



April 4, 2019

File: 2100.38.252

Capt. Peter Pemberton  
The Salvation Army-Alaska Division  
143 East Ninth Avenue  
Anchorage, AK 99501

Ms. Dee Ann Hanson  
4125 Ptarmigan Terrace  
Anchorage, AK 99516

Re: **Decision Document: Former Salvation Army Property  
Cleanup Complete Determination – Institutional Controls**

Dear Capt. Pemberton and Ms. Hanson:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Former Salvation Army Property site located at 1001 C Street in Anchorage, Alaska. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and no further remedial action will be required as long as the institutional controls are maintained and effective and no new information becomes available that indicates residual contamination poses an unacceptable risk.

This Cleanup Complete with Institutional Controls (ICs) determination is based on the administrative record for the Former Salvation Army Property site which is located in the offices of the ADEC in Anchorage, Alaska. This decision letter summarizes the site history, cleanup actions, regulatory decisions, and specific conditions required to effectively manage remaining contamination at this site.

**Site Name and Location:**

Former Salvation Army Property  
1001 C Street  
Anchorage, AK 99501

**Name and Mailing Address of Contact Party:**

Capt. Peter Pemberton  
The Salvation Army- Alaska Division  
143 East Ninth Avenue  
Anchorage, AK 99501

**DEC Site Identifiers:**

File No.: 2100.38.252  
Hazard ID.:2388

**Regulatory Authority for Determination:**

18 AAC 75

### Site Description and Background

The property located at 1001 C Street is a residential property that was formerly owned by The Salvation Army and is currently owned by Ms. Dee Ann Hanson. Petroleum contamination was encountered in 1995 during the removal of a 300-gallon home heating oil tank (HOT). Groundwater at the site is approximately 22 feet below ground surface (bgs) and the flow direction has varied from southeast to southwest during the various groundwater sampling events. The locations of monitoring wells and other site features is shown on the attached site figure.

### Contaminants of Concern

During the site investigation and cleanup activities at this site, samples were collected from soil and groundwater and analyzed for diesel range organics (DRO), residual range organics (RRO), gasoline range organics (GRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), and polycyclic aromatic hydrocarbons (PAHs) Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at this site:

- diesel range organics (DRO)
- residual range organics (RRO)

### Cleanup Levels

The applicable soil cleanup levels for this site are the most stringent levels found in 18 AAC 75.341 Tables B1 and B2. Groundwater cleanup levels are found in 18 AAC 75.345 Table C, as shown in Table 1 below

**Table 1 – Approved Cleanup Levels**

Contaminant	Soil (mg/kg)	Groundwater (mg/L)
DRO	250	1.5
RRO	10,000	1.1

mg/L = milligrams per liter

mg/kg = milligrams per kilogram

### Characterization and Cleanup Activities

The 300-gallon HOT was removed in January, 1995. A soil sample collected below the tank contained DRO at 9,000 mg/kg. Approximately 18 cubic yards of petroleum contaminated soil was removed from around the HOT and thermally treated at Alaska Soil Recycling. A soil sample from a borehole placed in the former location of the HOT contained DRO at 1,700 mg/kg at a depth of 17-19 feet bgs. This concentration exceeds the migration to groundwater cleanup level, but is below the human health clean up levels for direct exposure and inhalation. In an effort to evaluate impacts to groundwater, one monitoring well, B2MW was installed just north of the former HOT location in June 1995. DRO was detected in this sample at 0.96 mg/l. In 1999, this well contained approximately 0.75 feet of free-phase petroleum.

A release investigation conducted in 2000 included the installation of two soil borings that were completed as monitoring wells B3MW and B4MW. The wells were placed south and southwest of the structure. A soil sample collected from near the groundwater interface at B4MW contained DRO at 8,970 mg/kg. The

groundwater sample from this well contained DRO at 61.3 mg/l. Approximately 0.2 feet of product was observed in B2MW.

Additional release investigation activities occurred in 2002 with the installation of monitoring wells B5MW, B6MW, and B7MW. Well B5MW was installed upgradient of the source area, B6MW and B7MW were installed in the alley south of the property and in the parking area of the building to the east, currently owned by NIMA Corporation. Soil samples collected near the groundwater interface at B6MW and B7MW contained DRO above the cleanup level. Groundwater samples from these two wells also exceeded the cleanup level for DRO. Contaminants were not detected in soil and groundwater samples from B5MW. Approximately 0.25 feet of free product was present in well B2MW.

