

UNITED STATES MARINE CORPS

MARINE CORPS BASE HAWAII BOX 63002 KANEOHE BAY HAWAII 96863-3002

> IN REPLY REFER TO 5090 LFE/006-24 January 25, 2024

Mr. Darryl Lum, P.E., Chief Clean Water Branch State of Hawaii Department of Health 2827 Waimano Home Road Pearl City, Hawaii 96782

Dear Mr. Lum:

SUBJECT: MARINE CORPS BASE HAWAII STORM WATER MANAGEMENT PROGRAM ANNUAL MONITORING REPORT – FISCAL YEAR 23

INTRODUCTION

In accordance with Part G.2 of National Pollutant Discharge Elimination System (NPDES) Permit No. HI S000007, Marine Corps Base Hawaii (MCBH) has prepared the following Storm Water Management Program (SWMP) annual monitoring report. This monitoring report summarizes monitoring activities conducted in accordance with MCBH's Municipal Separate Storm Sewer (MS4) Permit requirements for Fiscal Year (FY) 2023 (October 1, 2022, to September 30, 2023). In March 2023, MCBH published the revised SWMP Plan which was designed to address the requirements of the permit and reduce, to the Maximum Extent Practicable (MEP), the discharge of pollutants to and from MCBH's MS4 to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act (CWA). Additionally, the SWMP Plan incorporates all requirements established in the Federal Facilities Compliance Agreement (FFCA) between MCBH and the U.S. Environmental Protection Agency, Region 9 (EPA).

Part G.2.b.(1) Discussion on the activities/work implemented to meet each objective, as outlined in Part F.1.a, including any additional objectives identified by the Permittee, and the results [e.g., assessment of the water quality issues in each watershed resulting from storm water discharges, refer to Part F.1.a.(7)] and conclusions.

MCBH's Annual Monitoring Plan, prepared in accordance with Part F.1.a of NPDES Permit No. HI S000007, was submitted to the Hawaii Department of Health (HDOH) Clean Water Branch (CWB) on May 24, 2023 (LFE/073-23). The objectives outlined in the annual monitoring plan were developed in accordance MCBH's SWMP Plan (LFE/71-2022) and individual Stormwater Pollution Prevention Plans (SWPPPs) for industrial and commercial facilities. A discussion of the activities and work completed in FY 23 to meet each objective as outlined in part F.1.a. is provided below.

Objective 1: Assess compliance with this permit (including TMDL Implementation and Management Plans and demonstrating consistency with Wasteload Allocations, if required).

The monitoring provisions of the Permit are intended to conform to existing discharge prohibitions, numeric and narrative effluent limitations, and any applicable water quality standards for the receiving waters. MCBH must sample the industrial facilities for their applicable pollutants as described

in the permit, SWMP Plan and SWPPPs. Compliance is assessed by comparing the analytical results with numerical water quality (chemistry values) limits under sector specific requirements defined in the permit. NPDES Permit No. HI S000007 does not include any Total Maximum Daily Load (TMDL) Implementation and Management Plans or Wasteload Allocations (WLA). The Permit does include the following four types of required analytical monitoring:

(1) Quarterly Benchmark Monitoring

The quarterly benchmark monitoring data are primarily used to determine the overall effectiveness of MCBH's control measures and may be used to determine when additional corrective actions may be necessary. Benchmark exceedances are not permit violations; however, if corrective action is required as a result of a benchmark exceedance, failure to conduct the required action is a permit violation. Benchmark monitoring is sector specific and MCBH conducts quarterly benchmark sampling at Sector L (Landfills, Land Application Sites and Open Dumps), Sector N (Scrap Recycling and Waste Recycling Facilities), and Sector Q (Water Transportation) industrial facilities.

Autosamplers are deployed at three of four benchmark sites to automatically collect quarterly benchmark samples for laboratory analysis: Sanitary Landfill, Recycling Center, and WFO Lab/Boat Shop. The fourth benchmark sampling site (Small Boat Harbor) relies on manual sampling during a storm event. Table 1 summarizes quarterly benchmarking monitoring efforts for MCBH's four sector-specific monitoring sites. Samples were not collected from the sanitary landfill in FY 23 as no stormwater discharge was observed. Samples were also not collected from the small boat harbor as rain events either occurred on short notice or at night during FY 23. MCBH has initiated the process of adding an autosampler to this site in FY 24.

Table 1 – Summary of FY 23 Quarterly Benchmark Monitoring

Location	Sampling Quarter	Sample Collection Date
	Oct-Dec 2022	С
Sanitary Landfill 002	Jan-Mar 2023	С
(Sector L)	Apr-Jun 2023	С
	Jul-Sep 2023	C
	Oct-Dec 2022	19-Oct-2022
Recycling Center (Bldg. 132) 007	Jan-Mar 2023	28-Mar-2023
(Sector N)	Apr-Jun 2023	16-Jun-2023
	Jul-Sep 2023	14-Sep-2023
	Oct-Dec 2022	C
WFO Lab/Boat Shop (Bldg. 6802) 008	Jan-Mar 2023	27-Jan-2023
(Sector Q)	Apr-Jun 2023	16-Jun-2023
	Jul-Sep 2023	14-Sep-2023
	Oct-Dec 2022	С
Small Boat Harbor (Bldg. 1698) 009	Jan-Mar 2023	С
(Sector Q)	Apr-Jun 2023	С
	Jul-Sep 2023	С

C – Not Data Indicator (NODI) – No Discharge

(2) Annual Effluent Limitations Guidelines Monitoring

In accordance with Appendix 1, Part 6.2.2 of NPDES Permit No. HI S000007, MCBH conducts annual effluent monitoring at the on-base landfill. However, as described above, no discharge was observed in FY 23. The lack of an observed discharge is typical at the landfill's two discharge points (Outfall IDs LF-1 and LF-2) because flow is first routed through a detention basin and only significant storms will pass through. MCBH will continue to maintain an autosampler at the landfill discharge point in the event a sample can be collected in FY 24.

Table 2 – Summary of FY2023 Annual Effluent Limitations Monitoring

Location	Sampling Period	Sample Collection Date
Sanitary Landfill 002(Sector L)	Oct-2022 to Sep 2023	С

C – Not Data Indicator (NODI) – No Discharge

(3) Impaired Waters Monitoring

In June 2022, the U.S. EPA approved HDOH's 2022 Integrated Report which included the State's Clean Water Act Section 303(d) list of impaired waterbodies. None of the waterbodies identified in NPDES Permit No. HI S000007 (Kaneohe Bay, Nuupia, Halekou, and Kalapuhi Ponds, Kailua Bay, and Mokapu Central Drainage Channel) are included in the latest version of the 303(d) list. Therefore, no impaired waters monitoring is required at this time. However, MCBH will continue to monitor HDOH and U.S. EPA efforts to identify and list impaired water bodies and will implement a sampling program in the future if necessary.

(4) Other Monitoring as required by the HDOH

No additional monitoring is required by the HDOH at this time. However, in accordance with Appendix 1, Part 6.2.5 of NPDES Permit No. HI S000007, MCBH will continue to coordinate with HDOH regarding any future monitoring requirements.

Objective 2: Ensure that practices to control pollutants in storm water discharges are evaluated and revised, as necessary, to meet changing conditions at MCBH.

The monitoring program is intended to provide information that can be used to reflect changes in facilities, operational procedures, or materials handled that could lead to changes in the quality of storm water discharges. Visual observations were made during the quarterly benchmark monitoring. Sediment collection devices at WFO Lab/Boat Shop appeared to effectively remove excessive sediment from the large trench drain at the site, resulting in the site meeting the Sector Q Benchmark Monitoring Concentrations. The detention basin at the landfill prevented any stormwater discharge during the year.

In addition to the Permit required monitoring, the MCBH Environmental Compliance and Protection Division (ECPD) conducts routine inspections of all facilities on-base (including permitted industrial and commercial operations) annually (at a minimum) and identifies additional practices for military units to implement that may further control pollutants from entering the MS4. If ECPD identifies a potential pollutant pathway or illicit discharge, a corrective action plan is developed and implemented

(*i.e.*, temporary vs. permanent corrective measures). Most issues identified during ECPD inspections are associated with the rapid turnover of base personnel (typically two years) and a lack of continuity between responsible parties. To address this issue, ECPD is focusing on training, coordination, and outreach within the MCBH community. Further assessment of these efforts is discussed in the SWMP Annual Report (LFE/007-24)

Objective 3: Measure the effectiveness of the Permittee's SWMP Plan.

In February 2022, MCBH submitted the Program Effectiveness Assessment Plan (PEAP) for NPDES Permit No HI S000007 to HDOH. As part of the PEAP, water quality assessments (Outcome Levels 5 and 6) are conducted as part of MCBH's ongoing monitoring program. As data is collected over time, the results can be used to evaluate long-term trends in pollutant reductions and assist in determining the effectiveness of the various programs in the SWMP Plan. MCBH may also utilize water quality monitoring analysis results conducted by other agencies such as the City and County of Honolulu (CCH), the United States Geological Survey (USGS), and HDOH to provide a comparison between discharges from the MS4 and water quality in receiving waters. The water quality monitoring results from sampling the MS4 will be used to compare relative contributions and progress towards improving water quality. The monitoring program provides data assessment measures to assess the program at levels 4 through 6 and sets the framework for an integrated assessment between all outcome levels.

Objective 4: Qualitatively measure the effectiveness of BMPs in preventing minimizing or removing pollutants in storm water discharges.

The SWMP Plan requires implementation of Best Management Practices (BMPs) that are selected on a site-by-site basis to reduce storm water pollutants from certain identified sources. The process of evaluating sources and selecting BMPs is usually done prior to wet weather. Thus, certain decisions are made without the benefit of visual observations and analytical results. In addition, storm water quality BMPs may not result in a predictable reduction in pollutant concentrations. Analytical and visual monitoring should eventually provide a means for evaluating the effectiveness of selected BMPs. Site-specific BMPs are evaluated during ECPD's facility inspections discussed above. In general, BMPs employed throughout MCBH are an effective measure in preventing, minimizing, or removing pollutants in storm water discharges.

During significant storm events, ECPD conducts a thorough base-wide assessment of the MS4 and often deploys temporary BMPs in problem areas. For example, ECPD maintains a supply of sorbent filter socks to place around storm drain inlets when storm flow exceeds a permanent BMP's effectiveness. If an area presents a significant potential for repeated pollutant discharge (typically sediment), the temporary BMP is maintained and assessed continuously until a permanent BMP or remedy can be implemented.

Objectives 5/6/7: Assess the overall health based on the chemical, physical, and biological impacts to receiving waters resulting from storm water discharges and an evaluation of the long-term trends; characterize stormwater discharges; Identify sources of specific pollutants.

During FY 23, MCBH attempted to collect benchmark monitoring samples in accordance with the Permit from the four monitoring locations as shown in Table 1. As discussed above, samples were not collected from the sanitary landfill or small boat harbor as no stormwater discharge was observed. FY 23

benchmark monitoring data from the two facilities where samples were able to be collected (WFO/Boat Lab – Building 6802 and Recycling Center – Building 132) are presented in Table 3.

Table 3 Benchmark Monitoring Sample Results

			Sector Q - Water	BLDG 6802	BLDG 6802	BLDG 6802	BLDG 6802	BLDG 6802
Analyte	Method	Units	Transportation Benchmark	FY 23 Q3	FY 23 Q4	FY 24 Q3	FY 23 Q4	AVERAGE
			Limits	Result	Result	Result	Result	Result
Aluminum	200.8_CWA	mg/L	0.75	С	1.1	0.31	0.072	0.4
Iron	200.8_CWA	mg/L	1	С	1.1	0.4	0.063 J	0.5
Lead	200.8_CWA	mg/L	0.21	С	0.055	0.0064	0.0026	0.0176
Zinc	200.8_CWA	mg/L	0.09	С	0.12	0.041	0.027	0.057
			Sector N -	BLDG 132	BLDG 132	BLDG 132	BLDG 132	BLDG 132
Analyte	Method	Units	Scrap Recycling Benchmark	FY 23 Q1	FY 23 Q2	FY 23 Q3	FY 23 Q4	AVERAGE
			Limits	Result	Result	Result	Result	Result
Aluminum	200.8_CWA	mg/L	0.75	1.2	1.5	1.4	0.7	1.2
Copper	200.8_CWA	mg/L	0.0048	0.032	0.04	0.047	0.02	0.035
Iron	200.8_CWA	mg/L	1	1.6	2.3	2	1	1.7
Lead	200.8_CWA	mg/L	0.21	0.0051	0.0093	0.01	0.0022	0.0067
Zinc	200.8_CWA	mg/L	0.09	0.054	0.11	0.1	0.025	0.072
Total Suspended Solids (TSS)	2540D	mg/L	100	17	35	20	5	19
Chemical Oxygen Demand (COD)	5220D	mg/L	120	38	15	39	39	33

Notes

Results with bold red text indicates a benchmark exceedance.

- J Result exceeded Method Detection Limit (MDL) but fell below Laboratory Reporting Limit (MRL).
- C NODI No Discharge mg/L milligrams per liter

Data not exceeding benchmarks: After collection of four quarterly samples, if the average of the four monitoring values for any parameter does not exceed the benchmark, MCBH has fulfilled monitoring requirements for that parameter for the permit term. During FY 23 there were no samples collected at the landfill and building 1698 (small boat repair). There were samples collected quarters 2 through 4 for building 6802 (WFO boat lab). Results from building 6802 indicate that the benchmarks for this location in Sector Q will likely be met during FY 24 sampling. Sampling will continue at all four locations, but the need to continue benchmark monitoring (site- and parameter-specific) will be re-evaluated in the FY 24 Annual Monitoring Plan.

Data exceeding benchmarks: After collection of four quarterly samples, if the average of the four monitoring values for any parameter exceeds the benchmark, reviewing the selection, design, installation, and implementation of control measures is done to determine if modifications are necessary to meet the effluent limits in this permit, and either:

- Make the necessary modifications and continue quarterly monitoring until four additional quarters of monitoring are completed for which the average does not exceed the benchmark; or
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology-based effluent limits or are necessary to meet the water-quality-based effluent limitations, in which case monitoring must continue once per year. Furthermore, documentation of the rationale for concluding that no further pollutant reductions are achievable must be completed and all records related to this documentation shall be retained with the site SWPPP.

Control measures must be reviewed, and any required corrective action performed immediately (or document why no corrective action is required), without waiting for the full four quarters of monitoring data, when an exceedance of the four-quarter average is mathematically certain. If after modifying control measures and conducting four additional quarters of monitoring, the average still exceeds the benchmark (or if an exceedance of the benchmark by the four-quarter average is mathematically certain prior to conducting the full four additional quarters of monitoring), review of control measures will be conducted and take one of the two actions above. Benchmark monitoring Data from Building 132, recycling center indicate that aluminum, copper, and iron failed to meet benchmark criteria. All other analyses met the criteria.

The exceedances reported at the Recycling Center align with the reported TSS values. The metals that failed to meet the benchmark criteria are found in Hawaii soils at similar proportions to the values measured in the monitored samples. Data from the HDOH Hazard Evaluation and Emergency Response (HEER) Office's Soil Background Study indicate that soil samples from nearby soils are composed of approximately the following percentages:

Table 4 – Kaneohe Area Metals in Background Soils

Metal	% composition
Copper	0.013
Lead	0.00033
Zinc	0.0062
Aluminum	0.8
Iron	4.6

Based on the allowable benchmark TSS value of 100 mg/L, the following conclusions can be predicted based on runoff containing native soil:

Table 5 – Predicted Metals Concentrations from Soil in Storm Water

Predicted SW	(mg/L)	Bldg. 132 NTEs	Likely to Exceed Factor
Copper	0.013	0.0048	3
Lead	0.00033	0.21	0.0
Zinc	0.0062	0.09	0.1
Aluminum	0.8	0.75	1
Iron	4.6	1	5

NTEs: Non-essential Trace Elements

The actual water sampling results presented in Table 2 indicate that exceedances occur as would be predicted from naturally occurring background metals in the regional soils. Actual pollutants from the site would likely yield a higher concentration than measured. Further work obtaining background soil values around the site is planned for FY 24.

Objective 8: Detect and eliminate illicit discharges and illegal connections to the MS4.

Detections of chemical pollutants were evaluated as potential illicit connections or illegal discharges. The pollutants detected at the two sampled sites did not indicate any illicit discharges. MCBH contracted Element Environmental (E2) to perform an industrial inspections illicit discharge training in 2023. Although not a specific illicit discharge survey, one component of the industrial inspections was to observe potential illegal connections to the MS4. As discussed above, no contaminants were discovered above what would be anticipated from the background. See Enclosure 2 for the location of all industrial facilities at MCBH.

During FY 23 the ECPD team completed 51 inspections of construction sites with no Critical findings, 27 Major deficiencies, and 51 Minor deficiencies. There were 24 inspections at industrial sites and 6 inspections at commercial sites with no Critical findings. All inspections were completed, and all deficiencies were corrected in the appropriate time frame in accordance with the Enforcement Response Plan (SWMP Plan Appendix 3-4). There were not no illegal connections found during any site inspections. Four illicit discharges were identified and reported to HDOH in FY 23:

- December 7, 2022: 1,000-gallons of untreated effluent spilled from a manhole into residential housing lawns and the MS4. (LFE/156-22)
- February 5, 2023: 750-gallons of untreated effluent spilled from a manhole into Lawrence Road and the MS4. (LFE/155-23)
- March 27, 2023: An oily sheen was observed discharging into a storm drain from a malfunctioning oil water separator. (LFE/045-23)
- June 19, 2023: 500-gallons of untreated effluent spilled from a manhole into an asphalt parking lot and the MS4. (LFE/086-23).

Additional preventative measures have been taken by the MCBH Facilities department to address the recurring untreated effluent spills including routine maintenance on lift stations and working with ECPD to develop outreach programs to address sewage blockages (*e.g.*, what not to flush).

Objective 9: Assess the water quality issues in watershed resulting from storm water discharges to receiving waters.

Receiving water quality was assessed in the by comparing numerical water quality chemistry values to the allowable limits provided in the permit (see Table 3). Additional water quality assessment is conducted through quarterly visual sampling at MCBH's industrial facilities in accordance with the SWPPs submitted to HDOH in March 2023 (SWMP Plan Appendix 11-2). MCBH's quarterly visual assessment program is still being implemented. Several site-specific sampling points routinely have no discharge and therefore were unable to be evaluated. These sites and the entire quarterly visual assessment program will be reevaluated in FY 24. A full assessment of the program, including a summary of the results will be included in the FY 24 Annual Monitoring Report.

Part G.2.b.(2) Written narrative of the past fiscal year's activities, including those coordinated with other agencies, objectives of activities, results and conclusions.

During FY 23 MCBH coordinated with EPA on the implementation of the FFCA agreement to ensure compliance with all requirements. In accordance with Section 41 of the FFCA, MCBH contracted with an independent, third-party to complete a full compliance audit of the base's stormwater management program. The Audit Summary Response (LFE/132-23) was submitted to the EPA and DOH in October 2023. No critical or major deficiencies were identified during the third-party evaluation. Additional FFCA stormwater submittals prepared in FY 23 are summarized below in Table 6.

Table 6 – Federal Facilities Compliance Agreement FY 23 Requirements

Section	Requirement	Completed Date	Description
Training and Outreach	33.a. Employee Survey and Awareness Survey	10/18/2023	ECPD surveyed all ECC's to assess their knowledge regarding storm water awareness and pollution prevention. Each year MCBH shall ensure that no less than 80% of the ECC's respond to the survey. See FFCA Section 33.a. for more details.
Training and Outreach	33.c. Illicit Discharge Detection and Elimination Program Training - SW Personnel	1/31/2023	ECPD received specialized training from a Qualified Consultant. See Section 33.c. for training requirements.
Training and Outreach	33.d. Illicit Discharge Detection and Elimination Program Training - ECC Personnel	10/18/2023	ECPD provided IDDE training (covered in Section 33.c.) to the ECC's (including Spill Response and On-Base Housing Personnel) (80% Attendance REQUIRED). ECC's were instructed to disseminate information provided in training to individuals in their organization.
Asset Management System	34.b. Asset Management System - Storm Sewer System Map Schedule Approval	10/26/2022	MCBH submitted to EPA a schedule to develop a comprehensive GIS- based storm sewer system map. See Section 34.b. for details and requirements.
Illicit Discharge Detection and Elimination Program	35.a.i. Outfall Field Screening Plan - Plan Approval	10/28/2022	ECPD completed within 90 days from the Effective Date, MCBH submitted to EPA for review and approval, an Outfall Screening Plan. See Section 35.a.i. for details and requirements.
Illicit Discharge Detection and Elimination Program	35.a.i.5. Outfall Field Screening Plan - Implementation	3/2023	The Outfall Screening Plan was implemented.

Illicit Discharge Detection and Elimination Program	35.b.i. Storm Sewer System Inspections	4/1/2023	MCBH conducted physical inspections of the storm sewer system to identify any dry weather flows, visually observable pollutant indicators, structural defects, trash and debris accumulation, and any other potential sources of pollutants. MCBH inspected all Outfalls. See Section 35.b. for more details and requirements.
Illicit Discharge Detection and Elimination Program	35.b.i/ii. Storm Sewer System Inspections - Reporting and Record Keeping	1/30/2023	Newly identified high priority components found during the inspections have been listed in the Annual Report and documented in the Asset Management System.
Post-Construction Storm Water Management in New Development and Redevelopment Program	37.b. Post-Construction BMP Inspections	08/04/2023	ECPD conducted and documented, annual inspections of all Post-Construction BMP measures to determine if controls and BMPs are in place and functioning properly and if the operation and maintenance plan (Section 37.d.) has been fully implemented.
Post-Construction Storm Water Management in New Development and Redevelopment Program	37.c. Retrofits of Recently Completed Projects	08/04/2023	MCBH created an inventory of New Development and Redevelopment projects with ground disturbing activity that have been completed since October 15, 2014. See Section 37.c. for more details and requirements.
Third Party Audit	38.b.iii. Final Audit Report	8/11/2023	ECPD completed the Final Audit Report, along with proposed corrective actions and was submitted to EPA, with a courtesy copy to DOH.
Reporting and Sampling	41. Implantation Status of Compliance Program Elements	10/26/2022	MCBH submitted an initial written report to EPA regarding the implantation status of each element of the Compliance Program set forth in Section VI (Sections 32-38). See Section 41 for more details and requirements.
Reporting and Sampling	41. Implantation Status of Compliance Program Elements	4/20/2023	MCBH submitted a follow-up written report to EPA regarding the implantation status of each element of the Compliance Program set forth in Section VI (Sections 32-38) every one hundred eighty (180) days after the initial report. See Section 41 for more details and requirements.

Part G.2.b.(3) Data gathered on levels of pollutants in non-storm water discharges to the Permittee's MS4

There were no non-storm water samples collected during FY 23. The four illicit discharges reported in FY 23 were previously reported to HDOH and are discussed in further detail above.

Part G.2.b.(4) Using rainfall data collected by the Permittee and other agencies, the Permittee shall relate rainfall events, measured pollutant loads, and discharge volumes from the watershed and other watersheds that may be identified from time to time by the DOH or Permittee.

Rainfall data and discharge volumes were obtained from each benchmark monitoring event at each monitoring site across MCBH throughout the year. Rainfall data was obtained from automated sampling equipment using tipping rain gauges. Automated samplers were equipped with area velocity sensors to obtain discharge data. Rain data was obtained from the nearest rain gauge for samples collected manually. Manual sample discharge was calculated using the *Rules Relating to Storm Drainage* Standards, Department of Planning and Permitting, City and County of Honolulu, Honolulu, Hawaii. January 2000, revised June 2012. For discharge volume of each monitoring event, refer to the quarterly benchmark monitoring reports included as Enclosure 1.

Part G.2.b.(5) Dates when monitoring occurred for each industrial facility covered under this permit. The monitoring event shall be of a representative storm event, where results were available for all required parameters following the QA/QC measures as described in the Annual Monitoring Plan.

The Permit requires MCBH to collect and analyze samples by manual or automatic monitoring methods, from a representative storm event. A representative storm event is defined as *a storm event that produces flow and that occurs at least 72 hours after any previous storm event.* All samples were taken in accordance with the QA/QC measures described in Section 12.5 of the Annual Monitoring Plan (LFE/073-23). See Table 1 for benchmark monitoring sample dates. Quarterly benchmark monitoring reports are included as Enclosure 1.

Part G.2.b.(6) Discharge Monitoring Reports (DMRs) for industrial facilities shall be included in the Annual Monitoring Report and be submitted via NetDMR. NetDMR is a Web-based tool that allows NPDES permittees to electronically sign and submit their DMRs to EPA's Integrated Compliance Information System (ICIS-NPDES) via the Environmental Information Exchange Network. NetDMR is accessed from http://www.epa.gov/netdmr. A DMR must be submitted for the facility which is scheduled to be monitored even if sampling was not conducted. An explanation as to why sampling was not conducted shall be explained with the submittal."

DMRs were submitted via NetDMR for all sample events and copies of the submittals are included as Enclosure 3 of this report.

CONCLUSION

MCBH maintains a robust storm water monitoring program and FY 23 results reflect ECPD's efforts to reduce, to the MEP, the discharge of pollutants to and from MCBH's MS4 to protect water quality and to satisfy the appropriate water quality requirements of the CWA. MCBH will continue to implement and improve the base's monitoring program in FY 24.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines or imprisonment for knowing violations.

Should you have any questions regarding this notification, please contact Ms. Katy Smith of the MCBH ECPD at (808) 496-4359 or <u>Katherine.smith.civ@USMC.mil</u>.

Sincerely,

J. P. HART By Direction

Enclosures: 1 – FY 23 Quarterly Water Quality Monitoring Reports

2 – FY 23 MCB-Hawaii Industrial Facilities 3 – FY 23 MCB-Hawaii DMR Reports

Copy to: EPA – Andrew Zellinger

FY 23 Annual Monitoring Report

FY 23 Quarterly Water Quality Monitoring Reports



Marine Corps Base Hawaii

Kaneohe, Oahu, Hawaii

Quarterly Storm Water Report

NPDES File No. HI S000007

Final

Building 6802 WFO LAB/BOAT SHOP

February 2023

Prepared for MCBH by Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

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Acronyms and Abbreviations

°C	degrees Celsius
COD	Chemical Oxygen Demand
СТО	Contract Task Order
DL	Detection Limit
E2	Element Environmental, LLC
HAR	Hawaii Administrative Rules
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCBH	Marine Corps Base Hawaii
ug/L	Microgram per liter
mg/L	Milligram per liter
mph	Mile per hour
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
QA/QC	Quality Assurance/Quality Control
SSHP	Site Safety and Health Plan
SWPPP	Stormwater Pollution Prevention Plan
TSS	Total Suspended Solids

1.0 Project Purpose and Location

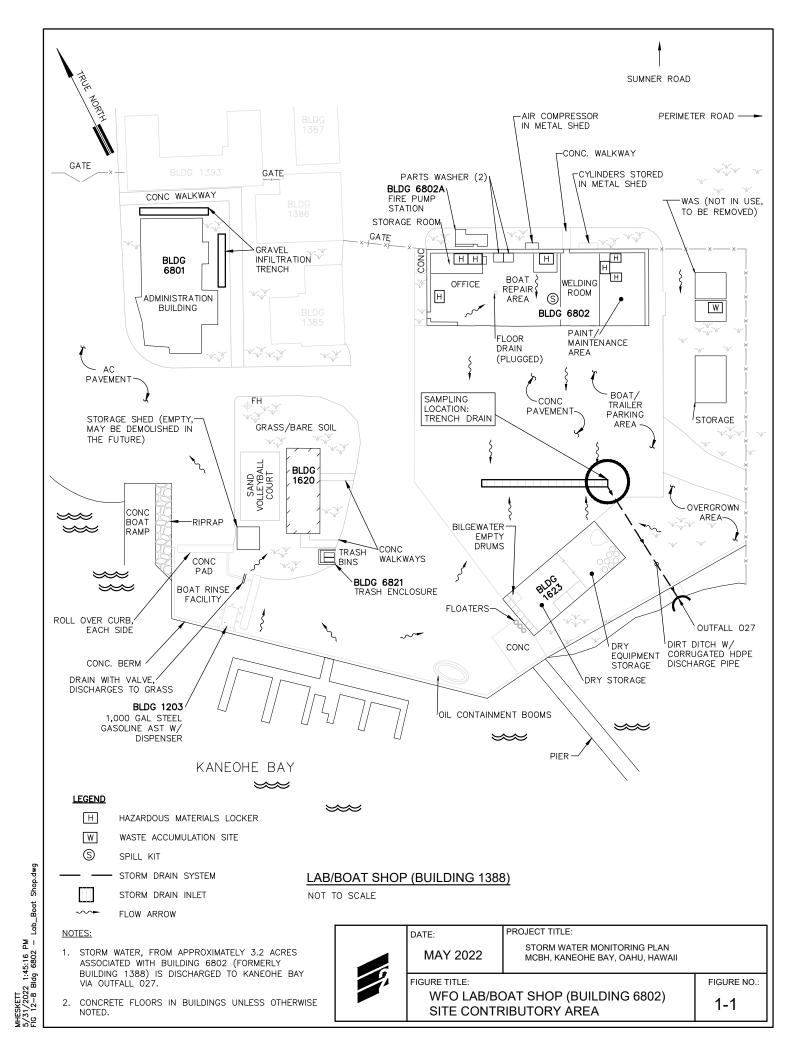
The purpose of this project is to fulfill the requirements of the National Pollutant Discharge Elimination System (NPDES), Permit Number HI S000007, which includes collection and analyses of storm water from a representative storm water event, as defined by the NPDES permit.

The NPDES program is designed to determine the presence of contaminants in surface flow of rain water from designated contributory areas at a site following representative rain events. Figure 1-1 shows the contributory area for the site.

The WFO Lab/Boat Shop, Building 6802 is considered to be under industrial activity sector Q- Water Transportation, and thus is required to perform Quarterly Benchmark Sampling. Benchmark monitoring data are primarily for MCBH's use to determine the overall effectiveness of control measures and to assist in determining when additional corrective action(s) may be necessary. A benchmark exceedance is not a permit violation, however, if corrective action is required as a result of a benchmark exceedance, failure to conduct required corrective action is a permit violation.

Quarterly Benchmark Sampling of storm water discharge from the representative sampling location at the WFO Lab/Boat Shop (Figure 1-1) will be monitored in accordance with Table 3-1 from the SWPPP. A Quarterly Visual Assessment of storm water discharge is also required for all industrial facilities at MCBH. Storm water samples for this visual assessment but must be collected in such a manner that the samples are representative of the storm water discharge from the facility. Therefore, the water sample must be collected at the designated storm water monitoring point, as shown in Figure 1-1. The Quarterly Visual Assessment checklist presented in this report shall be maintained by the current facility ECC and kept onsite as part of this Quarterly report.

All work conducted during this project was performed in accordance with the NPDES Permit Number HI S000007; and the applicable Quality Assurance/Quality Control (QA/QC) Plan and Site Safety and Health Plan (SSHP) prepared for this project. Performance Work Statement entitled "Clean Water Program Services for Marine Corps Base Hawaii, FY22" dated July 22, 2022. Work was performed by Element Environmental, LLC (E2) and its subcontractors under Contract Number N62742-17-D-1802, Contract Task Order (CTO) N6274222F0208.



