THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

410 Willoughby Ave., Suite 303
P.O. Box 111800
Juneau, Alaska 99811-1800
Main: 907.465.5390
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www.dec.alaska.gov

File: 2100.38.188

April 26, 2018

Sent via electronic mail only
John Rodda, Director
Anchorage Parks and Recreation
Municipality of Anchorage
P.O. Box 196650
Anchorage, AK 99519

Re: Institutional Controls (ICs) Verification Required for:
84th Avenue and Spruce Street, located at 3494 East 84th Avenue, Anchorage, Alaska 99507

Dear Mr. Rodda:

The Contaminated Sites Program is conducting an audit of contaminated sites closed with conditions (Institutional Controls) to verify that closure stipulations such as periodic monitoring and reporting are being performed by the responsible party of record as required under state law (18 AAC 75.375).

In May 2014 the Alaska Department of Environmental Conservation (ADEC) granted a Cleanup Complete – Institutional Controls Determination (Decision Document) for the 84th Avenue and Spruce Street site. The Decision Document included conditions requiring that a report be submitted to ADEC every three years to (a) document the twice-yearly visual inspections of the clean fill cap with photographs and narrative from the monitoring events, (b) summarize any damage to and/or repairs and maintenance of the soil cap during the three year period, and (c) indicate any changes in land use or ownership of the site. Based on our records, we have not received this three-year report that was due in the fall of 2017. The Decision Document outlining the original request is enclosed.

Requested Documentation

In order to ensure that conditions at the site are protective of human health, welfare, safety and the environment, ADEC requests that you provide the following:

- Nature of the current land use of the 84th Avenue and Spruce Street site.
- The three-year report that was due in fall 2017 and is referenced in item (2) of the institutional controls established for this site. *Institutional controls for this site are outlined below and are also listed in the enclosed 2014 Decision Document.*

*Please be advised that the following Institutional Controls as established in the 2014 Decision Document remain in effect for the 84th Avenue and Spruce Street site in Anchorage:

1. Maintain at all times and visually monitor at least twice annually the clean fill cap in the unpaved areas within the site boundary (shown on Figure 1 in the 2014 Decision Document), beginning in May 2014. For each monitoring event, make a photographic and narrative record once after annual spring thaw and once before annual freeze-up and/or snowfall to ensure the cap has not been damaged, degraded or removed and that it remains stable and vegetated.
2. Every three years, submit a brief report of requirements specified by item (1) with the initial report due in fall 2017. Reporting shall include (a) photographs and narrative from the monitoring events and (b) a summary of damage to and/or repairs and maintenance of the soil cap during the three year period. Reports may be submitted electronically. Indicate in the report whether or not there have been any changes in land use or ownership of the site. The report can be sent to the local ADEC office or submitted electronically to CS.Submittals@alaska.gov.
3. If at any time the clean cap is observed to be damaged, missing or lacking vegetative cover, mitigate the problem in a timely manner. If the cap is compromised so that the underlying contaminated soil may be exposed, report the problem and the corrective action taken to ADEC within 30 days of the event, providing photographs and a narrative. Reports may be submitted electronically to ADEC.
4. A Notice of Environmental Contamination (NEC) has been recorded by ADEC at the State Recorder's Office that identifies the nature and extent of contamination at the property, and any conditions the MOA is subject to in accordance with the 2014 Decision Document.
5. At any time in the future, notify ADEC within 60 days of any change in land use or ownership. Land use changes may impact the exposure assumptions cited in the 2014 Decision Document. If land use and/or ownership changes, current institutional controls may not be protective and ADEC may require additional remediation and/or institutional controls.
6. Installation of groundwater wells at this site requires approval from ADEC.
7. In the future, if soil is removed from the site it must be characterized and managed following regulations applicable at that time. Pursuant to 18 AAC 75.325(i)(1) and (2), ADEC approval is required prior to moving soil or groundwater that is, or has been, subject to the cleanup rules found at 18 AAC 75.325-.370.
8. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

The ADEC is concerned that these site conditions remain protective. Failure to maintain these requirements may result in re-opening of the site by the Contaminated Sites Program, in which case, further remediation could be mandatory.

Please provide the requested documentation either by hard copy letter or email no later than **June 1, 2018**. If you have any questions about these requirements, please do not hesitate to contact me at (907) 465-5229 or evonne.reese@alaska.gov.

