkel GENEVA SITE FLOW DIAGRAM





Attachment #3. Process wastewater from various operating areas is directed to the on-site treatment system.

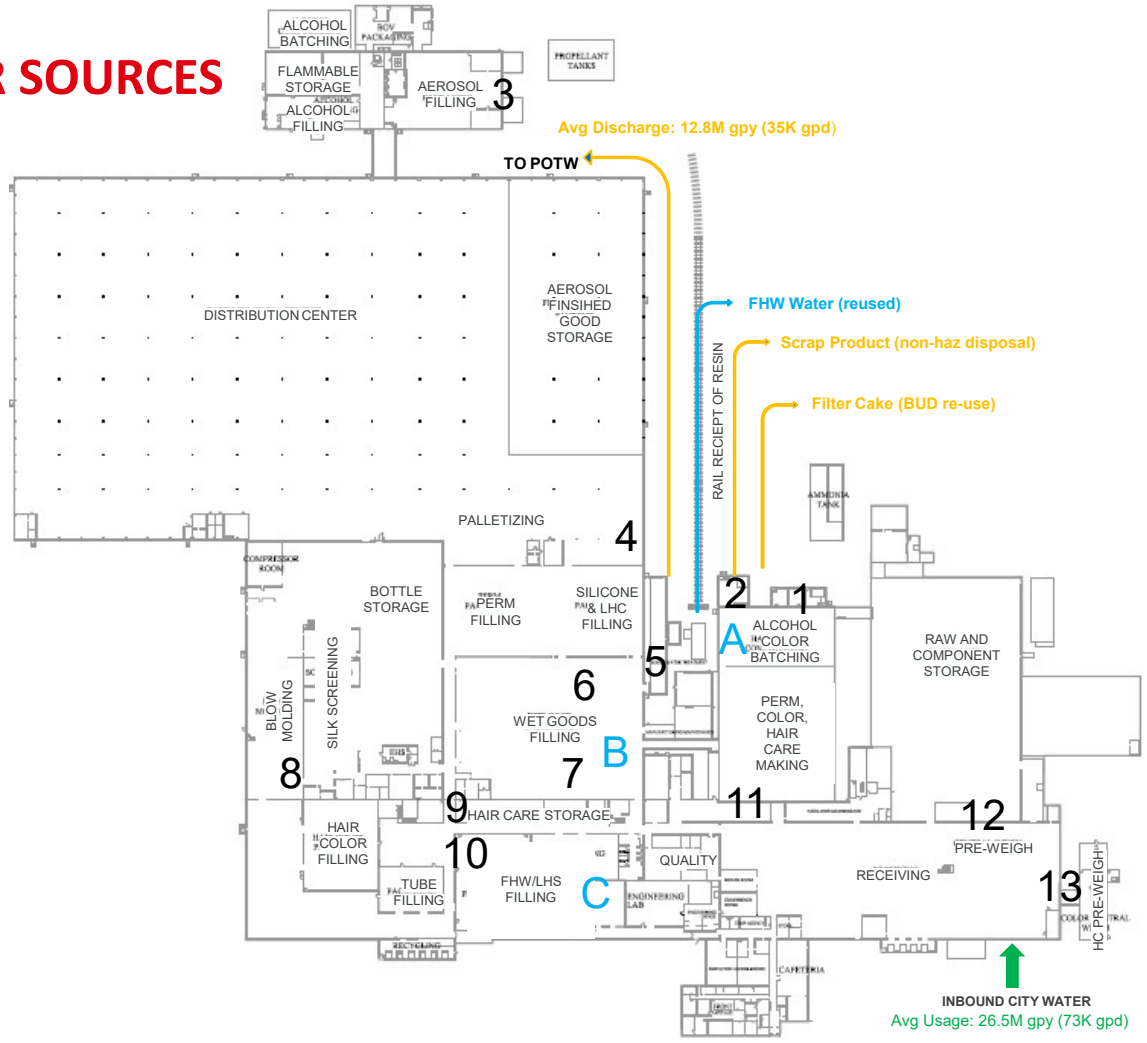
GENEVA SITE WASTE WATER SOURCES

Waste Water Treatment Sources

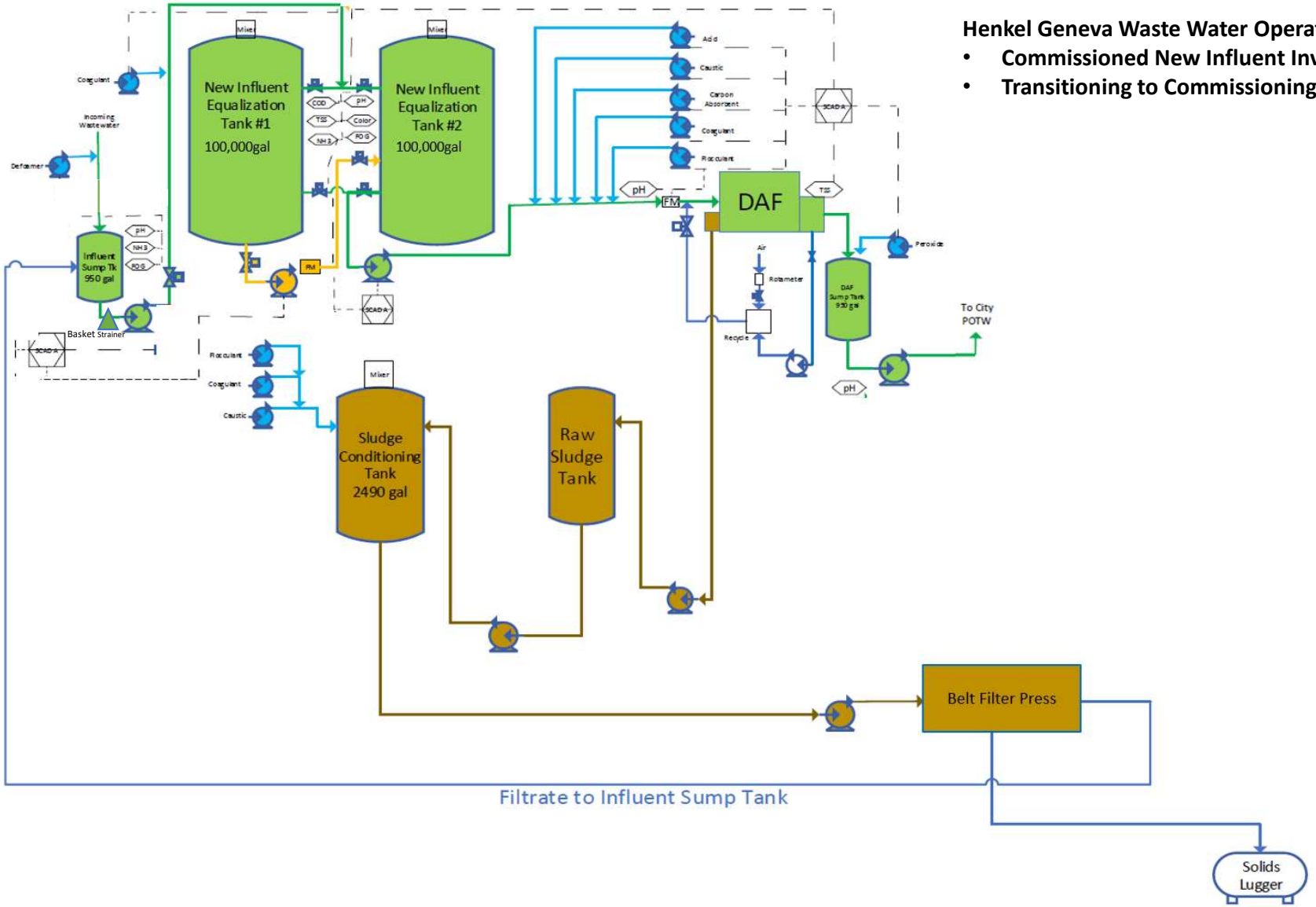
1. Compounding ZTC Pit
2. Boiler Blowdown Pit
3. Aerosol Filling Pit
4. Bldg 11 & 12 Sinks
5. Bldg 11 Tank Room Pit
6. Filling Line 50 Pit
7. Filling Line 2 Pit
8. Blow Molding Pit
9. ST Area Pits
10. HC Filling Washout Pit
11. Compounding Washout Pit
12. Central Weigh Pit/Sink
13. HC Preweigh Pit/Sink

