



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Environmental
Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File No: 2100.38.046

April 21, 2015

James Sears
Director of Facilities
Southcentral Foundation
4501 Diplomacy Drive #200
Anchorage, AK 99508

Re: Decision Document: Tudor Centre Subdivision Tract F¹
Cleanup Complete – Institutional Controls Determination

Dear Mr. Sears;

The Alaska Department of Environmental Conservation (ADEC) reviewed the environmental records for the Tudor Centre Subdivision Tract F site ("site") and has determined that no further remedial action is required. This decision 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.

Introduction

Site Name and Location

Site name: Tudor Centre Subdivision Tract F
Current business name and address:
Southcentral Foundation Employee Family Center
4145 Tudor Centre Drive
Anchorage, AK 99508
Legal description: Tudor Centre Subdivision Tract F

DEC Site Identifiers

File No: 2100.38.046
Hazard ID: 3732

Name and Mailing Address of Contact Party

James Sears
Director of Facilities
Southcentral Foundation
4501 Diplomacy Drive #200
Anchorage, AK 99508

Regulatory Authority for Determination

18 AAC 75

¹ See ADEC public database entry for site at
<http://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/SiteReport/3732>

Background

The Tract F site reportedly became contaminated by petroleum hydrocarbons as a result surface spills that were associated with an equipment parking area and as a result of disposal by burial of asphaltic products and hazardous substances including a crushed drum containing Bunker C fuel. Metal debris, empty drums and petroleum hydrocarbon contaminants were contained within soil extending to depths of up to 15 feet below the ground surface. The site is within an area that was originally developed before 2000 by placement of several feet of silty sandy gravel fill over the native organic peat surficial soils, with the depth of fill varying from 2 to 6 feet. Within the Tract F site the original peat surface is plainly visible at the eastern excavation limits in photographs taken in 2006.

Tract F is a 1.5-acre parcel located within a large-scale gravel mining and asphalt production facility that operated from the late 1950s through the 1980s. The former facility reportedly occupied an approximately 135-acre area bounded to the north by the northern boundary of University Lake, which was created by gravel mining; to the south by Tudor Road; to the east by Elmore Road; and to the east by the western boundary of an older Anchorage neighborhood. (See **Figure 1** below). Operators of the former facility included Cheney Construction Company; Norcoast Constructors, Inc.; and Rogers & Babler, Inc. a division of (former) MAPCO. Tract F is one of five contaminated sites located within the former facility boundaries that appear to have similar contaminant characteristics.

During property development for commercial buildings in 2002 the site was within former Tract D, Lot 4 of Tudor Centre Subdivision, shown on **Figure 2** below. As a result of re-platting in 2006, Tract D Lots 3 and 4 were combined and became current Tract F, shown on **Figure 3** below so that the site is now in the approximate center of the eastern half of Tract F.

Site Characterization

Petroleum hydrocarbon contamination was discovered at the site in a geotechnical soil boring in 2001. Subsequent investigation and cleanup was done in 2002 with oversight by Environmental Management Inc. (EMI) on behalf of then-owner Tudor Fund. EMI documented a maximum concentration of 4,490 mg/kg diesel range organics (DRO) from a sample collected at a depth of 11 feet below ground surface (bgs) and benzene concentrations of 0.125 mg/kg benzene from 5.4 feet bgs and 0.08 mg/kg from 11 feet bgs.²

