Michael Baker
INTERNATIONAL

2021 Annual Report

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Port of Alaska, MS4 Permit 052426

Prepared for:

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We Make a Difference

2021 Annual Report

Port of Alaska, Storm Water Management Program

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Acronym List

ADEC	Alaska Department of Environmental Conservation
POA	Port of Alaska
SWMP	Storm Water Management Program
SWPP	Storm Water Pollution Prevention
APDES	Alaska Pollutant Discharge Elimination System
MOA	Municipality of Anchorage
IDDE	Illicit Discharge Detection and Elimination
PEO	Public Education and Outreach
MCM	Minimum Control Measure
USEPA	United States Environmental Protection Agency
USC	United States Code
MS4	Municipal Separate Storm Sewer System
DMR	Discharge Monitoring Report
QAPP	Quality Assurance Protection Plan
BMPs	Best Management Practices
TAH	Total Aromatic Hydrocarbons
TAqH	Total Aqueous Hydrocarbons
VOC	Volatile Organic Chemicals
AAC	Alaska Administrative Code
CGP	Construction General Permit
OWS	Oil-Water Separator
PP/GH	Pollution Prevention and Good Housekeeping

1. Introduction

This Port of Alaska (POA) Storm Water Management Program (SWMP) Annual Report has been prepared for calendar year 2021, in accordance with requirements of the Alaska Pollutant Discharge Elimination System (APDES) Municipal Separate Storm Sewer System (MS4) Permit, number AKS052426, held by POA and renewed for five years as of August 2020.

This report provides a summary of the efficacy of each element or activity of the POA's SWMP for 2021. This will include a review of the following:

- Application of minimum control measures (MCMs) as identified in the MS4 Permit (see Section 3) and;
- Monitoring, evaluation, reporting and record-keeping activities

The purpose of this report is to:

- Provide an assessment of the efficacy of each of these elements;
- Identify any anticipated or expected changes to such implementation and activities including changes to monitoring frequency or extent, good housekeeping or BMPs;
- Evaluate the compliance of activities with the requirements of the MS4 permit;
- Identify progress towards measurable and long-term goals of the MS4 permit or the SWMP, and;
- Indicate any change in responsibility with regard to geographic areas under POA or leaseholder management or changes in POA or third-party assistance towards fulfilling permit obligations.

The POA's MS4 permit (AKS052426) was renewed as of August 2020. Most of the prior elements, permit and reporting requirements remain the same as under the prior (2015-2020) MS4 permit authorization. One noteworthy change is the requirement for online 'e-reporting' of Discharge Monitoring Reports (DMRs) under the new NetDMR Reporting System managed by the U.S. Environmental Protection Agency (USEPA).

Responsibility for development and implementation of the SWMP processes and guidelines sits with the Port Director, Port Engineering Manager, leaseholders and SWPP Team members. The POA's designated representative is responsible for providing guidance, management, coordination and implementation of the SWMP on behalf of POA, and assisting POA on MS4 permitting matters as contractually requested.

2. Regulatory Authority and Compliance

This report is intended to comply with the requirements of the POA's MS4 reporting requirements under the APDES. Per 18 AAC 83, the APDES permit issuance and enforcement lies under the regulatory authority of AK Department of Environmental Conservation (ADEC). The APDES program is implemented so as to comply with the Clean Water Act (33 USC 1342) as regulated by the USEPA.

3. Minimum Control Measures

Section 3.0 of the MS4 permit lists the following six Minimum Control Measures (MCM) for proper storm water management and permit compliance:

- Public education and outreach;
- Public involvement and participation;
- Illicit discharge detection and elimination;
- Construction site storm water runoff control;
- Post-construction storm water management in new development and redevelopment; and
- Pollution prevention and good housekeeping.

This section summarizes the implementation of these control measures during the 2021 reporting period, the effectiveness of each measure, and proposed changes (if any) for the subsequent year.

Public Education and Outreach

The Public Education and Outreach (PEO) component of the MS4 Permit was implemented in 2021. The PEO program is specifically targeted to both POA and leaseholder personnel who may have a role that could affect storm water quality, runoff, or illicit discharges and response. The PEO program focuses on illicit discharge detection and elimination (IDDE) training and is conducted annually.

This annual training typically consists of a presentation, in either video or slide format, that identifies:

- Identifies storm water regulations and regulatory authorities
- Indicates the purpose of storm water regulations and guidelines
- Identifies and defines illicit discharges, and
- Indicates methods for detecting and identifying illicit discharges to storm water systems.

Many of the POA leaseholders have contracts with an outside organization to provide this IDDE training.

In addition, IDDE elements, storm water controls, discharge events and other related topics were brought up and discussed at the quarterly SWPP Team meetings.

Another element of Public Education and Outreach under the POA MS4 permit and SWMP involves stenciling of all POA storm drain inlets on the property. In 2015, 100% of POA storm drain inlets were stenciled; however, much of this stenciling has been degraded and worn away. POA is undertaking a program to renew the stenciling. The goal is to have 50% of storm drain inlets stenciled by August 2022, and 100% of inlets stenciled by 2024.

Public Involvement and Participation

The Public Involvement and Participation program is focused primarily on POA personnel and leaseholders. Public involvement and participation beyond the POA itself and the leaseholders are generally limited to information made available on the POA stormwater website:

https://www.portofalaska.com/business/storm-water-management/

This site provides public access to the following POA information related to its MS4 permit:

- List of SWPP Team members
- Prior three years' Annual MS4 Reports
- POA's current MS4 Permit
- Definitions of common storm water terms

The POA Storm Water website also indicates availability of SWPP Team meeting minutes up on request.

Illicit Discharge Detection and Elimination

The primary purpose of the SWMP under the MS4 permit is to detect, resolve, and eliminate all illicit discharges within the POA storm water system, and to prevent such discharges in the future. In addition to required compliance with 18 AAC 83 under ADEC's authority, the POA is also a branch of the Municipality of Anchorage and is thus subject to MOA Code 15.50.020. This describes 'Prohibited Acts' in the context of Watershed District Regulations, and among other such acts includes:

> "(9). Pollute, contaminate, discharge or dump any water, refuse, debris or material into any reservoir, pipeline, stream, rill, drainage, runoff, watercourse or ither groundwater and surface water source or supply."

Wet Weather Monitoring

The MS4 permit requires implementation of an ongoing wet weather screening program. The purpose of this screening program is to detect the presence of illicit discharges and connections or other pollution issues relating to the storm drain system. The POA's wet weather screening program consists of collecting visual observations and testing of water quality parameters once or twice per year (depending on parameter). Wet weather monitoring requirements, parameters, and frequency are outlined in the Monitoring Program Plan and QAPP. Outfalls 001, 002, and 003 were identified in the MS4 permit as the representative outfalls requiring monitoring and sampling; there are no monitoring requirements for Outfalls 004 through 008.

Wet weather monitoring, field observations, and analytical sample collection was conducted for Outfalls 001, 002, and 003 on 7 October June (Event 1) and 23 October 2021 (Event 2). Field samples were collected directly from the outfall locations in 5-gallon buckets and Nalgene bottles. Samples were then transported by hand from the outfall locations to a nearby flat ground surface for ease-of-transfer into laboratory supplied analytical containers and vials. Field measurements were conducted in the filled Nalgene bottles.

Temperature, conductivity, salinity, and dissolved oxygen were measured using a YSI ProSolo handheld digital water quality meter, while pH was measured using a YSI EcoSense pH10A pen. All instruments were calibrated the day of sampling prior to field deployment. The YSI ProSolo meter was calibrated using 1,413 µS/cm conductivity standard, and by entering the current local barometric pressure. The Ecosense pH meters were three-point calibrated using pH 4.01 pH 7.00, and pH 10.01 buffer solution.

Biochemical oxygen demand, chemical oxygen demand, total suspended solids, total dissolved solids, nitrates, and total Kjeldahl nitrogen were analyzed by a certified laboratory rather than in the field.

Table 1, below, indicates the findings of these water quality measurements.

Table 1: Outfall Sampling, Water Quality Parameter

Parameter	Unit	Acceptable Range	Outfall 1	Outfall 2	Outfall 3
Estimated Flow	C.F./s	N/A	2.8	1.2	N/A
Temperature	Deg. C	<15 C	7.7	9.2	11.1
pH		6.5 – 8.5	7.7	6.53	7.42
Turbidity	NTU	<50 or background[1]	61.9	373	36.3
Sheen		Virtually none	None	None	None[2]
Dissolved Oxygen	mg/L	6.0 – 17.0	10.03	10.6	N/A
B.O.D.	mg/L	N/A	ND[3] 2.00	ND 2.00	N/A
C.O.D.	mg/L	N/A	58.3	118	N/A
TSS	mg/L	N/A	119	1270	N/A
TDS	mg/L	N/A	2440	2640	N/A
Nitrate-Nitrite	mg/L	N/A	0.406	0.283	N/A
N (Kjeldahl)	mg/L	N/A	ND 1.00	ND 1.00	N/A

1 – Background levels equivalent to naturally occurring turbidity in Cook Inlet as the POA system is tidally influenced and receives incoming tidal water (including sediment) twice daily

2 – No sheen was noted at Outfall 003, however there was a slight but detectable hydrocarbon odor at this outfall

3 – ND = 'non-detectable'; number following 'ND' indicates the lower detectable threshold for laboratory analysis

Results were compared to acceptable ranges or action levels presented in the MS4 APDES permit authorization. The results were also used to complete the discharge monitoring report (DMR) included in Appendix B. The fully executed chains-of custody are included in Appendix B.

Analytical results included testing for total aromatic hydrocarbons (TAH) and total aqueous hydrocarbons (TAqH), which are calculations based on analysis for volatile organic compounds (VOC) and polycyclic aromatic hydrocarbons. TAH and TAqH summations were compared to permit action levels which are based on 18 Alaska Administrative Code (AAC) 70, Water Quality Standards.

TAH analytical results are summarized in Tables 2 and 3 on the following page.

Table 2: Outfall Sampling Event 1, TAH Results (in µg/L)

Location (Outfall)	1	2	3
			18 AAC 70 Action Level: 10 µg/L
Benzene	ND 0.400	ND 0.400	1.56
Ethylbenzene	ND 1.00	ND 1.00	8.44
Xylenes (total)	ND 3.00	ND 3.00	5.82
Toluene	ND 1.00	ND 1.00	ND 1.00
TAH Summation	ND	ND	15.82

Table 3: Outfall Sampling Event 2, TAH Results (in µg/L)

Location (Outfall)	1	2	3
			18 AAC 70 Action Level: 10 µg/L
Benzene	ND 0.400	ND 0.400	0.45
Ethylbenzene	ND 1.00	ND 1.00	1.64
Xylenes (total)	ND 3.00	ND 3.00	ND 3.00
Toluene	ND 1.00	ND 1.00	ND 1.00
TAH Summation	ND	ND	2.09

TAH concentrations were all below the action level of 10 micrograms per liter (µg/L) in all outfall samples across both sampling events. All analytes from Outfalls 001 and 002 were below detectable thresholds for both Event 1 and Event 2. Analytes for Outfall 003 ranged from non-detectable to 8.44 µg/L for Event 1, and non-detectable to 1.64 µg/L for Event 2.

