

# STATE OF ALASKA

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

*SEAN PARNELL, GOVERNOR*

610 University Avenue  
Fairbanks, AK 99709-3643  
PHONE: (907) 451-2181  
FAX: (907) 451-5105  
www.dec.state.ak.us

File: 120.38.004 (Hazard ID: 24940)  
120.38.004 (Hazard ID: 25288)  
120.38.004 (Hazard ID: 25285)  
120.38.004 (Hazard ID: 25287)  
120.38.004 (Hazard ID: 25289)  
120.38.004 (Hazard ID: 25284)

December 1, 2009

Scott Berglund  
Federal Aviation Administration  
Environmental Section  
AAL-471, FAA  
222 West 7<sup>th</sup> Ave., Box 14  
Anchorage, AK 99513-7587

Re: Record of Decision, FAA Big Delta Sites Cleanup Complete Determination

Dear Mr. Berglund:

The Alaska Department of Environmental Conservation (DEC), Contaminated Sites Program has completed a review of the environmental records associated with the FAA Big Delta Facility which includes Regulated Tanks at the remote center air/ground communications (RCAG) and very high Omni-directional range/tactical air navigation station (VORTAC) facilities, the Fuel Transfer Station, Building 601, Building 603, Building 604, Building 400, and two areas identified as Tar and Debris sites. This decision is based on the administrative record for the FAA Big Delta Facility sites, which is located in the ADEC offices in Fairbanks, Alaska. This letter summarizes the decision process used to determine the environmental status of these sites and summarizes the regulatory issues considered in the Cleanup Complete Determination.

The Big Delta FAA Station is located at the Army Allen Airfield, which is part of the Fort Greely Army Testing and Training Center. The FAA Facility is located 3 miles south of the city of Delta Junction and 20 miles south of the village of Big Delta. The FAA involvement at the Big Delta Station began in 1941. In 1963, the FAA relinquished ownership of the land and the Big Delta Airport to the U.S. Army. All sites are located on US Army Fort Greely with the exception of the RCAG Facility regulated tank 6-c-001. The RCAG Facility is located in the Donnelly Training Area which is managed by U.S. Army Fort Wainwright.

Groundwater at the site has been encountered at 185 feet and 220 feet during drilling. The regional groundwater movement has been to the northeast at a gradient ranging from 0.001 feet per lineal feet to 0.004 feet per lineal feet.

Name and Mailing Address of Contact Party:

U.S.D.O.T. FAA - Anchorage  
222 West 7<sup>th</sup> Avenue, #14  
Anchorage, Alaska 99513-7587

Regulatory authority under which the sites are being cleaned up:  
18 AAC 75

### Cleanup Levels

The soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Tables B1 and B2, Migration to Groundwater.

<u>Contaminant</u>	<u>Site Cleanup Level (mg/kg)</u>
DRO	250
PCBs	1
Benzene	0.025

### Pathway Evaluation

The exposure pathways for human health that were evaluated include the following: ingestion of soil; indoor and outdoor inhalation of vapors, and dermal contact with soil. The outdoor inhalation and direct contact exposure risk is acceptable as concentrations remaining above 10 feet bgs are below Method Two inhalation and direct cleanup levels. There are no buildings on the site so indoor inhalation of vapors is not an issue.

The groundwater at the site is very deep (185 feet) and is not currently being used as a drinking water source. The U.S. Army Fort Greely groundwater monitoring program has not identified contamination in downgradient monitoring wells which could be attributable to these sites.

### **FAA Big Delta – Regulated Tanks, RCAG Facility 6-c-001 and VORTAC Facility 6-b-001**

File: 120.38.004 Hazard ID: 24940

RCAG Facility: Latitude: 64<sup>0</sup> 1' 28.880" N Longitude: 145<sup>0</sup> 41' 56.260" W

VORTAC Facility: Latitude: 64<sup>0</sup> 0' 15.881" N Longitude: 145<sup>0</sup> 43' 0.433" W

### **Background**

The RCAG Facility was located approximately 4,200 feet east of the access road entrance to the Range and Peripheral Area Tract. It consisted of Building 403 and adjacent area. Eight feet north of the northeast corner of the former Building 403 laid a 500-gallon underground storage tank (UST) (6-c-001). This UST contained diesel fuel and was associated with emergency generator operations.