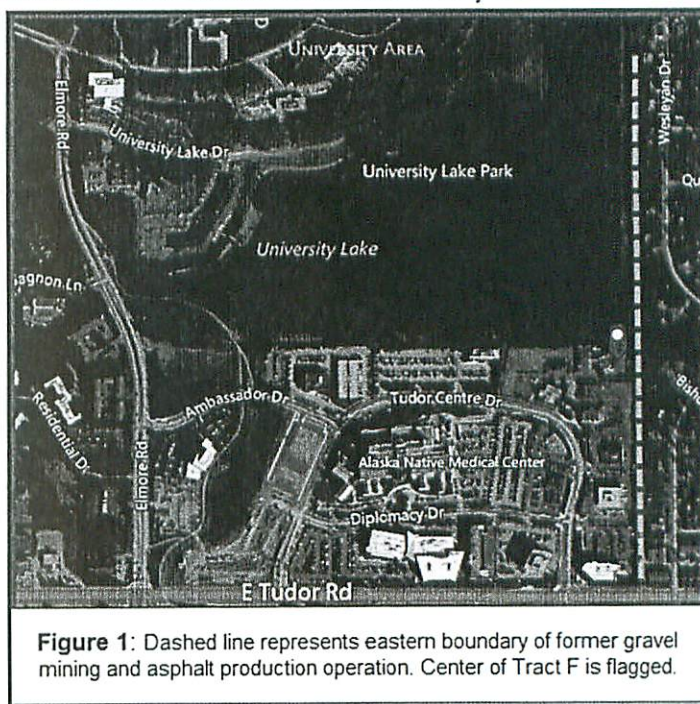
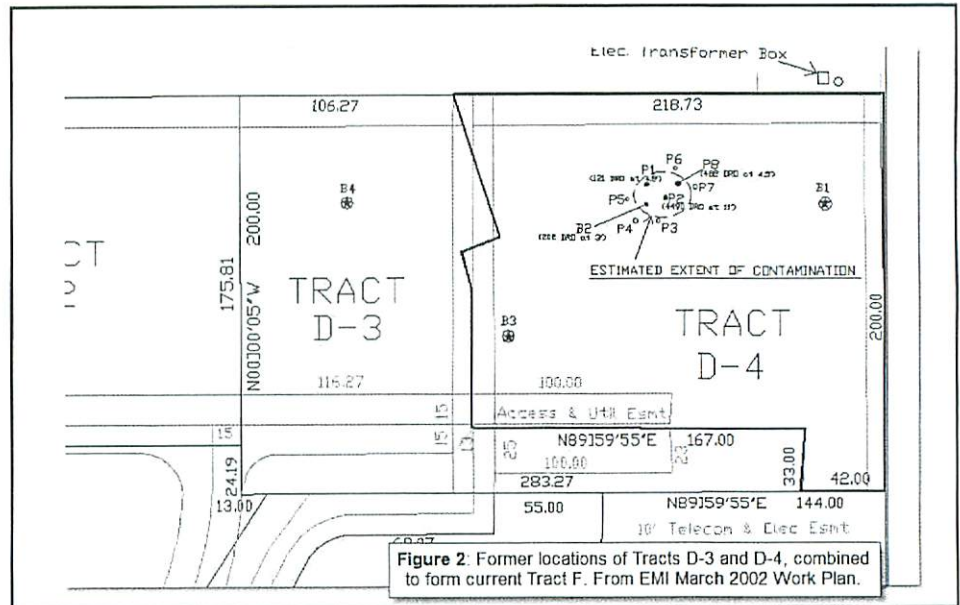


