

GROUNDWATER MONITORING FACT SHEET

NAVAL AUXILIARY LANDING FIELD CROWS LANDING, CALIFORNIA

FIRST QUARTER 1998 (JANUARY THROUGH MARCH 1998)

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Groundwater Monitoring Fact Sheet NALF Crows Landing First Quarter 1998

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The U.S. Navy is continuing groundwater monitoring at Naval Auxiliary Landing Field or "NALF" Crows Landing. This fact sheet informs and updates the community about recent groundwater sampling results.

Groundwater samples are collected quarterly (every 3 months) at NALF Crows Landing to track any changes in contamination while the U.S. Navy evaluates and implements cleanup methods. The monitoring results described in this fact sheet are from samples collected in March 1998. No groundwater contamination at NALF Crows Landing extends beyond the base boundaries.

This fact sheet summarizes information from the NALF Crows Landing first quarter 1998 (January through March 1998) groundwater monitoring report. The first quarter 1998 groundwater monitoring report, as well as other reports describing environmental studies at the base, are available for review at the Patterson Public Library. The address and telephone number of the library are:

Patterson Public Library
Reference Desk
46 North Salado Avenue at 3rd Street
Patterson, California 95363
(209) 892-6473

GROUNDWATER MONITORING SYSTEM

The groundwater monitoring system is designed to track groundwater contamination at NALF Crows Landing. The monitoring system includes 52 wells located around six areas of known or suspected contamination. Three additional wells are located distant from any contaminated areas to monitor the overall quality of groundwater in the area. The base's water supply well is also sampled.

Four of the areas of known or suspected contamination are where fuel was stored in underground tanks. These four underground storage tank or "UST" sites include UST Cluster 1, UST Cluster 2, UST 109, and UST 117. The UST sites were contaminated when fuel leaked from the tanks, pipelines, or associated equipment. The tanks have all been removed but some fuel contamination remains at each site.

The other two sites with groundwater monitoring wells are called Installation Restoration Program or "IRP" sites. IRP Site 11, the disposal pits area, is an old landfill. IRP Site 17, the demolished hangars area, is where aircraft were maintained.

GROUNDWATER CONTAMINATION

This section describes groundwater monitoring results at the four UST and two IRP sites for March 1998. The map in this fact sheet shows the extent of groundwater contamination beneath the base. These areas of groundwater contamination are called contaminant "plumes." None of the groundwater contaminant plumes extend beyond the base boundaries.

UST Cluster 1 was the main aircraft fuel storage facility at the base. The site consisted of three 50,000-gallon tanks and associated piping and equipment. The tanks were built in the mid-1940s and were taken out of service by 1990. The tanks were demolished and removed in 1994.

Groundwater beneath this site has been contaminated with aircraft fuel. Sampling results for March 1998 indicate that the extent of the contaminant plume is consistent with previous monitoring periods. Little movement was identified by sample results. The U.S. Navy is currently evaluating cleanup methods for this site. Groundwater monitoring will continue as cleanup methods are selected and implemented.

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UST Cluster 2 was another aircraft fuel storage facility at the base. The site consisted of three 210,000-gallon tanks and associated piping and equipment. The tanks were built in 1952 and were taken out of service in 1965. The tanks were demolished and removed in 1994.

Groundwater beneath this site has been contaminated with aircraft fuel. However, the extent of contamination at UST Cluster 2 is much smaller than at UST Cluster 1. Sampling results for March 1998 indicate some decrease in the contaminant levels of plume size compared to the previous monitoring period. The U.S. Navy is currently evaluating cleanup methods for this site. Groundwater monitoring will continue as cleanup methods are selected and implemented.

UST 109 stored fuel for the administration building furnace. The 1,000-gallon tank was installed in the late 1950s and was taken out of service in 1987. The tank was excavated and removed in 1988.

A previous study by the U.S. Navy found contaminated soil beneath the site but no apparent groundwater contamination. Sampling results for March 1998 indicate no fuel contamination in groundwater. Groundwater monitoring will continue at this site to verify if any contamination moves downward to groundwater.

UST 117 stored gasoline for motor vehicles. The 1,200-gallon tank was installed in the 1940s or 1950s and was taken out of service in 1988. The tank was also excavated and removed in 1988.

Groundwater beneath the site has been contaminated with gasoline. Sampling results for March 1998 indicate the plume size is consistent with previous monitoring periods. The U.S. Navy is currently evaluating cleanup methods for this site. Groundwater monitoring will continue as cleanup methods are selected and implemented.

IRP Site 11 was used for refuse disposal from the late 1960s to the early 1980s. Refuse was placed in shallow pits dug at the site and burned. The refuse included office trash (mostly paper), kitchen waste, scrap metal, and empty paint and pesticide containers.

Fuel-related groundwater contamination was detected at very low concentrations in several monitoring wells previously sampled at this site. Usually, the fuel-related contamination is random and inconsistent. No contamination was detected in

samples collected in March 1998. Groundwater monitoring will continue to evaluate this apparent contamination problem.

IRP Site 17 consisted of two aircraft hangars flanking a maintenance building. The site was used for aircraft maintenance from the mid-1940s to the late 1950s. Both the hangars and maintenance building were demolished by the late 1950s.

Carbon tetrachloride has been detected in groundwater beneath IRP Site 17. Carbon tetrachloride is a solvent that was probably used for cleaning aircraft parts. No significant change in the plume size is apparent from samples collected in March 1998. The U.S. Navy is currently evaluating cleanup methods for this site. Groundwater monitoring will continue as cleanup methods are selected and implemented.

SUMMARY

Four different groundwater contaminant plumes have been outlined beneath NALF Crows Landing. Three of these plumes are located near the eastern side of the base. These three plumes consist of aircraft fuel (UST Cluster 1), gasoline (UST 117), and the cleaning solvent carbon tetrachloride (IRP Site 17). The fourth contaminant plume is located at the northern end of the base and consists of aircraft fuel (UST Cluster 2). Some groundwater contamination may also be associated with refuse disposal at the center part of the base (IRP Site 11). None of the groundwater contaminant plumes identified beneath NALF Crows Landing extend beyond the base boundaries.

The Navy believes that all contaminant plumes at NALF Crows Landing are adequately defined and have been monitored for a sufficient time. Quarterly groundwater

monitoring has been conducted at NALF Crows Landing since May 1996. Since that time, no significant changes in contaminant concentrations or plume boundaries have been noted at any IRP or UST site. Future groundwater sampling will be conducted as required for coordination with design, construction, operation, and progress of cleanup systems at IRP Sites 11 and 17, UST Clusters 1 and 2, and USTs 109 and 117. For more information about groundwater monitoring efforts at NALF Crows Landing, please contact:

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