NORTECH

*SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY PROFESSIONAL SERVICES*

***NORTECH*, Inc.**

♦

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www.nortechengr.com

March 22, 2022

Julie Fix
410 Willoughby Ave
Juneau, AK 99801

**RE: 2021 Alaska Power and Telephone Annual Groundwater Sampling**
**ADEC Hazard IDs 2379 and 24547**

Dear Ms. Fix:

On behalf of Alaska Power and Telephone, ***NORTECH*** Environmental, Health & Safety (***NORTECH***) is providing this letter report to document 2021 annual sampling activities at the Alaska Power and Telephone's Haines substation (ADEC File Number 1508.38.004). This letter report documents the annual sampling of monitoring well one (MW-1). The Alaska Department of Environmental Conservation (ADEC) granted permission to cease sampling of MW-2 in a January 15, 2019 letter, leaving DRO monitoring in MW-1 the only remaining requirement for annual sampling.

*Background*
The Site consists of the Alaska Power and Telephone (AP&T) facility located at 241 Dalton Street in Downtown Haines. Two active monitoring wells and an air sparging system are located on Site. The Site is currently covered with an asphalt cap. The air sparging system and the asphalt cap are in place as part of the institutional controls implemented at the Site.

A Site Assessment conducted during the closure of an underground fuel storage tank (UST) in 1995 resulted in the removal of 35 cubic yards of petroleum-contaminated soils and the installation of a bioventing system at the Site by Smith Bayliss LeResche Inc. (SBL, "Site Assessment, Closure Report, Limited Release Investigation and Interim Corrective Action for Haines Power Plant" dated January 17, 1996). During the UST Closure Investigation, PCB contaminants not related to the UST release were discovered.

SBL conducted a Phase II Site Assessment in 1997, which led to the installation and sampling of temporary groundwater monitoring wells in 1998 ("Groundwater Sampling Results at the Haines Power Plant 241 Dalton Street", dated July 1998). Laboratory samples were non-detect for PCBs and diesel range organics (DRO) ranged from non-detect to 100 ppm.

In 1999, SBL submitted cleanup plans for PCBs (Corrective Action Plan for Polychlorinated Bi-Phenyls (PCBs) for at the Haines Light & Power on Dalton Street) to the ADEC and the Environmental Protection Agency (EPA) and petroleum (Cleanup Action Plan) to the ADEC. That same year, the ADEC and EPA issued two Records of Decision (ROD), one for PCBs ("Record of Decision for Polychlorinated Bi-phenyls", dated October 19, 1999) and one for petroleum ("Record of Decision for Petroleum Hydrocarbons/Cleanup Action Plan Approval", dated November 26, 1999) contamination at the Site.

The PCB ROD established PCB cleanup levels of 10 mg/Kg within soils 0-2.0 feet below ground surface (bgs), 25 mg/Kg in soils greater than 2.0 feet bgs, and 0.5 µg/L in groundwater. The Petroleum ROD established petroleum cleanup levels consistent with the then-current 18 AAC 75.341, Tables B1 and B2 for an Over 40 Inches Zone for soils and Table C cleanup levels for groundwater. In the Petroleum ROD, the ADEC also states that groundwater flow is west-southwest towards Lutak Inlet. Both RODs established annual groundwater monitoring requirements at the Site.

During the summer of 2000, SBL oversaw excavation of 90 tons of PCB impacted soils within the Dalton Street yard and the adjoining Bamboo Room parking area ("Corrective Action Final Report for Polychlorinated Biphenyl (PCB) Contaminated Soil at the Haines Power Plant", dated May 2001). A fourth monitoring well was installed in April 2000 (MW-4), however both MW-4 and the 1998 MW-2 were removed during PCB soil excavation. MW-2 was reinstalled once excavation was completed, and annual sampling of the three installed wells began (see Appendix A for historical sampling results). The bioventing system was also expanded at this time.

In January 2012, ***NORTECH*** submitted an updated Corrective Action Plan for the Site, outlining previous work, established cleanup levels, and sampling and reporting methodologies. Work at the Site currently operates under the 2012 Corrective Action Plan.

In December 2012, the ADEC requested MW-2, which then consisted of a culvert stand-pipe, be replaced with a monitoring well consistent with the ADEC's Monitoring Well Guidance. Haines AP&T installed a new MW-2 in compliance with the Monitoring Well Guidance, and both MW-1 and MW-2 currently consist of Schedule 40 PVC wells installed to a depth of approximately 12 feet bgs. MW-1 has a diameter of 4.0 inches, MW-2 is a 2.0 inch diameter well.

*Annual Sampling Activities*

***NORTECH*** personnel Ron Pratt, a Qualified Environmental Professional (QEP) as defined in 18 AAC 75, arrived on Site on September 22, 2021, to conduct annual sampling activities. Prior to collecting samples, ***NORTECH*** visually inspected the monitoring well and asphalt cap. MW-1 was in good condition. The asphalt cap also appeared in good condition, with no cracks or damage that compromised the integrity or intended purpose of the cap. The air sparging system was in operation and appeared to be in good working order at the time of the Site visit.

***NORTECH*** used a dual phase probe to record the distance from the top of the well casing to both the level of water within the well and the bottom of the well. The total depth of the well and the depth to water were used to determine the well volume and purge volume of each well. The purge volume was equal to three well volumes. Table 1 lists the well depths, water depths, well volumes, and purge volumes for MW-1.

***NORTECH*** collected laboratory samples from the well using a submersible pump placed within the top 12 inches of the water column. A low flow peristaltic pump has been used to collect samples at the Site for the past 20 years, 2021 is the first year where a submersible pump has been used.

Dedicated tubing was used to prevent cross contamination of samples. As previous testing has verified that PCBs are no longer present in detectable concentrations and DRO is currently the only contaminant of concern within MW-1, purge water was collected into a five-gallon bucket and disposed of by pouring into the on-Site oil/water separator. No sheen was observed on the

water prior to disposal within the oil/water separator. As only one well was sampled, the pump was deconned upon return to the office.

***NORTECH*** sampled MW-1 for analysis of DRO by method AK 102. ***NORTECH*** also collected a field duplicate (MW-11) in accordance with the October 2019 ADEC *Field Sampling Guidance* (FSG). Samples were collected directly into clean, laboratory supplied glassware and immediately put one ice. Samples were shipped under appropriate chain of custody procedures to SGS Laboratories in Anchorage, Alaska.

**Table 1**
**Water Levels and Calculated Well Volumes**

| | MW-1 |
|---|---|
| Depth of Well, Top of Casing (feet) | 19.2 |
| Water Column (inches) | 80.76 |
| Well Volume (gallons) | 1.46 |
| Purge Volume (gallons) | 4.37 |

*Laboratory Results and Discussion*
***NORTECH*** collected two samples (one primary and one duplicate) for analysis of DRO by method AK 102. The laboratory report is available in Attachment B, and the Laboratory Data Review Checklist is included as Attachment C. Table 2 lists laboratory results for 2021 sampling events. See Attachment A for historic values for comparison.

