DEPARTMENT OF THE AIR FORCE
PACIFIC AIR FORCES

7 February 2005

Mr. David Hertzog
611 CES/CEVR
10471 20th Street Suite 302
Elmendorf AFB AK 99506-2270

Mr. Jeff Norberg
Alaska Department of Environmental Conservation
555 Cordova Street
Anchorage, AK 99501

Dear Mr. Norberg:

The King Salmon Restoration Advisory Board (RAB) 18 January 05 meeting minutes are forwarded for your information. The next meeting is scheduled for 15 February 05 at the base lounge.

Please direct any further comments or suggestions to myself, at (800) 222-4137 or direct, at (907) 552-7261 or email dave.hertzog@elmendorf.af.mil.

Sincerely

David O. Hertzog

DAVID HERTZOG, GS-12
Remedial Project Manager
King Salmon/Galena

Attachments:
18 January 05 Draft Minutes
Agenda for 15 February 05 Meeting
Nov 04 RPO Meeting Minutes
AOC Decision Tree

KING SALMON RESTORATION ADVISORY BOARD
18 January 05
BASE LOUNGE, 7:00 P.M.
MEETING MINUTES

The meeting was called to order at 7:06 pm by the co-chair Richard Sherman.

The following RAB members were present:

Ray Taylor
Nanci Morris
Richard Sherman
Bill Waite

Visitors and other participants are listed below.

Jeff Norberg - ADEC
David Hertzog – 611th U.S. Air Force
Keith Barnack – 611th U.S. Air Force
Abe Williams -Paug Vik
Max Schwenne – OASIS Environmental, Inc.

Changes to the Agenda

None.

Approval of the Minutes

The minutes from the 19 October 2004 meeting were approved unanimously.

NEW BUSINESS

Air Force Project Update

RPO Meeting

The remedial project optimization Implementation Study (RPOIS) team met with Air Force personnel, EPA and ADEC regulators, in San Antonio in November. Recommendations to improve the King Salmon program, time lines, and suggested changes in procedures were presented and discussed. The RPO meeting minutes are provided as an attachment to these minutes. Significant recommendations from the meetings were presented to the RAB.

Bioventing Systems – The RPOIS recommended shutting down the systems at buildings 76-200, 154, 306, and 307 because respiration data indicate remediation is complete. The RPO also recommended shutting down the system at 157/159 because data indicate further operation of the system will have little to no impact on the groundwater cleanup time frame.

Groundwater Zone 1 – The hydrocarbon contamination plume appears stable, there are no volatiles present, and the free phase product is not recoverable. Recommendation was to continue operating the Bio 4X pilot system, which is a bioventing system positioned along the bluff at seep 1. Future work may involve expansion of the system to seep 2. The RPOIS will develop a revised monitoring program which will potentially decrease the monitoring frequency. The RPOIS also explored placing the treatment system into a standby mode. Data indicate the remaining free phase product is not moving very much; consequently, the Bio 4X system and the low mobility may be adequate to prevent seepage of free phase product into the wetland. The tetrachloroethene (TCE) chlorinated solvent plume is larger than originally thought and seems to

follow utility lines. Additional investigation is needed to better understand the plume. Injection of lactic acid or vegetable oil is under consideration as a treatment method for the chlorinated solvent. With the additional data, the interim ROD remedial alternative, a reactive iron wall, is now deemed a less feasible alternative.

Groundwater Zone 2 – Continuation of the annual monitoring is recommended until sufficient data are available to document plume stability and trends. Once data are available a revised monitoring plan will be developed.

Groundwater Zone 3 – There have been no exceedences of regulatory standards in B aquifer sentry wells in five years of monitoring. In addition, several years of data indicate that treatment of the seep water is not required. The RPO is actively evaluating alternatives to shut down the treatment system. To protect King Salmon Creek, the seep water would still be diverted to the leach field in case a drum failed and released its contents. The treatment capacity of the wetlands has been evaluated and deemed adequate to contain a release, if it occurred. The monitoring program will be revised to focus more on the health and capacity of the wetlands to treat future contamination incidents, should any occur.

