United States Army
Corps of Engineers

Formerly Used Defense Sites Program

No Department of Defense Action Indicated Report

Containerized Hazardous, Toxic, or Radioactive Waste (CON/HTRW)
Project # F10AK099701
Lake Louise Airfield
Lake Louise, Alaska

April 2013

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LAKE LOUISE AIRFIELD
Project No. F10AK0997-01

1. Introduction

The Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS) authorizes the cleanup of contamination resulting from past military activities at sites no longer owned by the Department of Defense (DOD). In 1995, a containerized hazardous, toxic, and radioactive waste (CON/HTRW) project was authorized at the Lake Louise Airfield FUDS (F10AK0997). The project objective was to protect human health and safety and the environment by removing approximately 200 55-gallon fuel drums, miscellaneous debris, and contaminated soils associated with the fuel drums resulting from prior military activities which impacted the site.

The CON/HTRW project at the project site is being recommended for closure and No DOD Action Indicated (NDAI) status based on the results of removal actions which began in 2010 and was completed by Jacobs Engineering Inc. (Jacobs) in October 2012. Results of the 2012 removal action indicate that the 55-gallon fuel drums, miscellaneous debris, and contaminated soils associated with the drums which impacted the site no longer pose a risk to human health and safety and to the environment.

The United States Army Corps of Engineers (USACE) is an agent for the Department of Defense and has been assigned the responsibility of coordinating activities at Formerly Used Defense Sites. This No DOD Action Indicated (NDAI) report is issued by USACE, Alaska District (Alaska District); the lead agency for the Lake Louise Airfield FUDS.

2. Summary of Site Conditions

2.1 Site Location and Features

Lake Louise is located 35 miles northwest of Glennallen in the Copper River Basin of South central Alaska at 62° 17' 41" North latitude, 146° 34' 54" West longitude in Township 6 North, Range 7 West, Sections 17-20, Copper River Meridian (Figure 1). The surficial geology of the area includes discontinuous permafrost, wind-deposited soils, glacial drift, proglacial lake deposits, and volcanic material associated with the nearby Wrangell Mountains. Temperature ranges from minus 60 degrees Fahrenheit (°F) to 90°F and annual precipitation averages 10 inches. A mixture of black and white spruce, aspen, birch, cottonwood, and alder are found in the area. Lake Louise is accessible by a 19-mile road leading north from Mile 159.8 of the Glenn Highway.

2.2 History

The Lake Louise Airfield (a.k.a U.S. Army Airfield) is located northwest of a former military recreation camp (a.k.a Lake Louise, U.S. Army Recreational Camp, Lake Louise Recreation Annex), another FUDS property (F10AK0847). The Department of Defense used the airfield to support military activities at the Lake Louise Army Training site and the nearby recreation camp.

The military recreation camp operated during the summer and exercises were often held during the winter.

The use of the U.S. Army Lake Louise Training site (185.76 acres) began in 1953. The site was used for training army troops in cold climate maneuvers across sub-arctic terrain. The site was reported for disposal to General Services Administration in 1971 and was conveyed to the State of Alaska by quitclaim deed in 1981 (USACE, 2005).

The former military recreation camp (26 acres) was acquired for use in two portions in 1955 and 1957 by the U.S. Air Force for recreational purposes. A 1.45 acre portion of the site was an access road to and from the airstrip, implying the airfield was used in conjunction with the recreation camp. The 26 acre recreation camp was relinquished to BLM in 1972.

The Lake Louise Airfield and surrounding area are owned by the State of Alaska. The project site is under the jurisdiction of the Department of Transportation and Public Facilities.

3. PREVIOUS INVESTIGATIONS

On August 6, 1986, URS conducted a site visit on behalf of USACE (USACE, 1995). About 200 military drums were found discarded south of the airstrip. The barrels were scattered about an approximate 1.5-acre site. Vegetation damage was observed. Drum labels included aviation fuel, gasoline, and dry cleaning solvent. About 10-20 drums were assumed to have product. Two piles of debris were also found. On June 12, 1995, a site visit by USACE confirmed the presence of drums and debris.