The VORTAC facility was located on the west side of Jarvis Creek approximately 1,800 yards northeast of the Quarters Area Tract. It consisted of Building 401 and the adjacent area. A 1,000-gallon UST (6-b-001) was located 5 feet south of the southwest corner of the building. The UST supplied diesel and formerly gasoline to the emergency generator.

### **Contaminants of Concern**

Diesel Range Organics (DRO)

### **Characterization and Cleanup Activities**

During July 1997, these USTs were decommissioned by Montgomery Watson at the FAA Big Delta Station. The UST (6-c-001) at the RCAG facility was removed and the final excavation dimensions were approximately 14 feet long, 9 feet wide and 8 feet deep. The bottom of the tank was approximately 6.5 feet below ground surface. Approximately 37 cubic yards of fuel-contaminated soil was excavated and transported to ESI in Fairbanks for thermal remediation. Eight field-

screening samples were collected from the limits of the excavation. Soil beneath the fuel supply and return piping was removed as part of the excavation. Four confirmation soil samples were collected from the base of the excavation and they were analyzed for DRO and benzene, toluene, ethylbenzene, and xylenes (BTEX). All the soil samples met DEC cleanup levels. No confirmation soil samples were collected from the sidewalls of the excavation but field-screening data from the sidewalls did not indicate any contamination.

The UST (6-b-001) at the VORTAC facility was removed and the final excavation dimensions were approximately 15 feet long, 9 feet wide and 7 feet deep. The bottom of the tank was approximately 7 feet bgs. Approximately 0.5 cubic yards of fuel-contaminated soil was excavated from the excavation. A total of 7 field-screening samples were collected from the sidewalls and the base of the excavation. Three confirmation soil samples and one duplicate were taken from the sidewall and base of the excavation and analyzed for gasoline range organics (GRO), DRO, BTEX and lead. All the sample results were below DEC cleanup levels.

### **ADEC Decision**

DEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup Complete determination. No further action is required at this site.

The DEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above, and will include a description of the contamination remaining at the site.

This determination is in accordance with 18 AAC 75.380(d)(1) and does not preclude DEC 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.

### **FAA Big Delta – Fuel Transfer Pipeline**

File: 120.38.004 Hazard ID: 25288

Latitude: 63<sup>0</sup> 59' 38.242" N Longitude: 145<sup>0</sup> 44' 14.244" W

### **Background**

The Fuel Transfer Pipeline was installed in the early 1940s and consisted of approximately 700 feet of 3 inch diameter steel pipe and 124 feet of ¾ inch diameter steel pipe. The pipeline was used for transferring diesel fuel from the CANOL pipeline to the Big Delta Station bulk fuel storage tank farm. CH2-OH, consultant for the FAA, decommissioned the pipeline in 1998.

### **Contaminants of Concern**

Diesel Range Organics (DRO)

### **Characterization and Cleanup Activities**

In 1997, during the field work for the Final Site Cleanup and Investigation Report, a diesel stain was identified south of the former tennis court area. Approximately 3 cubic yards of visibly stained diesel-contaminated soil was removed. This contaminated soil was consolidated with the excavated soil from the tank decommissioning activities and transported to ESI, Inc. for thermal remediation. The source of the contamination was believed to be the 3 inch buried fuel transfer pipeline formerly used to transfer diesel fuel from the CANOL Pipeline to the former bulk fuel storage tanks at the Big

Delta station. During the excavation, the pipeline was uncovered and a broken flange fitting was observed at the location of the contamination.

After the three cubic yards of contaminated soil were excavated from the former tennis court diesel stain (depth of one foot below ground surface (bgs)), soil samples were collected from around the break in the piping and screened for volatile organic compounds and diesel using a photoionization detector (PID) and EnSys<sup>®</sup> kit. Two confirmation soil samples were collected from the excavation. The samples were analyzed for DRO. The results indicated DRO levels at 14,000 milligrams per kilogram (mg/kg) and 33,000 mg/kg.

On the basis of field screening results, the possibly contaminated soil was removed to a depth of 10 feet along the pipeline route including the area of the former tennis court. The total volume of contaminated soil that was excavated along the pipeline route was 3,600 cubic yards. The contaminated soil was transported to OIT, Inc. for thermal remediation.