You may submit any needed documentation electronically. If your submittal is too large to email (i.e. exceeds 20 megabytes), you may submit it to me through the Alaska ZendTo "drop-off" option at https://drop.state.ak.us/drop/. The Division of SPAR/Contaminated Sites Program prefers and encourages electronic submittals.

Sincerely,

Evonne Reese
Environmental Program Specialist
Institutional Controls Unit

Encl: 2014 Decision Document
CC: Alison Smith, MOA Land Manager

You may submit any needed documentation electronically. If your submittal is too large to email (i.e. exceeds 20 megabytes), you may submit it to me through the Alaska ZendTo "drop-off" option at https://drop.state.ak.us/drop/. The Division of SPAR/Contaminated Sites Program prefers and encourages electronic submittals.

THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION & RESPONSE
Contaminated Sites Program

555 Cordova Street
Anchorage, Alaska 99501
Phone: 907.269.7503
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dec.alaska.gov

File No: 2100.38.188

May 2, 2014

John Rodda, Director
Anchorage Parks and Recreation
Municipality of Anchorage
P.O. Box 19665
Anchorage, AK 99519

Re: Decision Document; 84th Avenue and Spruce Street
Cleanup Complete – Institutional Controls Determination

Dear Mr. Rodda;

The Alaska Department of Environmental Conservation (ADEC) has reviewed the environmental records for the 84th Avenue and Spruce Street site,[1] also known as the Municipality of Anchorage (MOA) owned Spruce Park. This decision letter memorializes the site history, cleanup actions, and specific conditions required to effectively manage remaining contamination. No further remedial action will be required as long as compliance with these conditions is maintained. All documents cited in this decision are available through ADEC's Anchorage offices.

Site Name and Location:
3494 E. 84th Avenue
Anchorage, AK 99507
(at southwest corner of 84th Avenue and Spruce Street) comprising approximately 2 acres including part of T12N R3W SEC 9 LT 72 (Residential) and portions of adjacent rights-of-way as indicated on Figure 1 below.

Name and Mailing Address of Contact Party:
John Rodda, Director
Anchorage Parks and Recreation
Municipality of Anchorage
P.O. Box 19665
Anchorage, AK 99519

ADEC Site Identifiers:
File: 2100.38.188
Hazard ID: 1222

Regulatory Authority for Determination:
18 AAC 75

[1] ADEC's Contaminated Sites database entries for site can be accessed online at http://dec.alaska.gov/Applications/SPAR/CCReports/Site_Report.aspx?Hazard_ID=1222

Background

In late April 1991 ADEC and the U.S. Environmental Protection Agency (EPA) received a report of contamination associated with a salvage yard that operated from the late early 1940s through 1989 at the southwest corner of 84th Avenue and Spruce Street. Contamination resulted from operations that included smelting scrap lead and copper; burial of automotive batteries; dismantling electrical transformers; storing and reclaiming a wide variety of equipment and wiring; and possibly releases from numerous drums stored on the property. The business was operated as Abbott Loop Salvage Yard (a.k.a. Far North Salvage) by Henry C. Wiley and occupied approximately two acres in the northwest corner of Mr. Wiley's 10-acre property. Mr. Wiley passed away in October 1989 and a developer contracted with an environmental consultant to determine whether the estate property could be the site of residential housing.

The portion of the property used for salvage operations fronted on, and later was found to include portions of the 84th Avenue and Spruce Street roads and rights of way as shown on **Figure 1** below. Soil within the two-acre active portion of the property and in the adjacent roadways was found to be contaminated by lead, polychlorinated biphenyls (PCBs), and the solvent trichloroethylene (TCE). Although ponded water at the site was observed to have a sheen during 1991 site inspections, no petroleum hydrocarbon contamination exceeding applicable 18 AAC 75 cleanup levels for soil or groundwater was identified at the site.

Figure 1 – Current air photo showing sledding hill constructed in 2006, Spruce Park property boundaries (Lots 71 and 72) and boundary of approximately two-acre contaminated site. Figure oriented with North up.

A single sample collected from the 84th Avenue roadway in 1994 exceeded the current 18 AAC 75.340 Method 2 soil cleanup 75 cleanup levels for soil or groundwater was identified at the site. A

single sample collected from the 84th Avenue roadway in 1994 exceeded the current 18 AAC 75.340 Method 2 soil cleanup level for trichloroethylene (TCE). There were no other detections of TCE, and the TCE-impacted soil was disposed of off-site.