Foaming Hand Wash Water

A. Compounding Deck 5
B. Filling Line 3A
C. RO Water Area Pit



Attachment #4. Process wastewater is treated by the on-site treatment system utilizing the Dissolved Air Floatation (DAF).



Henkel Geneva Waste Water Operation Status 6/8/2021

- **Commissioned New Influent Investment**
- **Transitioning to Commissioning Chemical Feed & Treatment**

Attachment #5. Samples were submitted to the USEPA Region 2 Laboratory through the Chain of Custody/Field Data Form.

US EPA REGION 2 LABORATORY

CHAIN OF CUSTODY/ FIELD DATA FORM

SURVEY NAME & LOCALITY ___ Henkel (formerly Zotos International)

PROJECT LEADER _____ Thuan Tran

PROGRAM: SF ☐ : SITE ID _____ OPERABLE UNIT _____ PROGRAM RESULTS CODE _____

Decision		RCRA ☐	RCRA ENF ☐	NPDES ☐ X	SDWA ☐	AM ☐	CAA ☐	TSCA ☐	OD ☐	FIFRA ☐	CRIMINAL ENF ☐
Unit Code	Y206	D210	D307	B304	C215	B224	A305	L306	B253		

Permit #: ___NYP000301_____

LAB ID/ FIELD ID	# OF CONTERS	MATRIX	CHECK IF SPLIT SAMPLE	DESCRIPTION & INSTRUCTIONS INCLUDING LOCATION, ESTIMATED CONCENTRATIONS, SPECIAL REPORTING LIMITS,		Res CL Checked	Preservative (circle)	Collection Time (24hr clock) Begin	Collection Time (24hr clock) End	Collection Date mm/dd/yy
Pretreated Discharge - 24-Hr Co	9	A	☑	2, 1-Liter plastic bottles: BOD5	24-Hr Comp.	210618-01 ☐	0	10:02A	9:47A	6/8-9/21
			☑	1, 500-ml plastic bottle: TSS	24-Hr Comp.	-01 ☐	0			6/8-9/21
			☑	1, 250-ml plastic bottle: COD/TOC	24-Hr Comp.	-01 ☐	01			6/8-9/21
			☑	1, 250-ml plastic bottle: Metals*	24-Hr Comp.	-01 ☐	02			6/8-9/21
			☑	1, 250-ml plastic botttle: Mercury	24-Hr Comp.	-01 ☐	02			6/8-9/21
			☑	1, 125-ml plastic bottle: Hexa. Cr.	24-Hr Comp.	-01 ☐	0			6/8-9/21
			☑	1, 125-ml plastic bottle: Phosphorus	24-Hr Comp.	-01 ☐	01			6/8-9/21
			☑	1, 125-ml plastic bottle: Sulfide	24-Hr Comp.	-01 ☐	089			6/8-9/21
Pretreated Discharge - 4Xs G-C	2	A	☑	1, 250-ml amber glass: Phenolics	4Xs G-Comp	-02 ☐	012345678910	11:35A	9:15A	6/8-9/21
			☑	1, 125-ml plastic bottle: Cyanide	4Xs G-Comp	-02 ☐	012345678910	↓	↓	6/8-9/21

6/10/21

COMMENTS & SPECIAL REQUIREMENTS:

Notes:

