

# Soil Sampling Report

Former Alaska Native Hospital, Anchorage

October, 2018

## Background and Introduction

The Former Alaska Native Hospital (FANH) property on Third Avenue in Anchorage has been proposed as the location for an urban farm operated by the Alaska Food Policy Council (AFPC). Due to the presence of a nearby contaminated site<sup>1</sup>, there is concern that chlorinated solvent contamination from the site may have migrated onto the FANH property potentially impacting the proposed urban farm.

In an effort to evaluate the presence of contamination in the area proposed for raised garden beds (Figure 1), a soil sample was collected from the property by Bill O'Connell with the Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) in coordination with Danny Consenstein with AFPC.

## Soil Sample Collection

The soil sample was collected on September 24, 2018 from the area shown on the attached figure. Mr. Consenstein identified the area proposed for growing vegetables and excavated four holes approximately 12 inches in depth. The soil consisted of sand and gravel with a thin veneer of organic matter at the surface.

Mr. O'Connell removed an additional 3-4 inches of soil using a stainless steel spoon, then collected approximately 5-10 grams of soil from each test hole and placed the soil into a laboratory supplied sample jar after adding the methanol preservative. Soil from each of the test holes was composited in the sample jar until approximately 25-30 grams of soil was present and was completely submerged in the methanol preservative as required. A second, unpreserved jar was filled with soil for analysis of total solids.

The sample was immediately placed in a cooler with gel ice and kept cool until it was delivered to lab under standard chain-of-custody by Mr. O'Connell on September 25<sup>th</sup> for analysis using method SW8260C for dry cleaning chemicals only. The sample ID was ANHSS01 (Alaska Native Hospital Soil Sample 01).

## Sample Results

Dry cleaning chemicals were not detected in the sample. The primary contaminant of concern in this area is tetrachloroethylene (PCE). The Limit of Quantitation for PCE was 13.1 micrograms per kilogram (ug/kg), compared to the most stringent ADEC cleanup level of 190 ug/kg. A quality assurance review did not indicate any quality issues with the sample results, however it should be noted that duplicate

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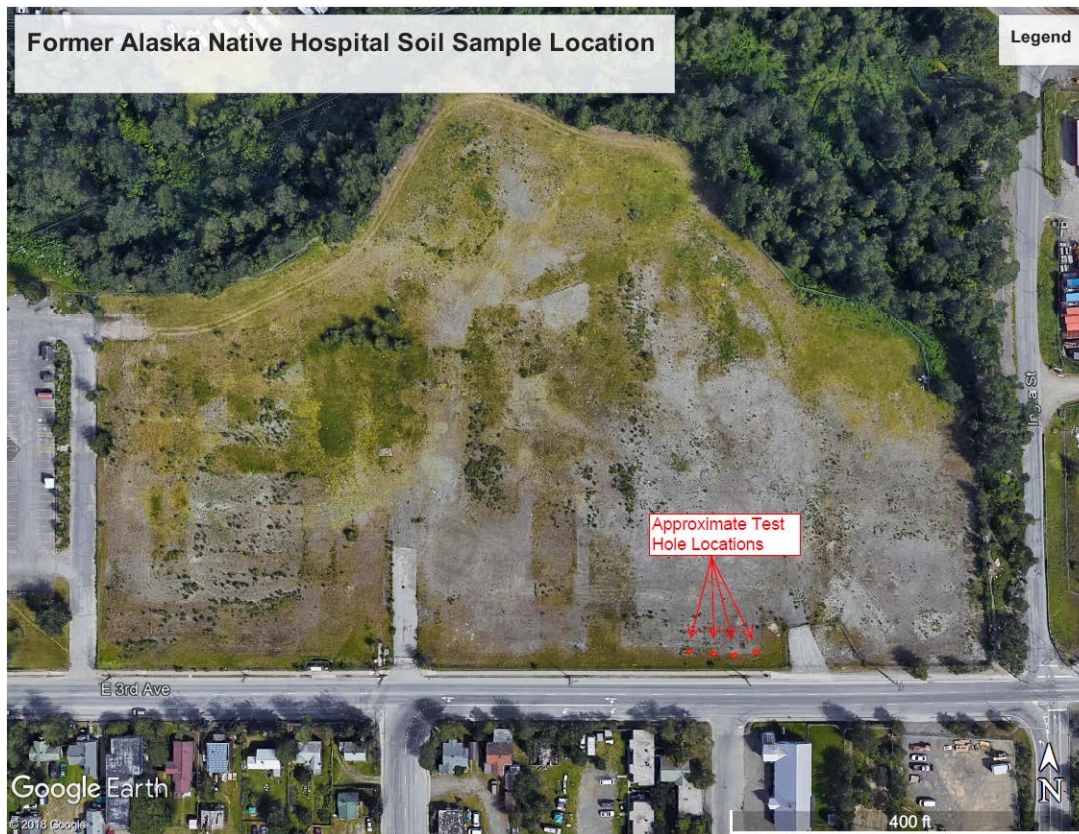
<sup>1</sup> Alaska Real Estate Parking Lot, a former dry cleaning operation  
<http://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/SiteReport/4084>

