

Listing of Reports and Documents Related to Operable Units at Ft Wainwright Available at the time of the 2006 Five-Year Review

OU	Key Ref	Document	Issuance Date	Type/ Periodicity	Comments
All	x	Draft OSWER Directive 9355.5-03B-P Comprehensive Five-Year Review Guidance			Draft
All	x	Interim Army Guidance for Conducting Five-Year Reviews	(No date on document)		
All		U.S. Army Restoration Program, Groundwater Monitoring Network, USACE	1991		
All	x	Federal Facilities Agreement	Mar-92	Once	
All		IRP FY99, 1st Quarter Update	Jan-99	Quarterly	
All		IRP FY01, 2nd Quarter Update	Apr-01	Quarterly	
All	x	Installation Action Plan, 2001	Spring 2001	Annual	
All		Draft Minutes RAB FWA	Jun-00		
All		Community Relations Activities to Support Areawide Community Relations Plan	Jul-00		
All		Draft SOP for Mgmt of IDW FWA AK Sep 00	Sep-00		
All		SOP for Mgmt of IDW at FWA March 2001	Mar-01		
All		Geohydrologic Network Status Report 1998-2000 TM: FWA April 2001	Apr-01		
All		Five-Year review kick-off meeting summary dated Apr 01	Apr-01		
All		Mid Year Report VOC Emission Tracking Program for Treatability Study Systems at Fort Wainwright, AK	Jul-01		
All	x	Five Year Review Report for Fort Wainwright, Wood-Canyon, Sep-01	Sep-01		
All		Ft Wainwright post wide groundwater Monitoring Well Database	Dec-01		
All		Post-wide Groundwater Monitoring Well Database, update , Northwind, 2001			
All		CD: FWA Postwide G/W monitoring well database, 2001 update			
All		Final Monitoring Well Replacement Report Ft. Wainwright AK/ENSR Int.	Jan-02		
All		Semi Annual Report VOC Emission Tracking Program for IRP Treatment Systems	Jul-02		
All		FINAL Areawide Community Involvement Plan, January 2003	Jan-03		
All		Final Areawide Community Involvement Plan	Jan-03		
All		Spill Prevention Control and Countermeasure Plan, FWA dated May 2003	May-03		
All		Semi-Annual Report VOC Emission Tracking Program for 2003 IRP Treatment Programs	Jul-03		
All		Draft Decommissioning Monitoring Wells at FWA and FRA Work Plan dated September 2003	Sep-03		
All		Final Management Plan, Decommissioning Monitoring Wells FWA, FRA dated October 2003	Oct-03		
All		Fort Wainwright Groundwater Monitoring Program 2003 Report dated October 2003	Oct-03		
All		Community Relations Activities to Support Areawide Community Relations Plan	Nov-03		
All		Annual Report: VOC Emission Tracking Program for 2003 IRP Treatment Systems FWA dated Jan 2004	Jan-04		
All		Draft Fort Wainwright EPCRA Tier II Report: January 1 - December 31, 2003 dated March 2004	Mar-04		
All		Draft Investigative-Derived Waste Management Area 2003 Annual Report dated March 2004	Mar-04		
All		Draft Investigative Derived Waste Management Area 2003 Annual Report	Mar-04		
All		SemiAnnual Report 2003, VOC Emission Tracking program for IRP Treatment systems, dated July 2004	Jul-04		
All		Semi-Annual Report VOC Emission Tracking Program for 2004 IRP Treatment Programs	Jul-04		
All		Postwide Well Survey Grid Drawings and Postwide Survey Database FWA June 2005	Jun-05		
All		Fort Wainwright Geohydrologic Network Status Report 1998 through 2002	Jan-06		
All		Draft 2005 Annual Report IDW Management Area, FWA	Feb-06		
All		Groundwater Monitoring, Picket Wells Report (June 96)	Jun-06		
1	x	OU1 ROD	Jun-97	One time plus amendments	
1		Remedial Design		Once	
		Records Search, Preliminary Source Evaluation, HLA	Feb-92		
		801 Drum Burial Site, Preliminary Source Evaluation 2, HLA	Apr-94		

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OU	Key Ref	Document	Issuance Date	Type/ Periodicity	Comments
		Management Plan, OU1, Remedial Investigation/Feasibility Study, ENSR	Aug-95		
	x	Remedial Investigation Report, ENSR	Sep-96		
	x	801 Drum Burial Site Supplemental 1996 Investigation , ENSR	Jan-97		
	x	Proposed Plan for Remedial Action at Operable Unit 1, Final RI/FS, ENSR	Feb-97		
		Feasibility Study, OU1, ENSR	Feb-97		
		Rhizosphere Enhanced Phytoremediation Work Plan, ENSR	May-97		
		Final RA Work Plan	Apr-98		
		Work Plan FWA036 Phytoremediation Study Site Closure Confirmation Soil Sampling	Jan-03		
		Site Safety and Health Plan 801 Drum Burial Site Groundwater Monitoring	Mar-03		
		Final QA Project Plan 801 Drum Burial	Mar-03		
		Phytoremediation Study Site Decommissioning Work Plan	Aug-03		
		Phytoremediation Work Plan	Sep-03		
	x	Memo from Dianne Soderlund to Cristal Fosbrook RE: 801 Rhizosphere-Enhanced Phytoremediation Treatability Study Soils	July 26 2000		
		Release Investigation Report/Corrective Action Plan, Abandoned Birch Hill Underground Storage Tank Farm Sites, OU1, Ecology and Environment, Inc.			
1		Remedial Action Report(s)		Once in draft, finalized when RAOs are met	
		Operations Final Report for Drummed Waste Removal, OHM	Feb-93		
		Remedial Action Report, ENSR	Jan-99		
		1999 anl phyto progress rpt (3rd annual progr rpt) ou1 fwa apr 00	Apr-00		
		Revised Preliminary Draft Remedial Action Report, OU1, ENSR Consulting and Engineering, Aug-00	Aug-00		
		Draft annual progres repot 2000 for rhizosphere-ehnaced phyto study fwa apr 01	Apr-01		
	x	2001 Interim Remedial Action Report, ENSR	May-01		
		Fourth and Final Annual Progress Report 2000 for Rhizosphere Enhanced Phytoremediation Study, OU1, ENSR Consulting and Engineering, Aug-01	Aug-01		
		Draft Phytoremediation Study Site Closure	Jan-03		
		Final Removal Action Report, Phytoremediation Study Site Decom.	Sep-05		
1		Drawings/ as-builts		See RD and RARs	
1		O&M Manuals and Reports		Once	
		Draft Bldg 1168 O&M Manual OU2 FWA	Jan-00		
		Draft Final O&MM Manual 801 Drum Burial Site, FWA Sep 00	Sep-00		
		Final Operations, Maintenance and Monitoring for Operable Unit 1, 801 Drum Burial Site treatment system, ENSR Consulting and Engineering, Dec-00	Dec-00		
1		GW, SW, and air monitoring plans & reports		Annual	
		Third Annual Progress Report Rhizosphere Enhanced Phytoremediation Treatability Study	Apr-00		
		Mar 2000 G/W Sampling-801 Drum Burial Site, Jun 2000	Jun-00		
		OU1 CY-2000 Annual Groundwater Monitoring Report	Apr-01		
		Annual Monitoring Report for 801 Drum Burial Site at Fort Wainwright, OU1, ENSR Consulting and Engineering, Apr-01	Apr-01		
		Final 2002 801 Drum Burial Site Groundwater Monitoring Report FWA AK May 02	May-02		

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		Draft QA Plan 801 Drum Burial Site	Dec-02		
		Final Site Safety and Health Plan 801 Drum Burial Site	Mar-03		
		Final SSHP & QAPP for 801 Drum Burial Site GW Monitoring, FWA	May-03		
		Final CLOSES Evaluation 801 Drum Site, FWA dated April 2004	Apr-04		
		Final 2003 Annual Groundwater Monitoring, 801 Drum Burial Site	Jun-04		
		2005 Quality Assurance Project Plan Addendum, OU1 Drum Burial Site	Mar-05		
		Draft 2005 Annual Groundwater Monitoring Report 801 Drum Burial Site dated June 2005	Jun-05		
		RA Phytoremediation Study Site Decommissioning	Sep-05		
		Final 2004 annual Report for the 801 Drum Burial Site Groundwater Monitoring	Mar-06		
1		GW sampling results and any other relevant sampling/ monitoring data or records		As specified by ROD or PDRAR	
		December 1996 Quarterly Well Sampling 801 Drum Burial Site, ENSR	Apr-97		
		March 1997 Quarterly Well Sampling, 801 Drum Burial Site, ENSR	Jul-97		
		June 1997 Quarterly Well Sampling, 801 Drum Burial Site, ENSR	Oct-97		
		Letter Report: Sept. 97 Quarterly Well Sampling 801 DBS, ENSR	Jan-98		
		Interim Progress Rpt., Rhizo-Enhanced Phyto Treatability Study, ENSR	Jan-98		
		Letter Report: March 98 Groundwater Sampling 801 DBS, ENSR	Jun-98		
		2nd Annual Progress Report, Rhizo-Enhanced Phyto Treatability Study, ENSR	Mar-99		
		March 1999 Annual Well Sampling, 801 Drum Burial Site, ENSR	Apr-99		
		1999 Annual Phytoremediation Progress Report (3rd Annual), ENSR	Apr-00		
		March 2000 Groundwater Sampling, 801 Drum Burial Site, ENSR	Jun-00		
		March 2001 Annual Well Sampling, 801 Drum Burial Site, ENSR	Apr-01		
		2001 Annual Groundwater Monitoring-801 Drum Burial Site letter report	Apr-01		
		801 Drum Burial Site Annual Groundwater Monitoring Report 2000	Jul-01		
	x	Fourth Annual Progress Report - Rhizosphere-Enhanced Phytoremediation, ENSR	Aug-01		
		801 Drum Burial Site Annual Groundwater Monitoring Report 2002	May-02		
		Trip Report Phytoremediation Study Site Decommissioning 9/26,10/1, 10/7, 11/20	Dec-03		
		801 Drum Burial Site Annual Groundwater Monitoring Report 2003	Apr-04		
		CLOSES Evaluation 801 Drum Burial Site Ft. Wainwright, AK	Apr-04		
		Memorandum Rport of Chemical Findings, Phytoremediation Study Site Decommissioning Postexcavation Confirmation Soil Sampling	Nov-04		
		801 Drum Burial Site Annual Groundwater Monitoring Report 2004	Feb-06		
		801 Drum Burial Site Annual Groundwater Monitoring Report 2005	Mar-06		
2	x	OU2 ROD	Mar-97	One-time plus amendments	
2		Remedial Design		Once	
		OU2 Final Preliminary Source Evaluation 2, Phase 2, DRMO, HLA	Jul-93		
		North Post Site, Soil Pile Remediation, Project Report, Laidlaw Env. Svs.	Apr-94		
		OU2 Final Remedial Investigation/Feasibility Study Management Plan, HLA	Apr-94		
	x	OU2 Final Remedial Investigation Report, HLA	Jan-96		
	x	Proposed Plan for Remedial Action at Operable Unit 2, Army	Apr-96		
		Work Plan Record of Decision, Design Study, OU 2, Hart Crowser	Jan-97		
	x	Remedial System Design Report, ROD Design Study, OU2, Hart Crowser	Feb-97		
		Final Remedial Design/Remedial Action Plan, OU2, Bldg 1168 Source Area, HLA	Dec-97		

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OU	Key Ref	Document	Issuance Date	Type/ Periodicity	Comments
		Record of Decision, Design Study, OU 2, Hart Crowser	Feb-99		
		Draft Work Plan ADDENDum, DRMO Treatment System OU2, May 2001	May-01		
		Draft OU2 tmt & mon operations work plan SSHP & Schedule Oct 2001	Oct-01		
		Technical Memorandum Level Survey of Soil and Groundwater Monitoring Points at the DRMO Yard	Mar-02		
		Technical Memorandum Picket Well Analysis DRMO Yard	May-02		
		DRMO5 Treatment System Modification 35% Design Technical Memorandum	Jun-02		
		DRMO1 Treatment System Modification 35% Design Technical Memorandum	Jun-02		
		Technical Memorandum Recommended Soil Boring Locations West of DRMO Yard	Jun-02		
		Technical Memorandum Soil Vapor Extraction Well Sampling 3 Part AS/SVE Treatment System DRMO Yard	Sep-02		
		Technical Memorandum Groundwater Probe Sampling and Analysis DRMO-4 Subarea	Sep-02		
		Treatment and Monitoring Operations Work Plan, QA Project Plan and Site Health and Safety Plan	May-03		
		DRMO-1 Historical Data Review Technical Memorandum	Jul-03		
		Final 2003 Treatment and Monitoring Operations Work Plan OU2	Aug-03		
		Final Work Plan Addendum for Decommissioning of the Bldg 1168 (3Party) Site dated September 2003	Sep-03		
		Draft 2004 Treatment and Monitoring Operations Work Plan	Oct-03		
		Final 2004 Treatment and Operations Work Plan OU2 Ft. Wainwright AK	Mar-04		
		Draft 3 Part System Augmentation Work Plan OU2	Sep-04		
		2005 Work Plan OU2	May-05		
		Draft Revision 1 Site Characterization and Remediation Work Plan	Jun-05		
		Natural Attenuation Monitoring Work Plan	Mar-06		
		Final Monitoring Well and Soil Boring Installation Work Plan	Mar-06		
		Draft Work Plan, ROD Design Study			
		2004 Draft Project Schedule, OU2, Treatment and Monitoring Operations			
2		Remedial Action Report(s)		Once in draft, finalized when RAOs are met	
		Remedial Action Report, North Post Source Removal Action, OHM Rem. Svs.	May-97		
	x	Remedial Action Report, Bldg. 1168, Hart Crowser	May-99		
		Monitoring Report Aug 1998 - April 1999 North Post DRMO1 and DRMO5 sites	Jun-99		
		Remedial Action Report, DRMO, Final Revision 01, ENSR	Aug-99		
		Remedial Action Report OU2	Aug-99		
		RAR, DRMO yard & Bldg 1168, OU2, FWA, Final	Jan-00		
		Final 1999 Comprehensive Annual Monitoring Report, DRMO, OU2, Hart Crowser, Nov-00	Nov-00		
		Draft 2000 Annual Monitoring Report, Bldg 1168 site TS, OU2, Jan 01	Jan-01		
		2000 Remediation System Operations Report, DRMO, Hart Crowser	Mar-01		
		Rem Sys Ops Draft Rpt at FWA Apr 01 (ROD DS)	Apr-01		
		Draft Comprehensive Annual Monitoring Report at FWA May 2001	May-01		
		Draft 01 Field season mon report ou2 bldg 1168 tx, fwa jan 02	Jan-02		
		OU2 DRMO 2001 Comprehensive Report, FWA AK May 2002	May-02		
		Tech Memo: DRMO-1 Treatment System Expansion 35%, OU2, Northwind, Jun-02	Jun-02		
		Tech Memo: DRMO-5 Treatment System Expansion 35%, OU2, Northwind, Jun-02	Jun-02		
		Tech Memo: Probe Sampling & Analysis DRMO-4 Sub Area, OU2, Northwind, Sep-02	Sep-02		

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		Tech Memo: Soil Vapor Extraction Well Sampling 3-Party AS/SVE Treatment System DRMO Yard, OU2, Northwind, Sep-02	Sep-02		
		Annual Report Addendum, Operable Unit 2, dated May 27, 2003	May-03		
		Tech Memo: DRMO-1 Historical Data Review, OU2, Northwind, Jul-03	Jul-03		
		Final 2002 Annual Report, Operable Unit 2 dated October 2003	Oct-03		
		Final Tech Memo - Flow Meter Replacement DRMO 3-Party AS/SVE Treatment System, Dec 31, 2003	Dec-03		
		Draft Technical Memorandum DRMO Yard Groundwater Trichloroethene/Tetrachloroethene Concentration Trend Analysis	Jan-04		
		Final CLOSES Evaluation Bldg 1168 Site, FWA dated January 2004	Jan-04		
		Final CLOSES Evaluation DRMO Yard, FWA dated March 2004	Mar-04		
		Technical Memorandum: Soil Gas Screening Survey Results, DRMO-1 & DRMO-4 Subareas, dated August 2004	Aug-04		
		Final 2003 Annual Report OU2 dated December 2004	Dec-04		
		Final 2004 DRMO Annual Report, OU2, FWA	Dec-05		
		2005 Monitoring Report OU2	Mar-06		
		Biodegradation/Volatilization Bench Scale Treatability Study Results for TPH Contaminated Soils Located at North Post, OU2, Laidlaw Env. Svcs.			
		Final Remedial Action Report, DRMO Yard and Bldg 1168, OU2, ENSR, 2000			
		DRMO Soil Sample Results, Bldg 5001			
2		Drawing/ as-builts		See RD and RARs	
2		O&M Manuals and Reports		Once	
		1997 Remediation System Operation Report, ROD Design Study, Hart Crowser	May-98		
	x	Remediation System Operations Report, DRMO, Hart Crowser	Mar-00		
		Final OM&M DRMO, Vol I & II, Hart Crowser	Dec-00		
		OM&M Manual, OU2 ROD, Design Study Treatment System, Vol I, Hart Crowser	Jun-01		
		Final Operations, Maintenance and Monitoring Manual, OU2, Hart Crowser, Jun-01	Jun-01		
		Final Operations, Maintenance, Monitoring Report, Bldg 1168, OU2, Hart Crowser, Dec-00	Dec-02		
		Final Work Plan Addendum Decommissioning and Removal of Treatment System, Building 1168 3 Party Ft. Wainwright Ak	Sep-03		
		Final 2002 Annual Report OU2 Ft. Wainwright AK	Oct-03		
		Technical Memorandum Soil Gas Screening Survey Results DRMO1 and 4 Subareas OU2	Aug-04		
		Final 2003 Annual Report	Dec-04		
		Draft Final O&M Manual RODDesg Study Trmt Study FWA AK			
2		GW, SW, and air monitoring plans & reports		Annual	
		Technical Memorandum North Post and DRMO Yard TS, Harding Lawson	Jun-97		
		1996 Annual Report, Bldg 1168 Treatability Study, Harding Lawson	Aug-97		
		1997 Annual Report, Bldg 1168, Treatability Study, Hart Crowser	Sep-98		
		Chemical Data Report, Spring 2000, Groundwater Monitoring, DRMO Picket Wells., OU2, Corps of Engineers, Alaska District, Sep-00	Sep-00		
		DRMO Final 1999 Comprehensive Annual Monitoring Report, Hart Crowser	Nov-00		
		Building 1168 2000 Annual Monitoring Report, Hart Crowser	Jan-01		
		DRMO 2000 Comprehensive Annual Monitoring Report, Hart Crowser	Jul-01		
		Tech Memo Groundwater Probe Sampling and Analysis, DRMO-4 Subarea Sept 2002	Sep-02		

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		tech Memo SVE Well Sampling, 3-Party AS/SVE System, September 2002	Sep-02		
		Draft Tech Memo: DRMO Yard GW Trichloroethene/Tetrachloroethene Concentration Trend Analysis Dec 2003	Dec-03		
		Sampling Data Report Spring 2004 Groundwater Monitoring Event	Aug-04		
		Sampling Data Report, OU2 Fall 2004 Groundwater Monitoring Report, November 2004	Nov-04		
2		GW sampling results and any other relevant sampling/ monitoring data or records		As specified by ROD or PDRAR	
		Technical Memorandum, Oct 1996, Quarterly Monitoring Results, Building 1168, Harding Lawson	Feb-97		
		Technical Memorandum, Apr 97, Quarterly Monitoring Results, Building 1168 TS, Harding Lawson	Sep-97		
		Picket Well Installation, DRMO, Hart Crowser	Nov-97		
		Technical Memorandum, July & Oct 97 Quarterly Monitoring Results Bldg 1168, Harding Lawson	Jan-98		
		Former Building 1168 Release Investigation, Hart Crowser	May-98		
		Quarterly Monitoring Report, Nov 97-Apr 98, Bldg 1168 TS, Hart Crowser	Jun-98		
		Quarterly Monitoring Report, Building 1168, Treatability Study, Hart Crowser	Aug-98		
		Monitoring Report, Aug-Nov 1998, Bldg 1168, Hart Crowser	Jan-99		
		Picket Well Sampling Report, Apr 99, Sampling Event, OU 2 DRMO	May-99		
		Picket Well Sampling Report, Oct 99, Sampling Event, OU 2 DRMO	Oct-99		
		March 30, 2000, Groundwater Sample Results, Bldg 1168, OU2, Hart Crowser, Aug-00	Aug-00		
	x	Chemical Data Report, Groundwater Monitoring, DRMO Picket Wells, COE	Sep-00		
		Final 1999 Comprehensive Monitoring Report, Hart Crowser	Nov-00		
		Picket Well Sampling and Three Party Treatment Systems Operation Technical Memoranda, OU2, Fairbanks Environmental Services, Oct-01	Oct-01		
		OU2 Oct 01 Picket well sampling&3P tmt system op TMs, Nov 2001	Nov-01		
		OU2 DRMO Picket Well Sampling Results Tech Memo FWA AK May 2002	May-02		
		Tech Memo: Level Survey of Soil & G/W monitoring points at DRMO Yard, OU2, Northwind, Mar-03	Mar-03		
3	x	OU3 ROD	Apr-96	One-time plus amendments	
3		ESD	Sep-02	One-time	
3		Remedial Design		Once	
		Pilot Study Plan Underground Storage Tank Release Investigation	Jan-96		
		OU 3, Remedial Design/Remedial Action Statement of Work, COE	Apr-96		
		Final Work Plan Design Verification Study, Hart Crowser	Sep-96		
		60 % Design, Drawings, Cost Estimate, Construction Specifications, Design Verification Study, HC	May-97		
		1998 Field Season Work Plan	Mar-98		
		Site Investigation and treatabilty Study Work Plan MP 2.7 and 3.0	Aug-98		
		1998 Monitoring Report Design Verification Study	May-99		
		Final Design Submittal POL Source Removal	Aug-99		
		Fairbanks-Eielson Pipeline MP3.0 Soil Excavation and Ex-situ Treatment plan	Apr-00		
		2000 Work Plan, Swaim-Hart Crowser	May-00		
		1999 Monitoring Report Design Verification Study	May-00		
		Valve Pit A Draft Operations and Maintenance Plan	Jun-00		
		Draft Operations, Maintenance and Monitoring Plans, Valve Pit A and the Eight Car Header, OU3, Hart Crowser, Sep-00	Sep-00		
		Oxidizer Cost/Benefit Analysis Report for OU3, OU5 and other areas at Ft. Wainwright Ak	Apr-01		also in OU5