Contaminants of Concern

During the investigations at the site, soil samples were analyzed for gasoline range organics (GRO); diesel range organics (DRO); residual range organics (RRO); Total Petroleum Hydrocarbons (TPH)(former EPA Method 413.1, no longer in use); aromatic volatile organics benzene, toluene, ethylbenzene, and xylenes (BTEX); halogenated volatile organics (HVOs); total metals; total lead; and lead by the Toxic Characteristic Leaching Procedure (TCLP).

Based on these analyses and knowledge of the source area, the following contaminants of concern (COCs) were identified in soil:

- Trichloroethylene (TCE)
- Polychlorinated Biphenyls (PCBs)
- Lead (by TCLP)
- Lead (Total

Groundwater at the site was not impacted. Shallow groundwater was evaluated by installation of four monitoring wells. Several area drinking water wells that draw water from an aquifer at a depth of approximately 70 feet were sampled with non-detect results for the contaminants of concern.

ADEC Cleanup levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Table B1 and B2, *Under 40 Inch Zone*, with the exception that the threshold value for lead by the TCLP is established by the EPA; lead concentrations above 5 mg/L by the TCLP are classified as characteristic hazardous waste.

Table 1- Soil Cleanup Levels

Contaminants of Concern	EPA site specific cleanup standard	ADEC Soil-Method Two, Direct Contact /Ingestion mg/kg	ADEC Soil-, Outdoor Inhalation mg/kg	ADEC Soil-Method Two Migration to Groundwater mg/kg
Lead, total	500 mg/kg*	400		
TCLP lead (federal regulations apply)	5 mg/L			
PCBs	10 mg/kg*	1 (residential)		
TCE		21	0.57	0.020

Notes to Table 1: *EPA established site specific cleanup standards of 500 mg/kg for total lead and 10 mg/kg for PCBs for the site.

Site Characterization and Cleanup Actions

Prior to 1991 the Spruce Park property was used for salvage operations, including handling and processing of materials containing lead and PCB. In May 1991 Quest Environmental conducted an

environmental audit on behalf of a developer who planned to build a housing subdivision at the site. The audit results, submitted to ADEC and EPA, noted an oily sheen on ponded water, hundreds of drums, battery casings, and electrical transformers suspected of containing PCBs at the site. By June 1991 public interest had heightened and neighbors formed a community action group "The Neighborhood Alliance" whose priorities were that the site be fenced off to prevent access by children and cleaned up. EPA immediately became involved in assessing the site based on the potential that federally regulated hazardous waste and toxics were present at the site.[2]

In July 1991, the EPA contracted with Ecology and Environment (E&E) to conduct a site assessment. A total of 19 soil and water samples were collected from locations both on the salvage yard property and off-property. Soil sample results documented concentrations of PCBs and lead exceeding EPA cleanup standards for residential and industrial sites. Roadways constructed on the property were contaminated with ash slag and battery casings. Maximum analytical results for total lead was 330,000 mg/kg and maximum PCB concentrations were 38,600 mg/kg prior to cleanup. Following receipt of the results EPA initiated a removal action under the EPA Superfund Emergency Response Program. EPA set site-specific cleanup levels of 10 mg/kg PCB, 500 mg/kg total lead, and 5 mg/L lead by the Toxic Characteristic Leaching Procedure (TCLP).

The site, as defined at the time, was fenced in July 1991. Later investigations (Golder, May 1998) found that contamination and therefore the site extended to the north and west of the Wiley estate, into 84th Avenue to the north and the Spruce Street right of way to the west as shown on Figures 2 and 3 below, modified from historical air photos.