A total of eighty-three confirmation samples were collected from the bottom and the side walls of the excavation for laboratory analysis offsite. These samples were analyzed for DRO, BTEX, and aliphatics/aromatics. Six of the samples had levels of DRO exceeding 1,000 (mg/kg). The highest DRO level was in the former tennis court area at 5,000 mg/kg at 10 feet bgs. Some of the samples were analyzed for BTEX. All of the sample results met DEC cleanup levels for BTEX.

A release investigation was completed in July 1998 to determine the extent of the remaining contamination. Based on the elevated field-screening results, three soil borings were installed down to 60 feet bgs along the former pipeline excavation. Fourteen soil samples were collected from the three borings. These samples were analyzed for DRO, BTEX and aliphatics/aromatics. All the soil samples were below DEC cleanup levels.

In addition, based on elevated field-screening levels, two soil borings were installed down to 80 feet bgs in the former tennis court area. These soil samples were also analyzed for DRO, BTEX and aliphatics/aromatics. The soil boring (SB015) located in the former tennis court site had DRO levels up to 20,000 mg/kg at 39 – 41 feet bgs, 11,000 mg/kg at 54 – 56 feet bgs, but the DRO decreased to non-detect at 64 feet bgs. Samples collected from SB015 from 14 feet bgs to 36 feet were not analyzed for DRO and BTEX. The PID readings from those samples were low and the highest aliphatic level was 2,700 mg/kg and the highest aromatic level was 310 mg/kg. The soil samples collected from SB015 were analyzed for BTEX from 64 feet bgs down to 80 feet bgs. All the BTEX samples met DEC cleanup levels.

### **Pathway Evaluation**

The exposure pathways for human health that were evaluated include the following: migration to groundwater, incidental ingestion of soil; inhalation of vapors in indoor and outdoor air, and dermal contact with soil. Contaminant concentrations in the deep water table at the site do not exceed the Table C cleanup levels for DRO and the distance from the bottom of the contamination to the groundwater minimizes the possibility of migration. The nearest potable water well is located up-gradient of the site. The outdoor inhalation/ingestion and dermal contact exposure risk have been eliminated by the depth of excavation and remaining concentrations in surface soil are below the Table B concentrations for inhalation/ingestion and dermal contact.

The exposure pathway analysis above was supported by the most recent DEC Exposure Tracking Model (ETM) ranking. The ETM results showed all pathways to be De Minimis Exposure, Exposure Controlled, or Pathway Incomplete.

### **ADEC Decision**

DEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup Complete determination subject to the following.

1. Any proposal to transport soil or groundwater off site requires DEC approval in accordance with 18 AAC 75.370 (b). A "site" as defined by 18 AAC 75.905(115), is an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.)
2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
3. Due to the potential presence of petroleum contaminated soil above the migration to groundwater pathway cleanup level for DRO (250 mg/kg), the landowner will record the area of residual contamination in the Property Management System and Master Land Use Plan in accordance with 18 AAC 75.375 (b)(4), and notify DEC if the current land uses changes.

The DEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above, and will include a description of the contamination remaining at the site.

This determination is in accordance with 18 AAC 75.380(d)(1) and does not preclude DEC 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.

### **FAA Big Delta – Building 601 Former Utility Facility**

File: 120.38.004 Hazard ID: 25285

Latitude: 63<sup>0</sup> 59' 36.884" N Longitude: 145<sup>0</sup> 44' 27.686" W

### **Background**

Utility building 601 formerly housed drinking water and heating systems for the Former Quarters Area, a repair shop with an auto bay and a general storage area. There were two source areas at this site. The first source was the two floor drains (north floor drain and the south floor drain) that were located in the auto bay. A septic tank system is located just west of the building and the discharge piping runs under the Richardson Highway. The second source of contamination is the former one 2,000-gallon above ground storage tank (AST) (6-A-003).

### **Contaminants of Concern**

Diesel Range Organics (DRO)

Polychlorinated biphenyls (PCBs)

### **Characterization and Cleanup Activities**

The drains in the garage (South floor drain) and the boiler room (North floor drain) were investigated and reported in the Environmental Due Diligence Audit Summary Report dated March 1997. Both

drains were filled with soil and other miscellaneous debris. The North floor drain was square in shape and discharged directly into the soil. The South floor drain was circular and discharged to a piped "P" trap. Two soil samples were collected from the North floor drain and were analyzed for GRO, DRO, residual range organics (RRO), BTEX, Target Analyte List (TAL) metals, semivolatile organic compounds (SVOCs), and polychlorinated biphenyls (PCBs). All the sample results met DEC cleanup levels except for PCBs which had a concentration of 14.5 and 14.7 mg/Kg. The South floor drain was sampled and analyzed for GRO, BTEX, TALs and volatile organic compounds (VOCs). The soil sample results for the South floor drain were all below DEC cleanup levels.