2.0 Methodology and Storm Event Summary

As per the NPDES permit, stormwater samples are to be collected from a qualifying storm, defined as follows:

A minimum of one grab sample shall be collected from a discharge resulting from a measurable storm event. Samples must be collected within the first 30 minutes of a discharge associated with a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, the sample must be collected as soon as practicable after the first 30 minutes and documentation must be kept with the report explaining why it was not possible to take samples within the first 30 minutes.

Samples were collected using an ISCO automated sampler. The Storm Event Summary is shown in Table 2-1 below.

Table 2-1 Storm Event Summary

Storm Event Summary

otorni zvenit odinimar y	
Storm Event Start Date and Time	1/27/23 10:30 PM
Flow Start Date and Time	1/28/23 12:50 AM
Sample Collection Date and Time	1/28/23 12:55 AM
Event Flow Duration at Monitoring Point (hour)	3.67
Approximate Event Rainfall Duration (hour)	6.0
Event Rainfall Total (from ISCO gauge) (inch)	0.18
Drainage Area (A) (Acres)	3.2
Run-off Coefficient (C)*	0.7
Discharge Volume in gallons (Estimated using rational method)	10857
Peak Discharge (from calculation) in cubic feet per second (cfs)	0.07
Rainfall Event >0.1 during previous 72 hours?	No
Weather Conditions	moderate rainfall event
Sample Appearance	slight yellow color, some settled solids, and suspended sediments and pollen
Sample Collection Method	automated - ISCO Avalanche
Field Parameter Instrument	N/A

Note:

^{*}Runoff co-efficient for industrial areas from the *City and County of Honolulu Department of Planning and Permitting, Rules Relating to Storm Drainage Standards*, Table 4, page 52, January 2000, Revised September 2012.

3.0 Quarterly Visual Assessment

The visual assessment was conducted:

- Of a sample collected in a clean, colorless glass or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and documented why it was not possible to take the sample within the first 30 minutes; and
- For storm events, on discharges that occur at least 72 hours (three days) from the previous discharge.

The results of the Visual Assessment are shown in Table 3-1 below.

Table 3-1 Visual Assessment Form

Visual A	ssessment
Color	slight yellow
Odor	none
Clarity	clear
Oil sheen present	none
Floating Solids Present	none
Settled Solids Present	some
Suspended Solids present	sediments and pollen
Foam present	none
Other signs of pollution	none
Nature of the discharge	Storm event runoff on asphalt to trench drain
Results of observations of the storm water discharge	BMPs and stormwater pollution prevention measures appear to be working and intact.
Probable sources of stormwater contamination	Not Applicable
If applicable, why was it not possible to collect samples within the first 30 minutes	Not Applicable

4.0 Quarterly Benchmark Samples

Samples were collected from the sampling location designated in the SWPPP as seen in Figure 1-1 and submitted to the Analytical Laboratory identified in the Table 3-1 of the SWPPP. Photographs demonstrating the stormwater control measures were taken and included in Appendix A. Laboratory results are compared to their respective Benchmark values as shown in Table 4-1.

4.1.1 Data not exceeding benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter does not exceed the benchmark value, MCBH has fulfilled monitoring requirements for that parameter for the permit term.

4.1.2 Data exceeding benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter exceeds the benchmark, review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in this permit, and either:

- Make the necessary modifications and continue quarterly monitoring until four additional quarters of monitoring are completed for which the average does not exceed the benchmark; or
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology based effluent limits or are necessary to meet the water-quality-based effluent limitations, in which case monitoring must continue once per year. Furthermore, documentation of the rationale for concluding that no further pollutant reductions are achievable must be completed and all records related to this documentation shall be retained with the site SWPPP.

Control measures must be reviewed, and any required corrective action performed immediately (or document why no corrective action is required), without waiting for the full four quarters of monitoring data, when an exceedance of the four-quarter average is mathematically certain. If after modifying control measures and conducting four additional quarters of monitoring, the average still exceeds the benchmark (or if an exceedance of the benchmark by the four-quarter average is mathematically certain prior to conducting the full four additional quarters of monitoring), review of control measures must be conducted and take one of the two actions above.

Table 4-1 Quarterly Benchmark Sample Results

				BLDG	BLDG 6802	BLDG 6802	6802	BLDG	BLDG 6802	BLDG 6802	9 6802	BLDG 6802	6802
			Sector Q -Water			580-122883-1	2883-1						
Analyte	method	Units	Н	Q4 -	Q4 - 2022	Q1 - 2023	2023	Q2 - 2023	2023	G3-	Q3- 2023	AVERAGE	AGE
			Benchmark	Result	RL/ Outlife:	Result	RL/	Result	t RL	Result	Result Cuit	Result	RL/
					K uallilei		Klalllel		rualliel		ر suallilei		Juaillei
Aluminum	200.8_CWA	mg/L	0.75			1.1						1.1	
Iron	200.8_CWA	mg/L	-	_		1.1						1.1	
Lead	200.8_CWA	mg/L	0.21			0.0550						0.0550	
Zinc	200.8_CWA	T/6w	0.09			0.120						0.120	
Notoc													
NOIGS.													
Results with bold red text indicates a benchmark exceedance	ndicates a be	nchme	ark exceedance										

APPENDIX A

Photographs of Storm Event



Photo A-1. Location of autosampler and sample point

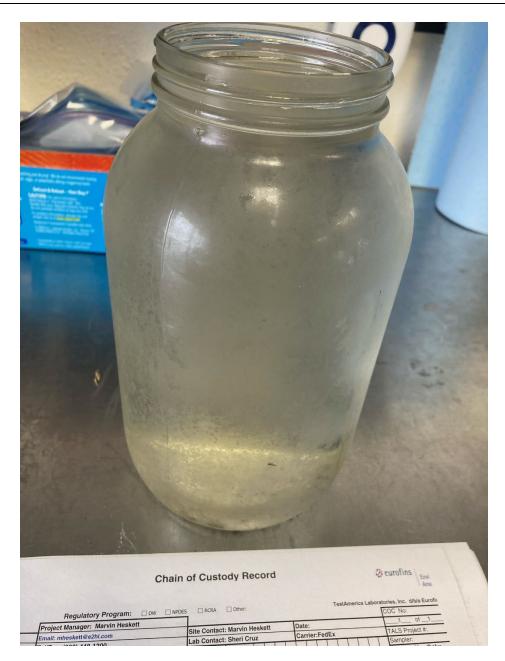


Photo A-2. 2023 Q1 Benchmark sample in 2-liter glass sample jar- side view

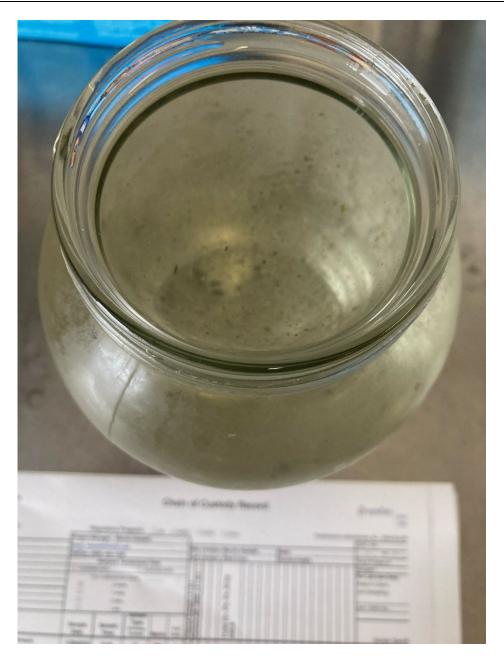


Photo A-3. 2023 Q1 Benchmark sample in 2-liter glass sample jar- top view

APPENDIX B

Analytical Laboratory Report

ANALYTICAL REPORT

PREPARED FOR

Attn: Marvin Heskett Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

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JOB DESCRIPTION

MCBH 2023 Stormwater SDG NUMBER MCBH 2023 Stormwater

JOB NUMBER

580-122883-1

Eurofins Seattle 5755 8th Street East Tacoma WA 98424



Eurofins Seattle

Job Notes

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender and destroy this report immediately. This report shall not be reproduced except in full, without prior express written approval by the laboratory.

The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Generated 2/8/2023 3:44:23 PM

Authorized for release by Katie Grant, Project Manager I Katie.Grant@et.eurofinsus.com Designee for

Sheri Cruz, Project Manager I Sheri.Cruz@et.eurofinsus.com (253)922-2310

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater

Laboratory Job ID: 580-122883-1 SDG: MCBH 2023 Stormwater

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Case Narrative

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater

Job ID: 580-122883-1 SDG: MCBH 2023 Stormwater

Job ID: 580-122883-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-122883-1

Comments

No additional comments.

Receipt

The sample was received on 1/31/2023 10:40 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.5° C.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

3

Definitions/Glossary

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Stormwater

Job ID: 580-122883-1

SDG: MCBH 2023 Stormwater

Qualifiers

M	eta	ls.

Qualifier Qualifier Description

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

LOQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DI RA RE IN	Indicates a Dilution Re-analysis Re-extraction or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

Limit of Quantitation (DoD/DOE)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent
POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Eurofins Seattle

Page 5 of 13 2/8/2023

Detection Summary

Client: Element Environmental, LLC
Project/Site: MCBH 2023 Stormwater

Job ID: 580-122883-1
SDG: MCBH 2023 Stormwater

Client Sample ID: Bldg 6802 - 2023 Q1 Benchmark

Lab S	Sample	ID:	580-1	22883-
-------	--------	-----	-------	--------

Analyte	Result (Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type	
Aluminum	1.1		0.040	0.0058	mg/L	1	_	200.8	Total/NA	_
Iron	1.1		0.10	0.013	mg/L	1		200.8	Total/NA	
Lead	0.055 I	В	0.00040	0.000040	mg/L	1		200.8	Total/NA	
Zinc	0.12	В	0.0070	0.00093	mg/L	1		200.8	Total/NA	

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1'

Client Sample Results

Client: Element Environmental, LLC
Project/Site: MCBH 2023 Stormwater

Job ID: 580-122883-1
SDG: MCBH 2023 Stormwater

Client Sample ID: Bldg 6802 - 2023 Q1 Benchmark

Lab Sample ID: 580-122883-1

Matrix: Water

Date Collected: 01/28/23 00:55 Date Received: 01/31/23 10:40

Method: EPA 200.8 - Met	als (ICP/MS)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.1	0.040	0.0058	mg/L		02/02/23 18:10	02/03/23 13:43	1
Iron	1.1	0.10	0.013	mg/L		02/02/23 18:10	02/03/23 13:43	1
Lead	0.055 B	0.00040	0.000040	mg/L		02/02/23 18:10	02/03/23 13:43	1
Zinc	0.12 B	0.0070	0.00093	mg/L		02/02/23 18:10	02/03/23 13:43	1

Eurofins Seattle

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QC Sample Results

Client: Element Environmental, LLC Job ID: 580-122883-1 Project/Site: MCBH 2023 Stormwater SDG: MCBH 2023 Stormwater

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-416971/26-A

Matrix: Water

Analysis Batch: 417048

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 416971

Prep Batch: 416971

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.040	0.0058	mg/L		02/02/23 18:10	02/03/23 12:13	1
Iron	ND		0.10	0.013	mg/L		02/02/23 18:10	02/03/23 12:13	1
Lead	0.000273	J	0.00040	0.000040	mg/L		02/02/23 18:10	02/03/23 12:13	1
Zinc	0.00326	J	0.0070	0.00093	mg/L		02/02/23 18:10	02/03/23 12:13	1

MB MB

Lab Sample ID: LCS 580-416971/27-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 417048

Prep Batch: 416971 Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Aluminum 20.0 21.0 mg/L 105 85 - 115 20.0 Iron 21.2 mg/L 106 85 - 115 Lead 1.00 mg/L 85 - 115 1.11 111 Zinc 1.00 1.06 mg/L 106 85 - 115

Lab Sample ID: LCSD 580-416971/28-A Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 417048

Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit 20.0 21.5 85 - 115 2 20 Aluminum mg/L 107

20.0 Iron 21.1 mg/L 106 85 - 115 0 20 1.00 mg/L 85 - 115 20 Lead 1.09 109 2 Zinc 1.00 1.08 mg/L 108 85 - 115 20

Lab Chronicle

Client: Element Environmental, LLC Job ID: 580-122883-1 Project/Site: MCBH 2023 Stormwater SDG: MCBH 2023 Stormwater

Client Sample ID: Bldg 6802 - 2023 Q1 Benchmark

Lab Sample ID: 580-122883-1 Date Collected: 01/28/23 00:55 **Matrix: Water** Date Received: 01/31/23 10:40

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	200.8			416971	TMH	EET SEA	02/02/23 18:10
Total/NA	Analysis	200.8		1	417048	FCW	EET SEA	02/03/23 13:43

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Element Environmental, LLC
Project/Site: MCBH 2023 Stormwater

Job ID: 580-122883-1
SDG: MCBH 2023 Stormwater

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4167	07-07-23

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Eurofins Seattle

Sample Summary

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater Job ID: 580-122883-1

SDG: MCBH 2023 Stormwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-122883-1	Bldg 6802 - 2023 Q1 Benchmark	Water	01/28/23 00:55	01/31/23 10:40

9319

0729

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Chain of Custody Record

Eurofins TestAmerica, Seattle 5755 8th Street East	Chain	Chain of Custody Record	🔆 eurofins	January Company Compan
Tacoma, WA 98424-1317	ĺ			Anserica
priorite 200.342.500 TaX 200.342.5047	Kegulatory Program: Dw NPDES Project Manager: Maryin Heskert	S [] RCRA Other:		d/b/a Eurofins TestAmerica
Client Contact	Email: mheskett@e2hi.com	Site Contact: Marvin Heskett	CCC No:	300
Element Environmental	TellFax: (808) 448-1200	Lab Contact: Sheri Cruz	- Endith	3
Address 98-030 Hekaha St. Unit 9	Analysis Turnaround Time			
City/State/Zip Aiea, HI 96701	CALENDAR DAYS		Sampler	
(808) 448-1200 Phone	erent from Beto	(N	For Lao Use Unity	
(808) 448-1300 FAX		/ X	Vyair-III Citalia	
Project Name: MCBH 2023 Stormwater) a	- CO COL	
Site: MCBH	2 days	SW	N SOS / dol	
P O # 220066	1 day	/ SI	ON OCC COS	-
Sample Identification	Sample Type (2-Comp.) Date Time G=Grap. # of	& thereal S		
BLDG 6802 - 2023 Q1 Benchmark	g	Z	20 10 10 10 10 10 10 10 10 10 10 10 10 10	Sample Specific Notes:
Wilder and the state of the sta			The state of the s	The state of the s
	A management		Mila	
The state of the s				- interest
	- The state of the			
- THE PARTY OF THE				
The property of the second sec				
And the second s				
The second secon	70000		380-122883 Chain of Custody	A Maria Construction of the Construction of th
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other	VO3; 5=NaOH; 6= Other			
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste?	Please List any EPA Waste Codes for the sample in the		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Not hand	ı	T		
Special Instructions/QC Requirements & Comments: Please report El	I I	ement Environmental A1 A3 EDD Iso Mills	Disposal by Lab Tachive for Months	
		ose mon methods for CWA compilar	ice ice	
ntact, Yes 🗅 No	al No.:	Copter Temp. (°C): Obs'd:	Corr'd: Therm ID No.:	
20/2	Company: Element Environmental, Date/Time:	(Pecelved)by:	Countent: Date/Time: 1/2,	747
Relinquished by:	Company: Date/Time:	Received by:	Date/Time:	101 67
Relinquished by:	Company: Date/Time:	Received in Laboratons by		
***************************************		Coccined in Eabolatory by.	Company: Date/Time:	
	ZIS ICE		Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020	dated 10/6/2020
	ふく	アルク アゴイ	3.	

Client: Element Environmental, LLC

Job Number: 580-122883-1 SDG Number: MCBH 2023 Stormwater

List Source: Eurofins Seattle

Login Number: 122883 List Number: 1

Creator: Groves, Elizabeth

Creator. Groves, Elizabeth		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Marine Corps Base Hawaii

Kaneohe, Oahu, Hawaii

Quarterly Storm Water Report

NPDES File No. HI S000007

Final

Building 6802 WFO LAB/BOAT SHOP

July 2023

Prepared for MCBH by Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

N62742-17-D-1802 CTO N6274222F0208 This page intentionally left blank.

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Acronyms and Abbreviations

°C	degrees Celsius
COD	Chemical Oxygen Demand
СТО	Contract Task Order
DL	Detection Limit
E2	Element Environmental, LLC
HAR	Hawaii Administrative Rules
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCBH	Marine Corps Base Hawaii
ug/L	Microgram per liter
mg/L	Milligram per liter
mph	Mile per hour
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
QA/QC	Quality Assurance/Quality Control
SSHP	Site Safety and Health Plan
SWPPP	Stormwater Pollution Prevention Plan
TSS	Total Suspended Solids

1.0 Project Purpose and Location

The purpose of this project is to fulfill the requirements of the National Pollutant Discharge Elimination System (NPDES), Permit Number HI S000007, which includes collection and analyses of storm water from a representative storm water event, as defined by the NPDES permit.

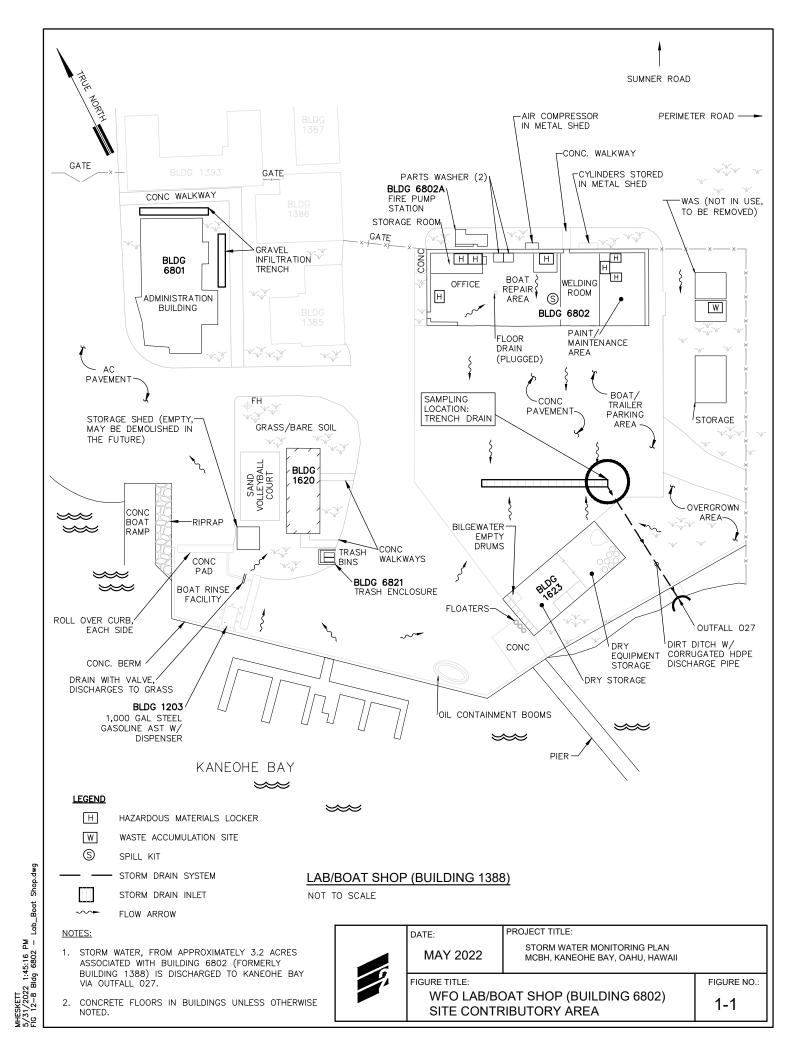
The NPDES program is designed to determine the presence of contaminants in surface flow of rain water from designated contributory areas at a site following representative rain events. Figure 1-1 shows the contributory area for the site.

The WFO Lab/Boat Shop, Building 6802 is considered to be under industrial activity sector Q- Water Transportation, and thus is required to perform Quarterly Benchmark Sampling. Benchmark monitoring data are primarily for MCBH's use to determine the overall effectiveness of control measures and to assist in determining when additional corrective action(s) may be necessary. A benchmark exceedance is not a permit violation, however, if corrective action is required as a result of a benchmark exceedance, failure to conduct required corrective action is a permit violation.

Quarterly Benchmark Sampling of storm water discharge from the representative sampling location at the WFO Lab/Boat Shop (Figure 1-1) will be monitored in accordance with Table 3-1 from the SWPPP. A Quarterly Visual Assessment of storm water discharge is also required for all industrial facilities at MCBH. Storm water samples for this visual assessment but must be collected in such a manner that the samples are representative of the storm water discharge from the facility. Therefore, the water sample must be collected at the designated storm water monitoring point, as shown in Figure 1-1. The Quarterly Visual Assessment checklist presented in this report shall be maintained by the current facility ECC and kept onsite as part of this Quarterly report.

All work conducted during this project was performed in accordance with the NPDES Permit Number HI S000007; and the applicable Quality Assurance/Quality Control (QA/QC) Plan and Site Safety and Health Plan (SSHP) prepared for this project. Performance Work Statement entitled "Clean Water Program Services for Marine Corps Base Hawaii, FY22" dated July 22, 2022. Work was performed by Element Environmental, LLC (E2) and its subcontractors under Contract Number N62742-17-D-1802, Contract Task Order (CTO) N6274222F0208.

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2.0 Methodology and Storm Event Summary

As per the NPDES permit, stormwater samples are to be collected from a qualifying storm, defined as follows:

A minimum of one grab sample shall be collected from a discharge resulting from a measurable storm event. Samples must be collected within the first 30 minutes of a discharge associated with a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, the sample must be collected as soon as practicable after the first 30 minutes and documentation must be kept with the report explaining why it was not possible to take samples within the first 30 minutes.

Samples were collected using an ISCO automated sampler. The Storm Event Summary is shown in Table 2-1 below.

Table 2-1 Storm Event Summary

Storm Event Summary

Storm Event Summary	
Storm Event Start Date and Time	6/16/23 1:50 AM
Flow Start Date and Time	6/16/23 1:55 AM
Sample Collection Date and Time	6/16/23 2:05 AM
Flow Duration at Monitoring Point (hour)	0.58
Approximate Event Rainfall Duration (hour)	0.7
Event Rainfall Total (from ISCO gauge) (inch)	0.15
Drainage Area (A) (Acres)	3.2
Run-off Coefficient (C)*	0.7
Discharge Volume in gallons (Estimated using rational method)	9048
Peak Discharge (from calculation) in cubic feet per second (cfs)	0.50
Rainfall Event >0.1 during previous 72 hours?	No
Weather Conditions	moderate rainfall event
Sample Appearance	clear color, some settled solids, and suspended none
Sample Collection Method	automated - ISCO Avalanche

Note:

^{*}Runoff co-efficient for industrial areas from the *City and County of Honolulu Department of Planning and Permitting, Rules Relating to Storm Drainage Standards*, Table 4, page 52, January 2000, Revised September 2012.

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3.0 Quarterly Visual Assessment

The visual assessment was conducted:

- Of a sample collected in a clean, colorless glass or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and documented why it was not possible to take the sample within the first 30 minutes; and
- For storm events, on discharges that occur at least 72 hours (three days) from the previous discharge.

The results of the Visual Assessment are shown in Table 3-1 below.

Table 3-1 Visual Assessment Form

Visual A	ssessment
Color	clear
Odor	none
Clarity	clear
Oil sheen present	none
Floating Solids Present	none
Settled Solids Present	some
Suspended Solids present	none
Foam present	none
Other signs of pollution	none
Nature of the discharge	Storm event runoff on asphalt to trench drain
	BMPs and stormwater pollution
Results of observations of the storm water discharge	prevention measures appear to be working and intact.
Probable sources of stormwater contamination	Not Applicable
If applicable, why was it not possible to collect samples within the first 30 minutes	Not Applicable

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4.0 Quarterly Benchmark Samples

Samples were collected from the sampling location designated in the SWPPP as seen in Figure 1-1 and submitted to the Analytical Laboratory identified in the Table 3-1 of the SWPPP. Photographs demonstrating the stormwater control measures were taken and included in Appendix A. Laboratory results are compared to their respective Benchmark values as shown in Table 4-1.

4.1.1 Data not exceeding benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter does not exceed the benchmark value, MCBH has fulfilled monitoring requirements for that parameter for the permit term.

4.1.2 Data exceeding benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter exceeds the benchmark, review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in this permit, and either:

- Make the necessary modifications and continue quarterly monitoring until four additional quarters of monitoring are completed for which the average does not exceed the benchmark; or
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology based effluent limits or are necessary to meet the water-quality-based effluent limitations, in which case monitoring must continue once per year. Furthermore, documentation of the rationale for concluding that no further pollutant reductions are achievable must be completed and all records related to this documentation shall be retained with the site SWPPP.

Control measures must be reviewed, and any required corrective action performed immediately (or document why no corrective action is required), without waiting for the full four quarters of monitoring data, when an exceedance of the four-quarter average is mathematically certain. If after modifying control measures and conducting four additional quarters of monitoring, the average still exceeds the benchmark (or if an exceedance of the benchmark by the four-quarter average is mathematically certain prior to conducting the full four additional quarters of monitoring), review of control measures must be conducted and take one of the two actions above.

Table 4-1 Quarterly Benchmark Sample Results

				BLDG	BLDG 6802	BLDG	BLDG 6802	BLDG	BLDG 6802	BLDG 6802	6802	BLDG 6802	6802
			Sector Q -			580-12	580-122883-1	580-12	580-128660-1				
Analyte	Analyte method	Units	Transportation	FY2	FY23Q1	FY2	FY23Q2	FY2	FY23Q3	FY2	FY23Q4	AVERAGE	AGE
			Benchmark	Result	RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier
Aluminum	Aluminum 200.8_CW mg/L	mg/L	0.75			1.1		0.31				9.0	
Iron	200.8_CW mg/L	mg/L	1			1.1		0.40				9.0	
Lead	200.8_CW mg/L	mg/L	0.21			0.0550		0.0064				0.0226	
Zinc	200.8_CW mg/L	mg/L	0.09			0.120		0.041				0.067	
Notes:													
Results w	ith bold red	d text indi	Results with bold red text indicates a benchmark exceedance	ırk exceec	dance								

APPENDIX A

Photographs of Storm Event

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Photo A-1. Location of autosampler and sample point



Photo A-2. 2023 FY23Q3 Benchmark sample in 2-liter glass sample jar.

APPENDIX B

Analytical Laboratory Report

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ANALYTICAL REPORT

PREPARED FOR

Attn: Marvin Heskett Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

Generated 6/29/2023 4:40:58 PM

JOB DESCRIPTION

MCBH 2023 Stormwater SDG NUMBER BLDG 132

JOB NUMBER

580-128660-1

Eurofins Seattle 5755 8th Street East Tacoma WA 98424



Eurofins Seattle

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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Authorization

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6/29/2023

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Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater

Laboratory Job ID: 580-128660-1 SDG: BLDG 132

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Case Narrative

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater Job ID: 580-128660-1

SDG: BLDG 132

Job ID: 580-128660-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-128660-1

Comments

No additional comments.