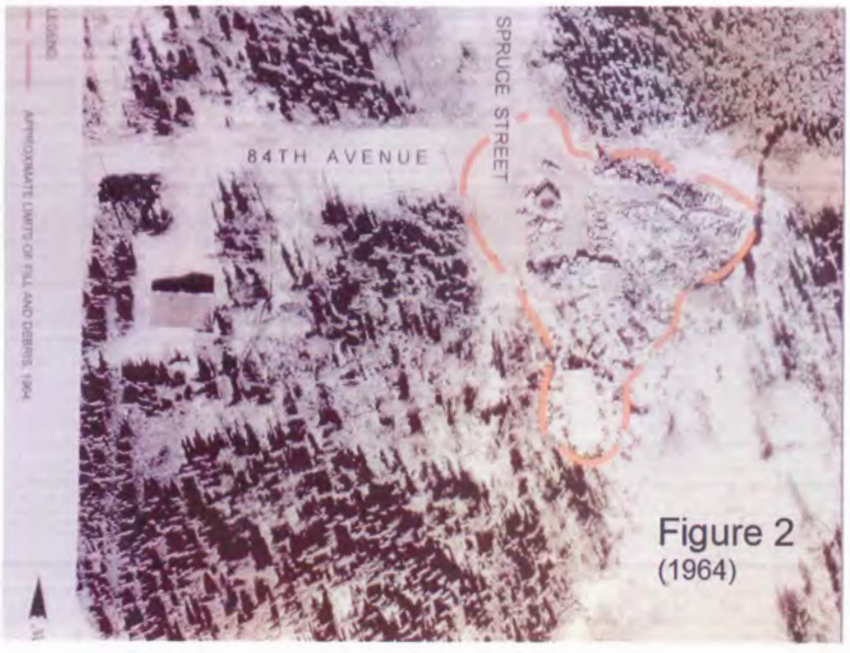

Figure 2: Approximate limits of fill and debris and salvage yard, 1964. From May 15, 1998 report by Golder Associates, "PCB and Lead Removal Activities, Spruce Street Superfund Site."

[2] Applicable regulations: Lead that exceeds the 5 mg/L threshold under the Toxic Characteristic Leaching Procedure (TCLP) is regulated as characteristic hazardous waste under the federal Resource Conservation and Recovery Act (RCRA). PCBs are federally regulated by the Toxic Substances Control Act (TSCA).

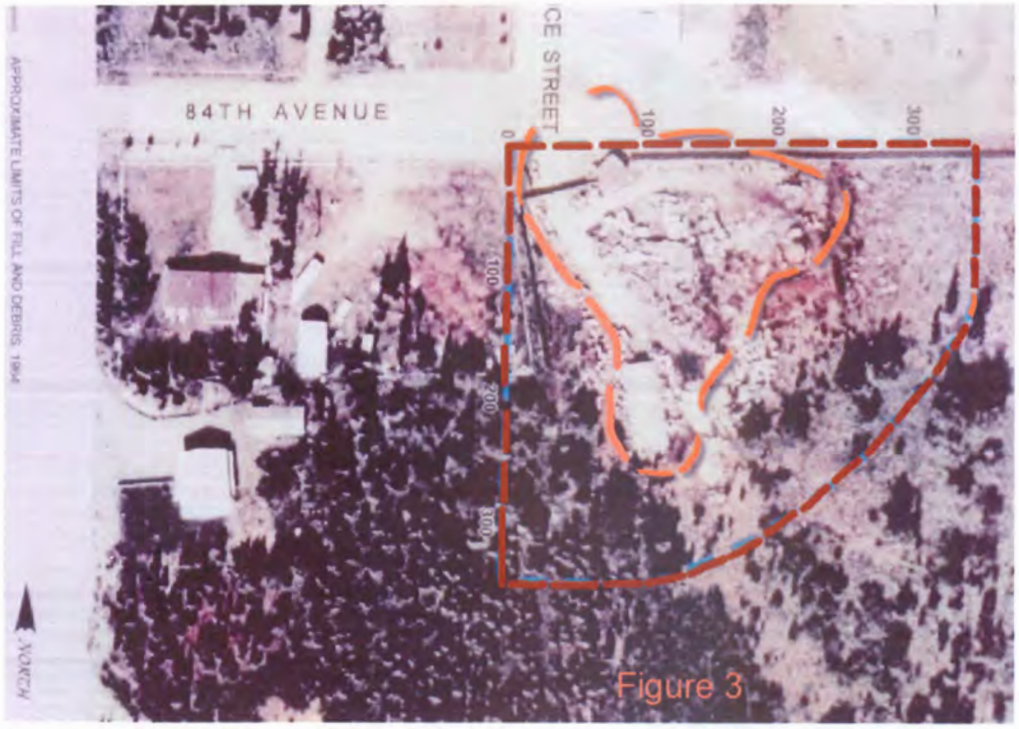

Figure 3: Approximate limits of fill and debris and salvage yard, 1964 with fencing present from 1991 to 1998 shown in blue. From May 15, 1998 report by Golder Associates, "PCB and Lead Removal Activities, Spruce Street Superfund Site."