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		2000 Monitoring Report Design Verification Study	May-01		
		Work Plan, SAP, QAPP, and HSP, Fairbanks Environmental Services, OU3, Nov-01	Nov-01		
		Assessment of MP 2.7&3.0 source areas, OU3, FWA, Dec 2001	Dec-01		
		2002 Work Plan Summary OU3 Operation and Maintenance	Apr-02		
		OU3 Draft Waste Management Plan, FWA AK April 2002	Apr-02		
		Air Sparge Probe Rehabilitation Work Plan	Jun-02		
		MP 2.7 and 3.0 Treatment Cell Closure Plan	Nov-02		
		MP 2.7 and 3.0 Treatment Cell Decommissioning and Sampling Plan Jan 2003	Jan-03		
		2003 Work Plan, Operable Unit 3, Fort Wainwright, Alaska dated June 2003	Jun-03		
		Final 2004 Work Plan OU3, FWA, FES, Mar-04	Mar-04		
		Final CLOSES Evaluation MP 2.7 dated June 2004	Jun-04		
		Final CLOSES Evaluation MP 3.0 dated June 2004	Jun-04		
		2005 Work Plan Operable Unit 3 Fort Wainwright AK	Mar-05		
		2006 Work Plan Draft	Feb-06		
		Design Verification Study, Draft 96 Modeling Reports			
3		Remedial Action Report(s)		Once in draft, finalized when RAOs are met	
		1996 Monitoring Report, Design Verification Study, Hart Crowser	Mar-97		
		Field Status Report, OU 3, Swaim-Hart Crowser	Nov-99		
		Implementation and Operations Plan, Hart Crowser	Dec-99		
		Bedrock & Structure Char & Bit TF: TFS Birch Hill Fuel	May-00		
		99 Monitoring Report, DVS, OU3, FWA May 00	May-00		
		1999 Monitoring Report, North Post/DRMO 1 & 5, Hart Crowser, Jun-00	Jun-00		
		OU3 Preliminary Draft Remedial Action Report at FWA May 2001	May-01		
		2000 Comprehensive Monitoring Report, OU3, Hart Crowser, May-01	May-01		
		2001 Monitoring Report Operable Unit 3 Fort Wainwright AK	Mar-02		
		Assessment of MP 2.7 and 3.0 Source Areas, OU3 FWA AK May 2002	May-02		
		Explanation of Significant Differences	Sep-02		
		Interim Remedial Action Report	Sep-02		
		Former Buildings 1128, 1129, 1130 Investigation	Nov-02		
		Final 2003 OU3 Annual Monitoring Report dated March 2004	Mar-04		
		CLOSES Evaluation MP 3.0 Ft. Wainwright AK	Jun-04		
		Draft Report, CLOSES Evaluation, Birch Hill Tank Farm, FWA, dates September 2004	Sep-04		
		Technical Memorandum MP 2.7 and MP 3.0 Site Survey	Sep-04		
		2004 Monitoring Report Operable Unit 3 Fort Wainwright AK	Mar-05		
		Technical Memorandum Decommissioning of Valve Pit B and Valve Pit C Treatment Systems	Jul-05		
		MP2.7 and 3.0 Treatment Cells Decommissioning Report Operable unit 3 Fort Wainwright, Alaska	Sep-05		
		2005 Monitoring Report Operable Unit 3 Fort Wainwright AK	Mar-06		
		Sampling Data Report, OU3 Spring Sampling Event 2004, COE-FES			
3		Drawing/ as-builts		See RD and RARs	
		95% Design Analysis OU3, Area 1A Birch Hill TF, and Drawings, Ecology and Environment	Mar-97		
3		O&M Manuals and Reports		Once	

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		Draft OM&M Manual, Valve Pit A & Eight Car Header, OU 3, Hart Crowser	Sep-00		Remaining OM&M Plans on hold pending EPA and DEC comments
		Remedial Systems Operations Report (ROD DS), Hart Crowser, Apr-01	Apr-01		
		Treatment Systems Operations, Maintenance, Monitoring Manuals, OU3, Hart Crowser, Jun-01	Jun-01		
		OM&M Manual, Birch Hill Tank Farm Product Recovery System (addendum to 2001) dated Nov 2002	Nov-02		
		Operation, Maintenance and Monitoring Manual Birch Hill Tank Farm Product Recovery Treatment System	Jan-03		
		2003 Revisions to OM&M Slipsheets, OU3, FWA, dated August 2004	Aug-04		
3		GW, SW, and air monitoring plans & reports		Annual	
		Birch Hill Tank Farm, Groundwater Investigation, Hart Crowser	Jul-98		
	x	Hydrological Evaluation of Remedial Area 1B	Dec-98		
		Monitoring Report, Design Verification Study, Hart Crowser	May-99		
		ROLF Groundwater Modeling	Oct-99		
		Summary of Hydrogeologic Investigation at Birch Hill Tank Farm, CRREL	Dec-99		
	x	Monitoring Report, Design Verification Study, Hart Crowser	May-00		
		Chemical Data Quality Assessment Report for Aug-Sep 00, Groundwater Monitoring at Mileposts 2.7, 3.0 & 15.75, OU3, Corps of Engineers, AK Dist., Feb-01	Feb-01		
		Birch Hill Tank Farm Monitoring Well Installation & Sampling, OU3, Corps of Engineers, AK Dist., Feb-01	Feb-01		
		G/W Flow Meas w/in OU3 fwa from Aug 95-Dec 00, March 2001	Mar-01		
		Birch Hill Tank Farm Monitoring Well Installation and Sampling Technical Memorandum	Mar-01		
		Groundwater monitoring Report for the Railroad Off Loading Facility	Apr-01		
	x	2000 Comprehensive monitoring report	May-01		
		Groundwater Modeling Report for RA1B, OU3, CH2M Hill, Jun-01	Jun-01		
		Birch Hill Tank Farm Aquifer Test	Jan-03		
		Birch Hill Tank Farm Tracer Test	Jan-03		
		2003 Technical Memorandum Spring Groundwater Sampling Event	Jun-03		
		Documentation of Operable Unit 3 FEFLOW Model	Feb-04		
		2004 Technical Memorandum Spring Groundwater Sampling Event	Jun-04		
3		GW sampling results and any other relevant sampling/ monitoring data or records		As specified by ROD or PDRAR	
		Quarterly Monitoring Report, MP 15.75, Treatability Study, Hart Crowser	Feb-97		
		1996 Monitoring Report, Design Verification Study, Hart Crowser	Mar-97		
		Quarterly Monitoring Report, MP 15.75, Treatability Study, Hart Crowser	Jun-97		
		Quarterly Monitoring Report, MP 15.75, Treatability Study, COE	Nov-97		
		Quarterly Monitoring Report, MP 15.75, Treatability Study, Hart Crowser	Feb-98		
		1998 Monitoring Report, DVS	May-99		
	x	1999 Comprehensive monitoring report, Hart Crowser	May-00		
		Groundwater Flow Measurements within OU 3, Aug 95-Dec 00, CRREL	Dec-00		
		Chemical Data QAR for Aug-Sep 00, Groundwater Monitoring at MP2.7, 3 and 15.75, COE	Feb-01		
		Groundwater Flow Measurements from Aug 95-Dec 00, Mar 01., OU3, CRREL, Mar-01	Mar-01		
		Bentley Trust Well Logs, OU3, Corps of Engineers, AK Dist., Jun-01	Jun-01		
		Tech Memo: Fall 2003 Sampling Data Report, OU3 dated January 2003	Jan-03		
		CD ONLY: 2003 Fall Groundwater Sampling Event, EDF corrected files dated Jan 15, 2003	Jan-03		

Listing of Reports and Documents Related to Operable Units at Ft Wainwright Available at the time of the 2006 Five-Year Review

OU	Key Ref	Document	Issuance Date	Type/ Periodicity	Comments
		Sampling Data Report: Spring 2003 Gw, dated June 23, 2003	Jun-03		
		Tech Memo: Documentation of OU3 FEFLOW Model, FWA dated February 2004	Feb-04		
		Technical Memorandum: FEFLOW Groundwater Modeling Analysis, OU3, dated September 2004	Sep-04		
		Geologic Setting of the Birch Hill Tank Farm OU3 dated January 2005	Jan-05		
		Sampling Data Report for Ft. Wainwright, OU3 Fall Sampling Event 2004	Fall 2004		
		Operable Unit 3 Spring 2003 EDF, EDCC files, tech memo, sampling results, chain of custody forms	Spring 2003		
		Sampling Data Report, OU3 Spring Sampling Event 2004	Spring 2004		
		Sampling Data Report for FWA Spring Sampling Event 2005	Spring 2005		
		Technical Memorandum, Summer 2003 Sampling Data Report, OU3	Summer 2003		
		Tech Memo: Sampling Data Report OU3 2004 Winter Groundwater Sampling Event	Winter 2004		
		Tech Memo: Sampling Data Report OU3 2004 Winter Groundwater Sampling Event EDF and Draft EDMS	Winter 2004		
		CD: Birch Hill Groundwater Model (FEFLOW/PEST) Input and Output files (5 separate runs)			
		EDF and draft EDMS deliverables: Sampling Data Report, OU3 Spring Sampling Event 2004			
		2003 Fall Groundwater Sampling Event OU3 EDF files, EDMS files			
		Birch Hill Tank Farm Monitoring Well Installation and Sampling, COE			Confirm date of issuance
4	x	OU4 ROD	Sep-96	One-time plus amendments	
4		Remedial Design		Once	
		Remedial Investigation Report OU4	Nov-94		
		Risk Assessment Report OU4	Aug-95		
		Draft SSHP Groundwater Monitoring Landfill Feb 2001	Feb-01		
		OU4 landfill draft g/w monitoring work plan at FWA Feb 2001	Feb-01		
		Draft work plan for monitoring well replacement fwa Aug 2001	Aug-01		
		OU4 Site Specific Safety and Health Plan	Jun-02		
		Final Work Plan for Groundwater Monitoring and Data Analysis at Landfill October 2002	Oct-02		
		Work Plan for GWMonitoring and Data Analysis at the CSY October 2002	Oct-02		
		Draft Groundwater Monitoring and Data Analysis at the Landfill Source Area Work Plan	May-03		
		Final Investigative Derived Waste management Area Operation and Maintenance Plan	Aug-03		
		Final Work Plan Groundwater Monitoring and Data Analysis at the Coal Storage Yard Source Area	Aug-03		
		Final Work Plan Groundwater Monitoring and Data Analysis at the Landfill Source Area	Aug-03		
		Final Coal Storage Yard Remediation System Decommissioning Work Plan	Apr-04		
		Final 2004 Work Plan, Groundwater Monitoring and Data Analysis at the Landfill Source Area, Sept 2004	Sep-04		
		2005 Work Plan Groundwater Monitoring and Data Analysis at the Landfill Source Area dated May 2005	May-05		
		Final 1999 Design Verification Study Report, CSY, DOWL/Ogden			Confirm date of issuance
		Landfill RA Final, Work Plan			
		Draft 2003 Work Plan for GW Monitoring and Data Analysis at the CSY Source Area			
		Draft 2003 Work Plan for GW Monitoring and Data Analysis at the Landfill Source Area			
		Draft 2004 Landfill Work Plan, SAP, QAPP, HSP			
4		Remedial Action Report(s)		Once in draft, finalized when RAOs are met	
		Landfill Remedial Action Final Work Plan	Dec-98		
		Final Remedial Action Report, Landfill, DOWL/Ogden	Mar-99		
		Final Remedial Action Report, Coal Storage Yard (CSY), DOWL/Ogden	Apr-99		
		Sep 99 Landfill Cap inspection report	Sep-99		

Listing of Reports and Documents Related to Operable Units at Ft Wainwright Available at the time of the 2006 Five-Year Review

OU	Key Ref	Document	Issuance Date	Type/ Periodicity	Comments
		final 1999 DVS rpt CSY ou4 FWA Sep 00	Sep-00		
		Final 1999 Design Verification Study Report, Coal Storage yard, OU4, Dowl/Ogden Joint Venture, Sep-00 OU4, Dowl/Ogden Joint Venture, Dec-00	Dec-00		
		Draft 00 System Mon Rpt, TS, CSY, FTWA, Jan 01	Jan-01		
		Oxidizer cost/benefit analysi rpt for ou3/ou5 & FWA Apr 01	Apr-01		
		Final monitoring report CSY 2000 dated Oct 2001	Oct-01		
		Landfill, Final Monitoring Well Report, OU4, ENSR, Jan-02	Jan-02		
		Draft Landfill 2001 Annual Report FWA AK May 2002	May-02		
		Investigated Derived Waste Report OU4 Coal Storage Yard September 2002	Sep-02		
		Investigated Derived Waste Report OU4 Landfill September-October 2002	Oct-02		
		Soil Boring Installation Action Report for Coal Storage Yard, November 2002	Nov-02		
		Investigated Derived Waste Report OU4 Landfill September-October 2002, OU4, North Wind, January-03	Jan-03		
		Final 2002 Annual Report Coal Storage Yard	Jul-03		
		Final 2002 Annual Report Landfill	Jul-03		
		Investigative Derived Waste Report for the OU4 CSY June 2003 groundwater monitoring dated August 2003	Aug-03		
		Investigative Derived Waste Report for the OU4 Landfill May-June 2003 groundwater monitoring dated August 2003	Aug-03		
		Investigative-Derived Waste Report for the OU4 CSY Sept-Oct 2003 Well Decom and GW event dated 21 Nov 03	Nov-03		
		Investigative-Derived Waste Report for the OU4 Landfill, September 2003 GW event dated 21 November 2003	Nov-03		
		Technical Memorandum Coal Storage Yard Remediation System Decommissioning	Aug-04		
		Final 2003 Annual Report Coal Storage Yard	Sep-04		
		Final 2003 Annual Report Landfill	Sep-04		
		Site Assessment Report-Soil removal at FTP Fire Burn Pits			
		Draft 1999 DVS Report, CSY, OU4, FWA AK			
4		Drawing/ as-builts		See RD and RARs	
		Site Plan Landfill Cap Project, DOWL/Ogden	Jun-97		
4		O&M Manuals and Reports		As-needed	
		Final Operations, Maintenance & Monitoring Manual, Coal Storage Yard, Vol. I and II, OU4, Hart Crowser, Jan-01	Jan-01		
		Final Operations, Maintenance and Monitoring Report, Landfill, OU4, Hart Crowser, Jan-01	Jan-01		
4		GW, SW, and air monitoring plans & reports		Annual	
		Final 1997 System Monitoring Report, Treatment System, CSY, DOWL/Ogden	Jul-97		
		Rev Final 98 Sep & Dec Landfill G/W Samp Report, OU4 FWA	Dec-98		
		Final Groundwater Sampling Report	May-99		
		Draft Aug G/W Sampling Report Landfill OU4 Jan 00	Jan-00		
		Groundwater Sampling Report, Draft, Landfill Monitoring Wells, OU4, Dowl/Ogden Joint Venture, Mar-00	Mar-00		
		Aug 99 G/w Sampling Report Final OU4Aug 2000	Aug-00		
		Final 1999 System Monitoring Report Treatment System Coal Storage Yard	Sep-00		
		Draft 2000 System Monitoring Report Treatment System Coal Storage Yard	Jan-01		
		Draft Groundwater Protection Report Coal Storage yard	Apr-01		

Listing of Reports and Documents Related to Operable Units at Ft Wainwright Available at the time of the 2006 Five-Year Review

OU	Key Ref	Document	Issuance Date	Type/ Periodicity	Comments
		Final Aug 00 Groundwater Sampling Report, OU4, Dowl/Ogden Joint Venture, Sep-01	Sep-01		
		Final 2000 System Monitoring Report Treatment System Coal Storage Shed	Oct-01		
		Final Mon well replace report fwa jan 2002	Jan-02		
		OU4 CSY Draft Groundwater Protection Report, FWA AK, April 2002	Apr-02		
		Final 2004 Fall Sampling Report Groundwater Monitoring and Data Analysis at the Landfill Source Area dated May 2004	May-04		
		Draft 2004 Spring Sampling Report, Groundwater Monitoring and Data Analysis at the Landfill Source Area dated Sept 2004	Sep-04		
		Draft 2004 Fall Sampling Report, Groundwater Monitoring at Landfill, OU4 dated January 2005	Jan-05		
		Draft 2005 Annual Sampling Report, Groundwater, Landfill Source Area			
4		GW sampling results and any other relevant sampling/ monitoring data or records		As specified by ROD or PDRAR	
		1997 Groundwater Sampling, Final Report, Landfill Monitoring Wells, DOWL/Ogden	Feb-98		
		November 1997 Groundwater Sampling Final Report: ROD RAD Study, DOWL/Ogden	Apr-98		
		Final Sampling Report, Sep 97-May 98, DOWL/Ogden	Aug-98		
		Technical Memorandum: Landfill Cap Sampling, COE	Aug-98		
		Memorandum, Fort Wainwright Landfill Cap Project Post-Construction Insp., DOWL/Ogden	Sep-98		
		Final Sampling Report (Nested Wells), DOWL/Ogden	Sep-98		
		Final Landfill Monitoring Wells, Sep 98, Groundwater Sampling Report, DOWL/Ogden	Sep-98		
		Groundwater Sampling Report, Final Report, May 99, ROD RADS, DOWL/Ogden	Oct-98		
		Final Dec 98 Groundwater Sampling Report, Landfill, DOWL/Ogden	Dec-98		
		Groundwater Sampling Report, ROD RADS, July 99 CSY	May-99		
		March/June 99 Groundwater Sampling Report, Landfill Monitoring Wells, DOWL/Ogden	Jul-99		
		Technical Memorandum: Landfill Post-Construction Inspection, DOWL/Ogden	Jul-99		
		Landfill Cap Inspection Report, DOWL/Ogden	Jul-99		
		Groundwater Sampling Report, Draft, Landfill Monitoring Wells, DOWL/Ogden	Mar-00		
		August 99 Groundwater Sampling Report, Landfill, Final, DOWL/Ogden	Aug-00		
		March 2000 Groundwater Sampling Report, Landfill Monitoring Wells, DOWL/Ogden	Dec-00		
		Coal Storage yard, Raw Data Report, OU4, ASCI/NANA, Jan-01	Jan-01		
	x	CSY Draft 2000 Annual Monitoring Report, DOWL	Jan-01		
		Corrected Table 1, OU4 Raw Data rt for landfill at FWA dated April 2001	Apr-01		
		OU4 Raw Data Report for Landfill at FWA Apr 01	Apr-01		
		OU4 raw data report for g/w sampling at the CSY, June 2001	Jun-01		
		August 00 Groundwater Sampling Report, Landfill, Final, DOWL/Ogden	Sep-01		
		OU4 Landfill Sep 2001 raw monitoring data, FWA, Nov 2001	Nov-01		
		Fall 2001 Groundwater Raw Data Report Landfill	Nov-01		
		OU4 Coal Storage Yard Fall 2001 Raw Monitoring Data, FWA, Dec 2001	Dec-01		
		Coal Storage Yard Fall 2001 Raw Soil Sampling Data, OU4, ASCI/NANA/Dowl, Dec-01	Dec-01		
		OU4 Landfill Groundwater Sampling Chemical Data Quality Review	Dec-01		
		Chemical Data Quality Assessment Report Landfill 2001 Groundwater Sampling	Feb-02		
		2001 Annual Groundwater Sampling Report Landfill Draft	May-02		
		Draft Groundwater Monitoring and Data Analysis at the Landfill Source Area Work Plan	Jun-02		
		Raw Data Report Coal Storage Yard Soil Sampling	Aug-02		

Listing of Reports and Documents Related to Operable Units at Ft Wainwright Available at the time of the 2006 Five-Year Review

OU	Key Ref	Document	Issuance Date	Type/ Periodicity	Comments
		CSY Spring 2002 Raw Data Report , OU4, ASCI/NANA, September-02	Sep-02		
		Sampling Data Report for Groundwater Sampling at the Landfill	Sep-02		
		Chemical Data Quality Review Spring 2002 Landfill Monitoring	Sep-02		
		Field Notes for gw and soil sampling at Landfill and CSY Sept/October 2002	Oct-02		
		Sampling Data Report: Fall Sampling at OU4 Landfill December 2002	Dec-02		
		CLOSES Evaluation Coal Storage Yard	Jan-03		
		Draft Annual Report 2002 Landfill	Apr-03		
		Field Notes for gw sampling at CSY, dated May 2003	May-03		
		Sampling Data Report: Spring 2003 CSY, dated July 2003	Jul-03		
		Sampling Data Report: Spring 2003 Landfill, dated July 2003	Jul-03		
		Sampling Data Report Fall 2003, Landfill, dated November 2003	Nov-03		
		Sampling Data Report Fall 2003, OU4 Coal Storage Yard, dated November 2003	Nov-03		
		Well Decommissioning Letter Report for CSY, OU4 dated Dec 2003	Dec-03		
		Well Repair Letter Report for Landfill, OU4 dated Dec 2003	Dec-03		
		CDQR Fall 2003 GW Monitoring at the CSY, OU4 dated Dec 2003	Dec-03		
		CDQR Fall 2003 GW Monitoring at the Landfill, OU4 dated Dec 2003	Dec-03		
		Technical Memorandum: Coal Storage Yard Remediation System Decommissioning, dated August 2004	Aug-04		
		CSY Spring 2002 Raw Data Report	Spring 2002		
		Tech Memo 2005 Spring Sampling Results groundwater monitoring			
		Draft August 2000 Groundwater Sampling Report for Landfill Monitoring Wells			Confirm date of issuance
5	x	OU5 ROD	Mar-99	One-time plus amendments	
5		Feasibility Studies		Once	
		OU5 Feasibility Study, HLA	Nov-97		
		Final OU 5 Feasibility Study, CH2MHill	Jun-98		
		Final Six-Phase Soil Heating/Column Study Treatability Study Work Plan, CH2MHill	Aug-99		
		Vertical Air Sparging Curtain/Feasibility Study, WQFS, CH2MHill	Jul-00		
		Final Column Study Report, WQFS 1, CH2MHill	Sep-00		
		Intrinsic Remediation Evaluation, EQFS, CH2MHill	Nov-00		
		WQFS Six-Phase Soil Heating/Column Study TS Work Plan, Comments on Draft, CH2MHill	Mar-01		
5		Remedial Design		Once	
		Remedial Investigation Report OU5	Nov-96		
		Proposed Plan for Remedial Action at OU 5, CH2MHill	Jun-98		
		WQFS3 RA WP Final FWA Apr 2000	Apr-00		
		Bldg 1060 west, RAWP OU5, FWA Apr 2000	Apr-00		
		Final PAH eval WP, WQFS2, FWA, May 00	May-00		
		Final TM SS&HP, WQFS3 & 1060 W, Aug 00	Aug-00		
		Preliminary draft RA WP, WQFS2, FWA, Aug 00	Aug-00		
		WQFS1B Preliminary Draft Remedial Action Work Plan, ENSR	Jan-01		
		WQFS Subarea 2, Draft PAH Evaluation Report	Feb-01		
		OU5WQFS3, Final SVE/AS RA WP April 2001	Apr-01		
		Oxidizer Cost/Benefit Analysis Report for OU3, OU5 and other areas at Ft. Wainwright Ak	Apr-01		also in OU3
		OU5 1060W, final SVE/AS RA WP April 2001	Apr-01		
		Source Area Remedial Action Work Plan May 2001	May-01		

