Alaska Water Laboratories

281 N Main St., STE # 101
Wasilla AK, 99654
907-373-6130

**Alaska Laboratory# AK01000**

**Client** SOA ADEC Nonpoint Source Pollution Program
**Contact** Sarah Apsens, Laura Eldred

**Project Name** SOA Bristol Pay Pathogens 2023 - Kanakanak Beach 5/24/2023 Sampling 1
**AWL #** AWL-23-01507
**PWS #** Non PWS Samples

Please direct any questions regarding the final report to Mary@AKWaterLabs.com or Matt@AKWaterLabs.com, or call 907-373-6130.

The results presented in this report meet the requirement of the laboratory's certifications and internal QC processes. Any exceptions will be noted in the case narratives attached. Subcontract Data has been entered into the AWL Final Report, however the full subcontract report is available upon request.

The attached should contain analytical results for the analyses submitted on the client chain of custody. The information includes no opinions of the analysts or labs, data is represented after meeting certified testing requirements, and quality control measures.

Reproduction of the report in full requires the written approval of the laboratory.

Mary Curry Digitally signed by Mary Curry
Date: 2023.05.26 15:19:29 -08'00'

Signature of Laboratory Management Date

Alaska Water Laboratories

281 N Main St., STE # 101
Wasilla AK, 99654
907-373-6130

**Alaska Laboratory# AK01000**

| | | | |
|---|---|---|---|
| Client Project Name | SOA Bristol Pay Pathogens 2023 - Kanakanak Beach 5/24/2023 Sampling 1 | AWL # | AWL-23-01507 |
| Receipt Date and Time | 5/24/2023 19:56 | Due Date | 5/26/2023 |
| Cooler/Sample Temp (C) | 5.86 | Sampler Initials | MJG |
| Sample Receipt Comments | Samples received by MJG on 5/24/2023 at 5.86C (RT#1), on frozen ice. | | |

**Samples Received**

**Microbiological**

| Sample Location | AWL ID | Collection Date/ Time | Analysis Date/Time | Analysis | Notes |
|---|---|---|---|---|---|
| Kanak-052423-001 | AWL-23-01507-001 | 5/24/2023 14:30 | 5/24/2023 21:42 | Fecal Coliform | River Samples |
| Kanak-052423-002 | AWL-23-01507-002 | 5/24/2023 14:30 | 5/24/2023 21:05 | Entero | River Samples |
| Kanak-052423-003-DUP | AWL-23-01507-003 | 5/24/2023 14:30 | 5/24/2023 21:42 | Fecal Coliform | River Samples |
| Kanak-052423-003-DUP | AWL-23-01507-004 | 5/24/2023 14:30 | 5/24/2023 21:05 | Entero | River Samples |

**Analytical Methods**

| Analyte | Method | Comments |
|---|---|---|
| Fecal Coliform | SM9222D MF | All Samples HSM for 1mL, 10mL.- BFM 5/25/23; . Competing bacteria in the samples resulted in non homegenous duplicate results for -001 Fecal. While 10mL Recovery plates for both Fecal Samples were TNTC, indicating the fecal colony growth is significant in both samples and they show the samel 10mL recoveries, the recovery of colonies on the 1mL plate for sample -001 requires we calculate the fecal coliform count based off the 1mL plate value only. |
| Enterococci | ASTM D6503 | The Duplicate recovery for Enterococci was outside of method allowed 60% control limits. Excessive sediment in fecal samples is likely also present in Enterococci samples from the same site. |

| | | | |
|---|---|---|---|
| **Cert Required CMDP #** | AK DW | Log In Initials: | MCC 5-26-23 |
| | | DQO Initials: | BFM 5/26/23 |

Comments: Conductivity (Field): 205.5 uSm; Salinity (Calc) 0.10 PSU - Low Tide Samples

Alaska Water Laboratories

281 N Main St., STE # 101
Wasilla AK, 99654
907-373-6130

| Definitions: | |
|---|---|
| DUP | Sample Duplicate |
| LCS/LCSD | Laboratory Control Sample/Laboratory Control Sample Duplicate |
| MRL | Method Reporting Limit |
| MB | Method Blank |
| MCL | Maximum Contaminant Level |
| MDL | Method Detection Limit |
| MS/MSD | Matrix Spike/Matrix Spike Duplicate |
| N/A | Not Applicable |
| TNTC | Count is Too Numerous To Count |
| <MDL | Result recovery is below the detectable laboratory limit, listed as the MDL |