**Table 2**
**2019 Laboratory Analysis Results**

| Analysis | ADEC Cleanup Level | MW-1$^{Dup1}$ | MW-11$^{Dup1}$ |
|---|---|---|---|
| **Petroleum Hydrocarbons (mg/L)** | | | |
| DRO | 1.5 | **7.17** | **7.14** |

**Notes:**

| | |
|---|---|
| ID$^{Dup\#}$ | Denotes duplicate sample pairings |
| **#/BOLD** | Analyte detected above cleanup limits |

DRO concentrations within MW-1 remain above Table C Cleanup Levels. Concentrations have increased for the second consecutive year. However, historical data (Attachment A) documents a 20-year trend of fluctuations of DRO concentrations within MW-1. The current increase of DRO concentrations within MW-1 fits with the overall historic trend of variability within this well.

*Conclusions and Recommendations*
Based on Site observations and laboratory results, ***NORTECH*** provides the following conclusions:

- DRO concentrations within MW-1 have increased over 2020 concentrations
  - DRO concentrations within MW-1 have fluctuated widely over the past 20 years
  - Current fluctuations are within historically observed variability
- DRO concentrations within MW-1 are above ADEC Table C Groundwater Cleanup Levels

Based on the above conclusions, ***NORTECH*** provides the following recommendations

- Continue annual sampling for DRO in MW-1

Limitations and Notifications

***NORTECH*** provides a level of service that is performed within the standards of care and competence of the environmental engineering profession. However, it must be recognized that limitations exist within any site investigation. This report provides results based on a restricted work scope and from the analysis and observation of a limited number of samples. Therefore, while it is our opinion that these limitations are reasonable and adequate for the purposes of this report, actual site conditions may differ. Specifically, the unknown nature of the exact subsurface physical conditions, sampling locations, and the analytical procedures' inherent limitations, as well as the financial and time constraints are limiting factors.

The letter is a record of observations and measurements made on the subject site as described. The data should be considered representative only of the time the site investigation was completed. No other warranty or presentation, either expressed or implied, is included or intended. This report is prepared for the exclusive use of the AP&T and ADEC. If it is made available to others, it should be for information on factual data only, and not as a warranty of conditions, such as those interpreted from the results presented or discussed in the report. We certify that except as specifically noted in this report, all statements and data appearing in this report are in conformance with ADEC's Standard Sampling Procedures. ***NORTECH*** has performed the work, made the findings, and proposed the recommendations described in this report in accordance with generally accepted environmental engineering practices.

Sincerely,

Jennifer Stoutamore

Jennifer Stoutamore
Staff Professional II

Reviewed by:

Jason Ginter, PMP
Principal, Juneau Technical Manager

Attachments

A. Historic Sampling Results
B. Laboratory Report
C. Laboratory Data Review Checklist
D. Field Notes
E. 1998 Well Placement Figure
F. ADEC Comment Matrix
G. Revised and Highlighted Report

# Attachment A
# Historic Sampling Results

## Historical Sampling Results

| DRO Results (mg/L) | | | PCB Results (mg/L) | | |
|---|---|---|---|---|---|
| Sample Date | **MW-1** | **MW-2** | **MW-1** | **MW-2** | **MW-3** |
| **ADEC Cleanup Level** | **1.5** | | **0.0005** | | |
| 2-Nov-00 | 2.8 | 2.9 | 0.015 | ND | 0.0025 |
| 22-Feb-01 | 4 | 2.5 | ND | 0.0007 | ND |
| 2-Aug-01 | 11 | 4.8 | 0.0011 | 0.26 | ND |
| 12-Oct-01 | 3.6 | 2.9 | <0.001 | 0.013 | <0.001 |
| 19-Feb-02 | 5.3 | <0.25 | ND | ND | 0.0011 |
| 29-Jul-02 | 4.8 | 1.8 | ND | 0.0016 | ND |
| 7-Nov-02 | 3.9 | 2.8 | <0.0001 | 0.0017 | 0.00034 |
| 16-Oct-03 | 0 | 1.7 | NS | 0.0021 | 0.0006 |
| 25-Oct-04 | 0 | 3.02 | NS | 0.0429 | 0.000367 |
| 9-Nov-05 | 3.59 | 1.85 | <0.0001 | 0.387 | 0.000286 |
| 24-Oct-06 | 1.08 | 1.32 | ND | 0.0166 | ND |
| 26-Oct-07 | 4.11 | 1.43 | ND | 0.0261 | 0.000692 |
| 28-Nov-08 | 3.19 | 1.03 | ND | 0.011 | ND |
| 6-Oct-09 | 3.97 | 1.69 | ND | ND | ND |
| 21-Oct-11 | 2.77 | 0.984 | ND | ND | ND |
| 10-Oct-12 | 2.75 | 1.16 | ND | 0.00204 | ND |
| 02-Dec-13 | 4.8 | 1.46 | ND | ND | NS |
| 07-Oct-14 | 1.78 | ND | ND | 0.00333 | NS |
| 26-Oct-15 | 4.78 | 1.71 | ND | ND | NS |
| 13-Oct-16 | 6.18 | 1.86 | NS | ND | WD |
| 9-Nov-17 | 3.48 | 1.5 | NS | ND | WD |
| 16-Oct-18 | 1.99 | 0.943 | NS | ND | WD |
| 12-Nov-19 | 1.52 | NS | NS | NS | WD |
| 02-Aug-20 | 5.8 | NS | NS | NS | WD |
| 22-Sept-21 | 7.17 | NS | NS | NS | WD |

**Notes:**

| | |
|---|---|
| ND | Analyte concentrations below detection limits |
| NS | Well not sampled for this analyte |
| WD | Well Decommissioned |

# Attachment B
# Laboratory Report

**Laboratory Report of Analysis**

To: Nortech
5438 Shaune Drive, Suite B
Juneau, AK 99801
(360)359-8865

Report Number: **1216252**

Client Project: **AP&T Haines**

Dear Ron Pratt,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Jennifer at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Stephen C. Ede 2021.10.05 14:26:18 -08'00'

Jennifer Dawkins Date
Project Manager
Jennifer.Dawkins@sgs.com



SGS North America Inc. 200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

## Case Narrative

SGS Client: **Nortech**
SGS Project: **1216252**
Project Name/Site: **AP&T Haines**
Project Contact: **Ron Pratt**

Refer to sample receipt form for information on sample condition.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.



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## Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020B, 7470A, 7471B, 8015C, 8021B, 8082A, 8260D, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification (DW methods: 200.8, 2130B, 2320B, 2510B, 300.0, 4500-CN-C,E, 4500-H-B, 4500-NO3-F, 4500-P-E and 524.2) and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

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

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.