: Metals*: Al, Ba, As, Cd, Cr, Cu, Fe, Pb, Ni, Se, Ag & Zn

: No Chlorine

Preservative Added & Checked

0=ice	7=FAS
1=H2SO4 pH<2	8=ZnAc
2=HNO3 pH<2	9=NaOH pH>12
3=HCl pH<2	10=NH4Cl
4=Na2S2O3	
5=NaOH pH>9	
6=Ascorbic Acid	

	Time	Date
Person Assuming Responsibility for Sample(s):	1pm	6/9/21
Relinquished By: / Received By:	10:20	6/10/21
Relinquished By: / Received By:		
Relinquished By: / Received By:		

Matrix:

A=aqueous	F=multiphasic
B=aqueous (chlorinated)	G=solvent
C=soil	H=biota
D=sediment	I=oil
E=sludge	J=other

Survey Complete? Y ☑ N ☐

Temp = 3.4°C on ICE-A 6/10/21

US EPA REGION 2 LABORATORY

CHAIN OF CUSTODY/ FIELD DATA FORM

SURVEY NAME & LOCALITY ___ Henkel (formerly Zotos International)

PROJECT LEADER _____ Thuan Tran

PROGRAM: SF ☐ : SITE ID _____ OPERABLE UNIT _____ PROGRAM RESULTS CODE _____

Decision	RCRA ☐	RCRA ENF ☐	NPDES ☐	SDWA ☐	AM ☐	CAA ☐	TSCA ☐	OD ☐	FIFRA ☐	CRIMINAL ENF ☐
Unit Code Y206	D210	D307	B304 X	C215	B224	A305	L306	B253		

Permit #: ___NYP000301_____

LAB ID/ FIELD ID	# OF CONTAINERS	MATRIX	CHECK IF SPLIT SAMPLE	DESCRIPTION & INSTRUCTIONS INCLUDING LOCATION, ESTIMATED CONCENTRATIONS, SPECIAL REPORTING LIMITS,		Res CL Checked	Preservative (circle)	Collection Time (24hr clock) Begin	End	Collection Date mm/dd/yy
TRIP BLANK	3	A	☑	3, 40-ml clear glass vials	Grab	2106018-03 ☐	0 1 2 3 4 5 6 7 8 9 10	10:21A		6/7/2021
			☐			6/9/21 ☐	0 1 2 3 4 5 6 7 8 9 10			
Pretreated Discharge - Grab	12 15	A	☑	3, 1-Liter WM clear jars: O&G	Grab	-04 ☐	0 3	9:30A		6/9/2021
			☑	3, 40-ml clear glass vials: VOAs	Grab #1	-05 ☐	0 1 2 3 4 5 6 7 8 9 10	11:35A		6/8/2021
			☑	3, 40-ml clear glass vials :VOAs	Grab #2	-06 ☐	0 1 2 3 4 5 6 7 8 9 10	8:45A		6/8/2021
			☑	3, 40-ml clear glass vials: VOAs	Grab #3	-07 ☐	0 1 2 3 4 5 6 7 8 9 10	9:15A		6/8/2021
			☐	3, 40-ml clear glass vials: VOAs	Grab #4	6/10/21 ☐	0 1 2 3 4 5 6 7 8 9 10	6/9/21		~~6/9/2021~~
			☐			☐	0 1 2 3 4 5 6 7 8 9 10			
			☐			6/9/21 ☐	0 1 2 3 4 5 6 7 8 9 10			
			☐			☐	0 1 2 3 4 5 6 7 8 9 10			

COMMENTS & SPECIAL REQUIREMENTS:

Notes:

VOAs Grab #1 thru #3 must be laboratory composite.