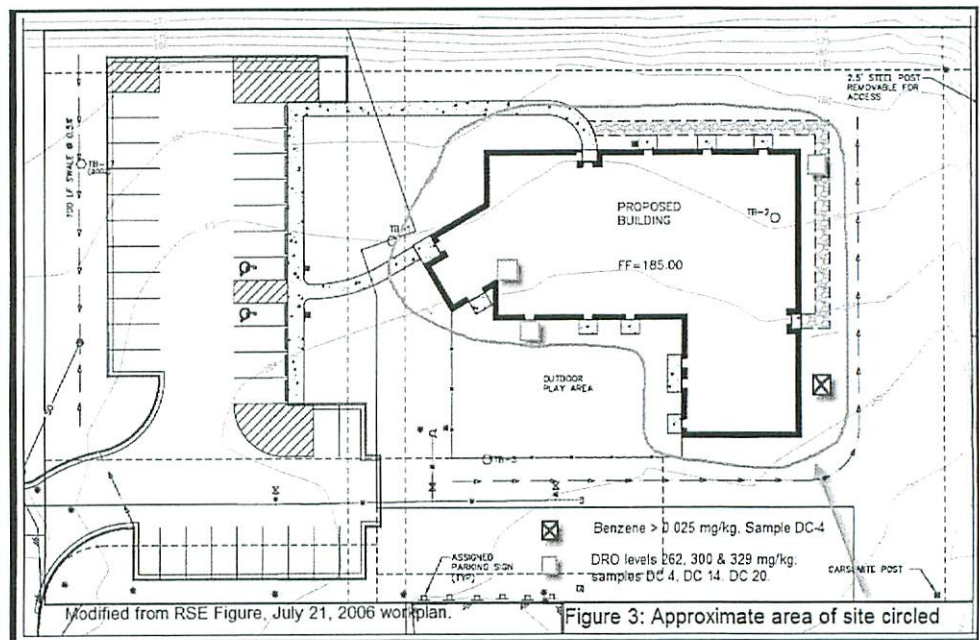
Figure 1: Dashed line represents eastern boundary of former gravel mining and asphalt production operation. Center of Tract F is flagged.

²See *Contaminated Soil Cleanup Report for Tract D, Lot 4, Tudor Centre Subdivision...* April 2002 prepared by Environmental Management Inc. (EMI).

The 2002 cleanup entailed excavating an area measuring approximately 20 feet in diameter and up to 15 feet deep, and transporting approximately 100 tons of contaminated soil to Alaska Soil Recycling (ASR) for treatment. Excavation confirmation samples documented DRO and benzene concentrations below the most stringent 18 AAC 75.341 Method 1 and Method 2 cleanup levels. ADEC granted site closure in a record of decision dated April 10, 2002. The area excavated in 2002 is not shown on figures included herein as the former contaminated area is within the area excavated during later cleanup work in 2006.



ADEC rescinded the 2002 site closure in a letter dated July 21, 2006 following notification by consultant Restoration Science and Engineering (RSE) on behalf of the Southcentral Foundation that petroleum contaminated soil, a crushed drum containing Bunker C fuel, and metal debris (including scrap metal and used drums) were encountered during foundation excavation for a proposed daycare building.³ The contaminants of concern in soil were



determined to be DRO, with a maximum concentration of 13,800 mg/kg; benzene, with a maximum concentration of 0.197 mg/kg; ethylbenzene, with a maximum concentration of 12.4 mg/kg; and naphthalene, with a maximum concentration of 51.3 mg/kg. Following excavation and sampling completed in late July 2006 ADEC approved transport and thermal treatment of 1,134 tons of contaminated soil at ASR and approved the disposal of one drum of Bunker C oil by the waste management contractor Emerald Alaska.

³See *Workplan for Excavation Segregation and Stockpiling of Contaminated Soils on Tracts D-3 and D-4 of the Tudor Centre Subdivision: Southcentral Foundation Daycare Project...July 1, 2006* prepared by Restoration Science & Engineering (RSE)

The final report by RSE⁴ documented four samples collected from the excavation limits that exceeded the 18 AAC 75.341 Method 2 soil cleanup levels shown on **Figure 3** below. Three excavation bottom samples exceeded the cleanup level for DRO of 250 mg/kg with results of 329, 262 and 300 mg/kg with samples collected from 9 to 12 feet bgs. One sidewall sample collected from 4 feet bgs outside of the foundation footprint exceeded the 0.025 mg/kg benzene migration to groundwater cleanup level with a concentration of 0.0733 mg/kg. Southcentral Foundation requested site closure with institutional controls based on RSE's conclusion that because the samples were only nominally elevated above the 250 mg/Kg DRO and 0.025 mg/kg benzene cleanup levels and represent a small mass of remaining contamination, the remaining contamination does not pose a risk to human health or the environment.