Receipt

The sample was received on 6/22/2023 9:20 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.0° C.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Element Environmental, LLC Job ID: 580-128660-1 Project/Site: MCBH 2023 Stormwater SDG: BLDG 132

Glossary

MQL

NC

ND

NEG POS

PQL

PRES

QC

RER

RL RPD

TEF

TEQ

TNTC

Method Quantitation Limit

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Not Detected at the reporting limit (or MDL or EDL if shown)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Not Calculated

Negative / Absent

Positive / Present

Presumptive

Quality Control

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number

Detection Summary

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater Job ID: 580-128660-1 SDG: BLDG 132

Client Sample ID: BLDG 6802

Lab Sample ID: 580-128660-1

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.31	0.040	0.0058	mg/L	1	_	200.8	Total/NA
Copper	0.013	0.0020	0.00060	mg/L	1		200.8	Total/NA
Iron	0.40	0.10	0.013	mg/L	1		200.8	Total/NA
Lead	0.0064	0.00040	0.000040	mg/L	1		200.8	Total/NA
Zinc	0.041	0.0070	0.00093	mg/L	1		200.8	Total/NA

Client Sample Results

Client: Element Environmental, LLC
Project/Site: MCBH 2023 Stormwater

Job ID: 580-128660-1
SDG: BLDG 132

Client Sample ID: BLDG 6802 Lab Sample ID: 580-128660-1

Date Collected: 06/16/23 02:05

Date Received: 06/22/23 09:20

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.31		0.040	0.0058	mg/L		06/27/23 15:58	06/28/23 15:41	1
Copper	0.013		0.0020	0.00060	mg/L		06/27/23 15:58	06/28/23 15:41	1
Iron	0.40		0.10	0.013	mg/L		06/27/23 15:58	06/28/23 15:41	1
Lead	0.0064		0.00040	0.000040	mg/L		06/27/23 15:58	06/28/23 15:41	1
Zinc	0.041		0.0070	0.00093	mg/L		06/27/23 15:58	06/28/23 15:41	1

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Job ID: 580-128660-1 SDG: BLDG 132

Method: 200.8 - Metals (ICP/MS)

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Stormwater

Lab Sample ID: MB 580-430111/26-A

Matrix: Water

Analysis Batch: 430320

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 430111

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.040	0.0058	mg/L		06/27/23 15:58	06/28/23 15:35	1
Copper	ND		0.0020	0.00060	mg/L		06/27/23 15:58	06/28/23 15:35	1
Iron	ND		0.10	0.013	mg/L		06/27/23 15:58	06/28/23 15:35	1
Lead	ND		0.00040	0.000040	mg/L		06/27/23 15:58	06/28/23 15:35	1
Zinc	ND		0.0070	0.00093	mg/L		06/27/23 15:58	06/28/23 15:35	1

MD MD

Lab Sample ID: LCS 580-430111/27-A

Matrix: Water

Analysis Batch: 430320

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 430111

LCS LCS %Rec Spike Analyte Added Result Qualifier Unit D %Rec Limits Aluminum 20.0 19.7 mg/L 85 - 115 99 Copper 1.00 1.04 mg/L 104 85 - 115 Iron 20.0 19.3 mg/L 97 85 - 115 Lead 1.00 0.997 mg/L 100 85 - 115 Zinc 1.00 0.975 mg/L 85 - 115 97

Lab Sample ID: LCSD 580-430111/28-A

Matrix: Water

Analysis Batch: 430320

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 430111

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	20.0	19.1		mg/L		96	85 - 115	3	20
Copper	1.00	1.04		mg/L		104	85 - 115	1	20
Iron	20.0	18.9		mg/L		94	85 - 115	2	20
Lead	1.00	1.02		mg/L		102	85 - 115	2	20
Zinc	1.00	0.981		mg/L		98	85 - 115	1	20

Lab Sample ID: 580-128660-1 MS

Matrix: Water

Analysis Batch: 430320

Client Sample ID: BLDG 6802

Prep Type: Total/NA

Prep Batch: 430111

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aluminum	0.31		20.0	21.0		mg/L		103	70 - 130	
Copper	0.013		1.00	1.08		mg/L		106	70 - 130	
Iron	0.40		20.0	20.3		mg/L		99	70 - 130	
Lead	0.0064		1.00	1.02		mg/L		101	70 - 130	
Zinc	0.041		1.00	1.02		mg/L		98	70 - 130	

Lab Sample ID: 580-128660-1 MSD

Matrix: Water

Analysis Batch: 430320

Client Sample ID: BLDG 6802

Prep Type: Total/NA

Prep Batch: 430111

7 mary one Datem 100020											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	0.31		20.0	20.8		mg/L		102	70 - 130	1	20
Copper	0.013		1.00	1.08		mg/L		107	70 - 130	0	20
Iron	0.40		20.0	20.5		mg/L		101	70 - 130	1	20
Lead	0.0064		1.00	1.05		mg/L		104	70 - 130	3	20
Zinc	0.041		1.00	1.04		mg/L		100	70 - 130	2	20

Eurofins Seattle

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6/29/2023

QC Sample Results

Client: Element Environmental, LLC
Project/Site: MCBH 2023 Stormwater

Job ID: 580-128660-1
SDG: BLDG 132

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 580-128660-1 DU					Client	Sample ID: BLDG	6802	
Matrix: Water						Prep Type: Tot	al/NA	
Analysis Batch: 430320						Prep Batch: 4	30111	
Sample	Sample	DU	DU				RPD	
Analyte Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit	

7 many old Datolli 10							op Datom .	••
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Aluminum	0.31		0.313		mg/L		0.5	20
Copper	0.013		0.0130		mg/L		0.4	20
Iron	0.40		0.416		mg/L		3	20
Lead	0.0064		0.00665		mg/L		4	20
7inc	0.041		0.0399		ma/l		3	20

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Lab Chronicle

Client: Element Environmental, LLC
Project/Site: MCBH 2023 Stormwater

Job ID: 580-128660-1
SDG: BLDG 132

Client Sample ID: BLDG 6802 Lab Sample ID: 580-128660-1

Matrix: Water

Date Collected: 06/16/23 02:05 Date Received: 06/22/23 09:20

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	200.8			430111	JLS	EET SEA	06/27/23 15:58
Total/NA	Analysis	200.8		1	430320	TMH	EET SEA	06/28/23 15:41

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Eurofins Seattle

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Accreditation/Certification Summary

Client: Element Environmental, LLC
Project/Site: MCBH 2023 Stormwater

Job ID: 580-128660-1
SDG: BLDG 132

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4167	07-07-23

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Sample Summary

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater Job ID: 580-128660-1

SDG: BLDG 132

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-128660-1	BLDG 6802	Water	06/16/23 02:05	06/22/23 09:20

Eurofins TestAmerica, Seattle

5755 8th Street East

Chain of Custody Record

🕸 eurofins

Environment Testing America

Tacoma, WA 98424-1317 Regulatory Program: phone 253.922.2310 fax 253.922.5047 □ DW □ NPDES □ RCRA □ Other: TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica Project Manager: Marvin Heskett COC No: **Client Contact** Email: mheskett@e2hi.com Site Contact: Marvin Heskett of __1_ COCs Date: Element Environmental Tel/Fax: (808) 448-1200 Lab Contact: Sheri Cruz Carrier:FedEx TALS Project #: Address 98-030 Hekaha St. Unit 9 **Analysis Turnaround Time** Sampler: ☐ WORKING DAYS City/State/Zip Aiea, HI 96701 ☐ CALENDAR DAYS Ę, For Lab Use Only: (808) 448-1200 Walk-in Client: Phone TAT if different from Below õ (808) 448-1300 FAX Lab Sampling: [7] 2 weeks ¥, Project Name:MCBH 2023 Stormwater П 1 week Total Metals 200.8 Pb, Zn Site: BLDG 132 2 days Job / SDG No.: PO# 220066 П 1 day Sample Type Sample # of (C∞Comp. Sample Identification Date Sample Time G=Grab) Matrix Cont. Sample Specific Notes: **BLDG 6802** 6/16/2023 2:05:00 AM G SW 1 N Х 580-128660 Chain of Custody Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Possible Hazard Identification: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. Skin Irritant Poison B Unknown Return to Client Disnocal by Lab Archive for Months Special Instructions/QC Requirements & Comments: Please report Element Environmental A1, A3 EDD, Use MUR methods for CWA compliance Custody Seals Intact: Cooler Temp. (°C): Obs'd: Therm ID No.: Yes ☐ No Custody Seal No.: Corr'd: Date/Time:/77 Company: Element Environmental, IIc Date/Time: Relinquished by: Company: la/22/k Relinquished by: Company: Company: Date/Time: Relinquished by: Company: Date/Time: Received in Laboratory by: Company: Date/Time:

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6/29/2023

Login Sample Receipt Checklist

Client: Element Environmental, LLC

Job Number: 580-128660-1 SDG Number: BLDG 132

Login Number: 128660 List Source: Eurofins Seattle

List Number: 1

Creator: Groves, Elizabeth

Creator. Groves, Liizabetii		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Marine Corps Base Hawaii

Kaneohe, Oahu, Hawaii

Quarterly Storm Water Report

NPDES File No. HI S000007

Final

Building 6802 WFO LAB/BOAT SHOP

October 2023

Prepared for MCBH by Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

N62742-17-D-1802 CTO N6274222F0208

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Acronyms and Abbreviations

°C	degrees Celsius
COD	Chemical Oxygen Demand
СТО	Contract Task Order
DL	Detection Limit
E2	Element Environmental, LLC
HAR	Hawaii Administrative Rules
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCBH	Marine Corps Base Hawaii
ug/L	Microgram per liter
mg/L	Milligram per liter
mph	Mile per hour
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
QA/QC	Quality Assurance/Quality Control
SSHP	Site Safety and Health Plan
SWPPP	Stormwater Pollution Prevention Plan
TSS	Total Suspended Solids

1.0 Project Purpose and Location

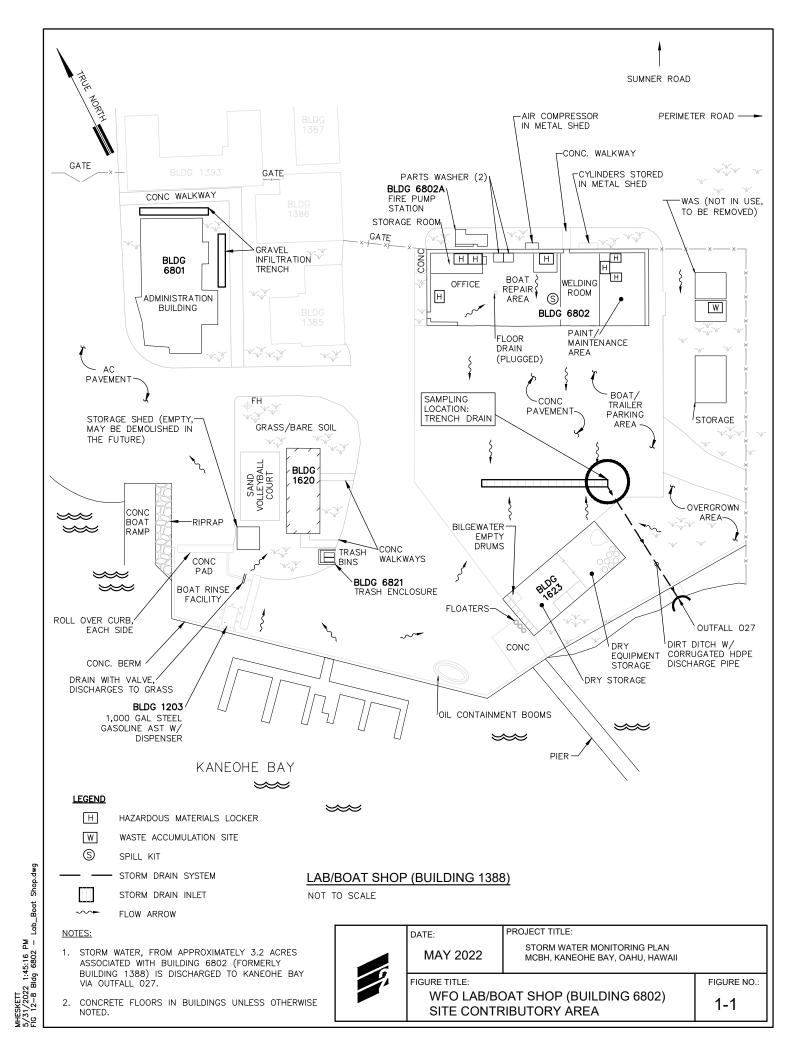
The purpose of this project is to fulfill the requirements of the National Pollutant Discharge Elimination System (NPDES), Permit Number HI S000007, which includes collection and analyses of storm water from a representative storm water event, as defined by the NPDES permit.

The NPDES program is designed to determine the presence of contaminants in surface flow of rain water from designated contributory areas at a site following representative rain events. Figure 1-1 shows the contributory area for the site.

The WFO Lab/Boat Shop, Building 6802 is considered to be under industrial activity sector Q- Water Transportation, and thus is required to perform Quarterly Benchmark Sampling. Benchmark monitoring data are primarily for MCBH's use to determine the overall effectiveness of control measures and to assist in determining when additional corrective action(s) may be necessary. A benchmark exceedance is not a permit violation, however, if corrective action is required as a result of a benchmark exceedance, failure to conduct required corrective action is a permit violation.

Quarterly Benchmark Sampling of storm water discharge from the representative sampling location at the WFO Lab/Boat Shop (Figure 1-1) will be monitored in accordance with Table 3-1 from the SWPPP. A Quarterly Visual Assessment of storm water discharge is also required for all industrial facilities at MCBH. Storm water samples for this visual assessment but must be collected in such a manner that the samples are representative of the storm water discharge from the facility. Therefore, the water sample must be collected at the designated storm water monitoring point, as shown in Figure 1-1. The Quarterly Visual Assessment checklist presented in this report shall be maintained by the current facility ECC and kept onsite as part of this Quarterly report.

All work conducted during this project was performed in accordance with the NPDES Permit Number HI S000007; and the applicable Quality Assurance/Quality Control (QA/QC) Plan and Site Safety and Health Plan (SSHP) prepared for this project. Performance Work Statement entitled "Clean Water Program Services for Marine Corps Base Hawaii, FY22" dated July 22, 2022. Work was performed by Element Environmental, LLC (E2) and its subcontractors under Contract Number N62742-17-D-1802, Contract Task Order (CTO) N6274222F0208.



2.0 Methodology and Storm Event Summary

As per the NPDES permit, stormwater samples are to be collected from a qualifying storm, defined as follows:

A minimum of one grab sample shall be collected from a discharge resulting from a measurable storm event. Samples must be collected within the first 30 minutes of a discharge associated with a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, the sample must be collected as soon as practicable after the first 30 minutes and documentation must be kept with the report explaining why it was not possible to take samples within the first 30 minutes.

Samples were collected using an ISCO automated sampler. The Storm Event Summary is shown in Table 2-1 below.

Table 2-1 Storm Event Summary

Storm Event Summary

Otorini Everite Gairminar y	
Storm Event Start Date and Time	9/14/23 6:05 PM
Flow Start Date and Time	9/14/23 6:30 PM
Sample Collection Date and Time	9/14/23 8:05 PM
Flow Duration at Monitoring Point (hour)	3.50
Approximate Event Rainfall Duration (hour)	3.8
Event Rainfall Total (from ISCO gauge) (inch)	0.2
Drainage Area (A) (Acres)	3.2
Run-off Coefficient (C)*	0.7
Discharge Volume in gallons (Estimated using rational method)	12064
Peak Discharge (from calculation) in cubic feet per second (cfs)	0.12
Rainfall Event >0.1 during previous 72 hours?	No
Weather Conditions	moderate rainfall event
Sample Appearance	clear color, no settled solids or other signs of pollution
Sample Collection Method	automated - ISCO Avalanche
Field Parameter Instrument	N/A

Note:

^{*}Runoff co-efficient for industrial areas from the *City and County of Honolulu Department of Planning and Permitting, Rules Relating to Storm Drainage Standards*, Table 4, page 52, January 2000, Revised September 2012.

3.0 Quarterly Visual Assessment

The visual assessment was conducted:

- Of a sample collected in a clean, colorless glass or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and documented why it was not possible to take the sample within the first 30 minutes; and
- For storm events, on discharges that occur at least 72 hours (three days) from the previous discharge.

The results of the Visual Assessment are shown in Table 3-1 below.

Table 3-1 Visual Assessment Form

Visual Assessment	
Color	clear
odor	no
clarity	very clear
oil sheen present	no
Floating Solids Present	no
Settled Solids Present	no
Suspended Solids present	no
Foam present	no
Other signs of pollution	no
Nature of the discharge	Storm event runoff on asphalt to trench drain
results of observations of the storm water discharge	BMPs and stormwater pollution prevention measures appear to be working and intact.
probable sources of stormwater contamination	Not Applicable
If applicable, why was it not possible to collect samples within the first 30 minutes	Not Applicable

4.0 Quarterly Benchmark Samples

Samples were collected from the sampling location designated in the SWPPP as seen in Figure 1-1 and submitted to the Analytical Laboratory identified in the Table 3-1 of the SWPPP. Photographs demonstrating the stormwater control measures were taken and included in Appendix A. Laboratory results are compared to their respective Benchmark values as shown in Table 4-1.

4.1.1 Data not exceeding benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter does not exceed the benchmark value, MCBH has fulfilled monitoring requirements for that parameter for the permit term.

4.1.2 Data exceeding benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter exceeds the benchmark, review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in this permit, and either:

- Make the necessary modifications and continue quarterly monitoring until four additional quarters of monitoring are completed for which the average does not exceed the benchmark; or
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology based effluent limits or are necessary to meet the water-quality-based effluent limitations, in which case monitoring must continue once per year. Furthermore, documentation of the rationale for concluding that no further pollutant reductions are achievable must be completed and all records related to this documentation shall be retained with the site SWPPP.

Control measures must be reviewed, and any required corrective action performed immediately (or document why no corrective action is required), without waiting for the full four quarters of monitoring data, when an exceedance of the four-quarter average is mathematically certain. If after modifying control measures and conducting four additional quarters of monitoring, the average still exceeds the benchmark (or if an exceedance of the benchmark by the four-quarter average is mathematically certain prior to conducting the full four additional quarters of monitoring), review of control measures must be conducted and take one of the two actions above.

Table 4-1 Quarterly Benchmark Sample Results

Table 4.1	Table 4-1 Ouarterly Benchmark Sampl	nchmark	Sample Beenite										
ם מספר	additerry De	1000	Dample Results		0000	2	0000	2	0000	2	0000	0	0000
				BLDC	BLDG 6802	BLDG	BLDG 6802	BLDG	BLDG 6802	BLDC	BLDG 6802	BLDG 6802	2089
			Sector Q -			580-12	580-122883-1	580-12	580-128660-1				
Analyte	method	Units	Water Transportation	FY2	FY23Q1	FY2	FY23Q2	FY2	FY23Q3	FY2	FY23Q4	AVERAGE	AGE
			Benchmark	Result	RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier
Aluminum	Aluminum 200.8_CWA	T/6m	0.75			1.1		0.31		0.072		0.4	
Iron	200.8_CWA	T/bш	1			1.1		0.40		690.0	ſ	0.5	
Lead	200.8_CWA	T/bш	0.21			0.0550		0.0064		9700'0		0.0176	
Zinc	200.8_CWA	T/bш	0.09			0.120		0.041		0.027		0.057	
Notes:													
Results w	Results with bold red text indicates a	text indica	ates a benchmark exceedance	k exceeda	nce								

APPENDIX A

Photographs of Storm Event



Photo A-1. Location of autosampler and sample point.



Photo A-2. FY23Q4 Benchmark sample in 2-liter glass sample jars.

APPENDIX B

Analytical Laboratory Report

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ANALYTICAL REPORT

PREPARED FOR

Attn: Marvin Heskett Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

Generated 9/29/2023 2:07:45 PM

JOB DESCRIPTION

MCBH 2023 Clean Water Services.

JOB NUMBER

580-131922-1

Eurofins Seattle 5755 8th Street East Tacoma WA 98424



Eurofins Seattle

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Generated 9/29/2023 2:07:45 PM

Authorized for release by Katie Grant, Project Manager I Katie.Grant@et.eurofinsus.com Designee for Sheri Cruz, Project Manager I

Sheri.Cruz@et.eurofinsus.com (253)922-2310

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Case Narrative

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Clean Water Services.

Job ID: 580-131922-1

Job ID: 580-131922-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-131922-1

Receipt

The sample was received on 9/23/2023 9:20 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.4° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Definitions/Glossary

Client: Element Environmental, LLC Job ID: 580-131922-1

Project/Site: MCBH 2023 Clean Water Services.

Qualifiers

Metals

Qualifier **Qualifier Description**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery **CFL** Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

Duplicate Error Ratio (normalized absolute difference) **DER**

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

Estimated Detection Limit (Dioxin) **EDL** LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin) MPN Most Probable Number Method Quantitation Limit MQL

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive QC **Quality Control**

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

Too Numerous To Count **TNTC**

Detection Summary

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Clean Water Services.

Job ID: 580-131922-1

Client Sample ID: BLDG 6802 - FY2023 Q4 Benchmark

Lab Sample ID: 580-131922-1

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.072	0.040	0.0058	mg/L	1	_	200.8	Total/NA
Iron	0.063 J	0.10	0.013	mg/L	1		200.8	Total/NA
Lead	0.0026	0.00040	0.000040	mg/L	1		200.8	Total/NA
Zinc	0.027	0.0070	0.00093	mg/L	1		200.8	Total/NA

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Client Sample Results

Client: Element Environmental, LLC Job ID: 580-131922-1

Project/Site: MCBH 2023 Clean Water Services.

Client Sample ID: BLDG 6802 - FY2023 Q4 Benchmark Lab Sample ID: 580-131922-1

Date Collected: 09/14/23 20:05 Matrix: Water

Date Received: 09/23/23 09:20

Method: EPA 200.8 - Meta	als (ICP/MS)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.072	0.040	0.0058	mg/L		09/27/23 16:12	09/28/23 19:54	1
Iron	0.063 J	0.10	0.013	mg/L		09/27/23 16:12	09/28/23 19:54	1
Lead	0.0026	0.00040	0.000040	mg/L		09/27/23 16:12	09/28/23 19:54	1
Zinc	0.027	0.0070	0.00093	mg/L		09/27/23 16:12	09/28/23 19:54	1

QC Sample Results

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Clean Water Services.

Job ID: 580-131922-1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-438966/26-A

Matrix: Water

Analysis Batch: 439195

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 438966

MB MB							
Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ND ND	0.040	0.0058	mg/L		09/27/23 16:12	09/28/23 18:12	1
ND	0.10	0.013	mg/L		09/27/23 16:12	09/28/23 18:12	1
ND	0.00040	0.000040	mg/L		09/27/23 16:12	09/28/23 18:12	1
ND	0.0070	0.00093	mg/L		09/27/23 16:12	09/28/23 18:12	1
	Result Qualifier ND ND ND	Result Qualifier RL ND 0.040 ND 0.10 ND 0.00040	Result Qualifier RL MDL ND 0.040 0.0058 ND 0.10 0.013 ND 0.00040 0.000040	Result Qualifier RL MDL Unit ND 0.040 0.0058 mg/L ND 0.10 0.013 mg/L ND 0.00040 0.000040 mg/L	Result Qualifier RL MDL Unit D ND 0.040 0.0058 mg/L ND 0.10 0.013 mg/L ND 0.00040 0.000040 mg/L	Result Qualifier RL MDL Unit D Prepared ND 0.040 0.0058 mg/L 09/27/23 16:12 ND 0.10 0.013 mg/L 09/27/23 16:12 ND 0.00040 0.00040 mg/L 09/27/23 16:12	Result Qualifier RL MDL Unit D Prepared Analyzed ND 0.040 0.040 0.0058 mg/L 09/27/23 16:12 09/28/23 18:12 ND 0.10 0.013 mg/L 09/27/23 16:12 09/28/23 18:12 ND 0.00040 0.00040 mg/L 09/27/23 16:12 09/28/23 18:12

Lab Sample ID: LCS 580-438966/27-A Client Sample ID: Lab Control Sample

Matrix: Water

Analysis Batch: 439195

Prep Type: Total/NA Prep Batch: 438966

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Aluminum 20.0 20.1 mg/L 100 85 - 115 20.0 19.7 Iron mg/L 99 85 - 115 Lead 1.00 0.962 mg/L 96 85 - 115 mg/L Zinc 1.00 1.01 101 85 - 115

Lab Sample ID: LCSD 580-438966/28-A Client Sample ID: Lab Control Sample Dup

Matrix: Water

Analysis Batch: 439195

Prep Type: Total/NA Prep Batch: 438966

Analysis Batch. 400100							i icp De		,0000
-	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	20.0	20.1		mg/L		101	85 - 115	0	20
Iron	20.0	20.1		mg/L		100	85 - 115	2	20
Lead	1.00	0.972		mg/L		97	85 - 115	1	20
Zinc	1.00	0.986		mg/L		99	85 - 115	2	20
	Analyte Aluminum Iron Lead	Analyte Added Aluminum 20.0 Iron 20.0 Lead 1.00	Analyte Added Added Result Result Result Aluminum 20.0 20.1 Iron 20.0 20.1 Lead 1.00 0.972	Analyte Added luminum Result 20.0 Qualifier Iron 20.0 20.1 Lead 1.00 0.972	Analyte Added Result Qualifier Unit Aluminum 20.0 20.1 mg/L Iron 20.0 20.1 mg/L Lead 1.00 0.972 mg/L	Analyte Added Result Qualifier Unit Unit Unit Unit Unit Unit Unit Unit	Analyte Added Result Result Result Properties Unit Properties Description WRec Losd 20.0 20.1 mg/L 100 Lead 1.00 0.972 mg/L 97	Analyte Added Added Result Result Qualifier Unit Unit Unit Qualifier D MRec Limits Aluminum 20.0 20.1 mg/L 101 85 - 115 Iron 20.0 20.1 mg/L 100 85 - 115 Lead 1.00 0.972 mg/L 97 85 - 115	Analyte Added Pesult 20.0 Qualifier 20.0 Unit 20.0 D MRec 20.0 MRec 20.0 RPD 20.0 MRec 20.0 Limits RPD 20.0 RPD 20.0 MRec 20.

9/29/2023

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Lab Chronicle

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Clean Water Services.

Lab Sample ID: 580-131922-1

Matrix: Water

Job ID: 580-131922-1

Date Collected: 09/14/23 20:05 Date Received: 09/23/23 09:20

Batch Batch Dilution Batch Prepared **Prep Type** Method **Factor** Number Analyst or Analyzed Type Run Lab 09/27/23 16:12 Total/NA Prep 200.8 438966 JL EET SEA 200.8 439195 FCW 09/28/23 19:54 Total/NA **EET SEA** Analysis 1

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Client Sample ID: BLDG 6802 - FY2023 Q4 Benchmark

Accreditation/Certification Summary

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Clean Water Services.

Job ID: 580-131922-1

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4167	07-07-24

Sample Summary

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Clean Water Services.

Job ID: 580-131922-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-131922-1	BLDG 6802 - FY2023 Q4 Benchmark	Water	09/14/23 20:05	09/23/23 09:20

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Chain of Custody Record

Eurofins TestAmerica, Seattle 5755 8th Street East				Ch	ıain	of	Cu	istody l	Rec	ord						💸 eurofins 📗	
o. do din direct cast																Ln:	rironment Testing erica
Tacoma, WA 98424-1317 phone 253.922.2310 fax 253.922.5047	Reg	ulatory Pro	gram:	□ DW	☐ NPDE	s [] RCI	RA 🗌 Other:					Tes	stAme	ica Labo	pratories, Inc. d/b/a Eurofi	
	Project Мал	ager: Marv	in Heskett			7										COC No:	
Client Contact	Email: mhest	cett@e2hi.cor	η			Site	Cor	ntact: Marvin	Hesk	ett	Dat	e:				1 of1	COCs
Element Environmental	Tel/Fax: (80	8) 448-1200				Lab	Сол	ntact: Sheri C	ruz			rier:Fed	Ex			TALS Project #:	. 0000
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P O # 220066		1 day				Sample	2	ا ا م		ĺ] [
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample ()		Total Zn, Pb, I 200.8								Samula Cassifia	N:
BLDG 6802 - FY2023 Q4 Benchmark	9/14/2023	20:05	G	sw	1	N			†=	_		++	++	-	++	Sample Specific	140162
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Preservation Used: 1= lce, 2= HCl; 3= H2SO4; 4=H	INO3; 5=NaOl	l; 6= Other															
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? the Comments Section if the lab is to dispose of the san	Please List an	y EPA Waste	e Codes fo	r the sam	nple in	Sa	mple	e Disposal (A	\ fee i	may be	assess	ed if sar	nples	are re	tained l	onger than 1 month)	
☐ Non-Hazard ☐ Flammable ☐ Skin Irrita	int 🗌 Poison B		Unknow	wn		1.	Re	turn to Client			Disposal b	v Lab	ſ] Archi	ve for	Months	
special Instructions/QC Requirements & Comments	: Please repor	rt Element E	invironme	ntal A1,	A3 EDE), Use	MU	R methods fo	or CW	/A com	pliance						
Custody Seals Intact:	Custody Seal ↑	Vo.:						Cooler Ter	np. (°	C): Ob	s'd:	Co	orr'd:		Τŀ	nerm ID No.:	
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Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020

MB | Bub | Blue | FSD

Client: Element Environmental, LLC

Job Number: 580-131922-1

Login Number: 131922 List Source: Eurofins Seattle

List Number: 1

Creator: Groves, Elizabeth

Question Answer Comment Radioactivity wasn't checked or is = background as measured by a survey neter. N/A The cooler's custody seals, if present, is intact. True Sample custody seals, if present, are intact. True The cooler or samples do not appear to have been compromised or tampered with. True Samples were received on ice. True Cooler Temperature is acceptable. True Cooler Temperature is recorded. True COC is present. True COC is filled out in ink and legible. True COC is filled out with all pertinent information. True Is the Field Sampler's name present on COC? True There are no discrepancies between the containers received and the COC. True Samples are received within Holding Time (excluding tests with immediate HTS) True Sample containers have legible labels. True Containers are not broken or leaking. True Sample collection date/times are provided. True Appropriate sample containers are used. True Sample bottles are completely filled. True Sample Preservation Verified. True Container	oreator. Groves, Enzabetir		
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Is the Field Sampler's name present on COC? There are no discrepancies between the containers received and the COC. Samples are received within Holding Time (excluding tests with immediate HTs) Sample containers have legible labels. Containers are not broken or leaking. Sample collection date/times are provided. Appropriate sample containers are used. Sample bottles are completely filled. True Sample Preservation Verified. True There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). Multiphasic samples are not present. True True Samples do not require splitting or compositing.	COC is filled out in ink and legible.	True	
There are no discrepancies between the containers received and the COC. True Samples are received within Holding Time (excluding tests with immediate HTs) Sample containers have legible labels. True Containers are not broken or leaking. True Sample collection date/times are provided. True Appropriate sample containers are used. True Sample bottles are completely filled. True Sample Preservation Verified. True There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). True Samples do not require splitting or compositing. True	COC is filled out with all pertinent information.	True	
Samples are received within Holding Time (excluding tests with immediate HTs) Sample containers have legible labels. Containers are not broken or leaking. Sample collection date/times are provided. Appropriate sample containers are used. True Sample bottles are completely filled. Sample Preservation Verified. True There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). Multiphasic samples are not present. Samples do not require splitting or compositing.	Is the Field Sampler's name present on COC?	True	
HTs) Sample containers have legible labels. Containers are not broken or leaking. True Sample collection date/times are provided. True Appropriate sample containers are used. True Sample bottles are completely filled. True Sample Preservation Verified. True There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). Multiphasic samples are not present. True Samples do not require splitting or compositing. True	There are no discrepancies between the containers received and the COC.	True	
Containers are not broken or leaking. Sample collection date/times are provided. Appropriate sample containers are used. True Sample bottles are completely filled. True Sample Preservation Verified. True There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). Multiphasic samples are not present. True Samples do not require splitting or compositing. True		True	
Sample collection date/times are provided. Appropriate sample containers are used. Sample bottles are completely filled. Sample Preservation Verified. True There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). Multiphasic samples are not present. Samples do not require splitting or compositing. True	Sample containers have legible labels.	True	
Appropriate sample containers are used. Sample bottles are completely filled. True Sample Preservation Verified. There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). Multiphasic samples are not present. True Samples do not require splitting or compositing. True	Containers are not broken or leaking.	True	
Sample bottles are completely filled. Sample Preservation Verified. True There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). Multiphasic samples are not present. True Samples do not require splitting or compositing. True	Sample collection date/times are provided.	True	
Sample Preservation Verified. True There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). Multiphasic samples are not present. True Samples do not require splitting or compositing. True	Appropriate sample containers are used.	True	
True MS/MSDs Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). Multiphasic samples are not present. Samples do not require splitting or compositing. True True True	Sample bottles are completely filled.	True	
MS/MSDs Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). Multiphasic samples are not present. True Samples do not require splitting or compositing. True	Sample Preservation Verified.	True	
<6mm (1/4"). Multiphasic samples are not present. Samples do not require splitting or compositing. True		True	
Samples do not require splitting or compositing.	· · · · · · · · · · · · · · · · · · ·	True	
	Multiphasic samples are not present.	True	
Residual Chlorine Checked. N/A	Samples do not require splitting or compositing.	True	
	Residual Chlorine Checked.	N/A	



Marine Corps Base Hawaii Kaneohe, Oahu, Hawaii

Quarterly Storm Water Report

Marine Corps Base Hawaii

NPDES File No. HI S000007

Final

Building 132, Recycle Center

November 2022

Prepared for MCBH by Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

N62742-17-D-1802 CTO N6274222F0208

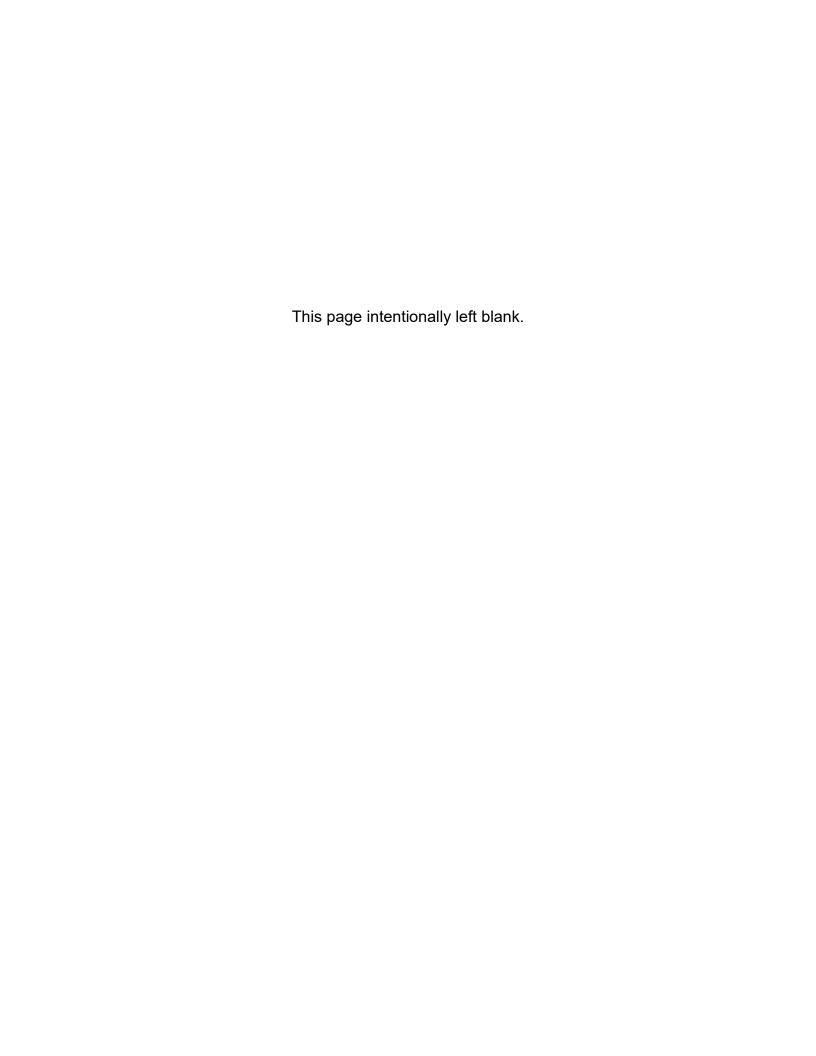


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Acronyms and Abbreviations

°C	degrees Celsius
COD	Chemical Oxygen Demand
СТО	Contract Task Order
DL	Detection Limit
E2	Element Environmental, LLC
HAR	Hawaii Administrative Rules
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCBH	Marine Corps Base Hawaii
ug/L	Microgram per liter
mg/L	Milligram per liter
mph	Mile per hour
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
QA/QC	Quality Assurance/Quality Control
SSHP	Site Safety and Health Plan
SWPPP	Stormwater Pollution Prevention Plan
TSS	Total Suspended Solids

1.0 Project Purpose and Location

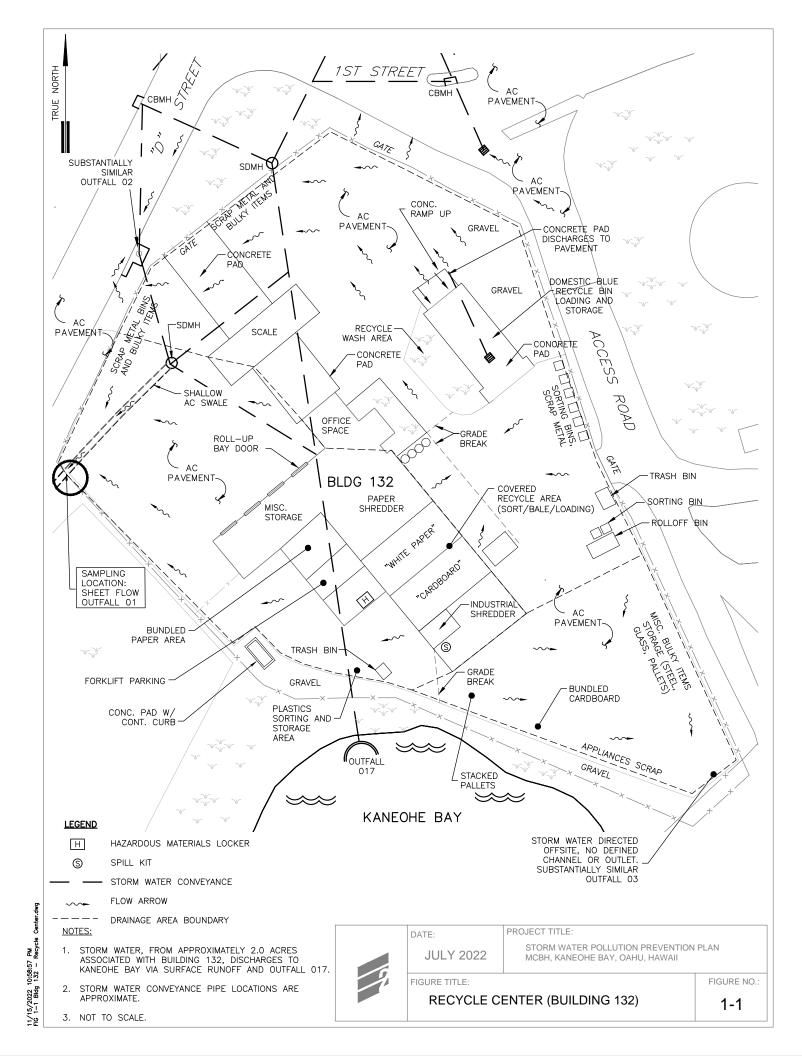
The purpose of this project is to fulfill the requirements of the National Pollutant Discharge Elimination System (NPDES), Permit Number HI S000007, which includes collection and analyses of storm water from a representative storm water event, as defined by the NPDES permit.