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## Sample Summary

| Client Sample ID | Lab Sample ID | Collected | Received | Matrix |
|---|---|---|---|---|
| MW1 | 1216252001 | 09/22/2021 | 09/23/2021 | Water (Surface, Eff., Ground) |
| MW111 | 1216252002 | 09/22/2021 | 09/23/2021 | Water (Surface, Eff., Ground) |

| Method | Method Description |
|---|---|
| AK102 | DRO Low Volume (W) |



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## Detectable Results Summary

Client Sample ID: **MW1**
Lab Sample ID: 1216252001

| **Semivolatile Organic Fuels** | Parameter | Result | Units |
|---|---|---|---|
| | Diesel Range Organics | 7.17 | mg/L |

Client Sample ID: **MW111**
Lab Sample ID: 1216252002

| **Semivolatile Organic Fuels** | Parameter | Result | Units |
|---|---|---|---|
| | Diesel Range Organics | 7.14 | mg/L |



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## Results of **MW1**

Client Sample ID: **MW1**
Client Project ID: **AP&T Haines**
Lab Sample ID: 1216252001
Lab Project ID: 1216252

Collection Date: 09/22/21 10:19
Received Date: 09/23/21 08:47
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 7.17 | | 0.566 | 0.189 | mg/L | 1 | | 10/01/21 23:36 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 86.4 | | 50-150 | | % | 1 | | 10/01/21 23:36 |

## Batch Information

Analytical Batch: XFC16093
Analytical Method: AK102
Analyst: IVM
Analytical Date/Time: 10/01/21 23:36
Container ID: 1216252001-A

Prep Batch: XXX45617
Prep Method: SW3520C
Prep Date/Time: 09/24/21 16:32
Prep Initial Wt./Vol.: 265 mL
Prep Extract Vol: 1 mL



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Results of **MW111**

Client Sample ID: **MW111**
Client Project ID: **AP&T Haines**
Lab Sample ID: 1216252002
Lab Project ID: 1216252

Collection Date: 09/22/21 11:11
Received Date: 09/23/21 08:47
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 7.14 | | 0.588 | 0.196 | mg/L | 1 | | 10/01/21 23:46 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 83.5 | | 50-150 | | % | 1 | | 10/01/21 23:46 |

**Batch Information**

Analytical Batch: XFC16093
Analytical Method: AK102
Analyst: IVM
Analytical Date/Time: 10/01/21 23:46
Container ID: 1216252002-A

Prep Batch: XXX45617
Prep Method: SW3520C
Prep Date/Time: 09/24/21 16:32
Prep Initial Wt./Vol.: 255 mL
Prep Extract Vol: 1 mL

Print Date: 10/05/2021 11:22:08AM

## Method Blank

Blank ID: MB for HBN 1826087 [XXX/45617]
Blank Lab ID: 1637958

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1216252001, 1216252002

## Results by **AK102**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Diesel Range Organics | 0.300U | 0.600 | 0.200 | mg/L |
| **Surrogates** | | | | |
| 5a Androstane (surr) | 91.8 | 60-120 | | % |

## Batch Information

Analytical Batch: XFC16093
Analytical Method: AK102
Instrument: Agilent 7890B F
Analyst: IVM
Analytical Date/Time: 10/1/2021 11:07:00PM

Prep Batch: XXX45617
Prep Method: SW3520C
Prep Date/Time: 9/24/2021 4:32:28PM
Prep Initial Wt./Vol.: 250 mL
Prep Extract Vol: 1 mL

Print Date: 10/05/2021 11:22:10AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1216252 [XXX45617]
Blank Spike Lab ID: 1637959
Date Analyzed: 10/01/2021 23:17

Spike Duplicate ID: LCSD for HBN 1216252 [XXX45617]
Spike Duplicate Lab ID: 1637960
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1216252001, 1216252002

## Results by **AK102**

| | Blank Spike (mg/L) | | | Spike Duplicate (mg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Diesel Range Organics | 20 | 18.5 | 93 | 20 | 18.4 | 92 | ( 75-125 ) | 0.34 | (< 20 ) |
| **Surrogates** | | | | | | | | | |
| 5a Androstane (surr) | 0.4 | | 94 | 0.4 | | 97 | ( 60-120 ) | 3.10 | |

## Batch Information

Analytical Batch: **XFC16093**
Analytical Method: **AK102**
Instrument: **Agilent 7890B F**
Analyst: **IVM**

Prep Batch: **XXX45617**
Prep Method: **SW3520C**
Prep Date/Time: **09/24/2021 16:32**
Spike Init Wt./Vol.: 20 mg/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 20 mg/L Extract Vol: 1 mL



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SGS

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# CHAIN OF CUSTODY RECORD

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| Alaska | Maryland |
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| North Carolina | Indiana |
| West Virgina | Kentucky |

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PM#341858D0

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

Page 1 of 1

**1216252**

## Section 1

CLIENT: NORTECH

CONTACT: Ron Pratt PHONE NO: 907·586·6813

PROJECT NAME: AP&T Haines PROJECT/PWSID/PERMIT#:

REPORTS TO: NORTECH E-MAIL: rpratt@nortechengr.com

INVOICE TO: NORTECH QUOTE #:

P.O. #: 21-1022

## Section 2

| RESERVED for lab use | SAMPLE IDENTIFICATION | DATE mm/dd/yy | TIME HH:MM | MATRIX/ MATRIX CODE | # CONTAINERS | Type C = COMP G = GRAB MI = Multi Incremental Soils | HCl | AK102 DRO | REMARKS/ LOC ID |
|---|---|---|---|---|---|---|---|---|---|
| 1 AB | MW I | 9·22·21 | 1019 | water | 2 | G | X | | |
| 2 AB | MW III | 9·22·21 | 1111 | water | 2 | G | X | | |

## Section 3

## Section 4

DOD Project? Yes (No)

Data Deliverable Requirements:

Cooler ID:

Requested Turnaround Time and/or Special Instructions:

## Section 5

| | Date | Time | |
|---|---|---|---|
| Relinquished By: (1) | 9·22·21 | 1620 | Received By: |
| Relinquished By: (2) | | | Received By: |
| Relinquished By: (3) | | | Received By: |
| Relinquished By: (4) | 9/23/21 | 0847 | Received For Laboratory By: |

Temp Blank °C: 2.3 ~~D8~~ D60

or Ambient [ ] MA 9·23·21

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle) OF

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)



[ ] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

e-Sample Receipt Form

**SGS Workorder #:** **1216252** | 1216252

| Review Criteria | Condition (Yes, No, N/A) | Exceptions Noted below |
|---|---|---|
| **Chain of Custody / Temperature Requirements** | | Yes — Exemption permitted if sampler hand carries/delivers. |
| Were Custody Seals intact? Note # & location | Yes | 2F |
| COC accompanied samples? | Yes | |
| DOD: Were samples received in COC corresponding coolers? | N/A | |
| N/A **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required | | |
| Temperature blank compliant* (i.e., 0-6 °C after CF)? | Yes | Cooler ID: 1 @ 2.3 °C Therm. ID: D60 |
| If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available. | | Cooler ID: @ °C Therm. ID: |
| | | Cooler ID: @ °C Therm. ID: |
| | | Cooler ID: @ °C Therm. ID: |
| | | Cooler ID: @ °C Therm. ID: |
| *If >6°C, were samples collected <8 hours ago? | N/A | |
| If <0°C, were sample containers ice free? | Yes | |
| Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed. | | |
| **Holding Time / Documentation / Sample Condition Requirements** | | Note: Refer to form F-083 "Sample Guide" for specific holding times. |
| Were samples received within holding time? | Yes | |
| Do samples **match COC**** (i.e.,sample IDs,dates/times collected)? | Yes | |
| **Note: If times differ <1hr, record details & login per COC. | | |
| ***Note: If sample information on containers differs from COC, SGS will default to COC information | | |
| Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals) | Yes | 1 |
| | N/A | ***Exemption permitted for metals (e.g,200.8/6020B). |
| Were proper containers (type/mass/volume/preservative***)used? | Yes | |
| **Volatile / LL-Hg Requirements** | | |
| Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples? | N/A | |
| Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)? | N/A | |
| Were all soil VOAs field extracted with MeOH+BFB? | N/A | |