A 3 foot by 3 foot section of concrete floor slab was removed from around the North floor drain and one cubic yard of soil was removed from below and around the North floor drain. Confirmation soil samples were collected from the bottom and the side wall of the excavation. All the confirmation sample results met DEC cleanup levels with the exception of the sample from the East side wall sample that had 1.32 mg/Kg of PCB which was collected 2 inches below the concrete slab.

The septic tank system, located just west of Building 601 consisted of two 2,500 gallon tanks and a 1,500 gallon lift station constructed approximately 10 feet bgs. The water from the septic system was removed and disposed of at the City of Delta Junction sewage lagoon. The tanks and the lift station were filled with 36 cubic yards of cement grout consisting of cement, water and sand and the system was abandoned. Samples were collected from the septic tank and one foot below ground from the sewage outfall located west of Building 601 across the Richardson Highway. The samples were analyzed for GRO, DRO, RRO, BTEX, TAL metals, SVOCs, VOCs, and PCBs. The sample results from the septic system lift tank indicated exceedances of DRO at 429 mg/Kg and benzo(a)anthracene at 36.6 mg/Kg. However, the sample results from the sample collected from the sewer outfall did not indicate any contamination above DEC cleanup levels.

AST 6-A-003 was a 2,000-gallon heating oil tank. At the time of decommissioning, the tank contained approximately 6 gallons of sludge. No holes, dents, or leaks were observed in the tank. The fuel supply piping ran approximately 30 feet into the east side of Utility Building 601. Approximately 18 cubic yards of contaminated-soil were removed from under the former AST. Three soil samples were collected from the bottom of the excavation and analyzed for DRO, and BTEX. DRO concentrations from the excavation had levels up to 6,800 mg/Kg at 2' bgs. All the contaminated-soil was transported to ESI in Fairbanks for thermal remediation. Two soil borings were installed under the former tank location and at the limits of the excavation. The soil borings were installed to a depth of 31 feet bgs. Soil samples were collected from the top 3 feet, 4 to 11 feet bgs, and 29 – 31 feet bgs. All the samples were below DEC cleanup levels.

### **Pathway Evaluation**

The exposure pathways for human health that were evaluated include the following: migration to groundwater, incidental ingestion of soil; inhalation of vapors in indoor and outdoor air, and dermal contact with soil. All contaminants at the site were cleaned up to the maximum extent practicable and the remaining contamination is either fixed in place or otherwise not expected to cause any future exposure.

The exposure pathway analysis above was supported by the most recent DEC Exposure Tracking Model (ETM) ranking. The ETM results showed all pathways to be De Minimis Exposure, Exposure Controlled, or Pathway Incomplete.

**ADEC Decision**

DEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup Complete determination subject to the following.

1. Any proposal to transport soil or groundwater off site requires DEC approval in accordance with 18 AAC 75.370 (b). A "site" as defined by 18 AAC 75.905(115), is an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.)
2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
3. Due to the potential presence of petroleum contaminated soil above the migration to groundwater pathway cleanup level for DRO (250 mg/kg), and one small area of PCB contaminated soil that is slightly above the direct contact level of 1 mg/kg, the landowner will record the area of residual contamination in the Property Management System and Master Land Use Plan in accordance with 18 AAC 75.375 (b)(4), and notify DEC if the current land uses changes.

The DEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above, and will include a description of the contamination remaining at the site.

This determination is in accordance with 18 AAC 75.380(d)(1) and does not preclude DEC 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.

**FAA Big Delta – Building 603 Former Generator Facility**

File: 120.38.004 Hazard ID: 25287

Latitude: 63<sup>0</sup> 59' 36.953" N Longitude: 145<sup>0</sup> 44' 17.876" W

**Background**

The Generator Facility consisted of Building 603 and adjacent areas. Building 603 was a single-story wooden-frame building with an underground crawl space. Building 603 was located at the east end of the central quarter's tract facility. Pipes entered and exited the crawl space beneath Building 603. The crawl space extended to a storage shed located on the north side of Building 603. A hatch inside the storage shed opened into the crawl space which provided access to the common fill stand for four 500-gallon diesel USTs located under the storage shed. A 500-gallon diesel AST that was used for the emergency generator was located three feet south of Building 603.