The NPDES program is designed to determine the presence of contaminants in surface flow of rain water from designated contributory areas at a site following representative rain events. Figure 1-1 shows the contributory area for the site.

The Recycle Center, Building 132 is considered to be under industrial activity sector N-Scrap Recycling and Waste Recycling Facilities, and thus is required to perform Quarterly Benchmark Sampling. Benchmark monitoring data are primarily for MCBH's use to determine the overall effectiveness of control measures and to assist in determining when additional corrective action(s) may be necessary. A benchmark exceedance is not a permit violation, however, if corrective action is required as a result of a benchmark exceedance, failure to conduct required corrective action is a permit violation.

Quarterly Benchmark Sampling of storm water discharge from the representative sampling location at the Recycle Center (Figure 1-1) will be monitored in accordance with Table 3-1 from the SWPPP. A Quarterly Visual Assessment of storm water discharge is also required for all industrial facilities at MCBH. Storm water samples for this visual assessment but must be collected in such a manner that the samples are representative of the storm water discharge from the facility. Therefore, the water sample must be collected at the designated storm water monitoring point, at the end of the drainage swale just outside of the gate on the northwest side of the facility, as shown in Figure 1-1. The Quarterly Visual Assessment checklist presented in this report shall be maintained by the current facility ECC and kept onsite as part of this Quarterly report.

All work conducted during this project was performed in accordance with the NPDES Permit Number HI S000007; and the applicable Quality Assurance/Quality Control (QA/QC) Plan and Site Safety and Health Plan (SSHP) prepared for this project. Performance Work Statement entitled "Clean Water Program Services for Marine Corps Base Hawaii, FY22" dated July 22, 2022. Work was performed by Element Environmental, LLC (E2) and its subcontractors under Contract Number N62742-17-D-1802, Contract Task Order (CTO) N627422F0208.



2.0 Methodology and Storm Event Summary

As per the NPDES permit, stormwater samples are to be collected from a qualifying storm, defined as follows:

A minimum of one grab sample shall be collected from a discharge resulting from a measurable storm event. Samples must be collected within the first 30 minutes of a discharge associated with a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, the sample must be collected as soon as practicable after the first 30 minutes and documentation must be kept with the report explaining why it was not possible to take samples within the first 30 minutes.

Samples were collected using an ISCO automated sampler.

Table 2-1 Storm Event Summary

Storm Event Date	19-Oct-22
Event Flow Duration at Monitoring Point (hour)	4.5
Approximate Event Rainfall Duration (hour)	5
Event Rainfall Total (from ISCO gauge) (inch)	0.36
Drainage Area (A) (Acres)	2
Run-off Coefficient (C)*	0.7
Discharge Volume in gallons (Estimated using rational method)	13572
Peak Discharge (from calculation) in cubic feet per second (cfs)	0.101
Rainfall Event >0.1 during previous 72 hours?	No
Weather Conditions	moderate rainfall event, light SW wind
Sample Appearance	0
Sample Collection Method	ISCO Avalanche
Field Parameter Instrument	YSI 3

Note:

^{*}Runoff co-efficient for industrial areas from the *City and County of Honolulu Department of Planning and Permitting, Rules Relating to Storm Drainage Standards*, Table 4, page 52, January 2000, Revised September 2012.

3.0 Quarterly Visual Assessment

The visual assessment was conducted:

- Of a sample collected in a clean, colorless glass or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and documented why it was not possible to take the sample within the first 30 minutes; and
- For storm events, on discharges that occur at least 72 hours (three days) from the previous discharge.

Table 3-1 Visual Assessment Form

Visual Assessment					
Color	Light Tan				
Odor	None				
Clarity	Moderately Clear				
Oil sheen present	None				
Floating Solids Present	None				
Settled Solids Present	Trace				
Suspended Solids present	Trace				
Foam present	None				
Other signs of pollution	None				
Nature of the discharge	Storm event runoff downstream of filter sock near the western property boundary.				
Results of observations of the storm water discharge	BMPs and stormwater pollution prevention measures appear to be working and intact.				
Probable sources of stormwater contamination	Not Applicable				
If applicable, why was it not possible to collect samples within the first 30 minutes	Not Applicable				
Cus	tody				
Name of person releasing custody	Marvin Heskett				
Date of custody release	10/20/2022				
Time of custody release	14:00				
Lab to which custody is released to	Eurofins Seattle				

4.0 Quarterly Benchmark Samples

Samples were collected from the sampling location designated in the SWPPP as seen in figure 1-1 and submitted to the Analytical Laboratory identified in the table 3-1. Photographs demonstrating the stormwater control measures were taken and included in Appendix A. Laboratory results are compared to their respective permit required Not to Exceed Limits in table 4-1.

4.1.1 Data not exceeding benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter does not exceed the benchmark, MCBH has fulfilled monitoring requirements for that parameter for the permit term.

4.1.2 Data exceeding benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter exceeds the benchmark, review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in this permit, and either:

- Make the necessary modifications and continue quarterly monitoring until four additional quarters of monitoring are completed for which the average does not exceed the benchmark; or
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology based effluent limits or are necessary to meet the water-quality-based effluent limitations, in which case monitoring must continue once per year. Furthermore, documentation of the rationale for concluding that no further pollutant reductions are achievable must be completed and all records related to this documentation shall be retained with the site SWPPP.

Control measures must be reviewed, and any required corrective action performed immediately (or document why no corrective action is required), without waiting for the full four quarters of monitoring data, when an exceedance of the four-quarter average is mathematically certain. If after modifying control measures and conducting four additional quarters of monitoring, the average still exceeds the benchmark (or if an exceedance of the benchmark by the four-quarter average is mathematically certain prior to conducting the full four additional quarters of monitoring), review of control measures must be conducted and take one of the two actions above.

Table 4-1 Quarterly Benchmark Sample Results

Analyte				BLDG 132		BLDG 132		BLDG 132		BLDG 132		BLDG 132		
			sector N - Scrap Recycling Benchmark	1 580-119081-1 1		580-119081-1		580-119081-1		580-1	19081-1	580-119081-1		
	method	Units		Q4 -	Q4 - 2022		Q1 - 2023		Q2 - 2023		Q3- 2023		AVERAGE	
				Result	RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier	
Aluminum	200.8_CWA	mg/L	0.75	1.2								1.2		
Copper	200.8_CWA	mg/L	0.0048	0.032								0.032		
Iron	200.8_CWA	mg/L	1	1.6								1.6		
Lead	200.8_CWA	mg/L	0.21	0.0051								0.0051		
Zinc	200.8_CWA	mg/L	0.09	0.054								0.054		
Total Suspended Solids	2540D	mg/L	100	17								17		
Chemical Oxygen Demand	5220D	mg/L	120	38								38		

Notes:

Red text in bold indicates a benchmark exceedance

APPENDIX A

Photographs of Storm Event



Quarterly benchmark photograph of stormwater control measures and sample location taken shortly after storm.



Photograph of Visual Inspection



APPENDIX B

Analytical Laboratory Report



Environment Testing

ANALYTICAL REPORT

Eurofins Seattle 5755 8th Street East Tacoma, WA 98424 Tel: (253)922-2310

Laboratory Job ID: 580-119081-1

Client Project/Site: MCBH 2023 Stormwater - BLDG 132

For:

Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

Attn: Marvin Heskett

Shuid ony-

Authorized for release by: 10/31/2022 3:57:12 PM

Sheri Cruz, Project Manager I (253)922-2310

Sheri.Cruz@et.eurofinsus.com

·····LINKS ······

Review your project results through

Have a Question?



Visit us at: www.eurofinsus.com/Env This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Stormwater - BLDG 132

Job ID: 580-119081-1

Job ID: 580-119081-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-119081-1

Comments

No additional comments.

Receipt

The sample was received on 10/21/2022 9:45 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -1.7° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Definitions/Glossary

Client: Element Environmental, LLC Job ID: 580-119081-1

Project/Site: MCBH 2023 Stormwater - BLDG 132

Glossary

LOQ

Abbreviation These commonly used abbreviations may or may not be present in this report. Listed under the "D" column to designate that the result is reported on a dry weight basis %R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid DER Duplicate Error Ratio (normalized absolute difference) Dil Fac **Dilution Factor** Detection Limit (DoD/DOE) DL DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DLC Decision Level Concentration (Radiochemistry) EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

Limit of Quantitation (DoD/DOE)

MDL Method Detection Limit MI Minimum Level (Dioxin) Most Probable Number MPN MQL Method Quantitation Limit

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive **Quality Control** 0C

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Detection Summary

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Stormwater - BLDG 132

Client Sample ID: BLDG 132

Lab Sample ID: 580-119081-1

Job ID: 580-119081-1

Analyte	Result Qua	alifier RL	MDL	Unit	Dil Fac D	Method	Prep Type
Aluminum	1.2	0.040	0.0058	mg/L		200.8	Total/NA
Copper	0.032	0.0020	0.00060	mg/L	1	200.8	Total/NA
Iron	1.6	0.10	0.013	mg/L	1	200.8	Total/NA
Lead	0.0051	0.00040	0.000040	mg/L	1	200.8	Total/NA
Zinc	0.054	0.0070	0.00093	mg/L	1	200.8	Total/NA
Total Suspended Solids	17	2.2	2.2	mg/L	1	SM 2540D	Total/NA
Chemical Oxygen Demand	38	10	10	mg/L	1	SM 5220D	Total/NA

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Client Sample Results

Client: Element Environmental, LLC Job ID: 580-119081-1

Project/Site: MCBH 2023 Stormwater - BLDG 132

Client Sample ID: BLDG 132

Date Collected: 10/19/22 16:19 Date Received: 10/21/22 09:45 Lab Sample ID: 580-119081-1

Matrix: Water

Method: EPA 200.8 - Metals (IC	P/MS)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.2		0.040	0.0058	mg/L		10/27/22 19:45	10/28/22 14:37	1
Copper	0.032		0.0020	0.00060	mg/L		10/27/22 19:45	10/28/22 14:37	1
Iron	1.6		0.10	0.013	mg/L		10/27/22 19:45	10/28/22 14:37	1
Lead	0.0051		0.00040	0.000040	mg/L		10/27/22 19:45	10/28/22 14:37	1
Zinc	0.054		0.0070	0.00093	mg/L		10/27/22 19:45	10/28/22 14:37	1
- General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	17		2.2	2.2	mg/L			10/25/22 14:33	1
Chemical Oxygen Demand (SM 5220D)	38		10	10	mg/L		10/27/22 19:01	10/27/22 23:12	1

10/31/2022

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Client: Element Environmental, LLC Job ID: 580-119081-1

MD MD

Project/Site: MCBH 2023 Stormwater - BLDG 132

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-408227/26-A

Matrix: Water

Analysis Batch: 408379

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 408227

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.040	0.0058	mg/L		10/27/22 19:45	10/28/22 13:13	1
Copper	ND		0.0020	0.00060	mg/L		10/27/22 19:45	10/28/22 13:13	1
Iron	ND		0.10	0.013	mg/L		10/27/22 19:45	10/28/22 13:13	1
Lead	ND		0.00040	0.000040	mg/L		10/27/22 19:45	10/28/22 13:13	1
Zinc	ND		0.0070	0.00093	mg/L		10/27/22 19:45	10/28/22 13:13	1

Lab Sample ID: LCS 580-408227/27-A

Matrix: Water

Analysis Batch: 408379

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 408227

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aluminum	20.0	19.5		mg/L		98	85 - 115	
Copper	1.00	0.984		mg/L		98	85 - 115	
Iron	20.0	19.1		mg/L		95	85 - 115	
Lead	1.00	0.995		mg/L		99	85 - 115	
Zinc	1.00	0.986		mg/L		99	85 - 115	

Lab Sample ID: LCSD 580-408227/28-A

Matrix: Water

Analysis Batch: 408379

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 408227

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	20.0	19.7		mg/L		98	85 - 115	1	20
Copper	1.00	0.970		mg/L		97	85 - 115	1	20
Iron	20.0	19.3		mg/L		97	85 - 115	1	20
Lead	1.00	0.999		mg/L		100	85 - 115	0	20
Zinc	1.00	0.971		mg/L		97	85 - 115	2	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 580-407847/1

Matrix: Water

Analysis Batch: 407847

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Type: Total/NA

MB MB

RL Unit Analyte **Result Qualifier** RL Prepared Analyzed Dil Fac 2.0 mg/L Total Suspended Solids 2.0 10/25/22 14:33 ND

Lab Sample ID: LCS 580-407847/2

Matrix: Water

Analysis Batch: 407847

		Spike	LCS	LCS				%Rec	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	,
Total Suspended Solids		500	476		mg/L	_	95	80 - 12	.0

Eurofins Seattle

QC Sample Results

Client: Element Environmental, LLC Job ID: 580-119081-1

Project/Site: MCBH 2023 Stormwater - BLDG 132

Method: SM 5220D - COD

Lab Sample ID: MB 580-408225/3-A **Client Sample ID: Method Blank**

MB MB

Matrix: Water

Analysis Batch: 408242

Prep Type: Total/NA

Prep Batch: 408225

Analyte Result Qualifier RL **RL** Unit Analyzed Dil Fac Prepared 10 10/27/22 19:01 10/27/22 23:12 **Chemical Oxygen Demand** ND 10 mg/L

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 580-408225/4-A **Matrix: Water** Prep Type: Total/NA Analysis Batch: 408242 **Prep Batch: 408225**

Spike LCS LCS %Rec

Added Result Qualifier Unit D %Rec Limits **Chemical Oxygen Demand** 75.0 76.1 101 80 - 120 mg/L

Client Sample ID: Lab Control Sample Dup Lab Sample ID: LCSD 580-408225/5-A Prep Type: Total/NA

Matrix: Water

Analysis Batch: 408242 Prep Batch: 408225 Spike LCSD LCSD %Rec

RPD Limits Analyte Added Result Qualifier Unit RPD Limit %Rec Chemical Oxygen Demand 75.0 76.1 101 80 - 120 20 mg/L

Lab Chronicle

Client: Element Environmental, LLC Job ID: 580-119081-1

Project/Site: MCBH 2023 Stormwater - BLDG 132

Client Sample ID: BLDG 132

Date Received: 10/21/22 09:45

Date Collected: 10/19/22 16:19

Lab Sample ID: 580-119081-1

Matrix: Water

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	200.8			408227	TMH	EET SEA	10/27/22 19:45
Total/NA	Analysis	200.8		1	408379	FCW	EET SEA	10/28/22 14:37
Total/NA	Analysis	SM 2540D		1	407847	AUA	EET SEA	10/25/22 14:33
Total/NA	Prep	SM 5220			408225	MLT	EET SEA	10/27/22 19:01
Total/NA	Analysis	SM 5220D		1	408242	MLT	EET SEA	10/27/22 23:12

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Stormwater - BLDG 132

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4167	07-08-23

1

Job ID: 580-119081-1

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Sample Summary

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Stormwater - BLDG 132

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-119081-1	BLDG 132	Water	10/19/22 16:19	10/21/22 09:45

Job ID: 580-119081-1

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Eurofins TestAmerica, Seattle 5755 8th Street East

Chain of Custody Record

🔅 eurofins

Environment Testing America

Tacoma, WA 98424-1317

Facoma, WA 98424-1317 Shone 253.922.2310 fax 253.922.5047	Reau	latory Pro	gram: 🗆	Dw [] NPDES] RCR	Ą	Other:				Te	stAm	erica L	abor	atories, Inc. d/b/a Eurofi	ns TestAmeri	ca
SHOTHE 200.022.2010 Tax 200.022.0047	Project Mana					1											COC No:		
Client Contact	Email: mhesk				······································	Site	Con	tact:	Marvin Heskett	<u> </u>	Date:						1 of1	COCs	
Element Environmental	Tel/Fax: (808					Lab	Con	act:	Sheri Cruz		Carri	er:Fec	ΙΕx				TALS Project #:		
Address 98-030 Hekaha St. Unit 9		nalysis Tur	naround Ti	me		TT	Т		u _Z	T				Π	T		Sampler:		
City/State/Zip Alea, HI 96701	☐ CALENDAR			KING DAY	S	1 _			d d								For Lab Use Only:		
		if different from	Relow			z			Fe.								Walk-in Client:		
808) 448-1200 Phone 808) 448-1300 FAX	1 🕝 🗀	2 week				z >	:		ů,				ľ		İ	***************************************	Lab Sampling:		
Project Name:MCBH 2023 Stormwater	1 0	1 week	•			ے اجا	1		ا ا أ	İ									
Site: BLDG 132	1 🗓	2 days				ψ <u>γ</u>			200.8 AI,								Job / SDG No.:		П
O# 220066		1 day				Sample (Y/N)			500										٦
- O # 220000		1 007	Sample	1		S ₹			Metals										٦
Sample Identification	Sample Date	Sample Time	Type (C=Comp, G∞Grab)	Matrix	# of Cont.	Filtered	COD	TSS	Total Me								Sample Specific	: Notes:	
	10/19/2022	16:19	G	sw	3	N		х	х	1									1
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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3;	3=NAU/1, 0= 1	vrijei				S	amp	e Di	sposal (A fee π	av be	asses	ssed i	f samp	les a	re ret	ainec	l longer than 1 month)		٦
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Pleas	e List any EPA	Waste Code	es for the sa	ample in	the	ľ							•				-		1
Comments Section if the lab is to dispose of the sample.	•																		١
□ Non-Upword □ Stammable □ Skin Irritant	Poison B		Unkno	wn		\Box	∏ R	eturn	to Client		sposal b	v Lab		□ A	rchive fo	or	Months		ᅱ
Special Instructions/QC Requirements & Comments: Plea	se report Eler	nent Enviro	nmental A1	, A3 ED	D, Use	MUR	met	nods	for CWA comp	liance	9								-
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Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020

Login Sample Receipt Checklist

Client: Element Environmental, LLC

Job Number: 580-119081-1

Login Number: 119081 List Source: Eurofins Seattle

List Number: 1

Creator: Holdener, Heather D

Creator. Holderier, Heather D		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Marine Corps Base Hawaii

Kaneohe, Oahu, Hawaii

Quarterly Storm Water Report

NPDES File No. HI S000007

Final

Building 132 Recycle Center

April 2023

Prepared for MCBH by Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

N62742-17-D-1802 CTO N6274222F0208

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Acronyms and Abbreviations

°C	degrees Celsius
COD	Chemical Oxygen Demand
СТО	Contract Task Order
DL	Detection Limit
E2	Element Environmental, LLC
HAR	Hawaii Administrative Rules
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCBH	Marine Corps Base Hawaii
ug/L	Microgram per liter
mg/L	Milligram per liter
mph	Mile per hour
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
QA/QC	Quality Assurance/Quality Control
RL	Reporting Limit
SSHP	Site Safety and Health Plan
SWPPP	Stormwater Pollution Prevention Plan
TSS	Total Suspended Solids

1.0 Project Purpose and Location

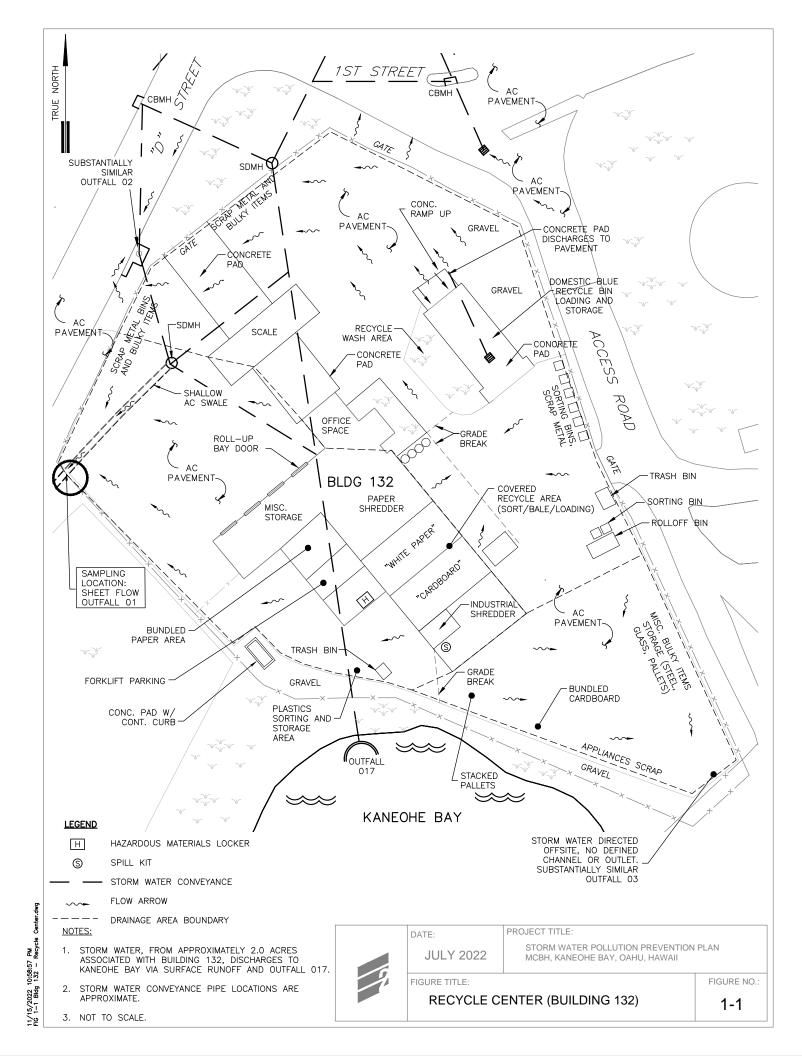
The purpose of this project is to fulfill the requirements of the National Pollutant Discharge Elimination System (NPDES), Permit Number HI S000007, which includes collection and analyses of storm water from a representative storm water event, as defined by the NPDES permit.

The NPDES program is designed to determine the presence of contaminants in surface flow of rain water from designated contributory areas at a site following representative rain events. Figure 1-1 shows the contributory area for the site.

The Recycle Center, Building 132 is considered to be under industrial activity sector N-Scrap Recycling, and thus is required to perform Quarterly Benchmark Sampling. Benchmark monitoring data are primarily for MCBH's use to determine the overall effectiveness of control measures and to assist in determining when additional corrective action(s) may be necessary. A benchmark exceedance is not a permit violation, however, if corrective action is required as a result of a benchmark exceedance, failure to conduct required corrective action is a permit violation.

Quarterly Benchmark Sampling of storm water discharge from the representative sampling location at the Recycle Center (Figure 1-1) will be monitored in accordance with Table 3-1 from the SWPPP. A Quarterly Visual Assessment of storm water discharge is also required for all industrial facilities at MCBH. Storm water samples for this visual assessment but must be collected in such a manner that the samples are representative of the storm water discharge from the facility. Therefore, the water sample must be collected at the designated storm water monitoring point, as shown in Figure 1-1. The Quarterly Visual Assessment checklist presented in this report shall be maintained by the current facility ECC and kept onsite as part of this Quarterly report.

All work conducted during this project was performed in accordance with the NPDES Permit Number HI S000007; and the applicable Quality Assurance/Quality Control (QA/QC) Plan and Site Safety and Health Plan (SSHP) prepared for this project. Performance Work Statement entitled "Clean Water Program Services for Marine Corps Base Hawaii, FY22" dated July 22, 2022. Work was performed by Element Environmental, LLC (E2) and its subcontractors under Contract Number N62742-17-D-1802, Contract Task Order (CTO) N6274222F0208.



2.0 Methodology and Storm Event Summary

As per the NPDES permit, stormwater samples are to be collected from a qualifying storm, defined as follows:

A minimum of one grab sample shall be collected from a discharge resulting from a measurable storm event. Samples must be collected within the first 30 minutes of a discharge associated with a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, the sample must be collected as soon as practicable after the first 30 minutes and documentation must be kept with the report explaining why it was not possible to take samples within the first 30 minutes.

Samples were collected using an ISCO automated sampler. The Storm Event Summary is shown in Table 2-1 below.

Table 2-1 Storm Event Summary

Storm Event Start Date and Time	3/28/23 3:45 PM
Flow Start Date and Time	3/28/23 10:00 PM
Sample Collection Date and Time	3/29/23 10:06 PM
Event Flow Duration at Monitoring Point (hour)	15.75
Approximate Event Rainfall Duration (hour)	20.0
Event Rainfall Total (from ISCO gauge) (inch)	0.94
Drainage Area (A) (Acres)	0.33
Run-off Coefficient (C)*	0.7
Discharge Volume in gallons (Estimated using rational method)	5847
Peak Discharge (from calculation) in cubic feet per second (cfs)	0.01
Rainfall Event >0.1 during previous 72 hours?	No
Weather Conditions	moderate rainfall event
Sample Appearance	Clear color, sediment at bottom of sample jar
Sample Collection Method	automated - ISCO sampler
Field Parameter Instrument	N/A

Note:

^{*}Runoff co-efficient for industrial areas from the *City and County of Honolulu Department of Planning and Permitting, Rules Relating to Storm Drainage Standards*, Table 4, page 52, January 2000, Revised September 2012.

3.0 Quarterly Visual Assessment

The visual assessment was conducted:

- Of a sample collected in a clean, colorless glass or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and documented why it was not possible to take the sample within the first 30 minutes; and
- For storm events, on discharges that occur at least 72 hours (three days) from the previous discharge.

The results of the Visual Assessment are shown in Table 3-1 below.

Table 3-1 Visual Assessment Form

Visual As	ssessment
Color	clear
Odor	none
Clarity	clear
Oil sheen present	No
Floating Solids Present	No
Settled Solids Present	Sediment at bottom of jar
Suspended Solids present	No
Foam present	No
Other signs of pollution	No
Nature of the discharge	runoff ponded offsite at perimeter fence
Results of observations of the storm water discharge	sediments from exposed soil
Probable sources of stormwater contamination	none / background
If applicable, why was it not possible to collect samples within the first 30 minutes	Not Applicable

4.0 Quarterly Benchmark Samples

Samples were collected from the sampling location designated in the SWPPP as seen in Figure 1-1 and submitted to the Analytical Laboratory identified in the Table 3-1 of the SWPPP. Photographs demonstrating the stormwater control measures were taken and included in Appendix A. Laboratory results are compared to their respective Benchmark values as shown in Table 4-1.

4.1.1 Data Not Exceeding Benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter does not exceed the benchmark value, MCBH has fulfilled monitoring requirements for that parameter for the permit term.

4.1.2 Data Exceeding Benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter exceeds the benchmark, review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in this permit, and either:

- Make the necessary modifications and continue quarterly monitoring until four additional quarters of monitoring are completed for which the average does not exceed the benchmark; or
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology based effluent limits or are necessary to meet the water-quality-based effluent limitations, in which case monitoring must continue once per year. Furthermore, documentation of the rationale for concluding that no further pollutant reductions are achievable must be completed and all records related to this documentation shall be retained with the site SWPPP.

Control measures must be reviewed, and any required corrective action performed immediately (or document why no corrective action is required), without waiting for the full four quarters of monitoring data, when an exceedance of the four-quarter average is mathematically certain. If after modifying control measures and conducting four additional quarters of monitoring, the average still exceeds the benchmark (or if an exceedance of the benchmark by the four-quarter average is mathematically certain prior to conducting the full four additional quarters of monitoring), review of control measures must be conducted and take one of the two actions above.