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

Additional notes (if applicable):

## Sample Containers and Preservatives

| Container Id | Preservative | Container Condition | Container Id | Preservative | Container Condition |
|---|---|---|---|---|---|
| 1216252001-A | HCL to pH < 2 | OK | | | |
| 1216252001-B | HCL to pH < 2 | OK | | | |
| 1216252002-A | HCL to pH < 2 | OK | | | |
| 1216252002-B | HCL to pH < 2 | OK | | | |

Container Condition Glossary

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

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

# Attachment C
# Laboratory Data Review Checklist

# Laboratory Data Review Checklist

Completed By:

Jennifer Stoutamore

Title:

Staff Professional II

Date:

10/13/2021

Consultant Firm:

NORTECH

Laboratory Name:

SGS

Laboratory Report Number:

1216252

Laboratory Report Date:

10/5/2021

CS Site Name:

Haines Light & Power

ADEC File Number:

1508.38.004

Hazard Identification Number:

2379

1216252

Laboratory Report Date:

10/5/2021

CS Site Name:

Haines Light & Power

**Note: Any N/A or No box checked must have an explanation in the comments box.**

1. Laboratory

   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

   Yes☒ No☐ N/A☐ Comments:

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

   Yes☐ No☐ N/A☒ Comments:

   Samples were not transferred

2. Chain of Custody (CoC)

   a. CoC information completed, signed, and dated (including released/received by)?

   Yes☒ No☐ N/A☐ Comments:

   b. Correct analyses requested?

   Yes☒ No☐ N/A☐ Comments:

3. Laboratory Sample Receipt Documentation

   a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

   Yes☒ No☐ N/A☐ Comments:

   b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

   Yes☒ No☐ N/A☐ Comments:

1216252

Laboratory Report Date:

10/5/2021

CS Site Name:

Haines Light & Power

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

Yes☒ No☐ N/A☐ Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

Yes☐ No☐ N/A☒ Comments:

No discrepancies found

e. Data quality or usability affected?

Comments:

Data quality and usability not affected

4. Case Narrative

a. Present and understandable?

Yes☒ No☐ N/A☐ Comments:

b. Discrepancies, errors, or QC failures identified by the lab?

Yes☐ No☒ N/A☐ Comments:

c. Were all corrective actions documented?

Yes☐ No☐ N/A☒ Comments:

No QC failures

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Data quality and usability not affected

1216252

Laboratory Report Date:

10/5/2021

CS Site Name:

Haines Light & Power

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

Yes☒ No☐ N/A☐ Comments:

b. All applicable holding times met?

Yes☒ No☐ N/A☐ Comments:

c. All soils reported on a dry weight basis?

Yes☐ No☐ N/A☒ Comments:

Water samples only

d. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project?

Yes☒ No☐ N/A☐ Comments:

e. Data quality or usability affected?

Data quality and usability not affected

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes☒ No☐ N/A☐ Comments:

ii. All method blank results less than limit of quantitation (LOQ) or project specified objectives?

Yes☒ No☐ N/A☐ Comments:

1216252

Laboratory Report Date:

10/5/2021

CS Site Name:

Haines Light & Power

iii. If above LOQ or project specified objectives, what samples are affected?

Comments:

None, LOQ met

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes☐ No☐ N/A☒ Comments:

LOQ met

v. Data quality or usability affected?

Comments:

Data quality and usability not affected

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

Yes☒ No☐ N/A☐ Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes☐ No☐ N/A☒ Comments:

No metals or inorganic analysis requested

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes☒ No☐ N/A☐ Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from LCS/LCSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes☒ No☐ N/A☐ Comments:

1216252

Laboratory Report Date:

10/5/2021

CS Site Name:

Haines Light & Power

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Non, all RPD met

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes☐ No☐ N/A☒ Comments:

RPD met

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

Data quality and usability not affected

c. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

**Note: Leave blank if not required for project**

i. Organics – One MS/MSD reported per matrix, analysis and 20 samples?

Yes☒ No☐ N/A☐ Comments:

ii. Metals/Inorganics – one MS and one MSD reported per matrix, analysis and 20 samples?

Yes☐ No☐ N/A☒ Comments:

No metals or inorganic analysis requested

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable?

Yes☒ No☐ N/A☐ Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from MS/MSD, and or sample/sample duplicate.

Yes☒ No☐ N/A☐ Comments:

1216252

Laboratory Report Date:

10/5/2021

CS Site Name:

Haines Light & Power

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

QC met

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes☐ No☐ N/A☒ Comments:

QC met

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

Data quality and usability not affected

d. Surrogates – Organics Only or Isotope Dilution Analytes (IDA) – Isotope Dilution Methods Only

i. Are surrogate/IDA recoveries reported for organic analyses – field, QC and laboratory samples?

Yes☒ No☐ N/A☐ Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods 50-150 %R for field samples and 60-120 %R for QC samples; all other analyses see the laboratory report pages)

Yes☒ No☐ N/A☐ Comments:

iii. Do the sample results with failed surrogate/IDA recoveries have data flags? If so, are the data flags clearly defined?

Yes☐ No☐ N/A☒ Comments:

All recoveries within QC

iv. Data quality or usability affected?

Comments:

Data quality and usability not affected

1216252

Laboratory Report Date:

10/5/2021

CS Site Name:

Haines Light & Power

e. Trip Blanks

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

Yes☒ No☐ N/A☐ Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

Yes☐ No☒ N/A☐ Comments:

Only one cooler used

iii. All results less than LOQ and project specified objectives?

Yes☒ No☐ N/A☐ Comments:

iv. If above LOQ or project specified objectives, what samples are affected?

Comments:

LOQ met

v. Data quality or usability affected?

Comments:

Data quality and usability not affected

f. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes☒ No☐ N/A☐ Comments:

ii. Submitted blind to lab?

Yes☒ No☐ N/A☐ Comments:

1216252

Laboratory Report Date:

10/5/2021

CS Site Name:

Haines Light & Power

iii. Precision – All relative percent differences (RPD) less than specified project objectives? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where $R_1$ = Sample Concentration
$R_2$ = Field Duplicate Concentration

Yes☒ No☐ N/A☐ Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Data quality and usability not affected

g. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below)?

Yes☐ No☐ N/A☒ Comments:

i. All results less than LOQ and project specified objectives?

Yes☐ No☐ N/A☒ Comments:

ii. If above LOQ or project specified objectives, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected?

Comments:

N/A

1216252

Laboratory Report Date:

10/5/2021

CS Site Name:

Haines Light & Power

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

   a. Defined and appropriate?