The first phase of the EPA removal action was conducted by contractor E&E between 1991 and 1993 and included removal of surface debris and onsite structures. In addition, soil was excavated and stockpiled if it contained lead and PCB at concentrations above the site specific cleanup levels set by EPA. As the on-site removal and sampling effort progressed, PCB contamination was found to be in isolated pockets, while heavy metal contamination was found to be more widespread primarily due to slag accumulation around metal burners and the use of slag material as fill around the property.

E&E sampled four residential drinking water wells in 1991. Three of four drinking water wells sampled in 1991 contained no detectable contamination while the fourth contained arsenic above the then-maximum contaminant level (MCL) of 0.05 mg/L. (Currently the MCL for arsenic is 0.010). E&E sampled an additional 12 residential drinking water wells and resampled the arsenic-containing well in 1992. An additional well water sample, as well as the initial arsenic-containing well, were found to have arsenic concentrations above the MCL during subsequent testing. Four monitoring wells were installed at the site to determine the source of the arsenic in the residential water wells. Arsenic was found in three of the four on site wells, but results were not conclusive as to whether the arsenic was naturally occurring or from the site. (E&E, 1993a).

In July 1994, Shannon & Wilson (S&W) conducted an environmental assessment at the intersection of 84th Avenue and Spruce Street for the MOA prior to design and installation of a storm drain along the right-of-way (ROW) of 84th Avenue. The assessment included drilling four soil borings within the right of way of 84th Avenue and collecting three surface samples from the center of the unpaved 84th Avenue roadway. Soil analytical results showed that total lead, TCLP lead and tetrachlorethylene (TCE) concentrations exceeded applicable cleanup levels. A surface sample from the center of 84th Avenue had a total lead concentration of 3,000 mg/kg and TCLP lead value of 14 mg/L. S&W noted that these results would result in the contaminated soil in the roadbed becoming a hazardous waste when excavated. S&W determined that groundwater was not encountered to the 15 foot depth of the borings. (S&W, August 1994).

In a November 1994 fact sheet EPA stated that it was delaying cleanup work pending the outcome of an ongoing investigation to identify potentially responsible parties (PRPs) who may have contributed to the contamination at the salvage yard, with the goal of having the PRPs fund the remaining cleanup work.

In November 1995 the MOA asked the EPA whether it could excavate and replace RCRA waste (based on lead content found during 1994 S&W investigation) into excavations without generating hazardous waste during construction of the storm water drain system planned for 84th Avenue. EPA and ADEC had no objection to this approach as long as MOA kept ADEC apprised of the planned work to ensure it did not result in the creation of new exposure pathways.

EPA continued to investigate PRPs and in September 1996 finalized an Adminstrative Order by Consent with the MOA. In October 1997 EPA finalized an Agreement for Payment of Response Costs between various federal governmental agencies and the MOA. The MOA foreclosed on and took possession of the approximately 10-acre property for future use as a park. The property was named Spruce Park in 1998.

Remedial work completed between 1996 and 1998 was managed by the MOA under the consent agreement between the EPA and the MOA, with Golder Associates the MOA's consultant. Work included removal of three stockpiles from the earlier remedial phase; further site characterization to identify remaining soil exceeding site cleanup levels; and excavation and treatment of the soil. In May 1997, lead contaminated soils and debris were encountered during construction of storm drain and road improvements by the MOA in the 84th Avenue right of way. Approximately 450 cubic yards of soil was excavated and stockpiled in the northeast corner of the site.

The 1997 discovery of the extensive soil contamination along 84th Avenue prompted review of historical aerial photography. The review revealed that the former salvage yard extended north of the current fence line and included a portion of 84th Avenue, as shown on attached Figures 2 and 3. The aerial photography also provides a partial explanation for the elevated lead concentrations found during S&W's 1994 investigation in soil samples north of the site. (Golder, May 1998).

