DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 673D AIR BASE WING
JOINT BASE ELMENDORF-RICHARDSON ALASKA

29 Feb 13

MEMORANDUM FOR ALASKA DEPT OF ENVIRONMENTAL CONSERVATION
ATTENTION: MR. LOUIS HOWARD

FROM: 673 CES/CEANR
6346 Arctic Warrior Drive
JBER AK 99506-3240

SUBJECT: 2012 Annual Land Use Control (LUC) and Institutional Control (IC) Monitoring at JBER-Elmendorf

References: (a) DP98 Record of Decision, Section 12.2.3.4, dated May 2004
(b) OU6 Explanation of Significant Differences, Section 4.3.1.3, dated Mar 2007
(c) Memorandum to the Site File for OUs 1, 2, 4, and 5, Section 4, dated Jan 2010

1. This letter serves as the annual monitoring report on the status of LUCs in place on JBER-Elmendorf at DP98 and OUs 1, 2, 4, 5 and 6. The specific LUCs in place at each site are provided below. An evaluation of the implementation of these requirements is provided in **bold** following each specific LUC.

DP98:

Groundwater - The use of contaminated groundwater throughout DP98 for any purpose including, but not limited to, drinking, irrigation, fire control, dust control or any other activity, is prohibited.

Soil - Excavating, digging, or drilling is restricted to reduce the possibility of migration or exposure to contaminants that exceed chemical-specific applicable or relevant and appropriate requirements (ARARs). If contaminated soil that exceeds chemical-specific ARARs is excavated, it cannot be transported to or disposed of at another location on base. Excavated soil will be transported to a disposal facility in the lower 48 states, which is acceptable for disposal of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) waste. No dewatering of excavations or trenches will be allowed unless contaminated water is treated prior to use or disposal. Any excavations or drilling greater than ten feet below ground surface will require engineering controls to prevent downward migration of contamination and to protect the groundwater aquifer.

The current land use will be maintained to reduce the possibility of exposure to contaminants.

Evaluation – ***Inspection conducted on 29 Aug 12 and LUCs are in place and continue to be effective at DP98.***

OU 1:

Site LF59

Soil - Restrict land use and designate area for recreational use only.

Groundwater - Enforce base policy prohibiting installation of groundwater wells into the shallow aquifer. Secure existing water supply and groundwater monitoring wells.

Evaluation – ***Inspection conducted on 29 Aug 12 and LUCs are in place and continue to be effective at LF59.***

OU 2:

Site ST41

Groundwater - Restrict access to groundwater and groundwater development at the site. Designate the affected area for outdoor/recreational use and unmanned industrial use, excluding the development of commercial aquaculture. Continue enforcement of base policy prohibiting installation of groundwater wells (other than for monitoring purposes) into the shallow aquifer underlying OU2. Prohibit unauthorized access to existing water supply and groundwater monitoring wells.

Evaluation – ***Inspection conducted on 29 Aug 12 and LUCs are in place and continue to be effective at ST41.***

OU 4:

Site FT23

Groundwater - Restrict access to the contaminated groundwater throughout OU 4 until cleanup levels have been achieved. OU4 is designated "Airfield Use Area" for aircraft operations and maintenance, to include active and inactive runways, taxiways, and parking aprons for aircraft.

Soil - Institutional controls on land use (also called LUCs) will continue to restrict access to the contaminated shallow soils throughout OU 4 until cleanup levels have been achieved.

Evaluation – ***Inspection conducted on 30 Aug 12 and LUCs are in place and continue to be effective at FT23.***

Site SD24

Groundwater - Restrict access to the contaminated groundwater throughout OU 4 until cleanup levels have been achieved. OU4 is designated "Airfield Use Area" for aircraft operations and maintenance, to include active and inactive runways, taxiways, and parking aprons for aircraft.

Soil - Institutional controls on land use (also called LUCs) will continue to restrict access to the contaminated shallow soils throughout OU 4 until cleanup levels have been achieved.

Evaluation – ***Inspection conducted on 26 Sep 12 and LUCs are in place and continue to be effective at SD24.***

Site SD25

Groundwater - Restrict access to the contaminated groundwater throughout OU 4 until cleanup levels have been achieved. OU4 is designated "Airfield Use Area" for aircraft operations and maintenance, to include active and inactive runways, taxiways, and parking aprons for aircraft.

Soil - Institutional controls on land use (also called LUCs) will continue to restrict access to the contaminated shallow soils throughout OU 4 until cleanup levels have been achieved.

Evaluation – ***Inspection conducted on 26 Sep 12 and LUCs are in place and continue to be effective at SD25.***

Site SD28

Groundwater - Restrict access to the contaminated groundwater throughout OU 4 until cleanup levels have been achieved. OU4 is designated "Airfield Use Area" for aircraft operations and maintenance, to include active and inactive runways, taxiways, and parking aprons for aircraft.