| Data Qualifiers: | |
|---|---|
| B | The result of both the method blank and the target sample are above the MDL. |
| D | Sample analysis accomplished through dilution. |
| J | The reported result is an estimated value above the LOD but below the LOQ, or above the MDL but below the PQL. |
| U | Result is below the MDL, PQL, LOD, or LOQ |
| * | LCS/LCSD or Sample DUP fails all Duplicate criteria. |
| H | Holding time exceeded |
| E | Exceeds MCL |
| Q | One or more quality control criteria failed. |

| General Comments: | |
|---|---|
| 1.0) | Basis: “As Received” = analyzed as received from client; “Dry” = dried prior to being analyzed; “Dry Weight Corrected” = analyzed as received; result corrected for percent moisture. |

Alaska Water Laboratories

281 N Main St., STE # 101
Wasilla AK, 99654
907-373-6130

**Alaska Laboratory# AK01000**

| | | | |
|---|---|---|---|
| Client | SOA ADEC Nonpoint Source Pollution Program | | |
| Contact | Sarah Apsens, Laura Eldred | | |
| Project | SOA Bristol Pay Pathogens 2023 - Kanakanak Beach 5/24/2023 Sampling 1 | **Collection** | |
| DW Y/N | N | Date / time | 5/24/2023 14:30 |
| PWS# | Non PWS Samples | | |
| | | AWL Batch ID: | 052423-01-FC |
| AWL # | AWL-23-01507 | | |
| Sample Location | Kanak-052423-001 | | |
| AWL ID/ Fraction | AWL-23-01507-001 | Matrix AQ | |

| Analyte | Result | Units | MDL | MCL | Flags | DF | Method | Analyst | Date/Time | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Fecal Coliform | 100 | CFU/100mL | 100 | | | 100 | SM9222D MF | BFM | 5/24/2023 21:42 | 1 mL plate had 1 colony, 10 mL plate had TNTC with many competing colonies of other non fecal bacteria and heavy sediment masking |

Analyst Batching initials/date BFM 5/26/23
Analyst Reviewer initials/date AKS 5-26-23

Alaska Water Laboratories

281 N Main St., STE # 101
Wasilla AK, 99654
907-373-6130

**Alaska Laboratory# AK01000**

| | | | |
|---|---|---|---|
| Client | SOA ADEC Nonpoint Source Pollution Program | | |
| Contact | Sarah Apsens, Laura Eldred | | |
| Project | SOA Bristol Pay Pathogens 2023 - Kanakanak Beach 5/24/2023 Sampling 1 | **Collection** | |
| DW Y/N | N | Date / time | 5/24/2023 14:30 |
| PWS# | Non PWS Samples | | |
| | | AWL Batch ID: | 052423-01-ENT |
| AWL # | AWL-23-01507 | | |
| Sample Location | Kanak-052423-002 | | |
| AWL ID/ Fraction | AWL-23-01507-002 | Matrix AQ | |

| Analyte | Result | Units | MDL | MCL | Flags | DF | Method | Analyst | Date/Time | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Enterococci | 277.4 | MPN/100mL | 1 | | | 1 | ASTMD-6503-99 | BFM | 5/24/2023 21:05 | |

| | |
|---|---|
| Analyst Batching initials/date | BFM 5/26/23 |
| Analyst Reviewer initials/date | AKS 5-26-23 |

Alaska Water Laboratories

281 N Main St., STE # 101
Wasilla AK, 99654
907-373-6130

**Alaska Laboratory# AK01000**

| | | | |
|---|---|---|---|
| Client | SOA ADEC Nonpoint Source Pollution Program | | |
| Contact | Sarah Apsens, Laura Eldred | | |
| Project | SOA Bristol Pay Pathogens 2023 - Kanakanak Beach 5/24/2023 Sampling 1 | **Collection** | |
| DW Y/N | N | Date / time | 5/24/2023 14:30 |
| PWS# | Non PWS Samples | | |
| | | AWL Batch ID: | 052423-01-FC |
| AWL # | AWL-23-01507 | | |
| Sample Location | Kanak-052423-003-DUP | | |
| AWL ID/ Fraction | AWL-23-01507-003 | Matrix | AQ |

| Analyte | Result | Units | MDL | MCL | Flags | DF | Method | Analyst | Date/Time | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Fecal Coliform | >200,000 | CFU/100mL | 10 | | | 10 | SM9222D MF | BFM | 5/24/2023 21:42 | 0.1 and 1 mL plates had no fecal colonies, 10 mL plate was TNTC with heavy sediment masking |