      Yes☐ No☐ N/A☒ Comments:

# Attachment D
# Field Notes

16-1021

17-1089 21-1022

19-1012

Rite in the Rain®

ALL-WEATHER

**FIELD**

№ 353N

Haines

Light & Power

Annual Sampling

2016-

9/22/21 Ron Pratt arrives @ Site 0815
Overcast ~54° -

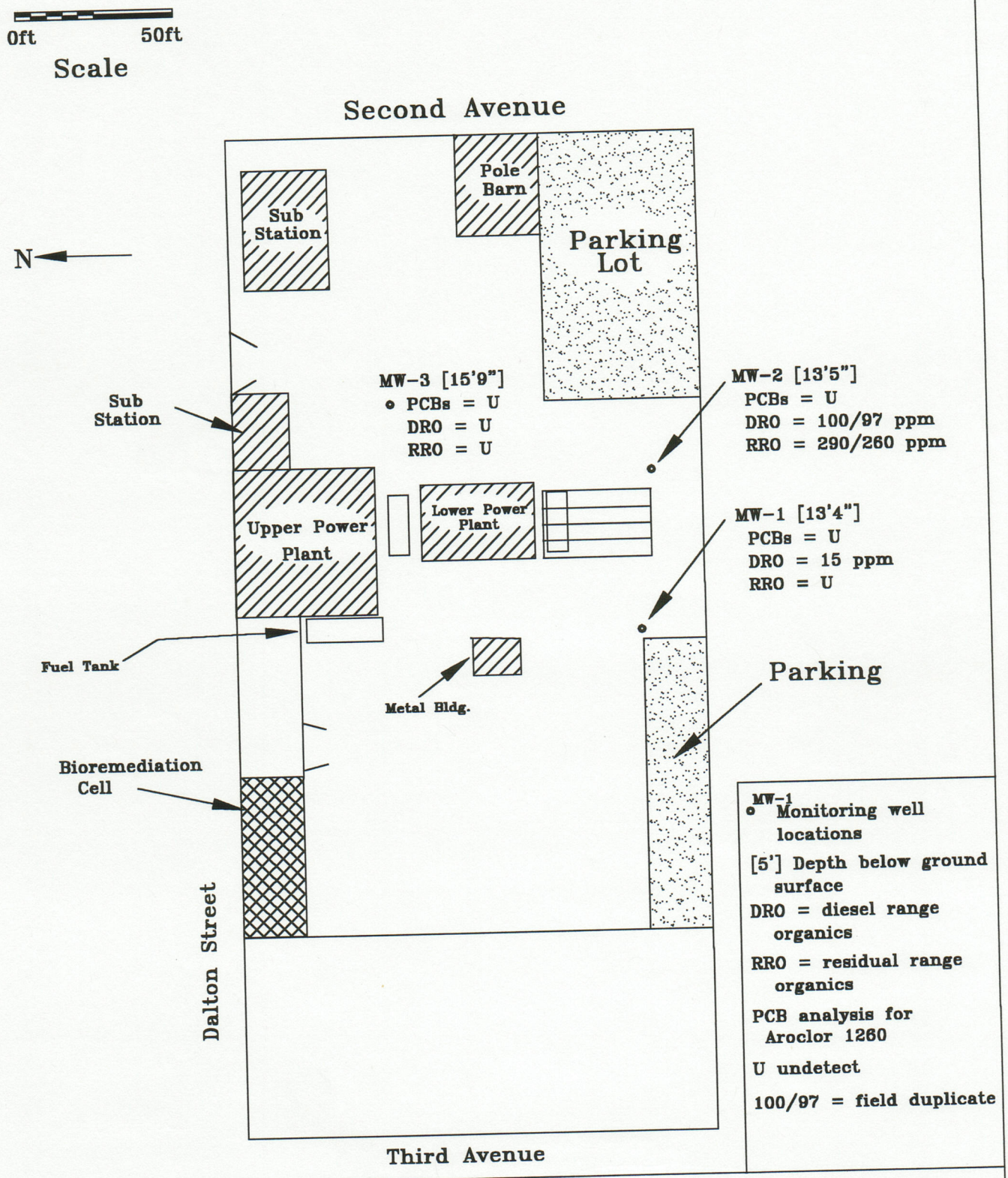
TD = 19.1'
SWL = 12.37'
6.73' x ~~4.3~~
x. 0.65 = 4.37 gal

begin purging 0825
small amount of reddish rusty colored water (< 0.25 gal) then flowing clear
0900 5+ gal purged
purge 10 gal - check water level again 13.12'

check water level after 15 gal
13.19'

1019 collect water samples MW1 & Dup MW 111

# Attachment E
# 1998 Well Placement Figure




# Groundwater Sampling Results

Samples taken by R Rice on 6/16/98

Haines Light and Power
241 Dalton Street
Haines, Alaska

drawn by KHS 7/15/98

Smith Bayliss LeResche Inc
119 Seward Street #10
Juneau, Alaska 99801
(907) 586-6813

Client:
Haines Light and Power Co.
P.O. Box 30
Haines, Alaska 99827

# Attachment F
# ADEC Comment Matrix

**REVIEW DOCUMENT:** **FACILITY:** Haines Light and Power
"2021 Alaska Power and Telephone Annual Groundwater Sampling" Report
**LOCATION:** Haines, Alaska
**FILENO.:** 1508.38.004
**HAZARD ID:** 2379

| **Agency:** ADEC | | | **Date:** November 12, 2021<br>**ADEC Reviewer:** Julie Fix<br>**Phone:** (907) 747-3432 | **Date: 12/1/2021** | **Date:** |
|---|---|---|---|---|---|
| **Item No.** | **PDF Page No.** | **Section** | **ADEC COMMENTS** | **RESPONSIBLE PARTY RESPONSE<br>A-Agree<br>D-Disagree** | **ADEC RESPONSE<br>A-Agree<br>D-Disagree** |
| 1. | 1 | Background | Please provide more detail in the "Background" section in accordance with the 2017 "Site Characterization Work Plan and Reporting Guidance" document. This section should include estimated volumes/quantities of contaminants released, dates of release, a brief recap of cleanup actions onsite, and a brief recap of sampling activities onsite. This guidance is designed to increase the consistency of work plans and reports submitted to ADEC and should be used as a tool to ensure that work plans and reports contain all of the recommended elements. | 18 AAC 75.355 discusses Site Characterization, which encompasses actions (including workplans and reports) with the end goal of a Site Characterization Report proposing cleanup actions for the Site. According to the ADEC Contaminated Sites Database for this Site (accessed on December 1, 2021), cleanup actions were completed 20 years ago and Long Term Monitoring was established in September 2001. As the Site is in Long Term Monitoring and not Site Characterization or Cleanup, the ADEC Site Characterization Work Plan and Reporting Guidance does not apply. As work associated with diesel and PCB contamination at the Site has been occurring since 1996, inclusion of 25 years of background data in a long term monitoring letter report is not practical. Background data associated with long term monitoring of on-Site wells was included as Attachment A of the report. | |

| | | | | | |
|---|---|---|---|---|---|
| 2. | - | - | Please provide QEP documentation for Ron Pratt in accordance with 18 AAC 75.333. | 18 AAC 75.333 states a person is a QEP if: (b)(1) is an impartial third party (b)(2) is qualified to perform site characterization and cleanup activities (b)(3) actively practices in the field of environmental science or another related scientific field (b)(4) has not been found to have falsified environmental data or committed other acts of fraud directly related to environmental work, and (b)(5) meets one or more of the following minimum educational qualification and experience requirements (A) has a four undergraduate or graduate degree in environmental science or related field and at least one year of experience in contaminated site characterization and cleanup activities.<br><br>***NORTECH*** is requesting the ADEC clarify what documentation it is requesting to confirm Mr. Pratt continues to meet the requirement of a QEP. | |
| 3. | - | - | Please reference the ADEC approved work plan that this field work was done in accordance with. | ***NORTECH*** is conducting Long Term Monitoring of the Site under the 1999 ADEC and EPA Records of Decision for the Site (one ROD for petroleum and one ROD for PCBs). This has been added to the Background section. | |
| 4. | 2 | Table 1 | Please clarify: is the 19.2 ft measurement the distance from the top of the well casing to the bottom of the well (i.e. total well depth below the ground surface)? Is the measurement labeled "water column" the depth below the ground surface that groundwater was encountered? Please revise table to clarify these terms. | As stated on page 1, second paragraph of the Annual Sampling Activities section, a dual phase probe was used to measure the distance from the top of the well casing to the bottom of the well and from the top of the well casing to the depth of water in order to calculate | |