Contaminants of Concern

Soil: During the 2006 investigation, samples were analyzed for gasoline range organics (GRO); benzene, toluene, ethylbenzene and xylenes (BTEX); DRO; residual range organics (RRO); polychlorinated biphenyls (PCBs); halogenated volatile organics (HVOs); and Resource Conservation and Reclamation Act (RCRA) metals. Based on the above analyses and knowledge of the source area, the following contaminants of concern (COCs) were identified in soil:

- DRO
- Benzene
- Ethylbenzene
- Naphthalene

Groundwater and surface water: Groundwater was not encountered during site work. Chester Creek is approximately 100 feet from the site.

Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Table B2, *Under 40 Inch Zone*.

Table 1 – Soil and Groundwater Cleanup Levels

Contaminants of Concern	Soil - Method Two, Direct Contact /Ingestion (mg/kg*)	Soil - Method Two, Inhalation (mg/kg)	Soil - Migration to Groundwater (mg/kg)	Groundwater (mg/L**)
DRO	10,250	12,500	250	1.5
Benzene	150	11	0.025	0.005
Ethylbenzene	10,100	110	6.9	0.7
Naphthalene	1,400	28	20	0.73

mg/kg = milligrams per kilogram
mg/L = milligrams per liter

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

⁴See letter report with subject *line Site Investigation Summary for Tracts D-3 and D-4 of the Tudor Centre Subdivision: Southcentral Foundation Daycare Project* prepared by RSE and dated September 18, 2006.

cumulative noncarcinogenic 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 do not pose a cumulative human health risk.

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

Pathway	Result	Explanation
Direct Contact with Surface Soil	De Minimis	Contaminated soil was excavated and analytical results from soil samples from the limits of the excavations did not exceed direct contact with surface soil cleanup levels.
Direct Contact with Subsurface Soil	De Minimis	Contaminated soil was excavated and analytical results from soil samples from the limits of the excavations did not exceed direct contact with subsurface soil cleanup levels.
Outdoor Air Inhalation	De Minimis	Contaminants remaining in site soil do not exceed concentrations that could result in outdoor air inhalation cleanup levels being exceeded.
Groundwater Ingestion	Pathway incomplete	Groundwater was not encountered during site work and the remaining contaminant mass is minimal and unlikely to impact groundwater if groundwater is present.
Surface Water Ingestion	Pathway Incomplete	Surface water contamination was not documented at the site.
Wild or Farmed Foods Ingestion	Pathway Incomplete	Wild foods are not collected in this area.
Indoor Air Inhalation (Vapor Intrusion)	De minimis	Contaminants remaining in site soil do not exceed concentrations that could result in indoor air inhalation cleanup levels being exceeded.
Ecological	Pathway Incomplete	There are no complete exposure pathways to ecological receptors 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 administrative mechanism in place limiting land or groundwater use, or a physical barrier in place that deters contact with residual contamination.

ADEC Decision

Petroleum contamination remains in soil above the default Method Two migration to groundwater cleanup levels established in 18 AAC 75.341, Soil Cleanup Levels. This site will receive a “Cleanup Complete with Institutional Controls” designation on the Contaminated Sites Database, subject to the following conditions:

Conditions

1. 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 owners and operators are subject to in accordance with this decision document. (See Attachment B.)

2. Contamination remaining at the site was documented within the eastern half of Tract F at the approximate locations shown on Figure 3 above. Any proposal to transport soil from the eastern half of Tract F requires ADEC approval in accordance with 18 AAC 75.325(i). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
3. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
4. Attachment A must be signed and dated by an authorized representative of the Southcentral Foundation and returned to ADEC by June 1, 2015.

Note that conditions 2 and 3 are standard 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.

If you have questions about this closure decision, please feel free to contact me at (907) 269-7527.