Listing of Reports and Documents Related to Operable Units at Ft Wainwright Available at the time of the 2006 Five-Year Review

OU	Key Ref	Document	Issuance Date	Type/ Periodicity	Comments
		Revised Site Safety & Health Plan, OU5, Northwind, May-01	May-01		
		Draft work plan, 2002 CRAPP, FWA Dec 2001	Dec-01		
		Groundwater Contaminant Data Collection and Trend Analysis Work Plan	Jun-02		
		EQFS Monitored Natural Attenuation Sampling Plan	Oct-02		
		AS/SVE OM&M Project Schedule OU5, Northwind, Nov-02	Nov-02		
		FINAL OU5 Quality Assurance Program Plan , Northwind, Jun-03	Jun-03		
		Final Horizontal Well Remediation System Air Sparge Probe Redevelopment Monitoring Work Plan, dated Aug 2003	Aug-03		
		EQFS Monitored Natural Attenuation Long Term Monitoring Plan	Jul-04		
		Draft Technical Memorandum and QAPP, EQFS OU5 FWA dated June 2005	Jun-05		
		Site Specific Safety and health Plan	Jun-05		
		Birch Hill Lead Investigation Work Plan Remedial Area 1A	Sep-05		
		WQFS Subarea 3 Final SVE/AS RA Work Plan, North Wind	NA		
		Building 1060 West, Remedial Action Work Plan, CH2MHill	NA		
		EQFS Intrinsic Remediation Evaluation, CH2MHill	NA		
		Addendum to final work plan, Chena River Aquatic Asmt			
		Draft WQFS3, RA WP, OU5, FWA, AK			
		Draft EQFS Monitored Natural Attenuation Long-Term Monitoring Plan, OU5			
		Final Birch Hill Lead Investigation Work Plan, Remedial Area 1A			
5		Aquatic Assessment		Ongoing	
	x	Chena River Aquatic Assessment Program, 1997-98, Vol I & II, ABR/CH2MHill	Mar-99		
	x	Chena River Aquatic Assessment Program, Spring and Summer, ABR	Sep-99		
		1998 and 1999 Chena River Surface Water Sampling Technical Memo, WQFS2, CH2MHill	Dec-99		
		1998 and 1999 Chena River Surface Water Sampling Technical Memo, WQFS2, CH2MHill			Confirm date of issuance
		Chena River Assessment Program, OU5, ABR/CH2MHill			Confirm date of issuance
	x	Technical Memorandum: Chena River Aquatic Assessment Program, Interim Report, CH2MHill	Dec-99		
		1998-99 Chena River Surface Water Sampling Tech Memo, CH2M Hill			
		Chena River Aquatic Assessment Program, ABR/CH2M Hill			
		Final 2002 Sediment Quality Monitoring Program, Chena River Aqua Asmt Prog, FWA, CH2M Hill, Apr-03	Apr-03		
		Final Work Plan for the 2002 Chena River Aquatic Assessment Program, FWA AK, CH2M Hill, Apr-02	Apr-02		
5		Remedial Action Report(s)		Once in draft, finalized when RAOs are met	
		SPSH& RFH Draft final report WQFS/OU5, FWA Jan 00	Jan-00		
		Annual Air Sparging Curtain/Source Area monitoring Report, WQFS1 and 2, OU5, CH2M Hill, Mar-00	Mar-00		
		Anl Mon Rpt Hwell, TS OU5 FWA/FRA March 2000	Mar-00		
		Building 1060 West, Remedial Action Work Plan, CH2M Hill, Apr-00	Apr-00		
		Building 1060W, Remedial Action Work Plan, CH2M Hill, Apr-00	Apr-00		
		WQFS Remedial Action Work Plan, Final, CH2M Hill, Apr-00	Apr-00		
		Bldg 1060TS Annual Rpt, Yr 5, FWA AK May 2000	May-00		
		Verticle Sparging Curtain TS WQFS2 Semi Anl Mon Rpt Yr 2 July 00	Jul-00		
		Final Column Study Report, WQFS1, Operable Unit 5, CH2M Hill, Sep-00	Sep-00		
		Draft Decom RA Sys at Bldg 1060 & 3562 & Draft SSHP Sep 00	Sep-00		

Listing of Reports and Documents Related to Operable Units at Ft Wainwright Available at the time of the 2006 Five-Year Review

OU	Key Ref	Document	Issuance Date	Type/ Periodicity	Comments
		Final Tech Memo Site Safety & Health Plan, WQFS3 & 1060W, Northwind, Aug-00 Final, Column Study Report, WQFS1, CH2M Hill, Sep-00	Sep-00		
		Chemical Data Report, WQFS, OU5, Alaska District Corps of Engineers, Oct-00	Oct-00		
		Final Work Plan for Decommissioning Remediation Systems at Bldgs 1060 East & 3562, Final Site Safety and Health Plan, ASCI/NANA, Oct-00	Oct-00		
		Intrinsic Remediation Evaluation EQFS FWA AK Nov 00	Nov-00		
		Memo: After Action Report, Soil Heating Treatability Study Soil Borings, CH2M Hill, Nov-00	Nov-00		
		RAR for decom ts at Bldgs 1060 and 3562, FWA, Nov 2000	Nov-00		
		Remedial Action Report for Decommissioning Remediation Systems at Bldgs 1060 East and 3562, ASCI/NANA, Nov-00	Nov-00		
		Final Construction report for WQFS3/1060W rem sys at fwa apr 01	Jan-01		
		AS Curtain & Source Area TS 99 Anl Rpt OU5 FWA AK Jan 01	Jan-01		
		Draft PAH Eval Report WQFS Subarea 2 Feb 2001	Feb-01		
		OU5 Horiz Well Tmt Sys Final 2000 Annual Mon Rprt March 2001	Mar-01		
		Draft 2000 PDRAR Apr 01	Apr-01		
		Draft AS Crutain & Source Area TS 2000 Annual Rpt Apr 01	Apr-01		
		SP heating & RF heating TS final report, WQFS, OU5, FWA, April 2001	Apr-01		
		1060W, Final Soil Vapor Extraction/Air Sparging Remedial Action Work Plan, Northwind, Apr-01	Apr-01		
		Construction Report for WQFS3/1060W, Remedial Systems, Northwind, Apr-01	Apr-01		
		Six Phase Soil Heating and Radio Frequency Heating, Treatability Study Final Report, WQFS, CH2M Hill, Apr-01	Apr-01		
		WQFS3, Final Soil Vapor Extraction/Air Sparging Remedial Action Work Plan, Northwind, Apr-01	Apr-01		
	x	Draft 2000 Preliminary Draft Remedial Action Report	Apr-01		
		OU5 WQFS2 Vertical Sparging Curtain TS Year 3 semi-annual rpt, May 2001	May-01		
		Final Design Drawings for Treatment System at WQFS1A, ENSR/Voom/CH2M Hill, May-01	May-01		
		Final Tech Memo for Construction Activities at WQFS1A, 1C&2, Northwind, May-01	May-01		
		Final WP for Decon Red System @1060 & 3562, FWA 10/00&Final SSHP	Nov-01		
		OU5 Air Sparge Curtain and Source Area Treatability Study 2000 Annual Report, CH2M Hill, Dec-01	Dec-01		
		OU5 AS Curtain & SA treatabilities studies 00 annual rpt fwa dec 2001	Dec-01		
		Mid-Year TM for Bldg 1060W & WQFS3 Rem System, OU5, FWA Dec 2001	Dec-01		
		Draft 01 annual report, ou5 source area TS, fwa AKJan 02	Jan-02		
		OU5, WQFS, PAH Evaluation Report, FWA, CH2M Hill, Apr-02	Apr-02		
		West Quartermaster's Fueling System Subarea 3, Bldg 1060 West Remediation Systems 2001 Annual Report	Jun-02		
		Post Construction Report WQFS1 and WQFS2 Remediation System Modifications	Jun-02		
		2002 Interim Remedial Action Report September 2002	Sep-02		
		Source Area Treatability Study, 2001 Annual Report, OU5, CH2M Hill, Dec-02	Dec-02		
		Final Sparge Curtain Source Area Horizontal Well Air Sparge/Soil Vapor Extraction Treatment Systems	Jan-03		
		Draft CLOSES Evaluation WQFS OU5	Feb-03		
		OU5 WQFS CLOSES Evaluation , CH2M Hill, May-03	May-03		
		Draft OU5 Annual Report, March 2002-February 2003, dated September 2003	Sep-03		
		Final OU5 Annual Report March 2002 to Feb 2003 FWA dated February 2005	Feb-05		
		Birch Hill Lead Investigation Draft Report Area 1A	Dec-05		

Listing of Reports and Documents Related to Operable Units at Ft Wainwright Available at the time of the 2006 Five-Year Review

OU	Key Ref	Document	Issuance Date	Type/ Periodicity	Comments
		Draft Annual Report July 2004 to July 2005	Jan-06		
		Draft EQFS Monitored Natural Attenuation Sampling Fall 2005 Report	Feb-06		
		Final Annual Report March 2003 to June 2004 OU5	Feb-06		
		TM, CRAAP, OU5, FWA, Interim Report			
		CRAAP OU5 FWA			
		Draft Birch Hill Lead Investigation Report, Remedial 1A, FWA			
		Final Source Area Treatability Study, 2001 Annual Report			
		Approach to Estimating Cleanup Times, WQFS, CH2M Hill			
		Birch Hill UST Site Draft Remedial Investigation, Ecology and Environment			
		Mid-Year Tech Memo for Bldgs 1060W & WQFS3 Remedial Systems, Northwind, Dec			
5		Drawing/ as-builts		See RD and PDRARs	
		Drawings, Planned Remedial Action Augmentation, WQFS1A, ENSR/VOOM/CH2MHill	Jun-05		
		Operable Unit 5, WQFS1C Remedial Action Design Drawings, ENSR/Voom/CH2M Hill, Nov-00	Nov-00		
		Design Drawings, Operable Unit 5, WQFS1A Remedial Action, ENSR/Voom/CH2M Hill, Dec-00	Dec-00		
		Operable Unit 5, WQFS1B, Remedial Action Design Drawings, ENSR/Voom/CH2M Hill, Jan-01	Jan-01		
		OU5 Final Design Drawing for Treatment System at WQFS1A, FWA May 2001	May-01		
		OU5 Final Remedial Action Design Drawings for WQFS2&WQFS1C, June 2001	Jun-01		
		Drawings/RAWP tests			
5		O&M Manuals and Reports		Once	
		Draft OM&M Manual for WQFS3 Rem Systm, March 2001	Mar-01		
		Final Bldg 1060W rem sys op, main & mon manual, OU5, Nov 2001	Nov-01		
		Final Source Area Remediation System Operation, Maintenance, and Monitoring Manual	Nov-05		
		Final Sparge Curtain Remediation System Operation, Maintenance, and Monitoring Manual	Nov-05		
		Final Horizontal Well Remediation System Operation, Maintenance, and Monitoring Manual	Nov-05		
5		GW, SW, and air monitoring plans & reports		Annual	
		Draft Final 1999 G/W Sampling WQFS FWA AKJun 2000	Jun-00		
		Radio Frequency Heating/Six Phase Soil Heating Treatability Study Nrient Addition Work Plan Addendum., CH2M Hill, Jul-00	Jul-00		
		Air Sparging Curtain and Source Area Treatability Study, 1999 Annual Report, CH2M Hill, Jan-01	Jan-01		
		Horizontal Well Treatment System Final 2000 Annual Monitoring, Hart Crowser, Mar-01	Mar-01		
		Draft 00 WQFS nutrient amendment, g/w sampling & summary report, April 2001	Apr-01		
		WQFS2 Vertical Air Sparging Curtain Treatability Study Year 3, Semi-Annual Report, CH2M Hill, May-01	May-01		
		Project Schedule for Horizontal Well Optimization, Indoor Air @ 1060, Updated QAPP, Northwind, Jun-02	Jun-02		
		WQFS Sub-Area 3 & Bldg 1060W Remediation Systems 2001 Annual Report, Northwind, Jun-02	Jun-02		
		Indoor Air Monitoring, Building 1060W, Northwind, Aug-02	Aug-02		
		Groundwater Contaminant Data Collection Work Plan	Oct-02		
		FINAL Sparge Curtain Source Area & Horizontal Well Remediation System 2001 Annual Rpt, Northwind, Jan-03	Jan-03		
		Horizontal Well Remediation System AS Probe Monitoring Report, OU5 FWA dated February 2004	Feb-04		
		Final Technical Memorandum Results of Indoor Air Monitoring at Building 1060 dated March 2004	Mar-04		
		Draft EQFS Monitored Natural Attenuation Sampling Fall 05 Report	Fall 2005		
5		GW sampling results and any other relevant sampling/ monitoring data or records		As specified by ROD or PDRAR	

Listing of Reports and Documents Related to Operable Units at Ft Wainwright Available at the time of the 2006 Five-Year Review

OU	Key Ref	Document	Issuance Date	Type/ Periodicity	Comments
		Technical Memorandum: OU 5 Feasibility Study Groundwater Monitoring Results, CH2MHill	Oct-97		
		Monitoring Well Survey and Groundwater Modeling, ENSR	Feb-99		
		Installation Report, Source Area Treatability Study, CH2MHill	Feb-99		
		Quarterly Monitoring Report, OU 5 Treatability Study, Horizontal Well, Hart Crowser	Feb-99		
		Quarterly Monitoring Report, 1 Dec 98-3 Mar 99, Treatability Study, Hart Crowser	Apr-99		
		Bldg 1060 Treatability Study Annual Report Year 4, Jan 98-Dec 98, CH2MHill	May-99		
		Source Area TS WQFS Semiannual Monitoring Report, CH2MHill	Jul-99		
		Quarterly Monitoring Report, Horizontal Well/Driven Progress, WQFS1, Hart Crowser	Sep-99		
		Chemical Data Report, COE Geotechnical Branch	Oct-99		
		TM: Evaluating Remedial Operations for Implementation at OU5, CH2MHill	Oct-99		
		Semi-Annual Monitoring Report, Vertical Air Sparging Curtain, WQFS2, CH2MHill	Dec-99		
		Annual Monitoring Report, Horizontal Wells, Hart Crowser	Mar-00		
		Annual Air Sparging Curtain/Source Area Monitoring Report, WQFS1 and 2, CH2MHill	Mar-00		
		Annual Monitoring Report, Horizontal Wells, Hart Crowser, Mar-00	Mar-00		
		Soil Borings & Groundwater Monitoring Well Logs, Spring 2000 Field Activities, Bldgs. 2062 and OU5, Alaska District Corps of Engineers, Apr-00	Apr-00		
		March 30, 2000 Groundwater Sampling Results, Bldg 2063 and Apple Road, COE	Apr-00		
		Time to Cleanup Tool: Spreadsheet Documentation, OU5 and FWA, CH2MHill	May-00		
		Bldg 1060 Treatability Study Annual Report Year 5, CH2MHill	May-00		
		Soil Borings and Groundwater Monitoring Well Logs, Field Activities at Bldgs 2063 and Operable Unit 5 (Apple Road), Alaska District Corps of Engineers, Jun-00	Jun-00		
		In Situ A/S Tmt Efficiency Tracer Tsetting 6 Jun 00	Jun-00		
		(email) RFH/SPSH TS Nutrient Add WP Addendum Jun 00	Jun-00		
		In Situ Air Sparging Treatment Efficiency Tracer Testing, CH2MHill	Jun-00		
		PAH Evaluation Work Plan, WQFS2, CH2M Hill, Jun-00	Jun-00		
		OU5 Final Chem Rpt for Mon Well inst & Samp Apple Rd, FWA, July 2000	Jul-00		
		20 Well Ground Water Field Sampling Plan Summer 2000	Jul-00		
		Memorandum from ABR on 11 Sep 00 T/C CRAAP	Sep-00		
		Chemical Data Report, WQFS, COE	Oct-00		
		After Action Report: Bldg 3564 and Soil Heating TS Soil Borings, CH2MHill	Nov-00		
		Final 1999 Groundwater Sampling, WQFS, CH2MHill	Dec-00		
		Final 1999 Groundwater Sampling, WQFS, CH2M Hill, Dec-00	Dec-00		
		Air Sparging Curtain and Source Area Treatability Study, 1999 Annual Report, CH2MHill	Jan-01		
		Tech Memo: Apple Street Groundwater Investigation, OU5, Northwind, Feb-01	Feb-01		
		Final Spring 1999 Groundwater Sampling, EQFS, CH2MHill	Feb-01		
		Apple Street Groundwater Investigation Tech Memo	Feb-01		
		Final Spring 1999 Groundwater Sampling, EQFS, CH2M Hill, Feb-01	Feb-01		
		Groundwater modeling at FWA, Apr 01	Apr-01		
		OU5 Final Tech Memo for Construction Activities at WQFS1A,1C & 2, May 2001	May-01		
		Revised spider diagrams, May 01 EQFS G/W Sampling Program	May-01		
		EQFS G/W Monitoring Well Sampling Program Summary & Spider Dia 9/01	Sep-01		
		TM Well decommissioning at OU5 Oct 2001	Oct-01		
		rev spider diagrams EQFS g/w sampling from May 2001, Nov 2001	Nov-01		

Listing of Reports and Documents Related to Operable Units at Ft Wainwright Available at the time of the 2006 Five-Year Review

OU	Key Ref	Document	Issuance Date	Type/ Periodicity	Comments
		OU5 WQFS Nutrient Amendment G/W Sampling & Summare rpt for 00, dec 01	Dec-01		
		2000 WQFS Nutrient Amendment Groundwater Sampling and Summary Report	Dec-01		
		WQFS Nutrient Amendment Groundwater Sampling and Summary Report for 2000, CH2M Hill, Dec-01	Dec-01		
		OU5 Air Sparging Curtain Treatability Study Analytical Data, FWA AK April 2002	Apr-02		
		OU5 Source Area Treatability Study Analytical Data, FWA AK, April 2002	Apr-02		
		Draft Tech Memo - Results of Indoor Air Monitoring at Building 1060 dated December 2003	Dec-03		
		Technical Memorandum Indoor Air Monitoring at Bldg 5010 dated October 2004	Oct-04		
		Monitored Natural Attenuation Sampling EQFS dated May 2005	May-05		
		Horizontal Well Treatability Study Annual Monitoring Report, Hart Crowser	Jun-05		
		Final Technical Memorandum Monitored Natural Attenuation Sampling East Quartermaster's Fueling Station	Sep-05		
		Soil Borings and Groundwater Monitoring Well Logs, Spring 2000, Bldg 2063 and OU5, COE	Spring 00		
		Semi Annual Monitoring Report, Vertical Air Sparging Curtain, WQFS, CH2M Hill			
		Approach Memo for H Well Maint WQFS3			
		Draft EQFS October 2002 Groundwater Results			
		Final Technical Memo, Monitored Natural Attenuation Sampling			
		TM: AAR, STS; AAR: 3564 soil borings; AAR Soil Htg TS Soil borings			
		Approach to Estimating Cleanup Times, WQFS, CH2MHill			Confirm date of issuance
		Semi-Annual Monitoring Report, Vertical Air Sparging Curtain, WQFS2, CH2MHill			Confirm date of issuance
		Horizontal Well Treatment System Final 2000 Annual Monitoring Report			Confirm date of issuance

Summary of Numeric Cleanup Goals for Each Operable Unit¹

OU	Source Area	Medium	Contaminant of Concern	Cleanup Goal	Units	Basis	
1	Drum Burial Site	Groundwater	1,1-Dichloroethene	7	ug/L	MCL	
			Benzene	5	ug/L	MCL	
			Vinyl chloride	2	ug/L	MCL	
			Aldrin ²	0.004	ug/L	RBC	
			Dieldrin ²	0.004	ug/L	RBC	
		Soil	Aldrin ³	3.8	mg/kg	RBC	
			Dieldrin ³	4.0	mg/kg	RBC	
2	DRMO Yard	Groundwater	Benzene	5	ug/L	MCL	
			Tetrachloroethene	5	ug/L	MCL	
			Trichloroethene	5	ug/L	MCL	
			Vinyl chloride	2	ug/L	MCL	
			1,1-Dichloroethene	7	ug/L	MCL	
			cis-1,2-Dichloroethene	70	ug/L	MCL	
	Bldg 1168 Leach Well	Groundwater	Benzene	5	ug/L	MCL	
			Trichloroethene	5	ug/L	MCL	
			Vinyl chloride	2	ug/L	MCL	
			1,1-Dichloroethene	7	ug/L	MCL	
			cis-1,2-Dichloroethene	70	ug/L	MCL	
3	All	Groundwater	Benzene	5	ug/L	MCL	
			Toluene	1000	ug/L	MCL	
			Ethylbenzene	700	ug/L	MCL	
			1,2-Dibromoethane	0.05	ug/L	MCL	
			1,2-Dichloroethane	5	ug/L	MCL	
			1,2,4-Trimethyl benzene ⁴	1.85	mg/L	RBC	
			1,3,5-Trimethyl benzene ⁴	1.85	mg/L	RBC	
4	Landfill	Groundwater	Benzene	5	ug/L	MCL	
			cis-1,2-Dichloroethene	70	ug/L	MCL	
			1,1,2,2-Tetrachloroethane ²	5.2	ug/L	RBC	
			1,1,2-Trichloroethane	5	ug/L	MCL	
			Trichloroethene	5	ug/L	MCL	
			Vinyl chloride	2	ug/L	MCL	
				Bis(2-Ethylhexyl)phthalate	6	ug/L	MCL
	Coal Storage Yard	Groundwater	Benzene	5	ug/L	MCL	
			Bis(2-Ethylhexyl)phthalate	6	ug/L	MCL	
			Trichloroethene	5	ug/L	MCL	
Toluene			1000	ug/L	MCL		
5	WQFS	Groundwater	1,2-Dichloroethane	5	ug/L	MCL	
			Benzene	5	ug/L	MCL	
			Toluene	1000	ug/L	MCL	
	EQFS	Groundwater	1,2-Dichloroethane	5	ug/L	MCL	
			Toluene	1000	ug/L	MCL	
			Trichloroethene	5	ug/L	MCL	
			1,2-Dibromoethane	0.05	ug/L	MCL	
				bis(2-Chloroethyl) ether ²	0.0092	ug/L	RBC
	Chena River Surface Water	Surface Water	TAH ⁵	10	ug/L	CWA & AWQS	
TAqH ⁵			15	ug/L	CWA & AWQS		

¹ Table summarizes goals for CERCLA contaminants. State of Alaska cleanup levels for petroleum hydrocarbon contamination are discussed in the RODs and the Federal Facility Agreement.