No Chlorine

(*) Lab composite Grab #1,2,3 = 2106018-08 @ 6/10/21

Preservative Added & Checked

0=ice
1=H2SO4 pH<2
2=HNO3 pH<2
3=HCl pH<2
4=Na2S2O3
5=NaOH pH>9
6=Ascorbic Acid
7=FAS
8=ZnAc
9=NaOH pH>12
10=NH4Cl

		Time	Date
Relinquished By:	Person Assuming Responsibility for Sample(s):	1pm	6/9/21
Relinquished By:	Received By:	10:20	6/10/21
Relinquished By:	Received By:		

Matrix:

A=aqueous
B=aqueous (chlorinated)
C=soil
D=sediment
E=sludge
F=multiphasic
G=solvent
H=biota
I=oil
J=other

Survey Complete? Y ☑ N ☐

revised 10/25/2004

Attachment #6. Analytical data from the sampling inspection was received on July 7, 2021.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory
2890 Woodbridge Avenue
Edison , New Jersey 08837
732-906-6886 Phone
732-906-6165 Fax

July 07, 2021

Philip Cocuzza
Monitoring & Assessment Branch
LSASD/MAB
Edison, NJ 08837

RE: Henkel (formerly Zotos Intn'l - 2106018

Enclosed are the results of analyses for samples received by the laboratory on 06/10/2021. The signature below reflects the laboratory's approval of the reported results. If you have any questions concerning this report, please refer to Project Number 2106018 and contact the laboratory.

Sincerely,

Gregory J. Santacroce
Acting Chief, LSASD/LB

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: Henkel (formerly Zotos Intn'l - 2106018

Project Number: 2106018

Project Narrative:

The National Environmental Laboratory Accreditation Conference Institute (TNI) is a voluntary environmental laboratory accreditation association of State and Federal agencies. TNI established and promoted a National Environmental Laboratory Accreditation Program (NELAP) that provides a uniform set of standards for the generation of environmental data that are of known and defensible quality. The EPA Region 2 Laboratory is NELAP accredited. The Laboratory tests that are accredited have met all the requirements established under the TNI Standards.

Condition Comments

Hexavalent Chromium - Sample 2106018-01 was received by the laboratory after the holding time had expired. In addition, the sample matrix spike was below acceptance criteria. The sample results are qualified with a J as estimated.

VOA analysis - Sample 2106018-08 foamed excessively at analysis. A dilution was done in order to analyze without damaging instrumentation. This resulted in an RL of 250 ug/L.

Comment(s):

The "Sample Analysis Date and Time" is included in the results section for any analyte with a prescribed holding time of 72 hours or less.

Data Qualifier(s):

U- The analyte was not detected at or above the Reporting Limit.
J- The identification of the analyte is acceptable; the reported value is an estimate.
K- The identification of the analyte is acceptable; the reported value may be biased high.
L- The identification of the analyte is acceptable; the reported value may be biased low.
NJ- There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate.

Final Report

Project: Henkel (formerly Zotos Intn'l - 2106018

Project Number: 2106018

Reporting Limit(s):

The Laboratory was able to achieve the appropriate limit for each analyte requested.

SUMMARY REPORT FOR SAMPLES

Field ID	Laboratory ID	Matrix	Date Sampled	Date Received
Pretreated Discharge-24-Hr Comp.	2106018-01	Aqueous	06/09/2021 09:47	06/10/2021 10:20
Pretreated Discharge-3Xs G-C	2106018-02	Aqueous	06/09/2021 09:15	06/10/2021 10:20
TRIP BLANK	2106018-03	Aqueous	06/07/2021 10:21	06/10/2021 10:20
Pretreated Discharge - Grab	2106018-04	Aqueous	06/09/2021 09:30	06/10/2021 10:20
Pretreated Discharge(Lab Composite-C	2106018-08	Aqueous	06/10/2021 00:01	06/10/2021 10:20

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: Henkel (formerly Zotos Intn'l - 2106018