In September 2008, the site was inspected by the U.S. Air Force (USAF) during a Phase I Lake Louise Recreation Camp Site Investigation (USAF, 2008). Abandoned drums and debris were observed. Global positioning system (GPS) coordinates of the north and south boundaries of the two primary debris areas were taken.

On June 21, 2010, a site visit was conducted to determine the quantity of remaining drum and debris scheduled for removal at the airfield (USACE, 2010). Approximately 100 empty 55-gallon drums were observed scattered across the site. Building debris, fuel filters, furnace parts, a lavatory sink, door, gas cans, bottles, and cans were also identified.

4. REMOVAL ACTIVITIES

Removal actions began at the Lake Louise Airfield in June 2010 and were completed in October 2012. Jacobs performed the work for USACE, Alaska District, under Contract No. W911KB-06-D-0006, Task Order 32.

During the 2010 field effort, Jacobs removed building debris and approximately 100 drums from several locations at the Lake Louise Airfield site. In total, approximately 56 cubic yards of

debris and 670 pounds of contaminated soil were removed from the site (USACE, 2011). Soil samples were collected from 20 former drum locations. All samples were analyzed for diesel range organics (DRO), gasoline-range organics (GRO), residual-range organics (RRO), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and Resource Conservation and Recovery Act (RCRA) metals plus nickel and vanadium. Seven primary samples and one duplicate sample exceeded the Alaska Department of Environmental Conservation (ADEC) Method Two cleanup level for DRO (250 mg/kg) with results ranging from 410 to 30,000 mg/kg (USACE, 2011). Samples also contained concentrations of arsenic and chromium above their respective ADEC Method Two cleanup levels.

The 2011 field effort included a background metals study to investigate the natural occurrence of arsenic and chromium in native soil at the Lake Louise Airfield site. Data from 2010 showed consistent exceedances of chromium and arsenic in the soils at the site. The study concluded that the presence of arsenic and chromium was within naturally occurring levels. The 2011 field effort also included the removal of approximately 5 cubic yards of debris and 6 cubic yards of DRO-contaminated soil (5.7 tons) from the site. Confirmation samples collected after completing the excavation of contaminated soil concluded contamination remained at the site above ADEC Method Two cleanup levels for DRO.

In June of 2012, a remedial investigation was conducted to delineate the extent of soil contamination at four remaining former drum locations with DRO concentrations exceeding the ADEC Method Two cleanup level of 250 mg/kg. The investigation concluded that approximately 70 cubic yards of DRO-contaminated soil with concentrations exceeding the ADEC cleanup level remained at the site. In order to support eventual cleanup and the development of an alternate cleanup level, eight of the samples collected in June 2012 were also analyzed for total organic carbon (TOC) by Method SW9060A. Using the average TOC percentage and the highest detected DRO concentration, the site-specific ADEC Method Three DRO under 40-inch zone, residential exposure, migration to groundwater cleanup level was calculated to be 3,000 mg/kg and approved by ADEC (USACE, 2012).

During the October 2012 field activities, 150 tons (approximately 108 cubic yards) of DRO-contaminated soil was removed from the four former drum locations (D001, D033, D060, and D085) with the majority being removed from Site D060. The contaminated soil was transported offsite to Anchorage Soil Recycling in Anchorage, Alaska for thermal treatment. A total of 21 primary and 3 duplicate excavation confirmation samples were collected at the conclusion of fieldwork to represent final field conditions. Analytical results for DRO of all 24 confirmation samples were below the approved site-specific cleanup level of 3,000 mg/kg. Following receipt of analytical results, each of the excavation locations was backfilled with soil from the local area and contoured to match the surrounding terrain. Based on analytical results of the confirmation samples, a determination of "Cleanup Complete" was issued by ADEC for the Lake Louise Airfield FUDS (See Attachment).

