

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE Contaminated Site Program

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> > File: 2265.38.002

April 28, 2020

Fred Thoerner Alaska Department of Transportation and Public Facilities PO Box 196900 Anchorage AK 99519

Re: Decision Document: Meadow Creek Subdivision Cleanup Complete Determination

Dear Mr. Fred Thoerner:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Meadow Creek Subdivision located at 9871 West Margin Way, Wasilla, 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 unless new information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the Meadow Creek Subdivision, which is located in the ADEC office in Soldotna, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location: Meadow Creek Subdivision

9871 West Margin Way Wasilla, AK, 99687

DEC Site Identifiers:

File No.: 2265.38.002 Hazard ID.: 965 Name and Mailing Address of Contact Party: Fred Thoerner Alaska Department of Transportation and Public Facilities PO Box 196900 Anchorage AK 99519

Regulatory Authority for Determination: 18 AAC 75

Site Description and Background

A retail space with office and warehouse structures was formerly located on-site. The buildings were demolished during March and April 2019 in preparation for a right of way and road improvement project by the Alaska Department of Transportation. In 1993, several areas of petroleum hydrocarbon soil

contamination were identified in parking and storage areas behind the on-site structure. In addition, floor drains and drain pits were observed inside the building. Subsequent cleanup activities were conducted at the site to address the previously identified contamination.

Contaminants of Concern

During the site characterization and cleanup activities at this site, samples were collected from soil and groundwater, and analyzed for Extractable Petroleum Hydrocarbons (EPH 8100), Volatile Petroleum Hydrocarbons (VPH 8015),BTEX (8020), Halogenated Volatile Organics (HVO 8010), Total Petroleum Hydrocarbons (TPH 418.1), Lead, Arsenic, Chromium, Cadmium (6010), Gasoline Range Organics (AK 101), Diesel Range Organics (DRO AK 102), Residual Range Organics (DRO AK 103), BTEX (8021B), VOC (8240), PCB (8082A). 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)
- Total Petroleum Hydrocarbon (TPH)
- Total Lead

Cleanup Levels

The more restrictive of either the human health or migration to groundwater cleanup levels apply to this site. Diesel range organics and Total Lead were detected in soil above the migration to groundwater cleanup levels established in 18 AAC 75.341 (d), Table B1, B2 and Table C.

Contaminant	Soil (mg/kg)	Groundwater (ug/L)
DRO	250	1500
RRO	11000	1100
Total Lead	400	15
TPH	N/A	N/A

Table 1 – Approved Cleanup Levels

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

Characterization and Cleanup Activities

On April 12, 1991, ADEC contacted the Federal Deposit Insurance Corporation (FDIC), regarding a leaking 55 gallon drum at the Meadow Creek Subdivision site. FDIC retained a consultant to respond to the property. A damaged 55 gallon drum was sampled and placed into an over pack. The drum appeared to contain waste oil and coolant.

Four cubic yards of visible stained soil was excavated and stockpiled. An excavation base sample had no VOC's and a total petroleum hydrocarbon (TPH) result of 31,500 ppm.

A 500 gallon underground storage tank was identified in the area of the 55 gallon drum excavation, and oil stained soil was observed outside of a garage door.

On May 3, 1991 a Preliminary Report Phase II Environmental; Assessment was produced for FDIC. The lot is 1.75 acres that had two buildings in an L-shape. The northernmost building was erected in 1978 and was perpendicular to the Park Highway. It was a single story structure with four warehouse bays. The southernmost building was erected in 1984 and was built parallel to the Park Highway. It was built on the west side of the southern end of the first structure. It was a two story building with warehouse, office and retail space divided into four units. The building was built on a concrete slab.

The environmental investigations were initiated after a prospective purchaser reported issues with soil staining to ADEC. A partial environmental assessment was conducted in the late winter of 1991, which was limited by snow cover. Two UST's were tightness tested, four soil borings drilled and suspected contamination sources inventoried: See Site Plan.

- 1) Soil staining at a drum storage area.
- 2) Five gallon containers with soil staining.
- 3) Possible contaminant runoff.
- 4) Two heating fuel underground storage tanks.
- 5) Three above ground heating fuel tanks.

The four soil borings encountered groundwater between eight and ten feet below ground surface.

In August 1993, a Phase II Environmental Audit was prepared for FDIC. This report covered the installation and sampling of onsite monitoring wells. Two of the above ground storage tanks were removed prior to this investigation. Three of the warehouse units had floor drains or a drainage pit that discharged directly to subsurface soils.