Soil - Institutional controls on land use (also called LUCs) will continue to restrict access to the contaminated shallow soils throughout OU 4 until cleanup levels have been achieved.

Evaluation – ***Inspection conducted on 26 Sep 12 and LUCs are in place and continue to be effective at SD28.***

Site SD29

Groundwater - Restrict access to the contaminated groundwater throughout OU 4 until cleanup levels have been achieved. OU4 is designated "Airfield Use Area" for aircraft operations and maintenance, to include active and inactive runways, taxiways, and parking aprons for aircraft.

Soil - Institutional controls on land use (also called LUCs) will continue to restrict access to the contaminated shallow soils throughout OU 4 until cleanup levels have been achieved.

Evaluation – ***Inspection conducted on 30 Aug 12 and LUCs are in place and continue to be effective at SD29.***

OU 5:

Site ST37

Groundwater - Institutional controls (also called LUCs) that prohibit use of the upper aquifer will ensure that people will not be exposed to contaminated groundwater until cleanup goals are achieved.

Evaluation – ***Inspection conducted on 29 Aug 12 and LUCs are in place and continue to be effective at ST37.***

OU 6:

Site WP14

Groundwater - Institutional controls on land use and water use, as specified in the Base General Plan, restricts access to the contaminated groundwater throughout WP14. Installation of wells in the contaminated plume for residential, industrial, and agricultural uses are prohibited by the Base General Plan.

Evaluation - Inspection conducted on 29 Aug 12 and LUCs are in place and continue to be protective at WP14.

Site LF04

Groundwater (South) - Access to groundwater at LF04 South will be institutionally controlled. LF04 is currently designated as a "restricted use area" in the Base General Plan. This designation provides for recreational use of the parcel (e.g., cross country skiing) and for construction of unmanned facilities such as a parking lot, storage building, or taxiway, but prohibits the construction of any sort of manned facility such as an office building or a residence. Drilling into the shallow aquifer is also restricted by the Base General Plan to prohibit residential or agricultural use of contaminated groundwater.

Soil (North) - Access to soil at LF04 North will be institutionally controlled. LF04 is currently designated as a "restricted use area" in the Base General Plan. This designation provides for recreational use of the parcel (e.g., cross country skiing) and for construction of unmanned facilities such as a parking lot, storage building, or taxiway, but prohibits the construction of any sort of manned facility such as an office building or a residence.

Evaluation – ***Inspection conducted on 29 Aug 12 and LUCs are in place and continue to be protective at LF04. The bluff area of LF04 has gated access, which is controlled by the Base. Access to the base of the landfill is gated and controlled by the Base and the Port of Anchorage.***

Site SD15

Perched aquifer groundwater - Institutional controls on land and water use, as specified in the Base General Plan, restrict access to the contaminated groundwater throughout SD15. Installation of wells in the contaminated plume for residential, industrial, or agricultural use are prohibited by the Base General Plan.

Evaluation – ***Inspection conducted on 29 Aug 12 and LUCs are in place and continue to be protective at SD15.***

Site LF02

Groundwater - Access to soil at LF02 will be institutionally controlled. LF02 is currently designated as a "restricted use area" in the Base General Plan. This designation provides for recreational use of the parcel (e.g., cross country skiing) and for construction of unmanned facilities such as a parking lot, storage building, or taxiway, but prohibits the construction of any sort of manned facility such as an office building or a residence. Drilling into the shallow aquifer is also restricted by the Base General Plan to prohibit residential or agricultural use of contaminated groundwater.

Soil - Access to soil at LF02 will be institutionally controlled. LF02 is currently designated as a "restricted use area" in the Base General Plan. This designation provides for recreational use of the parcel (e.g., cross country skiing) and for construction of unmanned facilities such as a parking lot, storage building, or taxiway, but prohibits the construction of any sort of manned facility such as an office building or a residence. Drilling into the shallow aquifer is also restricted by the Base General Plan to prohibit residential or agricultural use of contaminated groundwater.

Evaluation – ***Inspection conducted on 30 Aug 12 and LUCs are in place and continue to be protective at LF02.***

Site LF03

Groundwater/Soil - Access to groundwater and soil at LF03 will be institutionally controlled. LF03 is currently designated as a "restricted use area" in the Base General Plan. This designation provides for recreational use of the parcel (cross country skiing, etc.) and for construction of unmanned facilities such as a parking lot, storage building, or taxiway, but prohibits the construction of any sort of manned facility such as an office

building or a residence. Drilling into the shallow aquifer is also restricted by the Base General Plan to prohibit residential or agricultural use of contaminated groundwater.

Soil - Access to groundwater and soil at LF03 will be institutionally controlled. LF03 is currently designated as a "restricted use area" in the Base General Plan. This designation provides for recreational use of the parcel (cross country skiing, etc.) and for construction of unmanned facilities such as a parking lot, storage building, or taxiway, but prohibits the construction of any sort of manned facility such as an office building or a residence. Drilling into the shallow aquifer is also restricted by the Base General Plan to prohibit residential or agricultural use of contaminated groundwater.

