ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM

INDIVIDUAL PERMIT – FINAL

Permit Number: AK0050571

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, AK 99501

In compliance with the provisions of the Clean Water Act (CWA), 33 U.S.C. §1251 *et seq*., as amended by the Water Quality Act of 1987, P.L. 100-4, this permit is issued under provisions of Alaska Statutes (AS) 46.03, Alaska Administrative Code (AAC), as amended, and other applicable State laws and regulations.

COEUR ALASKA, INC.

is authorized to discharge from the Kensington Gold Project near Juneau, Alaska at the following locations:

Outfall	Receiving Water or Body	Latitude	Longitude
001	Sherman Creek	58.867778° N	135.115278° W
002	East Fork Slate Creek	58.806611° N	135.036361° W
003	East Fork Slate Creek	58.806611° N	135.036361° W

In accordance with the discharge point effluent limits, monitoring, requirements, and other conditions set forth herein:

This permit shall become effective August 1, 2024

This permit and the authorization to discharge shall expire after, July 31, 2029

The Permittee shall reapply for a permit reissuance on or before February 1, 2029, 180 days before the expiration of this permit, to continue operations and discharge at the facility beyond the term of this permit.

The Permittee shall post or maintain a copy of this permit to discharge at the facility and make it available to the public, employees, and subcontractors at the facility.

Signature	June 28, 2024 Date
James Rypkema Printed Name	Program Manager Title

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

SCHEDULE OF SUBMISSIONS

The Schedule of Submissions summarizes some of the required submissions and activities the Permittee must complete or revise and submit to the Alaska Department of Environmental Conservation (Department or DEC) during the term of this permit. The Permittee is responsible for all submissions and activities even if they are not summarized below.

Table 1: Schedule of Submissions

Permit Part	Submittal or Completion	Frequency	Due Date	Submit to[a]
1.5	Whole Effluent Toxicity (WET) test results	Annually	Must be submitted with the first Discharge Monitoring Report (DMR) following receipt of the test results.	Compliance
1.7	Annual Water Quality Monitoring Summary (including water column, sediment and aquatic resource monitoring results)	Annually	March 1st of the next year	Compliance
2.2.1	Written notification that the Quality Assurance Project Plan (QAPP) has been developed and implemented	1/permit cycle	Within 60 days after the effective date of the permit	Compliance
2.3.2	Written notification that the best management practices (BMP) plan has been developed and implemented	1/permit cycle	Within 60 days after the effective date of the permit	Compliance
2.3.5.2	BMP Plan Annual Review Certification	Annually	January 31st of the next year	Compliance
Appendix A, 1.3	Application for Permit Reissuance	1/permit cycle	180 days before expiration of the permit	Permitting
Appendix A, 2.4	Reports of compliance or noncompliance with a Compliance Schedule	As Required	No later than 14 days following each schedule date	Compliance
Appendix A, 3.2	DMR	Monthly	Postmarked or submitted electronically on or before the 20th day of the next month	Compliance
Appendix A, 3.4	Oral notification of noncompliance	As Necessary	Within 24 hours of discovering noncompliance	Compliance[b]
Appendix A, 3.4	Written documentation of noncompliance	As Necessary	Within 5 days of discovering noncompliance	Compliance

a. See Appendix A.1.1 for addresses.

b. Oral notifications must be reported to the Department's noncompliance reporting hotline: 1-907-269-4114 (from Alaska) or 1-877-569-4114 (nationwide).

1.0 LIMITATIONS AND MONITORING REQUIREMENTS

1.1 Discharge Authorization

During the effective period of this permit, the Permittee is authorized to discharge pollutants from the outfalls specified herein to Sherman Creek and East Fork Slate Creek, within the limits and subject to conditions set forth herein. This permit only authorizes the discharge of those pollutants resulting from facility processes, waste streams, and operations clearly identified in the permit application process.

1.2 Effluent Limits and Monitoring—Outfall 001

1.2.1 The Permittee must limit and monitor discharges from Outfall 001 as specified in Table 2. Limits represent maximum effluent values, unless otherwise indicated. The Permittee must comply with effluent limits in the table at all times, unless otherwise indicated, regardless of monitoring frequency or reporting required by other provisions of this permit.

Table 2: Effluent Limits and Monitoring Frequencies for Outfall 001

Parameter[a]	Maximum Daily Limit	Average Monthly Limit	Units	Minimum Sample Frequency	Sample Type
Aluminum	X [j]	X	µg/L[b]	1/Week	24-hour Composite
Ammonia, Total	5.8	3.2	mg/L[c] as N	1/Week	24-hour Composite
Cadmium[h]	0.24	0.20	µg/L	1/Week	24-hour Composite
Copper[h]	9.9	3.9	µg/L	1/Week	24-hour Composite
Iron	1.8	0.73	mg/L	1/Week	24-hour Composite
Lead[h]	2.5	1.9	µg/L	1/Week	24-hour Composite
Mercury	0.02	0.01	µg/L	1/Week	24-hour Composite
Nitrate	14	10	mg/L	1/Week	24-hour Composite
Zinc[h]	88	54	µg/L	1/Week	24-hour Composite
Sulfate associated with Na & Mg	X	X	mg/L	1/Week	24-hour Composite
TDS	X	X	mg/L	1/Week	24-hour Composite
pH	See Permit [d]		s.u.[e]	Continuous	Recorder
TSS	30	20	mg/L	1/Week	24-hour Composite
Flow	4,500	4,500	gpm[f]	Continuous	Recorder
Whole Effluent Toxicity (WET)[i]	1.6	1.1	TU_c[g]	1/Quarter	24-hour Composite

a. Parameters must be analyzed and reported as total recoverable.
b. Micrograms per liter
c. Milligrams per liter
d. See section 1.2.4
e. Standard units
f. Gallons per minute - Maximum daily flow is the average of instantaneous flow measurements collected during the calendar day of record.
g. Chronic toxic units
h. Hardness-based limits using a hardness of 69 mg/L CaCO3, the 15th percentile of background data.
i. See Permit Part 1.4 for WET testing requirements.
j. X means no effluent limits but continue monitoring.

1.2.2 Discharge from Outfall 001 into Sherman Creek shall not cause a violation of Alaska Water Quality Standards (WQS) (18 AAC 70) unless allowed in this permit through exceptions to the standards or in a compliance schedule.

1.2.3 The Permittee must not discharge any floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen on the surface of the receiving water.

1.2.4 Excursions outside the range of 6.0 to 9.0 s.u. are permitted provided that the total time during which the pH values are outside 6.0 to 9.0 s.u. does not exceed 7 hours and 26 minutes in any calendar month or 60 minutes per individual excursion.

1.2.5 The Permittee must collect samples from the effluent stream after the last treatment unit prior to discharge into the receiving water.

1.2.6 For all effluent monitoring, the permittee must use a sufficiently sensitive Environmental Protection Agency (EPA) approved test method that quantifies the pollutants to a level lower than applicable limits or water quality standards or use the most sensitive test method available, per Title 40 Code of Federal Regulations (CFR) § 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants), adopted by reference at 18 AAC 83.010(f).

1.2.7 For purposes of reporting on the Discharge Monitoring Report (DMR) for this permit only, for a single sample, if a value is less than the Method Detection Level (MDL), the Permittee must report "less than {numeric value of the MDL}" and if a value is less than the minimum level of quantification (ML), the Permittee must report "less than {numeric value of the ML}." For purposes of calculating monthly averages, zero may be assigned for values less than the MDL, the {numeric value of the MDL} may be assigned for values between the MDL and the ML. If the average value is less than the MDL, the Permittee must report "less than {numeric value of the MDL}" and if the average value is less than the ML, the Permittee must report "less than {numeric value of the ML}." If a value is greater than the ML, the Permittee must report and use the actual value.

1.3 Effluent Limits and Monitoring—Outfall 002

1.3.1 The Permittee must limit and monitor discharges from Outfall 002 as specified in Table 3. The monitoring location for Outfall 002 is after the WTP and prior to flow augmentation treatment authorized in Section 1.4. Limits represent maximum effluent limits unless otherwise indicated. The Permittee must comply with effluent limits in the table at all times, unless otherwise indicated, regardless of monitoring frequency or reporting required by other provisions of this permit.

Table 3: Effluent Limits and Monitoring Frequencies for Outfall 002

Parameter[a]	Maximum Daily Limit	Average Monthly Limit	Units	Minimum Sample Frequency	Sample Type
Ammonia,Total[h]	4.6	2.8	mg/L as N	1/Week	24-hour Composite
Cadmium[d]	0.30	0.19	µg/L	1/Week	24-hour Composite
Copper[d]	11	5.8	µg/L	1/Week	24-hour Composite
Iron	X[g]	X	µg/L	1/Week	24-hour Composite
Lead[d]	2.8	2.0	µg/L	1/Week	24-hour Composite
Mercury	0.02	0.01	µg/L	1/Week	24-hour Composite
Nitrate[h]	14	10	mg/L as N	1/Week	24-hour Composite
Zinc[d]	93	63	µg/L	1/Week	24-hour Composite
Sulfate	X	X	mg/L	1/Week	24-hour Composite
TDS	587	500	mg/L	1/Week	24-hour Composite
pH	See Permit [c]		s.u.	Continuous	Recorder

This page was modified on 7/2/24 under 18 AAC 83.145(a)(1).

Parameter[a]	Maximum Daily Limit	Average Monthly Limit	Units	Minimum Sample Frequency	Sample Type
TSS	30	20	mg/L	1/Week	24-hour Composite
Flow, average[f]	2,000	2,000	gpm[b]	Continuous	Recorder
Whole Effluent Toxicity (WET)[e]	1.6	1.1	TU_c	1/Quarter	24-hour Composite

a. Parameters must be analyzed and reported as total recoverable.
b. Gallons per minute
c. See section 1.3.4
d. Hardness-based limits using a hardness of 74 mg/L CaCO3, the 15th percentile of background data.
e. See Permit Part 1.4 for WET testing requirements.
f. Maximum daily flow is the average of instantaneous flow measurements collected during the calendar day of record.
g. X means no effluent limits but continue monitoring.
h. A compliance schedule with a completion schedule of 54 months after the permit effective date is approved. See section 2.3.
i.

1.3.2 Discharge from Outfall 002 shall not cause a violation of WQS (18 AAC 70) unless allowed in this permit through exceptions to the standards or in a compliance schedule.

1.3.3 The Permittee must not discharge any floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen on the surface of the receiving water.

1.3.4 Excursions outside the range of 6.0 to 9.0 are permitted provided that the total time during which the pH values are outside 6.0 to 9.0 s.u. does not exceed 7 hours and 26 minutes in any calendar month or 60 minutes per individual excursion.

1.3.5 The permittee must collect samples from the effluent stream after the last treatment unit prior to discharge into the receiving water.

1.3.6 For all effluent monitoring, the permittee must use a sufficiently sensitive EPA approved test method that quantifies the pollutants to a level lower than applicable limits or water quality standards or use the most sensitive test method available, per Title 40 Code of Federal Regulations (CFR) § 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants), adopted by reference at 18 AAC 83.010(f).