At the completion of remedial activities, Golder collected composite samples according to EPA methodology,[3] confirming that the EPA site-specific cleanup levels had been met. Remaining PCB and lead concentrations before capping are shown on Figures 10 and 11 of Golder's May 15, 1998 report. The site was subsequently regraded and capped in 1998 to provide surface drainage and a minimum 1 ft. soil cover over in-situ materials (Golder, October 1998). The weight and disposition of the soils removed from the site by 1998 were as follows:

- Approximately 181.7 tons of TSCA soil, contaminated by PCBs and leachable lead, were transported to the Grassy Mountain landfill facility in Utah.
- Approximately 1,650 tons of lead stabilized soils were transported to the Grassy Mountain landfill facility in Utah.
- Approximately 538 tons of non-RCRA soil was transported to Anchorage Regional Landfill (ARL).

The total weight of contaminated soil removed from the site by 1998 was 2369.7 tons, or approximately 1,580 cubic yards given an average weight per cubic yard of 1.5 tons.

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[3] See EPA publications "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup...May 1986" and "Verification of PCB Spill Cleanup by Sampling and Analysis...August 1985" for general methodology.

Golder performed a Phase II Environmental Site Assessment within the right of way in 2004 and 2005 to determine whether soil contamination was present in soil to be excavated during 84th Avenue and Spruce Street road improvements. The work included placing 16 borings and excavating 7 test pits in the immediate vicinity of the site. Twenty-eight samples were collected from 20 locations and analyzed for lead and PCBs. Results indicated the sporadic presence of lead and PCB in soil near the entrance to the salvage yard site, with maximum total lead concentration of 472 mg/kg and 6.77 mg/kg PCB. Golder noted that the maximum concentrations of these contaminants were below the site specific cleanup levels established by the EPA but higher than the ADEC levels for unrestricted use at residential sites found in Table 1 above. Golder recommended that excavated materials should either be reused on-site with concurrence of ADEC or taken to an appropriate disposal facility. (Golder, July 2005).

Golder's plan dated March 27, 2006 proposed reuse of soil to be excavated during road construction work between specific stations along Spruce Street. An estimated 1,400 cubic yards of soil containing lead and PCB levels that met EPA's site specific cleanup levels was proposed for use as the core of an engineered sledding hill. The hill would be constructed within the area of Spruce Park formerly occupied by the salvage yard, and would be capped by a minimum of two feet of clean fill, covered by topsoil and seeded. ADEC approved the plan in May 2006.

Photograph of Spruce Park sledding hill, facing east from Spruce Street, July 2010.

Right of way excavation and sledding hill construction took place concurrently between June 13 and June 28, 2006 and was documented in Golder's February 11, 2008 report titled "Summary of Spruce Park Sledding Hill Construction, East 84th Avenue and Spruce Street Upgrade." Excavation confirmation samples at the south end of the Spruce Street excavation exceeded site specific cleanup levels, requiring three successive phases of over-excavation that took place in July, August and September 2006. In October 2006 ADEC approved disposal at Anchorage Regional Landfill of 183 tons of soil containing lead and PCB that was over-excavated after the sledding hill was constructed. After over-excavation two composite lead samples from the south end of the excavation still exceeded the EPA site specific cleanup level, with results of 510 and 570 mg/kg total lead.

On September 13, 2006 Golder reported that 40 – 60 cubic yards of contaminated soil and buried debris associated with the former salvage yard were encountered during August 2006 utility trenching work to relocate subsurface gas and cable utilities along 84th Avenue adjacent to the site. . The trench excavations were backfilled with imported fill following relocation of the utilities. The soil from the excavations was placed into four temporary stockpiles designated A-D stored on the Spruce Park site. Composite samples were collected from each stockpile and tested for total lead, TCLP lead, and PCB. The results of the testing exceeded both the ADEC and EPA "Site-Specific Cleanup Standards" for total lead and TCLP lead, as indicated in Table 1 above, with total lead concentrations from 600-4,200 mg/Kg and TCLP lead results from 7-150 mg/L. Further, based on the TCLP results the soil was classified as a characteristic hazardous waste subject to RCRA regulation.

Golder submitted a work plan for treatment and disposal of the stockpiled soil on January 19, 2007. The plan proposed transporting and disposing of the soil at an out-of-state federally permitted Treatment, Storage, and Disposal Facility (TSDF). The plan also proposed sampling the footprint and perimeter of the stockpile location after the stockpiled soil is removed, and submitting a report and other documentation to ADEC. ADEC approved the plan on January 25, 2007.