Analyst Batching initials/date BFM 5/26/23

Analyst Reviewer initials/date AKS 5-26-23

Alaska Water Laboratories

281 N Main St., STE # 101
Wasilla AK, 99654
907-373-6130

**Alaska Laboratory# AK01000**

| | | | |
|---|---|---|---|
| Client | SOA ADEC Nonpoint Source Pollution Program | | |
| Contact | Sarah Apsens, Laura Eldred | | |
| Project | SOA Bristol Pay Pathogens 2023 - Kanakanak Beach 5/24/2023 Sampling 1 | **Collection** | |
| DW Y/N | N | Date / time | 5/24/2023 14:30 |
| PWS# | Non PWS Samples | | |
| | | AWL Batch ID: | 052423-01-ENT |
| AWL # | AWL-23-01507 | | |
| Sample Location | Kanak-052423-003-DUP | | |
| AWL ID/ Fraction | AWL-23-01507-004 | Matrix AQ | |

| Analyte | Result | Units | MDL | MCL | Flags | DF | Method | Analyst | Date/Time | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Enterococci | 147.8 | MPN/100mL | 1 | | | 1 | ASTMD-6503-99 | BFM | 5/24/2023 21:05 | |

Analyst Batching initials/date BFM 5/26/23
Analyst Reviewer initials/date AKS 5-26-23

# AWL Chain of Custody

**Custody form MUST be signed**
**Please provide as much information as possible**

Alaska Water Laboratories

Alaska Water Laboratories

**AWL-23- 01507**

:atories
:e # 101
654
907-373-6130

| | | |
|---|---|---|
| **Client/Company Name & Address:** ADEC - Nonpoint Source Pollution Porgram | **Public Water System (PWS) ID:** | **AWL Staff** |
| | **Project Name/ID :** SOA Bristol Bay Pathogens - 2023 | **Quote Number** AWL # |
| | Kanakanak Beach 05/24/2023 - Sampling 1 | |
| | Turnaround Time (TAT) for Results | **Account #:** Check Credit |
| Contact Person: Sarah Apsens, Laura Eldred | ___ Standard X Expedited (prior authorization required) *Specify Requested Due Date if not standard | **Invoice Contact Name & Address & Phone:** |
| Phone No: | | |
| Fax No: | **Requested Date for Results:** Email notification within 36 hours | |
| E-mail: | **Results to STATE:** Yes No **Routine** Non-Routine | |
| **Special Instructions/Requirements:** * x VOL container for FC and Entero taken - only used if sample container is broken | Specify if REPEAT sample | **PO/Contract No.:** |

**Requested Analysis/Method**

**Kit Preparation/Shipping Charge:**

| | Client Sample Identification (Name, Designation, Location, etc.) | Date Sampled | Time Sampled | Matrix (DW, WW, SO) | No. of Containers | Cl Residual | Fecal Coliform SM 9222D Preservative Lot#___ | Enterococci ASTM Preservative Lot#___ | MST - Filter and Freeze Preservative Lot#___ | Conductivity Preservative Lot#___ | Preservative Lot#___ | Preservative Lot#___ | State Pt. Sampling ID | Facility ID | Trigger/ Repeat/ Special |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Kanak-052423-001 | 5/24/2023 | 14:30 | | 2 | | x | | | | | | | | |
| 2 | Kanak-052423-002 | 5/24/2023 | 14:30 | | 2 | | | x | | | | | | | |
| 3 | Kanak-052423-003 DUP | 5/24/2023 | 14:30 | | 2 | | x | x | | | | | | | |
| 4 | Kanak-052423 | 5/24/23 | 14:30 | | | | | | | x | | | | | |
| 5 | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | |

| Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|
| MSC | 5-24-23 | 7:56pm | MSC | 5-24-23 | 7:56pm |
| Relinquished by: | Date | Time | Received by: | Date | Time |
| | | | | | |
| Relinquished by: | Date | Time | Received by: | Date | Time |
| | | | | | |
| **Name of Sampler: (printed)** | Matthew S Grimy | | | | |

**Section To Be Completed by AWL**

**Custody Seal (circle):** Intact Broken Absent

**Temperature on arrival:** 5.86 °C

**Thermo ID** IRT

**Recv Notes:** Conductivity 205.4

**Temp** TB Cooler

**Ice** Frozen Wet

**Delivery Method (Circle)** Courier USPS/Mail Hand

Alaska Water Laboratories

**Bristol Bay Pathogen Testing Program**
**Sanitary Survey**

**SITE**

| | | | |
|---|---|---|---|
| **Name of Beach** | Kanakanak | | |
| **Beach Code** | Kanak | **Date of sampling** | 5-24-23 |
| **Latitude N** | | **Longitude** | |