1.3.7 For purposes of reporting on the DMR for this permit only, for a single sample, if a value is less than the MDL, the Permittee must report "less than {numeric value of the MDL}" and if a value is less than the ML, the Permittee must report "less than {numeric value of the ML}." For purposes of calculating monthly averages, zero may be assigned for values less than the MDL, the {numeric value of the MDL} may be assigned for values between the MDL and the ML. If the average value is less than the MDL, the Permittee must report "less than {numeric value of the MDL}" and if the average value is less than the ML, the Permittee must report "less than {numeric value of the ML}." If a value is greater than the ML, the Permittee must report and use the actual value.

1.4 Effluent Limits and Monitoring—Outfall 003

1.4.1 The Permittee must comply with limits and monitor discharges from Outfall 003 as specified in Table 34. The monitoring location of Outfall 003 is after flow augmentation treatment. Limits represent maximum effluent limits unless otherwise indicated. The Permittee must comply with effluent limits in Table 4 at all times, unless otherwise indicated, regardless of monitoring frequency or reporting required by other provisions of this permit.

Table 4: Effluent Limits and Monitoring Frequencies for Outfall 003

Parameter	Maximum Daily Limit	Average Monthly Limit	Units	Minimum Sample Frequency	Sample Type
Sulfate	500	250	mg/L	1/Week	24-hour Composite
Flow, average[a]	4,000	4,000	gpm[b]	Continuous	Recorder

a. Maximum daily flow is the average of instantaneous flow measurements collected during the calendar day of record.
b. Gallons per minute

1.4.2 Discharge from Outfall 003 into the East Fork Slate Creek shall not cause a violation of WQS (18 AAC 70) unless allowed in this permit through exceptions to the standards or in a compliance schedule.

1.4.3 The permittee must collect samples from the effluent stream after the last treatment unit prior to discharge into the receiving water.

1.4.4 For all effluent monitoring, the permittee must use a sufficiently sensitive EPA approved test method that quantifies the pollutants to a level lower than applicable limits or water quality standards or use the most sensitive test method available, per Title 40 Code of Federal Regulations (CFR) § 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants), adopted by reference at 18 AAC 83.010(f).

1.4.5 For purposes of reporting on the DMR for this permit only, for a single sample, if a value is less than the MDL, the Permittee must report "less than {numeric value of the MDL}" and if a value is less than the ML, the Permittee must report "less than {numeric value of the ML}." For purposes of calculating monthly averages, zero may be assigned for values less than the MDL, the {numeric value of the MDL} may be assigned for values between the MDL and the ML. If the average value is less than the MDL, the Permittee must report "less than {numeric value of the MDL}" and if the average value is less than the ML, the Permittee must report "less than {numeric value of the ML}." If a value is greater than the ML, the Permittee must report and use the actual value.

1.4.6 Flow augmentation is authorized according to 40 CFR 125.3(f). See Fact Sheet Section 2.2 – Outfall 003 for flow augmentation analysis and justification. Flow augmented discharge is limited to 4,000 gpm.

1.5 Whole Effluent Toxicity Testing Requirements

1.5.1 The Permittee must conduct annual chronic whole effluent toxicity (WET) tests on effluent samples from Outfalls 001 and 002. Testing must be conducted in accordance with Permit Parts 1.5.2 through 1.5.7.

1.5.2 Chronic toxicity testing must be conducted on a 24-hour composite sample of the effluent. Additionally, a split of each sample collected must be analyzed for the chemical and physical parameters required in Permit Parts 1.2 and 1.3. Samples for toxicity testing should be of adequate size to accommodate the split sample. When the timing of sample collection coincides with that of the sampling required in Permit Part 1.2 or 1.3, analysis of the split sample will fulfill the requirements of these parts as well.

1.5.3 Chronic Test Species and Methods

1.5.3.1 Chronic tests must be conducted in accordance with Table 2 and Table 3 for Outfall 001 and Outfall 002, respectively. The effluent collected for toxicity testing must be collected within a reasonable time period as the receiving water monitoring that ensures comparative results (see Permit Part 1.6).

1.5.3.2 Tests shall be conducted using fathead minnows, *Pimephales promelas*.

1.5.3.3 The presence of chronic toxicity must be determined as specified in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition (EPA/821-R-02-013, October 2002).

1.5.3.4 Results must be reported in chronic toxicity units (TU_c), where $TU_c = 100/IC_{25}$. See Appendix C for a definition of inhibition concentration 25% (IC_{25})

1.5.4 Quality Assurance

1.5.4.1 Toxicity testing on fathead minnows must include the following series of five test dilutions (100%, 50%, 25%, 12.5%, and 6.25%) and a control.

1.5.4.2 All quality assurance criteria and statistical analyses used for chronic tests and reference toxicant tests must be according to *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms Fourth Edition* (EPA/821-R-02-013, October 2002). If logistical problems beyond the control of the Permittee prevent the timely delivery of a sample to the laboratory, the Permittee may collect only two samples for WET testing and the acceptable sample holding times can be extended from 36 to 48 hours.

1.5.4.3 In addition to those quality assurance measures specified in the methodology, the following quality assurance procedures must be followed:

1.5.4.3.1 If organisms are not cultured in-house, concurrent testing with reference toxicants must be conducted. If organisms are cultured in-house, quarterly reference toxicant testing is sufficient. Reference toxicant tests must be conducted using the same test conditions as the effluent toxicity tests.

1.5.4.3.2 If either of the reference toxicant tests or the effluent tests does not meet all test acceptability criteria, as specified in the test methods manual, the Permittee must re-sample and re-test within 14 days of receipt of the test results.

1.5.4.3.3 Control and dilution water must be receiving water or lab water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water must also be used. Receiving water may be used as control and dilution water upon notification and approval from DEC. In no case shall water that has not met test acceptability criteria be used for either dilution or control.

1.5.5 Accelerated Testing

1.5.5.1 If the Permittee demonstrates through an evaluation of facility operations that the cause of the exceedance is known and corrective actions have been implemented, only one accelerated test is necessary and the Permittee would return to normal WET testing frequency. If toxicity exceeding the numeric limit is detected in this test, then the TRE requirements in Permit Part 1.5.6 shall apply, or

This page was modified on 7/2/24 under 18 AAC 83.145(a)(1).

1.5.5.2 If chronic toxicity is detected above the limits specified in Table 2 or Table 3 and no initial investigation is conducted or no cause is found then the Permittee must conduct four more biweekly tests over an eight week period. This accelerated testing must be initiated within two weeks of receipt of the test results that indicate an exceedance.

1.5.5.3 The Permittee must notify DEC of the exceedance in writing within two weeks of receipt of the test results. The notification must include the following information:

1.5.5.3.1 A status report on any actions required by the permit, with a schedule for actions not yet completed.

1.5.5.3.2 A description of any additional actions the Permittee has taken or will take to investigate and correct the cause(s) of the toxicity.

1.5.5.3.3 Where no actions have been taken, a discussion of the reasons for not taking action.

1.5.5.4 If none of the four accelerated tests exceed the permit limit, the Permittee may return to the normal testing frequency. If any of the four tests exceed the limit, then the TRE requirements in Permit Part 1.5.6 shall apply.

1.5.6 Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE)

1.5.6.1 If chronic toxicity limits are exceeded during accelerated testing under Permit Part 1.4.6, the Permittee must initiate a toxicity reduction evaluation (TRE) in accordance with *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070) within two weeks of the receipt of the test results showing an exceedance. At a minimum, the TRE must include:

1.5.6.1.1 Further actions to investigate and identify the cause of toxicity;

1.5.6.1.2 Actions the Permittee will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity; and

1.5.6.1.3 A schedule for these actions.

1.5.6.2 If a TRE is initiated prior to completion of the accelerated testing, the accelerated testing schedule may be terminated, or used as necessary in performing the TRE. The Permittee may initiate a Toxicity Identification Evaluation (TIE) as part of the TRE process. Any TIE must be performed in accordance with EPA guidance manuals, *Toxicity Identification Evaluation; Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005F), *Methods for Aquatic Toxicity Identification Evaluations, Phase II: Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080), and *Methods for Aquatic Toxicity Identification Evaluations, Phase III: Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA-600/R-92/081).

1.5.7 Reporting

1.5.7.1 The Permittee shall submit the result of the toxicity test in TU_c with the DMR for the month in which the results are received. The full toxicity test results will be included in the Annual Report due March 1st of the following year, as required in Permit Part 1.7.

This page was modified on 7/2/24 under 18 AAC 83.145(a)(1).

1.5.7.2 The Permittee must submit the results of any accelerated testing, under Permit Part 1.5.5, within two weeks of receipt of the results from the lab. The full report must be submitted within four weeks of receipt of the results from the lab. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, the result of the investigation must be submitted with the DMR for the month following completion of the investigation.

1.5.7.3 The report of toxicity test results must include all relevant information outlined in Section 10, Report Preparation of *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition* (EPA/821-R-02-013, October 2002). In addition to toxicity test results, the Permittee must report: dates of sample collection and initiation of each test; outfall flow rate at the time of sample collection; the results of the monitoring required in Permit Part 1.2; and an explanation of logistical problems described in Permit Part 1.5.4.2, if encountered.

1.6 Receiving Water Monitoring

1.6.1 The Permittee must conduct the following receiving water monitoring program in the vicinity of the mine.

1.6.1.1 Water Column Monitoring

1.6.1.1.1 The Permittee must conduct monthly monitoring at the following stations (see Figure 2 and Figure 3 for maps showing sampling locations).

1.6.1.1.1.1 Sherman Creek at stations SH109, SH113 and SH105;

1.6.1.1.1.2 Slate Creek at stations MLA, Site 5, SLB and SLC;

1.6.1.1.1.3 Johnson Creek at stations JS2 and JS5; and

1.6.1.1.1.4 Ophir Creek at stations SH111 and SH103.

1.6.1.2 All receiving water samples must be grab samples.

1.6.1.3 The Permittee must monitor receiving water from the stations specified in Permit Part 1.5.1.1 for the parameters and sampling frequency specified in Table 4. Analytical methods must use sufficiently sensitive EPA approved test methods as specified in Permit Sections 1.2.7. The Permittee may request different MLs. The request must be in writing and must be approved by DEC prior to implementation.

Table 5: Receiving Water Monitoring Parameters

Parameter	Units	Minimum Sample Frequency	Sample Type
Aluminum [a]	µg/L	1/Month	Grab
Ammonia, Total	µg/L	1/Month	Grab
Cadmium [a]	µg/L	1/Month	Grab
Copper [a]	µg/L	1/Month	Grab
Iron [a]	µg/L	1/Month	Grab
Lead [a]	µg/L	1/Month	Grab
Manganese [a]	µg/L	1/Month	Grab
Mercury [a]	µg/L	1/Month	Grab
Zinc [a]	µg/L	1/Month	Grab
Sulfate [b]	mg/L	1/Month	Grab
Chloride	µg/L	1/Month	Grab
Turbidity	NTU	1/Month	Grab
TDS	mg/L	1/Month	Grab
TSS	mg/L	1/Month	Grab
pH	s.u.	1/Month	Grab
Dissolved Oxygen	mg/L	1/Month	Grab
Temperature	°C	1/Month	Grab
Nitrate, as N	mg/L	1/Month	Grab
Conductivity	µS/cm [c]	1/Month	Grab
Hardness, as $CaCO_3$	mg/L	1/Month	Grab
Color	Color units	1/Month	Grab

Notes:

a. Must be measured as total or total recoverable.

b. Sulfates shall be total sulfates except for Sherman Creek which shall be sulfates associated with magnesium and sodium.

c. Microsiemens per centimeter

1.6.2 Quality assurance/quality control (QA/QC) plans for all monitoring must be documented in the quality assurance project plan (QAPP) required under Permit Part 2.1.