² These contaminants now have State of Alaska MCLs in 18 AAC 75 Table C; cleanup levels from ROD are listed in table.

³ These contaminants now have State of Alaska soil cleanup levels in 18 AAC 75 Table B1; cleanup levels from ROD are listed in table.

⁴ Cleanup levels for Trimethylbenzene were changed in the OU3 ESD; the new levels are listed in the table and are calculated based on residential exposure parameters and toxicity data from EPA's IRIS database (also from the State of Alaska Tech. Memo 01-007 Additional Cleanup Values, AK DEC, Nov 24, 2003).

⁵ TAH and TAqH may change to lower levels in the future. Reference Alaska Water Quality Standards 2003-2006 Triennial Review



**Photograph 1 – View of Phytoremediation Cell
Adjacent Fort Wainwright Landfill, Operable Unit 1**



**Photograph 2 – Phytoremediation Cell Showing Concrete Berm
(flag indicates vent location), Operable Unit 1**



Photograph 3 – Vent Installation, Phytoremediation Cell Operable Unit 1



Photograph 4 – Completed Vent Location, Phytoremediation Cell Operable Unit 1



**Photograph 5 – Interpretive Display, 801 Drum Site
Operable Unit 1**



**Photograph 6 – 801 Drum Site Area
Operable Unit 1**



Photograph 7 – DRMO1 3-Party Treatment System Taken from DRMO Yard Operable Unit 2



Photograph 8 – DRMO1 2-Party Treatment System Operable Unit 2



Photograph 9 – Former Building 1168 Area Showing Construction Activity (Monitoring Well AP-6809 in Foreground), Operable Unit 2



Photograph 10 – Monitoring Wells AP-5789 & AP-5790 Downgradient from Former Building 1168 Area, Operable Unit 2



Photograph 11 – View Looking Up at the Birch Hill Tank Farm Operable Unit 3



Photograph 12 – View Looking Down from Birch Hill Tank Farm Operable Unit 3



Photograph 13 – Building 1182 (Former Pump House that Contains Product Recovery Equipment), Operable Unit 3



Photograph 14 – Truck Fill Stand and Thaw Channel Treatment System, Operable Unit 3



Photograph 15 – Post Fence Line along Thaw Channel Area (New Housing Development Construction in Background), Operable Unit 3



Photograph 16 – Interpretive Display, ROLF Area (Former Building 1144 Treatment System in Background), Operable Unit 3



Photograph 17 – Eight Car Header Upgradient Area Treatment System Operable Unit 3



Photograph 18 – Central Header Treatment System Operable Unit 3



**Photograph 19 – Milepost 3.0 Area
Operable Unit 3**



**Photograph 20 – Typical Frostjacking of Monitoring Well at Milepost 2.7 & 3.0 Areas
Operable Unit 3**



Photograph 21 – Monitoring Well FWLF-4 in Foreground (Interpretive Display for Closed Portion of the Fort Wainwright Landfill in Background), Operable Unit 4



Photograph 22 – Monitoring Well AP-6132 (Upgradient from Landfill) Operable Unit 4



**Photograph 23 – Sparge Curtain Treatment System
Operable Unit 5**



**Photograph 24 – Monitoring Locations for Sparge Curtain Treatment System
(Chena River is Visible in Background), Operable Unit 5**



Photograph 25 – Source Area Treatment System (Horizontal Well Treatment System Visible In Background), Operable Unit 5



Photograph 26 – Thermal/Catalytic Oxidizer, Source Area Treatment System Operable Unit 5



**Photograph 27 – Interior of Monitoring Enclosure
Operable Unit 5**



**Photograph 28 – Building 1060W Treatment System
Operable Unit 5**

Five-Year Review Site Inspection Checklist

SITE INFORMATION

Site name: 801 Drum Burial Site

Date of inspection: June 6, 2006

Site Location: Fort Wainwright, Alaska

Operable Unit OU1

Site Map Attached

EPA Region: 10

EPA ID: AK6210022426

Agency, office, or company leading the five-year review: U.S. Army Environmental Center

Weather/temperature: Partly cloudy, mild temperatures

Remedy Includes: (Check all that apply)

Landfill cover/containment

Monitored natural attenuation

Access controls

Groundwater containment

Institutional controls

Vertical barrier walls

Groundwater pump and treatment

Surface water collection and treatment

Other _____

ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

O&M manual

Readily available

Up to date

N/A

As-built drawings

Readily available

Up to date

N/A

Maintenance logs

Readily available

Up to date

N/A

Remarks _____

Site-Specific Health and Safety Plan

Readily available

Up to date

N/A

Contingency Plan/Emergency Response Plan

Readily available

Up to date

N/A

Remarks _____

O&M and OSHA Training Records

Readily available

Up to date

N/A

Permits and Service Agreements

Air discharge permit

Readily available

Up to date

N/A

Effluent discharge

Readily available

Up to date

N/A

Groundwater Monitoring Records

Readily available

Up to date

N/A

Daily Access/Security Logs

Readily available

Up to date

N/A

ACCESS AND INSTITUTIONAL CONTROLS (Show location on a site map)

Fencing damaged Gates secured **X** N/A
Signs and other security measures **X** In place N/A

Institutional Controls (ICs)

Implementation and enforcement

Site conditions imply ICs not properly implemented Yes **X** No N/A
Site conditions imply ICs not being fully enforced Yes **X** No N/A

Adequacy **X** ICs are adequate ICs are inadequate N/A

Vandalism/trespassing evident Yes **X** No N/A

Land use changes on site Yes **X** No N/A

GENERAL SITE CONDITIONS

Roads Damaged **X** Adequate N/A

GROUNDWATER/SURFACE WATER REMEDIES

Groundwater Extraction Wells, Pumps, and Pipelines

Pumps, Wellhead Plumbing, and Electrical

Good condition All required wells properly operating Needs Maintenance **X** N/A

Surface Water Collection Structures, Pumps, and Pipelines

Collection Structures, Pumps, and Electrical

Good condition Needs Maintenance **X** N/A

Monitoring Data

X Groundwater plume is effectively contained Contaminant concentrations are generally declining

Monitored Natural Attenuation

Monitoring Wells (natural attenuation remedy)

X Properly secured/locked **X** Functioning **X** Routinely sampled **X** Good condition
X All required wells located Needs Maintenance

Five-Year Review Site Inspection Checklist

SITE INFORMATION

Site name: DRMO Yard

Date of inspection: June 6, 2006

Site Location: Fort Wainwright, Alaska

Operable Unit OU2

Site Map Attached

EPA Region: 10

EPA ID: AK6210022426

Agency, office, or company leading the five-year review: U.S. Army Environmental Center

Weather/temperature: Partly cloudy, mild temperatures

Remedy Includes: (Check all that apply)

Landfill cover/containment

Monitored natural attenuation

Access controls

Groundwater containment

Institutional controls

Vertical barrier walls

Groundwater pump and treatment

Surface water collection and treatment

Other: Air Sparge / Soil Vapor Extraction

ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

O&M manual

Readily available

Up to date

N/A

As-built drawings

Readily available

Up to date

N/A

Maintenance logs

Readily available

Up to date

N/A

Remarks _____

Site-Specific Health and Safety Plan

Readily available

Up to date

N/A

Contingency Plan/Emergency Response Plan

Readily available

Up to date

N/A

Remarks _____

O&M and OSHA Training Records

Readily available

Up to date

N/A

Permits and Service Agreements

Air discharge permit

Readily available

Up to date

N/A

Effluent discharge

Readily available

Up to date

N/A

Groundwater Monitoring Records

Readily available

Up to date

N/A

Daily Access/Security Logs

Readily available

Up to date

N/A

ACCESS AND INSTITUTIONAL CONTROLS (Show location on a site map)

Fencing damaged Gates secured N/A
Signs and other security measures In place N/A

Institutional Controls (ICs)

Implementation and enforcement

Site conditions imply ICs not properly implemented Yes No N/A
Site conditions imply ICs not being fully enforced Yes No N/A

Adequacy ICs are adequate ICs are inadequate N/A

Vandalism/trespassing evident Yes No N/A

Land use changes on site Yes No N/A

GENERAL SITE CONDITIONS

Roads Damaged Adequate N/A

GROUNDWATER/SURFACE WATER REMEDIES

Groundwater Extraction Wells, Pumps, and Pipelines

Pumps, Wellhead Plumbing, and Electrical

Good condition All required wells properly operating Needs Maintenance N/A

Surface Water Collection Structures, Pumps, and Pipelines

Collection Structures, Pumps, and Electrical

Good condition Needs Maintenance N/A

Monitoring Data

Groundwater plume is effectively contained Contaminant concentrations are generally declining

Monitored Natural Attenuation

Monitoring Wells (natural attenuation remedy)

Properly secured/locked Functioning Routinely sampled Good condition
 All required wells located Needs Maintenance

Five-Year Review Site Inspection Checklist

SITE INFORMATION

Site name: Birch Hill Tank Farm (Remedial Area 1b) Date of inspection: **June 6, 2006**

Site Location: Fort Wainwright, Alaska Operable Unit OU3 X Site Map Attached

EPA Region: 10 EPA ID: AK6210022426

Agency, office, or company leading the five-year review: U.S. Army Environmental Center

Weather/temperature: Partly cloudy, mild temperatures

Remedy Includes: (Check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Landfill cover/containment | <input checked="" type="checkbox"/> Monitored natural attenuation |
| <input checked="" type="checkbox"/> Access controls | <input type="checkbox"/> Groundwater containment |
| <input checked="" type="checkbox"/> Institutional controls | <input type="checkbox"/> Vertical barrier walls |
| <input type="checkbox"/> Groundwater pump and treatment | <input type="checkbox"/> Surface water collection and treatment |
| <input checked="" type="checkbox"/> Other: <u>Air Sparge / Soil Vapor Extraction</u> | |

ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

O&M manual	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
As-built drawings	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Maintenance logs	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks _____			

Site-Specific Health and Safety Plan	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Contingency Plan/Emergency Response Plan	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks _____			

O&M and OSHA Training Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
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Permits and Service Agreements

Air discharge permit	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Effluent discharge	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A

Groundwater Monitoring Records	<input type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Daily Access/Security Logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A

ACCESS AND INSTITUTIONAL CONTROLS (Show location on a site map)

Fencing damaged Gates secured N/A
Signs and other security measures In place N/A

Institutional Controls (ICs)

Implementation and enforcement

Site conditions imply ICs not properly implemented Yes No N/A
Site conditions imply ICs not being fully enforced Yes No N/A

Adequacy ICs are adequate ICs are inadequate N/A

Vandalism/trespassing evident Yes No N/A

Land use changes on site Yes No N/A

GENERAL SITE CONDITIONS

Roads Damaged Adequate N/A

GROUNDWATER/SURFACE WATER REMEDIES

Groundwater Extraction Wells, Pumps, and Pipelines

Pumps, Wellhead Plumbing, and Electrical

Good condition All required wells properly operating Needs Maintenance N/A

Surface Water Collection Structures, Pumps, and Pipelines

Collection Structures, Pumps, and Electrical

Good condition Needs Maintenance N/A

Monitoring Data

Groundwater plume is effectively contained Contaminant concentrations are generally declining

Monitored Natural Attenuation

Monitoring Wells (natural attenuation remedy)

Properly secured/locked Functioning Routinely sampled Good condition
 All required wells located Needs Maintenance

Five-Year Review Site Inspection Checklist

SITE INFORMATION

Site name: Railcar Off-Loading Facility (RA 2)

Date of inspection: June 6, 2006

Site Location: Fort Wainwright, Alaska

Operable Unit OU3

Site Map Attached

EPA Region: 10

EPA ID: AK6210022426

Agency, office, or company leading the five-year review: U.S. Army Environmental Center

Weather/temperature: Partly cloudy, mild temperatures

Remedy Includes: (Check all that apply)

Landfill cover/containment

Monitored natural attenuation

Access controls

Groundwater containment

Institutional controls

Vertical barrier walls

Groundwater pump and treatment

Surface water collection and treatment

Other: Air Sparge / Soil Vapor Extraction

ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

O&M manual

Readily available

Up to date

N/A

As-built drawings

Readily available

Up to date

N/A

Maintenance logs

Readily available

Up to date

N/A

Remarks _____

Site-Specific Health and Safety Plan

Readily available

Up to date

N/A

Contingency Plan/Emergency Response Plan

Readily available

Up to date

N/A

Remarks _____

O&M and OSHA Training Records

Readily available

Up to date

N/A

Permits and Service Agreements

Air discharge permit

Readily available

Up to date

N/A

Effluent discharge

Readily available

Up to date

N/A

Groundwater Monitoring Records

Readily available

Up to date

N/A

Daily Access/Security Logs

Readily available

Up to date

N/A

ACCESS AND INSTITUTIONAL CONTROLS (Show location on a site map)

Fencing damaged Gates secured N/A
Signs and other security measures In place N/A

Institutional Controls (ICs)

Implementation and enforcement

Site conditions imply ICs not properly implemented Yes No N/A
Site conditions imply ICs not being fully enforced Yes No N/A

Adequacy ICs are adequate ICs are inadequate N/A

Vandalism/trespassing evident Yes No N/A

Land use changes on site Yes No N/A

GENERAL SITE CONDITIONS

Roads Damaged Adequate N/A

GROUNDWATER/SURFACE WATER REMEDIES

Groundwater Extraction Wells, Pumps, and Pipelines

Pumps, Wellhead Plumbing, and Electrical

Good condition All required wells properly operating Needs Maintenance N/A

Surface Water Collection Structures, Pumps, and Pipelines

Collection Structures, Pumps, and Electrical

Good condition Needs Maintenance N/A

Monitoring Data

Groundwater plume is effectively contained Contaminant concentrations are generally declining

Monitored Natural Attenuation

Monitoring Wells (natural attenuation remedy)

Properly secured/locked Functioning Routinely sampled Good condition
 All required wells located Needs Maintenance

Five-Year Review Site Inspection Checklist

SITE INFORMATION

Site name: MP 2.7 and 3.0

Date of inspection: **June 6, 2006**

Site Location: Fort Wainwright, Alaska

Operable Unit OU3

X Site Map Attached

EPA Region: 10

EPA ID: AK6210022426

Agency, office, or company leading the five-year review: U.S. Army Environmental Center

Weather/temperature: Partly cloudy, mild temperatures

Remedy Includes: (Check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Landfill cover/containment | <input checked="" type="checkbox"/> Monitored natural attenuation |
| <input type="checkbox"/> Access controls | <input type="checkbox"/> Groundwater containment |
| <input checked="" type="checkbox"/> Institutional controls | <input type="checkbox"/> Vertical barrier walls |
| <input type="checkbox"/> Groundwater pump and treatment | <input type="checkbox"/> Surface water collection and treatment |
| <input type="checkbox"/> Other _____ | |

ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

O&M manual	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	X N/A
As-built drawings	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	X N/A
Maintenance logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	X N/A

Remarks _____

Site-Specific Health and Safety Plan	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Contingency Plan/Emergency Response Plan	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A

Remarks _____

O&M and OSHA Training Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	X N/A
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Permits and Service Agreements

Air discharge permit	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	X N/A
Effluent discharge	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	X N/A

Groundwater Monitoring Records	<input type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Daily Access/Security Logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	X N/A

ACCESS AND INSTITUTIONAL CONTROLS (Show location on a site map)

Fencing damaged Gates secured **X** N/A
Signs and other security measures In place **X** N/A

Institutional Controls (ICs)

Implementation and enforcement

Site conditions imply ICs not properly implemented Yes **X** No N/A
Site conditions imply ICs not being fully enforced Yes **X** No N/A

Adequacy **X** ICs are adequate ICs are inadequate N/A

Vandalism/trespassing evident Yes **X** No N/A

Land use changes on site Yes **X** No N/A

GENERAL SITE CONDITIONS

Roads Damaged **X** Adequate N/A

GROUNDWATER/SURFACE WATER REMEDIES

Groundwater Extraction Wells, Pumps, and Pipelines

Pumps, Wellhead Plumbing, and Electrical

Good condition All required wells properly operating Needs Maintenance **X** N/A

Surface Water Collection Structures, Pumps, and Pipelines

Collection Structures, Pumps, and Electrical

Good condition Needs Maintenance **X** N/A

Monitoring Data

X Groundwater plume is effectively contained Contaminant concentrations are generally declining

Monitored Natural Attenuation

Monitoring Wells (natural attenuation remedy)

X Properly secured/locked **X** Functioning **X** Routinely sampled **X** Good condition
X All required wells located **X** Needs Maintenance

Note: A few of the wells were observed to have frost-jacked and may need to be replaced

Five-Year Review Site Inspection Checklist

SITE INFORMATION

Site name: Ft Wainwright Landfill

Date of inspection: June 6, 2006

Site Location: Fort Wainwright, Alaska

Operable Unit OU4

Site Map Attached

EPA Region: 10

EPA ID: AK6210022426

Agency, office, or company leading the five-year review: U.S. Army Environmental Center

Weather/temperature: Partly cloudy, mild temperatures

Remedy Includes: (Check all that apply)

Landfill cover/containment

Monitored natural attenuation

Access controls

Groundwater containment

Institutional controls

Vertical barrier walls

Groundwater pump and treatment

Surface water collection and treatment

Other _____

ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

O&M manual

Readily available

Up to date

N/A

As-built drawings

Readily available

Up to date

N/A

Maintenance logs

Readily available

Up to date

N/A

Remarks _____

Site-Specific Health and Safety Plan

Readily available

Up to date

N/A

Contingency Plan/Emergency Response Plan

Readily available

Up to date

N/A

Remarks _____

O&M and OSHA Training Records

Readily available

Up to date

N/A

Permits and Service Agreements

Air discharge permit

Readily available

Up to date

N/A

Effluent discharge

Readily available

Up to date

N/A

Groundwater Monitoring Records

Readily available

Up to date

N/A

Daily Access/Security Logs

Readily available

Up to date

N/A

ACCESS AND INSTITUTIONAL CONTROLS (Show location on a site map)

Fencing damaged Gates secured N/A
Signs and other security measures In place N/A

Institutional Controls (ICs)

Implementation and enforcement

Site conditions imply ICs not properly implemented Yes No N/A
Site conditions imply ICs not being fully enforced Yes No N/A

Adequacy ICs are adequate ICs are inadequate N/A

Vandalism/trespassing evident Yes No N/A

Land use changes on site Yes No N/A

GENERAL SITE CONDITIONS

Roads Damaged Adequate N/A

GROUNDWATER/SURFACE WATER REMEDIES

Groundwater Extraction Wells, Pumps, and Pipelines

Pumps, Wellhead Plumbing, and Electrical

Good condition All required wells properly operating Needs Maintenance N/A

Surface Water Collection Structures, Pumps, and Pipelines

Collection Structures, Pumps, and Electrical

Good condition Needs Maintenance N/A

Monitoring Data

Groundwater plume is effectively contained Contaminant concentrations are generally declining

Monitored Natural Attenuation

Monitoring Wells (natural attenuation remedy)

Properly secured/locked Functioning Routinely sampled Good condition
 All required wells located Needs Maintenance

Five-Year Review Site Inspection Checklist

SITE INFORMATION

Site name: EQFS / WQFS / Chena River

Date of inspection: **June 6, 2006**

Site Location: Fort Wainwright, Alaska

Operable Unit OU5

X Site Map Attached

EPA Region: 10

EPA ID: AK6210022426

Agency, office, or company leading the five-year review: U.S. Army Environmental Center

Weather/temperature: Partly cloudy, mild temperatures

Remedy Includes: (Check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Landfill cover/containment | X Monitored natural attenuation |
| X Access controls | <input type="checkbox"/> Groundwater containment |
| X Institutional controls | <input type="checkbox"/> Vertical barrier walls |
| <input type="checkbox"/> Groundwater pump and treatment | <input type="checkbox"/> Surface water collection and treatment |
| X Other: <u>Air Sparge / Soil Vapor Extraction</u> | |

ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

O&M manual	X Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
As-built drawings	X Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Maintenance logs	X Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A

Remarks _____

Site-Specific Health and Safety Plan	X Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Contingency Plan/Emergency Response Plan	X Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A

Remarks _____

O&M and OSHA Training Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	X N/A
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Permits and Service Agreements

Air discharge permit	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	X N/A
Effluent discharge	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	X N/A

Groundwater Monitoring Records	<input type="checkbox"/> Readily available	X Up to date	<input type="checkbox"/> N/A
Daily Access/Security Logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	X N/A

ACCESS AND INSTITUTIONAL CONTROLS (Show location on a site map)

Fencing damaged Gates secured N/A
Signs and other security measures In place N/A

Institutional Controls (ICs)

Implementation and enforcement

Site conditions imply ICs not properly implemented Yes No N/A
Site conditions imply ICs not being fully enforced Yes No N/A

Adequacy ICs are adequate ICs are inadequate N/A

Vandalism/trespassing evident Yes No N/A

Land use changes on site Yes No N/A

GENERAL SITE CONDITIONS

Roads Damaged Adequate N/A

GROUNDWATER/SURFACE WATER REMEDIES

Groundwater Extraction Wells, Pumps, and Pipelines

Pumps, Wellhead Plumbing, and Electrical

Good condition All required wells properly operating Needs Maintenance N/A

Surface Water Collection Structures, Pumps, and Pipelines

Collection Structures, Pumps, and Electrical

Good condition Needs Maintenance N/A

Monitoring Data

Groundwater plume is effectively contained Contaminant concentrations are generally declining

Monitored Natural Attenuation

Monitoring Wells (natural attenuation remedy)

Properly secured/locked Functioning Routinely sampled Good condition
 All required wells located Needs Maintenance

Fort Wainwright Five-Year Review Public Repository Status Memorandum

Repository Visits

On June 7, 2006, representatives of the U.S. Army Corps of Engineers visited document repositories at the Noel Wien Library (1215 Cowles Street, Fairbanks, Alaska) and the Administrative Record docket at the DPW Environmental Office (Building 3023, Ft Wainwright). The Fort Wainwright Post Library (Building 3700) was not open on that date, but was visited on July 6, 2006 by a representative from FES Inc. The repositories were visited to confirm the availability of documents in the Fort Wainwright NPL Site Administrative Record. This report summarizes the findings of these visits and suggests actions USARAK may take to ensure that complete sets of documents in the Administrative Record are readily available to the public.

Summary of Findings

The following table summarizes the availability of the Administrative Record at each of the three repositories available to the public for this NPL site.

