

# STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

**DEPT. OF ENVIRONMENTAL CONSERVATION**  
**DIVISION OF SPILL PREVENTION AND RESPONSE**  
**CONTAMINATED SITES PROGRAM**

43335 K-Beach Road, Suite 11  
Soldotna, AK 99669  
PHONE: (907) 262-5210  
FAX: (907) 262-2294  
<http://www.state.ak.us/dec/>

File: 2323.38.001

February 28, 2005

Tom Barrett  
Environmental Compliance Manger  
Kenai Peninsula Borough  
144 Binkley Street  
Soldotna, Alaska 99669

Re: Nikiski Air Strip: ADEC Spill # 1989230905912  
Record of Decision

**FILE COPY**

Dear Mr. Barrett:

Enclosed please find the Record of Decision (ROD) for the Nikiski Air Strip property. Based on the current site conditions, no further remedial action is required at this time. Current conditions have been found to be protective of human health and the environment. Should site conditions change in the future, the site will be re-evaluated to ensure that human health and the environment is protected.

As we discussed, the legal description on the ROD is the current legal description. This same legal description should be included on the Notice of Environmental Contamination (Deed Notice) that is required to be attached to the property deed. Should the Kenai Peninsula Borough subdivide the contaminated property in the future, the revised legal description will replace the current legal description in both documents.

In conclusion, ADEC has determined that the Nikiski Air Strip site is approved for no further remedial action planned at this time. However, please be informed that if contamination is identified in the future that may pose a risk to human health or the environment, additional investigative and/or corrective action work may be required.

The State will continue to work cooperatively with KPB on addressing the remaining contamination issues at this site, to ensure protection of human health and the environment. If you have any questions, please contact me at (907) 262-5210, Ext. 233.

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.

Sincerely,



Don Seagren  
Environmental Specialist

CC: Jim Frechione/ADEC/Anchorage

**ALASKA DEPARTMENT OF ENVIRONMENTAL  
CONSERVATION  
DIVISION OF SPILL PREVENTION AND RESPONSE  
CONTAMINATED SITES PROGRAM**

**Former Nikiski Airstrip  
Nikiski, Alaska  
February 28, 2005**

**I: INTRODUCTION**

Site Name: Nikiski Airstrip

Responsible Person: Tom Barrett, Environmental Compliance Manager, Kenai Peninsula Borough, 144 Binkley Street, Soldotna, Alaska 99669; (907) 714-2355

Location: USGS Kenai C-4 Quadrangle, SW1/4 Section 36, R12W, T8N, Seward Meridian. Kenai Peninsula Borough Tax Parcel # 01202014

Database Record Key: Nikiski Airstrip; 1989230905912

Regulatory Authority: 18 AAC 75; 18 AAC 70

**II: BACKGROUND**

This undeveloped site is located on the northeast portion of the Kenai Peninsula in Nikiski, Alaska, adjacent to an abandoned airstrip west of Nikishka Beach Road. The site is situated on a relatively flat terrace about 200 feet above Nikishka Bay. It is currently accessible only by crossing Offshore Systems – Kenai (OSK) property.

The Nikiski Airstrip property is presently owned by the Kenai Peninsula Borough (KPB). It was used as an airstrip during the 1960's through the early 1980's. Two separate disposal areas were adjacent to the airstrip and were used for the un-permitted disposal of solid waste and petroleum products. The northern pit was used primarily for household solid waste disposal. The southern pit was used to dispose of Bunker C fuel in addition to solid waste. Limited cleanup activities were implemented in 1985 (e.g., removing some of the oil from the pit using a vacuum pump, disposing of solid waste in the borough landfill, excavating some of the contaminated soil, and covering the pit with clean soil). The contaminated soil removed from the pit was land-farmed along the airstrip. The cleanup was incomplete and not well documented. Soil and groundwater contamination remain as a result of the un-permitted disposal of petroleum products.

In 1986, OSK leased part of the airstrip and developed the property to build a helicopter pad, associated buildings and a parking lot. The development of this property eliminated the northern most disposal pit along the former runway. Investigations related to this site have focused on the remaining southern pit as the area of concern. The southern disposal pit is located approximately 100 feet southwest of the OSK property boundary.

### **III: SUBSURFACE CONDITIONS**

The former pit encompasses an aerial extent of approximately 100' by 300'. Based on the soil analytical results, shallow subsurface soil is impacted in the area of the former pit. The primary contaminants exceeding the soil cleanup levels in 18 AAC 75.341 are Diesel Range Organics (DRO) and benzene. The subsurface soil contamination, exceeding ADEC cleanup levels, extends approximately 130 feet to the groundwater level.

Groundwater in the vicinity of the pit has been contaminated with the petroleum constituents of DRO, benzene, Gasoline Range Organics (GRO) and Residual Range Organics (RRO) exceeding the cleanup levels in 18 AAC 75.345 Table C. One monitor well, (NIK-93-7), located in the middle of the pit contains 0.22 feet of free phase petroleum product.

The groundwater level on site is 97.5 to 131.3 feet below ground surface (bgs). This is consistent with other known monitor wells and drinking water wells located in the general Nikiski area. The groundwater flow on the site is complex. However, it appears that the general direction of flow is to the northwest, toward Cook Inlet. The contaminant plume is defined and does not appear to be expanding. There does not appear to be an up-gradient off-site contaminant source that is contributing to contamination on the site.