TAqH analytical results are summarized in Tables 4 and 5, below.

Table 4: Outfall Sampling Event 1, TAqH Results (in µg/L)

Location (Outfall)	1	2	3
			18 AAC 70 Action Level: 15 µg/L
Acenaphthene	ND 0.0463	ND 0.0472	0.173
Acenaphthylene	ND 0.0463	ND 0.0472	ND 0.0455
Anthracene	ND 0.0643	ND 0.0472	ND 0.0455
Benzo(a)Anthracene	ND 0.0643	ND 0.0472	ND 0.0455
Benzo[a]pyrene	ND 0.0185	ND 0.0189	ND 0.0182
Benzo[b]Fluoranthene	ND 0.0643	ND 0.0472	ND 0.0455
Benzo[g,h,i]perylene	ND 0.0643	ND 0.0472	ND 0.0455
Benzo[k]fluoranthene	ND 0.0643	ND 0.0472	ND 0.0455
Chrysene	ND 0.0643	ND 0.0472	ND 0.0455
Dibenzo[a,h]anthracene	ND 0.0185	ND 0.0189	ND 0.0182
Fluoranthene	ND 0.0643	ND 0.0472	ND 0.0455
Fluorene	ND 0.0643	ND 0.0472	0.166
Indeno[1,2,3-c,d] pyrene	ND 0.0643	ND 0.0472	ND 0.0455
Naphthalene	ND 0.0926	ND 0.0943	0.72
Phenanthrene	ND 0.0643	ND 0.0472	0.203
Pyrene	ND 0.0643	ND 0.0472	ND 0.0455
TAqH Summation	ND	ND	1.262

Table 5: Outfall Sampling Event 2, TAqH Results (in µg/L)

Location (Outfall)	1	2	3
			18 AAC 70 Action Level: 15 µg/L
Acenaphthene	ND 0.0455	ND 0.0455	ND 0.0455
Acenaphthylene	ND 0.0455	ND 0.0455	ND 0.0455
Anthracene	ND 0.0455	ND 0.0455	ND 0.0455
Benzo(a)Anthracene	ND 0.0455	ND 0.0455	ND 0.0455
Benzo[a]pyrene	ND 0.0182	ND 0.0182	ND 0.0182
Benzo[b]Fluoranthene	ND 0.0455	ND 0.0455	ND 0.0455
Benzo[g,h,i]perylene	ND 0.0455	ND 0.0455	ND 0.0455
Benzo[k]fluoranthene	ND 0.0455	ND 0.0455	ND 0.0455
Chrysene	ND 0.0455	ND 0.0455	ND 0.0455
Dibenzo[a,h]anthracene	ND 0.0182	ND 0.0182	ND 0.0182
Fluoranthene	ND 0.0455	ND 0.0455	ND 0.0455
Fluorene	ND 0.0455	ND 0.0455	ND 0.0455
Indeno[1,2,3-c,d] pyrene	ND 0.0455	ND 0.0455	ND 0.0455
Naphthalene	ND 0.0909	ND 0.0909	ND 0.0909
Phenanthrene	ND 0.0455	ND 0.0455	ND 0.0455
Pyrene	ND 0.0455	ND 0.0455	ND 0.0455
TAqH Summation	ND	ND	ND

TAqH concentrations were all well below the action level of 15 µg/L in samples from Outfalls 001, 002 and 003. All analytes from Outfalls 001 and 002 were below detectable thresholds for both Event 1 and Event 2. Analytes for Outfall 003 were all below detectable limits for Event 2, while only 4 of the 16 analytes were detected and below actionable limits for Event 1. These ranged from 0.166 to 0.72 µg/L.

All of the above water quality monitoring information may be found on the DMRs in Appendix B. Copies of complete analytical results are available upon request.

Dry Weather Screening

The MS4 permit requires implementation of an ongoing dry weather screening program. The purpose of this screening program is to detect the presence of illicit connections and discharges or other water quality issues affecting the Port's storm drain system. The POA's dry weather screening program consists of:

- An awareness program for POA and leaseholder personnel;
- Outfall screening efforts, and;
- Regular site-wide visual inspections.

No dry weather analytical testing was conducted on any of the outfalls during 2021.

The main idea behind dry weather screening is to determine whether illicit discharges are occurring, in theory made easier because dry weather should include no flow. However, given the high tidal range of Cook Inlet, the POA's geographical position within this tidal range, and the extent of the POA storm drain system, our observations start with the fact that even after the low tide, the POA storm drain system continues to discharge tidal water that is flushed up through the system twice daily. The tidal extent is

identifiable based on the presence of silts and fines within the storm drain system matching the sediment in Cook Inlet.

Outfalls 001, 002, and 003 are visually screened at least once per year during a period of relatively dry weather close to low tide. Outfall screening is aimed at detecting illicit discharges and/or connections via the presence of solid waste, petroleum sheen, and/or unusual odors. The general condition and functionality of each outfall is noted to ensure the system is discharging appropriately. As required by the MS4 permit, each outfall was observed within the term of the permit and documented accordingly.

On 14 May, 27 May, 9 July, and 21 August 2021, outfalls were visually inspected at low tide. All inspections included Outfalls 001, 002 and 003. The 14 May and 9 July inspections included additional outfalls (004 through 008). Outfall 007 is not observable, as it is hidden behind and below fill material.

All observed outfalls appeared to be functional, adequately discharging storm water from the system. Outfall 004 is in poor physical condition, with visible degradation of the corrugated pipe. However it is still discharging storm water appropriately. Low to moderate, continuous flows of clear water with no sheen were observed. A slight hydrocarbon odor was detectable at Outfall 003, which serves the storm system running below and through much of the tank farms along the southern area of the POA property. There is also likely residual ground and groundwater contamination in this area, and the pipe seams of the storm water system may be aging and allowing groundwater penetration. Outfall 006 was not observed due to construction in the area that restricted access.

Site-wide visual inspections were performed in 2021 during relatively dry weather periods to look for evidence of illicit discharges, poor housekeeping, storm water control effectiveness and to confirm whether POA and leaseholders are adhering to the SWMP. The site-wide visual inspection consists of inspecting the entire Port, excluding the inside of buildings. The site-wide visual inspection focuses on identifying illicit discharges, solid waste accumulation, identifying onsite and off-site sources of potential pollution, and checking for prohibited outdoor work activities. A total of three unannounced inspections were conducted on a regular basis throughout 2020.

In general, the Port facilities are maintained in good, clean condition. The issue noted most frequently during site inspections was the presence of debris, particularly in and around snow storage areas and areas where winter grit had accumulated. In addition, some temporary BMPs such as sorbent socks or witches hats appeared to have been left emplaced without maintenance or replacement with permanent BMPs in a timely manner. Temporary BMPs no longer needed were noted in multiple areas around the Port; however, their presence did not warrant enforcement actions. Good housekeeping and BMP maintenance was not sufficiently mentioned or reiterated at SWPP Team quarterly meetings.

Construction Site Storm Water Runoff Control

The Construction Site Storm Water Runoff Control program was successfully implemented in 2021. For active construction projects disturbing greater than one acre within the jurisdiction of the Port, the Contractor shall obtain authorization under the APDES Construction General Permit (CGP). Projects disturbing greater than 10,000 square feet, but less than one acre, must coordinate improvements with the Port to avoid, minimize, and mitigate adverse impacts to water quality. A Construction Site Form must be prepared by the Contractor and signed by the Port before construction may commence.

The Port reviewed one construction Storm Water Pollution Prevention Plan (SWPPP) for a construction project in 2021 to ensure compliance with the Port's SWMP. Coverage under the CGP was required for a Port construction project associated with the Modernization Program. A Construction Site Form for this project was completed and signed by the Contractor and Port representative documenting each review.

Unannounced site inspections of Port facilities were conducted on a semi-regular basis throughout 2021. Active construction projects were observed for general compliance with storm water regulations and informally inspected at least once during active construction.

Post-Construction Storm Water Management (New Development / Redevelopment)

The Post-Construction Storm Water Management program for new development or redevelopment was implemented in 2021. POA requires a plan review for any proposed permanent storm water conveyance, drainage or treatment designs or changes. POA must receive, review and approve a Post-Construction Site Form, prepared by the relevant contractor, prior to allowing any such construction to proceed.

The responsible party for any such construction project must prepare a post-construction design for permanent storm water controls as applicable. This design should include plans, specifications, design details and descriptions of BMPs that will be implemented to minimize or prevent discharge of pollutants to the POA's MS4 system following completion of construction.

Pollution Prevention and Good Housekeeping

The POA covers approximately 220 acres in total. Of that, approximately 81 acres are managed under long-term lease by the leaseholders, including Tote, Matson, Marathon, Delta Western, AFSC/Menzies, and ABI/AS&G. Another 31 acres is used for temporary staging. The POA is directly responsible for public areas not under lease agreement, while the leaseholders are responsible for the 81 acres under lease. A description of leaseholder pollution prevention and good housekeeping (PP/GH) and storm water controls can be found in Section 3.0 of the SWMP.

Table 6, below, summarizes the PP/GH measures typical of each land use type under POA responsibility.

Table 6: Pollution Prevention and Good Housekeeping Elements per POA Area

POA Area Type	Applicable Pollution Prevention / Good Housekeeping Measures
Roads / streets	POA is responsible for maintaining and cleaning public drive access across the POA, and implements grit placement in winter as well as street sweeping, washing and vacuuming as appropriate to minimize and remove accumulated grit, dust and debris
Parking lots	POA implements ongoing street sweeping, washing and vacuuming procedures to minimize the accumulation of suspended solids in storm water and to reduce air pollution. This effort is prevalent during spring breakup.
Maintenance / storage areas	POA maintenance and storage areas are controlled, covered areas where traffic patterns are not a hazard. Materials are stored within a secondary containment unit or above a sealed ground surface to avoid incidental contact with surface water runoff.
Waste transfer stations	Solid wastes are disposed of in non-leaking, lidded dumpsters to prevent refuse from blowing away or precipitation from entering and corroding the dumpsters. Any solid waste container leaks are contained so that the leakage and/or solid waste will not enter the storm drain system. Any dumpster found to be leaking is repaired or replaced immediately. Solid waste containers are located at least 50 feet from the nearest storm drain inlet.
Snow storage areas	Snow storage sites comply with ADEC snow storage site requirements and guidelines. Dumping, pushing, placing, or blowing snow into any drainage ditch or storm drain inlet is strictly prohibited.
Fleet maintenance shops	POA maintenance and fabrication activities for vehicle fleet and equipment are performed inside or under cover unless it is not possible to do so. Primary fleet maintenance areas incorporate a contained trap for grit and other pollutants. Outdoor storage areas have materials stored within secondary containment units or above a sealed ground surface to avoid incidental contact with surface water runoff.
Sand / salt storage areas	Sand is stored in a large, prefabricated tent to shield the stockpile from storm (wind or rain) erosion and sedimentation. The tent door is opened only for import of new sand or removal of sand for winter placement. The amount removed is limited to the amount needed for application. When no sand is being loaded or removed from the hut, the doors are shut.
Ditches, culverts, catch basins, storm drains and outfalls	POA maintains an ongoing program of cleaning, maintenance and repair of ditches, catch basins, culverts, and outfalls. Following a comprehensive MS4 system review, POA is undertaking MS4 system repairs and improvements. POA will continue to monitor, inspect, evaluate and improve the storm drain system.