Location	Hard Copy	Microfiche	CDs
Noel Wien Library <u>Contact:</u> Judy Countryman (907) 459-1033	Administrative Record Index Overview of the Installation Restoration Program Records of Decision (RODs) Operable Unit 1 Operable Unit 2 Operable Unit 3 Operable Unit 4 Operable Unit 5	Administrative Record (pages 00001 – 102654) Nothing has been added since the 2001 visit and the file is basically in exactly the same condition as was found in 2001.	Administrative Record, first 9 of 16 CDs (pages 00001 – 78697) Nothing appears to have been added since the 2001 visit
Fort Wainwright Post Library <u>Contact:</u> Betty Luebke (907) 353-3147	Administrative Record Index Informational Repository Records of Decision Operable Unit 1 Operable Unit 2 Operable Unit 3 Operable Unit 4 Operable Unit 5 2001 Five-Year Review	All microfiche has been removed from this location because there is no longer a microfiche reader available; the microfiche was reportedly relocated to the DRMO	Administrative Record, first 9 of 16 CDs (pages 00001 – 78697) Nothing appears to have been added since the 2001 visit
Fort Wainwright DPW Environmental Office (Main Administrative Record/Docket) <u>Contact:</u> Joe Malen (907) 353-4512	Administrative Record index and hard copies of all documents on the record	No microfiche at this location	Administrative Record Entire 16 CD set (pages 00001 – 102654)

Recommendations

Recommendations for maintenance of the Administrative Record are summarized in the following table. As in 2001, suggestions focus on whether to discontinue providing the Record in three different media (hard copy, microfiche, and CD) in favor of one media (CD-ROM), which would still meet the legal requirements for NPL site information repositories. It is understood that decisions to discontinue providing the Administrative Record in hard copy or microfiche will also consider whether public involvement goals for this site would continue to be met.

Location	Hard Copy	Microfiche	CDs
Noel Wien Library	<p>Need copies of 2001 Five-Year Review and the Explanation of Significant Differences (ESD) and let the library know that the document should be kept indefinitely¹</p> <p>Continue to update the collection on a regular basis, unless the decision is made to use CD-ROMs as the exclusive media type</p>	<p>Since microfiche is an outdated media, should consider discarding in favor of CD-ROM. However, if the decision is made to keep this media, the following recommendations apply:</p> <ul style="list-style-type: none"> • Update record with copies of the 2001 Five-Year Review and the ESD • Provide a two drawer microfiche file box to keep collection in order. • Provide placeholder cards to help ensure microfiche are returned to proper location in file box. • Perform periodic maintenance checks to ensure the collection is complete and in proper order 	<p>Need the February 1999 and 2000 updates, as well as copies of the 2001 Five-Year Review and the ESD</p> <p>Since computers are now available for viewing CD-ROMs, should consider making this the primary media for the information repository at this location</p>
Fort Wainwright Post Library	<p>Need copy of the ESD</p> <p>Continue to update the collection on a regular basis, unless the decision is made to use CD-ROMs as the exclusive media type</p>	<p>No action required since no microfiche reader is available at this location</p>	<p>Need the February 1999 and 2000 updates, as well as copies of the 2001 Five-Year Review and the ESD</p> <p>Since computers are now available for viewing CD-ROMs, should consider making this the primary media for the information repository at this location</p>
Fort Wainwright DPW Environmental Office	<p>No action required (i.e., continue to update the collection as reports and other documents become available).</p>	<p>No action required</p>	<p>Update the collection with 2001 edition CDs when available.</p>

¹It is possible that these documents were delivered to the library but then discarded; the librarian indicated that unless someone speaks with her directly and gives her written direction that a document is required to stay for a certain amount of time, or indefinitely, it is discarded after 6 months to a year.

Potential to Discontinue Maintenance of Paper and Microfiche Copies

USARAK and EPA have discussed the possibility of providing the Administrative Record exclusively on CDs for public use, which would: a) simplify maintenance of the Record at locations with appropriately equipped PCs; b) reduce the use of paper and shelf space; and c) be a “friendlier” medium for today’s users than are microfiche. Federal regulations [40 CFR 300.800(c)] state that the lead agency for an NPL site may make the administrative record file available to the public in microform (i.e., microfiche). EPA has indicated that CD's are acceptable as the sole medium for providing the Administrative Record at public repositories if CD-ROM capability is available to users. Computers with the capability to view CD-ROMs are available at both the Noel Wien and the Ft Wainwright Post Libraries.

Another alternative for facilitating public access to the Administrative Record would be for USARAK to post the information currently available on data CDs to the Fort Wainwright internet home pages, which can be accessed using the library’s existing internet stations or any PC equipped to access the World Wide Web.

INTERVIEW FORMS AND RESPONSES

Interview forms were distributed to personnel listed in the table below during this Five-Year Review. Forms were either emailed (in both MSWord and PDF format) or sent by postage mail. The email was sent out on June 14, 2006; postal mail forms were sent on June 19th, 2006. Copies of the email and distribution letter are attached. Returned forms / responses are provided in the proceeding section.

Agency / Affiliation	Name	Method of Delivery	Response
FWA Garrison Commander	LTC Ronald M. Johnson	Postal Mail	No response
Alaska Department of Environmental Conservation (ADEC)	Ann Farris	Email	No response
	Mike Jaynes	Email	No response
	Kent Monroe	Email	No response
	Sharon Richmond	Email	Completed, returned via email
Directorate of Public Works (DPW)	Karen Dearborn	Email	No response
	Therese Deardorff	Email	Completed, returned via fax
	Linda Douglas	Email	Completed, returned via email
	Cristal Fosbrook	Email	No response
	Joe Malen	Email	No response
	Rielle Markey	Email	No response
Army Environmental Center (AEC)	Joe King	Email	No response
Environmental Protection Agency (EPA)	Bill Adams	Email	No response
	Jacques Gusmano	Email	No response
	Dianne Soderland	Email	No response
Restoration Advisory Board (RAB) Members	Ronald Alan Brooks	Postal Mail	No response
	Thomas McCann	Postal Mail	No response

Agency / Affiliation	Name	Method of Delivery	Response
	Christine A. Storey (PDC Inc.)	Postal Mail	Returned, no forwarding address
	Tanana Chiefs Conference	Postal Mail	Completed, returned via mail
	Gerald D. Timmons	Postal Mail	Returned, no forwarding address
	Wayne & Darlene Tolliver	Postal Mail	No response

**INTERVIEW FORMS
DISTRIBUTION EMAIL
AND
TRANSMITTAL LETTER**

Hazlett, Bob C POA

From: Hazlett, Bob C POA
Sent: Wednesday, June 14, 2006 4:08 PM
To: ann_farris@dec.state.ak.us; Adams.Bill@epamail.epa.gov; Fosbrook, Cristal DPW (FTR) POA; Socerlund.Dianne@epamail.epa.gov; Gusmano.Jacques@epamail.epa.gov; Joe King (joseph.king5@us.army.mil); Joseph Malen (joseph.malen@us.army.mil); karen.dearborn@richardson.army.mil; Kent_Monroe@dec.state.ak.us; mike_jaynes@dec.state.ak.us; rielle.markey@wainwright.army.mil; Sharon_Richmond@dec.state.ak.us; therese.dearcorff@richardson.army.mil; Douglass, Linda CIV USA USAG FWA PAO
Cc: Plitnik, Marilyn A POA
Subject: FTW 5-Yr Review - Interview Questionnaire
Attachments: FTW Interview Questionnaire.pdf; FTW Interview Questionnaire.doc

The U.S. Army Corps of Engineers Alaska District has been tasked with preparing the Five-Year Review for remedial activities at the five operable units on Ft Wainwright, Alaska. As part of this review, we would like to get input from those that have been involved with or have had an interest in these projects. With this in mind, we have attached a copy of an interview form for you to fill out. Please go through the questionnaire and answer those questions that are applicable to you.

Please note that the interview form is provided in both MS Word, and PDF format, please use whichever format is preferable. You can return your completed questionnaire via email, fax, or mail. If you would prefer to provide your input via a personal interview, or if you have any questions or comments, please contact us at the following:

Call or Email to:

Marilyn Plitnik (Project Manager)
(907) 753-2881
Marilyn.A.Plitnik@poa02.usace.army.mil

Or

Bob Hazlett (Technical Lead)
(907) 753-2623
Bob.C.Hazlett@poa02.usace.army.mil

Fax to:

Bob Hazlett (907) 753-2820

Mail to:

U.S. Army Corps of Engineers
Alaska District
ATTN: CEPOA-PM-E (Marilyn Plitnik)
P.O. Box 6898
Elmendorf AFB, AK 99506-6898

7/14/2006



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
P.O. BOX 898
ANCHORAGE, ALASKA 99506-0898

JUN 19 2006

CEPOA-EN-EE-A (200-1f)

PDC, Inc. Consulting Engineers
ATTN: Ms. Christine A. Storey
1028 Aurora Drive
Fairbanks, Alaska 99709

Dear Ms.Storey:

The U.S. Army Corps of Engineers Alaska District has been tasked with preparing the Five-Year Review for remedial activities at the five operable units on Ft Wainwright, Alaska. As part of this review, we would like to get input **from** those that have been involved with or have had an interest in these projects. With this in mind, we have attached a copy of an interview form for you to fill out. Please go through the questionnaire and answer those questions that are applicable to you.

You can return your completed questionnaire via fax (907-753-2820) or mail (using the self-addressed envelope enclosed). If you would like to receive an electronic copy of this form, or would prefer to provide your input via a personal interview, or if you have any questions or comments, please contact me at Marilyn.A.Plitnik@poa02.usace.army.mil or (907) 753-2881.

FOR THE COMMANDER:

Sincerely,

MARILYN A. PLITNIK
Army Environmental
Project Manager

Enclosures:

**INTERVIEW FORM
RESPONSES**

**FORT WAINWRIGHT FIVE-YEAR REVIEW
INTERVIEW QUESTIONNAIRE**

INTERVIEW RECORD	
Name: Linda Douglass	
Title: Post Public Affairs Officer	Organization: Public Affairs Office
Telephone No.: (907) 353-6701	E-Mail Address: douglasl@wainwright.army.mil
Street Address: 1060 Gaffney Road, #5900	City, State, Zip: Fort Wainwright, AK 99703-5900
Interview Date: 15 Jun 06	Site Name: Fort Wainwright
Interview Type: <input type="checkbox"/> Telephone <input type="checkbox"/> Visit <input checked="" type="checkbox"/> Email <input type="checkbox"/> Questionnaire (by mail)	
<u>Specific Site Involvement</u>	
Operable Units(s) Worked: <input checked="" type="checkbox"/> OU1 <input checked="" type="checkbox"/> OU2 <input checked="" type="checkbox"/> OU3 <input checked="" type="checkbox"/> OU4 <input checked="" type="checkbox"/> OU5	
Date(s) of Involvement: unknown	
Title / Position (with respect to sites): Post Public Affairs Officer	

The following general questions were adapted from the EPA's Comprehensive Five-Year Review Guidance. Please answer any questions that are applicable; if you need more space, you may attach a separate sheet.

INTERVIEW QUESTIONS

1. *What is your overall impression of the work conducted at the site? (general sentiment)*
Positive

2. *From your perspective, what effect have remedial operations at the site had on the surrounding community?*

Community members appear to be satisfied that the Army has taken steps to solve the problems. I'm not aware of any public dissatisfaction.

3. *Are you aware of any concerns from the local community regarding the site, operation, administration, implementation, or overall protectiveness of the remedies in the Record of Decision?*

No

4. *Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities?*

No

5. *Are you aware of any changes in land use, access, or other site conditions that have occurred since the last 5-Year Review (2001) that you feel may impact the protectiveness of the site?*

No

6. *Are there regular on-site inspections and/or operation, maintenance and monitoring (OMM) presence at the site? What is the frequency of O&M site inspections and activities?*

Not applicable to PAO

7. Have there been unexpected O&M difficulties or costs at the site since start-up or in the last five years?

N/A

8. Have there been any significant changes in the O&M requirements, maintenance schedules, or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy?

N/A

9. Have there been opportunities to optimize the operation, maintenance, or sampling efforts? Please describe changes, cost savings, and/or improved efficiency.

N/A

10. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?

The Environmental staff has been good about keeping the public informed, and responsive to questions. Excellent group of people for working a sensitive issue with public.

**FORT WAINWRIGHT FIVE-YEAR REVIEW
INTERVIEW QUESTIONNAIRE**

INTERVIEW RECORD	
Name: <u>Therese Deardorff</u>	Organization: <u>USAG AK APW</u>
Title: <u>RPM</u>	E-Mail Address: <u>therese.deardorff@us.army.mil</u>
Telephone No.: <u>907 384 2716</u>	City, State, Zip: <u>FT RICHMOND 99505</u>
Street Address: <u>HTWS 3MAA-FAA-10WE</u>	Site Name: <u>FORT WAINWRIGHT</u>
Interview Date: <u>16 JUNE 2006</u>	Interview Type: <input type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Email <input checked="" type="checkbox"/> Questionnaire (by mail)
Specific Site Involvement	
Operable Units(s) Worked: <input type="checkbox"/> OU1 <input checked="" type="checkbox"/> OU2 <input checked="" type="checkbox"/> OU3 <input type="checkbox"/> OU4 <input type="checkbox"/> OU5	Date(s) of Involvement: <u>1996 - PRESENT</u>
Title / Position (with respect to sites): <u>RPM</u>	

The following general questions were adapted from the EPA's Comprehensive Five-Year Review Guidance. Please answer any questions that are applicable; if you need more space, you may attach a separate sheet.

INTERVIEW QUESTIONS

- 1. What is your overall impression of the work conducted at the site? (general sentiment)**

The work is generally progressing as planned.

- 2. From your perspective, what effect have remedial operations at the site had on the surrounding community?**

They allowed for adjournment of the RAB. Upon the community co-chair's recommendation, and by consensus of the general RAB, the RAB was adjourned. Continuation of the quarterly newsletter was requested and is on-going.

3. Are you aware of any concerns from the local community regarding the site, operation, administration, implementation, or overall protectiveness of the remedies in the Record of Decision?

No

4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities?

Some vandalism of fences at OUB/BHFF was reported
w/o damage to any treatment equipment.

5. Are you aware of any changes in land use, access, or other site conditions that have occurred since the last 5-Year Review (2001) that you feel may impact the protectiveness of the site?

New site Park Gardens
EQFS, building proposed w/ areas of IAs but it
will remain industrial

6. Are there regular on-site inspections and/or operation, maintenance and monitoring (OMM) presence at the site? What is the frequency of O&M site inspections and activities?

Yes
Quarterly to annually at a minimum

7. Have there been unexpected O&M difficulties or costs at the site since start-up or in the last five years?

Prior to last 5 year review, escalated cost requirements warranted an ESD for O&M - but work was also significantly increased.

Up until FY06, there have been no major \$ issues. No budget may make things more difficult in future years - end of FY06.

8. Have there been any significant changes in the O&M requirements, maintenance schedules, or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy?

No. N/A

9. Have there been opportunities to optimize the operation, maintenance, or sampling efforts? Please describe changes, cost savings, and/or improved efficiency.

(O&M+S)
I believe the frequency of our meetings w/ regulators and contractors allows us to alter monitoring (O&M+S) quicker. This, then, allows for greater cost savings. Blasting wells appear to have increased efficiency allowing for quicker shut down of systems.

10. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?

No
(The RPTs are great! 😊)

**FORT WAINWRIGHT FIVE-YEAR REVIEW
INTERVIEW QUESTIONNAIRE**

INTERVIEW RECORD	
Name: Sharon Richmond	
Title: Environmental Program Specialist	Organization: Alaska Department of Environmental Conservation
Telephone No.: (907) 451-2158	E-Mail Address: sharon_richmond@dec.state.ak.us
Street Address: 610 University Ave.	City, State, Zip: Fairbanks, AK 99709
Interview Date: 7/18/06	Site Name: Fort Wainwright
Interview Type: <input type="checkbox"/> Telephone <input type="checkbox"/> Visit <input checked="" type="checkbox"/> Email <input type="checkbox"/> Questionnaire (by mail)	
<u>Specific Site Involvement</u>	
Operable Units(s) Worked: <input checked="" type="checkbox"/> OU1 <input checked="" type="checkbox"/> OU2 <input checked="" type="checkbox"/> OU3 <input checked="" type="checkbox"/> OU4 <input checked="" type="checkbox"/> OU5	
Date(s) of Involvement: July 2003 to present	
Title / Position (with respect to sites): Project Manager / State regulator	

The following general questions were adapted from the EPA's Comprehensive Five-Year Review Guidance. Please answer any questions that are applicable; if you need more space, you may attach a separate sheet.

INTERVIEW QUESTIONS

- 1. *What is your overall impression of the work conducted at the site? (general sentiment)***

Very good. Work performed meets objectives.

- 2. *From your perspective, what effect have remedial operations at the site had on the surrounding community?***

I don't get very many public inquiries about this facility but I do tell callers that the Army is doing a good job and the State has a good working relationship with them and the EPA. Callers are generally pleased to hear this positive reinforcement.

3. Are you aware of any concerns from the local community regarding the site, operation, administration, implementation, or overall protectiveness of the remedies in the Record of Decision?

There was some public concern regarding housing construction near the Birch Hill Tank Farm (OU3) but it was due to the misperception that contamination from the Tank Farm had contaminated the new housing construction site. I provided current monitoring information and site status and they were satisfied that contamination was not an issue.

There has been some public concern regarding contamination discovered during various construction activities but the Army keeps site workers and the public informed, as necessary.

4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities?

The new owner of the property adjacent to the Birch Hill Tank Farm (OU3) destroyed a number of shallow and bedrock aquifer monitoring wells that were part of the Birch Hill Tank Farm groundwater monitoring program. This action was performed without Army, EPA or ADEC approval. RPMs are evaluating how to address this matter.

5. Are you aware of any changes in land use, access, or other site conditions that have occurred since the last 5-Year Review (2001) that you feel may impact the protectiveness of the site?

How will newly discovered contamination, such at the FTWW 102 Communications site (Taku Gardens) the 5 year review? Also, land use has changed from industrial to residential in a number of other locations.

6. Are there regular on-site inspections and/or operation, maintenance and monitoring (OMM) presence at the site? What is the frequency of O&M site inspections and activities?

Yes. Multiple treatment systems have regularly scheduled OM&M, typically on a weekly basis when systems are operational and less frequently when systems are shut down for the season.

7. Have there been unexpected O&M difficulties or costs at the site since start-up or in the last five years?

The treatment system at Buildings 2111/2112 had to be installed partially below grade because the sites are located on an active airfield with height restrictions. This configuration caused seasonal flooding and equipment malfunctions. This problem has since been corrected. I have no comment on costs.

8. Have there been any significant changes in the O&M requirements, maintenance schedules, or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy?

Many treatment systems have been shut down for rebound testing. These systems had reached a point of diminishing return or RAOs had been met. Continued groundwater monitoring is in place at all sites where treatment systems have been shut down. Should contaminant concentrations rise, systems will be restarted or other treatment strategies will be evaluated and implemented. At other sites, sampling frequency has been reduced because contaminant concentrations have clearly been stable or decreasing. These actions do not affect protectiveness or effectiveness of the remedy.

9. Have there been opportunities to optimize the operation, maintenance, or sampling efforts? Please describe changes, cost savings, and/or improved efficiency.

Yes. It has been possible, for example, to shut down thermal oxidizers in OU5, thereby reducing operation and monitoring expenses. Some sites have had a reduction in sampling frequency because it has been clearly demonstrated that contaminant concentrations are stable or receding. Many sparge points at several sites were successfully redeveloped, which greatly increased treatment effectiveness. We have also had the opportunity to implement a Triad-style, dynamic work-plan approach at some sites, which has greatly increased site investigation efficiency. Other treatment systems, for example the AS/SVE systems at the DRMO, have been reconfigured to maximize treatment effectiveness in remaining hot spots.

10. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?

I am very satisfied with the management of this facility.

**FORT WAINWRIGHT FIVE-YEAR REVIEW
INTERVIEW QUESTIONNAIRE**

INTERVIEW RECORD	
Name: <i>ROBERT SATTLEY</i>	
Title: <i>ENVIR. QUALITY ANALYST</i>	Organization: <i>TANANA CHIEFS CONFERENCE</i>
Telephone No.: <i>907 452-8251</i>	E-Mail Address: <i>rsattler@tananachiefs.org</i>
Street Address: <i>122 FIRST AVE. Suite 600</i>	City, State, Zip: <i>FAIRBANKS, AK 99701</i>
Interview Date: <i>9/16/06</i>	Site Name: <i>FORT WAINWRIGHT</i>
Interview Type: <input type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Email <input checked="" type="checkbox"/> Questionnaire (by mail)	
Specific Site Involvement	
Operable Units(s) Worked: <input type="checkbox"/> OU1 <input type="checkbox"/> OU2 <input type="checkbox"/> OU3 <input type="checkbox"/> OU4 <input type="checkbox"/> OU5	
Date(s) of Involvement:	
Title / Position (with respect to sites): <i>Participated in RAB M795.</i>	

The following general questions were adapted from the EPA's Comprehensive Five-Year Review Guidance. Please answer any questions that are applicable; if you need more space, you may attach a separate sheet.

INTERVIEW QUESTIONS

- 1. What is your overall impression of the work conducted at the site? (general sentiment)**

The Army has such a substantial level of funding into the IRL.

- 2. From your perspective, what effect have remedial operations at the site had on the surrounding community?**

The investigations reveal the suspected and known extent of the hazardous waste issues - and become available for public review in the IRL administrative record at the local library.

3. **Are you aware of any concerns from the local community regarding the site, operation, administration, implementation, or overall protectiveness of the remedies in the Record of Decision?**

Only the discovery of hazardous waste during construction projects last summer and this year.

4. **Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities?**

Issues stemming from inadvertent discoveries during construction.

5. **Are you aware of any changes in land use, access, or other site conditions that have occurred since the last 5-Year Review (2001) that you feel may impact the protectiveness of the site?**

—

6. **Are there regular on-site inspections and/or operation, maintenance and monitoring (OMM) presence at the site? What is the frequency of O&M site inspections and activities?**

—

7. *Have there been unexpected O&M difficulties or costs at the site since start-up or in the last five years?*

8. *Have there been any significant changes in the O&M requirements, maintenance schedules, or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy?*

9. *Have there been opportunities to optimize the operation, maintenance, or sampling efforts? Please describe changes, cost savings, and/or improved efficiency.*

10. *Do you have any comments, suggestions, or recommendations regarding the site's management or operation?*

Given the discoveries of hazardous waste during construction the past two years - perhaps a new phase of investigations is warranted for those areas.