1.6.3 All results shall be included in the Annual Report (see Permit Part 1.7.) At a minimum, the report must include the following:

1.6.3.1 Dates of sample collection and analyses.

1.6.3.2 Results of sample analyses

1.6.3.3 Relevant QA/QC information.

1.6.4 Sediment Monitoring

1.6.4.1 A total of three (3) samples per site shall be taken at Lower Sherman Creek, the inlet creek to Upper Slate Lake, East Fork Slate Creek, Lower Slate Creek, and Lower Johnson Creek. Sampling shall be conducted annually in July prior to spawning and the results included in the Annual Report. Establish new baseline biomonitoring sites for sediment sampling at Upper Slate Creek SP2 and Upper Sherman Creek.

1.6.4.2 The Permittee shall monitor the parameters in Table 6 and shall achieve the listed detection levels for each sediment sample.

Table 6: Sediment Monitoring Parameters and Analytical Methods

Parameter	Units	Preparation Method	Analysis Method	Sediment MDL [a]
Aluminum	mg/Kg	PSEP[b]	—	—
Arsenic	mg/Kg	PSEP	GFAA[c]	2.5
Cadmium	mg/Kg	PSEP	GFAA	0.3
Chromium	mg/Kg	PSEP	—	—
Copper	mg/Kg	PSEP	ICP[d]	15.0
Lead	mg/Kg	PSEP	ICP	0.5
Mercury	mg/Kg	7471[e]	7471[e]	0.02
Nickel	mg/Kg	PSEP	ICP	2.5
Selenium	mg/Kg	PSEP	—	—
Silver	mg/Kg	PSEP	GFAA	0.2
Zinc	mg/Kg	PSEP	ICP	15.0
Total Solids	%	—	PSEP, pg 17	0.1
Total Volatile Solids	%	—	PSEP, pg 20	0.1
Total Organic Carbon	%	—	PSEP[f], pg 23	0.1
Total Sulfides	mg/Kg	—	PSEP, pg 32	1
Grain Size	—	—	Modified ASTM with Hydrometer	NA

a. Dry weight basis
b. Recommended Protocols for Measuring Selected Environmental Variables, in Puget Sound Estuary Program, EPA 910/9-86-157, as updated by Washington Department of Ecology; Subsection: Metals in Puget Sound Water, Sediment, and Tissue Samples
c. Graphite Furnace Atomic Absorption Spectrometry, SW-846, Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA 1986
d. Inductively Coupled Plasma Emission Spectrometry, SW-846, Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA 1986
e. Mercury Digestion and Cold Vapor Atomic Absorption Spectrometry, SW-846, Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA 1986. The Permittee shall sample the receiving water hardness downstream of the discharge.
f. Recommended Methods for Measuring TOC in Sediments, Kathryn Bragdon-Cook Clarification Paper, Puget Sound Dredged Disposal Authority Annual Review, May, 1993.

1.6.4.3 The Permittee shall collect sufficient sediment from each monitoring station to conduct all chemical tests identified herein. Sediment samples shall consist of the upper two (2) centimeters (cm) of sediment. The maximum depth of sample penetration shall be four (4) centimeters.

1.6.4.4 Sediment monitoring stations shall be located in areas where deposition is likely to occur (i.e. pools or moderately deep, slow-moving water with the surface not turbulent to the extent of being broken) nearest to locations in Table 6.

1.6.4.5 Sediment monitoring results shall be reported in the Annual Report and must include, at a minimum: dates of sample collection and analyses, locations of samples collected, results of the monitoring required in Permit Part 1.6.4.2 and relevant QA/QC information.

1.6.5 Aquatic Resource Monitoring

1.6.5.1 The Permittee shall monitor aquatic resources, as described in Part 1.6.5.2, and shall report results, including relevant QA/QC data, in the Annual Report.

1.6.5.2 Benthic Invertebrates

Benthic macroinvertebrates samples shall be taken in the inlet creek to Upper Slate Lake, East Fork Slate Creek, Lower Slate Creek, West Fork Slate Creek, Lower Sherman Creek SP1 and SP2, and Upper Johnson Creek at the established sites for parameters in Table 6. Establish new baseline biomonitoring sites for benthic macroinvertebrates at Upper Slate Creek SP2 and Upper Sherman Creek.

1.6.5.2.1 Each reach shall be delineated for all possible sampling sites (those areas containing stream substrate with particles less than 20 cm along the long axis). Opportunistic sampling shall occur until a total of 6 samples are obtained for each reach.

1.6.5.2.2 Samples shall be collected using a 0.093 m^2 Surber sampler equipped with a 300-micron mesh collection net. Collected samples shall be placed in labeled plastic containers and preserved with minimum 70 percent ethyl alcohol. Samples shall be enumerated and identified to the lowest practicable level as follows: insects of the orders *Ephemeroptera, Plecoptera, Trichoptera,* and *Diptera* to genus, except nonbiting midges to family *Chironomidae*, and all others to class or order. For each site the following shall be calculated: density per unit area, proportion of *ephemeropterans, plecopterans,* and *trichopterans* (EPT), and number of BMI taxa.

1.6.5.2.3 The Permittee shall sample annually between late April/May, after spring breakup (ice out) and before peak snowmelt.

1.6.5.3 Periphyton Biomass and Community Composition

Periphyton biomass and composition shall be monitored annually in the inlet creek to Upper Slate Lake, East Fork Slate Creek, Lower Slate Creek, West Fork Slate Creek, and Lower Sherman Creek SP1 and SP2 at the established sites for parameters in Table 6. Establish new baseline biomonitoring sites for periphyton at Upper Slate Creek SP2 and Upper Sherman Creek.

For each reach, 10 periphyton samples from stream benthos shall be collected using methods by Barbour et al (1999) or similar during the period late-June through early-August at low stream flow and not within three weeks after peak snowmelt. Estimate periphyton biomass densities and proportions of mean chlorophylls a, b, and c concentrations shall be reported for each reach sampled. An analysis of stream flow three weeks prior to sampling shall also be included using a local stream gage data. This information shall be included in the Annual Report.

1.6.6 Aquatic resource data collection is for data analysis purposes to assess the overall health of the ecosystems. This data is used to determine whether any changes are necessary during the next permit reissuance, and may be modified in the next permit if necessary.

Table 7: Sediment and Biomonitoring Sample Sites

Location	Latitude	Longitude	Sample Type
Lower Slate Creek	58.7905	-135.0345	Periphyton/Benthic Invertebrates
Lower Slate Creek	58.7905	-135.0345	Sediment metals

This page was modified on 7/2/24 under 18 AAC 83.145(a)(1).

Location	Latitude	Longitude	Sample Type
West Fork Slate Creek	58.7993	-135.0457	Periphyton/Benthic Invertebrates
East Fork Slate Creek	58.8045	-135.0381	Sediment metals
East Fork Slate Creek	58.8045	-135.0381	Periphyton/Benthic Invertebrates
Upper Slate Creek SP1	58.8189	-135.0416	Sediment metals
Upper Slate Creek SP1	58.8189	-135.0416	Periphyton/Benthic Invertebrates
Upper Slate Creek SP2	58.8206	-135.0446	Sediment metals
Upper Slate Creek SP2	58.8206	-135.0446	Periphyton/Benthic Invertebrates
Lower Johnson Creek	58.8235	-135.0024	Sediment metals
Upper Johnson Creek	58.8407	-135.0450	Benthic Invertebrates
Lower Sherman Creek- SP1	58.8687	-135.1413	Periphyton/Benthic Invertebrates
Lower Sherman Creek- SP2	58.8674	-135.1381	Periphyton/Benthic Invertebrates
Lower Sherman Creek- SP1	58.8687	-135.1413	Sediment metals
Upper Sherman Creek	58.8619	-135.0983	Sediment metals
Upper Sherman Creek	58.8619	-135.0983	Periphyton/Benthic Invertebrates
Coordinates in WGS84 datum			

1.7 Annual Water Quality Monitoring Summary

Annual discharge and receiving water quality monitoring results must be summarized in an Annual Water Quality Monitoring Summary (Annual Report) and submitted by March 1st of the next year. The report must include a presentation of the analytical results and an evaluation of the results. The evaluation must include an electronic spreadsheet containing all historical data for water quality, a graphical presentation of the data at each monitoring station, and a comparison of monitoring results for each station over time. The Annual Report must be certified and signed in accordance with Appendix A, Part 1.12, and it may reference the monthly reports for QA/QC information.

2.0 SPECIAL CONDITIONS

2.1 Electronic Reporting (E-Reporting) Rule

The Permittee is responsible for electronically submitting DMRs and other reports in accordance with 40 CFR §127.

2.2 Quality Assurance Project Plan

2.2.1 The Permittee must develop a quality assurance project plan (QAPP) for all monitoring required by this permit. Within 60 days of the effective date of this permit, the Permittee must update the QAPP and submit written notification to DEC that the updated QAPP has been implemented. An existing QAPP may be modified for submittal under this section provided that Permit Parts 2.2.2 through 2.2.5 are satisfied.

2.2.2 The QAPP must be designed to assist in planning for the collection and analysis of effluent and receiving water samples in support of the permit and to help explain data anomalies whenever they occur.

2.2.3 Throughout all sample collection and analysis activities, the Permittee must use DEC-approved QA/QC and chain-of-custody procedures, as described in the *Requirements for Quality Assurance Project Plans* (EPA/QA/R-5) and *Guidance for Quality Assurance Project Plans*

(EPA/QA/G-5). The QAPP must be prepared in the format which is specified in these documents.

2.2.4 The Permittee must amend the QAPP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAPP.

2.2.5 Copies of the QAPP must be kept on site and made available to DEC upon request.

2.3 Best Management Practices Plan

2.3.1 Purpose. Through implementation of the BMP Plan, the Permittee must prevent or minimize the generation and the potential for release of pollutants from the facility to the lands and waters of the U.S. through normal and ancillary activities.

2.3.2 Development and Implementation Schedule. The Permittee must develop and implement a BMP Plan which achieves the objectives and the specific requirements listed below. The Permittee must submit written notice to DEC that the plan has been developed and implemented within 60 days of the effective date of the permit. Any existing BMP Plans may be modified for compliance with this Part. The Permittee must implement provisions of the plan as conditions of this permit within 60 days of the effective date of this permit.

2.3.3 Objectives. The Permittee must develop and amend the BMP Plan consistent with the following objectives for the control of pollutants.

2.3.3.1 The number and quantity of pollutants and the toxicity of effluent generated, discharged, or potentially discharged at the facility must be minimized by the Permittee to the extent feasible by managing each waste stream in the most appropriate manner.