Removal of the stockpiled soil took place on July 20, 2007 and was reported in Golder's "Summary Trench Excavation, Testing Results, and Removal Activities" report dated January 16, 2008. The soil, totaling 89.5 tons, was transported as hazardous waste to the Chemical Waste Management landfill in Arlington, OR. The first of two rounds of composite sampling from the stockpile footprint took place on July 20, 2007. Quality assurance issues necessitated collecting additional samples on September 19, 2007 from the stockpile area and an expanded area of exposed soil between the recent road improvements and bollards located along the north side of Spruce Park. All samples were below cleanup standards, with the exception of four subsamples collected outside of the stockpile footprint, which contained lead at concentrations exceeding the EPA site specific cleanup standard of 500 mg/kg. Approximately 6 in. of topsoil was placed by the MOA, and ADEC approved leaving the material exceeding cleanup standards in place over the winter as long as the cover is maintained and the soil is addressed by June 30, 2008.

On August 21, 2008 ADEC approved a plan dated Aug. 6, 2008 titled "Work Plan for Excavation and Disposal of Soil Adjacent to Spruce Park Utility Trench Excavation." The plan proposed to remove lead-contaminated soil exceeding the EPA site specific cleanup level of 500 mg/kg, to collect confirmation samples at the limits of excavation, and to dispose of the contaminated soil at a TSDF.

Excavation of the contaminated soil took place on September 9, 2009 and was reported in the report by Golder dated February 1, 2011 titled "Results of Excavation and Disposal of Soil Adjacent to Spruce Park." The excavated material was transported as hazardous waste to a federally permitted TSDF in Grand View, ID that is operated by U.S. Ecology Idaho, Inc. Six supersacks totaling less than 10 tons of soil were transported to the TSDF. Confirmation sampling of the former stockpile footprint and surrounding area yielded results below the EPA and ADEC cleanup levels for all compounds of concern. The MOA reestablished a minimum 1-foot clean fill soil cap throughout the impacted area.

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 noncarcinogenic risk standard at a hazard index of one across all exposure pathways.

Based on a review of the environmental record, residual contaminant concentrations are exceeded for lead and PCBs by the direct contact pathway but ADEC has determined that the contaminant concentrations do not pose a cumulative human health risk.

Exposure Pathway Evaluation

Following investigation and cleanup at this site, exposure to remaining contaminants was evaluated using ADEC's Exposure Tracking Model (ETM). Exposure pathways are 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 1.

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Exposure Controlled	All contaminated areas have been capped by a minimum of 1-foot of clean fill. The sledding hill constructed in 2006 is capped by a minimum of 2-feet of clean fill, with a geofabric marker layer separating the underlying soil from the fill.
Sub-Surface Soil Contact	Exposure Controlled	Subsurface soil contamination remains beneath the areas shown on Figure 1 of this decision document. All contaminated soil is capped by a minimum of 1-foot of clean fill, and roadways are also paved.
Inhalation – Outdoor Air	De-Minimis Exposure	Trichloroethylene (TCE) detected in soil was removed from site for off-site disposal. No volatile compounds remain above cleanup levels in site soils.
Inhalation – Indoor Air (vapor intrusion)	De-Minimis Exposure	Trichloroethylene (TCE) detected in soil exceeded only the migration to groundwater cleanup level of 0.020. The TCE-contaminated soil was removed from the site for off-site disposal. No volatile compounds remain above cleanup levels in site soils.
Groundwater Ingestion	Pathway Incomplete	The contaminants of concern were not detected in groundwater monitoring wells placed at the most contaminated areas of the site, or in 16 area residential drinking water wells. Arsenic was detected in some wells but was determined to be naturally occurring in the area.
Surface Water Ingestion	Pathway Incomplete	Surface water is not utilized as a drinking water source in this area.
Wild Foods Ingestion	Pathway Incomplete	This area is not used for harvesting wild foods
Exposure to Ecological Receptors	Pathway Incomplete	There are no complete exposure pathways to ecological receptors at the site.

Notes to Table 1: "De minimis exposure" means that in ADEC's judgment receptors are unlikely to be affected by the minimal volume of remaining contamination. "Pathway incomplete" means that in ADEC's judgment contamination has no potential to contact receptors. "Exposure Controlled" means there is an administrative mechanism in place limiting land or ground water use, or a physical barrier in place that deters contact with residual contamination.