Table F-1. Source Areas Listed by Operable Unit
(as defined in Attachment A of the Federal Facilities Agreement)

Source Areas in Operable Unit 1

Source Area	Aliases (Name Changes)	Removal / Interim Actions	Disposition	Current Status
Alaska Railroad Storage Yard			NFA 6-Jan-95	
Beacon Tower landfill	Beacon Tower Drum Site		NFA 26-Jun-92	
Blair Lakes Drum Site		Drum removal	NFA 25-Jul-94	
Birch Hill Radioactive Waste Site			NFA 21-Mar-93	
Building 1128	Building 1128 Transformer Yard Drum Site		NFA 26-Jun-92	
Building 1567			NFA 10-Apr-95	
Building 1599			Transferred 2-Party	
Building 2077			Transferred 2-Party	IC under 2-Party Agreement
Building 2250			Transferred 2-Party	LTM 2-Party
Building 3015			NFA 10-Apr-95	Closed 2-Party
Burial Site M			NFA 26-Jun-92	
Chemical Warfare Disposal Area	Chemical Agent Dump Site	Interim Action ROD	NFA	
Drum Site West of DRMO	Site N-4		NFA OU1 ROD	
Blair Lakes Alpha Impact Area	Former Explosives Ordnance Detonation (EOD) Range		Transferred OU5 ROD	
Motor Pools Buildings (13 sites) *	1053, 1054, 1168, 3015, 3421(2), 3425(2), 3479(2), 3485(2), 3487		Transferred OU5 ROD	NFA OU5 ROD
Runway Radioactive Waste Site			NFA 26-Jun-92	
Trainor Gate Railroad Spur			NFA 30-Sep-92	

Source Areas in Operable Unit 1

Source Area	Aliases (Name Changes)	Removal / Interim Actions	Disposition	Current Status
Building 3019	Transformer Storage Yard East of 3019		NFA 25-Jul-94	
Utilidor Expansion Drum Site			NFA 26-Jun-92	
<u>Sites moved from OU2 to OU1 after FFA signature</u>				
Drum Site South of the Landfill		Removal	NFA 25-Jul-94	
Engineer Park Drum Site		Removal	NFA 25-Jul-94	
801 Drum Burial Site		Removal	ROD OU1	Remedial Action

Bldgs 1053, 1054, 1168, 3015, 3421A&B, 3425A&B, 3479, 3480, 3485A&B, and 3487.

*Motor Pools Buildings included:

Source Areas in Operable Unit 2

Source Area	Aliases (Name Changes)	Removal / Interim Actions	Disposition	Current Status
Building 1168	Bldg 1168 Leach Well		ROD OU2	LTM
Building 3477			NFA 13-Jan-94	
801 Drum Burial Site		Transferred OU1	ROD OU1	Remedial Action
Tar Sites (4)			NFA 3-Jun-94	ADEC Solid Waste
Engineer Park Drum Site		Transferred OU1	NFA OU1 ROD	
Drum Site South of the Landfill	N-4	Transferred OU1	NFA OU1 ROD	
DRMO	DRMO 1&4			Remedial Action
<u>Sites added after FFA signature</u>				
North Post Site		Removal	Transferred 2-Party / OU2 ROD	LTM

Source Areas in Operable Unit 3

Source Area	Aliases (Name Changes)	Removal / Interim Actions	Disposition	Current Status
Fairbanks Fuel Terminal	Birch Hill Tank Farm; Remedial Area 1B		OU3 ROD and ESD	Remedial action
Fairbanks-Eielson Pipeline	Milepost 2.7 & 3.0 and 15.75		OU3 ROD and ESD	Remedial action
<u>Sites added after FFA signature</u>				
Railcar Off-Loading Facility	ROLF		OU3 ROD and ESD	Remedial action
Remedial Area 1A	Birch Hill Above Ground Storage Area		Transferred OU5 ROD	Remedial Action

Source Areas in Operable Unit 4

Source Area	Aliases (Name Changes)	Removal / Interim Actions	Disposition	Current Status
Landfill			OU4 ROD	Remedial Action
Power Plant Coal Yard	CSY		OU4 ROD	Remedial Action
Fire Training Pits	FTP	Removal	NFA 1-Sep-96	

Source Areas in Operable Unit 5

Source Area	Aliases (Name Changes)	Removal / Interim Actions	Disposition	Current Status
Open Burning/Open Detonation	OB/OD		NFA OU5	RCRA Deferred
<u>Sites referred to OU5 from other Operable Units</u>				
Blair Lakes Alpha Impact Area	Former Explosives Ordnance Detonation (EOD) Range		Transferred from OU1	NFA OU5 ROD
Motor Pools Buildings (13 sites)	1053, 1054, 1168, 3015, 3421(2), 3425(2), 3479(2), 3485(2), 3487		Transferred from OU1	NFA OU5 ROD
Fairbanks Fuel Terminal AST	Remedial Area 1a / Birch Hill Tank Farm ASTs		Transferred From OU3	Remedial Action
<u>Sites added after FFA signature</u>				
WQFS	WQFS 1, 2, 3		OU5 ROD	Remedial Action
	WQFS 4		Transferred 2-Party / OU5 ROD	NFA
EQFS			OU5 ROD	Remedial Action

Additional No Further Action Sites in Operable Unit 5 - 10 April 1995		
Ammo Storage	Floor Drains	One Lane Bridge
Blair Lakes Maneuver Area	Former Sewage Treatment Plant	South Side Treatment Plant Storage Area
Bldg 3026, Pest Control Shop	Former Storage Area	Trailer Park Open Dump
Bldg 4065, Hospital	Gravel Pit	Vehicle Wash Stations
Clear Creek Landfill	In-Service Transformers	Vet Clinic Leach field / Incinerator
Dennis Manor Riverbank Dump	North Wastewater Treatment Plant	Water Treatment Plant
Dry Cleaning Shop		

Table F-2. POL TWO-PARTY LISTED SITES TRACKING TABLES
September 2006

**POL SOURCE AREAS
CONDUCTING ACTIVE TREATMENT or INSTITUTIONAL CONTROLS**

SITE IDENTIFICATION		SITE STATUS REPORT
<p>Building 2111/2112</p> <p>Active Air Sparging</p> <p>DERA</p> <p>Final 1999 Sys Eval Rpt, Aug 00 D/O; Chem Data Rpt, Spr 00 g/w monitoring Sep 00, COE; Draft 2000 System Operating Report, Feb 01, D/O</p>	<p>IAP #:FTWW-087 ADEC #:199031X021832 /199331X013302 TNK #254-257/332-334 ADEC FILE Number: 108.26.006/108.26.013</p>	<p>Buildings 2111/2112 were decommissioned in July 1995 when refueling operations shifted to a FARP (the temporary refueling point until another system was constructed). Completion of the demolition, excavation, and removal of Buildings 2111/2112 and the associated USTs/piping was completed in June 1996. Remediation of former Bldgs 2111/2112 will be through an air sparging treatment system which commenced summer 1996. <u>Jan 99:</u> Oct 98 samples show Benzene in g/w at 840 ppb; DRO at 4900 ppb; & GRO at 24K ppb. System operation will continue. <u>Apr 01:</u> System will be optimized to better treat hot spots. Sampling pre and post operation will continue. Reference UPC #FTW125.2004: Spring GW sampling occurred. System startup in May April 05, Fall gw sampling conducted week of October 15, 04. Three new wells installed <u>July 2006:</u> New monitoring wells installed to replace wells that were underwater during break up 19 September 2006 Treatment System off for rebound. Will evaluate starting treatment system in 07.</p>
<p>Building 3570-Neely Road</p>	<p>IAP #:FTWW-101 ADEC #:200131x125601 TNK # ADEC FILE Number:108.38.078</p>	<p>2002 Site discovery and release investigation 2003: 2003: GW sampling to occur in 2004. ROST report being finalized. 2004: Site investigation completed and additional wells installed. Workplan for TRTMT/monitoring completed. 2005:Elevated DRO,GRO,Benzene and 1,2 Dichloroethane in AP-9003. Chloromethane in well AP-8213 AS/SVE system with air oxidizer started up. Air complaints 2006: AS system only with air trtmt . System run only part of summer due to complaints. C.Soil Piles onsite over summer.</p>

**POL SOURCE AREAS
UNDERGOING LONG-TERM MONITORING**

SITE IDENTIFICATION		SITE STATUS REPORT
<p>Building 1002 [FTWW-095{3A}]</p> <p>LTM</p> <p>DERA</p> <p>Final 2000 Final Status Report and Respiration Testing, Bldgs 1002, 1168 and 2250, FWA, Dec 00</p>	<p>IAP #:FTWW-095 ADEC #:199531X924402 TNK #202 ADEC FILE Number:108.26.030</p>	<p>A combined air sparging/bioventing treatment system was installed and activated at Building 1002 during the Release Investigation. Monitoring of the system will be conducted to assess remediation progress and to determine when remediation has occurred. Aug 98: Clean confirmatory samples are anticipated. <u>Oct 98</u> samples show benzene still above MCLs (29.7ppb). System will run for another season, through 1999. <u>Apr 01:</u> Benzene remains high (21.5 ppb); system will operate in 2001. Reference UPC # FTW125. ** A closure letter has been received from ADEC for the 35 cubic yards of soil removed from the tank excavation. 2002: AS/SVE system discontinued. 2003 Trtmt system decommissioned. <u>May 2004:</u> LongTermMonitoring plan Sample one well every other year. Next monitoring event April 05, No sampling was conducted in 2004.<u>June 05 July 2006:</u> <u>No action required.</u></p>
<p>Building 1168 [FTWW-097{3A}]</p> <p>LTM</p> <p>DERA</p> <p>Final 2000 Final Status Report and Respiration Testing, Bldgs 1002,</p>	<p>IAP #:FTWW-097 ADEC #:199531X924302 TNK #213 ADEC FILE Number:108.38.067.06</p>	<p>A combined air sparging/bioventing treatment system was installed and activated at Building 1168 during the Release Investigation. Monitoring of the system will be conducted to assess remediation progress and to determine when remediation has occurred. (Separate from the UST is a dry well (oil/water separator) which falls under the Three Party OU 2, currently operating a air sparging/soil vapor extraction treatment system installed in the winter of 1994, now off and being removed.) <u>Fall 1998:</u> Results warrant continued operation of system for at least another year. New SVE wells to be installed in 1999. <u>Apr 01:</u> Results low enough to warrant system being turned off; G/w will be sampled yearly; soil every 3 years (LTM Plan being developed.) Reference UPC # FTW125. ** A closure letter has been received from ADEC for the 165 cubic yards of soil removed from the tank excavation. 2003: Trtmt system decommissioned May 04 – decommissioned 3 dry wells. Next</p>

SITE IDENTIFICATION		SITE STATUS REPORT
1168 and 2250, FWA, Dec 00		<i>monitoring event summer 05 July 2006: Conditional Closure Letter issued in March 2005</i>

**POL SOURCE AREAS
UNDERGOING LONG-TERM MONITORING**

SITE IDENTIFICATION		SITE STATUS REPORT
<p align="center">Building 1172 [FTWW-098 {3A}]</p> <p align="center">NFA</p> <p align="center">DERA</p> <p align="center">DRO at .43 ppm g/w</p> <p>Tech Memo: G/W Monitoring, Mar 00(COE)</p>	<p>IAP #:FTWW-098 ADEC #:199331X013303 TNK #215 216 ADEC FILE Number:108.26.019</p>	<p><i>Reference an ADEC letter dated February 16, 1996 regarding the State's position on this site. ADEC concurs with semi-annual groundwater monitoring to determine if the downward trend of DRO contamination is continuing and to be certain that the downward trend or nondetection of GRO and BTEX compounds has stabilized or has not recurred. <u>Feb 99</u>: Site will be sampled once in 1999; based on those results, closure will be negotiated with state. <u>Apr 01</u>: State will evaluate for closure. Reference UPC # FTW125 2003 No Action, 2004 No Action 2005 No Action Letter from ADEC 23 Mar 2005 This site appears to be ready for NFRAP.</i></p>
<p align="center">Building 2062 & 2063</p> <p align="center">GW 5.2 ppm DRO Soil 14K ppm DRO</p> <p align="center">Intrinsic Remediation</p> <p align="center">VENC</p> <p>Draft Work Plan Sep 99; COE 17 Apr 00 well installation report 2005 Sampling Report Two Party Sites Dec. 2005 FES</p>	<p>IAP #: ADEC #:199531X034802/199531X034804 TNK #244/245 ADEC FILE Number:108.38.082,108.26.036 108.38.082 108.26.036</p>	<p><i>The Work Plan and Pilot Study Plan for the Release Investigation has been completed for this source area. The RI work was completed during the summer of 1996. Work consisted of installing and sampling soil and groundwater probes. Based upon the RI report, intrinsic remediation will begin on this site began in 1997 and will run through 1998. <u>Feb 99</u>: Based on Sep 98, recommend LTM continue while active remediation discussed. <u>Apr 01</u>: Awaiting 2000 results/report; LTM should continue. Reference UPC # FTW125 2004.GW sampling occurred..10 wells and installed one new well to be sampled Fall 05 2005 Sampling 7 wells sampled. DRO only contaminant of concern, but concentrations exceed ADEC cleanup levels. Highest DRO value 12.0 ppm.</i></p>
<p align="center">Building 2077 (FTWW-003{2A})</p> <p align="center">Intrinsic Remediation</p> <p align="center">DERA</p> <p align="center">Benzene 127 ppb g/w DRO 2.1 ppm g/w Benzene 31.1 ppm soil</p> <p>2000 Status Report and Respiration Testing Bldg 2077, FWA, Nov 00, ENSR</p>	<p>IAP #:FTWW-003 ADEC #:199031X921807 TNK # ADEC FILE Number:108.38.021</p>	<p><i>This site was part of OU-1. Investigation results indicate contamination of groundwater and soil with DRO, heavy metals, PAH, and BTEX. This site was investigated under OU-1's Management Plan. Due to the types of contamination at this stie, RPMs have agreed (in the OU-1 ROD) that this source area will be transferred to and remediated under the Two-Party Agreement. A soil vapor extraction system was installed Summer of 1997. Aug 98: Clean confirmatory sampling expected. <u>Dec 98</u>: results indicate benzene still above MCLs in G/W (1500 ppb), as well as DRO/GRO. System will continue to run. Expansion or removal action to be discussed. <u>Apr 01</u>: No expansion will take place. Small removal action planned for Summer 01; system should operate around removal action. LTM plan will be developed post-removal sampling. 2003: Removal Action occurred. 2004 Installed one new monitoring well. Gw sampled in new well. Elevated concentrations of GRO and Benzene remain..Next monitoring event scheduled summer of 05. 2005: June 05 monitoring even showed elevated levels of GRO and benzene. Hopefully levels will decrease because of the substantial removal action. <u>July 2006</u>: No Action</i></p>

**POL SOURCE AREAS
UNDERGOING LONG-TERM MONITORING**

SITE IDENTIFICATION		SITE STATUS REPORT
<p>Building 2250 (Golf Course) [FTWW-100 {3A}]</p> <p>Active SVE/AS</p> <p>DERA</p> <p>DRO 1.58 ppm g/w DRO 15,100 ppm soil</p> <p>Final 2000 Status Report & Respiration Testing, Bldgs 1002, 1168 & 2250 Dec 00 (ENSR)</p>	<p>IAP #:FTWW-100 ADEC #:199531X924403 199031X921803 TNK #UNK ADEC FILE Number:108.38.081</p>	<p>ADEC closure has been obtained for the unknown 500- gallon gasoline tank; however, ADEC closure has not been obtained for the contamination that exists at the site unrelated to the UST. A combined air sparging/soil vapor extraction treatment system was installed and activated during the Release Investigation. <u>Feb 99</u>: Based on 98 sampling results, system operation will continue. Additional SVE wells may be added in 1999. <u>Apr 01</u>: Continue operation converting new soil borings into new SVE/AS wells; write 01 report with eye toward State requirements for ACLs. Reference UPC #FTW125 2004: ROST study completed. Replaced SVE Blower. GW sampling occurred in May/June. 2004: CLOSES report. Contaminant is DRO Only. Recommend conditional closure. Sample 2 wells for DRO only once every 5 years. 2005: Sampling in June show43d an overall decrease in DRO but an increase in DRO in downgradient wells.</p>
<p>Building 3425 [FTWW-89;NFA]</p> <p>Soil removal completed July 1997</p> <p>VENC</p> <p>Benzene 17 ppb g/w DRO 2.6 ppm g/w GRO 2.9 ppm g/w</p> <p>Tech Memo: G/W Monitoring, March 00(COE)</p>	<p>IAP #:FTWW-089 ADEC #:199031X025901 TNK #323 ADEC FILE Number:108.26.014</p>	<p>Reference an ADEC letter dated February 16, 1996 regarding the State's position on this site. ADEC recommends semi-annual groundwater monitoring, to determine if the upward trend of DRO contamination is continuing. The isolated soil contamination, which is believed to be the result of a surface spill, was excavated and thermally remediated as a removal action under a contract. July 98: Upon removal of all soils, and receipt of the sampling results, the site was to be recommended for closure: <u>Feb 99</u>: This has already been closed in DSERTS. However, 1998 results show a small plume with elevated benzene levels (35 ppb). Another round of sampling will take place early 1999 to determine next step. <u>Apr 01</u>: Site was not sampled in 00; after 01 sampling event, will be evaluated for potential decreases in monitoring requirements. Reference UPC # FTW125 <u>July 2006</u>: No Action</p>
<p>Building 3481 (Motor Pool) FTWW-056; {3A}]</p> <p>LTM</p> <p>Benzene .43 ppb g/w GRO .77 ppm g/w DRO 2.4 ppm g/w</p> <p>DERA</p> <p>Tech Memo: G/W Monitoring, Mar 00(COE)</p>	<p>IAP #:FTWW-056 ADEC #:199031X021829 TNK #275 276 ADEC FILE Number:108.26.017</p>	<p>Reference an ADEC letter dated February 16, 1996 regarding the State's position on this site. ADEC concurs with semi-annual groundwater monitoring to determine if the downward trend of DRO contamination is continuing and to be certain that the detection of GRO and BTEX compounds has not recurred. This groundwater sampling event should be tied to the sampling of Building 3483, since the RI revealed the commingling of the groundwater plumes for both buildings. Semi-annual monitoring has been conducted. <u>Feb 99</u>: Monitoring will continue to ensure natural attenuation is occurring and when cleanup levels are reached. <u>Apr 01</u>: Site not sampled in 00; upon 01 event, will evaluate decrease in monitoring requirements. Reference UPC # FTW125 <u>July 2006</u>: No Action</p>

**POL SOURCE AREAS
UNDERGOING LONG-TERM MONITORING**

SITE IDENTIFICATION		SITE STATUS REPORT
<p>Building 3483 (Motor Pool) [FTWW-057 {3A}]</p> <p style="text-align: center;">LTM</p> <p style="text-align: center;">DERA</p> <p>May 00 benzene 5.8 ppb g/w DRO 3.25 ppm g/w Sep 00</p> <p>Apr 00 Draft 99 Monitoring Report, Bldgs 1546 & 3483 (H/C)</p>	<p>IAP #:FTWW-057 ADEC #:199231X026002 TNK # 277 278 ADEC FILE Number: 108.26.005</p>	<p>A soil vapor extracting/air sparging treatment system was installed by FERtech Environmental Systems (FERtech) in the fall of 1994 to remediate the soil contamination at Building 3483. Prior to FERtech's bankruptcy, the treatment system operated for several months. Harding Lawson and Associates assumed the treatment system, conducted an assessment of the system, installed system modifications where required, and began running the system in the summer of 1995. <u>Feb 99</u>: Based on 98 results, and benzene rebounds, spring 99 sampling event will determine if rebound occurred while system off. System may be run another year if warranted; if not, LTM and site closure plans will be negotiated. <u>Apr 01</u>: Upon receipt of 00 report, will evaluate LTM requirements. Reference UPC #FTW125 <u>2004</u>: ADEC agreed to decommission trtmt systems. <u>July 2006</u>:</p>
<p>Building 3562 (PX) [FTWW-086 {3A}]</p> <p style="text-align: center;">NFA</p> <p>Bldg 3562 PX Service Station (bldg 3562) Confirmational G/W sampling TM, 8/00, COE</p>	<p>IAP # FTWW-086 ADEC #:199031x021806 TNK# 279-282 ADEC FILE Number: 108.26.025</p>	<p>Remediation of contamination at this site is through an air sparging/soil vapor extraction treatment system. Confirmation soil borings were completed on 25 June 1995 to access the effectiveness of the treatment system. The treatment system will be operated at this site until remediation of the existing contamination is accomplished. <u>Aug 98</u>: Written closure letter received from State July 98, setting forth LTM until below MCLs. LTM will continue. <u>Apr 01</u>: Followed State requirements for LTM; met conditions of letter. State will review for final closure. Reference UPC # FTW125. <u>July 2006</u>: No new action</p>
<p>Building 3564 (Standby gen plant) [FTWW-099 {3A}]</p> <p style="text-align: center;">LTM</p> <p style="text-align: center;">DERA</p> <p>Benzene 5.5 ppb g/w 00 results</p> <p>Bldg 3564 Ann Rpt 7/99-7/00, Jan 01 (CH2); draft LTM Plan (CH2)</p>	<p>IAP #:FTWW-099 ADEC #:199531x924201 TNK # 283,284 ADEC FILE Number: 108.26.028</p>	<p>Remediation of contamination at this site commenced in the summer of 1996 by implementing an air sparging/soil vapor extraction treatment system. <u>Feb 99</u>: System recommended to run through 1999 season. LTM Plan will be recommended in next report. Building will be demolished in 1999; system will have to be off during the process. <u>Apr 01</u>: Bldg demo'd in 99, system restarted and ran until July 00. Will evaluate report and develop LTM Plan. System to be decommissioned/moved in 01. Reference UPC # FTW125 <u>2002</u>: Continue LTM and evaluate rebound <u>2003</u>: no action <u>2004</u>: gw sampling occurred. 8 wells sampled DRO and RRO exceeded cleanup levels. Plume not increasing. <u>2005</u>: 4 of 6 wells exceeded ADEC cleanup levels for DRO <u>July 2006</u>:</p>
<p>Building 5110 [FTWW-085 {3A}]</p> <p style="text-align: center;">Intrinsic remediation/LTM</p> <p style="text-align: center;">DERA</p> <p>Benzene 98 ppb g/w BTEX 2078 ppb g/w GRO 10K ppb g/w DRO 270K ppb g/w</p> <p>Coe, G/W Monitoring Report, March 2000 (COE)</p>	<p>IAP #:FTWW-085 ADEC #:199231x131002 TNK #317 ADEC FILE Number: 108.38.037</p>	<p>Reference an ADEC letter dated February 16, 1996 regarding the State's position on this site. ADEC concurs with semi-annual groundwater monitoring to determine if the downward trend in BTEX, DRO, and GRO continues and to monitor the downgradient early warning wells to ensure that potential offsite receptors are not threatened. Semi-annual monitoring has been conducted since 1996 <u>Feb 99</u>: 1998 results show no migration is occurring. Wells will continue to be monitored, and IR will continue for second year. <u>Apr 01</u>: Site not sampled in 00; will be sampled in 01 and LTM Plan evaluated for decrease in frequency after results reviewed. Reference UPC # FTW125. ** A closure letter has been received from ADEC for the unknown quantity of soil removed from the tank excavation. <u>2002</u>: Determine frequency of monitoring <u>2003</u> Draft Closes Report <u>2004</u> No Action <u>2005</u> Groundwater monitoring occurred.</p>