Project Number: 2106018

SUMMARY REPORT FOR METHODS

Analysis	Method	Certification	Matrix
624.1 VOA EPA-NPDES	EPA 624.1 SOP C-89 Rev 3.6	NELAP	Aqueous
Biochemical Oxygen Demand	SM 5210B SOP C-21 Rev 2.7	NELAP	Aqueous
Chemical Oxygen Demand	EPA 410.4 SOP C-53 Rev 2.7	NELAP	Aqueous
Chromium, Hexavalent	HACH 8023 SOP C-96 Rev 2.7	NELAP	Aqueous
Cyanide, Total	EPA 335.4 SOP C-28 Rev 2.7	NELAP	Aqueous
Mercury	EPA 245.1 SOP C-110 Rev 2.7	NELAP	Aqueous
Metals ICP TAL NPDES/DW	EPA 200.7 SOP C-109 Rev 3.6	NELAP	Aqueous
Oil & Grease	EPA 1664A SOP C-126 Rev 1.6	NELAP	Aqueous
Organic Carbon	SM 5310 B SOP C-83 Rev 2.8	NELAP	Aqueous
Phenolics, Total	EPA 420.4 SOP C-29 Rev 2.7	NELAP	Aqueous
Phosphorus	EPA 365.1 SOP C-68 Rev 2.7	NELAP	Aqueous
Sulfide	SM 4500 S2 D SOP C-115 Rev 2.7	NELAP	Aqueous
Residue, Non-Filterable	SM 2540D SOP C-33 Rev 3.7	NELAP	Aqueous

Final Report

Project: Henkel (formerly Zotos Intn'l - 2106018

Project Number: 2106018

Analyte	Result	Qualifier	Reporting Limit	Units	Date and Time of Analysis*
Field ID: Pretreated Discharge-24-Hr Comp.				Sample ID: 2106018-01	
Metals ICP					
Aluminum	1870		100	ug/L	
Arsenic	---	U	8.00	ug/L	
Barium	---	U	100	ug/L	
Cadmium	---	U	3.00	ug/L	
Chromium	---	U	5.00	ug/L	
Copper	13.4		10.0	ug/L	
Iron	469		50.0	ug/L	
Lead	---	U	8.00	ug/L	
Nickel	---	U	20.0	ug/L	
Selenium	---	U	20.0	ug/L	
Silver	---	U	5.00	ug/L	
Zinc	50.8		20.0	ug/L	
Mercury CVAA					
Mercury	---	U	0.050	ug/L	
Sanitary					
Biochemical Oxygen Demand	389		2.00	mg/L	6/10/2021 10:56:00AM
Chemical Oxygen Demand	967		200	mg/L	
Chromium, Hexavalent	23.8	J	10.0	ug/L	6/10/2021 11:04:00AM
Organic Carbon	273		10.0	mg/L	
Phosphorus	0.191		0.0500	mg/L	
Sulfide	0.307	L	0.0100	mg/L	
Residue, Non-Filterable	34.0		10.0	mg/L	
Field ID: Pretreated Discharge-3Xs G-C				Sample ID: 2106018-02	
Sanitary					
Cyanide, Total	---	U	10.0	ug/L	
Phenolics, Total	6590		200	ug/L	

Final Report

Project: Henkel (formerly Zotos Intn'l - 2106018

Project Number: 2106018

Analyte	Result	Qualifier	Reporting Limit	Units	Date and Time of Analysis*
Field ID: TRIP BLANK				Sample ID: 2106018-03	
VOA GCMS					
Chloromethane	---	U	5.00	ug/L	
Vinyl Chloride	---	U	5.00	ug/L	
Bromomethane	---	U	5.00	ug/L	
Chloroethane	---	U	5.00	ug/L	
Trichlorofluoromethane	---	U	5.00	ug/L	
1,1-Dichloroethene	---	U	5.00	ug/L	
Methylene Chloride	---	U	5.00	ug/L	
Acrylonitrile	---	U	5.00	ug/L	
trans-1,2-Dichloroethene	---	U	5.00	ug/L	
1,1-Dichloroethane	---	U	5.00	ug/L	
Acetone	---	U	10.0	ug/L	
Chloroform	---	U	5.00	ug/L	
1,1,1-Trichloroethane	---	U	5.00	ug/L	
Carbon Tetrachloride	---	U	5.00	ug/L	
1,2-Dichloroethane	---	U	5.00	ug/L	
Benzene	---	U	5.00	ug/L	
Trichloroethene	---	U	5.00	ug/L	
1,2-Dichloropropane	---	U	5.00	ug/L	
Bromodichloromethane	---	U	5.00	ug/L	
cis-1,3-Dichloropropene	---	U	5.00	ug/L	
Toluene	---	U	5.00	ug/L	
trans-1,3-Dichloropropene	---	U	5.00	ug/L	
1,1,2-Trichloroethane	---	U	5.00	ug/L	
Tetrachloroethene	---	U	5.00	ug/L	
Dibromochloromethane	---	U	5.00	ug/L	
Chlorobenzene	---	U	5.00	ug/L	
Ethylbenzene	---	U	5.00	ug/L	
Bromoform	---	U	5.00	ug/L	