Source areas of contamination at this site included areas of stained soil at the ground surface beneath the south end of the AST, stained soil on the floor of the crawlspace below the storage shed and the former underground storage tanks that were adjacent to the north side of Building 603.

**Contaminants of Concern**

Diesel Range Organics (DRO)  
Benzene

### **Characterization and Cleanup Activities**

In August of 1997, Montgomery Watson removed and decommissioned four 500-gallon USTs and four wooden pilings that supported AST 6-A-002. During the removal of the pilings for the AST, contaminated soil was discovered and approximately 18 cubic yards of contaminated soil were removed from the excavation. Nine field screening samples were collected as the pilings and the contaminated soil were removed. Three confirmation soil samples were collected from the excavation and analyzed for DRO and BTEX. Sample results indicated levels of DRO up to 18,000 mg/kg at 0.5 feet below ground surface (bgs). All the BTEX levels met DEC cleanup levels.

Five soil borings were installed at the AST site based on high field screening data. Contaminated soil that was encountered during the installation of the borings was excavated to a depth of approximately 10 feet. One of the soil borings installed in the former AST location had DRO levels up to 5,400 mg/kg at 9 – 11 feet bgs. The levels decreased down to levels below DEC cleanup levels at 43 feet bgs.

Surface staining was evident in the storage shed crawl space below the hatch. The stained soil identified in the crawlspace was sampled at one foot bgs inside the storage shed hatch. The sample was analyzed for GRO, DRO, RRO and BTEX. The sample results were below DEC cleanup levels for GRO and BTEX but the DRO concentration was 10,764 mg/kg and the RRO concentration was 693 mg/kg. The remaining contamination associated with the crawlspace was coordinated with the USTs removal.

Approximately 70 cubic yards of contaminated soil were excavated during the 1997 removal of the four 500-gallon USTs. The final excavation dimensions were 20 feet long by 15 feet wide by 9 feet deep. The top of the tanks were approximately 4.5 feet bgs. The bottoms of the tanks were approximately 8.5 feet bgs. The USTs were above a cement pad. A total of 20 field screening samples were collected from the excavation. The contaminated soil was transported to ESI for thermal remediation. A total of 7 confirmation soil samples were collected from the excavation and analyzed for DRO and BTEX. One confirmation soil sample collected at the east edge of the tank crib slab had a DRO level at 19,000 mg/kg.

During the 2000 Release Investigation, a total of eight soil borings were installed at the UST site. The placement of the soil borings was based on high field screening data and surface observations of soil staining. Contaminated soil was excavated to a depth of approximately 10 feet at the former location of Building 603 and a portion of the building's concrete foundation was removed to facilitate removal of the soil. Soil samples collected from the borings were analyzed for DRO, BTEX, aliphatics/aromatics and SVOCs. Soil samples collected from the soil borings had levels of DRO up to 11,000 mg/kg at 54 feet bgs. The levels of DRO decreased to below DEC cleanup levels at 78 feet bgs. Additional soil borings installed within 100 feet of SB001, which is located closest to the former USTs, all had DRO contaminant levels up to 9,300 mg/kg at 74 feet bgs. According to the data, DRO contamination is present between 50 and 70 feet bgs. In all the soil borings, contamination decreased to below DEC cleanup levels at 75 to 80 feet bgs. One soil sample had a benzene level at 0.05 mg/kg in a sample at 54 feet bgs but all other BTEX and SVOC data met DEC cleanup levels.

### **Pathway Evaluation**

The exposure pathways for human health that were evaluated include the following: migration to groundwater, incidental ingestion of soil; inhalation of vapors in indoor and outdoor air, and dermal contact with soil. Contaminant concentrations in the deep water table at the site do not exceed the



Table C cleanup levels for DRO and Benzene, and the distance from the bottom of the contamination to the groundwater minimizes the possibility of migration. The nearest potable water well is located up-gradient of the site. The outdoor inhalation/ingestion and dermal contact exposure risk have been eliminated by the depth of excavation and remaining concentrations in surface soil are below the Table B concentrations for inhalation/ingestion and dermal contact.