Pollution prevention and housekeeping of areas under lease, including parking, drive lanes, staging and material storage, vehicle maintenance, and solid waste storage are the responsibility of the leaseholder. Areas serving as bulk fuel or contaminant storage have additional pollution prevention requirements.

Effectiveness of Controls

A summary of the efficacy of BMPs, source reduction and elimination measures, and source control measures implemented by POA and leaseholders within the MS4 coverage area may be found in the tables in Appendix C. These BMPs have been installed and implemented in accordance with the SWMP. This review also identifies discrepancies between current measures and controls enacted by POA or leaseholders and those required under the SWMP. Any such discrepancy noted will include a discussion of each discrepancy and recommendations on how to correct or ameliorate the discrepancy so as to bring each facility into compliance with the SWMP. If no discrepancy currently exists, the Port or Stakeholder facility is not mentioned here.

Maintenance Schedules and Records

POA and each leaseholder is responsible for adhering to their own facility-specific maintenance schedules, and for documenting and retaining associated maintenance records. These records are not included in this report but can be made available upon request to POA. To improve maintenance record tracking, retention, and availability, an Oil-Water Separator (OWS) and Sump Inspection Plan along with associated maintenance log were created in March 2017. This Plan and Inspection Log is retained in the Port Maintenance Building.

Long-Term Inspection Procedures

Long-term inspection procedures include a preventative maintenance program and regular inspections of the POA and leaseholder areas. The preventive maintenance program involves inspections of components of the storm water management system. The following systems and equipment are inspected at POA and leaseholder facilities:

1. **Storm drain system**. The whole system within the MS4 boundary is inspected annually, at a minimum. In addition, the system is inspected immediately if and when impeded flow conditions are detected. Debris that has collected in ditches, swales and catch basins is removed periodically throughout the year, although this activity is most frequent following spring melt and runoff.
2. **Fuel storage, refueling areas, and tank truck loading racks**. These features are inspected periodically and no less than annually. Inspections in these areas look for system integrity issues such as leaks, cracking, corrosion, or other wear or physical damage that can pose an increased risk of spill or indicate reduced containment capacity. Additional contaminant spill prevention requirements apply to these areas. If contaminants – such as fuels – are noted to have escaped into secondary containment, or if an obvious risk of contaminant release or secondary containment failure is noted, the facility in question will be immediately closed off and shut down until corrective action is taken and completed.
3. **Oil-water separators**. These features are inspected frequently by POA maintenance personnel. Depending upon the condition when inspected, these features are cleaned and services as necessary to maintain functionality and prevent overloading. If critical integrity concerns are identified, the OWS is removed from use and repairs ort other corrective action is implemented immediately.

Annual Evaluation

The PP/GH MCM was successfully implemented in 2021. POA and all leaseholders followed PP/GH measures outlined in the SWMP. The measurable PP/GH goals proposed for POA are on track for achievement according to the schedule in Table 7, below.

Table 7: Storm Water Management Program Measurable Goals, by MCM

Minimum Control Measure and Measurable Goal	Attainment Date
Public Education and Outreach	
- *POA Staff and Leaseholder training*	31 December 2021
Public Involvement and Participation	
- *Maintain storm water management section on POA website*	31 December 2021 (ongoing)
- *Renew storm drain stenciling coverage (50% of inlets)*	31 August 2022
- *Renew storm drain stenciling coverage (100% of inlets)*	31 August 2024
Illicit Discharge Detection and Elimination	
- *Conduct wet weather water quality monitoring*	23 October 2021 (ongoing)
- *Conduct dry weather outfall screening*	21 August 2021 (ongoing)
- *Identify water quality baseline for surface water draining into POA system*	23 October 021 (ongoing)
- *Identify locations of groundwater contaminant penetration into POA system*	23 October 2021 (ongoing)
- *Complete comprehensive survey/assessment of storm system*	21 October 2021
Construction site Storm Water Runoff	
- *Implement the POA Construction Site Runoff Control Program*	31 December 2021 (ongoing)
Post-Construction Storm Water Management (Re- or New Development)	
- *Implement the POA Post-Construction Runoff Program*	31 December 2021 (ongoing)
Pollution Prevention and Good Housekeeping	
- *Assess storm drain system for priority maintenance needs*	31 December 2021 (ongoing)
- *Develop a comprehensive maintenance schedule for the storm system*	21 October 2021 (ongoing)
- *Incorporate maintenance and IDDE tracking into the POA's GIS database*	Ongoing

The storm drain system was thoroughly reviewing in 2021 and a comprehensive, systemwide improvements schedule for the Port facilities is being initiated. The Port is completing their integration of facility systems and records into a GIS database system. An ongoing goal is to incorporate MCMs under the MS4 permit into this new tracking system. The Port considers this plan to be effective and in compliance with the current MS4 permit; no changes to the program itself or associated measurable goals are proposed for the upcoming year.

4. Monitoring, Evaluation, Reporting and Record-Keeping

Monitoring Program Plan and QAPP

Results of dry and wet weather monitoring efforts have been presented in the preceding sections and indicate that monitoring and screening programs are effective at detecting illicit discharges and/or connections or other water quality impacts. Both the MS4 Monitoring Program Plan and QAPP were updated in 2021 based on the reissued MS4 permit.

Evaluation of Overall Program Effectiveness

A review of the adequacy and efficacy of the overall Storm Water Management Program will be provided in this section of current and future Annual Reports. POA has had a storm water management plan in effect since 1995, when the MS4 permit was first issued by the USEPA under the National Pollutant and Discharge Elimination System (now APDES). As a result, protection of storm water quality and prevention of sedimentation, erosion and contaminant pollution has been a priority for POA for over 25 years. BMPs, structural controls, education programs, and maintenance practices to protect water quality have always been a common goal amongst the Port and Stakeholders. Key elements of the 2021 reporting period were detailed in Section 3.0.

Reporting

Spill Reporting

Table 8, below, provides a summary of all reported spills, leaks and accidental discharges of pollutants that occurred within the POA's boundary during 2021.

Table 8: Notable Spills & Leaks Reported, 1 January 2021 – 31 December 2021

Facility	Date	Description
Port of Alaska	7/14/ 2021	Noncompliant cement spill or discharge detected by POA Security. Located on POA area adjacent to Marathon yard where concrete work underway on a large tank. Specific source or contractor unknown. Estimated quantity is below 55 gallons. Marathon and other lessees reminded that they are responsible for their contractors and any inappropriate or illegal dumping.
	8/27/ 2021	Hydraulic fluid spill, sand tent; a dump truck delivering sand to the sand tent blew a seal or line, spilling hydraulic fluid around the front and side of the sand tent. POA Maintenance personnel noticed sheen from the spill and initiated response and cleanup. US Ecology was notified and took over the cleanup operation following the initial POA response. ADEC was notified. The spill appeared to be less than 55 gallons.
	11/5/ 2021	A Northstar forklift was found to be leaking hydraulic fluid, estimated at less than ½ gallon. POA Maintenance personnel responded and cleaned up. No further action required.
ABI / AS&G	2021	No spills or leaks reported in 2021
Delta Western	2021	No spills or leaks reported in 2021
Marathon	5/24/ 2021	Approximately 1.5 gallons of fuel additive was released into a secondary containment area, due to a leaking additive pump. The contaminated soil

		was excavated and placed into drums, then sent for treatment (thermal remediation).
	11/19/ 2021	Approximately 10,544 gallons of 'Transmix' (gas/diesel/jet) was released into secondary containment, due to an overflow on Tank 9. The apparent cause was cold temperatures preventing an inlet valve from seating properly (the frozen gauge prevented remote monitoring to indicate a rising tank level). Upon noticing, the pipeline transfer was shut down, the product in Tank 9 was moved, and US Ecology was contacted. Vac truck operations removed free-standing product. After most (7,520 gallons) was collected, US Ecology then began removing contaminated snow in a total of 42 x 55-gallon drums as well as two side-dump trailers. Preventative measures have been taken to keep further precipitation from affecting the site, and work on a soil removal, sampling and analysis plan is underway for ADEC review and approval.
Matson	3/23/ 2021	A fitting on a crane broke, releasing an estimated 5 gallons of hydraulic fluid on the dock. The shop responded upon notification, and used absorbent pads and solidifier to remediate the spill and mitigate the risk of contaminant introduction into the storm system or nearby receiving waters.
	9/21/ 2021	A differential housing developed a hole, which leaked an estimated 0.5-gallons of gear lubricant near the Terminal 2 CPY. The shop responded upon notification, applying absorbent / smart ash to the small spill.
	12/27/ 2021	An estimated 82 gallons of diesel fuel spilled when a fuel filter cracked near the south end of A Yard. The shop responded upon notification, and further alerted POA Maintenance and US Ecology to facilitate handling a larger volume spill. Absorbent / smart ash was initially applied, and US Ecology collected approximately 30 c.y. of contaminated snow for treatment/ disposal at their facility.
AFSC/ Menzies Aviation	2021	No spills or leaks reported in 2021
Tote Maritime	1/18/ 2021	An AVT car carrier was found to be leaking hydraulic fluid, which spread readily due to rainy/snowy conditions. No quantity estimate provided. Tote personnel contacted US Ecology, who cleaned up the spill and site.

This table is updated annually. Any spills, leaks or discharges not reported to POA or observed by POA personnel will not be included in Table 7 nor in this report; any such discharges would be noncompliant with terms of the MS4 permit and the leaseholder agreements with POA.

Annual Reporting

Annual reports will be prepared each for each reporting period (calendar year) to document MS4 compliance methods and efficacy for that reporting period. These summary reports will include supporting documentation, including the SWMP. These reports will be submitted to ADEC each year by February 15 of the year following the reporting period, will be posted on the POA's website, and will be distributed to all SWPP Team members and leaseholders.

Record-Keeping

The POA maintains records and copies of all relevant and pertinent reporting materials under the MS4 permit, including:

- Copies of each year's DMRs
- The current APDES permit (AKS052426)
- SWPP Team Quarterly Meeting minutes
- Records of data used to complete the annual reporting
- Data used to complete the APDES permit application
- Data used to generate the SWMP

These records will be retained for a period of at least three years, or for the term of the current 5-year permit (2020-2025), whichever is longer. These records will be made available to ADEC or the public if requested to do so in writing.