2.3.3.2 Under the BMP Plan and especially within any standard operating procedures included in the BMP Plan, the Permittee must ensure proper operation and maintenance of water management and wastewater treatment systems. BMP Plan elements must be developed in accordance with good engineering practices.

2.3.3.3 Each facility component or system must be examined for its waste minimization opportunities and its potential for causing a release of significant amounts of pollutants to lands and waters of the U.S. due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc. The examination must include all normal operations and ancillary activities including material storage areas, storm water, in-plant transfer, material handling and process handling areas, loading or unloading operations, spillage or leaks, sludge and waste disposal, or drainage from raw material storage.

2.3.4 Elements of the BMP Plan. The BMP Plan must be consistent with the objectives above and the general guidance contained in *Guidance Manual for Developing Best Management Practices* (EPA 833-B-93-004, October 1993) and *Storm Water Management for Industrial Activities, Developing Pollution Prevention Plans and Best Management Practices* (EPA 832-R-92-006) or any subsequent revision to these guidance documents. The BMP Plan must include, at a minimum, the following items:

2.3.4.1.1 Statement of BMP Policy. The BMP Plan must include a statement of management commitment to provide the necessary financial, staff, equipment, and training resources to develop and implement the BMP Plan on a continuing basis.

2.3.4.1.2 The BMP Plan must establish a BMP Committee responsible for developing, implementing, and maintaining the BMP Plan. Specify the structure, functions, and procedures of the BMP Committee.

2.3.4.1.3 Description of potential pollutant sources.

2.3.4.1.4 Risk identification and assessment.

2.3.4.1.5 Standard operating procedures to achieve the objectives and specific best management practices (see below).

2.3.4.1.6 Reporting of BMP incidents. The reports must include a description of the circumstances leading to the incident, corrective actions taken, and recommended changes to operating and maintenance practices to prevent recurrence.

2.3.4.1.7 Materials compatibility.

2.3.4.1.8 Good housekeeping.

2.3.4.1.9 Inspections.

2.3.4.1.10 Preventative maintenance and repair.

2.3.4.1.11 Security.

2.3.4.1.12 Employee training.

2.3.4.1.13 Record keeping and reporting.

2.3.4.1.14 Prior evaluation of any planned modifications to the facility to ensure that the requirements of the BMP Plan are considered as part of the modifications.

2.3.4.1.15 Final constructed site plans, drawings, and maps (including detailed storm water outfall/culvert configuration).

2.3.4.2 Specific Best Management Practices.

2.3.4.2.1 The BMP Plan must establish specific BMPs or other measures to achieve the objectives under Permit Part 2.3.3 ensuring that solids, sludge, or other pollutants removed in the course of treatment or control of water and wastewaters are disposed in a manner preventing any pollutant from such materials from entering waters of the U.S.

2.3.4.2.2 The BMP plan must include specific communication protocols for agencies, tribes, and other stakeholders in the event of a future pipeline spill, including a standardized call/notification tree.

2.3.5 BMP Plan Annual Review and Certification.

2.3.5.1 The BMP Plan must be reviewed and updated annually to assure that the objectives of Permit Part 2.3.3 are being satisfied.

2.3.5.2 BMP Plan Annual Certification. The Permittee must prepare a certified statement that reviews (inspections and evaluations) required by Permit Part 2.3.4 have been completed and that the BMP Plan fulfills the requirements set forth in the permit. This statement must be signed in accordance with Appendix A, Part 1.12 and submitted to DEC by January 31st of the next year.

2.3.6 Documentation. The Permittee must maintain a copy of the BMP Plan at the facility and make it available to DEC upon request.

2.3.7 BMP Plan Modification

2.3.7.1 The Permittee must amend the BMP Plan whenever a change in the facility or in the operation of the facility materially increases the generation of pollutants or their release or potential release to receiving waters.

2.3.7.2 The Permittee must amend the BMP Plan whenever it is found to be ineffective in achieving the general objective of preventing and minimizing the generation and the potential for the release of pollutants from the facility to the waters of the U.S.

2.3.7.3 Any changes to the BMP Plan must be consistent with the objectives and specific requirements of Permit Part 2.3. All changes in the BMP Plan must be reported to DEC with the annual certification required under Permit Part 2.3.5.

2.4 Compliance Schedule for Outfall 002 – Ammonia and Nitrate Monthly Average Limits

The permittee must achieve compliance with ammonia and nitrate monthly average limits in Permit Part 1.3.1 no later than 54 months from the Permit's effective date. During the interim while compliance with the monthly average limits for ammonia and nitrate is being achieved, the permittee shall comply with the compliance schedule (Table 8) in lieu of Permit Part 1.3.1. Adherence to this schedule and its reporting requirements constitutes compliance with monthly average limits for ammonia and nitrate in Permit Part 1.3.1.

Table 8: Compliance Schedule

Task	Action	Completion Date*
1.	Source control analysis and characterization of blasting agents, paste plant inputs, and water balance. Completion deliverable: Report	6 months
2.	Source control implementation and evaluation Completion deliverable: Report	18 months
3.	Select control and or treatment methods Completion deliverable: Report	20 months
4.	Preliminary design for selected treatment method Completion deliverable: Report	26 months
5.	Final design report and drawings for selected treatment Completion deliverable: Report	38 months
6.	Construction of treatment plant (if selected) Completion deliverable: Report	46 months
7.	Commissioning of treatment plant (if selected) Completion deliverable: Notification of completion	52 months
8.	Completion of objective Completion deliverable: Notification of completion	54 months
*months after the permit's effective date		

2.4.1 Any proposed monitoring plan must follow the approved QAPP, define the purpose of the monitoring plan, and clearly identify monitoring station(s), sample frequency and the chemical parameters that will be collected.

2.4.2 Written acceptance by the Department of a completion deliverable for each task identified in Table 7 constitutes completion of that task.

2.5 Special Condition Schedule for Discharge(s) from the Comet Development Rock Stockpile into Ophir Creek

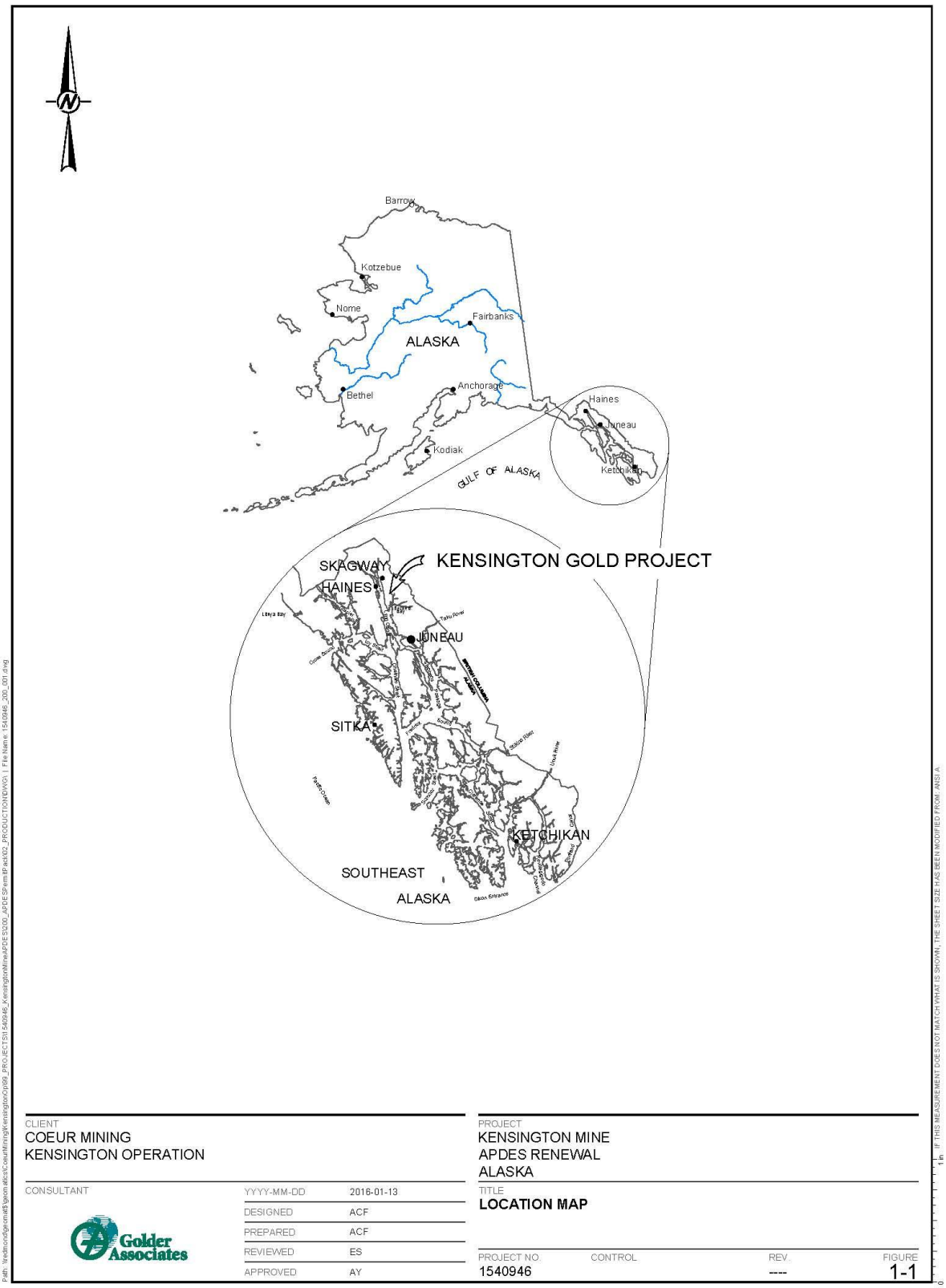
2.5.1 The permittee shall comply with the special condition schedule (Table 9). The objective of the special condition schedule is to address elevated concentrations of pollutants discharged from the Comet Development Rock Stockpile (CDRS) into Ophir Creek. The permittee shall adhere to this schedule and its reporting requirements as follows: The permittee must achieve compliance with the CWA for discharges from the CDRS within 54 months from the Permit's effective date.