Groundwater sampling was next conducted in 2005. A heavy sheen was noted in B2MW and B7MW, and approximately 0.25 feet of product was present in B6MW. Light sheen was noted in B4MW, however the sample from the well did not contain contaminants above cleanup levels. Few actions were conducted at the site between 2005 and 2011. In 2011, free product was measured between 0.3 and 1.5 feet in thickness and was present in wells B2MW, B3MW, B6MW, and B7MW. Free product was recovered from wells where it was present to the extent practicable. The physical characteristics of product in the various wells suggested another source area might be present in the vicinity of B6MW and B7MW. A sample from B4MW contained DRO at 4.91 mg/l.

To evaluate the extent of groundwater contamination, monitoring well B8MW was installed across C Street, southwest of the source area, in 2012. The sample from this well contained DRO at 1.54 mg/l. Observations at the other wells indicated free product was no longer present, therefore an effort to fingerprint the fuel was unsuccessful. DRO was detected above the cleanup level in B2MW, B4MW, B5MW, B6MW, B7MW, and B8MW. B6MW also contained RRO above the cleanup level. By January 2014, none of the monitoring wells at the site contained measurable product, except for B6MW, which contained 0.01 feet of product.

Quarterly groundwater monitoring and product level gauging was conducted in 2014 in an effort to better understand plume dynamics and evaluate the need for active remediation. Monitoring wells B2MW, B3MW, B4MW, B5MW, and B8MW were sampled on a quarterly basis and product levels were gauged in each well. Product was only observed in B6MW and ranged from 0.01 foot to 0.06 feet in thickness. Contaminant concentrations in the 5 wells that were sampled varied somewhat throughout 2014, but were within the range of historical data collected at the site. Groundwater flow was consistently to the southwest. Results from off-property well B8MW indicated the plume was generally delineated in the downgradient direction.

By the end of 2015, the data collected at the site suggested the potential presence of a second source area responsible for the contamination in B6MW and B7MW, both of which were located southeast of 1001 C St. The Salvation Army engaged with the adjacent property owner, NIMA Corp. in 2016 to obtain access to conduct additional investigation on their property at 236 West 10<sup>th</sup> Ave. In 2017, geophysical surveys were conducted on the NIMA Corp. and near the garage building at 1001 C St. property to evaluate the presence or former presence of unknown heating oil tanks. Additionally, a monitoring well B9MW, was installed along the western, upgradient edge of the NIMA Corp. property to evaluate if contamination could potentially be migrating from an upgradient source. The geophysical investigation indicated an area on the 236 West 10<sup>th</sup> Ave property where a tank may have previously been located. The former owner of the property confirmed that a heating oil tank had been present, but was removed in the early 1970s and contamination was not apparent at the time of its removal. There was no indication of heating oil tanks in the vicinity of the garage building. Soil samples collected during the installation of monitoring well B9MW contained DRO at 3,880 mg/kg at the groundwater interface; the groundwater sample from this well

contained DRO at 3.53 mg/l. During the 2017 sampling event, contaminant concentrations only exceeded cleanup levels at the source area well, B2MW and at B7MW and B9MW as noted above. Groundwater samples from off-property well B8MW last exceeded cleanup levels in 2014. Based on the information collected in 2017, it is unlikely that a release from 236 West 10<sup>th</sup> Ave. is responsible for the contamination present on that property.

Soil contamination remains at depth in the source area and near the groundwater interface downgradient of the source area, however groundwater met the cleanup levels in the most recent sampling event at all wells on the 1001 C St. property except for B2MW.

### Cumulative Risk Evaluation

Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative non-carcinogenic risk standard at a hazard index of one across all exposure pathways.

Based on a review of the environmental record, ADEC has determined that residual contaminant concentrations meet the cumulative risk criteria for human health.