The exposure pathway analysis above was supported by the most recent DEC Exposure Tracking Model (ETM) ranking. The ETM results showed all pathways to be De Minimis Exposure, Exposure Controlled, or Pathway Incomplete.

### **ADEC Decision**

DEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup Complete determination subject to the following.

1. Any proposal to transport soil or groundwater off site requires DEC approval in accordance with 18 AAC 75.370 (b). A "site" as defined by 18 AAC 75.905(115), is an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.)
2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
3. Due to the potential presence of petroleum contaminated soil above the migration to groundwater pathway cleanup level for DRO (250 mg/kg), the landowner will record the area of residual contamination in the Property Management System and Master Land Use Plan in accordance with 18 AAC 75.375 (b)(4), and notify DEC if the current land uses changes.

The DEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above, and will include a description of the contamination remaining at the site.

This determination is in accordance with 18 AAC 75.380(d)(1) and does not preclude DEC 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.

### **FAA Big Delta – Pump House Building 604**

File: 120.38.004 Hazard ID: 25289

Latitude: 63<sup>0</sup> 59' 37.291" N Longitude: 145<sup>0</sup> 44' 14.478" W

### **Background**

The Former Bulk Oil Storage Pump and Valve House Building 604 controlled the flow of heating oil and diesel fuel to tanks and trucks from the former bulk storage tank system. A truck fill stand was located on the west side of the slab, and piping was located running north, south, and east of the slab.

### **Characterization and Cleanup Activities**

During July and August 1997, Montgomery Watson removed the concrete slab, the piping running south to the slab, and approximately 50 cubic yards of diesel contaminated soil from below the slab down to 4.5 feet bgs. Field screening was conducted during the excavation and five confirmation soil

samples were collected from the limits of the excavation. The soil samples were analyzed for DRO. The sample results ranged from 580 mg/kg to 6,470 mg/kg (2.5 feet bgs). The excavation was lined with plastic and backfilled to grade. The contaminated soil was transported to ESI in Fairbanks for thermal remediation.

In 1998, four soil borings were installed at the former Pump House Building 604 site. The placement of the soil borings was based on field screening data, assumed groundwater flow direction, and surface observations such as soil staining. Contaminated soil that was encountered during the installation of the soil borings was excavated to a depth of approximately 10 feet bgs. Soil samples collected from the borings were analyzed for DRO, BTEX, aliphatics/aromatics, and SVOCs. The highest soil sample result was 6,000 mg/kg DRO at 4 – 6 feet bgs at SB035 which was located under the former Pumphouse Building 604 foundation. DRO soil sample results collected from SB035 decreased to 500 mg/kg at 29-31 feet bgs and 9.2 mg/kg at 49-51 feet bgs. One sample collected from SB045 which was located under the location of the former 3 inch fuel pipeline had 520 mg/kg DRO at 24 – 26 feet bgs. All the other samples collected in 1998 were below DEC cleanup levels.

### **Pathway Evaluation**

The exposure pathways for human health that were evaluated include the following: migration to groundwater, incidental ingestion of soil; inhalation of vapors in indoor and outdoor air, and dermal contact with soil. Contaminant concentrations in the deep water table at the site do not exceed the Table C cleanup levels for DRO, and the distance from the bottom of the contamination to the groundwater minimizes the possibility of migration. The nearest potable water well is located up-gradient of the site. The outdoor inhalation/ingestion and dermal contact exposure risk have been eliminated by the depth of excavation and remaining concentrations in surface soil are below the Table B concentrations for inhalation/ingestion and dermal contact.

The exposure pathway analysis above was supported by the most recent DEC Exposure Tracking Model (ETM) ranking. The ETM results showed all pathways to be De Minimis Exposure, Exposure Controlled, or Pathway Incomplete.

### **ADEC Decision**

DEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup Complete determination subject to the following.

1. Any proposal to transport soil or groundwater off site requires DEC approval in accordance with 18 AAC 75.370 (b). A “site” as defined by 18 AAC 75.905(115), is an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.)
2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
3. Due to the potential presence of petroleum contaminated soil above the migration to groundwater pathway cleanup level for DRO (250 mg/kg), the landowner will record the area of residual contamination in the Property Management System and Master Land Use Plan in accordance with 18 AAC 75.375 (b)(4), and notify DEC if the current land uses changes.