Sincerely,



Eileen Olson
Project Manager

Attachment A: Cleanup Complete-ICs Agreement Signature Page
Attachment B: NEC

cc: RFA via email at dec.spar.cr@alaska.gov

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

Southcentral Foundation agrees to the terms of this Cleanup Complete with Institutional Controls determination as stated below and in this closure decision document dated **April 21, 2015** for the *Tudor Centre Subdivision Tract F* site. Failure to comply with the terms of this agreement may result in ADEC reopening this site and requiring further remedial action in accordance with 18 AAC 75.380.

Conditions:

1. 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 owners and operators are subject to in accordance with this decision document. (See Attachment B.)
2. Contamination remaining at the site was documented within the eastern half of Tract F at the approximate locations shown on Figure 3 above. Any proposal to transport soil from the eastern half of Tract F requires ADEC approval in accordance with 18 AAC 75.325(i). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
3. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
4. This attachment (Attachment A) must be signed and dated by an authorized representative of Southcentral Foundation and returned to ADEC by June 1, 2015.

Signature of Authorized Representative of Southcentral Foundation/Date

Printed name and title of Authorized Representative of Southcentral Foundation

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.: 2100.38.046
Hazard ID: 3303
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.

Attachment B
Notice of Environmental Contamination
(To be filed by DEC)

Grantor: Alaska Department of Environmental Conservation-Contaminated Sites Program

Grantee: Southcentral Foundation

Legal Description: Tract F, Tudor Centre Subdivision

Recording District: Anchorage

Return to: Eileen Olson
ADEC Contaminated Sites Program
555 Cordova Street
Anchorage, AK 99501

State Business- No Charge

NOTICE OF ENVIRONMENTAL CONTAMINATION

As required by the Alaska Department of Environmental Conservation; Grantor; pursuant to 18 AAC 75.375, Southcentral Foundation; as the owner and operator of the subject property, hereby provides public notice that the property located at 4145 Tudor Centre Drive, Anchorage, Alaska, 99508 and more particularly described as follows:

Tract F, Tudor Centre Subdivision, Anchorage Recording District, Third Judicial District, State of Alaska

has been subject to a discharge or release of oil or other hazardous substances, regulated under 18 AAC 75, Oil and Other Hazardous Substances Pollution Control, revised as of April 8, 2012. This release is documented in the ADEC contaminated sites database under Hazard ID number 3732 at <http://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/SiteReport/3732>. The decision document for the site dated **April 21, 2015** can also be accessed and downloaded at this link.

Petroleum contamination as diesel range organics (DRO) and benzene remains in subsurface soil generally within the area shown on Figure 3 below at concentrations above the default soil cleanup levels established in 18 AAC 75.340, Method Two, Table B1 and B2, *Under 40 Inch Zone*. This site will receive a "Cleanup Complete with Institutional Controls" designation on the Contaminated Sites Database, subject to the following conditions:

Conditions

1. This *Notice of Environmental Contamination* (NEC) will be recorded by ADEC at the State Recorder's Office.
2. The approximate area of the site is located within the perimeter line drawn on Figure 3 below. Any proposal to transport soil from the eastern half of Tract F requires ADEC approval in accordance with 18 AAC 75.325(i). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
3. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
4. Attachment A of the ADEC decision document dated April 21, 2015 must be signed and dated by an authorized representative of the Southcentral Foundation and returned to ADEC by June 1, 2015.

Note that conditions 2 and 3 are standard 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.

This NEC remains in effect until a written determination from ADEC is recorded that states the soil at this site has been shown to meet the most stringent Method Two soil cleanup levels of 18 AAC 75.341 and that off-site transportation of soil is not a concern.

For more information on the contaminated site described by this NEC, please see ADEC Contaminated Sites Program file number 2100.38.046 for the *Tudor Centre Subdivision Tract F* site.

Signature of ADEC Representative: _____ Date: _____
Printed Name: Eileen Olson

Site Figure: Area of remaining soil contamination