3900 C Street, Suite 900 | Anchorage, AK 99503
Office: 907-273-1600 | mbakerintl.com

2021 Sampling Location
Storm Water Outfall
MOA Storm Water Outfall
Storm Water Catchment Basin
Storm Water Pipe
Storm Water Ditch
MS4 Boundary

Leases Current
Matson
TOTE
ABI
ACS
AT&T
Crowley Fuels LLC
Delta Western
Intertek USA Caleb Brett
Manson Construction Company
Menzies Aviation
North Star Terminal & Stevedore, LLC
PRL
Tesoro

Port of Alaska
MS4 Area and Outfall Locations

0 500 1,000 US Feet

PORT of ALASKA IN ANCHORAGE

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

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Page ____ of ____

Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: Michael Baker International

CONTACT: Pat Whitesell — PHONE #: 907 602-5352

PROJECT NAME: Port of Anchorage Stormwater — PROJECT/ PWSID/ PERMIT#: AKS 35246

REPORTS TO: — E-MAIL: Patrick.Whitesell@mbaker.intl

INVOICE TO: Michael Baker International — QUOTE P.O. #: 182343

Section 3 — Preservative

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Comp / Grab / MI (Multi-incremental)	Analysis* HCl: BTEX 624	HCl: TAqH 625	None: BOD	None: COD, Total Nitrate + Nitrite, TKN	H2SO4: TSS	None: TDS	REMARKS/LOC ID
	Outfall 001	10/7/21	15:07	W	9		3	2	1	1	1	1	
	Outfall 002	↓	14:37	W	9		3	2	1	1	1	1	
	Outfall 003		13:52 pm	W	5		3	2	/	/	/	/	

NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

Relinquished By:	Date	Time	Received By:
(1) PAW	10/7/21	4:25	
(2)			
(3)			
(4)	10/8/21	1625	Received For Laboratory By:

Section 4 — DOD Project? Yes / No — Data Deliverable Requirements:

Cooler ID: ____

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 13.4 0.8 or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Delivery Method: Hand Delivery[ ] Commerical Delivery [ ]

Laboratory Analysis Report

Pat Whitesel
Michael Baker International

Results via Engage

Work Order:	1216688
	Port of Anchorage Stormwater
Client:	Michael Baker International
Report Date:	October 22, 2021

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. If you have any questions regarding this report, or if we can be of any other assistance, please contact your SGS Project Manager at 907-562-2343. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO 17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020B, 7470A, 7471B, 8015C, 8021B, 8082A, 8260D, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification (DW methods: 200.8, 2130B, 2320B, 2510B, 300.0, 4500-CN-C,E, 4500-H-B, 4500-NO3-F, 4500-P-E and 524.2) and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
TNTC	Too Numerous To Count
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content.

SGS Ref.#	1216688001		
Client Name	Michael Baker International	**Printed Date/Time**	10/22/2021 16:37
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/07/2021 15:07
Client Sample ID	Outfall 001	**Received Date/Time**	10/07/2021 16:25
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

5210B - BOD - Dissolved oxygen depletion did not meet QC criteria (<2mg/L).

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Waters Department									
Chemical Oxygen Demand	58.3	20.0	mg/L	EPA 410.4	G			10/19/21	EWW
Total Dissolved Solids	2440	100	mg/L	SM21 2540C	I			10/13/21	NRZ
Total Suspended Solids	119	3.57	mg/L	SM21 2540D	H			10/08/21	NRZ
Total Kjeldahl Nitrogen	ND	1.00	mg/L	SM23 4500-N D	G		10/19/21	10/19/21	EWW
Total Nitrate/Nitrite-N	0.406	0.200	mg/L	SM21 4500NO3-F	G			10/14/21	EBH
Microbiology Laboratory									
Biochemical Oxygen Demand	ND	2.00	mg/L	SM21 5210B	F			10/08/21	AL
Volatile GC/MS									
Benzene	ND	0.400	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
Ethylbenzene	ND	1.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
o-Xylene	ND	1.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
P & M -Xylene	ND	2.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
Toluene	ND	1.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
Xylenes (total)	ND	3.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
Surrogates									
1,2-Dichloroethane-D4 (surr)	103		%	EPA 624	C	81-118	10/18/21	10/18/21	JMG
4-Bromofluorobenzene (surr)	101		%	EPA 624	C	85-114	10/18/21	10/18/21	JMG
Toluene-d8 (surr)	100		%	EPA 624	C	89-112	10/18/21	10/18/21	JMG
Polynuclear Aromatics GC/MS									
Acenaphthene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Acenaphthylene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW

SGS Ref.#	1216688001		
Client Name	Michael Baker International	**Printed Date/Time**	10/22/2021 16:37
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/07/2021 15:07
Client Sample ID	Outfall 001	**Received Date/Time**	10/07/2021 16:25
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Polynuclear Aromatics GC/MS									
Anthracene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo(a)Anthracene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo[a]pyrene	ND	0.0185	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo[b]Fluoranthene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo[g,h,i]perylene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo[k]fluoranthene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Chrysene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Dibenzo[a,h]anthracene	ND	0.0185	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Fluoranthene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Fluorene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Indeno[1,2,3-c,d] pyrene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Naphthalene	ND	0.0926	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Phenanthrene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Pyrene	ND	0.0463	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Surrogates									
2-Methylnaphthalene-d10 (surr)	73.6		%	EPA 625M SIM (PA	A	42-86	10/09/21	10/11/21	LAW
Fluoranthene-d10 (surr)	81.4		%	EPA 625M SIM (PA	A	50-97	10/09/21	10/11/21	LAW

SGS Ref.#	1216688002		
Client Name	Michael Baker International	**Printed Date/Time**	10/22/2021 16:37
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/07/2021 14:37
Client Sample ID	Outfall 002	**Received Date/Time**	10/07/2021 16:25
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:
5210B - BOD - Dissolved oxygen depletion did not meet QC criteria (<2mg/L).

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Waters Department									
Chemical Oxygen Demand	118	20.0	mg/L	EPA 410.4	G			10/19/21	EWW
Total Dissolved Solids	2640	200	mg/L	SM21 2540C	I			10/13/21	NRZ
Total Suspended Solids	1270	20.0	mg/L	SM21 2540D	H			10/14/21	NRZ
Total Kjeldahl Nitrogen	ND	1.00	mg/L	SM23 4500-N D	G		10/19/21	10/19/21	EWW
Total Nitrate/Nitrite-N	0.283	0.200	mg/L	SM21 4500NO3-F	G			10/14/21	EBH
Microbiology Laboratory									
Biochemical Oxygen Demand	ND	2.00	mg/L	SM21 5210B	F			10/08/21	AL
Volatile GC/MS									
Benzene	ND	0.400	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
Ethylbenzene	ND	1.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
o-Xylene	ND	1.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
P & M -Xylene	ND	2.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
Toluene	ND	1.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
Xylenes (total)	ND	3.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
Surrogates									
1,2-Dichloroethane-D4 (surr)	101		%	EPA 624	C	81-118	10/18/21	10/18/21	JMG
4-Bromofluorobenzene (surr)	102		%	EPA 624	C	85-114	10/18/21	10/18/21	JMG
Toluene-d8 (surr)	100		%	EPA 624	C	89-112	10/18/21	10/18/21	JMG
Polynuclear Aromatics GC/MS									
Acenaphthene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Acenaphthylene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW

SGS Ref.#	1216688002		
Client Name	Michael Baker International	**Printed Date/Time**	10/22/2021 16:37
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/07/2021 14:37
Client Sample ID	Outfall 002	**Received Date/Time**	10/07/2021 16:25
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Polynuclear Aromatics GC/MS									
Anthracene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo(a)Anthracene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo[a]pyrene	ND	0.0189	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo[b]Fluoranthene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo[g,h,i]perylene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo[k]fluoranthene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Chrysene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Dibenzo[a,h]anthracene	ND	0.0189	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Fluoranthene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Fluorene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Indeno[1,2,3-c,d] pyrene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Naphthalene	ND	0.0943	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Phenanthrene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Pyrene	ND	0.0472	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Surrogates									
2-Methylnaphthalene-d10 (surr)	66.7		%	EPA 625M SIM (PA	A	42-86	10/09/21	10/11/21	LAW
Fluoranthene-d10 (surr)	63.5		%	EPA 625M SIM (PA	A	50-97	10/09/21	10/11/21	LAW

SGS Ref.#	1216688003		
Client Name	Michael Baker International	**Printed Date/Time**	10/22/2021 16:37
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/07/2021 13:52
Client Sample ID	Outfall 003	**Received Date/Time**	10/07/2021 16:25
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile GC/MS									
Benzene	1.56	0.400	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
Ethylbenzene	8.44	1.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
o-Xylene	ND	1.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
P & M -Xylene	5.41	2.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
Toluene	ND	1.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
Xylenes (total)	5.82	3.00	ug/L	EPA 624	C		10/18/21	10/18/21	JMG
Surrogates									
1,2-Dichloroethane-D4 (surr)	101		%	EPA 624	C	81-118	10/18/21	10/18/21	JMG
4-Bromofluorobenzene (surr)	100		%	EPA 624	C	85-114	10/18/21	10/18/21	JMG
Toluene-d8 (surr)	101		%	EPA 624	C	89-112	10/18/21	10/18/21	JMG
Polynuclear Aromatics GC/MS									
Acenaphthene	0.173	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Acenaphthylene	ND	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Anthracene	ND	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo(a)Anthracene	ND	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo[a]pyrene	ND	0.0182	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo[b]Fluoranthene	ND	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo[g,h,i]perylene	ND	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Benzo[k]fluoranthene	ND	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Chrysene	ND	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Dibenzo[a,h]anthracene	ND	0.0182	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Fluoranthene	ND	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Fluorene	0.166	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Indeno[1,2,3-c,d] pyrene	ND	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Naphthalene	0.720	0.0909	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Phenanthrene	0.203	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW

SGS Ref.#	1216688003		
Client Name	Michael Baker International	**Printed Date/Time**	10/22/2021 16:37
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/07/2021 13:52
Client Sample ID	Outfall 003	**Received Date/Time**	10/07/2021 16:25
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Polynuclear Aromatics GC/MS									
Pyrene	ND	0.0455	ug/L	EPA 625M SIM (PA	A		10/09/21	10/11/21	LAW
Surrogates									
2-Methylnaphthalene-d10 (surr)	63.4		%	EPA 625M SIM (PA	A	42-86	10/09/21	10/11/21	LAW
Fluoranthene-d10 (surr)	60		%	EPA 625M SIM (PA	A	50-97	10/09/21	10/11/21	LAW

SGS Ref.#	1216688004		
Client Name	Michael Baker International	**Printed Date/Time**	10/22/2021 16:37
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/07/2021 13:52
Client Sample ID	Trip Blank	**Received Date/Time**	10/07/2021 16:25
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile GC/MS									
Benzene	ND	0.400	ug/L	EPA 624	A		10/18/21	10/18/21	JMG
Ethylbenzene	ND	1.00	ug/L	EPA 624	A		10/18/21	10/18/21	JMG
o-Xylene	ND	1.00	ug/L	EPA 624	A		10/18/21	10/18/21	JMG
P & M -Xylene	ND	2.00	ug/L	EPA 624	A		10/18/21	10/18/21	JMG
Toluene	ND	1.00	ug/L	EPA 624	A		10/18/21	10/18/21	JMG
Xylenes (total)	ND	3.00	ug/L	EPA 624	A		10/18/21	10/18/21	JMG
Surrogates									
1,2-Dichloroethane-D4 (surr)	101		%	EPA 624	A	81-118	10/18/21	10/18/21	JMG
4-Bromofluorobenzene (surr)	102		%	EPA 624	A	85-114	10/18/21	10/18/21	JMG
Toluene-d8 (surr)	101		%	EPA 624	A	89-112	10/18/21	10/18/21	JMG