Groundwater Zone 4 – Last years field program focused on defining the extent of remaining contamination and the feasibility of recovering free phase product. The remaining product is not recoverable; consequently, the recommendation was to dismantle the recovery system. The monitoring program will be revised to address natural attenuation as the final phase of cleanup.

Groundwater Zone 5 – The RAPCON bioventing system was evaluated. Continued operation is recommended. The monitoring program is under evaluation and revisions to the program will be recommended.

Groundwater Zone 7 – Data were collected to evaluate the background concentrations of metals in surface water and sediment. Preliminary evaluation of data indicated neither the surface water nor the sediments contained significant contamination. Remediation plan calls for installation of a vegetative cap. After the cap has been installed, further monitoring may not be required. The remediation plan also stipulates excavation of petroleum contamination at the former generator pad. Funding for Zone 7 is on hold. The clean-sweep program continues to take the majority of the budget. Clean-sweep is expected to continue until 2015.

Mr. Norberg indicated that the state and EPA will evaluate all the data before agreeing to implementation of any recommendations.

Mr. Hertzog concluded the RPO overview with the following anecdotes;

- The 611th receives the largest cleanup budget in the Air Force,
- All the historical Air Force documents related to King Salmon can be obtained from the web site www.adminrec.com,
- Most of the King Salmon budget is currently spent on monitoring. He hopes to scale back the monitoring which would free up funds for other projects, and
- There will be additional opportunity for the public to comment on the draft RPO report when it is available.

New Sites (Formally Areas of Concern)

Keith Barnack is the Air Force project manager for the Areas of Concern (AOC). Note, the AOC terminology is no longer used by the Air Force, there is now no distinction between sites. A total of 15 potentially new sites were identified. A site map indicating the locations of the sites is attached to these minutes.

Two of the sites were former munitions sites; consequently, they will be addressed under the Air Forces Munitions Response Program. It is likely the munitions sites will not be investigated for several years because the nationwide cost of the program was much higher than anticipated.

The Geoprobe was used to investigate sites 7, 8, 10, and 11. There were no significant findings; consequently, these four sites will be removed from the program. ADEC will need to review the data and approve any site closures. The schedule to investigate the remaining sites has been slipped to at least FY 2006.

The RPO developed an AOC (new site) decision tree to aid in site management. The decision tree is attached to these minutes.

Ms. Morris indicated there are some drums across the river from Rapids Camp. Mr. Hertzog will review available information to determine if the site is potentially related to Air Force activities.

Runway Expansion

DOT is planning to extend the runway 1,000 feet and widen it 125 feet (on each side). There are three alternatives under evaluation. The expansion could impact contaminated areas. Public comment to the plan is due 27 January 2005. Construction will likely occur in 2006.

Background Discussion

Presentation was tabled because there are data quality issues which need to be resolved. Preliminary evaluation indicates there are no metal contaminants of concern at Zone 7.

ADEC Update

Jeff Norberg has replace Gretchen Pikul as the ADEC project Manager. He encouraged anyone to contact him with concerns. Mr. Norberg recently completed review of the source water assessment report prepared for King Salmon. The repots showed potential A aquifer contamination sources and some minor impact to the B aquifer. There was very little threat to the C aquifer given the drinking water well depth of 237 feet below ground surface. An e-mail was prepared by ADEC which highlighted the potential contamination issues and urged precautions when installing wells to prevent cross contamination between aquifers. A local driller seized upon this e-mail as the basis to refuse to drill in the down town area. Mr. Norberg stressed that ADEC has not recommended a ban on installing wells in the area. ADEC only urges caution given the potential contamination sources in the area. Mr. Hertzog added that the Air Force implements land use controls over its property, but none are applicable to the areas in question (not on Air Force property).

The issue of water quality from the C aquifer was discussed. Mr. Waite indicated there are complaints after every exercise about the water quality. Temporary personnel are unaccustomed to the high iron and sulfur and odor characteristic of C aquifer water. Consequently, Chugach Support Services often has to perform additional sampling after major exercises because the temporary active duty personnel complain that the water is contaminated and the Air Force command requires testing in response. In general, all C aquifer and many B aquifer wells in King Salmon are high in iron and sulfur and tend to have a strong odor; however, the water is safe to drink and testing has never indicated any anthropogenic contamination.