Table 4-1 Quarterly Benchmark Sample Results

Table 4-1 Quarterly Benchmark Sample Results	mark Sample	Results											na
				BLDC	BLDG 132	BLD	BLDG 132	BLDG 132	3 132	BLDG 132	3 132	BLDG 132	
			Sector N -	580-11	580-119081-1	580-1	580-125383-1						Sa
Analyte	method	Units	Recycling	Q4 -	Q4 - 2022	۵ 1	Q1 - 2023	Q2 -	Q2 - 2023	Q3- :	Q3- 2023	AVERAGE	
			Benchmark	Result	RL/ Qualifier	Result	Result RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier
Aluminum	200.8_CWA mg/L	mg/L	0.75	1.2		1.5 0.04	0.04					1.4	tes
Copper	200.8_CWA mg/L	mg/L	0.0048	0.032		0.040 0.002	0.002					0.036	Sui
Iron	200.8_CWA mg/L	mg/L	1	1.6		2.3 0.013	0.013					2.0	ıs
Lead	200.8_CWA mg/L	mg/L	0.21	0.0051		0.0093	0.0003 0.000040					0.0072	
Zinc	200.8_CWA mg/L	mg/L	0.09	0.054		0.11	0.11 0.00093					0.082	
Total Suspended Solids	2540D	T/bm	100	4١		35	0.40					26	
Chemical Oxygen Demand 5220D		mg/L	120	38		15	10					27	
Notes:													
Results with bold red text indicates a benchmark exceedance	indicates a b	enchmark	exceedance										

APPENDIX A

Photographs of Storm Event



Photo A-1. Location of autosampler and sample point



Photo A-2. Cloe up of sample point at Building 132 perimeter fence



Photo A-3. 2023 Q1 Benchmark samples in 2-liter glass sample jars at sample point

APPENDIX B

Analytical Laboratory Report

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ANALYTICAL REPORT

Attn: Marvin Heskett Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

Generated 4/13/2023 1:30:39 PM

PREPARED FOR

JOB DESCRIPTION

MCBH 2023 Stormwater BLDG 132

JOB NUMBER

580-125383-1

Eurofins Seattle 5755 8th Street East Tacoma WA <u>98424</u>



Eurofins Seattle

Job Notes

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender and destroy this report immediately. This report shall not be reproduced except in full, without prior express written approval by the laboratory.

The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Generated 4/13/2023 1:30:39 PM

Authorized for release by Sheri Cruz, Project Manager I Sheri.Cruz@et.eurofinsus.com (253)922-2310

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Eurofins Seattle is a laboratory within Eurofins Environment Testing Northwest, LLC, a company within Eurofins Environment Testing Group of Companies

Page 2 of 14

4/13/2023

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater BLDG 132 Laboratory Job ID: 580-125383-1

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Sample Summary	12
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Case Narrative

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Stormwater BLDG 132

Job ID: 580-125383-1

Job ID: 580-125383-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-125383-1

Comments

No additional comments.

Receipt

The sample was received on 3/30/2023 9:30 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.3° C.

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Definitions/Glossary

Client: Element Environmental, LLC Job ID: 580-125383-1

Project/Site: MCBH 2023 Stormwater BLDG 132

Glossary

LOQ

Abbreviation These commonly used abbreviations may or may not be present in this report. Listed under the "D" column to designate that the result is reported on a dry weight basis %R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid DER Duplicate Error Ratio (normalized absolute difference) Dil Fac **Dilution Factor** Detection Limit (DoD/DOE) DL DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DLC Decision Level Concentration (Radiochemistry) EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry) MDL Method Detection Limit

Limit of Quantitation (DoD/DOE)

ML Minimum Level (Dioxin) Most Probable Number MPN MQL Method Quantitation Limit

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive **Quality Control** 0C

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Eurofins Seattle

Detection Summary

Client: Element Environmental, LLC

Client Sample ID: BLDG 132

Project/Site: MCBH 2023 Stormwater BLDG 132

Lab Sample ID: 580-125383-1

Job ID: 580-125383-1

Analyte	Result Qualifie	er RL	MDL	Unit	Dil Fac D	Method	Prep Type
Aluminum	1.5	0.040	0.0058	mg/L		200.8	Total/NA
Copper	0.040	0.0020	0.00060	mg/L	1	200.8	Total/NA
Iron	2.3	0.10	0.013	mg/L	1	200.8	Total/NA
Lead	0.0093	0.00040	0.000040	mg/L	1	200.8	Total/NA
Zinc	0.11	0.0070	0.00093	mg/L	1	200.8	Total/NA
Total Suspended Solids	35	0.40	0.40	mg/L	1	SM 2540D	Total/NA
Chemical Oxygen Demand	15	10	10	mg/L	1	SM 5220D	Total/NA

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Client Sample Results

Client: Element Environmental, LLC Job ID: 580-125383-1

Project/Site: MCBH 2023 Stormwater BLDG 132

Lab Sample ID: 580-125383-1 **Client Sample ID: BLDG 132** Date Collected: 03/28/23 22:06

Matrix: Water

Date Received: 03/30/23 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.5		0.040	0.0058	mg/L		04/10/23 15:57	04/11/23 16:45	1
Copper	0.040		0.0020	0.00060	mg/L		04/10/23 15:57	04/11/23 16:45	1
Iron	2.3		0.10	0.013	mg/L		04/10/23 15:57	04/11/23 16:45	1
Lead	0.0093		0.00040	0.000040	mg/L		04/10/23 15:57	04/11/23 16:45	1
Zinc	0.11		0.0070	0.00093	mg/L		04/10/23 15:57	04/11/23 16:45	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	35		0.40	0.40	mg/L			04/03/23 09:33	1
Chemical Oxygen Demand (SM 5220D)	15		10	10	mg/L		04/08/23 21:21	04/09/23 00:48	1

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Stormwater BLDG 132

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-422848/26-A

Matrix: Water

Analysis Batch: 423038

Client Sample ID: Method Blank

Prep Type: Total/NA

Job ID: 580-125383-1

Prep Batch: 422848

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.040	0.0058	mg/L		04/10/23 15:57	04/11/23 13:38	1
Copper	ND		0.0020	0.00060	mg/L		04/10/23 15:57	04/11/23 13:38	1
Iron	ND		0.10	0.013	mg/L		04/10/23 15:57	04/11/23 13:38	1
Lead	ND		0.00040	0.000040	mg/L		04/10/23 15:57	04/11/23 13:38	1
Zinc	ND		0.0070	0.00093	mg/L		04/10/23 15:57	04/11/23 13:38	1
_									

MD MD

Lab Sample ID: LCS 580-422848/27-A

Matrix: Water

Analysis Batch: 423038

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 422848

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aluminum	20.0	21.5		mg/L		108	85 - 115	
Copper	1.00	1.07		mg/L		107	85 - 115	
Iron	20.0	20.4		mg/L		102	85 - 115	
Lead	1.00	1.11		mg/L		111	85 - 115	
Zinc	1.00	1.04		mg/L		104	85 - 115	

Lab Sample ID: LCSD 580-422848/28-A

Matrix: Water

Analysis Batch: 423038

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 422848

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	20.0	20.4		mg/L		102	85 - 115	5	20
Copper	1.00	1.05		mg/L		105	85 - 115	1	20
Iron	20.0	19.9		mg/L		100	85 - 115	2	20
Lead	1.00	1.06		mg/L		106	85 - 115	5	20
Zinc	1.00	1.04		mg/L		104	85 - 115	1	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 580-422103/1

Matrix: Water

Analysis Batch: 422103

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB RL Unit Analyte Result Qualifier RL Prepared Analyzed Dil Fac Total Suspended Solids 0.40 0.40 mg/L 04/03/23 09:33 ND

Lab Sample ID: LCS 580-422103/2

Matrix: Water

Analysis Batch: 422103

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit D %Rec Limits 500 458 92 80 - 120 **Total Suspended Solids** mg/L

Eurofins Seattle

4/13/2023

QC Sample Results

Client: Element Environmental, LLC Job ID: 580-125383-1

Project/Site: MCBH 2023 Stormwater BLDG 132

Method: SM 5220D - COD

Lab Sample ID: MB 580-422725/3-A **Client Sample ID: Method Blank**

Matrix: Water

Analysis Batch: 422727

Prep Type: Total/NA Prep Batch: 422725 MB MB

Analyte Result Qualifier RL **RL** Unit Prepared Analyzed Dil Fac 04/08/23 21:21 04/09/23 00:48 10 **Chemical Oxygen Demand** ND 10 mg/L

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 580-422725/4-A **Matrix: Water** Prep Type: Total/NA Analysis Batch: 422727 **Prep Batch: 422725**

Spike LCS LCS %Rec Added Result Qualifier Unit D %Rec Limits **Chemical Oxygen Demand** 75.0 73.3 98 80 - 120 mg/L

Client Sample ID: Lab Control Sample Dup Lab Sample ID: LCSD 580-422725/5-A

Matrix: Water Prep Type: Total/NA **Analysis Batch: 422727**

Prep Batch: 422725 Spike LCSD LCSD %Rec RPD Limits Analyte Added Result Qualifier RPD Limit Unit D %Rec

Chemical Oxygen Demand 75.0 71.3 95 80 - 120 20 mg/L

Lab Chronicle

Client: Element Environmental, LLC Job ID: 580-125383-1

Project/Site: MCBH 2023 Stormwater BLDG 132

Client Sample ID: BLDG 132

Lab Sample ID: 580-125383-1 Date Collected: 03/28/23 22:06 Date Received: 03/30/23 09:30

Matrix: Water

Batch Batch Dilution Batch Prepared **Prep Type** Method Number Analyst or Analyzed Type Run **Factor** Lab 04/10/23 15:57 Total/NA Prep 200.8 422848 JLS EET SEA 200.8 423008 FCW Total/NA 04/11/23 16:45 Analysis 1 **EET SEA** Analysis Total/NA SM 2540D 1 422103 AUA **EET SEA** 04/03/23 09:33 Total/NA 04/08/23 21:21 Prep SM 5220 422725 MLT **EET SEA** Total/NA Analysis SM 5220D 422727 MLT **EET SEA** 04/09/23 00:48 1

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Stormwater BLDG 132

Job ID: 580-125383-1

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date	
Oregon	NELAP	4167	07-07-23	

3_1

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Sample Summary

Client: Element Environmental, LLC

Project/Site: MCBH 2023 Stormwater BLDG 132

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-125383-1	BLDG 132	Water	03/28/23 22:06	03/30/23 09:30

1

Job ID: 580-125383-1

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Eurofins TestAmerica, Seattle

5755 8th Street East

Chain of Custody Record

4	eurofins
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Environment Testing

America Tacoma, WA 98424-1317 phone 253.922.2310 fax 253.922.5047 Regulatory Program: ☐ DW ☐ NPDES RCRA Other: TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica Project Manager: Marvin Heskett COC No: **Client Contact** Email: mheskett@e2hi.com Site Contact: Marvin Heskett COCs Date: of ___1_ Element Environmental Tel/Fax: (808) 448-1200 Lab Contact: Sheri Cruz Carrier:FedEx TALS Project #: Address 98-030 Hekaha St. Unit 9 **Analysis Turnaround Time** Sampler: City/State/Zip Aiea, HI 96701 CALENDAR DAYS WORKING DAYS ď For Lab Use Only: (808) 448-1200 Phone TAT if different from Below Walk-in Client: (808) 448-1300 FAX 7 2 weeks ð Lab Sampling: Project Name: MCBH 2023 Stormwater 1 week ₹ 200.8 Site: BLDG 132 2 days Job / SDG No.: PO# 220066 1 day Sample Type Sample Sample 8 otai # of (C=Comp, TSS Sample Identification Date Time G=Grab) Matrix Cont. Sample Specific Notes: **BLDG 132** 3/28/2023 22:06 SW X X 3 Х Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Possible Hazard Identification: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. Skin Irritant Poison B Unknown Disposal by Lab Archive for Months Special Instructions/QC Requirements & Comments: Please report Element Environmental A1, A3 EDD, Use MUR methods for CWA compliance Custody Seals Intact: Yes / 🗌 No Custody Seal No.: Cooler Temp. (°C): Obs'd: Corr'd: Therm ID No.: Relinguished by: Company: Element Environmental, Received by: Date/Time: Company: Relinguished by: Company: Date/Time: Company: Date/Time: 3/30/23 Received by: 0930 Relinguished by: Date/Time: Company: Received in Laboratory by: Company:

Page 13 of 14 12/1.6

Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020 18/GelICe/BUD 4/13/2023

Client: Element Environmental, LLC

Job Number: 580-125383-1

Login Number: 125383 List Source: Eurofins Seattle

List Number: 1

Creator: Prigge, Madison

ordator. I riggo, madicori		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Marine Corps Base Hawaii

Kaneohe, Oahu, Hawaii

Quarterly Storm Water Report

NPDES File No. HI S000007

Final

Building 132 Recycle Center

July 2023

Prepared for MCBH by Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

N62742-17-D-1802 CTO N6274222F0208

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Acronyms and Abbreviations

°C	degrees Celsius
COD	
СТО	
DL	Detection Limit
E2	Element Environmental, LLC
HAR	Hawaii Administrative Rules
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCBH	Marine Corps Base Hawaii
ug/L	Microgram per liter
mg/L	Milligram per liter
mph	Mile per hour
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
QA/QC	Quality Assurance/Quality Control
RL	Reporting Limit
SSHP	Site Safety and Health Plan
SWPPP	Stormwater Pollution Prevention Plan
TSS	Total Suspended Solids

1.0 Project Purpose and Location

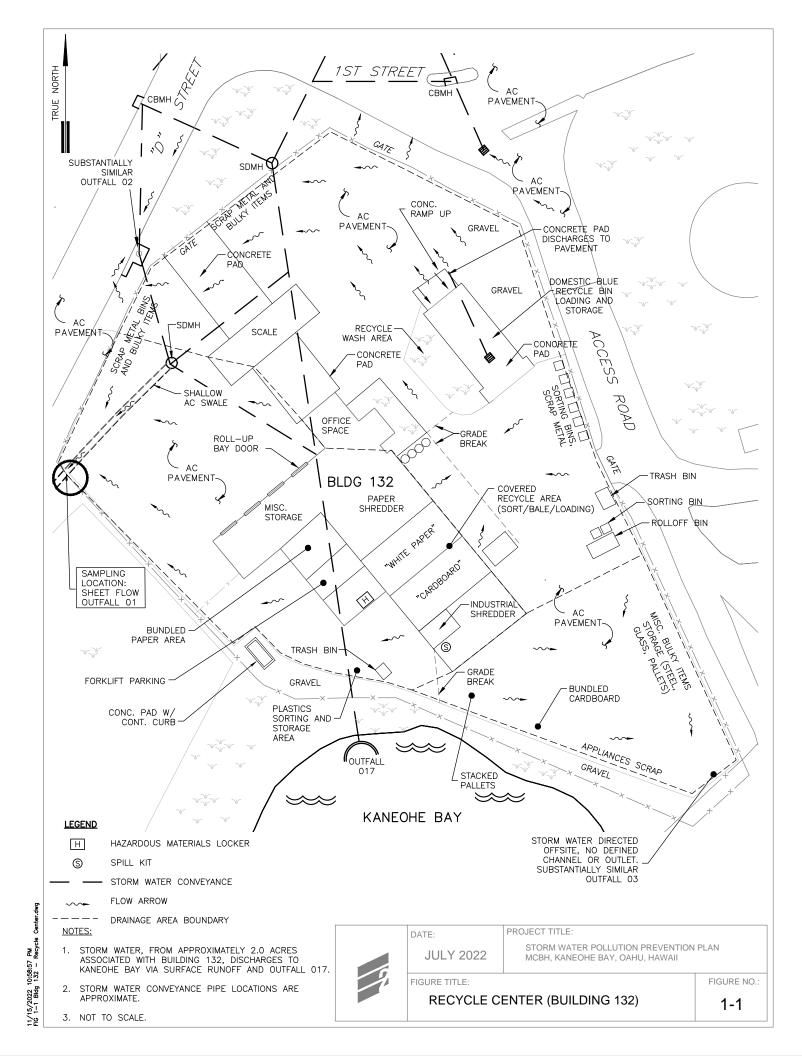
The purpose of this project is to fulfill the requirements of the National Pollutant Discharge Elimination System (NPDES), Permit Number HI S000007, which includes collection and analyses of storm water from a representative storm water event, as defined by the NPDES permit.

The NPDES program is designed to determine the presence of contaminants in surface flow of rain water from designated contributory areas at a site following representative rain events. Figure 1-1 shows the contributory area for the site.

The Recycle Center, Building 132 is considered to be under industrial activity sector N-Scrap Recycling, and thus is required to perform Quarterly Benchmark Sampling. Benchmark monitoring data are primarily for MCBH's use to determine the overall effectiveness of control measures and to assist in determining when additional corrective action(s) may be necessary. A benchmark exceedance is not a permit violation, however, if corrective action is required as a result of a benchmark exceedance, failure to conduct required corrective action is a permit violation.

Quarterly Benchmark Sampling of storm water discharge from the representative sampling location at the Recycle Center (Figure 1-1) will be monitored in accordance with Table 3-1 from the SWPPP. A Quarterly Visual Assessment of storm water discharge is also required for all industrial facilities at MCBH. Storm water samples for this visual assessment but must be collected in such a manner that the samples are representative of the storm water discharge from the facility. Therefore, the water sample must be collected at the designated storm water monitoring point, as shown in Figure 1-1. The Quarterly Visual Assessment checklist presented in this report shall be maintained by the current facility ECC and kept onsite as part of this Quarterly report.

All work conducted during this project was performed in accordance with the NPDES Permit Number HI S000007; and the applicable Quality Assurance/Quality Control (QA/QC) Plan and Site Safety and Health Plan (SSHP) prepared for this project. Performance Work Statement entitled "Clean Water Program Services for Marine Corps Base Hawaii, FY22" dated July 22, 2022. Work was performed by Element Environmental, LLC (E2) and its subcontractors under Contract Number N62742-17-D-1802, Contract Task Order (CTO) N6274222F0208.



2.0 Methodology and Storm Event Summary

As per the NPDES permit, stormwater samples are to be collected from a qualifying storm, defined as follows:

A minimum of one grab sample shall be collected from a discharge resulting from a measurable storm event. Samples must be collected within the first 30 minutes of a discharge associated with a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, the sample must be collected as soon as practicable after the first 30 minutes and documentation must be kept with the report explaining why it was not possible to take samples within the first 30 minutes.

Samples were collected using an ISCO automated sampler. The Storm Event Summary is shown in Table 2-1 below.

Table 2-1 Storm Event Summary

Storm Event Start Date and Time	6/16/23 1:45 AM
Flow Start Date and Time	6/16/23 1:55 AM
Sample Collection Date and Time	6/16/23 2:00 AM
Flow Duration at Monitoring Point (hour)	1.00
Approximate Event Rainfall Duration (hour)	1.0
Event Rainfall Total (from ISCO gauge) (inch)	0.17
Drainage Area (A) (Acres)	0.33
Run-off Coefficient (C)*	0.7
Discharge Volume in gallons (Estimated using rational method)	1057
Peak Discharge (from calculation) in cubic feet per second (cfs)	0.04
Rainfall Event >0.1 during previous 72 hours?	No
Weather Conditions	moderate rainfall event
Sample Appearance	Yellow color, some sediment at bottom of sample jar
Sample Collection Method	automated - ISCO sampler
Field Parameter Instrument	N/A

Note:

^{*}Runoff co-efficient for industrial areas from the *City and County of Honolulu Department of Planning and Permitting, Rules Relating to Storm Drainage Standards*, Table 4, page 52, January 2000, Revised September 2012.

3.0 Quarterly Visual Assessment

The visual assessment was conducted:

- Of a sample collected in a clean, colorless glass or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and documented why it was not possible to take the sample within the first 30 minutes; and
- For storm events, on discharges that occur at least 72 hours (three days) from the previous discharge.

The results of the Visual Assessment are shown in Table 3-1 below.

Table 3-1 Visual Assessment Form

Visual A	ssessment				
Color	yellow				
Odor	none				
Clarity	slightly turbid				
Oil sheen present	No				
Floating Solids Present	No				
Settled Solids Present	Some sediment at bottom of jar				
Suspended Solids present	No				
Foam present	No				
Other signs of pollution	No				
Nature of the discharge	runoff ponded offsite at perimeter fence				
Results of observations of the storm water discharge	sediments from exposed soil				
Probable sources of stormwater contamination	none / background				
If applicable, why was it not possible to collect samples within the first 30 minutes	Not Applicable				

4.0 Quarterly Benchmark Samples

Samples were collected from the sampling location designated in the SWPPP as seen in Figure 1-1 and submitted to the Analytical Laboratory identified in the Table 3-1 of the SWPPP. Photographs demonstrating the stormwater control measures were taken and included in Appendix A. Laboratory results are compared to their respective Benchmark values as shown in Table 4-1.

4.1.1 Data Not Exceeding Benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter does not exceed the benchmark value, MCBH has fulfilled monitoring requirements for that parameter for the permit term.

4.1.2 Data Exceeding Benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter exceeds the benchmark, review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in this permit, and either:

- Make the necessary modifications and continue quarterly monitoring until four additional quarters of monitoring are completed for which the average does not exceed the benchmark; or
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology based effluent limits or are necessary to meet the water-quality-based effluent limitations, in which case monitoring must continue once per year. Furthermore, documentation of the rationale for concluding that no further pollutant reductions are achievable must be completed and all records related to this documentation shall be retained with the site SWPPP.

Control measures must be reviewed, and any required corrective action performed immediately (or document why no corrective action is required), without waiting for the full four quarters of monitoring data, when an exceedance of the four-quarter average is mathematically certain. If after modifying control measures and conducting four additional quarters of monitoring, the average still exceeds the benchmark (or if an exceedance of the benchmark by the four-quarter average is mathematically certain prior to conducting the full four additional quarters of monitoring), review of control measures must be conducted and take one of the two actions above.

Table 4-1 Quarterly Benchmark Sample Results

				BLDC	BLDG 132	BLD	BLDG 132	BLDG	BLDG 132	BLDG 132	3 132	BLDG 132	132
			Sector N -	580-11	580-119081-1	580-1	580-125383-1	580-12	580-128541-1				
Analyte	method	Units	Secycling	FY2	FY23Q1	FY	FY23Q2	FY2	FY23Q3	FY2	FY23Q4	AVER	AVERAGE
			Benchmark	Result	RL/ Qualifier	Result	Result RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier
Aluminum	200.8_CWA mg/L	mg/L	0.75	1.2		1.5	0.04	1.4	0.04			1.4	
Copper	200.8_CWA mg/L	mg/L	0.0048	0.032		0.040	0.002	0.047	0.002			0.040	
Iron	200.8_CWA mg/L	mg/L	l l	1.6		2.3	0.013	2.0	0.10			2.0	
Lead	200.8_CWA mg/L	mg/L	0.21	0.0051		0.0093	0.0003 0.000040	0.010	0.000040			0.0081	
Zinc	200.8_CWA mg/L	mg/L	60'0	0.054		0.11	0.00093	0.10	0.007			0.088	
Total Suspended Solids	2540D	mg/L	100	11		35	0.40	20	1.0			24	
Chemical Oxygen Demand 5220D	5220D	mg/L	120	38		15	10	39	10			31	
Notes:													
Results with bold red text indicates a benchmark	indicatesab	enchmark	exceedance										

APPENDIX A

Photographs of Storm Event



Photo A-1. Location of autosampler and sample point



Photo A-2. Sample jars in refrigerated autosampler at Building 132



Photo A-3. FY23Q3 Benchmark samples in 2-liter glass sample jars.

APPENDIX B

Analytical Laboratory Report

ANALYTICAL REPORT

PREPARED FOR

Attn: Marvin Heskett Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

Generated 7/5/2023 4:31:40 PM

JOB DESCRIPTION

MCBH 2023 Stormwater

JOB NUMBER

580-128541-1

Eurofins Seattle 5755 8th Street East Tacoma WA 98424



Eurofins Seattle

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Generated 7/5/2023 4:31:40 PM

Authorized for release by Sheri Cruz, Project Manager I Sheri.Cruz@et.eurofinsus.com (253)922-2310

Shuid any

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater

Laboratory Job ID: 580-128541-1

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Case Narrative

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater

Job ID: 580-128541-1

Job ID: 580-128541-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-128541-1

Comments

No additional comments.

Receipt

The sample was received on 6/20/2023 7:45 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.0° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Definitions/Glossary

Client: Element Environmental, LLC Job ID: 580-128541-1 Project/Site: MCBH 2023 Stormwater

Glossary

DL, RA, RE, IN

Ciossaiy	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry) **EDL** Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry) MDL Method Detection Limit

ML Minimum Level (Dioxin) Most Probable Number MPN MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

Negative / Absent NEG POS Positive / Present

PQL **Practical Quantitation Limit**

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points **RPD**

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) TEQ

TNTC Too Numerous To Count

Eurofins Seattle

Page 5 of 14

Detection Summary

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater

Job ID: 580-128541-1

6

Client Sample ID: BLDG 132

Lab Sample ID: 580-128541-1

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	1.4	0.040	0.0058	mg/L	1	_	200.8	Total/NA
Copper	0.047	0.0020	0.00060	mg/L	1		200.8	Total/NA
Iron	2.0	0.10	0.013	mg/L	1		200.8	Total/NA
Lead	0.010	0.00040	0.000040	mg/L	1		200.8	Total/NA
Zinc	0.10	0.0070	0.00093	mg/L	1		200.8	Total/NA
Total Suspended Solids	20	1.0	1.0	mg/L	1		SM 2540D	Total/NA
Chemical Oxygen Demand	39	10	10	ma/L			SM 5220D	Total/NA

5

0

10

11

Client Sample Results

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater

Lab Sample ID: 580-128541-1 **Client Sample ID: BLDG 132** Date Collected: 06/16/23 02:00

Matrix: Water

Job ID: 580-128541-1

Date Received: 06/20/23 07:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.4		0.040	0.0058	mg/L		06/26/23 17:14	06/27/23 18:04	1
Copper	0.047		0.0020	0.00060	mg/L		06/26/23 17:14	06/27/23 18:04	1
Iron	2.0		0.10	0.013	mg/L		06/26/23 17:14	06/27/23 18:04	1
Lead	0.010		0.00040	0.000040	mg/L		06/26/23 17:14	06/27/23 18:04	1
Zinc	0.10		0.0070	0.00093	mg/L		06/26/23 17:14	06/27/23 18:04	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	20		1.0	1.0	mg/L			06/22/23 19:07	1
Chemical Oxygen Demand (SM 5220D)	39		10	10	mg/L		07/01/23 21:12	07/01/23 23:28	1

7/5/2023

Job ID: 580-128541-1

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-430036/26-A

Matrix: Water

Analysis Batch: 430151

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 430036

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.040	0.0058	mg/L		06/26/23 17:14	06/27/23 17:02	1
Copper	ND		0.0020	0.00060	mg/L		06/26/23 17:14	06/27/23 17:02	1
Iron	ND		0.10	0.013	mg/L		06/26/23 17:14	06/27/23 17:02	1
Lead	ND		0.00040	0.000040	mg/L		06/26/23 17:14	06/27/23 17:02	1
Zinc	ND		0.0070	0.00093	mg/L		06/26/23 17:14	06/27/23 17:02	1

Lab Sample ID: LCS 580-430036/27-A

Matrix: Water

Analysis Batch: 430151

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 430036

Spike LCS LCS %Rec Added Result Qualifier Unit D %Rec Limits Analyte Aluminum 20.0 mg/L 85 - 115 20.2 101 1.00 85 - 115 Copper 1.01 mg/L 101 20.0 19.9 mg/L 85 - 115 Iron 99 1.00 0.972 97 85 - 115 Lead mg/L Zinc 1.00 0.986 mg/L gg 85 - 115

LCSD LCSD

20.3

1.01

20.3

0.982

0.993

Result Qualifier

Unit

mg/L

mg/L

mg/L

mg/L

mg/L

Spike

Added

20.0

1.00

20.0

1.00

1.00

Lab Sample ID: LCSD 580-430036/28-A

Matrix: Water

Analyte Aluminum

Copper

Iron

Lead

Zinc

Analysis Batch: 430151

Client Sample ID: Lab Control Sample Dup

102

98

99

Prep Type: Total/NA

Prep Batch: 430036 %Rec **RPD** D %Rec Limits RPD Limit 85 - 115 101 20 101 85 - 115 20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 580-429696/1

Matrix: Water

Analysis Batch: 429696

Client Sample ID: Method Blank

Prep Type: Total/NA

85 - 115

85 - 115

85 - 115

MB MB

MD MD

Analyte Result Qualifier RL **RL Unit** Prepared Analyzed Dil Fac 0.40 06/22/23 19:01 Total Suspended Solids ND 0.40 mg/L

Lab Sample ID: LCS 580-429696/2

Matrix: Water

Analysis Batch: 429696

Spike LCS LCS %Rec Added Result Qualifier Unit D %Rec Limits 500 514 103 80 - 120 **Total Suspended Solids** mg/L

Lab Sample ID: 580-128541-1 DU

Matrix: Water

Prep Type: Total/NA **Analysis Batch: 429696** Sample Sample DU DU **RPD**

Result Qualifier Result Qualifier RPD Unit D Limit Analyte **Total Suspended Solids** 20 22.5 mg/L 14 20

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20

20

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QC Sample Results

Client: Element Environmental, LLC Job ID: 580-128541-1

Project/Site: MCBH 2023 Stormwater

Method: SM 5220D - COD

Lab Sample ID: MB 580-430542/3-A **Client Sample ID: Method Blank**

Matrix: Water

Analysis

Analysis Batch: 430544								Prep Batch:	430542
	MB	MB							
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10	10	mg/L		07/01/23 21:12	07/01/23 23:28	1

Lab Sample ID: LCS 580-430542/4-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA **Prep Batch: 430542** Analysis Batch: 430544 Spike LCS LCS %Rec Added Result Qualifier Unit D %Rec Limits **Chemical Oxygen Demand** 75.0 75.3 100 80 - 120 mg/L

Client Sample ID: Lab Control Sample Dup Lab Sample ID: LCSD 580-430542/5-A **Matrix: Water** Prep Type: Total/NA Analysis Batch: 430544 **Prep Batch: 430542** Spike LCSD LCSD %Rec RPD Limits Analyte Added Result Qualifier Unit RPD Limit D %Rec Chemical Oxygen Demand 75.0 76.3 102 80 - 120 mg/L

7/5/2023

Prep Type: Total/NA

Lab Chronicle

Client: Element Environmental, LLC Job ID: 580-128541-1

Project/Site: MCBH 2023 Stormwater

Date Received: 06/20/23 07:45

Client Sample ID: BLDG 132 Lab Sample ID: 580-128541-1 Date Collected: 06/16/23 02:00

Matrix: Water

Batch Batch **Dilution** Batch Prepared **Prep Type** Method Number Analyst or Analyzed Type Run **Factor** Lab Prep 06/26/23 17:14 Total/NA 200.8 430036 JLS EET SEA 200.8 Total/NA 430151 FCW **EET SEA** 06/27/23 18:04 Analysis 1 Analysis Total/NA SM 2540D 1 429696 AUA **EET SEA** 06/22/23 19:07 Total/NA 07/01/23 21:12 Prep SM 5220 430542 FCG **EET SEA** Total/NA Analysis SM 5220D 430544 FCG **EET SEA** 07/01/23 23:28 1