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CHAIN OF CUSTODY RECORD

1216688

PM 375766 SD

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Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Page ____ of ____

Section 1

CLIENT: Michael Baker International	
CONTACT: Pat Whitesell	**PHONE #:** 907 602-5352
PROJECT NAME: Port of Anchorage Stormwater	**PROJECT/ PWSID/ PERMIT#:** AKS 052416
REPORTS TO: Patrick.Whitesell@mbakerintl	**E-MAIL:**
INVOICE TO: Michael Baker International	**QUOTE P.O.#:** 182343

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Comp / Grab / MI (Multi-incremental)	Analysis* BTEX 624	TAqH 625	BOD	COD, Total Nitrate + Nitrite, TKN	TSS	TDS	REMARKS/LOC ID
					Section 3 Preservative		HCl	None	None	H_2SO_4	None	None	
1AD	Outfall 001	10/7/21	15:07	W	9		3	2	1	1	1	1	
2AD	Outfall 002	"	14:37	W	9		3	2	1	1	1	1	
3AE	Outfall 003	"	13:52 pm	W	5		3	2	/	/	/	/	
4AC													

NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

Section 5

	Date	Time	
Relinquished By: (1) PAU	10/7/21	4:25	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	10/8/21	1625	Received For Laboratory By:

Section 4

DOD Project? Yes / No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 13.1 13.8 or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Delivery Method: Hand Delivery [ ] Commerical Delivery [ ]

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SGS North America Inc.
200 W. Potter Dr., Anchorage, AK 99518 (ph) 907-562-2343, (fax) 907-561-5301
3180 Peger Rd. Ste. 190, Fairbanks, AK 99709 (ph) 907-474-8656

Sample Kit Request

Client pickup Date: 9/23/2021 **Time:** 08:00

Be sure to ask if client will ship by ground (DOT) or air carrier (IATA)

Does a Profile exist in LIMS? If not, please send a request for new profile build.

Client Name: Michael Baker
Ordered By: Patrick Whitesell
Email: patrick.whitesell@mbakercntl.com
Project Name: Port of Anchorage Stormwater
Quote #:

Delivery Address:

Deliver to client:
Ship by/Air Carrier:
Airbill Number:
Date to ship by:
Notes:

Kit request taken by: A.D **Date:** September 20, 2021
Kit prepared by: JS **Date:** 9/21/21
Kit *(including lid tightness for pres'd bottles)* checked by: GBH **Date:** 9/21/21
Kit packed & shipped by: GBH **Date:** 9/21/21

Filename: SKIT_Michael Baker _Port of Anchorage Stormwater_2 *Required Items

No. Samples	Matrix	Analysis	Container Size & Type		Pres.	Bottle Lot #	Preservative Lot #	Hold Time	# QC Bottles	Total Bottles
3	Water	BTEX 624	3 x 40-mL	VOA vials	HCl			14 d		9
3	Water	TAqH 625	2 x 250-ml	amber glass	None			7 d		6
3	Water	BOD	1 x 1-L	HDPE	None			48 hr		3
3	Water	COD, Total Nitrate + Nitrite, TKN	1 x 250-mL	HDPE	H2SO4			28 d		3
3	Water	TSS	1 x 1-L	HDPE	None			7 d		3
3	Water	TDS	1 x 125-mL	HDPE	None			7 d		3

Note: The first 10 Analysis and Preservative columns will auto-fill up to the capacity of the associated COC.

Additional Information		Notes for Kit Prep
Pack for Shipment via:	N/A	
Temperature Blank:	Yes - Small (125 mL)	
Trip Blank:	Yes - Water (8260, AK101, 8021, 624)	
Coolers:	Yes	
Gel Ice:	Yes	
Labels:	Yes	
Custody Seals:	Yes	
Paper Chain of Custody:	Yes - COC Initiated by Project Manager (attached)	
Lot Number Tracking (Required for DOD):	No	

Attention Client/Sampler:

1. Do not rinse container, be aware of any acid preservative.
2. Fill container, but do not overfill (except volatiles).
3. Label the container with your sample ID and date/time of collection.
4. Fill out the Chain of Custody.
5. Add frozen gel packs to your cooler and pack to prevent breakage.

If you have any questions please contact your Project Manager.

e-Sample Receipt Form

SGS Workorder #: **1216688** | 1216688

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		Yes — Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	N/A	absent
COC accompanied samples?	Yes	
DOD: Were samples received in COC corresponding coolers?	N/A	
	Yes	**Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required
Temperature blank compliant* (i.e., 0-6 °C after CF)?	No	Cooler ID: 1 @ 13.4 °C Therm. ID: D58
If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available.		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	Yes	
If <0°C, were sample containers ice free?	N/A	
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	Yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	Yes	
**Note: If times differ <1hr, record details & login per COC.		
***Note: If sample information on containers differs from COC, SGS will default to COC information		
Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)	Yes	
	N/A	***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	Yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	Yes	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	Yes	
Were all soil VOAs field extracted with MeOH+BFB?	N/A	

Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1216688001-A	No Preservative Required	OK			
1216688001-B	No Preservative Required	OK			
1216688001-C	HCL to pH < 2	OK			
1216688001-D	HCL to pH < 2	OK			
1216688001-E	HCL to pH < 2	OK			
1216688001-F	No Preservative Required	OK			
1216688001-G	H2SO4 to pH < 2	OK			
1216688001-H	No Preservative Required	OK			
1216688001-I	No Preservative Required	OK			
1216688002-A	No Preservative Required	OK			
1216688002-B	No Preservative Required	OK			
1216688002-C	HCL to pH < 2	OK			
1216688002-D	HCL to pH < 2	OK			
1216688002-E	HCL to pH < 2	OK			
1216688002-F	No Preservative Required	OK			
1216688002-G	H2SO4 to pH < 2	OK			
1216688002-H	No Preservative Required	OK			
1216688002-I	No Preservative Required	OK			
1216688003-A	No Preservative Required	OK			
1216688003-B	No Preservative Required	OK			
1216688003-C	HCL to pH < 2	OK			
1216688003-D	HCL to pH < 2	OK			
1216688003-E	HCL to pH < 2	OK			
1216688004-A	HCL to pH < 2	OK			
1216688004-B	HCL to pH < 2	OK			
1216688004-C	HCL to pH < 2	OK			

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
QN - Insufficient sample quantity provided.

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CHAIN OF CUSTODY RECORD

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Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: Michael Baker International

CONTACT: Pat Whitesell | PHONE #: 907-602-5352

PROJECT NAME: Port of Anchorage Stormwater | PROJECT/ PWSID/ PERMIT#:

REPORTS TO: | E-MAIL: patrick.whitesell@mbaker.intl | Profile #:

INVOICE TO: Michael Baker International | QUOTE #: | P.O. #:

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Comp Grab MI (Multi-incremental)	Section 3 Preservative: HCl	None	None	H2SO4	None	None	Analysis*: BTEX 624	TAqH 625	BOD	COD, Total Nitrate + Nitrite, TKN	TSS	TDS					REMARKS/LOC ID
	Outfall 1	10/23/21	16:11		9								3	2	1	1	1	1					
	Outfall 2	10/23/21	15:47		9								3	2	1	1	1	1					
	Outfall 3	10/23/21	15:25		9								3	2	1	1	1	1					

NOTE:
*The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

Section 5

	Relinquished By:	Date	Time	Received By:
(1)		10/25/21	8:47	
(2)				
(3)				
(4)		10/25/21	0847	Received for Laboratory By:

Section 4

DOD Project? Yes No

Data Deliverable Requirements:

Cooler ID:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: _____ or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN (ABSENT)

Delivery Method: Hand Delivery [X] Commerical Delivery [ ]

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F083-Blank_COC_20181228

Laboratory Analysis Report

Pat Whitesel
Michael Baker International

Results via Engage

Work Order:	1217061
	Port of Anchorage Stormwater
Client:	Michael Baker International
Report Date:	November 12, 2021

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. If you have any questions regarding this report, or if we can be of any other assistance, please contact your SGS Project Manager at 907-562-2343. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO 17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020B, 7470A, 7471B, 8015C, 8021B, 8082A, 8260D, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification (DW methods: 200.8, 2130B, 2320B, 2510B, 300.0, 4500-CN-C,E, 4500-H-B, 4500-NO3-F, 4500-P-E and 524.2) and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
TNTC	Too Numerous To Count
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content.

SGS Ref.#	1217061001		
Client Name	Michael Baker International	**Printed Date/Time**	11/12/2021 12:41
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/23/2021 16:11
Client Sample ID	Outfall 1	**Received Date/Time**	10/25/2021 8:47
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Waters Department									
Chemical Oxygen Demand	34.3	20.0	mg/L	EPA 410.4	E			11/02/21	EWW
Total Dissolved Solids	1160	20.0	mg/L	SM21 2540C	A			10/26/21	NRZ
Total Suspended Solids	94.2	2.33	mg/L	SM21 2540D	H			10/27/21	NRZ
Total Kjeldahl Nitrogen	ND	1.00	mg/L	SM23 4500-N D	E		11/08/21	11/08/21	EWW
Total Nitrate/Nitrite-N	0.436	0.200	mg/L	SM21 4500NO3-F	E			10/25/21	EBH
Microbiology Laboratory									
Biochemical Oxygen Demand	ND	2.00	mg/L	SM21 5210B	I			10/25/21	AL
Volatile GC/MS									
Benzene	ND	0.400	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
Ethylbenzene	ND	1.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
o-Xylene	ND	1.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
P & M -Xylene	ND	2.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
Toluene	ND	1.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
Xylenes (total)	ND	3.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
Surrogates									
1,2-Dichloroethane-D4 (surr)	102		%	EPA 624	B	81-118	10/26/21	10/26/21	MDT
4-Bromofluorobenzene (surr)	101		%	EPA 624	B	85-114	10/26/21	10/26/21	MDT
Toluene-d8 (surr)	99.3		%	EPA 624	B	89-112	10/26/21	10/26/21	MDT
Polynuclear Aromatics GC/MS									
Acenaphthene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Acenaphthylene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW

SGS Ref.#	1217061001		
Client Name	Michael Baker International	**Printed Date/Time**	11/12/2021 12:41
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/23/2021 16:11
Client Sample ID	Outfall 1	**Received Date/Time**	10/25/2021 8:47
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Polynuclear Aromatics GC/MS									
Anthracene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo(a)Anthracene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo[a]pyrene	ND	0.0182	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo[b]Fluoranthene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo[g,h,i]perylene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo[k]fluoranthene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Chrysene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Dibenzo[a,h]anthracene	ND	0.0182	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Fluoranthene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Fluorene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Indeno[1,2,3-c,d] pyrene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Naphthalene	ND	0.0909	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Phenanthrene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Pyrene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Surrogates									
2-Methylnaphthalene-d10 (surr)	52.6		%	EPA 625M SIM (PA	F	42-86	10/28/21	10/29/21	LAW
Fluoranthene-d10 (surr)	52		%	EPA 625M SIM (PA	F	50-97	10/28/21	10/29/21	LAW