### **IV: GROUNDWATER USE**

The site is currently an undeveloped 113 acre parcel. No drinking water wells are currently located on the property. The nearest drinking water well is on the OSK property. The OSK property boundary is located about 100 feet northeast of the pit area.

The KPB does not currently have any plans for development of the property. Until 18 AAC 75.345 Table C cleanup levels have been met, a Notice of Environmental Contamination will be attached to the property deed prohibiting the installation of drinking water wells and/or use of the groundwater as a drinking water source.

### **V: GROUNDWATER TRANSPORT PATHWAYS**

At the time of drilling, groundwater was encountered in the borings between approximately 98 and 130 feet bgs. The static water levels in all monitor wells ranged from 97.5 feet to 131.3 feet bgs. A single monitor well (NIK-93-7) contained 0.22 feet of free phase petroleum product.

Based on the static groundwater level measurements and survey data, the groundwater flow direction across the site is generally to the northwest. Local groundwater flow in the former pit area may divide near the approximate locations of monitor wells B6MW and NIK-93-13, with flow towards the southeast. Given the current groundwater level measurement, and the location of the existing wells, these flow directions are still uncertain.

## VI: CONTAMINANTS OF CONCERN

The un-permitted disposal of Bunker C fuel resulted in soil and groundwater contamination at the site. The benzene, DRO, GRO and RRO constituents of the Bunker C fuel remain at levels above the 18 AAC 75 cleanup levels for soil and/or groundwater.

## VII: ADEC CLEANUP LEVELS

The former Nikiski Airstrip was used as an un-permitted disposal area for both solid and hazardous substances. Interim cleanup actions served to remove some of the waste material but there remains soil and groundwater contamination exceeding the 18 AAC 75 cleanup levels.

### Soil

The soil contaminants are DRO and benzene. The extent of contamination is from the surface down to groundwater (approximately 98 feet bgs). The table below lists the range of contamination from 2004 samples compared to the 18 AAC 75 cleanup levels.

Contaminant	Range – 2004 (mg/kg)	Migration to Groundwater Cleanup Levels (mg/kg)	Ingestion Cleanup Levels (mg/kg)	Inhalation Cleanup Levels (mg/kg)
DRO	39.7 – 1,870	250	10,250	12,500
Benzene	0.00909 – 1.05	0.02	150	9

The soil cleanup levels established for this site are listed in 18 AAC 75.341 Tables B1 and B2 Method Two Migration to Groundwater (Under 40 inch Zone). The contaminant plume appears to be stable and does not appear to be migrating off-site. Contamination is limited to the area of the pit.

### Groundwater

The groundwater is approximately 97.5 to 131.3 feet bgs. It has been impacted by benzene, DRO, GRO and RRO above the established 18 AAC 75.345 Table C cleanup levels. The table below lists the range of contamination from 2004 samples compared to the 18 AAC 75 cleanup levels.

Contaminant	Range – 2004 (mg/l)	Cleanup Levels (mg/l)
Benzene	0.0004 – 0.0102	0.005
GRO	0.09 – 4.69	1.3
DRO	0.30 – 2.35	1.5
RRO	0.50 – 1.85	1.1

## VIII: ADEC DECISION

Based on the information presented to date, the nature and extent of contamination remaining at the former Nikiski Airstrip site does not pose a risk to human health or the environment and No Further Remedial Action is required at this time.

Even though soil contamination exceeds the 18 AAC 75.341 migration to groundwater cleanup levels – it does not exceed the human health levels established for ingestion and inhalation. The groundwater at the site has been impacted above 18 AAC 75.345 Table C levels, but the water is not currently used as a drinking water source on site. An institutional control will be required on the property to ensure groundwater is not used as a drinking water source until it meets the applicable cleanup levels. There is no evidence that the contamination has migrated off-site and natural attenuation will be considered the treatment technique until otherwise amended.

The entire 113 acres of the parcel is not contaminated. The KPB is exploring development options and options to subdivide the property which would allow development to occur on the uncontaminated portion.

This No Further Remedial Action decision is subject to the following conditions:

1 A groundwater monitoring plan will be developed for the property that ensures the groundwater quality at the site is stable and/or decreasing in concentration. ADEC will develop the plan to include biennial (every two years) monitoring beginning in the summer of 2006. A review of the monitoring data will be made after every monitoring event to determine trends in the concentrations and if any changes to the monitoring program are required. The monitoring program shall continue until the groundwater consistently achieves the 18 AAC 75.345 Table C levels.

ADEC will conduct the monitoring events subject to availability of funding. Otherwise, the owner and/or operator of the property will be responsible for monitoring events.

2. A Notice of Environmental Contamination shall be attached to the property deed as an institutional control and filed with the State of Alaska Kenai Records Office. The Notice shall identify the nature and extent of remaining soil and groundwater contamination exceeding ADEC cleanup levels. The Notice shall also prohibit the installation of drinking water wells on the property until established groundwater cleanup levels are met. If the site is developed in the future and/or it becomes accessible to the public, the pit area should be managed in a manner appropriate for the intended use and protective of human health and the environment.

This institutional control will remain in place until analytical data demonstrates that both the soil and groundwater contamination levels are below 18 AAC 75 cleanup levels established for the site.

3. If future information identifies hazardous substances at levels that may pose a risk to human health or the environment, then additional assessment and/or cleanup action may be required.

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. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, 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.

Program Manager Approval:

  
\_\_\_\_\_  
Jim Frechione, Environmental Manager

  
\_\_\_\_\_  
Date