**POL SOURCE AREAS
UNDERGOING LONG-TERM MONITORING**

SITE IDENTIFICATION		SITE STATUS REPORT
<p>North Post Sites 3 and 4</p> <p>North Post Site 3: CLOSED</p> <p>North Post Site 4: (FTWW-050 {1A})</p> <p>LTM</p> <p>DRO 273 ppm 7/99 g/w 1,2,4 TMB 16.6 ppb g/w 1,3,5 TMB 13 ppb 3/99 g/w</p> <p>DERA</p> <p>1999 Monitoring Report, No Post & DRMO, Jun 00 (H/C)</p>	<p>IAP #: FTWW-050 ADEC #: 199031x921811 TNK # ADEC FILE Number</p>	<p>The North Post Site was referred from Two-Party to Three Party Operable Unit 2, where extensive investigations were conducted. Based on those investigations, the North Post Site was referred back to the Two-Party and will be addressed as such. The proposed remediation for North Post Site 4 was an air sparging/soil vapor extraction treatment system and PAH soil excavation and thermal remediation. The treatment system was installed in the summer of 1996. <u>Feb 99</u>: Based on 1998 results, system operation will continue with possible modifications to system. <u>Apr 01</u>: Awaiting report to determine LTM Plan. System was shut off in Nov 00, and was last sampled at that time. System will not be removed yet this summer. ** A closure letter has been received from ADEC for North Post Site 3 and the 1,240 cubic yards of soil generated from both North Post Sites 3 and 4. <u>2004</u> GW Sampling occurred. 10 wells were sampled. Need to verify gw flow direction and assess natural attenuation. CLOSES report complete DRO contamination with benzene in one small area. Need rebound information. If no rebound Army will request conditional closure.</p>

**POL SOURCE AREAS
MISCELLANEOUS ITEMS**

SITE IDENTIFICATION		SITE STATUS REPORT
<p>Vehicle Wash Rack Forward Air Refueling Point (FARP)</p> <p>NFA: Not a CERCLA Restoration Site</p>	<p>IAP #: CC FTWW 001 ADEC #: 199531X134801 TNK # 924 ADEC FILE Number: 108.26.034</p>	<p>The Work Plan and Pilot Study Plan for the Release Investigation has been completed for this source area. The RI work commenced in May 1996 and consists of installing and sampling soil and groundwater probes. It was determined that current operations and practices caused spills and potential contamination in this area. Therefore, this site is not CERCLA eligible, will not be addressed under the Two-Party POL Agreement, and no closure letter is required. Action at this site will be addressed IAW 18 AAC 75. One well AP-9081 installed as close as possible to wells installed during 1996 release investigation. GRO and DRO detected at concentrations below ADEC cleanup levels. No BTEX. DRP and GRP present, but below Cleanup levels. Moved into the Compliance Cleanup Program.</p>

**POL SOURCE AREAS
REFERRED TO ANOTHER PROGRAM or OPERABLE UNIT**

ITE IDENTIFICATION		SITE STATUS REPORT
<p>Building 1053 [FTWW-005; NFA]</p>	<p>IAP #:FTWW-005 ADEC #:199031-921805 TNK # ADEC FILE Number: 108.38.071.0</p>	<p>Referred from Two-Party to Three Party OU 5, removing this site from the Two-Party Agreement. ADEC closure is not required for this site. **A closure letter has been received from ADEC for the 10 cubic yards of soil removed from the tank excavation, since the soil is being handled under the Two-Party.</p>
<p>Buildidng 1054</p>	<p>IAP# ADEC #: 199431x107702 TNK# ADEC FILE Number: 108.38.068</p>	<p>NFA for Soils.. Groundwater referred to OU5 FTW CERCLA FEDERAL FACILITY AGREEMENT RECOMMENDED ACTION 3 June 1994 ADMIN RECORD Page 50087</p>
<p>Building 1059</p>	<p>IAP #: ADEC #: TNK # ADEC FILE Number:</p>	<p>Referred from Two-Party to Three Party OU 5, removing this site from the Two-Party Agreement. ADEC closure is not required for this site.</p>
<p>Building 1060 [FTWW-088]</p>	<p>IAP #:FTWW-088 ADEC #:199331X013305 TNK #208 ADEC FILE Number: 108.26.012</p>	<p>ADEC closure was received for UST 208. Building 1060 was referred from the Two-Party to OU 5 (Three Party Agreement), based on the upgradient groundwater contamination source. ADEC closure is not required for this site based on the referral to OU 5. This site has an on-going SVE/AS treatment system to address groundwater contamination. Reference UPC # FTW125. ** A closure letter has been received from ADEC for the unknown quantity of soil removed from the tank excavation.</p>
<p>Building 1070</p>	<p>IAP #: ADEC #: TNK # ADEC FILE Number:</p>	<p>Referred from Two-Party to Three Party OU 5, removing this site from the Two-Party Agreement. ADEC closure is not required for this site. ** A closure letter is anticipated from ADEC for the 220 cubic yards of soil removed from the transfer line excavation.</p>
<p>Building 1173</p>	<p>IAP #: ADEC #: TNK # ADEC FILE Number:</p>	<p>Referred from Two-Party to Three Party OU 3, removing this site from the Two-Party Agreement. ADEC closure is not required for this site.</p>
<p>Building 1565 [FTWW-019]</p>	<p>IAP #:FTWW-019 ADEC #: TNK #325 ADEC FILE Number:</p>	<p>Referred from Two-Party to Three Party OU 5, removing this site from the Two-Party Agreement. ADEC closure is not required for this site.</p>
<p>Building 1599 Institutional Controls VENC</p>	<p>IAP FTWW-026 ADEC #:199031X921808 TNK # ADEC FILE Number: 108.38.065</p>	<p>The 1995 OU1 RI revealed only petroleum contamination at levels exceeding ADEC cleanup levels. Therefore, in accordance with the June 1997 ROD for OU1, Building 1599 has been referred to the Two Party Agreement for enforcement of Institutional Controls.</p>

**POL SOURCE AREAS
REFERRED TO ANOTHER PROGRAM or OPERABLE UNIT**

ITE IDENTIFICATION		SITE STATUS REPORT
Building 3595 [FTWW-011]	IAP #:FTWW--11 ADEC #:199331X007101 TNK #295,351,352 ADEC FILE Number: 108.26.021	ADEC closure was received for USTs 295 and 352. Referred from Two-Party to Three Party OU 4 for groundwater contamination unrelated to the USTs, removing this site from the Two-Party Agreement. ADEC closure is not required for the remaining groundwater contamination at this site.
Pipeline Break North Post [FTWW-081]	IAP #:FTWW-081 ADEC #:199031X921811 TNK # ADEC FILE Number: 108.38.069	Referred from Two-Party to Three Party OU 3, removing this site from the Two-Party Agreement. ADEC closure is not required for this site.
DRMO POL Sites (Former Bldgs 5001,3,6) [FTWW-091{1A}] SVE/AS System DERA	IAP #:FTWW-091 ADEC #:199531X924401 TNK #311,312,314,357,358 ADEC FILE Number:	The Site Assessment and Release Investigation reports for Building 5001, USTs 311, 312, 314, 357 and 358, were delivered to ADEC recommending site closure for USTs 311, 312, 357, and 358. A closure letter is anticipated from ADEC for USTs 311, 312, 357, and 358. The soil and groundwater contamination associated with UST 314, 315, and 316 will be addressed with a soil vapor extraction/air sparging treatment system. This system was installed during the Summer of 1996 and will address the downgradient groundwater contamination that has migrated near Building 5006. An additional system may be installed to treat petroleum contaminated soils since Building 5001 has been demolished. <u>Feb 99</u> : 1998 results indicate DRO at 17600 ppb in g/w. System operation will continue. Options for expansion and other alternatives will be discussed. <u>Apr 01</u> : Site will be reviewed in conjunction with OU2 sites; 00 report has not been received. Upon receipt, will evaluate operations/monitoring requirements. Reference UPC # FTW125. ** A closure letter has been received from ADEC for USTs 311, 312, 357, 358, and 23 cubic yards of soil associated with USTs 357/358. After2004 these 2 Party sites will be considered with the OU2 DRMO sites.
Tar Sites (W of FWA So. Post soccer field; Glass Park next to Bldg 4040; NW of the FWA Golf Source; W of Power Plant Cooling Pond)	IAP #:FTWW-078 ADEC #: TNK # ADEC FILE Number: 108.15.001	The sites were reportedly used as tar disposal areas. Because of concerns of leachate release, the sites were included in the FFA for further investigation. Sampling conducted in 1992, and the analytical results of the sampling including TCLP analysis, showed no potential for groundwater contamination. A CERCLA FFA NFA document was signed by the RPMs in 1994. Any further actions associated with these sites will be coordinated with the Solid Waste/Pollution Prevention program of ADEC.

**TWO PARTY SITES REQUIRING
OTHER ACTION or INSTITUTIONAL CONTROLS**

SITE IDENTIFICATION		SITE STATUS REPORT
Birch Hill AST Tank Farm NO ACTION UNTIL TANKS ARE TO BE REMOVED	IAP #: ADEC #: TNK # ADEC FILE Number	The Birch Hill AST Tank Farm was investigated under Operable Unit 3 of the Three Party Agreement. Due to the size and complexity of this site, it was broken out into two sub-areas: subarea 1A, which includes the ASTs (OU5), and subarea 1B (OU3), which includes everything remaining (i.e., the area between the truck fill stand and the base of Birch Hill and the area south of the truck fill stand, which includes Valve Pit A). Subarea 1A was moved from Operable Unit 3 to Operable Unit 5, and will remain a Three Party source area, as stipulated in the Operable Unit 3 Record of Decision. Subarea 1A, the ASTs, was referred from the Three Party, Operable Unit 3, to the Two-Party Agreement. As such, only the ASTs will be addressed under the Two-Party. No action will be taken until such time as the tanks are removed.

**POL SOURCE AREAS
CLOSED UNDER THE TWO-PARTY AGREEMENT**

SITE IDENTIFICATION		SITE STATUS REPORT
Building 1056	IAP #: ADEC #: TNK #325 ADEC FILE Number	UST removed prior to 1988, ADEC closure under the Two-Party Agreement is not applicable.
Building 1168 [FTWW-097{3A}] LTM DERA Final 2000 Final Status Report and Respiration Testing, Bldgs 1002, 1168 and 2250, FWA, Dec 00	IAP #:FTWW-097 ADEC #:199531X924302 TNK #213 ADEC FILE Number:108.38.067.06	A combined air sparging/bioventing treatment system was installed and activated at Building 1168 during the Release Investigation. Monitoring of the system will be conducted to assess remediation progress and to determine when remediation has occurred. (Separate from the UST is a dry well (oil/water separator) which falls under the Three Party OU 2, currently operating a air sparging/soil vapor extraction treatment system installed in the winter of 1994, now off and being removed.) <u>Fall 1998</u> : Results warrant continued operation of system for at least another year. <u>New SVE wells to be installed in 1999.</u> <u>Apr 01</u> : Results low enough to warrant system being turned off; G/w will be sampled yearly; soil every 3 years (LTM Plan being developed.) Reference UPC # FTW125. ** A closure letter has been received from ADEC for the 165 cubic yards of soil removed from the tank excavation. 2003: Trtmt system decommissioned May 04 – decommissioned 3 dry wells. Next monitoring event summer 05 <u>July 2006: Conditional Closure Letter issued in March 2005</u>
Building 1191	IAP #: ADEC #:199531x034801 TNK #219 ADEC FILE Number108.26.040	The Work Plan and Pilot Study Plan for the Release Investigation has been completed for this source area. The RI work was completed during the summer of 1996. Work consisted of installation and sampling soil and groundwater probes. (UPC #FTW125) Based on the draft RI and discussions on 5 Dec 96, a closure letter was received from the State on 28 May 1997. A closure letter was received July 1999, from ADEC for the 60 cubic yards of soil removed from the tank excavation.
Building 1514 [FTWW-063; NFA] Conditional Closure	IAP #:ftww-063 ADEC #:199231x026003 TNK #221-224 ADEC FILE Number108.26.008	Reference an ADEC letter dated February 16, 1996 regarding the State's position on this site. ADEC concurs with semi-annual groundwater monitoring to confirm the downward trend of the contaminant levels and monitor the movement of GRO and BTEX contamination. Semi-annual monitoring has continued, and a downward trend in the contaminant levels, from the 1991 sampling event, has been observed. A closure letter was received from the State on December 17, 1999. Reference UPC # FTW125. ** A closure letter was received July 1999 from ADEC for the unknown quantity of soil removed from the excavation of the tanks.
Bldg 1541	IAP#: ADEC #: TNK # ADEC File Number: 108.26.046	NFA action issued by the state 31 Jan 1996
Bldg 1543		NFA issued by the state 7 Feb 1994
Building 1546 (BLM) [FTWW-062{3A}] No further action.	IAP #:FTWW-062 ADEC #:100231x026001 TNK #227-233 ADEC FILE Number: 108.26.009	A bioventing/air sparging treatment system was installed by FERtech Environmental Systems (FERtech) in the fall of 1994 to remediate the soil contamination at Building 1546. Prior to FERtech's bankruptcy, the treatment system operated for several months. Harding Lawson and Associates assumed the treatment system, conducted an assessment of the system, installed system modifications where required, and began running the system in the summer of 1995. <u>Jan 99</u> : System off to evaluate rebound. G/W below cleanup standards for four events. Will be evaluated for closure end 1999 season. <u>Apr 01</u> : System off, being moved. Closure letter received from State December 17, 1999. Reference UPC # FTW-125.

**POL SOURCE AREAS
CLOSED UNDER THE TWO-PARTY AGREEMENT**

SITE IDENTIFICATION		SITE STATUS REPORT
Building 1563	IAP #: ADEC #:1992310029501 TNK #234 ADEC FILE Number108.26.039	ADEC closure was received removing this site from the Two-Party Agreement. ** A closure letter has been received from ADEC for the 125 cubic yards of soil removed from the tank excavation. A closure letter was received March 8, 2005.
Building 1594	IAP #: ADEC #: TNK # ADEC FILE Number	UST removed prior to 1988, ADEC closure under the Two-Party Agreement is not applicable
Building 2060	IAP#: ADEC#: TNK# ADEC FILE Number: 108.26.042	No GW samples in 2004. 2 Borings drilled within the contaminated zones.. 2005: Conditional Closure. 4 Additional soil borings being collected. NFRAP letter sent 30 NOV 2005
Building 2080	IAP #: ADEC #:199331x013304 TNK #247, 248 ADEC FILE Number 108.38.027, 108.26.027	ADEC closure was received removing this site from the Two-Party Agreement. A closure letter was received from ADEC February 8, 1994.
Building 2092		
Building 2106	IAP #: ADEC #: TNK # ADEC FILE Number	UST removed prior to 1988, ADEC closure under the Two-Party Agreement is not applicable
Building 2108	IAP #: ADEC #:1995310020302 TNK #253 ADEC FILE Number: 108.26.045	ADEC closure was received for the site and the 22 cyds of thermally remediated soil. Closure letter dated January 31, 1996.
Building 3011		Information incomplete
Building 3015 [FTWW-052; NFA] NFA based on signed PSE	IAP #:ftww-052 ADEC #:199331x013301 TNK #264,265 ADEC FILE NUMBER: 108.26.026	ADEC closure was received for USTs 264 and 265 as well as the associated soils, which were thermally remediated. The Release Investigation recommending closure for the 8 seepage pits was delivered to ADEC. Reference UPC#: FTW096. ** A closure letter has been received from ADEC for the eight seepage.
Building 3403	IAP #: ADEC #: TNK # 266 ADEC FILE Number: 108.26.023	ADEC closure was received removing this site from the Two-Party Agreement. A closure letter was received January 31, 1996.

**POL SOURCE AREAS
CLOSED UNDER THE TWO-PARTY AGREEMENT**

SITE IDENTIFICATION		SITE STATUS REPORT
Building 3421	IAP #:ftww-001 ADEC #:199331x013201 TNK #322 ADEC FILE Number: 108.26.018	ADEC closure was received May 26, 1995 removing this site from the Two-Party Agreement. An additional closure letter was received July 11, 2005.
Building 3423 [FTWW-051; NFA]	IAP #:ftww-051 ADEC #:199031x005901 TNK #269,270 ADEC FILE Number: 108.26.007	ADEC closure was received removing this site from the Two-Party Agreement. A closure letter was written January 31, 1996.
Building 3471	IAP #: ADEC #: TNK # ADEC FILE Number	USTs removed prior to 1988, ADEC closure under the Two-Party Agreement is not applicable
Building 3479 [FTWW-090; NFA]	IAP #: ADEC #: TNK # ADEC FILE Number	ADEC closure was received removing this site from the Two-Party Agreement
Building 3484 VENC RI 1999(ENSR)	IAP #: ADEC #: TNK # ADEC FILE Number:	Building 3484 has known POL containimants. The contamination was identified during an upgrade of piping & dispensers in 1998. The building is a fuel facility. Contaminated soil was removed in Aug 98; however, after-action samples indicated POL contamination still remained in soil and groundwater. An RI is ongoing and g/w monitoring will be conducted through 1999. Once results are analyzed, potential future action will be discussed with the State. <u>Mar 99</u> : The RI was discussed with the State. The RI indicated no contamination; State concurred that no action would be required.
Building 3485		Closed as a motorpool with a NFA document in OU5 ROD
Buildiiing 3487		Closed as a motorpool with a NFA documents in the ou5 ROD
Building 3724	IAP# ADEC #: TNK#298 ADEC FILE Number: 108.26.048	Closed with a letterfrom ADEC dated March 8, 2005
Building 4051 NFA	IAP #: ADEC #:199531x034805 TNK #300 ADEC FILE Number: 108.26.038	The Work Plan and Pilot Study Plan for the Release Investigation has been completed for this source area. The RI work was completed during the summer of 1996. Work consisted of installing and sampling soil and groundwater probes. Based upon discussions between USARAK and ADEC on 5 Dec 96 and the RI report, ADEC has recommended closure. A closure letter was received from the State on December 17, 1999. Reference UPC # FTW125.

**POL SOURCE AREAS
CLOSED UNDER THE TWO-PARTY AGREEMENT**

SITE IDENTIFICATION		SITE STATUS REPORT
Building 4057 [FTWW-058; NFA]	IAP #:ftww-058 ADEC #:199031x015702 TNK #303 ADEC FILE Number108.26.010	ADEC closure was received removing this site from the Two-Party Agreement with the OU5 ROD, April 6, 1999.
Building 4065 [FTWW-059; NFA]	IAP #:ftww-059 ADEC #:1996310002302 TNK #304,305 ADEC FILE Number: 108.26.003	USTs removed prior to 1988, ADEC closure under the Two-Party Agreement was received on April 6, 1999 in a No Further Action document.
Building 4110A NFA VENC	IAP #: ADEC #:199531x034806 TNK #307a ADEC FILE Number: 108.26.037	ADEC closure has been obtained for UST 307A and the associated 105 cubic yards of soils from the tank excavation. Although closure has been received for the UST at Building 4110A, the building will remain a Two-Party site until the separate contamination under the building is addressed. During the Site Assessment at Building 4110 a leaking product return line that served the extracted UST was discovered. Fuel discharge was reported to be confined to an area beneath the building and attributed to a loose fitting. The Work Plan and Pilot Study Plan for the Release Investigation has been completed for this source area. The RI work was completed during the summer of 1996, and consisted of installing and sampling soil and groundwater probes. Based upon discussions between USARAK and ADEC on 5 Dec 96 on the preliminary findings, and the final RI report, ADEC has recommended closure. A closure letter was received from the State on December 17, 1999. Reference UPC # FTW125.
Building 4110B Closed	IAP #:ADEC #: TNK #307B ADEC FILE Number	Reference UPC # FTW125. ** A closure letter has been received from ADEC for Building 4110B, UST 307B and the associated soils.
Building 4162	IAP #: ADEC #:1990310020801 TNK #308 ADEC FILE Number: 108.26.033	ADEC closure was received on January 31, 1996, removing this site from the Two-Party Agreement. ADEC additionally completed a closure letter on May 24, 2005.
Building 4247 [FTWW-060; NFA]	IAP #:FTWW-060 ADEC #:199231X131001 TNK #309 ADEC FILE Number: 108.38.036	ADEC closure was received dJJanuary 31, 1996 removing this site from the Two-Party Agreement. ADEC completed a closure letter on May 26, 1995.
Building 5004 [FTWW-061; NFA]	IAP #:FTWW-061 ADEC #:199031X015701 TNK #310 ADEC FILE Number: 108.26.011	ADEC closure was received for the UST 310. Groundwater contamination suggests the possibility of an upgradient source. The investigation for the possible upgradient source was conducted under the Release Investigation for Buildings 5001 and 5003. The remediation of the upgradient groundwater contamination will be addressed with a soil vapor extraction/air sparging treatment system. The system is scheduled to be installed during the Fall of 1996, once Building 5001 has been demolished. ** A closure letter has been received from ADEC for the 74 cubic yards of soil removed from the tank excavation.