| | | | | | |
|---|---|---|---|---|---|
| | | | | well and purge volumes. Therefore the 19.2 feet is the measurement from the top of the well casing to the bottom of the well.<br><br>The measurement from the top of a well casing to the bottom of the well is NOT necessarily the total well depth below the ground surface as well casings may extend above the ground surface, as occurs for MW-1. The well casing for MW-1 extends approximately six feet above the ground surface. As stated in the Smith Bayless LeResche Groundwater Sampling Results Report submitted to the ADEC in 1998 which documents the installation of MW-1 during characterization activities, 13 feet four inches of well casing is below ground surface for MW-1.<br><br>Height of the water column is not the same as depth to water. Depth to water is the depth from the top of the well casing to the top of the water column and is one of the measurements used to calculate water column height. The water column is the number of inches of water present within the well. Water Column (inches) in the table is therefore the inches of water present within the well.<br><br>The terms used in both the text and the table accurately reflect the measurements taken and their standard industry designations. The table was not revised. | |

| | | | | | |
|---|---|---|---|---|---|
| 5. | 2 | Table 2 | Please revise to say "MW1; Dup." The way this information is currently presented could be confusing for future readers. | Section 11.6 of the ADEC *Field Sampling Guidance* (2019) states that all field duplicates must be submitted blind to the laboratory. Therefore, naming a sample "MW1: Dup" would not comply with ADEC regulations as it specifically states the sample is a duplicate and what sample it is a duplicate of. As shown in the chain of custody and laboratory report attached to the report, ***NORTECH*** submitted the duplicate sample as "MW-11" in order to follow ADEC guidances on submittal of blind duplicates. As the sample is labeled MW-11 in the laboratory report, it is referred to as MW-11 in the submitted annual monitoring report. In Table 2, there is a note after each sample name which is explained in the Notes section of Table 2 as denoting the samples as duplicates of each other. As changing the name of the duplicate sample would make referencing the laboratory report confusing and would violate ADEC regulations and guidances, and as the note in the table explains the samples are duplicates, ***NORTECH*** did not change the sample names within the table or text. | |
| 6. | - | - | Please provide a site figure for reference. | ***NORTECH*** did not include a Site Figure as the placement of MW-1 has not changed since it was installed over 20 years ago. In addition to other documentation, ***NORTECH*** last provided the ADEC with the original figure from the Smith Bayless LeResche Inc. report, in January 2019. The well was originally installed during characterization activities in 1998 | |

| | | | | | |
|---|---|---|---|---|---|
| | | | | and was described in a report submitted to the ADEC in 1998. ***NORTECH*** has attached the original figure to the report to again provide ADEC with a figure showing the location of the well. | |
| 7. | - | - | *End of Comments* | - | - |

**REVIEW DOCUMENT:** **FACILITY:** Haines Light & Power Company
"2021 Alaska Power and Telephone Annual Groundwater Sampling" Report
**LOCATION:** Haines, Alaska
**FILE NO.:** 1508.26.008
**HAZARD ID:** 24547

| **Agency:** ADEC | | | **Date:** November 12, 2021<br>**ADEC Reviewer:** Julie Fix<br>**Phone:** (907) 747-3432 | **Date: 12/1/2021** | **Date:** 1/26/2021 | **Date: 2/8/2022** |
|---|---|---|---|---|---|---|
| **Item No.** | **PDF Page No.** | **Section** | **ADEC COMMENTS** | **RESPONSIBLE PARTY RESPONSE**<br>**A-Agree**<br>**D-Disagree** | **ADEC RESPONSE**<br>**A-Agree** **D-Disagree** | **RESPONSIBLE PARTY RESPONSE**<br>**A-Agree**<br>**D-Disagree** |
| 1. | - | - | - | - | It appears that the contamination being monitored in this report is related to the petroleum contamination caused by the former 6,000-gallon UST source area. Petroleum contamination related to the former UST at this site is being managed under the site name "Haines Light & Power Company" with the ADEC File Number: 1508.26.008 and the Hazard ID: 24547. The site "Haines Light & Power" with the ADEC File Number: 1508.38.004 and Hazard ID: 2379 is related to PCB contamination from the transformer source area. Please revise the report to reflect this or explain the file number discrepancy. This differentiation is important for cost recovery and documentation purposes. The department will review the "Haines Light & Power" (1508.38.004) and "Haines Light | *The monitoring wells were installed to monitor contamination associated with BOTH ADEC file numbers. NORTECH has therefore added both hazard ID numbers to the report.* |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | & Power Company" (1508.26.008) sites and address any data gaps with a path forward in a separate letter. | |
| 2. | | | - | - | Please state the groundwater flow direction at the site. Please describe how the flow direction was determined. | *The 1999 Petroleum ROD from the ADEC states groundwater flow is likely west-southwest towards Lutak Inlet. This has been added to the background section.* |
| 3. | 1 | Background | Please provide more detail in the "Background" section in accordance with the 2017 "Site Characterization Work Plan and Reporting Guidance" document. This section should include estimated volumes/quantities of contaminants released, dates of release, a brief recap of cleanup actions onsite, and a brief recap of sampling activities onsite. This guidance is designed to increase the consistency of work plans and reports submitted to ADEC and should be used as a tool to ensure that work plans and reports contain all of the recommended elements. | *18 AAC 75.355 discusses Site Characterization, which encompasses actions (including workplans and reports) with the end goal of a Site Characterization Report proposing cleanup actions for the Site. According to the ADEC Contaminated Sites Database for this Site (accessed on December 1, 2021), cleanup actions were completed 20 years ago and Long Term Monitoring was established in September 2001. As the Site is in Long Term Monitoring and not Site Characterization or Cleanup, the ADEC Site Characterization Work Plan and Reporting Guidance does not apply. As work associated with diesel and PCB contamination at the Site has been occurring since 1996, inclusion of 25 years of background data in a long term monitoring letter report is not practical.* | Long term monitoring is considered to fall within the umbrella of "Site Characterization." The 2017 SC Work Plan and Reporting Guidance applies to this report. If you decline to add the additional information requested, then you must, at a minimum, provide a reference to the most recent report or document that contains this information. The current CSP policy for project managers requires that milestone documents are readily available to the public (uploaded on to the database). Milestone documents include monitoring reports. Because these documents are readily available to the public, it is important that all reports provide a complete picture of the site history and activities by including the recommended elements detailed in the Site Cleanup Rules and further defined in the 2017 "*Site Characterization Work Plan and Reporting Guidance*." A complete report reduces billable ADEC staff incurred when reviewing the site | *Past reports are cited in the background section to inform the reader where to find additional information.* |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | *Background data associated with long term monitoring of on-Site wells was included as Attachment A of the report.* | file, work plan reviews, report reviews, public records requests, etc. | |
| 4. | - | - | Please provide QEP documentation for Ron Pratt in accordance with 18 AAC 75.333. | *18 AAC 75.333 states a person is a QEP if: (b)(1) is an impartial third party (b)(2) is qualified to perform site characterization and cleanup activities (b)(3) actively practices in the field of environmental science or another related scientific field (b)(4) has not been found to have falsified environmental data or committed other acts of fraud directly related to environmental work, and (b)(5) meets one or more of the following minimum educational qualification and experience requirements (A) has a four undergraduate or graduate degree in environmental science or related field and at least one year of experience in contaminated site characterization and cleanup activities.*<br><br>*NORTECH is requesting the ADEC clarify what documentation it is requesting to confirm Mr. Pratt continues to meet the requirement of a QEP.* | This comment was addressed in my email on January 11, 2022. | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 5. | - | - | Please reference the ADEC approved work plan that this field work was done in accordance with. | *NORTECH is conducting Long Term Monitoring of the Site under the 1999 ADEC and EPA Records of Decision for the Site (one ROD for petroleum and one ROD for PCBs). This has been added to the Background section.* | Is NORTECH referring to the November 17, 1999 "*Corrective Action Plan for Petroleum Contaminated Soil at the Haines Power Plant*" prepared by Smith Bayliss LeResche, Inc.? This is the work plan that the 1999 ROD references. Additionally, it appears that there may be a more recent version of the work plan prepared by NORTECH in 2012. Please reference the most recent approved work plan for groundwater monitoring. | *NORTECH states the current annual sampling is being conducted under the 2012 Corrective Action Plan in the Background section.* |
| 6. | 2 | Table 1 | Please clarify: is the 19.2 ft measurement the distance from the top of the well casing to the bottom of the well (i.e. total well depth below the ground surface)? Is the measurement labeled "water column" the depth below the ground surface that groundwater was encountered? Please revise table to clarify these terms. | *As stated on page 1, second paragraph of the Annual Sampling Activities section, a dual phase probe was used to measure the distance from the top of the well casing to the bottom of the well and from the top of the well casing to the depth of water in order to calculate well and purge volumes. Therefore the 19.2 feet is the measurement from the top of the well casing to the bottom of the well.*<br><br>*The measurement from the top of a well casing to the bottom of the well is NOT necessarily the total well depth below the ground surface as well casings may extend above the ground surface, as occurs for MW-1. The well casing for MW-1 extends approximately six feet above the ground* | Thank you for the detailed explanation. The distance from the top of the well to the ground surface was not described in this report or in previous reports. In the future, the department suggests incorporating the groundwater elevation and/or the groundwater depth below ground surface to the report identifying the measuring point of reference.<br><br>Please add the following information to the report:<br>• Distance from the top of the well casing to the ground surface.<br>• Inside diameter of the well casing. | *As distance from the top of the well casing to ground surface is not a measurement used to calculate groundwater water height within the well, well volume, or purge volume, this measurement is not collected during annual sampling events. As stated in our original response, MW-1 extends above the ground surface approximately six feet. MW-2 is a flush mount well.*<br><br>*NORTECH will collect current top of casing to ground level measurements during 2022 groundwater sampling field activities.* |