Final Report

Project: Henkel (formerly Zotos Intn'l - 2106018

Project Number: 2106018

Analyte	Result	Qualifier	Reporting Limit	Units	Date and Time of Analysis*
Field ID: TRIP BLANK				Sample ID: 2106018-03	
VOA GCMS					
1,1,2,2-Tetrachloroethane	---	U	5.00	ug/L	
1,3-Dichlorobenzene	---	U	5.00	ug/L	
1,4-Dichlorobenzene	---	U	5.00	ug/L	
1,2-Dichlorobenzene	---	U	5.00	ug/L	
m,p-Xylene	---	U	5.00	ug/L	
o-Xylene	---	U	5.00	ug/L	
Field ID: Pretreated Discharge - Grab				Sample ID: 2106018-04	
GC - Sanitary					
Oil & Grease	90.2	J	6.20	mg/L	
Field ID: Pretreated Discharge(Lab Composite-Grab#1,2				Sample ID: 2106018-08	
VOA GCMS					
Chloromethane	---	U	250	ug/L	
Vinyl Chloride	---	U	250	ug/L	
Bromomethane	---	U	250	ug/L	
Chloroethane	---	U	250	ug/L	
Trichlorofluoromethane	---	U	250	ug/L	
1,1-Dichloroethene	---	U	250	ug/L	
Methylene Chloride	---	U	250	ug/L	
Acrylonitrile	---	U	250	ug/L	
trans-1,2-Dichloroethene	---	U	250	ug/L	
1,1-Dichloroethane	---	U	250	ug/L	
Acetone	30400	J	500	ug/L	
Chloroform	---	U	250	ug/L	
1,1,1-Trichloroethane	---	U	250	ug/L	
Carbon Tetrachloride	---	U	250	ug/L	
1,2-Dichloroethane	---	U	250	ug/L	
Benzene	---	U	250	ug/L	

Final Report

Project: Henkel (formerly Zotos Intn'l - 2106018

Project Number: 2106018

Analyte	Result	Qualifier	Reporting Limit	Units	Date and Time of Analysis*
Field ID: Pretreated Discharge(Lab Composite-Grab#1,2					Sample ID: 2106018-08
VOA GCMS					
Trichloroethene	---	U	250	ug/L	
1,2-Dichloropropane	---	U	250	ug/L	
Bromodichloromethane	---	U	250	ug/L	
cis-1,3-Dichloropropene	---	U	250	ug/L	
Toluene	---	U	250	ug/L	
trans-1,3-Dichloropropene	---	U	250	ug/L	
1,1,2-Trichloroethane	---	U	250	ug/L	
Tetrachloroethene	---	U	250	ug/L	
Dibromochloromethane	---	U	250	ug/L	
Chlorobenzene	---	U	250	ug/L	
Ethylbenzene	---	U	250	ug/L	
Bromoform	---	U	250	ug/L	
1,1,2,2-Tetrachloroethane	---	U	250	ug/L	
1,3-Dichlorobenzene	---	U	250	ug/L	
1,4-Dichlorobenzene	---	U	250	ug/L	
1,2-Dichlorobenzene	---	U	250	ug/L	
m,p-Xylene	---	U	250	ug/L	
o-Xylene	---	U	250	ug/L	