Property Valuation

At the last RAB meeting Paug-Vik expressed concern that proximity of their property to the Bluffs had resulted in a higher interest rate for their loan. Abe Williams indicated that they did not pay a higher rate, so there is no interest rate issue. Mr. Williams had heard a rumor that the banks were not lending money for bluff property. There is a need to follow up on the rumor with Chuck Munk, the local bank representative.

After the Bluffs were capped, the borough reduced property taxes for properties near the sites. After five years the borough concluded there was no longer a basis to reduce the taxes, so there were restored to their previous values.

Mr. Hertzog indicated the Air Force attorneys would get involved if needed to help resolve the issues.

RAB Forum

Richard Sherman will attend the forum in February. He is scheduled to give a presentation on drinking water. He has also been selected as a co-chair for the state RAB. Mr. Sherman will give a report to the RAB at the next meeting.

Election of RAB Members

Mr. Williams was nominated to the RAB. He was elected unanimously.

Jacques Gusmano has replaced Wayne Pierre as the EPA King Salmon project manager. Mr. Gusmano indicated interest in attending some of the RAB meetings.

OLD BUSINESS

Lake Camp Road

The last 700 feet of road were completed. The asphalt still needs to be placed and some guard rail might be needed. The project is scheduled for completion this summer.

Mr. Hertzog noted that the road must be maintained to borough standards as part of the right of way agreement with the Air Force.

DATE AND TOPICS FOR NEXT MEETING

The agenda for the next meeting is attached.

The next meeting is scheduled for 15 February 2005, 7:00 p.m. in the base lounge.

ADJOURNMENT

The meeting was adjourned at 8:48 p.m.

DRAFT AGENDA
KING SALMON RESTORATION ADVISORY BOARD (RAB)

TUESDAY, FEBRUARY 15, 2004
7:00 P.M.
BASE LOUNGE

I.	Call to Order	Richard Sherman/Willy Foster Community Co-Chairs
	a. Roll Call (all participants please sign Sign-In Sheet)	Co-Chairs
	b. Introduce Guests	Co-Chairs & David Hertzog
	c. Changes to Agenda	Co-Chairs
	d. Approval of the 18 January 2005 meeting minutes	RAB
II.	New Business	
	a. Air Force Project Updates	David Hertzog/Keith Barnack
	-RPO Report	David Hertzog
	-Background study	Max Schwenne
	b. ADEC Project Updates	Jeff Norberg
	-Downtown Seep Update	
	c. Property Valuation	David Hertzog
	d. RAB Forum	Richard Sherman
III.	Old Business	
IV.	Set Date and Tentative Topics for Next Meeting	Co-chairs
IV.	Meeting Adjourned	

DEPARTMENT OF THE AIR FORCE
PACIFIC AIR FORCES

November 29, 2004

Mr. David Hertzog
611th Civil Engineer Squadron
Environmental Restoration
10471 20th Street Suite 302
Elmendorf AFB AK 99506-2200

Mr. Jeff Norberg
State of Alaska
Department of Environmental Conservation
555 Cordova Street
Anchorage, AK 99501

Dear Mr. Norberg

The 611th Civil Engineer Squadron (611 CES/CEVR) is submitting the following document, King Salmon Remedial Process Optimization, Implementation Study Meeting, 8-12 November 2004; King Salmon Airport recommendations for your review and concurrence. These recommendations were discussed and agreed to during our San Antonio meetings at Earth Tech from 8-12 November 2004. However, since an enormous amount of data was covered during the week, I would like you to have a final review and obtain the Department of Environmental Conservation (ADEC) concurrence. Any suggested changes will be altered in the in the final recommendations upon everyone's review.