Table 9: Special Condition Schedule

Task	Action	Deliverable Completion Date*
1.	Summary of monitoring work and water quality sampling completed to date for Ophir Creek.	3 months
2.	Prepare monitoring plan to characterize seep water from the Comet Development Rock Stockpile, evaluate Ophir Creek water quality and flow.	3 months
3.	Implement monitoring plan.	6 months
4.	Evaluate results from monitoring plan	Every 6 months
5.	Submit written report to the department evaluating findings based on results of the monitoring plan	Include in Annual Report
6.	Construct needed infrastructure to collect and convey seep water (if selected) and install necessary BMPs.	39 months
7.	Commissioning of conveyance infrastructure (if selected).	42 months
8.	Construct treatment improvements, including flow capacity increase and/or treatment process upgrades, at Comet WTP (if necessary and selected).	48 months
9.	Commissioning of treatment improvements (if necessary and selected).	52 months
10.	Monitor Ophir Creek and report Ophir Creek water quality results as indicated in the monitoring plan.	54 months
*months after the permit's effective date		

2.5.2 Monitoring data collected from this special condition schedule shall be incorporated into the Annual Report.

Figure 1: Kensington Mine Location Map



CLIENT
COEUR MINING
KENSINGTON OPERATION

CONSULTANT
Golder Associates

YYYY-MM-DD	2016-01-13
DESIGNED	ACF
PREPARED	ACF
REVIEWED	ES
APPROVED	AY

PROJECT
KENSINGTON MINE
APDES RENEWAL
ALASKA

TITLE
LOCATION MAP

PROJECT NO.	CONTROL	REV.	FIGURE
1540946		---	1-1

Path: \\edmondge-cmat$\geomatics\Coeur\Mining\Kensington\Op99_PROJECTS\1540946_KensingtonMine\APDES\200_APDESPermitPack\02_PRODUCTION\MXD\ | File Name: 1540946_200_001.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

Figure 2: Sherman Creek - Outfall 001 Location Map

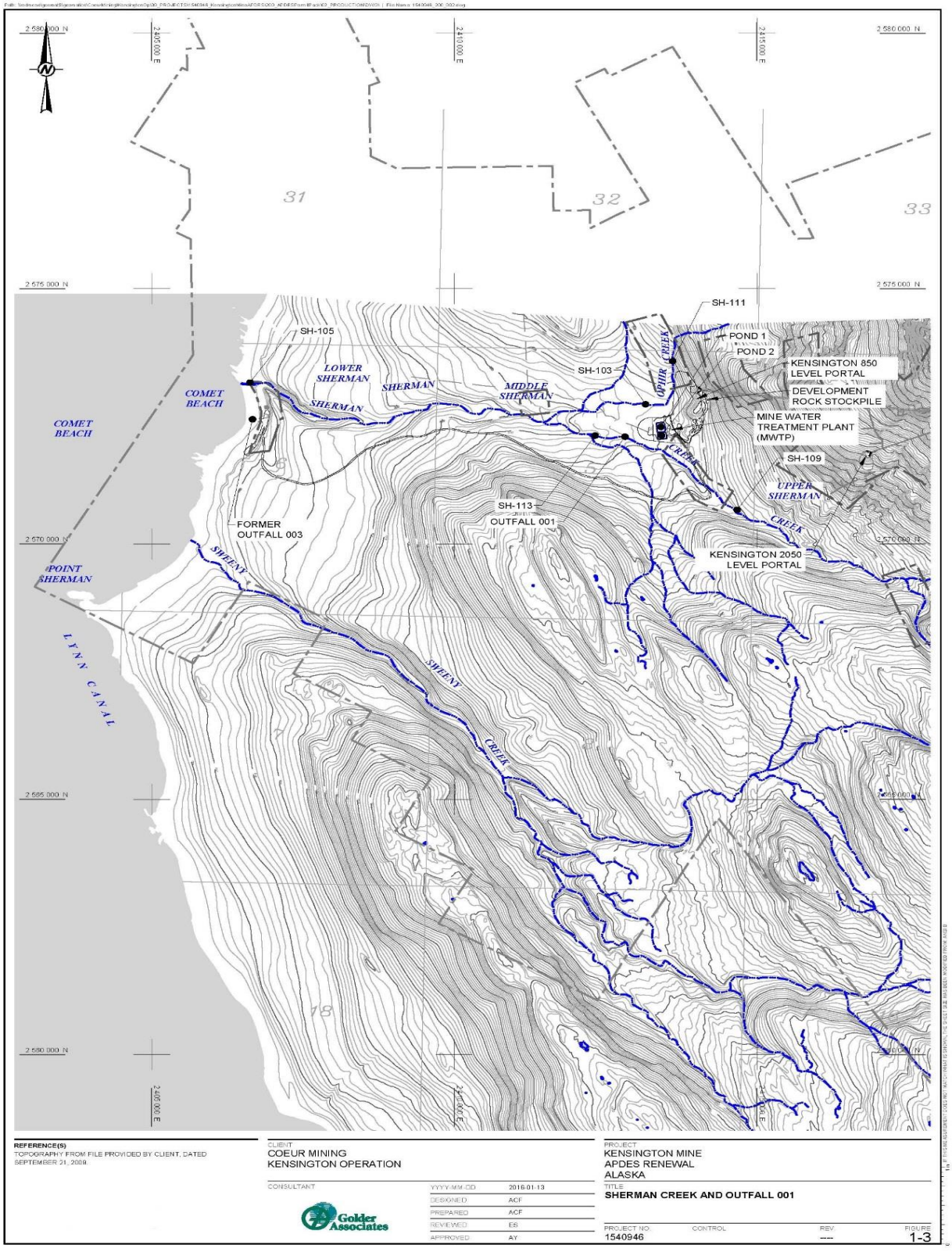


Figure 3: East Fork Slate Creek – Outfall 002 Location Map

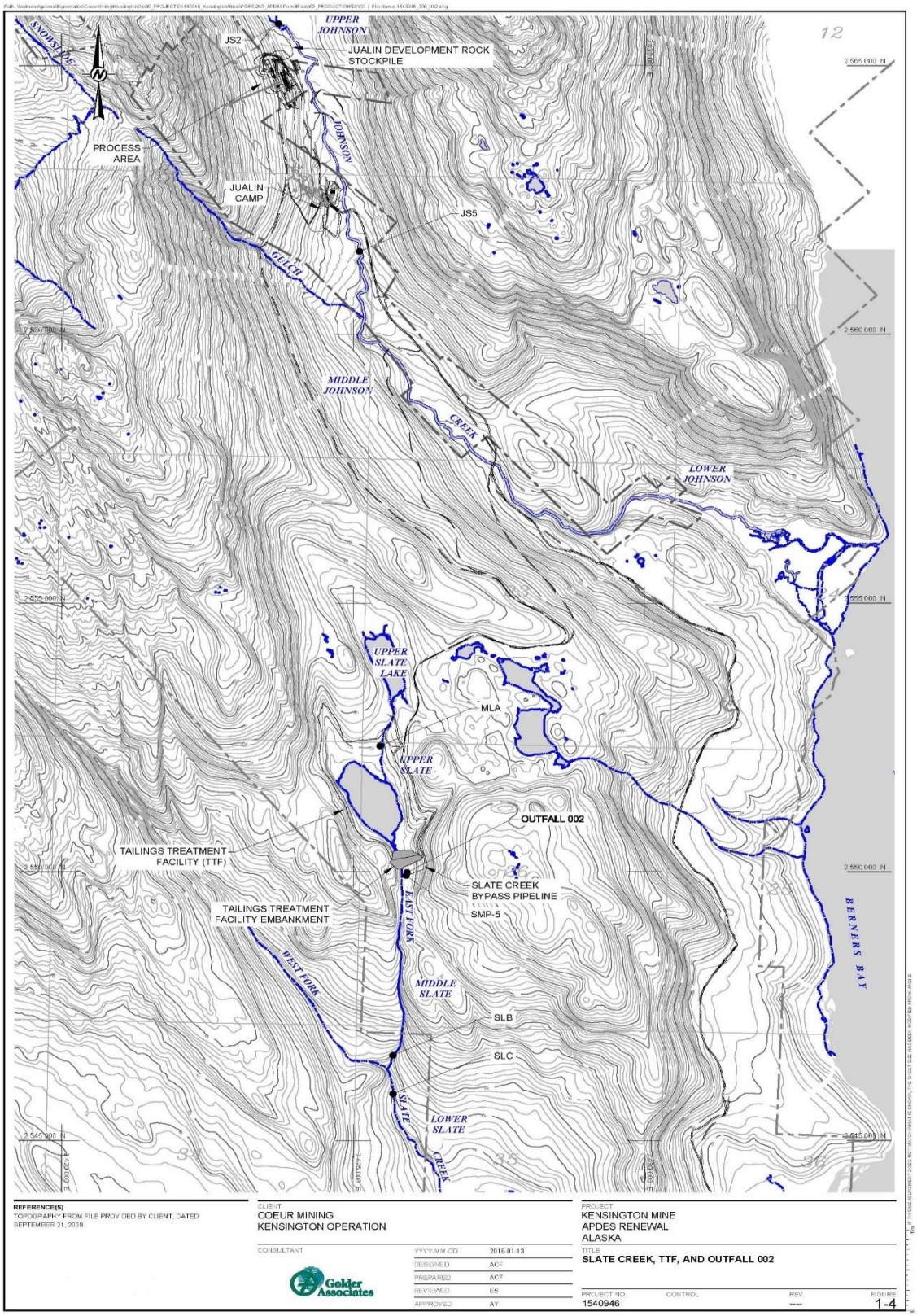
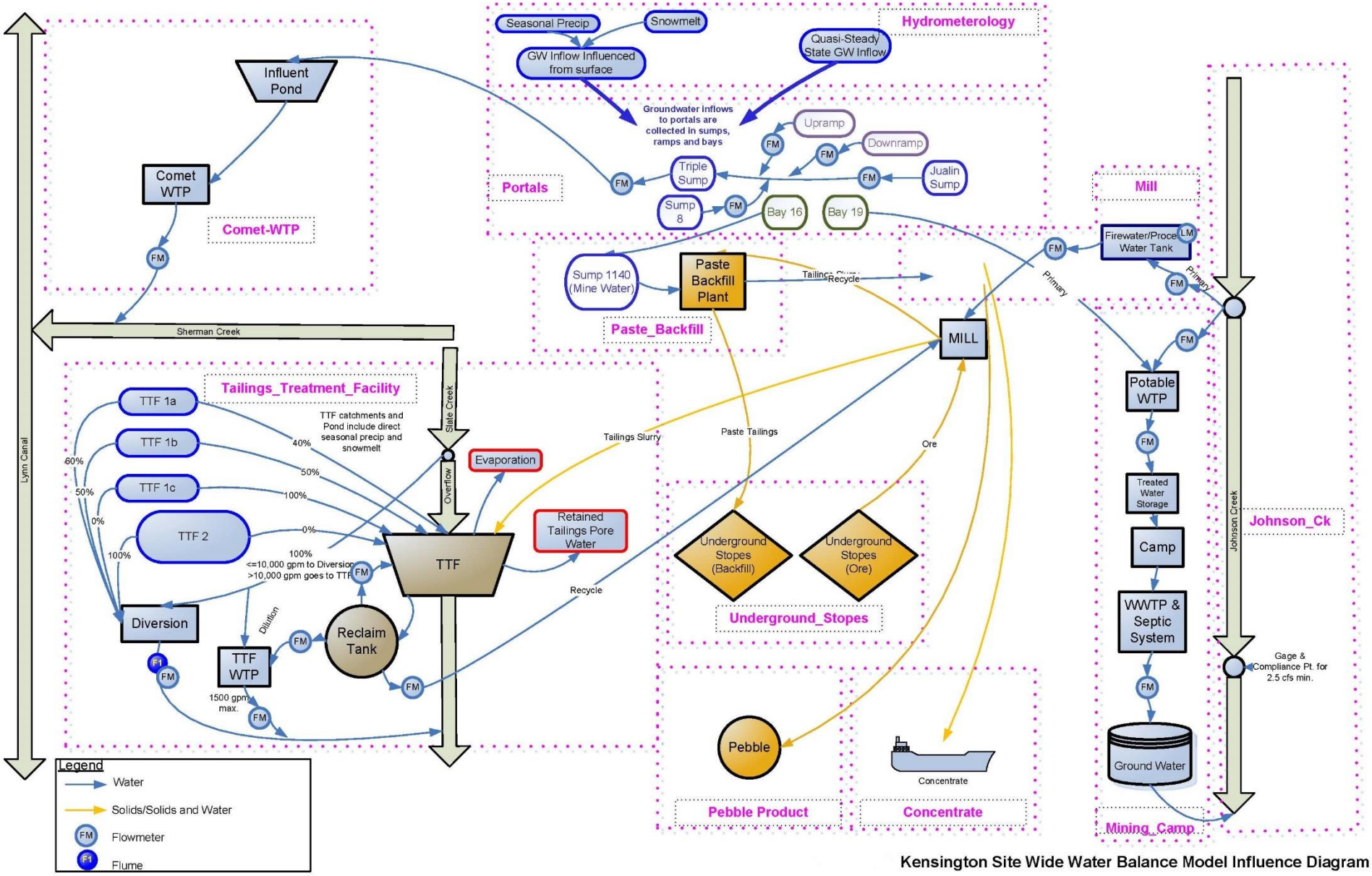