SGS Ref.#	1217061002		
Client Name	Michael Baker International	**Printed Date/Time**	11/12/2021 12:41
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/23/2021 15:47
Client Sample ID	Outfall 2	**Received Date/Time**	10/25/2021 8:47
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Waters Department									
Chemical Oxygen Demand	73.4	20.0	mg/L	EPA 410.4	E			11/02/21	EWW
Total Dissolved Solids	1660	40.0	mg/L	SM21 2540C	A			10/26/21	NRZ
Total Suspended Solids	1950	10.0	mg/L	SM21 2540D	H			10/27/21	NRZ
Total Kjeldahl Nitrogen	ND	1.00	mg/L	SM23 4500-N D	E		11/08/21	11/08/21	EWW
Total Nitrate/Nitrite-N	0.232	0.200	mg/L	SM21 4500NO3-F	E			10/25/21	EBH
Microbiology Laboratory									
Biochemical Oxygen Demand	ND	2.00	mg/L	SM21 5210B	I			10/25/21	AL
Volatile GC/MS									
Benzene	ND	0.400	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
Ethylbenzene	ND	1.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
o-Xylene	ND	1.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
P & M -Xylene	ND	2.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
Toluene	ND	1.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
Xylenes (total)	ND	3.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
Surrogates									
1,2-Dichloroethane-D4 (surr)	102		%	EPA 624	B	81-118	10/26/21	10/26/21	MDT
4-Bromofluorobenzene (surr)	100		%	EPA 624	B	85-114	10/26/21	10/26/21	MDT
Toluene-d8 (surr)	99.9		%	EPA 624	B	89-112	10/26/21	10/26/21	MDT
Polynuclear Aromatics GC/MS									
Acenaphthene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Acenaphthylene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW

SGS Ref.#	1217061002		
Client Name	Michael Baker International	**Printed Date/Time**	11/12/2021 12:41
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/23/2021 15:47
Client Sample ID	Outfall 2	**Received Date/Time**	10/25/2021 8:47
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Polynuclear Aromatics GC/MS									
Anthracene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo(a)Anthracene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo[a]pyrene	ND	0.0182	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo[b]Fluoranthene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo[g,h,i]perylene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo[k]fluoranthene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Chrysene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Dibenzo[a,h]anthracene	ND	0.0182	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Fluoranthene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Fluorene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Indeno[1,2,3-c,d] pyrene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Naphthalene	ND	0.0909	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Phenanthrene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Pyrene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Surrogates									
2-Methylnaphthalene-d10 (surr)	54.3		%	EPA 625M SIM (PA	F	42-86	10/28/21	10/29/21	LAW
Fluoranthene-d10 (surr)	60.7		%	EPA 625M SIM (PA	F	50-97	10/28/21	10/29/21	LAW

SGS Ref.#	1217061003		
Client Name	Michael Baker International	**Printed Date/Time**	11/12/2021 12:41
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/23/2021 15:25
Client Sample ID	Outfall 3	**Received Date/Time**	10/25/2021 8:47
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Waters Department									
Chemical Oxygen Demand	ND	20.0	mg/L	EPA 410.4	E			11/02/21	EWW
Total Dissolved Solids	139	10.0	mg/L	SM21 2540C	A			10/26/21	NRZ
Total Suspended Solids	87.5	3.92	mg/L	SM21 2540D	H			10/27/21	NRZ
Total Kjeldahl Nitrogen	ND	1.00	mg/L	SM23 4500-N D	E		11/08/21	11/08/21	EWW
Total Nitrate/Nitrite-N	ND	0.200	mg/L	SM21 4500NO3-F	E			10/25/21	EBH
Microbiology Laboratory									
Biochemical Oxygen Demand	2.69	2.00	mg/L	SM21 5210B	I			10/25/21	AL
Volatile GC/MS									
Benzene	0.450	0.400	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
Ethylbenzene	1.64	1.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
o-Xylene	ND	1.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
P & M -Xylene	ND	2.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
Toluene	ND	1.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
Xylenes (total)	ND	3.00	ug/L	EPA 624	B		10/26/21	10/26/21	MDT
Surrogates									
1,2-Dichloroethane-D4 (surr)	100		%	EPA 624	B	81-118	10/26/21	10/26/21	MDT
4-Bromofluorobenzene (surr)	102		%	EPA 624	B	85-114	10/26/21	10/26/21	MDT
Toluene-d8 (surr)	98.9		%	EPA 624	B	89-112	10/26/21	10/26/21	MDT
Polynuclear Aromatics GC/MS									
Acenaphthene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Acenaphthylene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW

SGS Ref.#	1217061003		
Client Name	Michael Baker International	**Printed Date/Time**	11/12/2021 12:41
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/23/2021 15:25
Client Sample ID	Outfall 3	**Received Date/Time**	10/25/2021 8:47
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Polynuclear Aromatics GC/MS									
Anthracene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo(a)Anthracene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo[a]pyrene	ND	0.0182	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo[b]Fluoranthene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo[g,h,i]perylene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Benzo[k]fluoranthene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Chrysene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Dibenzo[a,h]anthracene	ND	0.0182	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Fluoranthene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Fluorene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Indeno[1,2,3-c,d] pyrene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Naphthalene	ND	0.0909	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Phenanthrene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Pyrene	ND	0.0455	ug/L	EPA 625M SIM (PA	F		10/28/21	10/29/21	LAW
Surrogates									
2-Methylnaphthalene-d10 (surr)	48.8		%	EPA 625M SIM (PA	F	42-86	10/28/21	10/29/21	LAW
Fluoranthene-d10 (surr)	50.7		%	EPA 625M SIM (PA	F	50-97	10/28/21	10/29/21	LAW

SGS Ref.#	1217061004		
Client Name	Michael Baker International	**Printed Date/Time**	11/12/2021 12:41
Project Name/#	Port of Anchorage Stormwater	**Collected Date/Time**	10/23/2021 15:25
Client Sample ID	Trip Blank	**Received Date/Time**	10/25/2021 8:47
Matrix	Water (Surface, Eff., Ground)	**Technical Director**	**Stephen C. Ede**

Sample Remarks:

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile GC/MS									
Benzene	ND	0.400	ug/L	EPA 624	A		10/26/21	10/26/21	MDT
Ethylbenzene	ND	1.00	ug/L	EPA 624	A		10/26/21	10/26/21	MDT
o-Xylene	ND	1.00	ug/L	EPA 624	A		10/26/21	10/26/21	MDT
P & M -Xylene	ND	2.00	ug/L	EPA 624	A		10/26/21	10/26/21	MDT
Toluene	ND	1.00	ug/L	EPA 624	A		10/26/21	10/26/21	MDT
Xylenes (total)	ND	3.00	ug/L	EPA 624	A		10/26/21	10/26/21	MDT
Surrogates									
1,2-Dichloroethane-D4 (surr)	100		%	EPA 624	A	81-118	10/26/21	10/26/21	MDT
4-Bromofluorobenzene (surr)	102		%	EPA 624	A	85-114	10/26/21	10/26/21	MDT
Toluene-d8 (surr)	99.2		%	EPA 624	A	89-112	10/26/21	10/26/21	MDT

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1217061

ph 375766 AL

Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT:	Michael Baker International		
CONTACT:	Pat Whitesell	PHONE #:	907-602-5352
PROJECT NAME:	Port of Anchorage Stormwater	PROJECT/ PWSID/ PERMIT#:	
REPORTS TO:		E-MAIL:	patrick.whitesell@mbaker.intl
		Profile #:	
INVOICE TO:	Michael Baker International	QUOTE #:	
		P.O. #:	

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Comp Grab MI (Multi-incre-mental)	Preservative: HCl	None	None	H2SO4	None	None	Analysis*: BTEX 624	TAqH 625	BOD	COD, Total Nitrate + Nitrite, TKN	TSS	TDS					REMARKS/LOC ID
1AJ	Outfall 1	10/23/21	16:11		9		3	2	1	1	1	1											
2AJ	Outfall 2	10/23/21	15:47		9		3	2	1	1	1	1											
3AJ	Outfall 3	10/23/21	15:05		9		3	2	1	1	1	1											
4AC																							

NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

Section 5

	Date	Time	Received By:
Relinquished By: (1)	10/25/21	8:47	
Relinquished By: (2)			
Relinquished By: (3)			
Relinquished By: (4)	10/25/21	0847	Received for Laboratory By:

Section 4

DOD Project? Yes No

Data Deliverable Requirements:

Cooler ID: _____

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 3.8 #DV0

or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN (ABSENT)

Delivery Method: Hand Delivery [ ] Commerical Delivery [X]

http://www.sgs.com/terms-and-conditions

SGS North America Inc.
200 W. Potter Dr., Anchorage, AK 99518 (ph) 907-562-2343, (fax) 907-561-5301
3180 Peger Rd. Ste. 190, Fairbanks, AK 99709 (ph) 907-474-8656

Sample Kit Request

Client pickup Date: 10/22/2021 **Time:** 09:00

Be sure to ask if client will ship by ground (DOT) or air carrier (IATA)

Does a Profile exist in LIMS? If not, please send a request for new profile build.

1217061

Client Name: Michael Baker
Ordered By: Patrick Whitesell
Email: patrick.whitesell@mbakerintl.com
Project Name: Port of Anchorage Stormwater
Quote #:

Delivery Address:

Deliver to client:
Ship by/Air Carrier:
Airbill Number:
Date to ship by:
Notes:

request taken by: AKL **Date:** October 21, 2021
Kit prepared by: JG **Date:** 10/21/21
Kit *(including lid tightness for pres'd bottles)* checked by: EBH **Date:** 10/21/21
Kit packed & shipped by: EBH **Date:** 10/21/21

Filename: SKIT_Michael Baker _Port of Anchorage Stormwater_2 *Required Items

No. Samples	Matrix	Analysis	Container Size & Type		Pres.	Bottle Lot #	Preservative Lot #	Hold Time	# QC Bottles	Total Bottles
3	Water	BTEX 624	3 x 40-mL	VOA vials	HCl			14 d		9 ✓
3	Water	TAqH 625	2 x 250-ml	amber glass	None			7 d		6 ✓
3	Water	BOD	1 x 1-L	HDPE	None			48 hr		3 ✓
3	Water	COD, Total Nitrate + Nitrite, TKN	1 x 250-mL	HDPE	H2SO4			28 d		3 ✓
3	Water	TSS	1 x 1-L	HDPE	None			7 d		3 ✓
3	Water	TDS	1 x 125-mL	HDPE	None			7 d		3 ✓

Note: The first 10 Analysis and Preservative columns will auto-fill up to the capacity of the associated COC.