The 611 CES/CEVR appreciates your participation in the meetings and hopes the presentation assisted you in receiving a larger overview of the 611 CES/CEVR and its commitment to the remediation of King Salmon Airport. Should you have any further comments, please contact me at 552-7261 or email at dave.hertzog@elmendorf.af.mil

Sincerely

David O. Hertzog

DAVID HERTZOG GS-12
King Salmon/Galena Project Manager

Attachments:
King Salmon Airport Site Recommendations (dated Nov 12, 2004)

cc:
RAB Co-Chair (Mr. Richard Sherman/Mr. Wiley Foster)
Mr. Jacques L. Gusmano EPA Region 10
PACAF (Mr. Dave Cook)
MitreTek (Mr. Patrick Haas)
Mr. Manish Joshi (Earth Tech
King Salmon Administrative Record

King Salmon Remedial Process Optimization (RPO)
Implementation Study Meetings November 8 – 12, 2004

The attendees for the King Salmon meetings are listed below:

Name	Org.	Phone #	e-mail
Dave Cook	HQ PACAF	808 448 6697	dave.cook@hickam.af.mil
Kevin B. Thomas	AFCEE/IWP-AK	907-552-4112	Kevin.Thomas@elmendorf.af.mil
Jacques L. Gusmano	EPA	907-271-5083	Gusmano.Jacques@epa.gov
Jeff Norberg	ADEC	907-269-3077	Jeff_Norberg@dec.state.ak.us
Cody Black	Oasis	907-258-4880	cody@oasisenviro.com
Max Schwenne	Oasis	907-258-4880	max@oasisenviro.com
Patrick Haas	MitreTek	210-479-0481	Patrick.haas@mitretek.org
Dave Hertzog	611 CES/CEV	907-552-7261	Dave.hertzog@elmendorf.af.mil
Manish Joshi	Earth Tech	210-271-0925	Manish.joshi@earthtech.com
Collen Brownlow	Earth Tech	210-271-0925	Collen.Brownlow@earthtech.com
Kathleen Bradley	Earth Tech	210-271-0925	Kathleen.Bradley@earthtech.com
Tim McDougal	Paug-Vik	907-258-4880	tim@oasisenviro.com

The following is a list of recommendations for the King Salmon Environmental Restoration Program. The 611 CES/CEVR, Alaska Department of Environmental Conservation, United States Environmental Protection Agency Region 10, Alaska Operations Office and PACAF have agreed to these recommendations. While 611 CES/CEVR has not done cost estimates and system modification still need to be done cost savings of $20 to $30 million dollars may be realized for the King Salmon/Naknek Environmental Restoration Program.

King Salmon Remedial Process Optimization (RPO)
Implementation Activities Report
San Antonio, Texas November 8-12, 2004

Ground Water Zone 1 (OT027) Summary:

- Direct push LIF Measurements conducted at 40 locations to investigate smear zone and LNAPL contamination showed fluorescence measurements ranged up to 200% in areas
- Free product is not mobile, therefore recovery is not feasible
- From TCE investigations (hydropunch) and LIF measurements, TCE and fuels appear to be distributed differently
- TCE source appears to be localized around MW-28 and around Bldg. 649. TCE exceedance in 1 B-Aquifer well (MW-41).
- A-aquifer DRO plume stable. No GRO/BTEX above cleanup levels in A-aquifer.

Zone 1 Recommendation:
TCE Recommendations:

- Conduct additional investigation around Bldg. 649 to delineate TCE source. Install additional wells to close data gaps and improve longterm monitoring network.
- Measure soil gas in MPA near MW-28 to determine if vadose zone source exists. Vapor monitoring well is screened at 15-20 ft. If soil gas is elevated, hook-up blower for short term extraction tests.
- Evaluate treatment options for TCE. Injection of Veg. oil below bluff appears to be preferred option. MitreTek to provide cost estimate for In-situ bioremediation treatment & additional investigations.
- Obtain historical VOC and DRO results from PZ2 (piezometer) well.
- Install additional dataloggers at seep 2
- MitreTek to prepare cost estimates for Veg. Oil injection at Zone 1 and further investigations (i.e., installation of wells, short term vapor extraction tests)
- Prepare monitoring plan for wells downgradient of zone 1 seep wells

ROD Finalization? Determine what documentation is necessary to implement above recommendations.