Figure 4: Water Balance Schematic Drawing



Kensington Site Wide Water Balance Model Influence Diagram

Appendix A

STANDARD CONDITIONS

APDES PERMIT

NONDOMESTIC DISCHARGES

TABLE OF CONTENTS

Appendix A of the Fact Sheet contains standard regulatory language that must be included in all APDES permits. These requirements are based on the regulations and cannot be challenged in the context of an individual APDES permit action. The standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements. Appendix A, Standard Conditions is an integral and enforceable part of the permit. Failure to comply with a Standard Condition in this Appendix constitutes a violation of the permit and is subject to enforcement.

1.0 Standard Conditions Applicable to All Permits

1.1 Contact Information and Addresses

1.1.1 Permitting Program

Documents, reports, and plans required under the permit and Appendix A are to be sent to the following address:

State of Alaska
Department of Environmental Conservation
Division of Water
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, Alaska 99501
Telephone (907) 269-6285
Fax (907) 269-7508
Email: DEC.Water.WQPermit@alaska.gov

1.1.2 Compliance and Enforcement Program

Documents and reports required under the permit and Appendix A relating to compliance are to be sent to the following address:

State of Alaska
Department of Environmental Conservation
Division of Water
Compliance and Enforcement Program
555 Cordova Street
Anchorage, Alaska 99501
Telephone Nationwide (877) 569-4114
Anchorage Area / International (907) 269-4114
Fax (907) 269-4604
Email: dec-wqreporting@alaska.gov

1.2 Duty to Comply

A permittee shall comply with all conditions of the permittee's APDES permit. Any permit noncompliance constitutes a violation of 33 U.S.C 1251-1387 (Clean Water Act) and state law and is grounds for enforcement action including termination, revocation and reissuance, or modification of a permit, or denial of a permit renewal application. A permittee shall comply with effluent standards or prohibitions established under 33 U.S.C. 1317(a) for toxic pollutants within the time provided in the regulations that establish those effluent standards or prohibitions even if the permit has not yet been modified to incorporate the requirement.

1.3 Duty to Reapply

If a permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee must apply for and obtain a new permit. In accordance with 18 AAC 83.105(b), a permittee with a currently effective permit shall reapply by submitting a new application at least 180 days before the existing permit expires, unless the Department has granted the permittee permission to submit an application on a later date. However, the Department will not grant permission for an application to be submitted after the expiration date of the existing permit.

1.4 Need to Halt or Reduce Activity Not a Defense

In an enforcement action, a permittee may not assert as a defense that compliance with the conditions of the permit would have made it necessary for the permittee to halt or reduce the permitted activity.

1.5 Duty to Mitigate

A permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

1.6 Proper Operation and Maintenance

1.6.1 A permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances that the permittee installs or uses to achieve compliance with the conditions of the permit. The permittee's duty to operate and maintain properly includes using adequate laboratory controls and appropriate quality assurance procedures. However, a permittee is not required to operate back-up or auxiliary facilities or similar systems that a permittee installs unless operation of those facilities is necessary to achieve compliance with the conditions of the permit.

1.6.2 Operation and maintenance records shall be retained and made available at the site.

1.7 Permit Actions

A permit may be modified, revoked and reissued, or terminated for cause as provided in 18 AAC 83.130. If a permittee files a request to modify, revoke and reissue, or terminate a permit, or gives notice of planned changes or anticipated noncompliance, the filing or notice does not stay any permit condition.

1.8 Property Rights

A permit does not convey any property rights or exclusive privilege.

1.9 Duty to Provide Information

A permittee shall, within a reasonable time, provide to the Department any information that the Department requests to determine whether a permittee is in compliance with the permit, or whether cause exists to modify, revoke and reissue, or terminate the permit. A permittee shall also provide to the Department, upon request, copies of any records the permittee is required to keep under the permit.

1.10 Inspection and Entry

A permittee shall allow the Department, or an authorized representative, including a contractor acting as a representative of the Department, at reasonable times and on presentation of credentials establishing authority and any other documents required by law, to:

1.10.1 Enter the premises where a permittee's regulated facility or activity is located or conducted, or where permit conditions require records to be kept;

1.10.2 Have access to and copy any records that permit conditions require the permittee to keep;

1.10.3 Inspect any facilities, equipment, including monitoring and control equipment, practices, or operations regulated or required under a permit; and

1.10.4 Sample or monitor any substances or parameters at any location for the purpose of assuring permit compliance or as otherwise authorized by 33 U.S.C. 1251-1387 (Clean Water Act).

1.11 Monitoring and Records

A permittee must comply with the following monitoring and recordkeeping conditions:

1.11.1 Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

1.11.2 The permittee shall retain records in Alaska of all monitoring information for at least five years, or longer at the Department's request at any time, from the date of the sample, measurement, report, or application. Monitoring records required to be kept include:

1.11.2.1 All calibration and maintenance records,

1.11.2.2 All original strip chart recordings or other forms of data approved by the Department for continuous monitoring instrumentation,

1.11.2.3 All reports required by a permit,

1.11.2.4 Records of all data used to complete the application for a permit,

1.11.2.5 Field logbooks or visual monitoring logbooks,

1.11.2.6 Quality assurance chain of custody forms,

1.11.2.7 Copies of discharge monitoring reports, and

1.11.2.8 A copy of this APDES permit.

1.11.3 Records of monitoring information must include:

1.11.3.1 The date, exact place, and time of any sampling or measurement;

1.11.3.2 The name(s) of any individual(s) who performed the sampling or measurement(s);

1.11.3.3 The date(s) and time any analysis was performed;

1.11.3.4 The name(s) of any individual(s) who performed any analysis;

1.11.3.5 Any analytical technique or method used; and

1.11.3.6 The results of the analysis.

1.11.4 Monitoring Procedures

Analyses of pollutants must be conducted using test procedures approved under 40 CFR Part 136, adopted by reference at 18 AAC 83.010, for pollutants with approved test procedures, and using test procedures specified in the permit for pollutants without approved methods.

1.12 Signature Requirement and Penalties

1.12.1 Any application, report, or information submitted to the Department in compliance with a permit requirement must be signed and certified in accordance with 18 AAC 83.385. Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under a permit, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be subject to penalties under 33 U.S.C. 1319(c)(4), AS 12.55.035(c)(1)(B), (c)(2), and (c)(3) and AS 46.03.790(g).

1.12.2 In accordance with 18 AAC 83.385, an APDES permit application must be signed as follows:

1.12.2.1 For a corporation, a responsible corporate officer shall sign the application; in this subsection, a responsible corporate officer means:

1.12.2.1.1 A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or

1.12.2.1.2 The manager of one of more manufacturing, production, or operating facilities, if

1.12.2.1.2.1 The manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental statutes and regulations;

1.12.2.1.2.2 The manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and

1.12.2.1.2.3 Authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

1.12.2.2 For a partnership or sole proprietorship, by the general partner or the proprietor, respectively, shall sign the application.

1.12.2.3 For a municipality, state, federal, or other public agency, either a principal executive officer or ranking elected official shall sign the application; in this subsection, a principal executive officer of an agency means:

1.12.2.3.1 The chief executive officer of the agency; or

1.12.2.3.2 A senior executive officer having responsibility for the overall operations of a principal geographic unit or division of the agency.

1.12.3 Any report required by an APDES permit, and a submittal with any other information requested by the Department, must be signed by a person described in Appendix A, Part 1.12.2, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1.12.3.1 The authorization is made in writing by a person described in Appendix A, Part 1.12.2;

1.12.3.2 The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, including the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility; or an individual or position having overall responsibility for environmental matters for the company; and

1.12.3.3 The written authorization is submitted to the Department to the Permitting Program address in Appendix A, Part 1.1.1.

1.12.4 If an authorization under Appendix A, Part 1.12.3 is no longer effective because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Appendix A, Part 1.12.3 must be submitted to the Department before or together with any report, information, or application to be signed by an authorized representative.

1.12.5 Any person signing a document under Appendix A, Part 1.12.2 or Part 1.12.3 shall certify as follows:

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

1.13 Proprietary or Confidential Information

1.13.1 A permit applicant or permittee may assert a claim of confidentiality for proprietary or confidential business information by stamping the words “confidential business information” on each page of a submission containing proprietary or confidential business information. The Department will treat the stamped submissions as confidential if the information satisfies the test in 40 CFR §2.208, adopted by reference at 18 AAC 83.010, and is not otherwise required to be made public by state law.

1.13.2 A claim of confidentiality under Appendix A, Part 1.13.1 may not be asserted for the name and address of any permit applicant or permittee, a permit application, a permit, effluent data, sewage sludge data, and information required by APDES or NPDES application forms provided by the Department, whether submitted on the forms themselves or in any attachments used to supply information required by the forms.

1.13.3 A permittee’s claim of confidentiality authorized under Appendix A, Part 1.13.1 is not waived if the Department provides the proprietary or confidential business information to the EPA or to other agencies participating in the permitting process. The Department will supply any information obtained or used in the administration of the state APDES program to the EPA upon request under 40 CFR §123.41, as revised as of July 1, 2005. When providing information submitted to the Department with a claim of confidentiality to the EPA, the Department will notify the EPA of the confidentiality claim. If the Department provides the EPA information that is not claimed to be confidential, the EPA may make the information available to the public without further notice.

1.14 Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any action or relieve a permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under

state laws addressing oil and hazardous substances.

1.15 Cultural and Paleontological Resources

If cultural or paleontological resources are discovered because of this disposal activity, work that would disturb such resources is to be stopped, and the Office of History and Archaeology, a Division of Parks and Outdoor Recreation of the Alaska Department of Natural Resources (http://www.dnr.state.ak.us/parks/oha/), is to be notified immediately at (907) 269-8721.

1.16 Fee

A permittee must pay the appropriate permit fee described in 18 AAC 72.