Additional Information	
Pack for Shipment via:	**N/A**
Temperature Blank:	**Yes - Small (125 mL)**
Trip Blank:	**Yes - Water (8260, AK101, 8021, 624)**
Coolers:	**Yes**
Gel Ice:	**Yes**
Labels:	**Yes**
Custody Seals:	**Yes**
Paper Chain of Custody:	**Yes - COC Initiated by Project Manager (attached)**
Lot Number Tracking (Required for DOD):	**No**

Notes for Kit Prep

Attention Client/Sampler:

1. Do not rinse container, be aware of any acid preservative.
2. Fill container, but do not overfill (except volatiles).
3. Label the container with your sample ID and date/time of collection
4. Fill out the Chain of Custody.
5. Add frozen gel packs to your cooler and pack to prevent breakage.

If you have any questions please contact your Project Manager.

e-Sample Receipt Form

SGS Workorder #: **1217061**

1 2 1 7 0 6 1

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		Yes — Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	N/A	Absent
COC accompanied samples?	Yes	
DOD: Were samples received in COC corresponding coolers?	N/A	
	N/A	**Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required
Temperature blank compliant* (i.e., 0-6 °C after CF)?	Yes	Cooler ID: 1_ @ 3.8 °C Therm. ID: D60
		Cooler ID: @ °C Therm. ID:
If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available.		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	N/A	
If <0°C, were sample containers ice free?	N/A	
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	Yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	Yes	
**Note: If times differ <1hr, record details & login per COC.		
***Note: If sample information on containers differs from COC, SGS will default to COC information		
Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)	Yes	
	N/A	***Exemption permitted for metals (e.g,200.8/6020B).
Were proper containers (type/mass/volume/preservative***)used?	Yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	Yes	Sample 2D voa has no volume.Proceeded with sample.
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	No	
Were all soil VOAs field extracted with MeOH+BFB?	N/A	

Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1217061001-A	No Preservative Required	OK			
1217061001-B	HCL to pH < 2	OK			
1217061001-C	HCL to pH < 2	OK			
1217061001-D	HCL to pH < 2	OK			
1217061001-E	H2SO4 to pH < 2	OK			
1217061001-F	No Preservative Required	OK			
1217061001-G	No Preservative Required	OK			
1217061001-H	No Preservative Required	OK			
1217061001-I	No Preservative Required	OK			
1217061001-J	No Preservative Required	OK			
1217061002-A	No Preservative Required	OK			
1217061002-B	HCL to pH < 2	OK			
1217061002-C	HCL to pH < 2	OK			
1217061002-D	HCL to pH < 2	OK			
1217061002-E	H2SO4 to pH < 2	OK			
1217061002-F	No Preservative Required	OK			
1217061002-G	No Preservative Required	OK			
1217061002-H	No Preservative Required	OK			
1217061002-I	No Preservative Required	OK			
1217061002-J	No Preservative Required	OK			
1217061003-A	No Preservative Required	OK			
1217061003-B	HCL to pH < 2	OK			
1217061003-C	HCL to pH < 2	OK			
1217061003-D	HCL to pH < 2	OK			
1217061003-E	H2SO4 to pH < 2	OK			
1217061003-F	No Preservative Required	OK			
1217061003-G	No Preservative Required	OK			
1217061003-H	No Preservative Required	OK			
1217061003-I	No Preservative Required	OK			
1217061003-J	No Preservative Required	OK			
1217061004-A	HCL to pH < 2	OK			
1217061004-B	HCL to pH < 2	OK			
1217061004-C	HCL to pH < 2	OK			

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
QN - Insufficient sample quantity provided.

Assessment of Controls – Port of Alaska

Area / Concern	Source Controls	Source Reduction & Elimination Measures	BMPs
Roadways	A	A	A
Vehicle Wash Areas	A	A	A
Petroleums, Oils, Lubricants	A	A	A
Paints, Antifreeze, Batteries	A	A	A
Hazardous Chemicals and Wastes	A	A	A
Floatables	A	A	A
Illicit Discharges / Improper Disposal	A	A	A
Spill Prevention and Control	A	A	A
Public Education	A	A	A

'A' = 'Adequate'
'I' = 'Inadequate'
'N/A' = 'Not Applicable'

Assessment of Controls – Matson

Area / Concern	Source Controls	Source Reduction & Elimination Measures	BMPs
Roadways	A	A	A
Vehicle Wash Areas	A	A	A
Petroleums, Oils, Lubricants	A	A	A
Paints, Antifreeze, Batteries	A	A	A
Hazardous Chemicals and Wastes	A	A	A
Floatables	A	A	A
Illicit Discharges / Improper Disposal	A	A	A
Spill Prevention and Control	A	A	A
Public Education	A	A	A

'A' = 'Adequate'
'I' = 'Inadequate'
'N/A' = 'Not Applicable'

Assessment of Controls – Tote Maritime

Area / Concern	Source Controls	Source Reduction & Elimination Measures	BMPs
Roadways	A	A	A
Vehicle Wash Areas	A	A	A
Petroleums, Oils, Lubricants	A	A	A
Paints, Antifreeze, Batteries	A	A	A
Hazardous Chemicals and Wastes	A	A	A
Floatables	A	A	A
Illicit Discharges / Improper Disposal	A	A	A
Spill Prevention and Control	A	A	A
Public Education	A	A	A

'A' = 'Adequate'
'I' = 'Inadequate'
'N/A' = 'Not Applicable'

Assessment of Controls – AFSC/Menzies Aviation

Area / Concern	Source Controls	Source Reduction & Elimination Measures	BMPs
Roadways	A	A	A
Vehicle Wash Areas	N/A	N/A	N/A
Petroleums, Oils, Lubricants	A	A	A
Paints, Antifreeze, Batteries	A	A	A
Hazardous Chemicals and Wastes	A	A	A
Floatables	A	A	A
Illicit Discharges / Improper Disposal	A	A	A
Spill Prevention and Control	A	A	A
Public Education	A	A	A

'A' = 'Adequate'
'I' = 'Inadequate'
'N/A' = 'Not Applicable'

Assessment of Controls – Marathon

Area / Concern	Source Controls	Source Reduction & Elimination Measures	BMPs
Roadways	A	A	A
Vehicle Wash Areas	N/A	N/A	N/A
Petroleums, Oils, Lubricants	A	A	A
Paints, Antifreeze, Batteries	A	A	A
Hazardous Chemicals and Wastes	A	A	A
Floatables	A	A	A
Illicit Discharges / Improper Disposal	A	A	A
Spill Prevention and Control	A	A	A
Public Education	A	A	A

'A' = 'Adequate'
'I' = 'Inadequate'
'N/A' = 'Not Applicable'

Assessment of Controls – Delta Western

Area / Concern	Source Controls	Source Reduction & Elimination Measures	BMPs
Roadways	A	A	A
Vehicle Wash Areas	N/A	N/A	N/A
Petroleums, Oils, Lubricants	A	A	A
Paints, Antifreeze, Batteries	A	A	A
Hazardous Chemicals and Wastes	A	A	A
Floatables	A	A	A
Illicit Discharges / Improper Disposal	A	A	A
Spill Prevention and Control	A	A	A
Public Education	A	A	A

'A' = 'Adequate'
'I' = 'Inadequate'
'N/A' = 'Not Applicable'

Assessment of Controls – ABI/AS&G

Area / Concern	Source Controls	Source Reduction & Elimination Measures	BMPs
Roadways	A	A	A
Vehicle Wash Areas	N/A	N/A	N/A
Petroleums, Oils, Lubricants	A	A	A
Paints, Antifreeze, Batteries	A	A	A
Hazardous Chemicals and Wastes	A	A	A
Floatables	A	A	A
Illicit Discharges / Improper Disposal	A	A	A
Spill Prevention and Control	A	A	A
Public Education	A	A	A

'A' = 'Adequate'

'I' = 'Inadequate'

'N/A' = 'Not Applicable'

Michael Baker INTERNATIONAL

We Make a Difference

Subject:	POA, MS4 Permit / Port SWPPP Team Q1 Meeting	**Time:**	1:00 pm – 2:00 pm
Date:	Thursday, March 4, 2021		

ATTENDEES

Roy Blain	POA – Port Eng Mgr	Nichole Rehm	PTS
Paul Rotkis	POA – Safety/Utility	~~Ryan Perrault~~	~~Marathon~~
Jim Rypkema	ADEC	Serena Lewellyn	Marathon – Enviro Rep
Scott DeWandel	ASG	Monique Cortez	Matson – Safety/Enviro
Kris Shippen	ASG/ABI – Enviro	Patrick Whitesell	MBI – Enviro
Billy Godwin	Tote	Collin Dey	MBI – PM
Mike Thrasher	Tote	RaeAnne Hebnes	MBI – Civil
Shannon Martindale	POA – O&M	Jessica Warner	Tote
Tou Yang	Delta Western – Site Manger	Ted Frey	POA – Foreman
Laurie Butler	AFSE – Enviro		

AGENDA

1. **Introductions**
   - Safety minute – springtime driving
2. **Meeting Goals**
   1. Familiarize new team members and new MS4 point person
   2. Identify ongoing and current operations, issues, concerns or constraints on the MS4 permit / compliance process
      a. POA
      b. Lessees
      c. ADEC
   3. Snow Storage –
      a. Issues
      b. Concerns
         i. Pushing snow into breakwater – freshly fallen snow only with no contaminates
         ii. Why not same on PCT – shouldn't be any difference
   4. PCT –
      a. Issues
         i. Construction in 2021 should have BMPs built in that it should not be an issue
      b. Concerns
   5. 2018 Earthquake Repairs: Replacement of Damaged Outfalls and storm drain – (Later summer)

a. Storm drain system 4 – new vault outside of POVY; line pipe; new manhole; new tidal flex valve at outfall
b. Storm drain at Terminal 1 drainage west – reline pipe
c. Storm drain 1 – between Yard B and C – line pipe towards Tote; new MH; pipe; flex valve
    i. Have traffic impacts to Tote – at Bow Ramp
    ii. Pipe replacement by tire shop
    iii. Plans due in May

6. Tote – Pavement Maintenance
    a. Not sure where, waiting for breakup to determine
7. Matson – No planned construction

3. Discussion Topics

1. MS4 permit – renewed
2. Schedule
    a. Inspections
    b. Monitoring
    c. Training
        i. 2020 training – conducted virtually
        ii. 2021 Training –
            1. POA Maintenance – SWPPP Training complete
                a. Need roster of who completed
                b. Not done with Admin side – in past was determined not needed
                    i. Probably want Roy and Shannon to complete
            2. Tote SWPPP
                a. built off POA SWPPP
                b. Supplements POA plan
                c. If POA didn't change then Tote is fine
                d. Billy to check with Kristi (R&M)
                e. Shannon – set up Teams meeting between Tote/POA/R&M/MBI
3. Activities
    a. Regular/ongoing
    b. Projects/new
        i. Petroleum / Cement Terminal

4. Look Ahead Schedule

Item	Date
2nd Quarterly Meeting	May
3rd Quarterly Meeting	August
4th Quarterly Meeting	November

5. Action Items

Action Item Log

Action	Assigned	Due Date
Get POA Letterhead	PAW	March 10, 2021
Schedule quarterly meetings through 2021	PAW	March 5, 2021
Complete annual training	PAW	
Send Training log for SWPPP & SPC	Paul	
Tote SWPPP compliance meeting with R&M/POA/TOTE/MBI	Shannon	

6. General Discussion

1. M&O have a dig permit process – if you want to move any dirt you must get a permit from POA M&O
    a. Main goals – Limit operation disturbances; no morgue
    b. Started about 8 yrs ago
    c. Works well, no utility strikes
    d. Tenants appreciate
2. AFFF discharge – Baker has not been involved with any of this
    a. Roy is not aware
    b. Paul hasn't seen AFD down at POA in 13yrs he's been there

2000 Anchorage Port Road
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Subject: POA, MS4 Permit / Port SWPP Team Q2 Meeting **Time:** 1:30 pm – 2:30 pm

Date: Thursday, June 10, 2021

ATTENDEES

Sharen Walsh, P.E.	POA	X	Shannon Martindale	POA	
Paul Rotkis	POA		Ryan Perrault	Marathon	X
Jim Rypkema	ADEC	X	Serena Lewellyn	Marathon	X
Scott DeWandel	ASG		Monique Cortez	Matson	
Kris Shippen	ASG	X	Patrick Whitesell	MBI	X
Billy Godwin	Tote		Collin Dey, P.E.	MBI	X
Mike Thrasher	Tote		RaeAnne Hebnes, P.E.	MBI	X
Catherine Mukai	Matson	X			

AGENDA

1. Introductions

- Safety minute: lift with legs!