# Attachment G
# Revised and Highlighted Report

NORTECH

*SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY PROFESSIONAL SERVICES*

***NORTECH*, Inc.**

♦

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907.586.6819 Fax

♦

www.nortechengr.com

December 3, 2021

Julie Fix
410 Willoughby Ave
Juneau, AK 99801

**RE: 2021 Alaska Power and Telephone Annual Groundwater Sampling**
**ADEC Hazard ID 2379**

Dear Ms. Fix:

On behalf of Alaska Power and Telephone, ***NORTECH*** Environmental, Health & Safety (***NORTECH***) is providing this letter report to document 2021 annual sampling activities at the Alaska Power and Telephone's Haines substation (ADEC File Number 1508.38.004). This letter report documents the annual sampling of monitoring well one (MW-1). The Alaska Department of Environmental Conservation (ADEC) granted permission to cease sampling of MW-2 in a January 15, 2019 letter, leaving DRO monitoring in MW-1 the only remaining requirement for annual sampling.

*Background*
The Site consists of the Alaska Power and Telephone (AP&T) facility located at 241 Dalton Street in Downtown Haines. Two active monitoring wells and an air sparging system are located on Site. The Site is currently covered with an asphalt cap. The air sparging system and the asphalt cap are in place as part of the institutional controls implemented at the Site. Actions at the Site stem from a previous release of diesel and polychlorinated biphenyl (PCB) containing transformer oil. The release resulted in contamination of Site soils with both diesel and PCB compounds. Yearly groundwater monitoring at the Site has been performed in response to this contamination and under the 1999 ADEC and EPA Records of Decision for the Site. Annual sampling activities for 2021 occurred on September 22nd and are documented in this letter report.

*Annual Sampling Activities*
***NORTECH*** personnel Ron Pratt, a Qualified Environmental Professional (QEP) as defined in 18 AAC 75, arrived on Site on September 22, 2021 to conduct annual sampling activities. Prior to collecting samples, ***NORTECH*** visually inspected the monitoring well and asphalt cap. MW-1 was in good condition. The asphalt cap also appeared in good condition, with no cracks or damage that compromised the integrity or intended purpose of the cap. The air sparging system was in operation and appeared to be in good working order at the time of the Site visit.

***NORTECH*** used a duel phase probe to record the distance from the top of the well casing to both the level of water within the well and the bottom of the well. The total depth of the well and the depth to water were used to determine the well volume and purge volume of each well. The purge volume was equal to three well volumes. Table 1 lists the well depths, water depths, well volumes, and purge volumes for MW-1.

***NORTECH*** collected laboratory samples from the well using a submersible pump placed within the top 12 inches of the water column. A low flow peristaltic pump has

been used to collect samples at the Site for the past 20 years, 2021 is the first year where a submersible pump has been used.

Dedicated tubing was used to prevent cross contamination of samples. As previous testing has verified that PCBs are no longer present in detectable concentrations and DRO is currently the only contaminant of concern within MW-1, purge water was collected into a five-gallon bucket and disposed of by pouring into the on-Site oil/water separator. No sheen was observed on the water prior to disposal within the oil/water separator. As only one well was sampled, the pump was deconned upon return to the office.

***NORTECH*** sampled MW-1 for analysis of DRO by method AK 102. ***NORTECH*** also collected a field duplicate (MW-11) in accordance with the October 2019 ADEC *Field Sampling Guidance* (FSG). Samples were collected directly into clean, laboratory supplied glassware and immediately put one ice. Samples were shipped under appropriate chain of custody procedures to SGS Laboratories in Anchorage, Alaska.

**Table 1**
**Water Levels and Calculated Well Volumes**

| | **MW-1** |
|---|---|
| Depth of Well, Top of Casing (feet) | 19.2 |
| Water Column (inches) | 80.76 |
| Well Volume (gallons) | 1.46 |
| Purge Volume (gallons) | 4.37 |

*Laboratory Results and Discussion*
***NORTECH*** collected two samples (one primary and one duplicate) for analysis of DRO by method AK 102. The laboratory report is available in Attachment B, and the Laboratory Data Review Checklist is included as Attachment C. Table 2 lists laboratory results for 2021 sampling events. See Attachment A for historic values for comparison.