DRO Recommendations:

- Continue to operate Bio-4X system. Discontinue respiration testing.
- Shut off Eskimo Creek System. System to be put in "warm" status. Warm status includes: Draining all lines, empty ow/s, etc. (confirm with J. Millhouse)

DRO Recommendations Cont'd.:

- Install maximum of 5 additional product monitoring/venting at seep 2 and 1. Monitor GW and free product upgradient and downgradient of the trench. Monitor GW, SW, sediment downgradient of french drain. Evaluate direct free product recovery and bioventing operations around seeps as part of operations and contingency plan.
- Remove free product periodically from French drain system (vacuum truck)

Overall Recommendation:
Develop overall Zone 1 monitoring plan for TCE, DRO

ROD finalization? – Determine what documentation is necessary to implement above recommendations.

MitreTek "Reasoned Justification for the Elimination of Benzene as an Ecological Contaminant Of Concern in Eskimo Creek"

Background:

- Benzene first detected in fish in 1996
- Low levels of Benzene in ppb range
- Subsistence use at King Salmon prompted study.
- Fish consumption issue. However, Eskimo Creek rarely used for fishing.

Recommendation/Action Items:

- MitreTek to prepare technical letter to ADEC (for concurrence) indicating Benzene in fish issue is resolved.

Zone 3 (North & South Bluffs Sites LF005 & LF014) Summary:

South Bluff Treatment System:

- Past remedial actions (landfill caps) effective in limiting groundwater contamination.
- Review of system operation data indicates that GAC Treatment of seep collection effluent is not necessary
- South bluff treatment system can be turned off.

North and South Bluff monitoring:

- Review of groundwater, surface water and sediment data indicates that groundwater quality is not negatively impacted. No contaminant plume has been identified at either site.
- Groundwater monitoring changed to every 3 years.

Zone 3 Recommendations:
South Bluff Treatment System:

- Divert flow from South Bluff Treatment Plant directly to leach field for wetlands treatment
- Reconfigure sump/lift station for reliability and shutdown notification
- Revise ground water and sump effluent monitoring plan
- Performance-based decision tree that appropriately reduces monitoring frequency over time
    - Analyte reduction to SW8260 (with TPH), SW9060 organic carbon; and SW8080 organochlorines/PCBs
    - Low mobility SW8080 organochlorines/PCBs at reduced frequency
    - Ground water sampling every 3 years; No cleanup goal exceedances for two events? 5-year sampling frequency

- Sump and leach field sampling annually for 3 years, biennial for two events. No exceedances? 5-year frequency
- 30-year end date for south bluff monitoring

North and South Bluff Monitoring:

- Revise PCMP to indicate an end date of 30 years for monitoring.

Groundwater Zone 3 (OTO29) Drinking Water Wells

Site Summary:
History of AF activities:

- No attributable sources (AF) near north bluff - Groundwater Zone 3. Homestead activities occurred at area.
- EOD investigations cleaned up area, misc. ammunition, mainly 50 cal. shell casings. (1 or 2 live primer 50 cal. shells found). EOD was sent out annually to course area. EM investigations found an old aircraft body.
- Site is scheduled to be investigated as an EOD site (under the new AF "MR" - munitions response program), possibly 2006.
    - Bottomline is that there were insignificant AF activities which would attribute contamination to drinking water levels. Drinking water is not being affected by AF activities.