### Exposure Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using ADEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De-Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

**Table 2 – Exposure Pathway Evaluation**

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Contamination is not present in surface soil (0 to 2 feet below ground surface).
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination remains in the sub-surface, but is below human health cleanup levels.
Inhalation – Outdoor Air	De-Minimis Exposure	Contamination remains in the sub-surface, but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Volatile contaminants capable of causing risk via this pathway are not present at the site
Groundwater Ingestion	Exposure Controlled	An NEC has been recorded restricting installation of water wells without prior ADEC approval.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source in the vicinity of the site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	Ecological receptors are not present at the site

**Notes to Table 2:** “De-Minimis Exposure” means that in ADEC’s judgment receptors are unlikely to be affected by the minimal volume or concentration of remaining contamination. “Pathway Incomplete”

means that in ADEC's judgment contamination has no potential to contact receptors. "Exposure Controlled" means there is an institutional control in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

### **ADEC Decision**

Petroleum contamination remains in groundwater above levels suitable for unrestricted future use; however a Notice of Environmental Contamination and Institutional Controls (NEC-IC) has been recorded in the land records maintained by the Alaska Department of Natural Resources and a copy is attached to this letter that will notify future owners of the presence of groundwater contamination and restrict its use for drinking water.

Groundwater meets the applicable cleanup levels except in a small area near the former HOT. The groundwater contaminant plume has been demonstrated to be shrinking and the contaminant concentrations are decreasing. Therefore, ADEC has determined the residual soil contamination does not pose an unacceptable migration to groundwater concern.

Institutional controls necessary to support this closure determination include:

1. The Landowner agrees to notify ADEC prior to any sale or transfer of the property and shall report to ADEC every 5 years to document the status of compliance with the institutional controls described in this notice. Such notice and the reports should be sent to the ADEC at:  
Alaska Department of Environmental Conservation  
Division of Spill Prevention and Response  
Contaminated Sites Program  
Attention: IC Unit  
P.O. Box 111800  
Juneau, AK 99811-1800  
or be submitted electronically to [CS.Submittals@alaska.gov](mailto:CS.Submittals@alaska.gov).
2. No groundwater wells shall be installed in the area covered by the institutional controls without prior DEC approval.

### Standard Conditions

3. ADEC approval is required prior to moving any contaminated soil or groundwater off any site that is subject to the site cleanup rules 18 AAC 78.600(h). A "site" as defined by 18 AAC 78.995(134) means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. In the future, if contaminated soil will be excavated (or groundwater will be brought to the surface, for example to dewater in support of construction) it must be characterized and managed following regulations applicable at that time and ADEC approval must be obtained before moving contaminated soil or water off the property.
4. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
5. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional characterization and treatment may be required to ensure the water is suitable for its intended use.

ADEC has determined the cleanup is complete as long as the institutional controls are properly implemented and no new information becomes available that indicates residual contamination may pose an unacceptable risk.

The ADEC Contaminated Sites Database will be updated to reflect the change in site status to "Cleanup Complete with Institutional Controls" and will include a description of the contamination remaining at the site.

The institutional controls will be removed in the future if documentation is provided that shows concentrations of all residual hazardous substances remaining at the site are below the levels that allow for unrestricted exposure to, and use of, the contaminated media and that the site does not pose a potential unacceptable risk to human health, safety or welfare, or to the environment. Standard conditions 3-5 above will remain in effect after ICs are removed.

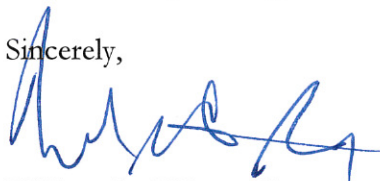
This determination is in accordance with 18 AAC 75.380 and does not preclude ADEC from requiring additional assessment and/or cleanup action if the institutional controls are determined to be ineffective or if new information indicates that contaminants at this site may pose an unacceptable risk to human health or the environment.

### **Appeal**

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 555 Cordova Street, Anchorage, Alaska 99501-2617, within 20 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, P.O. Box 111800, Juneau, Alaska 99811-1800, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

If you have questions about this closure decision, please feel free to contact me at (907) 269-3057 or email at [bill.oconnell@alaska.gov](mailto:bill.oconnell@alaska.gov)