**Table 2**
**2019 Laboratory Analysis Results**

| **Analysis** | **ADEC Cleanup Level** | **MW-1$^{Dup1}$** | **MW-11$^{Dup1}$** |
|---|---|---|---|
| **Petroleum Hydrocarbons (mg/L)** | | | |
| DRO | 1.5 | **7.17** | **7.14** |

**Notes:**

| | |
|---|---|
| ID$^{Dup\#}$ | Denotes duplicate sample pairings |
| **#/BOLD** | Analyte detected above cleanup limits |

DRO concentrations within MW-1 remain above Table C Cleanup Levels. Concentrations have increased for the second consecutive year. However, historical data (Attachment A) documents a 20-year trend of fluctuations of DRO concentrations within MW-1. The current increase of DRO concentrations within MW-1 fits with the overall historic trend of variability within this well.

*Conclusions and Recommendations*

Based on Site observations and laboratory results, ***NORTECH*** provides the following conclusions:

- DRO concentrations within MW-1 have increased over 2020 concentrations
  - DRO concentrations within MW-1 have fluctuated widely over the past 20 years
  - Current fluctuations are within historically observed variability
- DRO concentrations within MW-1 are above ADEC Table C Groundwater Cleanup Levels

Based on the above conclusions, ***NORTECH*** provides the following recommendations

- Continue annual sampling for DRO in MW-1

Limitations and Notifications

***NORTECH*** provides a level of service that is performed within the standards of care and competence of the environmental engineering profession. However, it must be recognized that limitations exist within any site investigation. This report provides results based on a restricted work scope and from the analysis and observation of a limited number of samples. Therefore, while it is our opinion that these limitations are reasonable and adequate for the purposes of this report, actual site conditions may differ. Specifically, the unknown nature of the exact subsurface physical conditions, sampling locations, and the analytical procedures' inherent limitations, as well as the financial and time constraints are limiting factors.

The letter is a record of observations and measurements made on the subject site as described. The data should be considered representative only of the time the site investigation was completed. No other warranty or presentation, either expressed or implied, is included or intended. This report is prepared for the exclusive use of the AP&T and ADEC. If it is made available to others, it should be for information on factual data only, and not as a warranty of conditions, such as those interpreted from the results presented or discussed in the report. We certify that except as specifically noted in this report, all statements and data appearing in this report are in conformance with ADEC's Standard Sampling Procedures. ***NORTECH*** has performed the work, made the findings, and proposed the recommendations described in this report in accordance with generally accepted environmental engineering practices.

Sincerely,

Jennifer Stoutamore

Jennifer Stoutamore
Staff Professional

Reviewed by:

Jason Ginter, PMP
Principal, Juneau Technical Manager

Attachments

A. Historic Sampling Results
B. Laboratory Report
C. Laboratory Data Review Checklist
D. Field Notes
E. 1998 Well Placement Figure
F. ADEC Comment Matrix

***NORTECH*, Inc.**

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March 8, 2022

Julie Fix
410 Willoughby Ave
Juneau, AK 99801

**RE: 2021 Alaska Power and Telephone Annual Groundwater Sampling**
**ADEC Hazard IDs 2379 and 24547**

Dear Ms. Fix:

On behalf of Alaska Power and Telephone, ***NORTECH*** Environmental, Health & Safety (***NORTECH***) is providing this letter report to document 2021 annual sampling activities at the Alaska Power and Telephone's Haines substation (ADEC File Number 1508.38.004). This letter report documents the annual sampling of monitoring well one (MW-1). The Alaska Department of Environmental Conservation (ADEC) granted permission to cease sampling of MW-2 in a January 15, 2019 letter, leaving DRO monitoring in MW-1 the only remaining requirement for annual sampling.

*Background*

The Site consists of the Alaska Power and Telephone (AP&T) facility located at 241 Dalton Street in Downtown Haines. Two active monitoring wells and an air sparging system are located on Site. The Site is currently covered with an asphalt cap. The air sparging system and the asphalt cap are in place as part of the institutional controls implemented at the Site.

A Site Assessment conducted during the closure of an underground fuel storage tank (UST) in 1995 resulted in the removal of 35 cubic yards of petroleum-contaminated soils and the installation of a bioventing system at the Site by Smith Bayliss LeResche Inc. (SBL, "Site Assessment, Closure Report, Limited Release Investigation and Interim Corrective Action for Haines Power Plant" dated January 17, 1996). During the UST Closure Investigation, PCB contaminants not related to the UST release were discovered.

SBL conducted a Phase II Site Assessment in 1997, which led to the installation and sampling of temporary groundwater monitoring wells in 1998 ("Groundwater Sampling Results at the Haines Power Plant 241 Dalton Street", dated July 1998). Laboratory samples were non-detect for PCBs and diesel range organics (DRO) ranged from non-detect to 100 ppm.

In 1999, SBL submitted cleanup plans for PCBs (Corrective Action Plan for Polychlorinated Bi-Phenyls (PCBs) for at the Haines Light & Power on Dalton Street) to the ADEC and the Environmental Protection Agency (EPA) and petroleum (Cleanup Action Plan) to the ADEC. That same year, the ADEC and EPA issued two Records of Decision (ROD), one for PCBs ("Record of Decision for Polychlorinated Bi-phenyls", dated October 19, 1999) and one for petroleum ("Record of Decision for Petroleum Hydrocarbons/Cleanup Action Plan Approval", dated November 26, 1999) contamination at the Site.

The PCB ROD established PCB cleanup levels of 10 mg/Kg within soils 0-2.0 feet below ground surface (bgs), 25 mg/Kg in soils greater than 2.0 feet bgs, and 0.5 µg/L in groundwater. The Petroleum ROD established petroleum cleanup levels consistent with the then-current 18 AAC 75.341, Tables B1 and B2 for an Over 40 Inches Zone for soils and Table C cleanup levels for groundwater. In the Petroleum ROD, the ADEC also states that groundwater flow is west-southwest towards Lutak Inlet. Both RODs established annual groundwater monitoring requirements at the Site.

During the summer of 2000, SBL oversaw excavation of 90 tons of PCB impacted soils within the Dalton Street yard and the adjoining Bamboo Room parking area ("Corrective Action Final Report for Polychlorinated Biphenyl (PCB) Contaminated Soil at the Haines Power Plant", dated May 2001). A fourth monitoring well was installed in April 2000 (MW-4), however both MW-4 and the 1998 MW-2 were removed during PCB soil excavation. MW-2 was reinstalled once excavation was completed, and annual sampling of the three installed wells began (see Appendix A for historical sampling results). The bioventing system was also expanded at this time.

In January 2012, ***NORTECH*** submitted an updated Corrective Action Plan for the Site, outlining previous work, established cleanup levels, and sampling and reporting methodologies. Work at the Site currently operates under the 2012 Corrective Action Plan.

In December 2012, the ADEC requested MW-2, which then consisted of a culvert stand-pipe, be replaced with a monitoring well consistent with the ADEC's Monitoring Well Guidance. Haines AP&T installed a new MW-2 in compliance with the Monitoring Well Guidance, and both MW-1 and MW-2 currently consist of Schedule 40 PVC wells installed to a depth of approximately 12 feet bgs. MW-1 has a diameter of 4.0 inches, MW-2 is a 2.0 inch diameter well.

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