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Eurofins Seattle

Accreditation/Certification Summary

Client: Element Environmental, LLC Job ID: 580-128541-1

Project/Site: MCBH 2023 Stormwater

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4167	07-07-23

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Sample Summary

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater

Job ID: 580-128541-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-128541-1	BLDG 132	Water	06/16/23 02:00	06/20/23 07:45

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Eurofins TestAmerica, Seattle

5755 8th Street East

Chain of Custody Record

💸 eurofins

Environment Testing

America Tacoma, WA 98424-1317 phone 253.922.2310 fax 253.922.5047 Regulatory Program: DW NPDES RCRA Other: TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica Project Manager: Marvin Heskett COC No: Client Contact Email: mheskett@e2hi.com Site Contact: Marvin Heskett Date: 1 of 1 COCs Element Environmental Tel/Fax: (808) 448-1200 Lab Contact: Sheri Cruz Carrier: FedEx TALS Project #: Address 98-030 Hekaha St. Unit 9 **Analysis Turnaround Time** Sampler: City/State/Zip Aiea, HI 96701 CALENDAR DAYS WORKING DAYS For Lab Use Only: ٦. (808) 448-1200 Phone Walk-in Client: TAT if different from Below (808) 448-1300 FAX 7 2 weeks Lab Sampling: S, Project Name:MCBH 2023 Stormwater 1 week ₹ Site: BLDG 132 2 days 200.8 Job / SDG No.: PO# 220066 Filtered Samp Perform MS / COD 1 day Sample Type Sample Sample (C∞Comp, Sample Identification Date Time Matrix G≈Grab) Cont. Sample Specific Notes: **BLDG 132** 6/16/2023 2:00:00 AM G SW 43 N х Х Х Preservation Used: 1= Ice, 2= HCI; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Possible Hazard Identification: Sample Disposal (A fee may be assessed if Therm. ID: Dig 3 Cust. Seal: (Y)/ N Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. Uncorr./Corr. Temp: 0.0 /-02 °C Skin Irritant Poison B Unknown Flammable Disposal by Lab Delivery: UPS / FedEx / Other: Special Instructions/QC Requirements & Comments: Please report Element Environmental A1, A3 EDD, Use MUR methods for CWA compliance Ice Type: Blue / Dry / Wet / None Label Ver. n/a Packing: Bubble Custody Seals Intact: Custody Seal No.: Cooler Temp. (°C): Obs'd: Therm ID No.: Corr'd: Relinguished by: Company: Element Environmental, Ilc Date/Time: Received by: Company: EETNU Date/Time: 16/19/23 11:00 6120123 0745 Relinquished by: Company: Date/Time: Received by: Company: Date/Time: Relinguished by: Company: Date/Time: Received in Laboratory by: Company: Date/Time:

Client: Element Environmental, LLC

Job Number: 580-128541-1

Login Number: 128541 List Source: Eurofins Seattle

List Number: 1

Creator: Prigge, Madison

oroator: r riggo, maaroon		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Marine Corps Base Hawaii

Kaneohe, Oahu, Hawaii

Quarterly Storm Water Report

NPDES File No. HI S000007

Final

Building 132 Recycle Center

October 2023

Prepared for MCBH by Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

N62742-17-D-1802 CTO N6274222F0208

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Acronyms and Abbreviations

°C	degrees Celsius
COD	
СТО	
DL	Detection Limit
E2	Element Environmental, LLC
HAR	Hawaii Administrative Rules
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCBH	Marine Corps Base Hawaii
ug/L	Microgram per liter
mg/L	Milligram per liter
mph	Mile per hour
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
QA/QC	Quality Assurance/Quality Control
RL	Reporting Limit
SSHP	Site Safety and Health Plan
SWPPP	Stormwater Pollution Prevention Plan
TSS	Total Suspended Solids

1.0 Project Purpose and Location

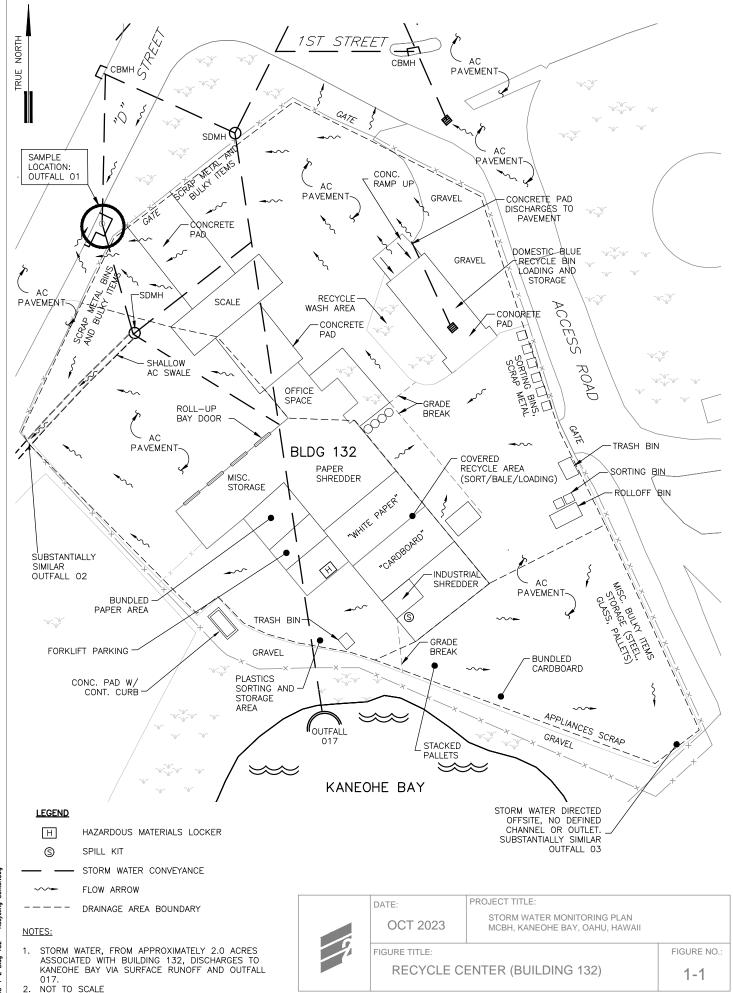
The purpose of this project is to fulfill the requirements of the National Pollutant Discharge Elimination System (NPDES), Permit Number HI S000007, which includes collection and analyses of storm water from a representative storm water event, as defined by the NPDES permit.

The NPDES program is designed to determine the presence of contaminants in surface flow of rain water from designated contributory areas at a site following representative rain events. Figure 1-1 shows the contributory area for the site.

The Recycle Center, Building 132 is considered to be under industrial activity sector N-Scrap Recycling, and thus is required to perform Quarterly Benchmark Sampling. Benchmark monitoring data are primarily for MCBH's use to determine the overall effectiveness of control measures and to assist in determining when additional corrective action(s) may be necessary. A benchmark exceedance is not a permit violation, however, if corrective action is required as a result of a benchmark exceedance, failure to conduct required corrective action is a permit violation.

Quarterly Benchmark Sampling of storm water discharge from the representative sampling location at the Recycle Center (Figure 1-1) will be monitored in accordance with Table 3-1 from the SWPPP. A Quarterly Visual Assessment of storm water discharge is also required for all industrial facilities at MCBH. Storm water samples for this visual assessment but must be collected in such a manner that the samples are representative of the storm water discharge from the facility. Therefore, the water sample must be collected at the designated storm water monitoring point, as shown in Figure 1-1. The Quarterly Visual Assessment checklist presented in this report shall be maintained by the current facility ECC and kept onsite as part of this Quarterly report.

All work conducted during this project was performed in accordance with the NPDES Permit Number HI S000007; and the applicable Quality Assurance/Quality Control (QA/QC) Plan and Site Safety and Health Plan (SSHP) prepared for this project. Performance Work Statement entitled "Clean Water Program Services for Marine Corps Base Hawaii, FY22" dated July 22, 2022. Work was performed by Element Environmental, LLC (E2) and its subcontractors under Contract Number N62742-17-D-1802, Contract Task Order (CTO) N6274222F0208.



10/12/2023 2:00:38 PM FIG 4-2 Bldg 132 - Recycling Center.dwg

2.0 Methodology and Storm Event Summary

As per the NPDES permit, stormwater samples are to be collected from a qualifying storm, defined as follows:

A minimum of one grab sample shall be collected from a discharge resulting from a measurable storm event. Samples must be collected within the first 30 minutes of a discharge associated with a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, the sample must be collected as soon as practicable after the first 30 minutes and documentation must be kept with the report explaining why it was not possible to take samples within the first 30 minutes.

Samples were collected using an ISCO automated sampler. The Storm Event Summary is shown in Table 2-1 below.

Table 2-1 Storm Event Summary

Storm Event Summary

Storm Event Summary	
Storm Event Start Date and Time	9/14/23 6:15 PM
Flow Start Date and Time	9/14/23 6:20 PM
Sample Collection Date and Time	9/14/23 6:24 PM
Flow Duration at Monitoring Point (hour)	3.67
Approximate Event Rainfall Duration (hour)	3.6
Event Rainfall Total (from ISCO gauge) (inch)	0.2
Drainage Area (A) (Acres)	0.33
Run-off Coefficient (C)*	0.7
Discharge Volume in gallons (Estimated using rational method)	1244
Peak Discharge (from calculation) in cubic feet per second (cfs)	0.01
Rainfall Event >0.1 during previous 72 hours?	No
Weather Conditions	moderate rainfall event
Sample Appearance	Light beige color, slightly opaque, some sediment and suspended solids
Sample Collection Method	automated - ISCO sampler
Field Parameter Instrument	N/A

Note:

^{*}Runoff co-efficient for industrial areas from the *City and County of Honolulu Department of Planning and Permitting, Rules Relating to Storm Drainage Standards*, Table 4, page 52, January 2000, Revised September 2012.

3.0 Quarterly Visual Assessment

The visual assessment was conducted:

- Of a sample collected in a clean, colorless glass or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and documented why it was not possible to take the sample within the first 30 minutes; and
- For storm events, on discharges that occur at least 72 hours (three days) from the previous discharge.

The results of the Visual Assessment are shown in Table 3-1 below.

Table 3-1 Visual Assessment Form

Visual A	ssessment
Color	light beige
Odor	no
Clarity	slightly opaque
Oil sheen present	No
Floating Solids Present	No
Settled Solids Present	light sediment
Suspended Solids present	some
Foam present	No
Other signs of pollution	No
Nature of the discharge	discharge to curb inlet adjacent to Building 132
Results of observations of the storm water discharge	none / background
Probable sources of stormwater contamination	none / background
If applicable, why was it not possible to collect samples within the first 30 minutes	Not Applicable

4.0 Quarterly Benchmark Samples

Samples were collected from the sampling location designated in the SWPPP as seen in Figure 1-1 and submitted to the Analytical Laboratory identified in the Table 3-1 of the SWPPP. Photographs demonstrating the stormwater control measures were taken and included in Appendix A. Laboratory results are compared to their respective Benchmark values as shown in Table 4-1.

4.1.1 Data Not Exceeding Benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter does not exceed the benchmark value, MCBH has fulfilled monitoring requirements for that parameter for the permit term.

4.1.2 Data Exceeding Benchmarks

After collection of four quarterly samples, if the average of the four monitoring values for any parameter exceeds the benchmark, review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in this permit, and either:

- Make the necessary modifications and continue quarterly monitoring until four additional quarters of monitoring are completed for which the average does not exceed the benchmark; or
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology based effluent limits or are necessary to meet the water-quality-based effluent limitations, in which case monitoring must continue once per year. Furthermore, documentation of the rationale for concluding that no further pollutant reductions are achievable must be completed and all records related to this documentation shall be retained with the site SWPPP.

Control measures must be reviewed, and any required corrective action performed immediately (or document why no corrective action is required), without waiting for the full four quarters of monitoring data, when an exceedance of the four-quarter average is mathematically certain. If after modifying control measures and conducting four additional quarters of monitoring, the average still exceeds the benchmark (or if an exceedance of the benchmark by the four-quarter average is mathematically certain prior to conducting the full four additional quarters of monitoring), review of control measures must be conducted and take one of the two actions above.

Table 4-1 Quarterly Benchmark Sample Results

			;	BLDG	BLDG 132	BLD	BLDG 132	BLDG	BLDG 132	BLDG 132	3 132	BLDG 132	132
			Sector N -	580-11	580-119081-1	580-1	580-125383-1	580-12	580-128541-1				
Analyte	method	Units	Recycling	FY2	FY23Q1	FΥ	FY23Q2	FY2	FY23Q3	FY2	FY23Q4	AVERAGE	AGE
			Benchmark	Result	RL/ Qualifier	Result	Result RL/ Qualifier Result	Result	RL/ Qualifier	Result	RL/ Qualifier	Result	RL/ Qualifier
Aluminum	200.8_CWA mg/L	mg/L	0.75	1.2		1.5	0.04	1.4	0.04	0.67	0.04	1.2	
Copper	200.8_CWA mg/L	mg/L	0.0048	0.032		0.040	0.002	0.047	0.002	0.020	0.0020	0.035	
Iron	200.8_CWA mg/L	mg/L	1	1.6		2.3	0.013	2.0	0.10	96.0	0.10	1.7	
Lead	200.8_CWA mg/L	mg/L	0.21	0.0051		0.0093	0.000040	0.010	0.000040	0.0022	B 0.00004	0.0067	
Zinc	200.8_CWA mg/L	mg/L	60'0	0.054		0.11	0.00093	0.10 0.007	200.0	0.025	0.0070	0.072	
Total Suspended Solids	2540D	mg/L	100	17		35	0.40	20	1.0	4.8	2.0	19	
Chemical Oxygen Demand	5220D	mg/L	120	38		15	10	39	10	39	10	33	
Notes:													
Results with bold red text indicates a benchmark exceedance	indicates a b	enchmark	exceedance										

APPENDIX A

Photographs of Storm Event



Photo A-1. Location of autosampler and sample point.



Photo A-2. Sample jars collected from the autosampler at Building 132.



Photo A-3. Surface of stormwater sample in a 2-liter glass sample jar.

APPENDIX B

Analytical Laboratory Report

ANALYTICAL REPORT

PREPARED FOR

Attn: Marvin Heskett Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701

Generated 10/5/2023 3:16:12 PM

JOB DESCRIPTION

MCBH 2023 Stormwater SDG NUMBER BLDG 132

JOB NUMBER

580-131923-1

Eurofins Seattle 5755 8th Street East Tacoma WA 98424



Eurofins Seattle

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

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Authorized for release by Sheri Cruz, Project Manager I Sheri.Cruz@et.eurofinsus.com (253)922-2310

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10/5/2023

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Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater

Laboratory Job ID: 580-131923-1 SDG: BLDG 132

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Case Narrative

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater Job ID: 580-131923-1

SDG: BLDG 132

Job ID: 580-131923-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-131923-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 9/23/2023 9:20 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 2540D: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: BLDG 132 (580-131923-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Definitions/Glossary

Client: Element Environmental, LLC
Project/Site: MCBH 2023 Stormwater

Job ID: 580-131923-1
SDG: BLDG 132

Qualifiers

R //	-4-	-
IVI	ρта	16

 Qualifier
 Qualifier Description

 B
 Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
Н	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor

DL Detection Limit (DoD/DOE)

DE Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Eurofins Seattle

10/5/2023

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Detection Summary

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater

Client Sample ID: BLDG 132

Job ID: 580-131923-1 SDG: BLDG 132

Lab Sample ID: 580-131923-1

Analyte	Result C	Qualifier	RL	MDL	Unit	Dil Fac D	Method	Prep Type
Aluminum	0.67		0.040	0.0058	mg/L		200.8	Total/NA
Copper	0.020		0.0020	0.00060	mg/L	1	200.8	Total/NA
Iron	0.96		0.10	0.013	mg/L	1	200.8	Total/NA
Lead	0.0022 B	3	0.00040	0.000040	mg/L	1	200.8	Total/NA
Zinc	0.025		0.0070	0.00093	mg/L	1	200.8	Total/NA
Total Suspended Solids	4.8 H	H H3	2.0	2.0	mg/L	1	SM 2540D	Total/NA
Chemical Oxygen Demand	39		10	10	mg/L	1	SM 5220D	Total/NA

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Client Sample Results

Client: Element Environmental, LLC Job ID: 580-131923-1 Project/Site: MCBH 2023 Stormwater SDG: BLDG 132

Client Sample ID: BLDG 132 Lab Sample ID: 580-131923-1 Date Collected: 09/14/23 18:24

Matrix: Water

Date Received: 09/23/23 09:20

Method: EPA 200.8 - Metals (IC	P/MS)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.67		0.040	0.0058	mg/L		09/28/23 16:06	09/29/23 12:39	1
Copper	0.020		0.0020	0.00060	mg/L		09/28/23 16:06	09/29/23 12:39	1
Iron	0.96		0.10	0.013	mg/L		09/28/23 16:06	09/29/23 12:39	1
Lead	0.0022	В	0.00040	0.000040	mg/L		09/28/23 16:06	09/29/23 12:39	1
Zinc	0.025		0.0070	0.00093	mg/L		09/28/23 16:06	09/29/23 12:39	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	4.8	Н НЗ	2.0	2.0	mg/L			09/25/23 18:01	1
Chemical Oxygen Demand (SM 5220D)	39		10	10	mg/L		09/23/23 17:45	09/23/23 21:22	1

10/5/2023

Client: Element Environmental, LLC Job ID: 580-131923-1 Project/Site: MCBH 2023 Stormwater SDG: BLDG 132

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-439134/26-A

Matrix: Water

Analysis Batch: 439419

Client Sa	ample	ID:	Meth	od	В	lar	ık	(
	_	_	_	_				

Prep Type: Total/NA

Prep Batch: 439134

	11.12								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.040	0.0058	mg/L		09/28/23 16:06	09/29/23 12:36	1
Copper	ND		0.0020	0.00060	mg/L		09/28/23 16:06	09/29/23 12:36	1
Iron	ND		0.10	0.013	mg/L		09/28/23 16:06	09/29/23 12:36	1
Lead	0.000175	J	0.00040	0.000040	mg/L		09/28/23 16:06	09/29/23 12:36	1
Zinc	ND		0.0070	0.00093	mg/L		09/28/23 16:06	09/29/23 12:36	1

MR MR

Lab Sample ID: LCS 580-439134/27-A

Matrix: Water

Analysis Batch: 439419

Client Sample	ID: Lab Control Sample
	Dron Type: Total/NA

Prep Type: Total/NA

Prep Batch: 439134

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aluminum	20.0	20.3		mg/L		101	85 - 115	
Copper	1.00	1.05		mg/L		105	85 - 115	
Iron	20.0	21.2		mg/L		106	85 - 115	
Lead	1.00	0.979		mg/L		98	85 - 115	
Zinc	1.00	1.05		mg/L		105	85 - 115	

Lab Sample ID: LCSD 580-439134/28-A

Matrix: Water

Analysis Batch: 439419

Client Sample ID: Lab	Control Sample Dup
	Prop Type: Total/NA

Prep Type: Total/NA

Prep Batch: 439134

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	20.0	20.5		mg/L		103	85 - 115	1	20
Copper	1.00	1.05		mg/L		105	85 - 115	0	20
Iron	20.0	20.9		mg/L		104	85 - 115	2	20
Lead	1.00	0.983		mg/L		98	85 - 115	0	20
Zinc	1.00	1.05		mg/L		105	85 - 115	0	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 580-438703/1

Matrix: Water

Analysis Batch: 438703

Client Sample	ID:	Meth	od Blank	
Dr	on '	Type:	Total/NA	

Prep Type: Total/NA

MB MB Analyte Result Qualifier RL RL Unit

Prepared Analyzed Dil Fac Total Suspended Solids 2.0 2.0 mg/L 09/25/23 18:01 ND

Lab Sample ID: LCS 580-438703/2

Matrix: Water

Analysis Batch: 438703

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Suspended Solids	500	414		mg/L		83	80 - 120	

Eurofins Seattle

10/5/2023

Client Sample ID: Lab Control Sample

QC Sample Results

Client: Element Environmental, LLC
Project/Site: MCBH 2023 Stormwater

Job ID: 580-131923-1
SDG: BLDG 132

Method: SM 5220D - COD

Lab Sample ID: MB 580-438512/3-A	Client Sample ID: Method Blank
Matrix: Water	Prep Type: Total/NA
Analysis Batch: 438514	Prep Batch: 438512
MB MB	

- 1	Allalysis Datell. 400014								i rep baten.	100012
		MB	MB							
	Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chemical Oxygen Demand	ND		10	10	mg/L		09/23/23 17:45	09/23/23 21:22	1

Lab Sample ID: LCS 580-438512/4-A			: Lab Control Sample				
Matrix: Water							Prep Type: Total/NA
Analysis Batch: 438514							Prep Batch: 438512
	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chemical Oxygen Demand	75.0	81.2		mg/L		108	80 - 120

Lab Sample ID: LCSD 580-438512/5-A		Client Sample ID: Lab Control Sample Dup								
Matrix: Water							Prep Ty	pe: Tot	al/NA	
Analysis Batch: 438514							Prep Ba	itch: 43	88512	
-	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chemical Oxygen Demand	75.0	83.2		mg/L		111	80 - 120	2	20	

4

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15

Lab Chronicle

Client: Element Environmental, LLC Job ID: 580-131923-1 Project/Site: MCBH 2023 Stormwater SDG: BLDG 132

Client Sample ID: BLDG 132 Lab Sample ID: 580-131923-1 Date Collected: 09/14/23 18:24

Matrix: Water

Date Received: 09/23/23 09:20

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	200.8			439134	TMH	EET SEA	09/28/23 16:06
Total/NA	Analysis	200.8		1	439419	FCW	EET SEA	09/29/23 12:39
Total/NA	Analysis	SM 2540D		1	438703	CSS	EET SEA	09/25/23 18:01
Total/NA	Prep	SM 5220			438512	MLT	EET SEA	09/23/23 17:45
Total/NA	Analysis	SM 5220D		1	438514	MLT	EET SEA	09/23/23 21:22

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Element Environmental, LLC
Project/Site: MCBH 2023 Stormwater

Job ID: 580-131923-1
SDG: BLDG 132

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4167	07-07-24

3

4

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9

1 0

11

12

Sample Summary

Client: Element Environmental, LLC Project/Site: MCBH 2023 Stormwater Job ID: 580-131923-1

SDG: BLDG 132

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-131923-1	BLDG 132	Water	09/14/23 18:24	09/23/23 09:20

Eurofins TestAmerica, Seattle

5755 8th Street East

Chain of Custody Record

\$ 2 8	eurofins	
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Environment Testing America

Tacoma, WA 98424-1317 phone 253.922.2310 fax 253.922.5047	Rea	ulatory Pro	gram:	่∃ภพ	[™] NPDE	c		DΛ	Oth	or					7	- 0 t A m	antan	Laba	mataulaa lua dikia Firestiin Taattaurii.
		ager: Marvi				Ť		n,ra	Out	C) ,					•	estAn.	ienca	Lauc	pratories, Inc. d/b/a Eurofins TestAmeric
Client Contact		ett@e2hi.con	·····			Site	e Cor	ntact	: Marvi	in Hes	kett		Date:						1 of _1 COCs
Element Environmental	Tel/Fax: (80	8) 448-1200							Sheri				Carrie	r:Fec	(Fx				TALS Project #:
Address 98-030 Hekaha St. Unit 9		Analysis Tur	naround T	ime		1 1	T	T	5	T		T		T	1	1		Т.	Sampler:
City/State/Zip Alea, HI 96701	☐ CALENDAR	DAYS	☐ Wo	RKING DAY	'S	11	_		Pb, 2										For Lab Use Only:
(808) 448-1200 Phone	TA	T if different from	n Below		***************************************	1	z	ĺ	a d		-							Ī	Walk-in Client:
(808) 448-1300 FAX		2 week				ıΞ	>	ļ	2										Lab Sampling:
Project Name:MCBH 2023 Stormwater		1 week				>		Î l	7					11					
Site: BLDG 132		2 days				<u>e</u>	Ž.		18.								ļ		Job / SDG No.:
PO# 220066		1 day				اعًا	8		500				ĺ	1 1					5007 050 110
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sc	Perform MS / MSD COD	TSS	Total Metals 200.8 AI,							THE STATE OF THE S			Sample Specific Notes:
BLDG 132	9/14/2023	18:24	G	sw	3	N	x	r - r	Х							十十		_	
	07.772020	10.24		3,,	<u> </u>	'`	<u> </u>	^		 	44								
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						<u> </u>		\dashv		_	1 1	_	+	5	30-13	923 (Chain	of C	ustody
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3;	E NeOUse o					20000 200	24 (5000000)			Kindania preside			45 (Section)	ontinue um			STATEMENT TO A COMMON	Sa k in the constitution of	mention to the control of the contro
Possible Hazard Identification:	SENACA SOLIC	met							8484										
Are any samples from a listed EPA Hazardous Waste? Pleas Comments Section if the lab is to dispose of the sample.	e List any EPA	Waste Code	s for the sa	mple in t	he	٦	ampa	e Dis	posai	(A IEE	may	pe as	sess	ea ir :	sampi	es ar	e reta	ainec	l longer than 1 month)
□ Non-Hazard □ Flammable □ Skin Irritant	Poison B		Unknov	vn		-	Пр	stures t	o Client		<u>, – 1</u>	Diene	al by L	- 1-		☐ Arc	abirra Fa		Months
pecial Instructions/QC Requirements & Comments: Please	se report Elem	ent Environ	mental A1,	A3 EDD	, Use I	NUR	meth	ods	for CW	/A con	nolian	ice	odi DV L	dD .		[] MIC	TillAG IC	Л	Months
											•								
Custody Seals Intact:	Custody Seal I	Vo.:		····				С	ooler T	Гетр.	(°C): C	Dbs'd			Corr	d:			Therm ID No.:
Relinquished by:	Company: Ele	ement Enviro	nmental,	Date/Tim	ie:	Re	eceive	gr by		· · · · · ·	i			Comp	any:	1			Date/Time: 9/23/23 <i>192</i> 0
delinquished by:	Company:			Date/Tim	ie:	Ré	ceive	d by	:			• • •	-	Comp	any:	<u> </u>			Date/Tirhe:
lelinquished by:	Company:			Date/Tim	e:	Re	eceíve	ed in	Labora	tory by	<i>/</i> :		(Comp	any:	· · · · · · · · · · · · · · · · · · ·			Date/Time:

Page 13 of 14 1.7

MB(Bub/Blue #51)

Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020

10/5/2023

Client: Element Environmental, LLC

Job Number: 580-131923-1 SDG Number: BLDG 132

Login Number: 131923 List Source: Eurofins Seattle

List Number: 1

Creator: Groves, Elizabeth

oreator. Groves, Elizabetti		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

FY 23 Annual Monitoring Report

FY 23 MCB-Hawaii Industrial Facilities

Marine Corps Base Hawaii Industrial Sites

Building No.	General Category	Description
3073	Maintenance	Helicopter Wash Facility
132	Recycling Facility	Recycle Center
1698	Maintenance	Marina Small Boat Repair Shop
351	Maintenance	Vehicle Maintenance Shop
6874	Maintenance	3rd Radio Battalion
1170, 1171	POL Storage	Aircraft Fuel Islands
1252, 1253	Storage	Fuel Division Supply Department
6802 (1388)	Maintenance	Waterfront Ops Lab/Boat Shop
1619	Maintenance	Ground Support Equipment Shop
1631	Maintenance	Aircraft Wash & Rinse Facility
6107	Maintenance	Aircraft Rinse Facility
6182	Storage	Fuel Delivery Branch & Refueler Truck Parking
6183	Maintenance	Engine Test Facility
6479	Storage	Aircraft Ready Fuel Storage
Sanitary Landfill	Sanitary Landfill	Sanitary Landfill
Water Reclamation Facility (WRF)	Utility	Water Reclamation Facility
3014	Maintenance	Combat Logistics Battalion (CLB-3) Support Company Transportation Services
5000, 5001, 5011	Maintenance	12th Marine Motor T
6751, 1400	Maintenance	4THFORRECON Auto Org Shop/Boat Shop, Wash Rack (Potential CNEE Site)
6892	Maintenance	Aircraft Wash Facility (across Hangar 104)
1551	Storage	1/12 Auto Org/Maintenance Facility (Potential CNEE Site)
146	Storage	ATC Company M Vehicle Maintenance Shop/Parking Vehicles (Potential CNEE Site)
4079	Maintenance	3DMAR Construction Engineer Shop (Potential CNEE Site)
4050	Maintenance	Golf Cart Maintenance/Storage Shed (Potential CNEE Site)
1295	Maintenance	Golf Course Maintenance Shed
6846	Maintenance	MALS-24 Airframes Composite Shop (Potential CNEE Site)



FY 23 Annual Monitoring Report

FY 23 MCB-Hawaii DMR Reports

10/1/2022 to 9/20/2023

Quarter 1

10/1/2022 to 12/31/2022

FY 23

Permit																				
		LICOCOCO T		Daumitte -	- 11	C Marina C	orno		Eq.:		MADINE	CORE	C DACE	: ШАЛА/А	II KANEO	HE BAY MUNICIP	VI CEDA		STORM SEWER	CVCTEM
Permit	#:	HIS000007		Permittee:	U	.S. Marine C	orps		Facility	/ :	(MS4)					HE BAY MUNICIPA	AL SEPAI	KAIES	STORM SEWER	SYSTEM
Major:		No		Permittee Address:		NKNOWN NKNOWN, F	HI 00000		Facility Location		BOX 63 KANEO				ACBH KAN	NEOHE BAY				
Permitte Feature		002 Internal Outfa		Discharge:	M)2-Q SGP L Benc uarterly	hmarks -													
Report	Dates & Sta	ntus	·																	
Monitor Period:		From 10/01/ 12/31/22	22 to	OMR Due D	ate: 0°	1/28/23			Status	:	NetDMR	R Valida	ted							
Consid	erations for	Form Comp	letion																	
Princip	al Executive	Officer																		
First Na	ame:	Jeffry		Γitle:	D	irector, ECPI	D		Teleph	one:	808-257	-5640								
Last Na	ıme:	Hart																		
No Date	a Indicator	NODI)	·																	
Form N	ODI:																			
	Paramete		Monitoring Locat	on Season #	Param. NOE				y or Loading						r Concentra			# of Ex.	Frequency of Analy	sis Sample Type
Code	N	ame				Sample	Qualifier 1	Value 1	Qualifier 2	Value 2 Unit	s Qualifier 1	Value 1	Qualifier	2 Value	2 Qualifier 3	Value 3	Units			
00530	Solids tota	suspended	SW - Storm Wa	er 0		Permit Req.									<=	100.0 QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
00000	oonao, tota	опорониои	OTT CLOIM TTG	0.		Value NODI										C - No Discharge				
						Sample														
00980	Iron, total r	ecoverable	SW - Storm Wa	er 0		Permit Req. Value NODI									<=	1.0 QRTR MAX C - No Discharge	19 - mg/L		01/90 - Quarterly	GR - GRAB
Submis	sion Note										L									
		one not conta	in any values fo	the Sample	nor Effluo	nt Tradina tl	hon none	of the fo	llowing fic	olde will be	cubmittoc	l for tha	t row: Ur	nite Nu	mbor of Ex	cursions, Frequen	ov of Ana	lveie o	nd Sample Type	
	eck Errors	oes not conta	in any values to	the Sample	TIOI LIIIUG	int Trading, ti	ien none	or tile ic	onowing ne	olus Will De	Submitted	i ioi tiia	t iow. Oi	iito, ivu	IIIDEI OI LA	ccursions, i requen	cy of Aria	iyəiə, a	ind Sample Type	
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Permit