Sincerely,

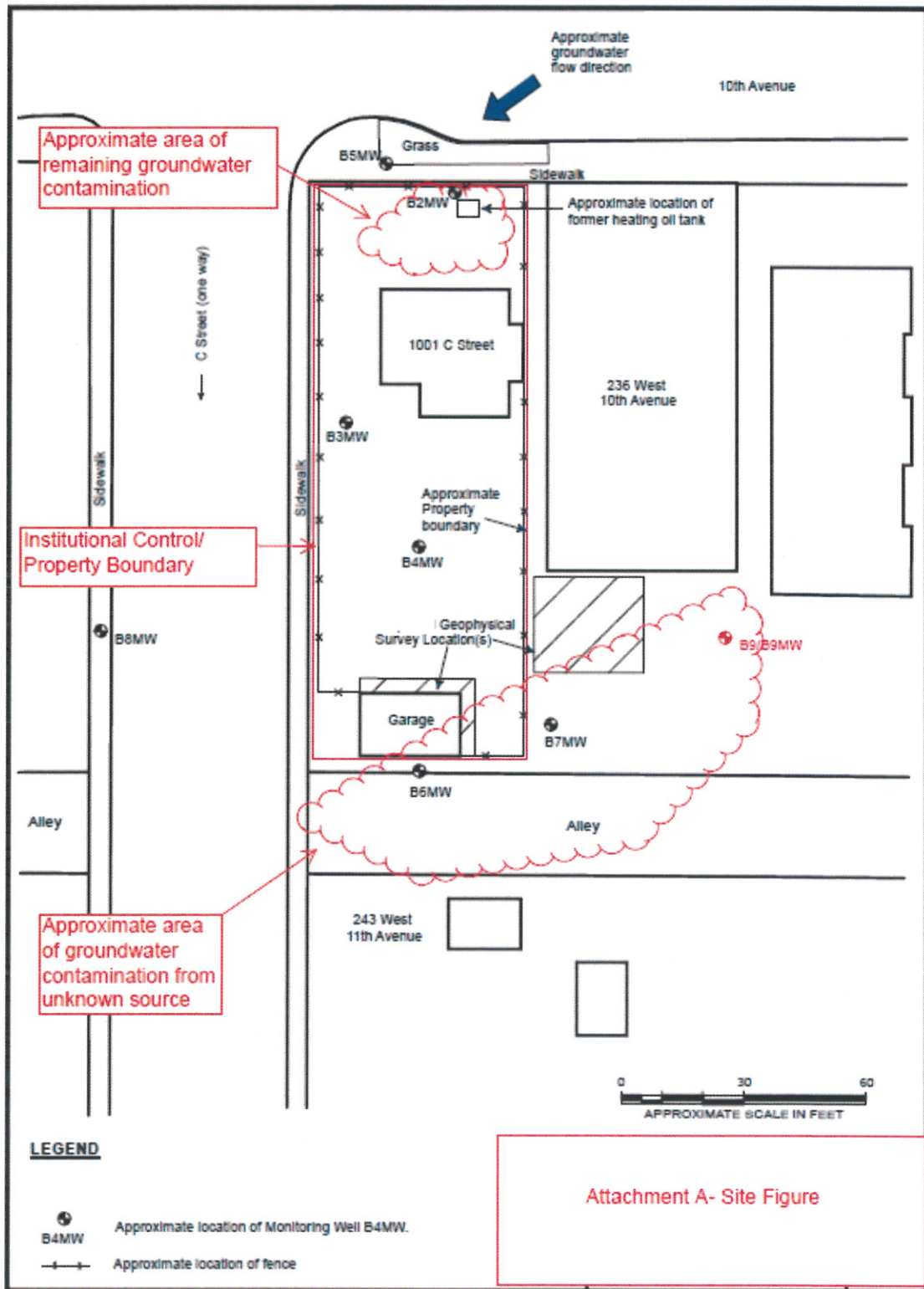


William A. O'Connell  
Project Manager

Attachments: Site Figure  
Recorded NEC-IC Agreement which includes site figure(s) showing the extent of residual groundwater contamination and boundaries of areas covered by ICs.

cc: Spill Prevention and Response, Cost Recovery Unit

Site Figure



# **Notice of Environmental Contamination and Institutional Controls**

**Grantor:** State of Alaska  
Department of Environmental Conservation  
Contaminated Site Program

**Grantee:** Dee Ann Hanson  
4215 Ptarmigan Place  
Anchorage, AK 99516

**Legal Description:** Block 12B, Lot 6, Third Addition to the Townsite of Anchorage

**Recording District:** Anchorage

**Return to:** Bill O'Connell  
ADEC Contaminated Sites Program  
555 Cordova St.  
Anchorage, AK 99501

**State Business- No Charge**



## NOTICE OF ENVIRONMENTAL CONTAMINATION AND INSTITUTIONAL CONTROLS

As required by the Alaska Department of Environmental Conservation, pursuant to 18 AAC 75.375 Ms. Dee Ann Hanson, the Landowner(s) of the subject property, hereby provides public notice that the property located at: 1001 C Street in Anchorage, Alaska, 99501, and more particularly described as follows:

### **Block 12B, Lot 6, Third Addition to the Townsite of Anchorage**

has been subject to a discharge or release and subsequent cleanup of oil or other hazardous substances, regulated under 18 AAC 75. This release and cleanup are documented in the Alaska Department of Environmental Conservation (ADEC) contaminated sites database at <http://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/Search> under the site name Former Salvation Army Property and Hazard ID number 2388. Releases from a former underground heating oil tank resulted in the presence of soil and groundwater contamination at the site. The tank was removed from the ground in 1995.

By signing this notice, ADEC, the Salvation Army, and the Landowner have agreed that the institutional controls described below are necessary and appropriate, and shall be maintained and be binding on the Salvation Army, the Landowner and its agents, successors and assigns. If the Landowner transfers, sells, assigns, leases or subleases the property or any portion of the property covered by the institutional controls, the Landowner shall incorporate a copy of this notice into the documents of transfer, sale, assignment, lease or sublease.

ADEC has reviewed and approved, subject to the institutional controls described below, the cleanup as protective of human health, safety, welfare, and the environment. No further cleanup is necessary at this site as long as the institutional controls remain in place and effective and no new information becomes available that indicates to ADEC that the site may pose an unacceptable risk to human health, safety, welfare, or the environment.

ADEC determined, in accordance with 18 AAC 75.325 – .390 site cleanup rules, that cleanup has been performed to the maximum extent practicable even though residual petroleum contaminated soil and groundwater exists on-site.

The following institutional controls and standard conditions shall be maintained

#### Institutional Controls

1. The Landowner agrees to notify ADEC prior to any sale or transfer of the property and shall report to ADEC every 5 years to document the status of compliance with the institutional controls described in this notice. Such notice and the reports should be sent to the ADEC at:

Alaska Department of Environmental Conservation  
Division of Spill Prevention and Response  
Contaminated Sites Program

Attention: IC Unit  
P.O. Box 111800  
Juneau, AK 99811-1800

or be submitted electronically to [CS.Submittals@alaska.gov](mailto:CS.Submittals@alaska.gov).

2. No groundwater wells shall be installed in the area covered by the institutional controls without prior DEC approval.

#### Standard Conditions

3. ADEC approval is required prior to moving any soil or groundwater off any site that is subject to the site cleanup rules 18 AAC 78.600(h). A "site" as defined by 18 AAC 78.995(134) means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. In the future, if soil will be excavated (or groundwater will be brought to the surface, for example to dewater in support of construction) it must be characterized and managed following regulations applicable at that time and ADEC approval must be obtained before moving contaminated soil or water off the property.
4. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
5. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional characterization and treatment may be required to ensure the water is suitable for its intended use.

Attached is a site survey or diagram(s) drawn to scale that shows the property boundaries, locations of existing structures, the area that has been cleaned up, the approximate location and extent of remaining soil and/or groundwater contamination which is subject to the institutional controls described in this notice.

Failure to comply with the institutional controls described herein may result in ADEC reopening the site and requiring additional site characterization and cleanup.

In the event that new information becomes available which indicates that the site may pose an unacceptable risk to human health, safety, welfare or the environment, further site characterization and cleanup may be necessary under 18 AAC 75.325-.390.

This notice and the institutional controls remain in effect until a written determination from ADEC is recorded that documents contaminants remaining at the site have been shown to meet the residential use soil cleanup levels defined in 18 AAC 75.340 and groundwater cleanup levels in Table C within 18 AAC 75.345.

For more information on the contaminated site in this notice, please see ADEC Contaminated Sites Program file number 2100.38.252 for the site named Former Salvation Army Property

Notice of Environmental Contamination and  
Institutional Controls Signature Page-1001 C Street, Anchorage

\_\_\_\_\_  
Signature of Landowner

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Landowner

\_\_\_\_\_  
Signature of Responsible Party

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Responsible party

\_\_\_\_\_  
Signature of Authorized ADEC Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Authorized ADEC Representative