Recommendations:

- Summarize site locations/history in the area around the residences
- Validate appropriateness of sentry well network (location, flow direction)
- Summarize historic flow direction and gradient in the area of and upgradient of the residential wells (A and B aquifers).
  - Summarize regional flow
  - Submit info. to 611 CES, ADEC, US EPA

Groundwater Zone 3 (OTO29) Human Health Issues

MitreTek "Reasoned Justification for the Elimination of Mushrooms as a Human Health Risk at North & South Bluffs"
Background: None

Recommendation/Action Items:

- MitreTek to prepare technical letter to ADEC (for concurrence) indicating Habitat at Zone 3 (Bluffs) pathway eliminated. (MitreTek)

King Salmon Zone 4 (River Storage):

Site History:

- Over 20 (historical) soil borings installed. DRO contamination exceeding criteria at 3 locations. One location appears to be associated with pipeline contamination. One surface sample exceeded PAH criteria.
- AF concern is receptors (i.e., mushrooms) based upon ecological study. Describe and quantify mushroom habitat, collection potential, and likelihood of collection. The risk value for mushrooms originally compared to 10-6 threshold (1998). Currently the risk threshold value is 10-5.
- Passive free product recovery: Annual maintenance of the passive free product recovery system is ongoing.
- LIF performed at site (downgradient of tank farm). No significant LIF detections.
- A aquifer monitoring ongoing
  -No TCE detected in 2003
  - One well exceeding Benzene criteria (8ug/l)
  - 3 wells exceeding DRO and GRO criteria
  - MNA parameters collected for groundwater
    - Intrinsic remediation ongoing
  - MAROS conducted
- 2003 B aquifer monitoring
  -Groundwater samples collected from two wells (506, 97-9) for VOCs, GRO, DRO
  - DRO detected for the first time since 1993. Levels similar to 1993 results
  - Both wells showed low levels of DRO 932 & 85)
  - low levels of toluene
- 2003 Surface Water/Sediment Sampling
  - No PAH's detected
  - No BTEX detected
- 2002 Surface water/Sediment Sampling
  - One exceedance of Benzene in sediment samples in the most "upgradient" site.

Zone 4 Recommendations:

- Abandon free product recovery system.
- Reduce A aquifer monitoring to every 3 years. Analysis to be confirmed with MAROS.
- Revise LTM plan to optimize monitoring network and frequency (review historical (LTM and Parsons) and 2004 A aquifer, B aquifer, surface water, sediment data). Analysis to be confirmed with MAROS. Verify time to cleanup.
- Reduce data and prepare recommendations in report.
- Evaluate need for Bioventing as treatment option (based on historical data, Parsons data)
- Perform ESD or 5 year review.

MitreTek "Reasoned Justification for the Elimination Mushrooms and Drinking Water as a Human Health Risk at River Storage"

Background: None

Recommendation/Action Items:

- MitreTek to prepare technical letter to ADEC (for concurrence) indicating PAH's at Zone 4 eliminating subsistence issues for the following materials: mushrooms.
- MitreTek to prepare technical letter to ADEC concerning Zone 4 drinking water (ATSDR) - Elimination of private well sampling.

Zone 5- Radar Approach (RAPCON) and Red Fox Creek

Site Summary:

- Ground water impacted with TPH-GRO, TPH-DRO, BTEX, PAHs and TCE
- RPO activities included LIF investigations along creek.
- Moderate levels of LIF (12-60%) at 6-9 ft.
- May 2004 ROI indicate influence with >15% oxygen in (hydrocarbon impacted areas around LIF points 5, 6, and 7).

Zone 5 Recommendations:

- Study hydrological trends of drainage ditch (installation of dataloggers)
- Continue to operate Biovent System
- Evaluate losing/gaining profile of ditch
- Revise groundwater, surface water and sediment monitoring program

Biovent System Summary:

Bldg. 306:

- No oxygen loss since 2001, oxygen stays at 20%
- Two month shutdown Summer 2004. No oxygen utilization.
- 2004 Soil sampling results: 12 ft. below tank bottom. Benzene not detected.