Soil samples collected from the installation of monitoring wells MW-1 and MW-3 had elevated extractable petroleum hydrocarbon (EPH) concentrations from 2.5 to 5 feet below ground surface (BGS). Groundwater in all three monitoring wells had non-detectable concentrations for hydrocarbons. See Site Plan with Exploration Locations.

Surface soil samples were collected for laboratory analysis from six area of staining. Five of the samples had results that exceeded cleanup standards in effect at the time for EPH and TPH. Metals and solvents were not above cleanup levels.

Floor drain samples indicated that diesel and residual range hydrocarbons, lead and total chromium were contaminants of concern in the floor drain soils. Total chromium has been eliminated as a contaminant of concern based on the lack of chromium 6.

January 12, 1996, ADEC approved a cleanup plan for addressing the floor drains. In a May 30, 1996 letter report, sample results were presented from the open floor drain excavations, that indicated the soils remaining in the floor drain excavation met cleanup requirements, and the soils removed from the ground and surficial soils (to 2.5') from around the heating oil tanks, were taken to Clean Soils for thermal remediation. The floor drains and sumps were filled with concrete and abandoned.

In 2008, the owner reported that the heating oil tanks were removed from the ground with no indication of contamination. The buildings were converted to natural gas for heating. Five test pits were excavated and soils screened with a PID from areas identified as having soil staining in the 1991 and 1993 Environmental

Assessments. Five soil samples were collected and analyzed for DRO and RRO. All of the five soil samples met the strictest soil cleanup requirements.

The Alaska Department of Transportation (ADOT) acquired the property in 2018 as part of a right of way expansion project. At the request of ADEC, ADOT submitted a work plan for the sampling and decommissioning of the on-site monitoring wells. The consultant reported that the buildings had been demolished, and that none of the monitoring wells could be located for sampling. A water sample was collected from the remaining drinking water well, and no contaminants of concern were identified in the water well.

No areas of impact were identified after the building was demolished. No further sump impacts or floor drain issues were noted. No known contamination above cleanup levels remains on the site.

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, ADEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use.

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 or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

Pathway	Result	Explanation
Surface Soil Contact	Pathway	Contamination is not present in surface soil (0 to 2
	Incomplete	feet below ground surface).
Sub-Surface Soil Contact	De-Minimus	Hydrocarbon contamination remains at the site
	Exposure	below the most stringent cleanup levels.
Inhalation – Outdoor Air	Pathway	Contamination removed from the sub-surface.
	Incomplete	
Inhalation – Indoor Air (vapor	Pathway	Contamination removed from the sub-surface.
intrusion)	Incomplete	Buildings removed from the site.
Groundwater Ingestion	Pathway	Groundwater is found 5.5 to 7.5 feet below grade
	Incomplete	and was not impacted by site contamination.
Surface Water Ingestion	Pathway	Surface water is not used as a drinking water source
	Incomplete	in the vicinity of the site and was not impacted by
	-	contamination.
Wild and Farmed Foods	Pathway	Contaminants of concern do not have the potential
Ingestion	Incomplete	to bioaccumulate in plants or animals.

leadow Creek Subdivision					
	Exposure to Ecological	Pathway	No known ecological risks are present.		
	Receptors	Incomplete			

<u>Notes to Table 2:</u> "De-Minimis Exposure" means that in ADEC's judgment receptors are unlikely to be adversely 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

ADEC Decision

Soil contamination at the site have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. This site will receive a "Cleanup Complete" designation on the Contaminated Sites Database, subject to the following standard conditions.

Standard Conditions

1. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

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 contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to 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) 262-3412, or email at peter.campbell@alaska.gov

Sincerely,

Poto Canend

Peter Campbell Environmental Program Specialist

Attachments: Site Plan Site Plan with Exploration Locations

cc: Spill Prevention and Response, Cost Recovery Unit



QUEST ENVIRONMENTAL 709 W. INTERNATIONAL AIRPORT ROAD ANCHORAGE, ALASKA 99518 PH. (907) 563-0050

LOT 7, MEADOW CK S/D BIG LAKE, ALASKA PHASE II SURVEY SITE PLAN

NOT TO SCALE FOR REFERENCE ONLY DRAWING 1.1 APRIL 1991



Plan With Exploration Locations Lot 7, Meadow Creek Subdivision Big Lake, Alaska Site

REF. NO: \ACAD-DWG\B311\SITEEXP