sample was not collected and a trip blank did not accompany the sample. A trip blank is typically submitted when samples are analyzed using SW8260C to evaluate if cross-contamination may have occurred during sample transport and handling. Because only one sample was collected and was hand-delivered to the laboratory, the lack of a trip blank has no impact on the quality of the data, which is considered useable for its intended purpose.

## Conclusion

A single composite soil sample collected from the FANH property on September 24, 2018 did not contain detectable concentrations of dry cleaning chemicals. It is possible that other contaminants may be present at the property, however no odor or staining was evident and there was no evidence of any releases of oil or other hazardous substances in the area that was sampled.

Figure 1- Soil Sample Location



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**Work Order:** 1185485  
AK Native Hospital

**Client:** Residential Testing-Cash Account

**Report Date:** October 04, 2018

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO 17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8015C, 8021B, 8082A, 8260C, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). 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
CCC/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
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.



**SGS Ref.#** 1185485001  
**Client Name** Residential Testing-Cash Account  
**Project Name/#** AK Native Hospital  
**Client Sample ID** ANHSS01  
**Matrix** Soil/Solid (dry weight)

**Printed Date/Time** 10/04/2018 9:15  
**Collected Date/Time** 09/24/2018 16:30  
**Received Date/Time** 09/25/2018 15:41  
**Technical Director** Stephen C. Ede

Sample Remarks:

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b><u>Volatile GC/MS</u></b>									
1,2-Dibromoethane	ND	10.5	ug/Kg	SW8260C	B		09/24/18	09/26/18	NRO
cis-1,2-Dichloroethene	ND	26.3	ug/Kg	SW8260C	B		09/24/18	09/26/18	NRO
Tetrachloroethene	ND	13.1	ug/Kg	SW8260C	B		09/24/18	09/26/18	NRO
trans-1,2-Dichloroethene	ND	26.3	ug/Kg	SW8260C	B		09/24/18	09/26/18	NRO
Trichloroethene	ND	10.5	ug/Kg	SW8260C	B		09/24/18	09/26/18	NRO
Vinyl chloride	ND	10.5	ug/Kg	SW8260C	B		09/24/18	09/26/18	NRO
<b><u>Surrogates</u></b>									
1,2-Dichloroethane-D4 (surr)	110		%	SW8260C	B	71-136	09/24/18	09/26/18	NRO
4-Bromofluorobenzene (surr)	82.7		%	SW8260C	B	55-151	09/24/18	09/26/18	NRO
Toluene-d8 (surr)	101		%	SW8260C	B	85-116	09/24/18	09/26/18	NRO
<b><u>Solids</u></b>									
Total Solids	95.0		%	SM21 2540G	A			09/25/18	ARB





e-Sample Receipt Form

SGS Workorder #:

1185485



1 1 8 5 4 8 5

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
<b>Chain of Custody / Temperature Requirements</b>		<b>YES</b> Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	N/A	ABSENT
COC accompanied samples?	YES	
<input type="checkbox"/> N/A **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	YES	Cooler ID: 1 @ 3.3 °C Therm. ID: D36
	N/A	Cooler ID: @ °C Therm. ID:
	N/A	Cooler ID: @ °C Therm. ID:
	N/A	Cooler ID: @ °C Therm. ID:
	N/A	Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	N/A	
If <0°C, were sample containers ice free?	N/A	
<p>If samples received <u>without</u> a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank &amp; "COOLER TEMP" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".</p> <p>Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.</p>		
<b>Holding Time / Documentation / Sample Condition Requirements</b>		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	YES	
Do samples <b>match COC</b> ** (i.e., sample IDs, dates/times collected)?	YES	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	YES	
Were proper containers (type/mass/volume/preservative***) used?	YES	<input type="checkbox"/> N/A ***Exemption permitted for metals (e.g.200.8/6020A).
<b>Volatile / LL-Hg Requirements</b>		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	NO	No trip blank with sample.
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	N/A	
Were all soil VOAs field extracted with MeOH+BFB?	YES	
<b>Note to Client:</b> Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.		
Additional notes (if applicable):		



### Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1185485001-A	No Preservative Required	OK			
1185485001-B	Methanol field pres. 4 C	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.

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.