Major:

Permit #: HIS000007 Permittee:

Title:

U.S. Marine Corps

Facility:

Telephone:

MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

No Permittee Address: UNKNOWN

UNKNOWN, HI 00000

Facility Location: BOX 63002, BUILDING 1360 MCBH KANEOHE BAY KANEOHE , HI 96863-3002

Permitted Feature:

007 Internal Outfall Discharge: 007-Q

MSGP N Benchmarks - Quarterly

Report Dates & Status

Monitoring Period: From 10/01/22 to 12/31/22

DMR Due Date: 01/28/23

Status:

NetDMR Validated

Considerations for Form Completion

1 Saltwater, 2 Freshwater

Principal Executive Officer

First Name:

Jeffry Last Name: Hart

Director, ECPD

808-257-5640

No Data Indicator (NODI)

Form NODI:

	Parameter	Monitoring Location	Season # Param. NOD	1		Quantit	ty or Loadir	ng					C	Quality or Concentration		# of Ex. Frequency of Analy	ysis Sample Type
Code	Name				Qualifier 1	Value 1	Qualifier 2	Value 2 U	Jnits Qua	alifier 1 Val	lue 1 Quali	fier 2 V	/alue 2 Qualifier 3	3 Value 3	Units		
				Sample									=	17.0	19 - mg/L	01/90 - Quarterly	GR - GRAB
00530	Solids, total suspended	SW - Storm Water	0	Permit Req.									<=	100.0 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
00000	Condo, total daspondou	orr crom rracer		Value NODI													
				Sample													
00900	Hardness, total [as CaCO3]	SW - Storm Water	2	Permit Req.										Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
				Value NODI										9 - Conditional Monitoring - Not Required This Period			
				Sample					Ī				=	1.6	19 - mg/L	01/90 - Quarterly	GR - GRAB
Y 00000	Iron, total recoverable	SW - Storm Water	0	Permit Req.									<=	1.0 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
X 00980	non, total recoverable	Ovv - Gloiiii vvalei		Value NODI													
				Sample									=	0.054	19 - mg/L	01/90 - Quarterly	GR - GRAB
01094	Zinc, total recoverable	SW - Storm Water	1	Permit Req.									<=	0.09 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
01004	zino, total recoverable	Ovv Ctomi vvater	•	Value NODI													
				Sample													
01094	Zinc, total recoverable	SW - Storm Water	2	Permit Req.										Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
01004	Zirio, total resoverable	Ovv Ctomi vvater		Value NODI										9 - Conditional Monitoring - Not Required This Period			
				Sample									=	1.2	19 - mg/L	01/90 - Quarterly	GR - GRAB
X 01104	Aluminum, total recoverable	SW - Storm Water	0	Permit Req.									<=	0.75 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
1 01104	Aluminum, total recoverable	3W - Stoffill Water	0	Value NODI													
				Sample									=	0.0051	19 - mg/L	01/90 - Quarterly	GR - GRAB
01114	Lead, total recoverable	SW - Storm Water	1	Permit Req.									<=	0.21 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
01114	Leau, total recoverable	Ovv - Gloiiii vvalei	'	Value NODI													
				Sample													
01114	Lead, total recoverable	SW - Storm Water	2	Permit Req.										Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
01111	Loud, total 1000 totalio	Ovv Ctom Water		Value NODI										9 - Conditional Monitoring - Not Required This Period			
				Sample									=	0.032	19 - mg/L	01/90 - Quarterly	GR - GRAB
X 01119	Copper, total recoverable	SW - Storm Water	1	Permit Req.									<=	0.0048 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
X 01119	Copper, total recoverable	Ovv Ctom Water	•	Value NODI													
				Sample													
01119	Copper, total recoverable	SW - Storm Water	2	Permit Req.										Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
				Value NODI										9 - Conditional Monitoring - Not Required This Period			
				Sample									=	38.0	19 - mg/L	01/90 - Quarterly	GR - GRAB
80103	Chemical oxygen demand [COD]	SW - Storm Water	0	Permit Req.									<=	120.0 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
33.30		2 2.3 ***************************	_	Value NODI													

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Che	ck Errors						
	Parameter	Manitoring Location	Field	Tumo	Description	Acknowledge	
Code	Name	Monitoring Location	rieid	Туре	Description	Acknowledge	

01104	Aluminum, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Pleas	se verify that the value you have provided	d is correct.	Yes
01119	Copper, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Pleas	se verify that the value you have provided	d is correct.	Yes
00980	Iron, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Pleas	se verify that the value you have provided	d is correct.	Yes
Comm	ents							
Attachi	ments							
			Name			Туре		Size
MCBH_	2022_SW_132_Q1_FINAL.pdf					pdf	1296984.0	
Report	Last Saved By							
U.S. Ma	arine Corps							
User:		WHI	TNEYA11					
Name:		WHI	TNEY ANDERSON					
E-Mail:		whitr	ney.anderson@usmc.mil					
Date/Ti	ne:	2023	3-01-06 09:04 (Time Zone: -10:00)					
Report	Last Signed By							
User:		JEFF	FRY.HART					
Name:		.leffn	v Hart					

E-Mail:

Date/Time:

jeffry.hart@usmc.mil

2023-01-10 13:51 (Time Zone: -10:00)

Permit

Major:

Permit #: HIS000007

U.S. Marine Corps Permittee:

UNKNOWN Permittee Address:

UNKNOWN, HI 00000

01/28/23

Facility: MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

Facility Location: BOX 63002, BUILDING 1360 MCBH KANEOHE BAY

KANEOHE , HI 96863-3002

Permitted Feature:

800

External Outfall

Discharge: 008-Q

MSGP Q Benchmarks - Quarterly

Report Dates & Status

Monitoring Period: From 10/01/22 to 12/31/22

Hart

No

DMR Due Date:

Status:

NetDMR Validated

Considerations for Form Completion

1 Saltwater, 2 Freshwater

Principal Executive Officer

First Name: Last Name: Title:

Director, ECPD

Telephone: 808-257-5640

No Data Indicator (NODI)

Form NODI:

	Parameter	Monitoring Location	Season #	Param. NODI		Quai	ntity or Load	ling			C	Quality or Concentration	# of E	Ex. Frequency of Analysi	is Sample Type
Code	Name					Qualifier 1 Value	1 Qualifier	2 Value 2 Uni	its Qualifier 1 Valu	ue 1 Qualifier 2 Value	e 2 Qualifier 3	3 Value 3	Units		
00900	Hardness, total [as CaCO3]	SW - Storm Water	2		Sample Permit Req. Value NODI							Req Mon QRTR MAX 9 - Conditional Monitoring - Not Required This Period	19 - mg/L	01/90 - Quarterly	GR - GRAB
00980	Iron, total recoverable	SW - Storm Water	0		Sample Permit Req. Value NODI						<=	1.0 QRTR MAX C - No Discharge	19 - mg/L	01/90 - Quarterly	GR - GRAB
01094	Zinc, total recoverable	SW - Storm Water	1		Sample Permit Req. Value NODI						<=	0.09 QRTR MAX C - No Discharge	19 - mg/L	01/90 - Quarterly	GR - GRAB
01094	Zinc, total recoverable	SW - Storm Water	2		Sample Permit Req. Value NODI							Req Mon QRTR MAX 9 - Conditional Monitoring - Not Required This Period	19 - mg/L	01/90 - Quarterly	GR - GRAB
01104	Aluminum, total recoverable	SW - Storm Water	0		Sample Permit Req. Value NODI						<=	0.75 QRTR MAX C - No Discharge	19 - mg/L	01/90 - Quarterly	GR - GRAB
01114	Lead, total recoverable	SW - Storm Water	1		Sample Permit Req. Value NODI						<=	0.21 QRTR MAX C - No Discharge	19 - mg/L	01/90 - Quarterly	GR - GRAB
01114	Lead, total recoverable	SW - Storm Water	2		Sample Permit Req. Value NODI							Req Mon QRTR MAX 9 - Conditional Monitoring - Not Required This Period	19 - mg/L	01/90 - Quarterly	GR - GRAB

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

U.S. Marine Corps

User:

WHITNEYA11

Name: E-Mail: WHITNEY ANDERSON whitney.anderson@usmc.mil Date/Time: 2023-01-06 09:04 (Time Zone: -10:00)

Report Last Signed By

User: JEFFRY.HART

Name: Jeffry Hart
E-Mail: jeffry.hart@usmc.mil

Date/Time: 2023-01-10 13:51 (Time Zone: -10:00)

Permit

Major:

Permit #: HIS000007

U.S. Marine Corps Permittee:

UNKNOWN Permittee Address:

Facility: MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) Facility Location:

BOX 63002, BUILDING 1360 MCBH KANEOHE BAY KANEOHE , HI 96863-3002

009 Permitted Feature:

Internal Outfall

Discharge: 009-Q

MSGP Q Benchmarks - Quarterly

UNKNOWN, HI 00000

Report Dates & Status

Monitoring Period: From 10/01/22 to 12/31/22

No

DMR Due Date:

Title:

Status: **NetDMR Validated**

Considerations for Form Completion

1 Saltwater, 2 Freshwater

Principal Executive Officer

First Name:

Last Name: Hart Director, ECPD

01/28/23

Telephone: 808-257-5640

No Data Indicator (NODI)

Form NODI:

	Parameter	Monitoring Location	Season #	Param. NODI		Quantity or Loading	G	uality or Concentration	;	# of Ex. Frequency of Analysis	s Sample Typ
Code	Name					Qualifier 1 Value 1 Qualifier 2 Value 2 Units Quali	fier 1 Value 1 Qualifier 2 Value 2 Qualifier 3	Value 3	Units		
					Sample						
0900	Hardness, total [as CaCO3]	SW - Storm Water	2		Permit Req			Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAE
					Value NOD			9 - Conditional Monitoring - Not Required This Period			
					Sample						
980	Iron, total recoverable	SW - Storm Water	0		Permit Req		<=	1.0 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NOD			C - No Discharge			
					Sample						
094	Zinc, total recoverable	SW - Storm Water	1		Permit Req		<=	0.09 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NOD			C - No Discharge			
					Sample						
094	Zinc, total recoverable	SW - Storm Water	2		Permit Req			Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAE
					Value NOD			9 - Conditional Monitoring - Not Required This Period			
					Sample						
104	Aluminum, total recoverable	SW - Storm Water	0		Permit Req		<=	0.75 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NOD			C - No Discharge			
					Sample						
1114	Lead, total recoverable	SW - Storm Water	1		Permit Req		<=	0.21 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NOD			C - No Discharge			
					Sample			Des Mes OPTP MAY	40//	04/00 Overterly	CD CDAD
1114	Lead, total recoverable	SW - Storm Water	2		Permit Req			Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NOD			9 - Conditional Monitoring - Not Required This Period			

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

U.S. Marine Corps

User:

WHITNEYA11

Name: E-Mail: WHITNEY ANDERSON whitney.anderson@usmc.mil Date/Time: 2023-01-06 09:03 (Time Zone: -10:00)

Report Last Signed By

User: JEFFRY.HART

Name: Jeffry Hart

E-Mail: jeffry.hart@usmc.mil

Date/Time: 2023-01-10 13:51 (Time Zone: -10:00)

Quarter 2

1/1/2023 to 3/31/2023

FY 2023

Major: No	Permit																					
Major: No Permittee UNNOVON-H 100000 Eaction: BOX 10002 BUILDING 1900 MCBH KANEOHE BAY Permittee OD2 Feature: Informal Outfull Informal Outfu			HIS00007		Permittee:	U	LS Marine C	Corns		Facilit	٧-	MAR	INE CO	RPS BA	SF HA	ΔW/ΔII Þ	(ANFO	HE BAY MUNICIE	AL SEPA	RATE S	STORM SEWER SY	STEM
Month Mont	Cillin	<i>r</i>	1110000007		i cillitice.	Ü	J.O. Mailio	,01p3		1 doint	у.			iti O Bit	OL III		0.11420	TIE BY CE WIGHTON	/ LOLI / II		STORWI GEVVER GT	OTEW!
Report Date Status	Major:		No					HI 00000									BH KAN	IEOHE BAY				
Report Dates & Status NetDMR Validated Status: NetDMR Validated Sta				all	Discharge:	N	/ISGP L Bend	chmarks -														
Period: 0.931(23 0.03	Report	Dates & Sta	ntus																			
Principal Executive Officer First Name: Jefty Last Name: Hot No Data Indicator (NOD) Form NOD: Parameter Nome Not				23 to	DMR Due D	ate: 0	4/28/23			Status	s:	NetD	MR Vali	dated								
	Conside	erations for	Form Comp	letion																		
Last Name	Principa	al Executive	Officer																			
No Data Indicator (NODI) Form NODI:	First Na	ame:	Jeffry		Title:	D	Director, ECP	D		Teleph	none:	808-	257-5640)								
Form NOD :	Last Na	ıme:	Hart																			
Parameter Monitoring Location Season # Param. NOID Quantity or Locating Quality or Concentration Sample Type Coultifier 1 Value Qualifier 2 Value 2 Qualifier 3 Value 2 Qualifier 3 Value 2 Qualifier 3 Value 2 Qualifier 3 Value 2 Qualifier 3 Value 2 Qualifier 3 Value 3 Qualifier 3 Value 3 Qualifier 3 Value 3 Qualifier 3 Value 4 Qualifier 4 Value 4 Qualifier 4 Value	No Data	a Indicator (NODI)																			
Code Name	Form N	ODI:																				
Solide, total suspended SW - Storm Water 0 Permit Resp	Carla			Monitoring Loca	ation Season #	Param. NOI	DI			-	_	aita Ovaliti	an 4 Value	- 4 Oalif		-				# of Ex.	Frequency of Analysis	Sample Type
Solids, Yotal suspended SW - Storm Water 0 - Value NOOI C - No Discharge C - No Discharge SW - Storm Water 0 - Permit Reg. Value NOOI C - No Discharge D - Malysis, and Sample Type. C - No Discharge C - No Discharge C - No Discharge D - Malysis, and Sample Type. C - No Discharge C - No Discharge D - Malysis, and Sample Type. C - No Discharge D - Malysis, and Sample Type. D - Ma	Code	IN a	ame				Sample	Qualifier 1 V	raiue i	Qualifier 2	value 2 Ur	nts Qualifi	er i vaiue	e i Qualif	ner z va	alue Z Q	uaimer 3	value 3	Units			
Iron, total recoverable SW - Storm Water 0 Permit Rep. .	00530	Solids, tota	l suspended	SW - Storm W	ater 0		Permit Req.									<=		100.0 QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
No Note No Note No Note No Note No No No No No No No N							Value NODI											C - No Discharge				
Submission Note If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type. Edit Check Errors No errors. Comments No discharge observed at Landfill during FY2023 Quarter 2 monitoring period. Attachments Report Last Saved By U.S. Marine Corps User: PATRICK.CRILE@USMC.MIL Rame: Patrick Crile E-Mail: patrick.crile@usmc.mil Date/Time: 2023-04-26 08:16 (Time Zone: -10:00) Report Last Signed By User: JEFFRY.HART Name: Jeffry Hart E-Mail: jeffry.hart@usmc.mil																		4 0 ODTD MAY	40		24/00 0	20. 0040
Submission Note If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type. Edit Check Errors No errors. Comments No discharge observed at Landfill during FY2023 Quarter 2 monitoring period. Attachments No attachments No attachments Report Last Saved By U.S. Marine Corps User: PATRICK.CRILE@USMC.MIL Name: Patrick Crile E-Mail: patrick crile@usmc.mil Date/Time: 2023-04-26 08:16 (Time Zone: -10:00) Report Last Signed By User: JEFRY.HART Name: Jeffry Hart E-Mail: jeffry.hart@usmc.mil	00980	Iron, total re	ecoverable	SW - Storm W	ater 0											<=			19 - mg/L		J1/90 - Quarterly	JR - GRAB
If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type. Edit Check Errors No errors. Comments No discharge observed at Landfill during FY2023 Quarter 2 monitoring period. Attachments No attachments No attachments No attachments Report Last Saved By U.S. Marine Corps User: PATRICK.CRILE@USMC.MIL Name: Patrick Crile E-Mail: patrick.crile@usmc.mil Date/Time: 2023-04-26 08:16 (Time Zone: -10:00) Report Last Signed By User: JEFRY.HART Name: Jeffry Hart E-Mail: jeffry.hart@usmc.mil jeffry.hart@usmc.mil	Submis	sion Note					-									_						
Edit Check Errors No errors. Comments No discharge observed at Landfill during FY2023 Quarter 2 monitoring period. Attachments No attachments Report Last Saved By U.S. Marine Corps User: PATRICK.CRILE@USMC.MIL Name: Patrick Crile E-Mail: patrick.crile@usmc.mil Date/Time: 2023-04-26 08:16 (Time Zone: -10:00) Report Last Signed By User: JEFFRY.HART Name: JEFFRY.HART Name: Jeffry Hart E-Mail: jeiffry.hart@usmc.mil			oes not conta	in anv values f	or the Sample	e nor Efflue	ent Trading, t	hen none o	f the fo	ollowina fi	elds will b	oe submi	tted for th	hat row:	: Units	. Numb	er of Ex	cursions. Freque	ncv of Ana	lvsis. a	and Sample Type.	
No errors. Comments No discharge observed at Landfill during FY2023 Quarter 2 monitoring period. Attachments No attachments Report Last Saved By U.S. Marine Corps User: PATRICK.CRILE@USMC.MIL Name: Patrick Crile E-Mail: patrick.crile@usmc.mil Date/Time: 2023-04-26 08:16 (Time Zone: -10:00) Report Last Signed By User: JEFRY.HART Name: Jeffry.hart@usmc.mil E-Mail: jeffy.hart@usmc.mil				,			,									,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	.,, -		
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Report Last Saved By U.S. Marine Corps User: PATRICK.CRILE@USMC.MIL Name: Patrick Crile E-Mail: patrick.crile@usmc.mil Date/Time: 2023-04-26 08:16 (Time Zone: -10:00) Report Last Signed By User: JEFFRY.HART Name: Jeffry Hart E-Mail: jeffry.hart@usmc.mil		_		J		0.																
U.S. Marine Corps User: PATRICK.CRILE@USMC.MIL Name: Patrick Crile E-Mail: patrick.crile@usmc.mil Date/Time: 2023-04-26 08:16 (Time Zone: -10:00) Report Last Signed By User: JEFRY.HART Name: Jeffry Hart E-Mail: jeffry.hart@usmc.mil	No attachr	ments.																				
User: PATRICK.CRILE@USMC.MIL Name: Patrick Crile E-Mail: patrick.crile@usmc.mil Date/Time: 2023-04-26 08:16 (Time Zone: -10:00) Report Last Signed By User: JEFFRY.HART Name: Jeffry Hart E-Mail: jeffry.hart@usmc.mil	Report	Last Saved	Ву																			
Name: Patrick Crile E-Mail: patrick.crile@usmc.mil Date/Time: 2023-04-26 08:16 (Time Zone: -10:00) Report Last Signed By User: JEFRY.HART Name: Jeffry Hart E-Mail: jeffry.hart@usmc.mil	U.S. Ma	arine Corps																				
E-Mail: patrick.crile@usmc.mil Date/Time: 2023-04-26 08:16 (Time Zone: -10:00) Report Last Signed By User: JEFFRY.HART Name: Jeffry Hart E-Mail: jeffry.hart@usmc.mil	User:				PATRICK.	CRILE@U	JSMC.MIL															
Date/Time: 2023-04-26 08:16 (Time Zone: -10:00) Report Last Signed By User: JEFFRY.HART Name: Jeffry Hart E-Mail: jeffry.hart@usmc.mil	Name:				Patrick C	rile																
Report Last Signed By User: JEFFRY.HART Name: Jeffry Hart E-Mail: jeffry.hart@usmc.mil	E-Mail:				patrick.crile	e@usmc.mi	il															
User: JEFRY.HART Name: Jeffry Hart E-Mail: jeffry.hart@usmc.mil	Date/Tir	me:			2023-04-2	26 08:16 ((Time Zone:	-10:00)														
Name: E-Mail: Jeffry Hart jeffry.hart@usmc.mil	Report	Last Signed	d By																			
E-Mail: jeffry.hart@usmc.mil	User:				JEFFRY.H	HART																
	Name:				Jeffry Ha	rt																
Date/Time: 2023-04-26 10:07 (Time Zone: -10:00)	E-Mail:				jeffry.hart@	usmc.mil																
	Date/Tir	ne:			2023-04-2	26 10:07 ((Time Zone:	-10:00)														

Permit

Major:

Permit #: HIS000007

Considerations for Form Completion

007 Permittee:

Title:

tee: U.S. Marine Corps

Facility:

MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

Permittee Address: UNKNOWN UNKNOWN, HI 00000

Facility Location:

BOX 63002, BUILDING 1360 MCBH KANEOHE BAY

KANEOHE , HI 96863-3002

Permitted Feature:

007 Internal Outfall

Quefall

Discharge: 00

007-Q

MSGP N Benchmarks - Quarterly

Report Dates & Status

Monitoring Period: From 01/01/23 to 03/31/23

No

DMR Due Date: 04/28/23

Status:

NetDMR Validated

1 Saltwater, 2 Freshwater

· Camaion, 2 i reeninate.

Principal Executive Officer

First Name: Last Name: Jeffry Hart Director, ECPD

Telephone:

808-257-5640

No Data Indicator (NODI)

Form NODI:

--

	Parameter	Monitoring Location	Season #	# Param. NODI			Quanti	ty or Loadi	ng					Quality or Concentration	#	of Ex.	Frequency of Analysis	s Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2 U	Inits Qualifi	er 1 Value	1 Qualifier 2	Value 2 Qualifier		Units			
					Sample								=	35.0	19 - mg/L		01/90 - Quarterly	GR - GRAB
00530	Solids, total suspended	SW - Storm Water	0		Permit Req.								<=	100.0 QRTR MAX	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
					Value NODI													
					Sample													
00900	Hardness, total [as CaCO3]	SW - Storm Water	2		Permit Req.									Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
					Value NODI									9 - Conditional Monitoring - Not Required This Period				
					Sample								=	2.3	19 - mg/L		01/90 - Quarterly	GR - GRAB
X 00980	Iron, total recoverable	SW - Storm Water	0		Permit Req.								<=	1.0 QRTR MAX	19 - mg/L	1	01/90 - Quarterly	GR - GRAB
7 00300	,				Value NODI													
					Sample								=	0.11	19 - mg/L		01/90 - Quarterly	GR - GRAB
X 01094	Zinc, total recoverable	SW - Storm Water	1		Permit Req.								<=	0.09 QRTR MAX	19 - mg/L	1	01/90 - Quarterly	GR - GRAB
7 01094					Value NODI													
					Sample													
01094	Zinc, total recoverable	SW - Storm Water	2		Permit Req.									Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
0.00.		Cir Cioiii Iraici	_		Value NODI									9 - Conditional Monitoring - Not Required This Period				
					Sample								=	1.5	19 - mg/L		01/90 - Quarterly	GR - GRAB
X 01104	Aluminum, total recoverable	SW - Storm Water	0		Permit Req.								<=	0.75 QRTR MAX	19 - mg/L	1	01/90 - Quarterly	GR - GRAB
X 01104	7 manimum, total 1000 vorusio	Over Otomi video			Value NODI													
					Sample								=	0.0093	19 - mg/L		01/90 - Quarterly	GR - GRAB
01114	Lead, total recoverable	SW - Storm Water	1		Permit Req.								<=	0.21 QRTR MAX	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
					Value NODI													
					Sample													
01114	Lead, total recoverable	SW - Storm Water	2		Permit Req.									Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
	, , , , , , , , , , , , , , , , , , , ,				Value NODI									9 - Conditional Monitoring - Not Required This Period				
					Sample								=	0.04	19 - mg/L		01/90 - Quarterly	GR - GRAB
X 01119	Copper, total recoverable	SW - Storm Water	1		Permit Req.								<=	0.0048 QRTR MAX	19 - mg/L	1	01/90 - Quarterly	GR - GRAB
7 01113					Value NODI													
					Sample													
01119	Copper, total recoverable	SW - Storm Water	2		Permit Req.									Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
					Value NODI									9 - Conditional Monitoring - Not Required This Period				
					Sample								=	15.0	19 - mg/L		01/90 - Quarterly	GR - GRAB
80103	Chemical oxygen demand [COD]	SW - Storm Water	0		Permit Req.								<=	120.0 QRTR MAX	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
32.122		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			Value NODI											-		

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Che	ck Errors						
	Parameter	Manitoring Location	Field	Tumo	Description	Acknowledge	
Code	Name	Monitoring Location	rieid	Туре	Description	Acknowledge	

01119	Copper, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
01104	Aluminum, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
01094	Zinc, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
00980	Iron, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes

Comments

Attachments

∧ o attachments.

Report Last Saved By

U.S. Marine Corps

User: PATRICK.CRILE@USMC.MIL

Name: Patrick Crile

E-Mail: patrick.crile@usmc.mil

Date/Time: 2023-04-26 08:40 (Time Zone: -10:00)

Report Last Signed By

 User:
 JEFRY.HART

 Name:
 Jeffry Hart

 E-Mail:
 jeffry.hart@usmc.mil

Date/Time: 2023-04-26 10:07 (Time Zone: -10:00)

Permit #:

HIS000007

External Outfall

Permittee: U.S. Marine Corps

Facility:

MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

Major:

No

Permittee Address: UNKNOWN

Facility Location:

BOX 63002, BUILDING 1360 MCBH KANEOHE BAY

Permitted Feature: 008 Discharge: 008

008-QMSGP Q Benchmarks - Quarterly

UNKNOWN, HI 00000

KANEOHE , HI 96863-3002

Report Dates & Status

Monitoring Period: From 01/01/23 to 03/31/23

DMR Due Date: 04/28/23

Title:

Status: NetDMR Validated

Considerations for Form Completion

1 Saltwater, 2 Freshwater

Principal Executive Officer

First Name: Jeffry

Director, MCBH ECPD

Telephone: 808-257-5640

No Data Indicator (NODI)

Form NODI:

Last Name:

__

Hart

Form NOI)I:																
	Parameter	Monitoring Location	Season a	# Param. NODI			Quantity or Load	ing					Quality or Concentration		# of Ex	x. Frequency of Analy	sis Sample Type
Code	Name					Qualifier 1	Value 1 Qualifier	2 Value 2 Uni	its Qualifier 1	Value 1 Q	ualifier 2 Va	alue 2 Qualifi	er 3 Value 3	Units			
					Sample												
00900	Hardness, total [as CaCO3]	SW - Storm Water	2		Permit Req.								Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
		Ott Gtom: Trate	_		Value NODI								9 - Conditional Monitoring - Not Required This Period				
					Sample							=	1.1	19 - mg/L		01/90 - Quarterly	GR - GRAB
X 00980	Iron, total recoverable	SW - Storm Water	0		Permit Req.							<=	1.0 QRTR MAX	19 - mg/L	1	01/90 - Quarterly	GR - GRAB
X 00980	non, total root totalic	orr crom mater			Value NODI										•		
					Sample							-	0.12	19 - mg/L		01/90 - Quarterly	GR - GRAB
Y 04004	Zinc, total recoverable	SW - Storm Water	1		Permit Req.							<=	0.09 QRTR MAX	19 - mg/L	1	01/90 - Quarterly	GR - GRAB
X 01094	Zinc, total recoverable	SW - Stoffil Water	'		Value NODI										1		
					Sample												
01094	Zinc, total recoverable	SW - Storm Water	2		Permit Req.								Reg Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
01094	Zilic, total recoverable	SW - Stoffil Water	2		Value NODI								9 - Conditional Monitoring - Not Required This Period				
					Sample							-	1.1	19 - mg/L		01/90 - Quarterly	GR - GRAB
X 01104	Aluminum, total recoverable	SW - Storm Water	0		Permit Req.							<=	0.75 QRTR MAX	19 - mg/L	1	01/90 - Quarterly	GR - GRAB
N 01104	Adminum, total recoverable	Ovv - Otomi vvater	0		Value NODI										'		
					Sample							=	0.055	19 - mg/L		01/90 - Quarterly	GR - GRAB
01114	Lead, total recoverable	SW - Storm Water	1		Permit Req.							<=	0.21 QRTR MAX	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
01114	Lead, total recoverable	Sw - Storm water	!		Value NODI										U		
					Sample												
04444	1 4 4-4-1	0144 04 144-4			Permit Req.								Reg Mon QRTR MAX	19 - mg/L	-	01/90 - Quarterly	GR - GRAB
01114	Lead, total recoverable	SW - Storm Water	2		Value NODI								9 - Conditional Monitoring - Not Required This Period				

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

	Parameter	Monitoring Location	Field	Type	Description	Acknowledge
Code	Name	Monitoring Location	rieiu	Type	Description	Acknowledge
01104	Aluminum, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
01094	Zinc, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
00980	Iron, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes

Comments

Sample report attached.

Attachments

Name Type Size

FY23_Q2_008_LAB_REPORT.pdf

Report Last Saved By

U.S. Marine Corps

User: PATRICK.CRILE@USMC.MIL

Name: Patrick Crile

E-Mail: patrick.crile@usmc.mil

Date/Time: 2023-04-26 08:46 (Time Zone: -10:00)

Report Last Signed By

User: JEFFRY.HART
Name: Jeffry Hart
E-Mail: jeffry.hart@usmc.mil

Date/Time: 2023-04-26 10:07 (Time Zone: -10:00)

Permit

Permit #: HIS000007

U.S. Marine Corps Permittee:

Facility:

MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

Permittee Address: UNKNOWN Major:

UNKNOWN, HI 00000

Facility Location: BOX 63002, BUILDING 1360 MCBH KANEOHE BAY

KANEOHE , HI 96863-3002

Permitted Feature: 009

Internal Outfall

Discharge:

Title:

009-Q MSGP Q Benchmarks - Quarterly

Report Dates & Status

Monitoring Period: From 01/01/23 to 03/31/23 DMR Due Date:

04/28/23

Status: **NetDMR Validated**

Considerations for Form Completion

1 Saltwater, 2 Freshwater

Principal Executive Officer

First Name:

Jeffry

Director, ECPD

Telephone: 808-257-5640

Last Name:

Hart No Data Indicator (NODI)

Form NODI:

	Parameter	Monitoring Location	Season #	Param. NODI			Quantit	ty or Loading			Qı	uality or	Concentrati	on		# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2 Value 2	Units Qualifier	1 Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
					Sample													
0900	Hardness, total [as CaCO3]	SW - Storm Water	2		Permit Req.									Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
					Value NODI									C - No Discharge				
					Sample													
0980	Iron, total recoverable	SW - Storm Water	0		Permit Req.								<=	1.0 QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
	,	Civ Cienni Traiei			Value NODI									C - No Discharge				
					Sample						-			•				-
1094	Zinc, total recoverable	SW - Storm Water	1		Permit Req.								<=	0.09 QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
			,		Value NODI									C - No Discharge				
					Sample													
1094	Zinc, total recoverable	SW - Storm Water	2		Permit Req.									Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
		Civ Cienni Traiei	_		Value NODI									C - No Discharge				
					Sample									•				
1104	Aluminum, total recoverable	SW - Storm Water	0		Permit Req.								<=	0.75 QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
1104	Adminum, total 1000voruble	Ovv Gloiiii vvalei			Value NODI									C - No Discharge				
					Sample													
1114	Lead, total recoverable	SW - Storm Water	1		Permit Req.								<=	0.21 QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
1117	Lead, total recoverable	GVV - Gloiiii vvalei	'		Value NODI									C - No Discharge				
					Sample													
1114	Lead, total recoverable	SW - Storm Water	2		Permit Req.									Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
	, 10101 1000 101010		_		Value NODI									C - No Discharge				

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

No discharge observed at Small Boat Repair Shop (Building 1698) during FY2023 Quarter 2 monitoring period.