2. Meeting Goals

1. Familiarize new team members
2. Identify ongoing and current operations, concerns or constraints on the MS4 permit / compliance process
    a. POA
    b. Lessees
    c. ADEC
3. Discuss any recent issues
    a. Illicit discharges
    b. Snowmelt/breakup issues
    c. Anticipated (rainy season) conditions

3. Discussion Topics

1. MS4 permit – renewed
2. 5-Year Review
    a. Just completed end of May
    b. Take away from Review – Keep documentation on site, electronically is ok – make it clear and concise
    c. Restencile 50% of inlets by Aug the remained in '22

3. Storm drain system evaluations/upgrades
4. Schedule
    a. Inspections
    b. Monitoring – sampling water at outfalls; collecting samples for analysis
        i. Dry; 6/17 (assuming no rain)
        ii. Wet; August/Sep
    c. Training (2-hr session)
        i. Staff absences?
            1. July
            2. Aug
5. Activities
    a. Regular/ongoing
        i. Keep an eye out for any contractor doing wash outs at the break water
    b. Projects/new
        i. Petroleum / Cement Terminal
            1. Plans for if contaminated areas are found
        ii. Earthquake repairs
        iii. Pavement maintenance (Tote)
6. Next meeting
    a. Tuesday, Aug 31 pm
    b. Tuesday, Nov 30 pm
    c. 2022 – Second Tuesday of the Month; each quarter; pm

4. Action Items

Action Item Log

Action	Assigned	Due Date
~~Get POA Letterhead~~	~~PAW~~	~~March 10, 2021~~
Schedule remainder of year quarterly meetings	PAW	June 2021
Complete annual training	PAW	November 2021
Identify discharge issues	Leaseholders & POA	Ongoing
Coordinate with Shannon for Training	PAW	July 2021

5. General Discussion

Need representation from all within Port Security Fence

2000 Anchorage Port Road
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Subject: POA, MS4 Permit / Port SWPP Team Q3 Meeting **Time:** 2:30 pm – 3:30 pm

Date: Tuesday, August 31, 2021

ATTENDEES

Sharen Walsh, P.E.	POA	Shannon Martindale	POA
Paul Rotkis	POA	Ryan Perrault	Marathon
~~Jim Rypkema~~	~~ADEC~~	Serena Lewellyn	Marathon
~~Scott DeWandel~~	~~ASG/ABI~~	Monique Cortez	Matson
Kris Shippen	ASG/ABI	Patrick Whitesell	MBI
Billy Godwin	Tote	Collin Dey, P.E.	MBI
Mike Thrasher	Tote	RaeAnne Hebnes, P.E.	MBI
Theodore Frey	POA	Nichole Rehm	PTS
Laurie Butler	Menzie/AFC		

AGENDA

1. Introductions

- Safety minute: water safety

2. Meeting Goals

1. Familiarize new team members
    a. Starting soon – new POA Engineering Manager Brian Weigand
2. Identify ongoing and current operations, concerns or constraints on the MS4 permit / compliance process
    a. POA
    b. Lessees
    c. ADEC
3. Discuss any recent issues
    a. Illicit discharges
        i. Concrete washout – July 13
            1. This has been a problem in the past
        ii. Hydraulic leak – August 27
    b. Anticipated conditions
        i. August; 50% wetter than average

3. Discussion Topics

1. MS4 permit

a. New online reporting system (NetDMR)
    i. Pat, Sharen, Brian, and Paul, will have access – include Shannon if she wants to be included
    ii. Kris – has been using it since January 2021

2. POAVY
    a. Schedule
    b. Status?
        i. Good progress is being made
        ii. On schedule, and likely ahead
3. Storm drain system evaluations/upgrades
    a. Outfall – 95% in July; questions arose that pushed the project into 2022
    b. Planning – working on over the winter
4. Sand Tent/POA Admin
    a. RFP Design/Build out Dec 1
    b. Likely include demo of sand tent
5. Schedule
    a. Inspections
        i. Outfall was clean, no sheen, no smell on Aug 30, 2021
    b. Monitoring
        i. Dry; 8/30 – 8/31
        ii. Wet; Sep
    c. Training – video is available on youtube
        1. Pat will check on quiz
        ii. Staff absences
            1. <u>September</u>
        iii. POA will take care of getting 3 shifts through training – send records to Pat
        iv. Menzie/ASG/Marathon – online/inhouse will send Pat completion info
        v. Paul/Manson – SPCC training
6. Activities
    a. Regular/ongoing
    b. Projects/new
        i. Petroleum / Cement Terminal
            1. Nearing end of open trench work
            2. Hoping to wrap up around mid-October
        ii. MOE Cable – small trench
            1. Will need contaminated soil plan
        iii. Earthquake repairs
        iv. Ramp Repair/Pavement maintenance (Tote)
            1. Complete
7. Next meeting
    a. Tuesday, Nov. 30; 2:30pm
        i. This day/time work for everyone? – concur

4. Action Items

Action Item Log

Action	Assigned	Due Date
Schedule 2022 quarterly meetings	PAW	Sep 30 2021
Complete annual training	PAW	November 2021
Identify discharge issues	Leaseholders & POA	Ongoing

5. General Discussion

Oil spill contingency plan (Butler) – does the port or AFC have any means of blocking Outfall 3?

AFC does not

POA does not

Should be continue to plan for what to do in worst case?

POA purchased a plug for outfall 5 – Ted to provide a picture for Laurie.

Intended use was to prevent backflow

Secondary confinement was full

Largest Tank – Jet Fuel, combustible

Sharen says "No more earthquakes allowed" 😊

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Subject: POA, MS4 Permit / Port SWPP Team Q3 Meeting **Time:** 2:30 pm – 3:30 pm

Date: Tuesday, November 30, 2021

ATTENDEES

~~Sharen Walsh, P.E.~~	~~POA~~	Shannon Martindale	POA
Paul Rotkis	POA	~~Ryan Perrault~~	~~Marathon~~
Jim Rypkema	ADEC	~~Serena Lewellyn~~	~~Marathon~~
~~Scott DeWandel~~	~~ASG/ABI~~	Monique Cortez	Matson
Kris Shippen	ASG/ABI	Patrick Whitesell	MBI
Billy Godwin	Tote	Collin Dey, P.E.	MBI
Mike Thrasher	Tote	RaeAnne Hebnes, P.E.	MBI
~~Theodore Frey~~	~~POA~~	~~Nichole Rehm~~	~~PTS~~
~~Laurie Butler~~	~~Menzie/AFC~~	Brian Weigand	POA

AGENDA

1. Introductions

- Safety minute: Fire prevention

2. Meeting Goals

1. Familiarize new team members
    a. new POA Engineering Manager Brian Weigand
2. Identify ongoing and current operations, concerns or constraints on the MS4 permit / compliance process
    a. POA
        i. Paul – snow dumps looked pretty well cleaned up in early July
        ii. A couple of small spills, concrete washout, and accidental spills
        iii.
    b. Lessees
    c. ADEC
3. Discuss any recent issues
    a. Illicit discharges
    b. Anticipated conditions
        i. Business as usual continues through winter
        ii. Increase slippery surfaces

3. Discussion Topics

1. MS4 permit
    a. New online reporting system (NetDMR)
        i. Pat, Sharen, Brian, and Paul, will have access – include Shannon if she wants to be included
        ii. Kris – has been using it since January 2021
        iii. Pat and Brian to go through process on December 17
            1. Jim – if you have questions, reach out
2. POAVY
    a. Electrical to tie in PCT to PC1
    b. No other external construction / disturbance outside of electrical
3. Storm drain system evaluations/upgrades
    a. Outfall Repair Construction – going to bid in Jan 2022
    b. RFP – system 5 Design 2022
        i. Construction 2023
    c. Planning – working on over the winter
    d. No construction planned over the winter
    e. Next spring – Paul would like to get a strategy in place to get all basins cleaned up
4. Sand Tent/POA Admin
    a. RFP Design/Build out Dec 1 – pushed to after Sharron's return
    b. Likely include demo of sand tent
5. Schedule
    a. Inspections
        i. Outfall was clean, no sheen, no smell on Oct 7, 2021
    b. Monitoring
        i. Dry; 8/30 – 8/31
        ii. Wet; Oct
    c. IDD Training – video is available on youtube
            1. Self-taught is fine, but Pat W needs rosters
        ii. Staff absences
            1.
        iii. POA will take care of getting 3 shifts through training – send records to Pat
            1. Paul has POA Employees records
        iv. Menzie/ASG/Marathon – online/inhouse will send Pat completion info
        v. Paul/Manson – SPCC training
6. Activities
    a. Regular/ongoing
    b. Projects/new
        i. Petroleum / Cement Terminal
            1. Still underway on some in house parts and on the Ops building
            2. Electrical POAVY work
            3. Determining whether soft opening during winter or note
        ii. MOV Cable – small trench
            1. Will need contaminated soil plan
        iii. Earthquake repairs
            1. Storm drain repairs

iv. Trestle 3A –
    1. Completed patch repair
    2. RFP for full repair summer 2022
v. POA upgrades 2022

7. Next meeting
    a. PAW to set up the 2022 series
        i. This day/time work for everyone? – concur
        ii. 2022 – meetings will be final Tuesday of month at 2:30pm (Feb, May, Aug, Nov)

4. Action Items

Action Item Log

Action	Assigned	Due Date
Schedule 2022 quarterly meetings	PAW	Sep 30 2021
Complete annual training	PAW	November 2021
Identify discharge issues	Leaseholders & POA	Ongoing

5. General Discussion

Sharen says "No more earthquakes allowed" 😊 Happy 3 years since the last big one