The DEC Contaminated Sites Database will be updated to reflect the change in site status as detailed

above, and will include a description of the contamination remaining at the site.

This determination is in accordance with 18 AAC 75.380(d)(1) and does not preclude DEC 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.

### **FAA Big Delta – Building 400 Former Flight Service Station**

File Number 120.38.004 Hazard ID 25286

Latitude: 63° 59' 34.699" N Longitude: 145° 43' 59.801" W

#### **Background**

The Flight Service Station Facility included Building 400. The building lies near the southwest end of the Allen Army Airfield at Fort Greely. There was a 515-gallon AST located 2 feet from the north wall of the northwest corner of Building 400. Soil staining was noted at the ground surface area around the AST and on the west side of Building 400 between the south side of the stairs and the outer western wall. In 1998, the AST was decommissioned and the Decommissioning Assessment (CH2-OH) stated that approximately 5 cubic yards of potentially contaminated soil was excavated from below the AST. Three confirmation soil samples were collected from the bottom and the sidewalls of the excavation and analyzed for DRO and BTEX. All the soil sample results were below the most stringent DEC cleanup levels. This previously identified area of concern was determined to be a non-qualifying site by DEC.

### **FAA Big Delta – VASI and DF Pooled Tar and Misc Debris**

File Number 120.38.004 Hazard ID 25284

Latitude: 64° 0' 14.476" N Longitude: 145° 43' 5.650" W

#### **Background**

The Direction Finding (DF) Facility and the Visual Approach Slope Indicator (VASI) Facility are located within and near the VHF Omni-directional Radio Range Tactical Air Navigation (VORTAC) facility. The DF facility is located approximately 920 feet southwest of Building 401 and the VASI facility consists of two VASI boxes. The boxes are located near the northern end of the northern runway at Allen Airfield. They are approximately 230 and 210 yards southeast of the VORTAC.

A 1997 walkover inspection of the area noted the DF facility had a large amount of tar and debris spilled throughout the area. The debris consisted of railroad ties and metal tracks, empty rusted 55-gallon drums, discarded electrical equipment and tar pooled throughout the area. The total estimated acreage of affected area is 7 to 7.5 acres of tar and debris (3.5 acres are estimated beyond the FAA-leased property boundaries). The VASI facility had a small patch of tar.

No evidence of railroad ties, metal tracks, 55-gallon drums, electrical equipment or tar was observed during a 2009 walkover inspection of the area by the Army and DEC. No other indications of contamination were observed. These previously identified areas of concern were determined to be non-qualifying sites by DEC.

**ADEC Decision**

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

Although a Cleanup Complete determination has been granted, DEC approval is required for off-site soil disposal in accordance with 18 AAC 75.325(i). 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.

Since contaminated soil remains above the DEC cleanup levels, the residual contaminant levels on sites will be documented in the U.S. Army's (landowner) Land Use Management Plan for future reference and land use changes. The US Army has demonstrated to the Department's satisfaction that processes are in place that ensures future site users that the residual contamination is defined on planning maps and will be taken into consideration when any future construction projects in the area are planned.

This determination is in accordance with 18 AAC 75.380(d) and does not preclude DEC 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 the DEC project manager, Tana Robert at (907) 451-2180.

Sincerely,



Fred Vreeman  
Environmental Program Manager

cc: Lt. Col. Chris Chronis, Fort Greely Commander, Fort Greely (via email)  
Col. Timothy Jones, Fort Wainwright Commander, Fort Wainwright (via email)  
Glen Shonkwiler, SMDC/ARSTRAT, Huntsville, AL (via email)

Stephen Hammond, Fort Greely RAB Community Co-Chair, Fort Greely (via email)  
Derek 'Dan' Miller, Fort Greely Environmental Program, Fort Greely (via email)  
Christine Boerst, Fort Greely Department of Public Works, Fort Greely (via email)  
Clifford Seibel, Fort Wainwright Environmental Program, Fort Wainwright (via email)  
Michael Meeks, Fort Wainwright Department of Public Works, Fort Wainwright (via email)  
Milton 'Gene' Clare, Fort Wainwright Environmental Program, Fairbanks (via email)  
Jacques Gusmano, EPA, Anchorage (via email)