Evaluation – ***Inspection conducted on 29 Aug 12 and LUCs are in place and continue to be protective at LF03.***

2. The Air Force ensures compliance with LUCs by conducting periodic monitoring and completing site inspections. Separate controls are in place and enforced by the Air Force to prevent inappropriate soil and groundwater exposure at these sites. The Air Force currently requires all projects resulting in soil disturbance of greater than four inches below ground surface to follow 3rd Wing Instruction 32-1007, Safeguarding Utilities from Damage, dated 20 Aug 10 and 673d Wing Instruction 32-7003, Land Use control Management, dated 19 May 2011. Both instructions require the proponent to obtain an approved Base Civil Engineer Work Clearance Request (673 WG Form 3) prior to conducting work on the Base. This form is also referred to as a dig permit. If excavation occurs in a LUC area we require the submission of a Sampling and Analysis Plan. Results of the analysis are used to determine the correct disposition of soils excavated or water removed from the site.

3. A total of 435 JBER dig permits were reviewed in 2012. Of those, 17 were for excavations on or near JBER-Elmendorf sites that were active restoration sites or had LUCs/ICs. Unless it was specifically noted below no soil was removed from the sites.

1. Soil borings to 5 ft. along the proposed path of fiber optic cables in OU4 East. The contractor submitted a SAP and sample results were below regulatory limits.
2. Soil borings to 5 ft. along the proposed path of fiber optic cables just within the north-western boundary of SS22. The contractor submitted a SAP and sample results were below regulatory limits.
3. Replacement of water service on the eastern boundary of SS043. Dig site was not in the original area of contamination, but the excavator was informed of the potential to encounter contaminated soil. No contamination was encountered.
4. Electrical trenching to 4 feet deep north of building 16718 as part of ELM300 construction project within OU4 East. Trench line was within the area investigated during the ELM300 EECA, but the contractor was informed that there was a potential for contamination and that a PID should be used for screening. No contamination encountered.

5. Parking lot replacement near bldg. 10480. The excavator was informed that monitoring wells were in the area and that they must be protected.
6. Replacement of power line poles near LF03. The project was outside of the known boundaries of the site and LUC, but the contractor was informed that there was a possibility of encountering landfill waste. None was encountered.
7. Additional waterline work to #5 above. The same information was provided. We were informed that well 62WL-07 could not be located and that it was most likely destroyed during waterline work about 15 years ago. Unable to locate well casing.
8. Communication line work north of bldg. 27569. Contractor was informed of the location of ST36 boundary and what the requirements would be to trench through it and they chose to trench around it, but still screen for contamination with a PID. No contamination was encountered.
9. Replacement of perimeter alarm cable around 381st Communications facility (DP98). Approximately 25% of the linear distance would be within the DP98 LUC. Contractor submitted a SAP, performed field screening, and contaminated soil was not encountered. Dewatering was not necessary for this project since the excavation was only 30" deep and groundwater was not encountered.
10. Replace propane lines that were 1.5' deep north of bldg. 31562. Excavator was informed that there was a potential to encounter petroleum contamination due to the project's proximity to ST72. This work was not accomplished before the dig permit expired.
11. Capping of water line south of bldg. 5374. Excavator was informed of the two sites in the area, ST76 and ST516, and the possibility of encountering petroleum soil contamination. The excavation took place outside of the known boundaries of both sites and no contamination was encountered.
12. Replace propane lines that were 1.5' deep north of bldg. 31562. Excavator was informed that there was a potential to encounter petroleum contamination due to the project's proximity to ST72. No contamination was encountered.
13. Bldg. 17722 foundation and utility work as part of ELM300 construction project within OU4 East. Excavations were within the area investigated during the ELM300 EECA, but the contractor was informed that there was a potential for contamination and that a PID should be used for screening. They were also informed that the SVE system was to be protected. There was a minor issue involving the SVE system, but it was repaired. No contamination encountered.
14. Fencing repair around 381st Communications facility (DP98). Contractor was informed of the LUC and agreed to drive posts in the area of known contamination so that contaminated soil would not be displaced.
15. Additional construction work at ELM300. Contractor was informed that they must protect the existing SVE system. No problems encountered.

16. Soil borings to determine potential contamination at proposed construction site on ST36/66. SAP was submitted. No contaminated soil was encountered.
17. Excavations necessary for the decommissioning of the South Jet Pipeline. The contractor submitted a SAP. Contamination was only encountered at Valve Station 4. Contaminated soil (<5 CY) was stockpiled and covered using a 20 mil liner in accordance with ADEC regulations (18 AAC 75.370). Soil transport request was approved by ADEC and the soil will be transported within the next two weeks for thermal treatment.

4. If you require additional information, or if you have any comments or questions, please contact me at (907) 552-5746.

Gary D Fink

GARY D. FINK, GS-13
Chief, Environmental Restoration