STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

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File: 2268.26.006
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Article No: 7010 2780 0000 2178 4926

November 10, 2011

Mrs. Margaret Plunkett
P.O. Box 210909
Anchorage, AK 99521

Re: Decision Document; Former Willow Cache Realty
Corrective Action Complete Determination

Dear Mrs. Plunkett:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Former Willow Cache Realty located at 31031 West Parks Highway in Willow, 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 this site will be closed.

This letter summarizes the decision process used to determine the environmental status of this site and provides a summary of the regulatory issues considered in the Corrective Action Complete determination.

**Introduction**

Site Name and Location
Former Willow Cache Realty
Lot 2 Kruse Subdivision
31031 West Parks Highway
Willow, Alaska 99688

Name and Mailing Address of Contact Party:
Mrs. Margaret Plunkett
P.O. Box 210909
Anchorage, AK 99521

ADEC Site Identifiers:
Hazard ID #23104
CS file # 2268.26.006
UST Facility ID #2735

Regulatory authority under which the site is being cleaned up:
18 AAC 75 and 18 AAC 78

**Background**
The original Willow Cache Realty building burned to the ground prior to 1991, after which the property was sold to Mr. Jim Plunkett. Mr. Plunkett never utilized either of the two underground storage tanks (USTs) that were present on the property and the tanks were reportedly empty at the time of their removal in 1991. The two USTs consisted of one 1,000-gallon diesel UST and a 500-gallon diesel UST. There is a drinking water well on site with a reported depth of approximately 120 feet. Other wells in the area are completed in a confined aquifer at a typical depth of 80 feet.

**Contaminants of Concern**
During the various investigations at this site, soil and groundwater samples were analyzed for diesel range organics (DRO), gasoline range organics (GRO), and benzene, toluene, ethylbenzene and xylenes (BTEX). Based on the results of these investigations, the following contaminant of concern was identified in soil and groundwater:

- DRO

**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, Migration to Groundwater (MTG).

| Contaminant | MTG Cleanup Level (mg/kg) |
|---|---|
| • DRO | 250 |

The default groundwater cleanup levels for this site are established in 18 AAC 75.345 Table C Groundwater Cleanup Levels.

| Contaminant | MTG Cleanup Level (mg/l) |
|---|---|
| • DRO | 1.5 |

**Site Characterization and Cleanup**
The two USTs were removed from separate excavations in September 1991. Surface contamination was evident at the 1,000-gallon UST to a depth of approximately 16 inches below ground surface (bgs) apparently resulting from overfills. Following removal of the contaminated soil and the tank,

confirmation soil samples were collected below the bottom of the tank. Soil samples contained DRO at concentrations below the ADEC cleanup level with a maximum detected concentration of 23.2 mg/kg. The excavation was backfilled with clean fill.

Soil contamination was evident near the fill pipe of the 500-gallon tank, and contaminated soil was excavated to a depth of approximately 9 feet below ground surface (bgs) during removal of the tank. Confirmation soil samples collected from the bottom of the excavation contained DRO up to 6,500 mg/kg. Additional excavation was conducted in December 1991to a depth of 18 feet bgs in an effort to remove the remaining contaminated soil. The confirmation sample collected from the bottom of the excavation contained DRO at 863 mg/kg.

Excavation was conducted at the 500-gallon tank again in 1992. After the clean backfill was removed, excavation was conducted to a depth of approximately 24.5 feet bgs. Confirmation samples collected from the base of the excavation did not contain detectable concentrations of contaminants. Although significant quantities of groundwater were not encountered in the excavation, a groundwater seep was apparent in the excavation at approximately 17 feet bgs, and a groundwater monitoring well-point was placed into the excavation. There was reportedly a slight sheen on purge water removed from the well prior to sampling. However, the groundwater samples collected from this monitoring well and also from the potable well at the property did not contain detectable concentrations of contaminants.

The 55 cubic yards of contaminated soil generated from the excavations was placed on the concrete slab of the former garage and kept covered. The stockpile was reportedly amended with fertilizer and nutrients from 1992 until 1999.

A follow up investigation was conducted in August 2007 to evaluate the effectiveness of the stockpile treatment activities and collect groundwater samples from both the potable well and the monitoring well. Three soil samples were collected from random locations within the stockpile and analyzed for DRO, GRO, and BTEX. GRO and BTEX were not detected; DRO was detected at a maximum concentration of 125 mg/kg. DRO was also detected in the sample collected from the monitoring well at 2.9 mg/l. Contaminants were not detected in the drinking water well, which has reportedly not been used since prior to 1991.

During the excavation activities in 1991, groundwater began entering the excavation at the 17 foot interval, but groundwater was not encountered at depths below this and it was suggested that the water entering the excavation represented perched groundwater. The monitoring well was installed to a

depth of 24 feet bgs and screened to 14 feet bgs. The investigation conducted in 2006 found the bottom of the well to be 18 feet bgs, indicating the well had been partially filled between 1992 and 2006. One additional effort was made to sample this well in 2009, however the well was found to be dry to the 18 foot depth further indicating that the water present in the well on previous occasions was ephemeral in nature, and not representative of the aquifer. A review of well logs from subdivisions in the immediate area indicates the drinking water aquifer lies 80 feet or more below the surface. In each well log, the static water level was measured between 20 and 25 feet bgs indicating a confined aquifer that is unlikely to be impacted by contamination that may potentially remain at the site.

**Pathway Evaluation**

Following investigation and cleanup at the site, exposure to the remaining contaminants were 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 1

**Table 1 – Exposure Pathway Evaluation**

| Pathway | Result | Explanation |
|---|---|---|
| Direct Contact with Surface Soil | De Minimis Exposure | The remaining contaminant concentrations in the stockpiled soil are below direct contact cleanup levels |
| Direct Contact with Sub-Surface Soil | Pathway Incomplete | Confirmation soil samples indicate contamination is no longer present in subsurface soil |
| Inhalation-Outdoor Air | De Minimis Exposure | The remaining contaminant concentrations in the stockpiled soil are below inhalation cleanup levels |
| Inhalation-Indoor Air | Pathway Incomplete | Occupied buildings are not located on the property; remaining contamination is at depth and non-volatile. |
| Groundwater Ingestion | De Minimis Exposure | Samples from the potable well onsite have not contained detectable concentrations of contaminants, and other wells in the area are completed in a confined aquifer and not likely to be impacted by site contamination. |

| | | |
|---|---|---|
| Surface Water Ingestion | Pathway Incomplete | Surface water in the area is not used for drinking water purposes. |
| Wild Foods Ingestion | Pathway Incomplete | Wild foods are not collected in this area. |
| 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 groundwater use, or a physical barrier in place that deters contact with residual contamination.

**ADEC Decision**

The cleanup actions to date have served to excavate and adequately remove contaminated soil from the site. Based on the information available, ADEC has determined no further assessment or cleanup action is required. There is no longer a risk to human health or the environment, and this site will be designated as closed on the Department's database.

Although a Corrective Action Complete determination has been granted, ADEC approval is required for off-site soil disposal in accordance with 18 AAC 78.600(h). It should be noted that movement or use of potentially contaminated soil in a manner that results in a violation of 18 AAC 70 water quality standards is unlawful.

This determination is in accordance with 18 AAC 78.276(f) 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 contact ADEC Project Manager Bill O'Connell at (907) 269-3057.

Approved By,

Linda Nuechterlein
Environmental Manager

Recommended By,

William O'Connell
Environmental Program Specialist