Bldg. 307:

- 2001 Respiration test - 1.47%/day
- subsequent respiration tests indicated decreasing oxygen utilization

Recommendations for Biovent Systems: Bldg. 306, 307, 154, 76-200

- Shutdown and dismantle each biovent system
- Closure for Biovent Sites 306, 307, 154, 76-200 - format outlined in 18AAC-78
- Abandon underground piping (leave piping in place)

Bldg. 157/159 Systems:

Site History:

- Zone 2, 4 gasoline tanks excavated (25,000 gal. each)

Systems installed in 1999

- 4 BV wells: BV-8, 9, 10, & 11.
- System problems include intermittent operation (electrical problem)
- 2001 respiration rate - 17%/day, 2003 Respiration rate - 43%/day
- BV-10 problems with air injection (soil types, smear zone), BV wells are in low area which cause water infiltration
- Flow tests conducted with larger blower resulted in flow channels being established
- New BV well, BV-13 installed near BV-10 to help flow rate
- LIF performed at six locations to determine LNAPL concentrations around Former Tank #17: LIF signature (4-12%) at depth 11-15 ft bgs.

Bldg. 157/159 Systems Recommendation:

- Stop operation of Bldg. 157/159 system. Paug-Vik to research 18AAC78 for statutory requirement to continue treatment of site.

Groundwater Zone 7 (Lake Camp)

Site Summary:

- ROD is in Draft Status
- AF awaiting property ownership at landfill site

Recommendations:

- Modify Draft ROD to revise DRO cleanup standards in soil. Due to site conditions, the 250 mg/kg standard may be technically infeasible. The revised cleanup standard is developed based on approved risk assessment prepared by OASIS.

Action Item:

- Oasis to prepare technical memo. to ADCE justifying soil cleanup levels (4,900 mg/kg) for Lake Camp generator based on risk assessment.

AREAS OF CONCERN SITES (AOC) Investigation Summary:

- Performing Preliminary Assessment Site Investigation (PA/SI) on each AOC:
- AOC evaluations were prioritized by ADEC. AOC evaluation includes AOC portions of 07, 08, 10, and 11. Portions of these AOC were investigated using direct push borings to determine the extent of oily-phase and soil POL contamination using laser-induced fluoroscopy (LIF) probe and former drum locations at AOC 07 and AOC 10.
- AOC 07 DR-1 (drum area 1). No surface debris found. Negative LIF. No soil staining.
- AOC 07 DR-2 (drum area 2). No surface debris found. Negative LIF. No soil staining.
- AOC 07 DR-4. No surface debris found. Negative LIF. No soil staining.
- AOC 07 DR-5. No surface debris found. Negative LIF. No soil staining.
- AOC 07 & AOC 08 - Area B No surface debris found. Negative LIF. No soil staining.
- AOC 08 DR-6. Crushed drums found throughout. Negative LIF. No soil staining.
- AOC 08 DB (DB = debris). Some surface debris found. Negative LIF. Labeled AVGAS drums found, - empty.
- AOC 08 SW-1. Negative LIF. No soil staining. Construction debris, wood & metal. No obvious drainage runoff that would impact site.
- AOC 08 SW-2. Concrete/electrical foundation structures found. Negative LIF.
- AOC 08 Former Trench and Standing Liquid Area -1. No surface debris found. Negative LIF. No soil staining.
- AOC 08 Former Trench and Standing Liquid Area - 2. No surface debris found. Negative LIF. No soil staining.
- AOC 07 Drum Area 6 (Circle LF) - Top half of circle landfill. Previously investigated by URS. Some of these areas are scheduled for RA's as part of Zone 5 ROD. Numerous wire spools noted. No surface debris found. Negative LIF.
- AOC 10 DR-1. No surface debris found. No soil staining. Negative LIF.
- AOC 10 DR-2. No soil staining. Negative LIF. Miscellaneous empty drums. Civilian firing range. Jet Fuel B drum found (Note: not an AF fuel drum).

- AOC 10 DR-5. No surface debris found. No soil staining. Negative LIF.

- AOC 10 DR-7. No soil staining. varying household refuse. A few empty drums.

- AOC 11 DR-1. (near Everts Air Cargo). No significant findings.

- AOC 11 DR-2. One small stained area (3 ft. x 3 ft.) No significant findings. Site was well vegetated.

- AOC 11 - FAA is currently performing study to expand runway. (2006). During constr. will likely excavate drums/debris.

AOC Recommendations:

- Further investigations to follow Decision tree
- Report forthcoming which summarizes AOC sites.

King Salmon, AK AOC Investigation Decision Tree – November 2004