1.17 Other Legal Obligations

This permit does not relieve the permittee from the duty to obtain any other necessary permits from the Department or from other local, state, or federal agencies and to comply with the requirements contained in any such permits. All activities conducted and all plan approvals implemented by the permittee pursuant to the terms of this permit shall comply with all applicable local, state, and federal laws and regulations.

2.0 Special Reporting Obligations

2.1 Planned Changes

2.1.1 The permittee shall give notice to the Department as soon as possible of any planned physical alteration or addition to the permitted facility if:

2.1.1.1 The alteration or addition may make the facility a “new source” under one or more of the criteria in 18 AAC 83.990(44); or

2.1.1.2 The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged if those pollutants are not subject to effluent limitations in the permit or to notification requirements under 18 AAC 83.610.

2.1.2 If the proposed changes are subject to plan review, then the plans must be submitted at least 30 days before implementation of changes (see 18 AAC 15.020 and 18 AAC 72 for plan review requirements). Written approval is not required for an emergency repair or routine maintenance.

2.1.3 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.2 Anticipated Noncompliance

2.2.1 A permittee shall give seven days’ notice to the Department before commencing any planned change in the permitted facility or activity that may result in noncompliance with permit requirements.

2.2.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.3 Transfers

2.3.1 A permittee may not transfer a permit for a facility or activity to any person except after notice to the Department in accordance with 18 AAC 83.150. The Department may modify or revoke and reissue the permit to change the name of the permittee and incorporate such other requirements under 33 U.S.C. 1251-1387 (Clean Water Act) or state law.

2.3.2 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.4 Compliance Schedules

2.4.1 A permittee must submit progress or compliance reports on interim and final requirements in any compliance schedule of a permit no later than 14 days following the scheduled date of each requirement.

2.4.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.5 Corrective Information

2.5.1 If a permittee becomes aware that it failed to submit a relevant fact in a permit application or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit the relevant fact or the correct information.

2.5.2 Information must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.6 Bypass of Treatment Facilities

2.6.1 Prohibition of Bypass

Bypass is prohibited. The Department may take enforcement action against a permittee for any bypass, unless:

2.6.1.1 The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2.6.1.2 There were no feasible alternatives to the bypass, including use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. However, this condition is not satisfied if the permittee, in the exercise of reasonable engineering judgment, should have installed adequate back-up equipment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

2.6.1.3 The permittee provides notice to the Department of a bypass event in the manner, as appropriate, under Appendix A, Part 2.6.2.

2.6.2 Notice of bypass

2.6.2.1 For an anticipated bypass, the permittee submits notice at least 10 days before the date of the bypass. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the conditions of Appendix A, Parts 2.6.1.1 and 2.6.1.2.

2.6.2.2 For an unanticipated bypass, the permittee submits 24-hour notice, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting.

2.6.2.3 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.6.3 Notwithstanding Appendix A, Part 2.6.1, a permittee may allow a bypass that:

2.6.3.1 Does not cause an effluent limitation to be exceeded, and

2.6.3.2 Is for essential maintenance to assure efficient operation.

2.7 Upset Conditions

2.7.1 In any enforcement action for noncompliance with technology-based permit effluent limitations, a permittee may claim upset as an affirmative defense. A permittee seeking to establish the occurrence of an upset has the burden of proof to show that the requirements of Appendix A, Part 2.7.2 are met.

2.7.2 To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:

2.7.2.1 An upset occurred and the permittee can identify the cause or causes of the upset;

2.7.2.2 The permitted facility was at the time being properly operated;

2.7.2.3 The permittee submitted 24-hour notice of the upset, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting; and

2.7.2.4 The permittee complied with any mitigation measures required under 18 AAC 83.405(e) and Appendix A, Part 1.5, Duty to Mitigate.

2.7.3 Any determination made in administrative review of a claim that noncompliance was caused by upset, before an action for noncompliance is commenced, is not final administrative action subject to judicial review.

2.8 Existing Manufacturing, Commercial, Mining, and Silvicultural Discharges

2.8.1 In addition to the reporting requirements under 18 AAC 83.410, an existing manufacturing, commercial, mining, and silvicultural discharger shall notify the Department as soon as that discharger knows or has reason to believe that any activity has occurred or will occur that would result in:

2.8.1.1 The discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

2.8.1.1.1 One hundred micrograms per liter (100 µg/L);

2.8.1.1.2 Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile, 500 micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol, and one milligram per liter (1 mg/L) for antimony;

2.8.1.1.3 Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or

2.8.1.1.4 The level established by the Department in accordance with 18 AAC 83.445.

2.8.1.2 Any discharge, on a non-routine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

2.8.1.2.1 Five hundred micrograms per liter (500 µg/L);

2.8.1.2.2 One milligram per liter (1 mg/L) for antimony;

2.8.1.2.3 Ten times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or

2.8.1.2.4 The level established by the Department in accordance with 18 AAC 83.445.

3.0 Monitoring, Recording, and Reporting Requirements

3.1 Representative Sampling

A permittee must collect effluent samples from the effluent stream after the last treatment unit before discharge into the receiving waters. Samples and measurements must be representative of the volume and nature of the monitored activity or discharge.

3.2 Reporting of Monitoring Results

At intervals specified in the permit, monitoring results must be reported on the EPA discharge monitoring report (DMR) form, as revised as of March 1999, adopted by reference.

3.2.1 Monitoring results shall be summarized each month on the DMR or an approved equivalent report. The permittee must submit reports monthly postmarked by the 15th day of the following month.

3.2.2 The permittee must sign and certify all DMRs and all other reports in accordance with the requirements of Appendix A, Part 1.12, Signatory Requirements and Penalties. All signed and certified legible original DMRs and all other documents and reports must be submitted to the Department at the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

3.2.3 If, during the period when this permit is effective, the Department makes available electronic reporting, the permittee may, as an alternative to the requirements of Appendix A, Part 3.2.2, submit monthly DMRs electronically by the 15th day of the following month in accordance with guidance provided by the Department. The permittee must certify all DMRs and other reports, in accordance with the requirements of Appendix A, Part 1.12, Signatory Requirements and Penalties. The permittee must retain the legible originals of these documents and make them available to the Department upon request.

3.3 Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than the permit requires using test procedures approved in 40 CFR Part 136, adopted by reference at 18 AAC 83.010, or as specified in this permit, the results of that additional monitoring must be included in the calculation and reporting of the data submitted in the DMR required by Appendix A, Part 3.2. All limitations that require averaging of measurements must be calculated using an arithmetic means unless the Department specifies another method in the permit. Upon request by the Department, the permittee must submit the results of any other sampling and monitoring regardless of the test method used.

3.4 Twenty-four Hour Reporting

A permittee shall report any noncompliance event that may endanger health or the environment as follows:

3.4.1 A report must be made:

3.4.1.1 Orally within 24 hours after the permittee becomes aware of the circumstances, and

3.4.1.2 In writing within five days after the permittee becomes aware of the circumstances.

3.4.2 A report must include the following information:

3.4.2.1 A description of the noncompliance and its causes, including the estimated volume or weight and specific details of the noncompliance;

3.4.2.2 The period of noncompliance, including exact dates and times;

3.4.2.3 If the noncompliance has not been corrected, a statement regarding the anticipated time the noncompliance is expected to continue; and

3.4.2.4 Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

3.4.3 An event that must be reported within 24 hours includes:

3.4.3.1 An unanticipated bypass that exceeds any effluent limitation in the permit (see Appendix A, Part 2.6, Bypass of Treatment Facilities).

3.4.3.2 An upset that exceeds any effluent limitation in the permit (see Appendix A, Part 2.7, Upset Conditions).

3.4.3.3 A violation of a maximum daily discharge limitation for any of the pollutants listed in the permit as requiring 24-hour reporting.

3.4.4 The Department may waive the written report on a case-by-case basis for reports under Appendix A, Part 3.4 if the oral report has been received within 24 hours of the permittee becoming aware of the noncompliance event.

3.4.5 The permittee may satisfy the written reporting submission requirements of Appendix A, Part 3.4 by submitting the written report via e-mail, if the following conditions are met:

3.4.5.1 The Noncompliance Notification Form or equivalent form is used to report the noncompliance;

3.4.5.2 The written report includes all the information required under Appendix A, Part 3.4.2;

3.4.5.3 The written report is properly certified and signed in accordance with Appendix A, Parts 1.12.3 and 1.12.5.;

3.4.5.4 The written report is scanned as a PDF (portable document format) document and transmitted to the Department as an attachment to the e-mail; and

3.4.5.5 The permittee retains in the facility file the original signed and certified written report and a printed copy of the conveying email.

3.4.6 The e-mail and PDF written report will satisfy the written report submission requirements of this permit provided the e-mail is received by the Department within five days after the time the permittee becomes aware of the noncompliance event and the e-mail and written report satisfy the criteria of Part 3.4.5. The e-mail address to report noncompliance is: dec-wqreporting@alaska.gov

3.5 Other Noncompliance Reporting

A permittee shall report all instances of noncompliance not required to be reported under Appendix A, Parts 2.4 (Compliance Schedules), 3.3 (Additional Monitoring by Permittee), and 3.4 (Twenty-four Hour Reporting) at the time the permittee submits monitoring reports under Appendix A, Part 3.2 (Reporting of Monitoring Results). A report of noncompliance under this part must contain the information listed in Appendix A, Part 3.4.2 and be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

4.0 Penalties for Violations of Permit Conditions

Alaska laws allow the State to pursue both civil and criminal actions concurrently. The following is a summary of Alaska law. Permittees should read the applicable statutes for further substantive and procedural details.

4.1 Civil Action

Under AS 46.03.760(e), a person who violates or causes or permits to be violated a regulation, a lawful order of the Department, or a permit, approval, or acceptance, or term or condition of a permit, approval or acceptance issued under the program authorized by AS 46.03.020 (12) is liable, in a civil action, to the State for a sum to be assessed by the court of not less than $500 nor more than $100,000 for the initial violation, nor more than $10,000 for each day after that on which the violation continues, and that shall reflect, when applicable:

4.1.1 Reasonable compensation in the nature of liquated damages for any adverse environmental effects caused by the violation, that shall be determined by the court according to the toxicity, degradability, and dispersal characteristics of the substance discharged, the sensitivity of the receiving environment, and the degree to which the discharge degrades existing environmental quality;

4.1.2 Reasonable costs incurred by the State in detection, investigation, and attempted correction of the violation;

4.1.3 The economic savings realized by the person in not complying with the requirements for which a violation is charged; and

4.1.4 The need for an enhanced civil penalty to deter future noncompliance.

4.2 Injunctive Relief

4.2.1 Under AS 46.03.820, the Department can order an activity presenting an imminent or present danger to public health or that would be likely to result in irreversible damage to the environment be discontinued. Upon receipt of such an order, the activity must be immediately discontinued.

4.2.2 Under AS 46.03.765, the Department can bring an action in Alaska Superior Court seeking to enjoin ongoing or threatened violations for Department-issued permits and Department statutes and regulations.