ADEC Decision

There is contamination remaining above established cleanup levels at the 84th Avenue and Spruce Street site, but ADEC has determined there is no unacceptable risk to human health or the environment and grants the site Cleanup Complete - Institutional Controls status subject to the following:

1. Maintain at all times and visually monitor at least twice annually the clean fill cap in the unpaved areas within the site boundary (shown on Figure 1 above), beginning in May 2014. For each monitoring event make a photographic and narrative record once after annual spring thaw and once before annual freeze-up and/or snowfall to ensure the cap has not been damaged, degraded or removed and that it remains stable and vegetated.
2. Every three years, submit a brief report of requirements specified by item (1) with the initial report due in fall 2017. Reporting shall include (a) photographs and narrative from the monitoring events and (b) a summary of damage to and/or repairs and maintenance of the soil cap during the three year period. Reports may be submitted electronically. Indicate in the report whether or not there have been any changes in land use or ownership of the site. **The report can be sent to the local ADEC office or electronically to DEC.ICUnit@alaska.gov.**
3. If at any time the clean cap is observed to be damaged, missing or lacking vegetative cover, mitigate the problem in a timely manner. If the cap is compromised so that the underlying contaminated soil may be exposed, report the problem and the corrective action taken to ADEC within 30 days of the event, providing photographs and a narrative. Reports may be submitted electronically to ADEC.
4. A *Notice of Environmental Contamination* (NEC) will be recorded by ADEC at the State Recorder's Office that identifies the nature and extent of contamination at the property, and any conditions the MOA is subject to in accordance with this decision document. (See Enclosure.).
5. At any time in the future, notify ADEC within 60 days of any change in land use or ownership. Land use changes may impact the exposure assumptions cited in this document. If land use and/or ownership changes, current institutional controls may not be protective and ADEC may require additional remediation and/or institutional controls.
6. Installation of groundwater wells at this site requires approval from ADEC.
7. In the future, if soil is removed from the site it must be characterized and managed following regulations applicable at that time. Pursuant to 18 AAC 75.325(i)(1) and (2), DEC approval is required prior to moving soil or groundwater that is, or has been, subject to the cleanup rules found at 18 AAC 75.325-.370.
8. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

The ADEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above, and will include a description of the contamination remaining at the site. Institutional controls will be removed in the future if documentation can be provided that shows cleanup levels have been met. Note: management conditions 7 and 8 are standard conditions for all contaminated sites and 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 future information indicates that 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, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 15 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, Juneau, Alaska 99801, 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.

Please sign and return *Attachment A* to ADEC within 30 days of receipt of this letter. If you have questions about this closure decision, please feel free to contact me at (907) 269-7527.

Sincerely,

Eileen Olson

Eileen Olson
Environmental Specialist

Attachment A: Cleanup Complete-ICs Agreement Signature Page
Enclosure: Notice of Environmental Contamination (NEC)

cc: Alison Smith, MOA Land Manager
DEC- RFA via email at dec.spar.cr@alaska.gov.

DEPT. OF ENVIRONMENTAL CONSERVATION
MAY 0 6 2014
RECEIVED

ADEC File No.

Hazard ID No.

Attachment A: Cleanup Complete-ICs Agreement and Signature Page*

The Municipality of Anchorage (MOA) agrees to the terms of this Corrective Action Complete with Institutional Controls determination as stated in this closure decision document dated **May 2, 2014** for the *84th Avenue and Spruce Street* site. Failure to comply with the terms of this agreement may result in ADEC reopening this site and requiring further remedial action.

John H. Rodda

Signature of John Rodda, Director, MOA Anchorage Parks and Recreation, or Authorized Representative of MOA

JOHN H. RODDA

Printed name of John Rodda or Authorized Representative of Municipality of Anchorage

Note to Responsible Person (RP):
After making a copy for your records, please return a signed copy of this form to the ADEC project manager at the address on this correspondence within 30 days of receipt of this letter.

ADEC File No.: 2100.38.188
Hazard ID #: 1222
ADEC Project Manager: Eileen Olson

For Internal Use Only

***Attention ADEC Administration Staff:** Please follow the procedure below after Attachment A is signed/returned to ADEC.

1. Log-in and Date Stamp *Attachment A*
2. Scan *and* Save to the appropriate electronic folder on the network Drive
3. File the hard copy in the appropriate project/site file Correspondence Folder (blue in Anchorage).
4. Provide the Correspondence folder (with the filed *Attachment A* hard copy) to the ADEC Project Manager