5. SUMMARY OF REMEDY

The site remedy consisted of the removal 55-gallon drums, miscellaneous debris, and contaminated soils associated with the drums. The remedy for this CON/HTRW project is protective of human health and safety and to the environment because the sources of contaminants have been removed. The Lake Louise Airfield (ADEC File No. 2237.38.002) was issued a determination of "Cleanup Complete" on February 7, 2013 from ADEC based on the results of the 2012 removal action (ADEC, 2013). A No Further Department of Defense Action Indicated has been determined, a Declaration of Project Closure has been issued and the Lake Louise Airfield property is being closed by the USACE.

6. REFERENCES

Alaska Department of Environmental Conservation (ADEC), 2013. Letter to Mr. D. Jadhon, USACE, from Ms. Deb Caillouet, ADEC, Re: 2012 DRO Contaminated Soil Removal, U.S. Army Airfield, Lake Louise, Alaska. 7 February. F10AK099701_01.01_0500_a

United States Air Force (USAF), 2008. U.S. Air Force Lake Louise Recreational Camp, Alaska. December.

United States Army Corps of Engineers, Alaska District (USACE), 1995. Inventory Project Report; includes the January1987 URS inventory report. 23 October. F10AK099701_01.08_0001_a

USACE, 2005. Coordinated Comprehensive Cleanup (C3) Plan, Highway Accessible – Zone 22. December. F10AK0847--_01.05_0500_p

USACE, 2010. Trip Report - Lake Louise U.S. Army Recreation Camp and U.S. Army Airfield. 21 June. F10AK099701_02.19_0501_p.

USACE, 2011. Lake Louise Drum/Debris Removal Report, U.S. Army Airfield, U.S. Army Recreation Camp, Lake Louise, Alaska, Revised Final. December. F10AK099701_07.08_0500_a.

USACE, 2012. 2012 Lake Louise Remedial Investigation Summary, U.S. Army Airfield FUDS, F10AK0997-01, Final. September. F10AK099701_03.10_0500_a

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ATTACHMENT

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THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Environmental Conservation
DIVISION OF SPILL PREVENTION & RESPONSE
Contaminated Sites Program
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File No: 2237.38.002

February 7, 2013

David Jadhon
U. S. Army Engineers District, Alaska
CEPOA-PM--C-FUDS
P. O. Box 6898
JBER, AK 99506-0898

Re: 2012 DRO Contaminated Soil Removal, U.S. Army Airfield, Lake Louise, Alaska, Final February 2013

Dear Mr. Jadhon;

On behalf of the Alaska Department of Environmental Conservation (DEC), I have reviewed the referenced report. The report documents the removal of diesel range organics (DRO) impacted soil at four locations within the Formerly Used Defense Site at Lake Louise. DEC had no comment on the draft report and issued a cleanup complete determination based upon it.

The responses to comments provided by the USACE do not change the decision. The report is approved and will be placed on file.

If you have any questions on this letter, please contact me.

Sincerely,

Deb Caillouet
Environmental Program Specialist

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DECLARATION OF PROJECT and PROPERTY CLOSURE DECISION
And
NO DEPARTMENT OF DEFENSE ACTION INDICATED
For
FORMERLY USED DEFENSE SITE CON/HTRW PROJECT
LAKE LOUISE AIRFIELD (F10AK0997-01)
LAKE LOUISE, ALASKA

STATEMENT OF BASIS

Authority for the Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS) for Containerized Hazardous Toxic Radiological Waste (CON/HTRW) projects is derived from the Defense Environmental Restoration Program, 10 USC 2701-2707. The decision to close out this CON/HTRW project is based on the results of the 2012 removal action completed by Jacobs Engineering, Inc. The CON/HTRW project has been satisfactorily completed with the State of Alaska Department of Environmental Conservation (ADEC) concurrence. The April 2013 No Department of Defense Action Indicated (NDAI) report summarizes the work completed at Lake Louise Airfield. No additional projects were identified at the Lake Louise Airfield FUDS, thus the property is being closed.