4.3 Criminal Action

Under AS 46.03.790(h), a person is guilty of a Class A misdemeanor if the person negligently:

4.3.1 Violates a regulation adopted by the Department under AS 46.03.020(12);

4.3.2 Violates a permit issued under the program authorized by AS 46.03.020(12);

4.3.3 Fails to provide information or provides false information required by a regulation adopted under AS 46.03.020(12);

4.3.4 Makes a false statement, representation, or certification in an application, notice, record, report, permit, or other document filed, maintained, or used for purposes of compliance with a permit issued under or a regulation adopted under AS 46.03.020(12); or

4.3.5 Renders inaccurate a monitoring device or method required to be maintained by a permit issued or under a regulation adopted under AS 46.03.020(12).

4.4 Other Fines

Upon conviction of a violation of a regulation adopted under AS 46.03.020(12), a defendant who is not

an organization may be sentenced to pay a fine of not more than $10,000 for each separate violation (AS 46.03.790(g)). A defendant that is an organization may be sentenced to pay a fine not exceeding the greater of: (1) $200,000; (2) three times the pecuniary gain realized by the defendant as a result of the offense; or (3) three times the pecuniary damage or loss caused by the defendant to another, or the property of another, as a result of the offense (AS 12.55.035(c)(1), (c)(2), and (c)(3)).

Appendix B

ACRONYMS

APPENDIX B

The following acronyms are terms found in the Alaska Pollutant Discharge Elimination System (APDES) permit.

18 AAC 70	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 70: Water Quality Standards All chapters of Alaska Administrative Code, Title 18 are available at the Alaska Administrative Code database http://www.legis.state.ak.us/cgi-bin/folioisa.dll/aac
40 CFR	Code of Federal Regulations Title 40: Protection of Environment
AAC	Alaska Administrative Code
APDES	Alaska Pollutant Discharge Elimination System
AS	Alaska Statutes
BOD_5	Biochemical Oxygen Demand, 5-day
BMP	Best Management Practices
CFR	Code of Federal Regulations
CWA	Clean Water Act
CVAA	Cold Vapor Atomic Absorption
°C	Degrees Celsius
DEC	Department of Environmental Conservation
DMR	Discharge Monitoring Report
EPA	U.S. Environmental Protection Agency
GFAA	Graphite Furnace Atomic Absorption
ICP	Inductively Coupled Plasma
MDL	Method Detection Limit
mg/kg	Milligrams per Kilogram

mg/L	Milligrams per Liter
mL	Milliliter
mgd	Million gallons per day
ML	Minimum Level of Quantification
NTU	Nephelometric Turbidity Units
PSEP	Puget Sound Estuary Program
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
s.u.	Standard Units
TSS	Total Suspended Solids
µg/L	Micrograms per Liter
µS/cm	Microsiemens per Centimeter
U.S.C.	United States Code
WAD	Weak Acid Dissociable

Appendix C

DEFINITIONS

APPENDIX C

The following are definitions of relevant terms associated with the APDES permit. Consult the footnote references for an expanded list of terms and definitions.

Alaska Pollutant Discharge Elimination System (APDES) [a]	The state's program, approved by EPA under 33 U.S.C. 1342(b), for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and imposing and enforcing pretreatment requirements under 33 U.S.C. 1317, 1328, 1342, and 1345
Annual	Annual shall be once per calendar year
Average	An arithmetic mean obtained by adding quantities and dividing the sum by the number of quantities
Average Monthly Discharge Limitation [a]	The highest allowable average of "daily discharges" over a calendar month calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured for that month
Best Management Practices (BMPs) [a]	Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.
Biochemical Oxygen Demand (BOD_5) [c]	The amount, in milligrams per liter, of oxygen used in the biochemical oxidation of organic matter in five days at 20° C
Bypass [a]	The intentional diversion of waste streams from any portion of a treatment facility
Clean Water Act (CWA) [a]	Means the federal law codified at 33 U.S.C. 1251-1387, also referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972
Criteria [b]	Set concentrations or limits of water quality parameters that, when not exceeded, will protect an organism, a population of organisms, a community of organisms, or a prescribed water use with a reasonable degree of safety. Additionally, criteria may be narrative statements instead of a numerical concentrations or limits.
Daily Discharge [a]	The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants measured in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with a limitation expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
Department [a]	The Alaska Department of Environmental Conservation
Discharge [a]	When used without qualification, discharge means the discharge of a pollutant.

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See EPA Permit Writers Manual

APPENDIX C

Discharge of a Pollutant [a]	Any addition of any pollutant or combination of pollutants to waters of the United States from any point source or to waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft that is being used as a means of transportation. Discharge includes any addition of pollutants into waters of the United States from surface runoff that is collected or channeled by humans; discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person that do not lead to a treatment works; discharges through pipes, sewers, or other conveyances leading into privately owned treatment works; and does not include an addition of pollutants by any indirect discharger.
Domestic Wastewater [c]	Waterborne human wastes or graywater derived from dwellings, commercial buildings, institutions, or similar structures. "Domestic wastewater" includes the contents of individual removable containers used to collect and temporarily store human wastes.
Effluent [b]	The segment of a wastewater stream that follows the final step in a treatment process and precedes discharge of the wastewater stream to the receiving environment.
Estimated	A way to estimate the discharge volume. Approvable estimations include, but are not limited to, the number of persons per day at the facility, volume of potable water produced per day, lift station run time, etc.
Fecal Coliform Bacteria (FC) [b]	Bacteria that can ferment lactose at 44.5° + 0.2°C to produce gas in a multiple tube procedure. Fecal coliform bacteria also means all bacteria that produce blue colonies in a membrane filtration procedure within 24 ± 2 hours of incubation at 44.5° + 0.2°C in an M-FC broth.
Grab Sample	A single instantaneous sample collected at a particular place and time that represents the composition of wastewater only at that time and place.
Maximum Daily Discharge Limitation [a]	The highest allowable “daily discharge”.
Measured	The actual volume of wastewater discharged using appropriate mechanical or electronic equipment to provide a totalized reading. Measure does not provide a recorded measurement of instantaneous rates.
Method Detection Limit (MDL) [d]	The minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.
Micrograms per Liter (µg/L) [b]	The concentration at which one millionth of a gram (10^{-6} g) is found in a volume of one liter.
Milligrams per Liter (mg/L) [b]	The concentration at which one thousandth of a gram (10^{-3} g) is found in a volume of one liter. It is approximately equal to the unit “parts per million (ppm),” formerly of common use.

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See EPA Permit Writers Manual

APPENDIX C

Minimum Level of Quantification (ML) [e]	The concentration at which the entire analytical system must give a recognizable signal and an acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes, and processing steps have been followed. This level is used as the compliance level if the effluent limit is below it.
Mixing Zone [b]	A volume of water adjacent to a discharge in which wastes discharged mix with the receiving water
Month	Month shall be the time period from the 1st of a calendar month to the last day in the month
Monthly Average	The average of daily discharges over a monitoring month calculated as the sum of all daily discharges measured during a monitoring month divided by the number of daily discharges measured during that month
Permittee	A company, organization, association, entity, or person who is issued a wastewater permit and is responsible for ensuring compliance, monitoring, and reporting as required by the permit
pH [f]	A measure of the hydrogen ion concentration of water or wastewater; expressed as the negative log of the hydrogen ion concentration in moles per liter. A pH of 7 is neutral. A pH less than 7 is acidic, and a pH greater than 7 is basic.
Principal Executive Officer [a]	The chief executive officer of the agency or a senior executive officer having responsibility for the overall operations of a principal geographic unit of division of the agency
Pollutant [a]	Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under 42 U.S.C. 2011), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, or agricultural waste discharged into water
Quality Assurance Project Plan (QAPP)	A system of procedures, checks, audits, and corrective actions to ensure that all research design and performance, environmental monitoring and sampling, and other technical and reporting activities are of the highest achievable quality
Quarter	The time period of three months based on the calendar year beginning with January
Receiving Waterbody	Lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, straits, passages, canals, the Pacific Ocean, Gulf of Alaska, Bering Sea, and Arctic Ocean, in the territorial limits of the state, and all other bodies of surface water, natural or artificial, public or private, inland or coastal, fresh or salt, which are wholly or partially in or bordering the state or under the jurisdiction of the state. (See "Waters of the United States" at 18 AAC 83.990(77))
Report	Report results of analysis

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See EPA Permit Writers Manual

APPENDIX C

Responsible Corporate Officer [a]	A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy or decision making functions for the corporation The Responsible Corporate Officer can also be the manager of one or more manufacturing, production, or operating facilities if the requirements of 18 AAC 83.385(a)(1)(B)(i)-(iii) are met.
Severe Property Damage [a]	Substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
Sheen [b]	An iridescent appearance on the water surface
Statistically Significant	A) The permittee shall specify in the operating record one of the following statistical methods to be used in evaluating water monitoring data for each constituent. The statistical method selected must be conducted separately for each constituent. The methods to be selected from and used are: (1) a parametric analysis of variance, followed by multiple-comparisons procedures to identify statistically significant evidence of contamination; the method must include estimation and testing of the contrasts between each outfall's mean and the background mean levels for each constituent; (2) an analysis of variance based on ranks, followed by multiple-comparisons procedures to identify statistically significant evidence of contamination; this method must include estimation and testing of the contrasts between each outfall's median and the background median levels for each constituent; (3) a tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each outfall is compared to the upper tolerance or prediction limit; (4) a control chart approach that gives control limits for each constituent; or (5) another approved statistical test method that meets the performance standards of (B) of this definition. (B) A statistical method selected under (A) of this section must comply with the following performance standards, as appropriate: (1) the statistical method used to evaluate water monitoring data must be appropriate for the distribution of chemical parameters or constituents; if the distribution of the chemical parameters or constituents is shown by the permittee to be inappropriate for a normal theory test, then the data must be transformed, or a distribution-free theory test must be used; if the distributions for the constituents differ, more than one statistical method might be needed; (2) if an individual outfall comparison procedure is used to compare an individual outfall's constituent concentration with background constituent concentrations or a water protection standard, the test must be done at a Type I error level no less than 0.01 for each testing period; if a multiple-comparisons procedure is used, the Type I experiment-wise error rate for each testing period must be no less than 0.05; however,

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See EPA Permit Writers Manual

	the Type I error of no less than 0.01 for individual outfall comparisons must be maintained; this performance standard does not apply to tolerance intervals, prediction intervals, or control charts; (3) if a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values must protect public health and the environment; the parameters must be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent being analyzed; (4) if a tolerance interval or a prediction interval is used to evaluate water monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain must protect public health and the environment; these parameters must be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent being analyzed; (5) the statistical method must account for data below the limit of detection with one or more statistical procedures that protect public health and the environment; a minimum level of quantification that is used in the statistical method must be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility; and (6) if necessary, the statistical method must include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.
Total Suspended Solids (TSS) [f]	A measure of the filterable solids present in a sample, as determined by the method specified in 40 CFR Part 136
Upset [a]	An exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
Wastewater Treatment	Any process to which wastewater is subjected in order to remove or alter its objectionable constituents and make it suitable for subsequent use or acceptable for discharge to the environment
Waters of the United States	Has the meaning given in 18 AAC 83.990(77)
Weekly	During the time period of Sunday through Saturday

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See EPA Permit Writers Manual