**SAMPLES**

| | | | |
|---|---|---|---|
| Sample ID (FC) | | Collected Date/Time | 14:30 |
| Sample ID (Entero) | | Collected Date/Time | |
| Sample ID (MST) | | Collected Date/Time | |
| Replicate ID | | Collected Date/Time | |
| Field Blank ID | | Collected Date/Time | |

**CONDITIONS**

| **Weather Conditions** | **Air Temp** 12.1 C | **Water Conditions** |
|---|---|---|
| Sunny and Clear | **Wind Direction** | Clear |
| Cloudy/Overcast | **Wind Speed (MPH)** | Cloudy/Murky |
| Rain | **Precipitation in last 24 hrs.** in | Oily Film |
| Fog | Notes: | Other: |

**Potential Pollution Sources**

| | |
|---|---|
| **Activity on Beach** | Adults: 25 Children: 0 Dogs: 0 Other: 0 |
| **Water Fowl** | Type____ Estimated Number 0 |
| | Other Sources: One fisherman putting what looked to be a net out. Group of students 20+ people |

**Beach and Tidal Conditions**

**Beach Condition:** On Shore Debris? ____ In Water Debris? ____
On Shore Vegetation (Est %)____ In Water Vegetation (%) ____
Odors: Y / N Stormwater Pipes: Y / N Fish Processing: Y / N

**Tidal Conditions:** Low / High Flooding / Ebbing
Tide Height: ____ ft/m
Time of observation: ____ am/pm

**Probe and Onsite Values**

Water Temperature: 6.6 C/ F Air Temperature: 12.1 C/F
pH: ____
Turbidity (Visible): Y < 5 inch of visability

**OTHER COMMENTS OR OBSERVATIONS OF SITE:**
Lots of run off and rain, deep mud

**Signature of Surveyor:** ____ **Date/Time** 5-24-23

Alaska Water Laboratories

**Bristol Bay Pathogen Testing Program**
**Sanitary Survey**

**SITE**

| | | | |
|---|---|---|---|
| **Name of Beach** | Kanakanak | | |
| **Beach Code** | Kanak | **Date of sampling** | 5-24-23 |
| **Latitude N** | 59° 00.224 | **Longitude** | 158° 32.063 |

**SAMPLES**

| | | | |
|---|---|---|---|
| Sample ID (FC) | 497 | Collected Date/Time | 14:30 5-24-23 |
| Sample ID (Entero) | 406 | Collected Date/Time | 14:30 |
| Sample ID (MST) | | Collected Date/Time | |
| Replicate ID | 417(fecal) & 395(Ent) | Collected Date/Time | 14:30 5-24-23 |
| Field Blank ID | | Collected Date/Time | |

**CONDITIONS**

| **Weather Conditions** | **Air Temp** 11.76 C | **Water Conditions** |
|---|---|---|
| Sunny and Clear | **Wind Direction** | Clear |
| Cloudy/Overcast | **Wind Speed (MPH)** | Cloudy/Murky |
| Rain | **Precipitation in last 24 hrs.** ___ in | Oily Film |
| Fog | Notes: | Other: |

**Potential Pollution Sources**

| **Activity on Beach** | Adults: 22 Children: 0 Dogs: 0 Other: 0 |
|---|---|
| **Water Fowl** | Type Seagull Estimated Number 2<br>Other Sources: |

**Beach and Tidal Conditions**

**Beach Condition:** On Shore Debris? Wood @ high water In Water Debris? none
On Shore Vegetation (Est %) none In Water Vegetation (%) none
Odors: Y / N Stormwater Pipes: Y / N Fish Processing: Y / N

**Tidal Conditions:** Low / High Flooding / Ebbing
Tide Height: ___ ft/m
Time of observation: ___ am/pm

**Probe and Onsite Values**

Water Temperature: 6.26 C / F Air Temperature: 11.76 C/F
pH: 6-7
Turbidity (Visible): < .5 inch

**OTHER COMMENTS OR OBSERVATIONS OF SITE:**
20-25 people, looked like a class of students. Mud not too bad at this site. Some fishing nets were being set, no fish observed.

**Signature of Surveyor:** [signature] **Date/Time** 5-24-23