SITE DESCRIPTION AND HISTORY

Lake Louise is located 35 miles northwest of Glennallen in the Copper River Basin of Southcentral Alaska at 62° 17' 41" North latitude, 146° 34' 54" West longitude in Township 6 North, Range 7 West, Sections 17-20, Copper River Meridian. The surficial geology of the area includes discontinuous permafrost, wind-deposited soils, glacial drift, proglacial lake deposits, and volcanic material associated with the nearby Wrangell Mountains. Temperature ranges from minus 60 degrees Fahrenheit (°F) to 90°F and annual precipitation averages 10 inches. A mixture of black and white spruce, aspen, birch, cottonwood, and alder are found in the area. Lake Louise is accessible by a 19-mile road leading north from Mile 159.8 of the Glenn Highway.

The Lake Louise Airfield (a.k.a U.S. Army Airfield) is located northwest of a former military recreation camp (a.k.a Lake Louise, U.S. Army Recreational Camp, Lake Louise Recreation Annex), another FUDS property (F10AK0847). The Department of Defense used the airfield to support military activities at the Lake Louise Army Training site and the nearby recreation camp. The recreation camp operated during the summer and exercises were often held during the winter.

The area is owned and maintained by the Alaska Department of Transportation and Public Facilities (DOT&PF). The airstrip located at the U.S. Army Airfield site is currently active.

DESCRIPTION OF THE SELECTED REMEDY AND IMPLEMENTATION

The site remedy consisted of a drum and debris removal and removal of diesel range organics (DRO) contaminated soils associated with the drums. Removal actions were undertaken in 2010 and completed in 2012. Approximately 56 cubic yards of debris and 670 pounds of contaminated soil were removed from the site during the 2010 removal action. The 2011 field

effort included the removal of approximately 5 cubic yards of debris and 6 cubic yards of DRO-contaminated soil (5.7 tons) from the site. In 2012, the remaining contaminated soils were excavated and removed off-site for treatment. A total of 150 tons (approximately 108 cubic yards) of DRO-contaminated soil were removed from the site. All confirmation sampling results were below the ADEC site-specific cleanup level of 3,000 mg/kg.

The remedy for this CON/HTRW project is protective of human health and safety and to the environment because the sources of contaminants have removed. The removal actions at the project site have been summarized in the NDAI report. The project site has been designated by ADEC as "Cleanup Complete," indicating no further investigations or cleanup is necessary. As a result the CON/HTRW project is declared closed. The CON/HTRW project was the only eligible project identified at the Lake Louise Airfield FUDS, and thus the property is also being closed. The Alaska DOT&PF is the current land owner for the Lake Louise Airfield project site. Ms. Penelope Adler is the point of contact and has been notified of this decision.

DECLARATION

In accordance with the Defense Environmental Restoration Program for Formerly Used Defense Sites, the U.S. Army Engineer District, Alaska, has completed all CON/HTRW activities at the Lake Louise Airfield FUDS (F10AK0997-01), Lake Louise, Alaska. This Declaration of Project Closure Decision supports the conclusion that all known sources of CON/HTRW have been removed from the property. This decision may be reviewed and modified in the future if any new information becomes available which indicates the presence of eligible CON/HTRW that may cause a risk to human health and safety and to the environment. No further cleanup actions are required by the DOD at this property location. Therefore, the Lake Louise Airfield property is being closed.

This Declaration of Project and Property Closure Decision has been prepared and approved by the undersigned in accordance with the FUDS Program Policy, Engineer Regulation (ER) 200-3-1, May 10, 2004.

Date 19 APR 2013

Christopher D. Lestochi
Colonel, U.S. Army Corps of Engineers
District Commander

The State of Alaska, through the Department of Environmental Conservation, agrees this CON/HTRW project and property closure is consistent with state cleanup requirements. The decision may be reviewed and modified in the future if information becomes available that indicates the presence of contaminants or waste that may cause unacceptable risk to human health and safety and to the environment.

_____ Date 8/2/2013

John Halverson
DOD Cleanup Unit Manager
Alaska Department of Environmental Conservation