Attachments

No attachments.

Report Last Saved By

U.S. Marine Corps

User: PATRICK.CRILE@USMC.MIL
Name: Patrick Crile

E-Mail: patrick.crile@usmc.mil

Date/Time: 2023-04-25 10:15 (Time Zone: -10:00)

Report Last Signed By

User: JEFFRY.HART

Name: Jeffry Hart
E-Mail: jeffry.hart@usmc.mil

Date/Time: 2023-04-26 10:07 (Time Zone: -10:00)

Quarter 3

4/1/2023 to 6/30/2023

FY 2023

Permit																						
Permit	#:	HIS000007		Permittee:	U	.S. Marine C	orps		Facility	y:			ORP	S BA	SE HAV	VAII KANEC	HE BAY MU	JNICIF	AL SEPA	RATE	STORM SEWER SY	STEM
Major:		No		Permittee	U	INKNOWN			Facility	,	(MS BO		2. BU	JILDIN	NG 1360	MCBH KAI	NEOHE BAY					
majori				Address:		NKNOWN, F	11 00000		Location			NEOHE										
Permitte Feature		002 Internal Outfa	all	Discharge:	M	02-Q ISGP L Benc Quarterly	hmarks -															
Report	Dates & Sta	tus																				
Monitor Period:	•	From 04/01/2 06/30/23	23 to	DMR Due Da	ate: 07	7/28/23			Status	:	Net	DMR V	alidat	ted								
Consid	erations for	Form Compl	etion																			
	al Executive			Title	_	irootor MCD	LL ECDD		Talanh		000	057.50	10									
First Na Last Na		Jeffry Hart		Title:	U	irector, MCB	H ECPD		Teleph	ione:	808	3-257-56	40									
	a Indicator (i																					
Form N	·																					
Carla	Paramete		Monitoring Loca	ation Season #	Param. NOI		Ovelities 4		y or Loading		Unite Ovel	ition 4 Va	lua 4 4	0		or Concentra		2		# of Ex.	Frequency of Analysis	Sample Type
Code	Na	me				Sample	Qualifier 1	value 1	Qualifier 2	value 2	Units Quai	mer i va	liue 1	Quain	ier z vait	e 2 Qualifier	3 value	3	Units			
00530	Solids, total	suspended	SW - Storm W	ater 0		Permit Req.										<=	100.0 QRTR I		19 - mg/L		01/90 - Quarterly	GR - GRAB
						Value NODI Sample											C - No Disc	charge				
00980	Iron, total re	coverable	SW - Storm W	ater 0		Permit Req.										<=	1.0 QRTR MA	ιX	19 - mg/L		01/90 - Quarterly	GR - GRAB
	,					Value NODI											C - No Disc	charge				
	sion Note																					
		oes not conta	in any values f	or the Sample	nor Efflue	nt Trading, th	nen none (of the fo	ollowing fie	elds wil	ll be subn	nitted fo	r that	t row:	Units, N	lumber of E	xcursions, F	reque	ncy of Ana	ılysis, a	and Sample Type.	
	eck Errors																					
No erro																						
Comme	ents																					
Attachr	ments																					
No attachr	ments.																					
	Last Saved	Ву																				
	arine Corps																					
User:				PATRICK.		SMC.MIL																
Name:				Patrick C																		
E-Mail:				patrick.crile			40.00)															
Date/Tir		(Dec		2023-07-2	5 12:17 (Time Zone: -	-10:00)															
User:	Last Signed	Бу		JEFFRY.H	IAPT																	
Name:				Jeffry Ha																		
E-Mail:				jeffry.hart@																		
Date/Tir	me:					Time Zone: -	10:00)															
_ 3.0, 711					(2.20,															

Permit

Major:

Permit #: HIS000007

Permittee:

U.S. Marine Corps

Facility:

MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

Permittee Address: UNKNOWN UNKNOWN, HI 00000 Facility Location:

BOX 63002, BUILDING 1360 MCBH KANEOHE BAY

KANEOHE , HI 96863-3002

Permitted Feature:

007

No

Internal Outfall

Discharge:

007-Q

MSGP N Benchmarks - Quarterly

Report Dates & Status

Monitoring Period: From 04/01/23 to 06/30/23

Hart

DMR Due Date: 07/28/23

Status:

NetDMR Validated

Considerations for Form Completion

1 Saltwater, 2 Freshwater

Principal Executive Officer

First Name: Jeffry Title: Director, MCBH ECPD Telephone:

808-257-5640

No Data Indicator (NODI)

Form NODI:

Last Name:

	Parameter	Monitoring Location	Season #	Param. NODI			y or Loading				Quality or Concentration		# of Ex	. Frequency of Analysis	Sample Typ
Code	Name					Qualifier 1 Value 1	Qualifier 2 Value	2 Units Qualifier 1	Value 1 Qualifier 2 Value	2 Qualifier		Units			
					Sample					=	20.0	19 - mg/L		01/90 - Quarterly	GR - GRAB
00530	Solids, total suspended	SW - Storm Water	0		Permit Req.					<=	100.0 QRTR MAX	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
					Value NODI										
					Sample										
00900	Hardness, total [as CaCO3]	SW - Storm Water	2		Permit Req.						Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAE
					Value NODI						9 - Conditional Monitoring - Not Required This Period				
					Sample					=	2.0	19 - mg/L		01/90 - Quarterly	GR - GRAE
(00980	Iron, total recoverable	SW - Storm Water	0		Permit Req.					<=	1.0 QRTR MAX	19 - mg/L	1	01/90 - Quarterly	GR - GRAE
00900					Value NODI										
					Sample					=	0.1	19 - mg/L		01/90 - Quarterly	GR - GRAI
(01094	Zinc, total recoverable	SW - Storm Water	1		Permit Req.					<=	0.09 QRTR MAX	19 - mg/L	1	01/90 - Quarterly	GR - GRAI
01094		Ott Gtom: Trater			Value NODI								•		
					Sample										
1094	Zinc, total recoverable	SW - Storm Water	2		Permit Req.						Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAI
					Value NODI						9 - Conditional Monitoring - Not Required This Period				
					Sample					=	1.4	19 - mg/L		,	GR - GRAI
01104	Aluminum, total recoverable	SW - Storm Water	0		Permit Req.					<=	0.75 QRTR MAX	19 - mg/L	1	01/90 - Quarterly	GR - GRAI
					Value NODI										
					Sample					=	0.01	19 - mg/L		·	GR - GRA
)1114	Lead, total recoverable	SW - Storm Water	1		Permit Req.					<=	0.21 QRTR MAX	19 - mg/L	0	01/90 - Quarterly	GR - GRAE
					Value NODI										
					Sample										
1114	Lead, total recoverable	SW - Storm Water	2		Permit Req.						Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAE
					Value NODI						9 - Conditional Monitoring - Not Required This Period				
					Sample					=	0.047	19 - mg/L		01/90 - Quarterly	GR - GRAE
X 01119	Copper, total recoverable	SW - Storm Water	1		Permit Req.					<=	0.0048 QRTR MAX	19 - mg/L	1	01/90 - Quarterly	GR - GRAE
01113					Value NODI										
					Sample										
)1119	Copper, total recoverable	SW - Storm Water	2		Permit Req.						Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAE
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2.12			Value NODI						9 - Conditional Monitoring - Not Required This Period				
					Sample					=	31.0	19 - mg/L		01/90 - Quarterly	GR - GRAE
30103	Chemical oxygen demand [COD]	SW - Storm Water	0		Permit Req.					<=	120.0 QRTR MAX	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
	[005]	2 2			Value NODI								-		

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Che	ck Errors						
	Parameter	Manitoring Location	Field	Tumo	Description	Acknowledge	
Code	Name	Monitoring Location	rieid	Туре	Description	Acknowledge	

01119	Copper, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
01104	Aluminum, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
01094	Zinc, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
00980	Iron, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	Yes
Comme	nts					

Sampling Report Attached

Attachments

Name Size
007-RecycleCenter(Building132)FY23-Q3MonitoringReport.pdf 1855547.0

Report Last Saved By

U.S. Marine Corps

User: PATRICK.CRILE@USMC.MIL

Name: Patrick Crile

E-Mail: patrick.crile@usmc.mil

Date/Time: 2023-07-25 12:17 (Time Zone: -10:00)

Report Last Signed By

User: JEFFRY.HART
Name: Jeffry Hart

E-Mail: jeffry.hart@usmc.mil

Date/Time: 2023-07-27 09:12 (Time Zone: -10:00)

Permit

Major:

Permit #: HIS000007

U.S. Marine Corps Permittee:

UNKNOWN Permittee Address:

UNKNOWN, HI 00000

Facility: MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) Facility Location:

BOX 63002, BUILDING 1360 MCBH KANEOHE BAY KANEOHE , HI 96863-3002

Permitted Feature:

800 External Outfall Discharge:

008-Q

MSGP Q Benchmarks - Quarterly

Report Dates & Status

Monitoring Period: From 04/01/23 to 06/30/23

Hart

No

DMR Due Date: 07/28/23

Status: **NetDMR Validated**

Considerations for Form Completion

1 Saltwater, 2 Freshwater

Principal Executive Officer

First Name:

Title:

Director, MCBH ECPD

Telephone: 808-257-5640

No Data Indicator (NODI)

Form NODI:

Last Name:

	Parameter	Monitoring Location	Season # P	Param. NODI		Qu	antity or Loadi	ng			C	Quality or Concentration	#	of Ex. Fi	requency of Analys	sis Sample Ty
Code	Name					Qualifier 1 Value	ue 1 Qualifier 2	Value 2 Units	s Qualifier 1	Value 1	Qualifier 2 Value 2 Qualifier 3	3 Value 3	Units			
					Sample											
900	Hardness, total [as CaCO3]	SW - Storm Water	2		Permit Req.							Req Mon QRTR MAX	19 - mg/L	01	/90 - Quarterly	GR - GR
			_		Value NODI							9 - Conditional Monitoring - Not Required This Period				
					Sample						=	0.4	19 - mg/L	01	/90 - Quarterly	GR - GRA
980	Iron, total recoverable	SW - Storm Water	0		Permit Req.						<=	1.0 QRTR MAX	19 - mg/L	0 01	/90 - Quarterly	GR - GR
,500		OTT OTOTHI Water			Value NODI											
					Sample						=	0.041	19 - mg/L	01	/90 - Quarterly	GR - GR
094	Zinc, total recoverable	SW - Storm Water	1		Permit Req.						<=	0.09 QRTR MAX	19 - mg/L	0 01	/90 - Quarterly	GR - GR
1094	Zinc, total recoverable	3W - Storm Water		-	Value NODI											
					Sample											
1094	Zinc, total recoverable	SW - Storm Water	2		Permit Req.							Req Mon QRTR MAX	19 - mg/L	01	/90 - Quarterly	GR - GR
	·				Value NODI							9 - Conditional Monitoring - Not Required This Period				
					Sample						=	0.31	19 - mg/L	01	/90 - Quarterly	GR - GR
104	Aluminum, total recoverable	SW - Storm Water	0		Permit Req.						<=	0.75 QRTR MAX	19 - mg/L	0 01	/90 - Quarterly	GR - GR
1104	Administration (Control of Control Ovv Gloim vvalor			Value NODI												
					Sample						=	0.006	19 - mg/L	01	/90 - Quarterly	GR - GRA
1114	Lead, total recoverable	SW - Storm Water	1		Permit Req.						<=	0.21 QRTR MAX	19 - mg/L	0 01	/90 - Quarterly	GR - GR
1114	Leau, total recoverable	3W - Storm Water			Value NODI											
					Sample											
1114	Lead, total recoverable	SW - Storm Water	2		Permit Req.							Req Mon QRTR MAX	19 - mg/L	01	/90 - Quarterly	GR - GRA
	Leau, total recoverable				Value NODI							9 - Conditional Monitoring - Not Required This Period				

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Sample Report Attached

Attachments

Size Name Type 008-WFOBoatLab(Building6802)FY23-Q3MonitoringReport.pdf pdf 1991391.0

Report Last Saved By

U.S. Marine Corps

User: PATRICK.CRILE@USMC.MIL Name: Patrick Crile

E-Mail: patrick.crile@usmc.mil

Date/Time: 2023-07-25 12:06 (Time Zone: -10:00)

Report Last Signed By

User: JEFFRY.HART

Name: Jeffry Hart

E-Mail: jeffry.hart@usmc.mil

Date/Time: 2023-07-27 09:12 (Time Zone: -10:00)

Permit

Permit #: HIS000007

U.S. Marine Corps Permittee:

Major: No Permittee Address:

UNKNOWN

Facility: MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) Facility Location:

UNKNOWN, HI 00000

BOX 63002, BUILDING 1360 MCBH KANEOHE BAY KANEOHE, HI 96863-3002

009 Permitted Feature: Discharge:

009-Q Internal Outfall MSGP Q Benchmarks - Quarterly

DMR Due Date:

Report Dates & Status

Monitoring Period: From 04/01/23 to 06/30/23

Hart

07/28/23

Status: **NetDMR Validated**

Considerations for Form Completion

1 Saltwater, 2 Freshwater

Principal Executive Officer

First Name: Title: Director, ECPD Telephone: 808-257-5640

No Data Indicator (NODI)

Form NODI:

Last Name:

1 011111	Parameter	Monitoring Location	Saacan	# Baram NODI		Quantity or Loading	0:	uality or Concentration		# of Ex. Frequency of Analysis	c Cample Type
Code	Name	Worldoning Location	Season 7	# Faraiii. NODi		Qualifier 1 Value 1 Qualifier 2 Value 2 Units Qua		Value 3	Units	# Of Ex. Frequency of Allalysis	s Sample Type
Couc	ramo				Sample	Qualifor 1 Value 1 Qualifor 2 Value 2 Office Qua					
00900	Hardness, total [as CaCO3]	SW - Storm Water	2		Permit Req.			Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NODI			9 - Conditional Monitoring - Not Required This Period			
					Sample			1.0 QRTR MAX	40/	04/00 Overtarily	CD CDAD
00980	Iron, total recoverable	SW - Storm Water	0		Permit Req.		<=		19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NODI			C - No Discharge			
					Sample			O OO OPTP MAY	40	04/00 Occasion	00 0040
01094	Zinc, total recoverable	SW - Storm Water	1		Permit Req.		<=	0.09 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NODI			C - No Discharge			
					Sample						
01094	Zinc, total recoverable	SW - Storm Water	2		Permit Req.			Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NODI			9 - Conditional Monitoring - Not Required This Period			
					Sample						
01104	Aluminum, total recoverable	SW - Storm Water	0		Permit Req.		<=	0.75 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NODI			C - No Discharge			
					Sample						
01114	Lead, total recoverable	SW - Storm Water	1		Permit Req.		<=	0.21 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NODI			C - No Discharge			
					Sample						
01114	Lead, total recoverable	SW - Storm Water	2		Permit Req.			Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NODI			9 - Conditional Monitoring - Not Required This Period			

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

No discharge observed at Small Boat Repair Shop (Building 1698) during FY2023 Quarter 2 monitoring period.

Attachments

No attachments.

Report Last Saved By

U.S. Marine Corps

PATRICK.CRILE@USMC.MIL User:

Name: Patrick Crile E-Mail: patrick.crile@usmc.mil Date/Time: 2023-07-25 12:18 (Time Zone: -10:00)

Report Last Signed By

User: JEFFRY.HART

Name: Jeffry Hart
E-Mail: jeffry.hart@usmc.mil

Date/Time: 2023-07-27 09:12 (Time Zone: -10:00)

Quarter 4

7/1/2023 to 9/30/2023

FY 2023

Permit																			
Permit	#:	HIS000007		Permittee:	ı	U.S. Marine (Corps	Fa	acility:			CORF	PS BASE HA	AWAII KANEO	HE BAY MUNICIP	AL SEPAI	RATE	STORM SEWER SY	STEM
Major:		No		Permittee Address:			HI 00000				BOX 630				EOHE BAY				
		002 Internal Outfa	all	Discharge:	I	MSGP L Bend	chmarks -	·											
Report	Dates & Sta	ntus																	
Monitor	ing	From 07/01/2	23 to	DMR Due D	ate:	10/28/23		St	atus:		NetDMR	Valida	nted						
			etion					ļ											
Princip	al Executive	Officer																	
First Na	ame:	Jeffry		Title:		Director, MCE	BH Environme	ental Te	elephone	e :	808-496-	5640							
Permit#: HIS000007 Permittee: U.S. Marine Corps Facility: MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SY (MS4) Major: No Permittee UNKNOWN Facility BOX 63002, BUILDING 1360 MCBH KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SY (MS4) Permitted 002 Feature: Internal Outfall Discharge: 002-Q MSGP L Benchmarks - Quarterly Report Dates & Status Monitoring From 07/01/23 to Period: 09/30/23 Considerations for Form Completion Principal Executive Officer																			
No Date	a Indicator (NODI)																	
Form N																			
Code			Monitoring Loc	ation Season #	# Param. NO	DDI		-		e 2 Units	s Qualifier 1	Value 1		•			# of Ex.	Frequency of Analysis	Sample Type
Occo	140					Sample	Qualifier 1 val	ido i addin	ioi 2 vaiat	o z omic	o quamier i	value i	Qualifor 2 ve	ardo E addimor o		Office			
00530	Solids, total	suspended	SW - Storm W	ater 0										<=		19 - mg/L		01/90 - Quarterly	GR - GRAB
							1								C - No Discharge				
22222			0144 04 144											<=	1.0 QRTR MAX	19 - ma/L		01/90 - Quarterly	GR - GRAB
00980	iron, totai re	ecoverable	Svv - Storm vv	aler 0											C - No Discharge				
Submis	sion Note				_									-	L				
If a para	ameter row d	oes not conta	in any values f	or the Sample	e nor Efflu	ent Trading, t	then none of t	he followi	ng fields	will be	submitted	for tha	t row: Units,	, Number of Ex	cursions, Frequer	ncy of Ana	ılysis, a	and Sample Type.	
No erro	rs.																		
Commo	ents																		
FY23 Q	4,002 Landfi	ill, no discharg	je.																
Attachi	ments																		
	arine Corps			KATUEDI	NE CMITI	LON													
						1.017													
						ueme mil													
	ma·						-10:00)												
		d Rv		2020-10-2	20 10.00	(Time Zone.	10.00)												
	Lust Orginet	. <i>-</i>		JEFERY.F	HART														
	me:					(Time Zone:	-10:00)												
						, =====													

Permit

Major:

Permit #: HIS000007

Permittee:

U.S. Marine Corps

Facility:

MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

Permittee Address: UNKNOWN UNKNOWN, HI 00000 Facility Location:

BOX 63002, BUILDING 1360 MCBH KANEOHE BAY KANEOHE , HI 96863-3002

Permitted Feature:

007

No

Internal Outfall

Discharge: 007-Q

MSGP N Benchmarks - Quarterly

Report Dates & Status

Monitoring Period: From 07/01/23 to 09/30/23

Hart

DMR Due Date: 10/28/23

Status:

NetDMR Validated

Considerations for Form Completion

1 Saltwater, 2 Freshwater

Principal Executive Officer

Jeffry

First Name:

Title:

Director, MCBH Environmental

Telephone:

808-496-5640

No Data Indicator (NODI)

Form NODI:

Last Name:

	Parameter	Monitoring Location	Season #	Param. NODI		Quantity or Loading			Quality or Concentration	# of E	x. Frequency of Analy	sis Sample Type
Code	Name					Qualifier 1 Value 1 Qualifier 2 Value 2 Units Qualif	fier 1 Value 1 Qualifier 2	Value 2 Qualifier	3 Value 3	Units		
					Sample			=	4.8	19 - mg/L	01/90 - Quarterly	GR - GRAB
00530	Solids, total suspended	SW - Storm Water	0		Permit Req.			<=	100.0 QRTR MAX	19 - mg/L 0	01/90 - Quarterly	GR - GRAB
					Value NODI							
					Sample							
00900	Hardness, total [as CaCO3]	SW - Storm Water	2		Permit Req.				Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
					Value NODI				9 - Conditional Monitoring - Not Required This Period			
					Sample			=	0.96	19 - mg/L	01/90 - Quarterly	GR - GRAB
00980	Iron, total recoverable	SW - Storm Water	0		Permit Req.			<=	1.0 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
00000		Cir Cioiii Iraioi			Value NODI							
					Sample			=	0.03	19 - mg/L	01/90 - Quarterly	GR - GRAB
01094	Zinc, total recoverable	SW - Storm Water	1		Permit Req.			<=	0.09 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
01001	zine, tetai receverable	CV Cloim Water			Value NODI							
					Sample							
01094	Zinc, total recoverable	SW - Storm Water	2		Permit Req.				Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
01001	zine, tetai receverable	CV Cloim Water	_		Value NODI				9 - Conditional Monitoring - Not Required This Period			
					Sample			=	0.67	19 - mg/L	01/90 - Quarterly	GR - GRAB
01104	Aluminum, total recoverable	SW - Storm Water	0		Permit Req.			<=	0.75 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
01104	Aluminum, total recoverable	OVV - Gloim Water	0		Value NODI							
					Sample			=	0.0022	19 - mg/L	01/90 - Quarterly	GR - GRAB
01114	Lead, total recoverable	SW - Storm Water	1		Permit Req.			<=	0.21 QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
01114	Leau, total recoverable	OVV - Gloim Water	'		Value NODI							
					Sample							
01114	Lead, total recoverable	SW - Storm Water	2		Permit Req.				Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
	,				Value NODI				9 - Conditional Monitoring - Not Required This Period			
					Sample			=	0.02	19 - mg/L	01/90 - Quarterly	GR - GRAB
X 01119	Copper, total recoverable	SW - Storm Water	1		Permit Req.			<=	0.0048 QRTR MAX	19 - mg/L 1	01/90 - Quarterly	GR - GRAB
701113					Value NODI							
					Sample							
01119	Copper, total recoverable	SW - Storm Water	2		Permit Req.				Req Mon QRTR MAX	19 - mg/L	01/90 - Quarterly	GR - GRAB
30		J. J. J. J. J. J. J. J. J. J. J. J. J. J			Value NODI				9 - Conditional Monitoring - Not Required This Period			
					Sample			=	39.0	19 - mg/L	01/90 - Quarterly	GR - GRAB
80103	Chemical oxygen demand [COD]	SW - Storm Water	0		Permit Req.			<=	120.0 QRTR MAX	19 - mg/L _O	01/90 - Quarterly	GR - GRAB
00.00	ccca. exygen demand [OOD]	C. C.O. Water			Value NODI							

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Che	ck Errors					
	Parameter	Manitaring Lagrice	Field	Туре	Description	A plan puda dara
Code	Name	Monitoring Location	Field		Description	Acknowledge

04440	0 111	0144 04 144 4	0 15 0 1 5 0 1 1 1 0	0.6	-	2 P 2 DI	2 4 4 4 1 1		.,
01119	Copper, total recoverable	SW - Storm Water	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the	permit limit. Please	e verify that the value you have	ve provided is correct.	Yes
Commen	nts								
FY23 Q4	007 Recycle Center one ex	ceedance							
Attachm	ents								
			Name				Туре		Size
2023_Q4_	007_Bldg_132.pdf					pdf		1645062.0	
Report L	ast Saved By								
U.S. Mar	ine Corps								
User:		KA ⁻	THERINE.SMITH.CIV						
Name:		Kat	herine Smith						
E-Mail:		kath	nerine.smith.civ@usmc.mil						
Date/Time	e:	202	3-10-25 15:06 (Time Zone: -10:00)						
Report L	ast Signed By								
User:		JEF	FRY.HART						
Name:		Jeff	ry Hart						
E-Mail:		jeffr	y.hart@usmc.mil						
Date/Time	e:	202	3-10-26 15:37 (Time Zone: -10:00)						

Permit

Permit #: HIS000007

Permittee: U.S. Marine Corps

o.o. Marine ooi

Facility:
Facility Location:

Status:

MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

Permittee Address: UNKNOWN UNKNOWN, HI 00000

BOX 63002, BUILDING 1360 MCBH KANEOHE BAY

KANEOHE , HI 96863-3002

Permitted Feature:

Major:

800

No

External Outfall

Discharge: 008-Q

MSGP Q Benchmarks - Quarterly

Report Dates & Status

Monitoring Period: From 07/01/23 to 09/30/23

Hart

DMR Due Date: 10/28/23

NetDMR Validated

Considerations for Form Completion

1 Saltwater, 2 Freshwater

Principal Executive Officer

First Names Jeffer

First Name:

Title: Director, MCBH Environmental

Telephone:

808-496-5640

No Data Indicator (NODI)

Form NODI:

Last Name:

	,	88 to 1 to 1									
	Parameter	Monitoring Location	Season # Param. NODI		Quantity or Loading		Quality or Concentration		# of Ex.	Frequency of Analysis	Sample Type
Code	Name				Qualifier 1 Value 1 Qualifier 2 Value 2 Units Qualifier 1 Value 1 Qualifier 2 Value 2 Q	ualifier 3	3 Value 3	Units			
				Sample							
00900	Hardness, total [as CaCO3]	SW - Storm Water	2	Permit Req.			Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
				Value NODI			9 - Conditional Monitoring - Not Required This Period				
				Sample	=		0.063	19 - mg/L		01/90 - Quarterly	GR - GRAB
00980	Iron, total recoverable	SW - Storm Water	0	Permit Req.	<=	=	1.0 QRTR MAX	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
00000	non, total root totalic	Ovv. Grown vvalor		Value NODI					Ü		
				Sample	=		0.027	19 - mg/L		01/90 - Quarterly	GR - GRAB
01094	Zinc, total recoverable	SW - Storm Water	1	Permit Req.	<=	=	0.09 QRTR MAX	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
01034	Zilic, total recoverable	SW - Storm Water		Value NODI					U		
				Sample							
01094	Zinc, total recoverable	SW - Storm Water	2	Permit Req.			Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
01034	Zinc, total recoverable	Gvv - Gloim vvaler		Value NODI			9 - Conditional Monitoring - Not Required This Period				
				Sample	=		0.072	19 - mg/L		01/90 - Quarterly	GR - GRAB
01104	Aluminum, total recoverable	SW - Storm Water	0	Permit Req.	<=	=	0.75 QRTR MAX	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
01104	Adminum, total recoverable	Gvv - Gloim vvaler		Value NODI					O		
				Sample	=		0.0026	19 - mg/L		01/90 - Quarterly	GR - GRAB
01114	Lead, total recoverable	SW - Storm Water	1	Permit Req.	<=	=	0.21 QRTR MAX	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
01114	Lead, total recoverable	Gvv - Gtorm vvaler		Value NODI					J		
				Sample							
01114	Lead total recoverable	SW - Storm Water	2	Permit Req.			Req Mon QRTR MAX	19 - mg/L		01/90 - Quarterly	GR - GRAB
0.111	Lead, total recoverable SW	overable SW - Storm Water	_	Value NODI			9 - Conditional Monitoring - Not Required This Period				

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

FY23 Q4, 008, Boat lab, Bldg 6802, No exceedances

Attachments

 Name
 Type
 Size

 2023_Q4_008_Bldg_6802.pdf
 pdf
 1903035.0

Report Last Saved By

U.S. Marine Corps

User: JEFFRY.HART

Name: Jeffry Hart

E-Mail: jeffry.hart@usmc.mil

Date/Time: 2023-10-26 15:38 (Time Zone: -10:00)

Report Last Signed By

User: JEFFRY.HART
Name: Jeffry Hart
E-Mail: jeffry.hart@usmc.mil

Date/Time: 2023-10-26 15:39 (Time Zone: -10:00)

Permit

Permit #: HIS000007

Permittee: U.S. Marine Corps

Facility:

MARINE CORPS BASE HAWAII KANEOHE BAY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

Major: No Permittee Address: UNKNOWN

UNKNOWN, HI 00000

Facility Location: BOX 63002, BUILDING 1360 MCBH KANEOHE BAY KANEOHE , HI 96863-3002

Permitted Feature: 009

Internal Outfall

Discharge:

009-QMSGP Q Benchmarks - Quarterly

Report Dates & Status

Monitoring Period: From 07/01/23 to 09/30/23 DMR Due Date:

10/28/23

Status: NetDMR Validated

Considerations for Form Completion

Hart

1 Saltwater, 2 Freshwater

Principal Executive Officer

First Name: Jeffry

First Name: Last Name: Title:

Director, MCBH Environmental

Telephone:

808-496-5640

No Data Indicator (NODI)

Form NODI:

	Parameter	Manitaring Lagation	Season # Param. NODI		Juantit	y or Loading			Quality or	Concentrat	ion	ш	of Ex. Frequency of Analysis	Comple Tun
Code	Name	Monitoring Location	Season # Param. NODI				Units Qua	ilifier 1 Value 1	Qualifier 2 Value 2			Units	of Ex. Frequency of Analysis	Sample Typ
00900	Hardness, total [as CaCO3]	SW - Storm Water	2	Sample Permit Req. Value NODI							Req Mon QRTR MAX C - No Discharge		01/90 - Quarterly	GR - GRAB
0980	Iron, total recoverable	SW - Storm Water	0	Sample Permit Req. Value NODI						<=	1.0 QRTR MAX C - No Discharge	19 - mg/L	01/90 - Quarterly	GR - GRAB
01094	Zinc, total recoverable	SW - Storm Water	1	Sample Permit Req. Value NODI						<=	0.09 QRTR MAX C - No Discharge	19 - mg/L	01/90 - Quarterly	GR - GRAB
01094	Zinc, total recoverable	SW - Storm Water	2	Sample Permit Req. Value NODI							Req Mon QRTR MAX C - No Discharge	19 - mg/L	01/90 - Quarterly	GR - GRAB
01104	Aluminum, total recoverable	SW - Storm Water	0	Sample Permit Req. Value NODI						<=	0.75 QRTR MAX C - No Discharge	19 - mg/L	01/90 - Quarterly	GR - GRAB
01114	Lead, total recoverable	SW - Storm Water	1	Sample Permit Req. Value NODI						<=	0.21 QRTR MAX C - No Discharge	19 - mg/L	01/90 - Quarterly	GR - GRAB
01114	Lead, total recoverable	SW - Storm Water	2	Sample Permit Req. Value NODI							Req Mon QRTR MAX C - No Discharge	19 - mg/L	01/90 - Quarterly	GR - GRAB

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

FY23 Q4, 009, Bldg 1698, Small boat repair shop, no sample taken, no discharge

Attachments

No attachments.

Report Last Saved By

U.S. Marine Corps

User: KATHERINE.SMITH.CIV Katherine Smith E-Mail: katherine.smith.civ@usmc.mil Date/Time: 2023-10-25 15:07 (Time Zone: -10:00)

Report Last Signed By

User: JEFFRY.HART Name: Jeffry Hart
E-Mail: jeffry.hart@usmc.mil

Date/Time: 2023-10-26 15:40 (Time Zone: -10:00)