**POL SOURCE AREAS
CLOSED UNDER THE TWO-PARTY AGREEMENT**

SITE IDENTIFICATION		SITE STATUS REPORT
Birch Hill [FTWW-064; 2A; RI/FS]	IAP #FTWW-064: ADEC #:199031X021807 TNK #345-355 ADEC FILE Number: 108.26.002	ADEC closure was received for UST 355 removing this UST from the Two-Party Agreement. ADEC closure has not been obtained for the remaining nine sites located at the Birch Hill Tank Farm Site. The Release Investigation for the remaining nine sites located at the Birch Hill Tank Farm Site was conducted in July of 1995 to delineation the extent of contamination associated with the sites. Based on the findings of that investigation, a corrective action was determined to be unnecessary at the nine abandoned Birch Hill UST Tank Farm Sites, since the existing contamination poses no human health risk for site visitors or future site works. The Release Investigation recommends closure for the nine existing sites. Reference UPC # FTW111. ** A closure letter has been received from ADEC for the Birch Hill Tank Farm Site.
Contaminated Soil 1	IAP #: ADEC #:199031X021802 TNK # ADEC FILE Number: 108.26.023	ADEC closure was received removing this site from the Two-Party Agreement
Petroleum Contaminated Soil Piles NFA	IAP #: ADEC #:199231X033601 TNK # ADEC FILE Number:198.26.016	ADEC closure has been obtained for the thermal remediation of the 18,000 cyds of contaminated soil generated for the time period of 1990-1991. The following soil piles, requiring remediation under the Linder Soil Bioremediation Contract, either via bioremediation or thermal desorption, are currently under remediation: Hanger 1, Utilidor Construction, Vehicle Wash Rack (Southeast End of the Runway), Bldg. 1565, Bldg. 2060 (UST 242), Bldg. 2062 (UST 244), Bldg. 2063 (UST 245), Bldg. 2092 (UST 249), Bldg. 3407 (UST 375), Bldg. 3492, Bldg. 3494, Bldg. 3564, Bldg. 4051, Bldg. 5001 (USTs 311, 312, and 314), Bldg. 5006 (UST 316), and Bldg. T-369 (UST 355). Closure of the above soil piles is pending confirmation closure samples showing the soil has been remediated. Reference UPC # FTW114. A closure letter is anticipated from ADEC on July 12, 1999, for the following soil piles, characterized as clean under the Linder Soil Bioremediation Contract: Bldg. 1002, Bldg. 1053, Bldg. 1060, Bldg. 1070, Bldg. 1130, Bldg. 1168 (UST 213), Bldg. 1191, Bldg. 1514, Bldg. 1563, Bldg. 2092 (500 gallon tank), Bldg. 3203, Bldg. 3584, Bldg. 4065 (UST 373), Bldg. 4110B, Bldg. 5001 (soils associated with USTs 357 and 358), Bldg. 5004, Bldg. 5110, BLM Warehouse Extension, Golf Course soils, Gravel Pit Site, North Post Site 3, North Post Site 4, and 801 Drum Site.

Technical Memorandum

Birch Hill Tank Farm Thaw Channel Groundwater Monitoring Plan September 2006

This technical memorandum provides the status and update of discussions and agreements regarding the Thaw Channel Monitoring of Birch Hill Tank Farm.

Background

The property adjacent to the Birch Hill Tank Farm source area was sold in early 2006. The property was purchased by a housing developer for a new housing subdivision, Lazelle Estates. The Army had a right of entry (ROE) permit with the previous owner, Bentley Trust, which provided access to the Army to install and monitor groundwater wells. The new owner removed 8 monitoring wells in April 2006, six owned and installed by the Army and two installed and owned by the University of Alaska, Fairbanks (see Table 1). Only three of the Army's wells were scheduled to be sampled as part of the 2006 OU3 Groundwater Monitoring program for detection of potential off-site migration of contaminants. All six of the Army's wells had been sampled twice a year and no contaminants of concern above ROD levels had been detected since 2000. The UAF wells were installed as part of an early 1990's overall groundwater model for the Fairbanks area. These wells were not funded by the Army and have not historically been a part of the sampling program. Figure 1-*Approximate Locations of Monitoring Wells* shows all wells on the Bentley Trust land. Figure 2 - *Monitoring Well Locations dated 6/06* shows location of wells that have been included in the OU3 Monitoring Plan, the wells highlighted in red are the ones that were removed.

TABLE 1 Summary Table of Decommissioned Wells

Well ID	Lat	Long	Depth to Water (feet BTC)	Total Depth (feet BTC)	Material	Diameter	lbs Sand	lbs Bentonite	Pulled?	Volume Backfilled (ft ³)
AP-7946	64°51.395'	147°40.411'	DRY	18.6	PVC	2"	0	20	Y	0.41
AP-7947	64°51.413'	147°40.218'	13.5	68.7	PVC	2"	100	30	Y	1.50
AP-7948	64°51.413'	147°40.218'	13.5	41.0	PVC	2"	0	25	Y	0.89
AP-7950	64°51.402'	147°40.328'	34.3	37.0	PVC	2"	25	5	Y	0.81
AP-7951	64°51.359'	147°40.266	19.4	63.0	PVC	2"	75	20	Y	1.37
C-12	64°51.405'	147°40.130'	13.0	30.0	PVC	2"	50	5	Y	0.65
UAFML1	64°51.508	147°40.124	Unknown	30.0	PVC	2"	0	50	N	0.65
UAFML1	64°51.508	147°40.124	Unknown	60.0	PVC	2"	--	--	N	--
UAFML1	64°51.508	147°40.124	Unknown	90.0	PVC	2.5"	50	25	N	3.07
UAFML3	64°51.492'	147°40.419'	11.0	25.0	PVC	2"	0	30	N	0.55
UAFML3	64°51.492'	147°40.419'	11.0	50.0	PVC	2"	--	--	N	--
UAFML5	64°51.462'	147°40.410	20.5	37.0	Steel	2"	--	--	Y	--
UAFML6	64°51.448'	147°40.415'	20.7	32.0	Steel	2"	0	30	Y	0.70

BTC = Below Top of Casing -- = Decommissioning not completed, as noted in text.

Initial Technical Memorandum

Although the Army was in active discussions with the new owners to keep the wells on this property and obtain a new ROE, the new owner removed all wells on their property in April

2006. This action led to the development of the memorandum and subsequent updates. The first draft *Technical Memorandum, Birch Hill Tank Farm* was distributed via e-mail 31 May 2006. The initial Technical Memorandum summarized the discussions, actions and agreements of the 18 May 2006 conference call. Attendees included:

Army: Cristal Fosbrook, Therese Deardorff, Mike Gieryic
ADEC (by phone): Sharon Richmond
EPA(by phone): Bill Adams, Mary Queitzsch
COE (by phone): Bob Brock, Bob Hazlett

Updated Technical Memorandum

An updated Technical Memorandum was provided 30 June 2006 to the RPM's (Sharon Richmond, Bill Adams, Cristal Fosbrook and Therese Deardorff).

During the 9 August 2006 Federal Facility Meeting in Fairbanks, Alaska, groundwater information, modeling information, and a current status was provided. In additions, each action items was discussed and an update was provided. The most current update summarizes the agreements and future actions agreed to by the RPM's at the August 9, 2006 FFA.

The text in "bold" summarizes the original discussion and action that the Army would conduct. The updates, June and September, are provided for each of the issues regarding future off-post groundwater monitoring.

- 1. Determine replacement of groundwater monitoring wells, location and number that are required for groundwater monitoring of the ongoing remedial actions at Birch Hill Tank Farm.**

Prior to removal in April, six monitoring wells were being monitored on the former Bentley Trust Property. These wells include CRREL C12, AP7950, AP7946, AP7948, AP7951, and AP7947. These wells were sampled twice a year in accordance with the yearly Operable Unit 3 Work Plans; they were to be sampled twice in 2006 according to the 2006 Operable Unit 3 Work Plan. Groundwater monitoring did occur in April prior to the decommissioning of the wells by the builder, and all samples were below the RAOs set forth in the ROD and ESD.

Action

A new right-of-entry (ROE) will be requested by U.S. Army Garrison Alaska (USAGAK) to obtain access to the former Bentley Trust Land to install replacement wells. The request will be forwarded through USAGAK DPW Realty Officer, to the Army Corp of Engineers Real Estate Division, the Army's agent for ROE permits.

A recommendation for number of wells and locations will be prepared by the Army Contractors for discussion and agreement by the Birch Hill Tank Farm Team

(ADEC, Army, EPA, COE and technical contractors). This request, which will include the recommended number of wells and proposed locations, will be completed and forwarded to COE Real Estate Office no later than July 15, 2006, in order to attempt to obtain the permit in time to complete the fall sampling events.

Update – June 30, 2006:

After further research and discussion, we are recommending that the Fall 2006 sampling event take place and data evaluated prior to determining the need for the off-post replacement wells. Of further concern is if we do request the ROE and obtain permission to install the wells, that if they are reinstalled during the construction process, they are likely to be destroyed. The potential for damage to new wells would remain even if the wells are flush mounted. These can be very expensive wells to reinstall and have to replace again in a short period of time. Waiting until construction is complete will also ease the process, as the approval for wells in roadways would be obtained through the city/borough instead of the current, construction landowner, thus streamlining the process.

Update – August 9, 2006

It was determined by the RPM's the location and number of replacement wells to be installed on the former Bentley Trust land will be evaluated when the new subdivision road system has been built. Utilizing information from modeling activities and the Birch Hill Summary report, locations will be determined by the RPM's. A ROE will be requested from the Fairbanks City/Borough for installations of the wells. Installing replacement wells in the road right-of-way would ensure the wells would not be disturbed or removed during the construction of the housing area. As of early September 2006, no site plan for this subdivision is available.

2. **Determine if the effects of permafrost disturbance on the former Bentley Trust Property might effect the groundwater direction and flow.**

Action

Complete up to four iterations of the Birch Hill thaw channel groundwater model utilizing varying states of permafrost properties. CRREL will develop four versions of the Earth Vision model simulating the thawing permafrost due to clear cutting. The new permafrost model will be incorporated into the Birch Hill Groundwater Model. These actions will require contract modifications to contracts held by CH2M Hill and Opalia (through CRREL). A contract-section schedule will be provided to the RPMs by June 15, 2006.

Update – June 2006

At the recent Birch Hill Summary Report Meeting, four scenarios were developed for modeling the groundwater direction and flow at the base of the hill. CH2M Hill, along with Opalia, will prepare two simulations to present during the 7 August 06 Birch Hill

Summary Meeting in Fairbanks. The two scenarios include updating the 2003 model by adding current information on groundwater elevations, installations of the three new wells and latest permafrost information; and, the second, a scenario that includes the absence of all permafrost on the former Bentley Property. Two other scenarios, permafrost melting below the water table and above the bedrock and permafrost melting from the groundwater source, are being considered for future modeling and will be discussed in August. If additional model runs are required, CH2M Hill and Ophalia will complete by the fall FFA.

Update – August 2006

CH2M Hill and Ophalia provided presentations on the Influence of Permafrost Degradation on Groundwater Flow, Birch Hill Tank Farm. Two simulations of the groundwater model were presented, (1) an update of the current permafrost distribution and fault conditions and (2) all permafrost conditions had degraded and all faults would act as conduit for groundwater flow. It was determined that the second scenario would be unlikely.

It was determined by the team that two additional iterations of the groundwater and permafrost model would be useful. One new permafrost model will be revised to assume approximately a 30% degradation of permafrost, based on a recommendation by a permafrost scientist. The second new iteration of the groundwater will be conducted with all faults frozen. These models will be presented at the fall FFA in December.

- 3. Increase sampling of wells currently sampled IAW the current (2006) Work Plan in the Thaw Channel area from semi-annual to quarterly. Evaluate wells in the immediate area of the Thaw Channel and determine if other wells would assist in the on-going evaluation of groundwater fate and transport.**

ACTION

Groundwater sampling is scheduled to take place in late August or early September. Fairbanks Environmental Services (FES), the current groundwater contractor for the tank farm, will make recommendations to the Team and the RPMs to determine if additional wells will assist in determining groundwater fate and transport. This recommendation will be provided by June 30, 2006.

Update – June 2006

There are two remaining wells located off-post in the Thaw Channel area, both are located on the Shannon Park Baptist Church property. Although it hasn't been sampled for several years per agreement by the RPMs due to consistent non-detects, the Steese Chapel water well also remains available for sampling. There are currently six on-post wells (one of which is a multi-ported well) that are included in the semi-annual groundwater sampling program. A groundwater probe (GWP-98D), which has not been recently sampled, is also located in this area. The wells are screened across a variety of groundwater depths, in both the alluvial and bedrock aquifers. Historically, five of the

wells (the two wells located on the Shannon Park Baptist property and three wells on post) have exceeded the MCL for DCA—although none have exceeded the MCL in the last few years. If the RPMs decide to increase the sampling program to quarterly, it is recommended that these five wells be included (Shannon Park drinking water well, UAFML-7, AP-7844, AP-7845, and AP-5782). This effort can be completed during the fall sampling event. All of these wells are screened within the alluvial aquifer. Figure 2 shows the locations of these wells on an aerial photograph.

Update – August 2006

Fairbanks Environmental Service (FES) conducted sampling of five wells off post in April prior to their removal by the new owners, and the two remaining wells in July. In addition to off post sampling, six on post wells (one of which is a multi-port well) were sampled in both July and August 2006. Sampling results have remained consistent with previous events; a “spider diagram” displaying results was distributed at the meeting. The sampling frequencies of these wells have been increased to quarterly.

- 4. Install a replacement groundwater well on Fort Wainwright property to replace well number C-12.**

Action

Installation of a groundwater monitoring well on Fort Wainwright to replace C-12. This will be completed in time to be sampled as part of the late August groundwater sampling event. FES will provide a schedule for installation with recommendations of the well location and depth to the RPMs by June 30, 2006.

Update – June 2006

After further research and evaluation, we are recommending this well not be replaced at this time. There appear to be adequate monitoring points in this area already, particularly since DCA concentrations have been declining or stable over the last few years. AP-5782 was screened at the same approximately depth as the decommissioned C-12 well. AP-7844 and AP-7845 are both screened slightly deeper than C-12, but are spatially closer to the former location of C-12. GWP-98D, which was installed in 1997 as part of the vertical profiling effort, is also located very close to the former location of C-12. Based on boring logs in adjacent wells, this probe appears to have been screened into bedrock. Figure 3 shows the relative depths of wells/probes in the Thaw Channel area. This has led to the above recommendation.

Update – August 2006

The RPM's are in agreement with the recommendation.

5. Evaluate the effectiveness and need to re-start the Thaw Channel air-sparging system.

Action

FES will provide recommendations to RPMs regarding the pros and cons of operating the Thaw Channel air-sparge system. This will be completed by June 30, 2006.

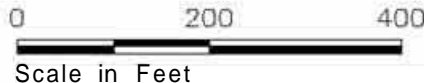
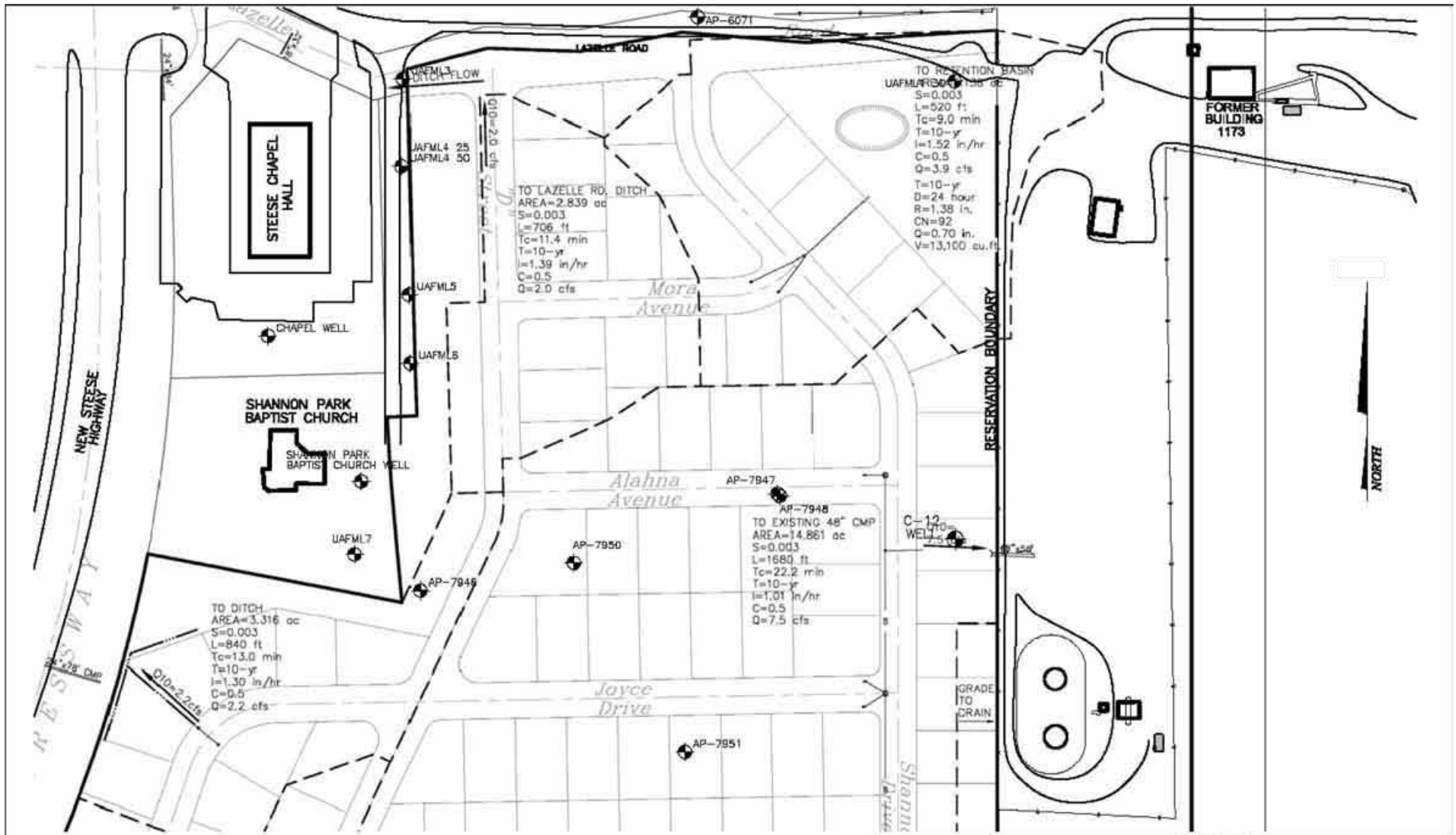
Update – June 2006

After further research and evaluation, we recommend not restarting the Thaw Channel system unless, or until, there is an increasing trend contaminant concentrations on post. A decision to restart the system will include consideration of the following:

- *Effectiveness of the system in reducing contaminant concentrations in this area. As of now, it is unclear of whether this system has been responsible for decreasing contaminant concentrations in the past. A sparge curtain treatment strategy is most effective treating contaminants primarily concentrated near the water table. Contamination in this area has been shown to be more concentrated at deeper depths (at the bedrock interface).*
- *Restarting of the system now will results in disruption of the current rebound evaluation that began last fall, part of which would help determine its effectiveness.*

Update – August 2006

The RPM's are in agreement with the recommendation.



LEGEND

AP-7951
 **MONITORING WELL**

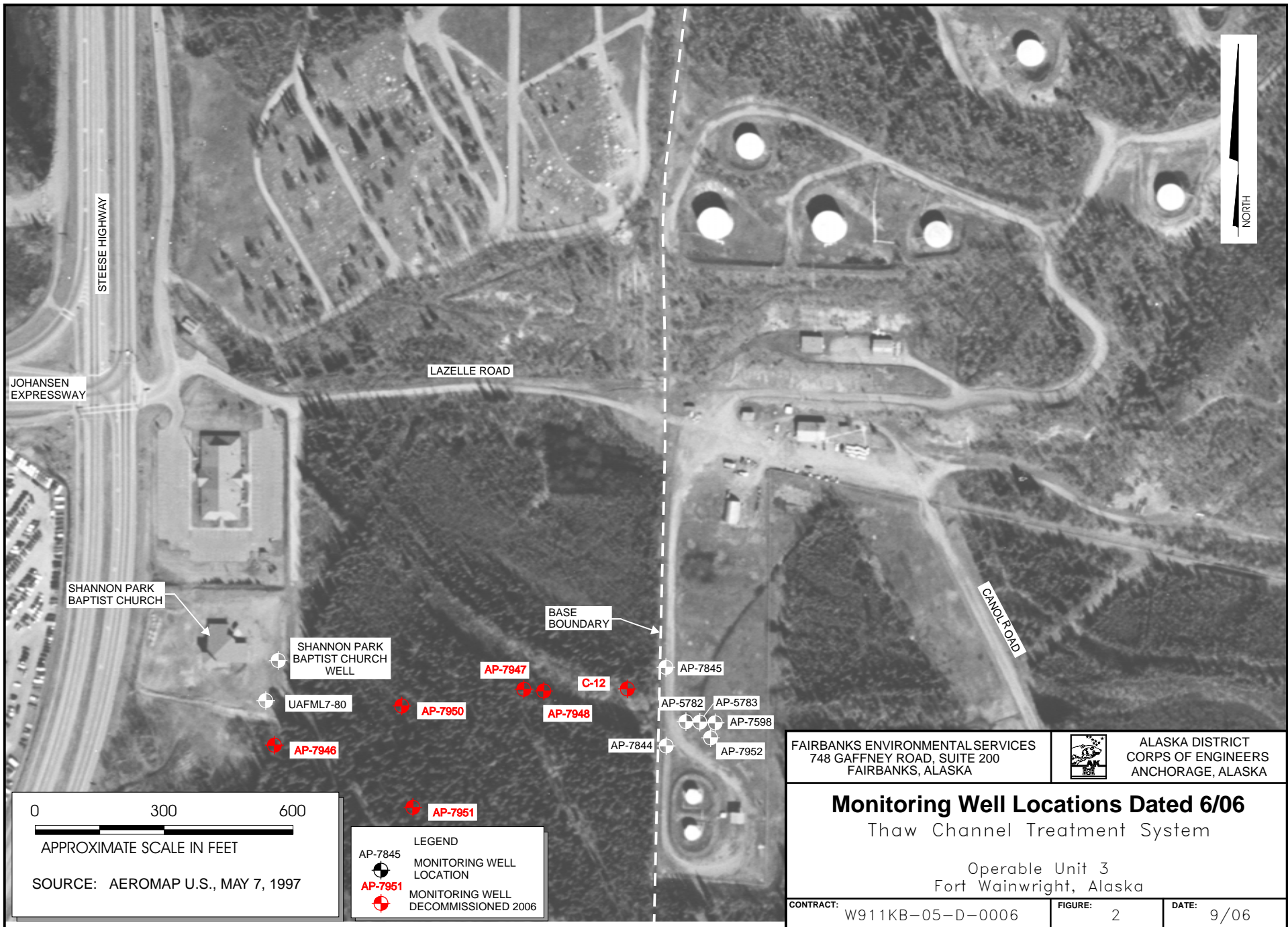
FAIRBANKS ENVIRONMENTAL SERVICES
 748 GAFFNN ROAD, SUITE 200
 FAIRBANKS, ALASKA

 **ALASKA DISTRICT CORPS OF ENGINEERS**
 ANCHORAGE, ALASKA

Approximate Locations of Monitoring Wells

Operable Unit 3
 Fort Wainwright, Alaska

CONTRACT: W911KB-05-D-0006 FIGURE: 1 DATE: 9/06



0 300 600
 APPROXIMATE SCALE IN FEET
 SOURCE: AEROMAP U.S., MAY 7, 1997

LEGEND
 AP-7845
 MONITORING WELL LOCATION
 AP-7951
 MONITORING WELL DECOMMISSIONED 2006

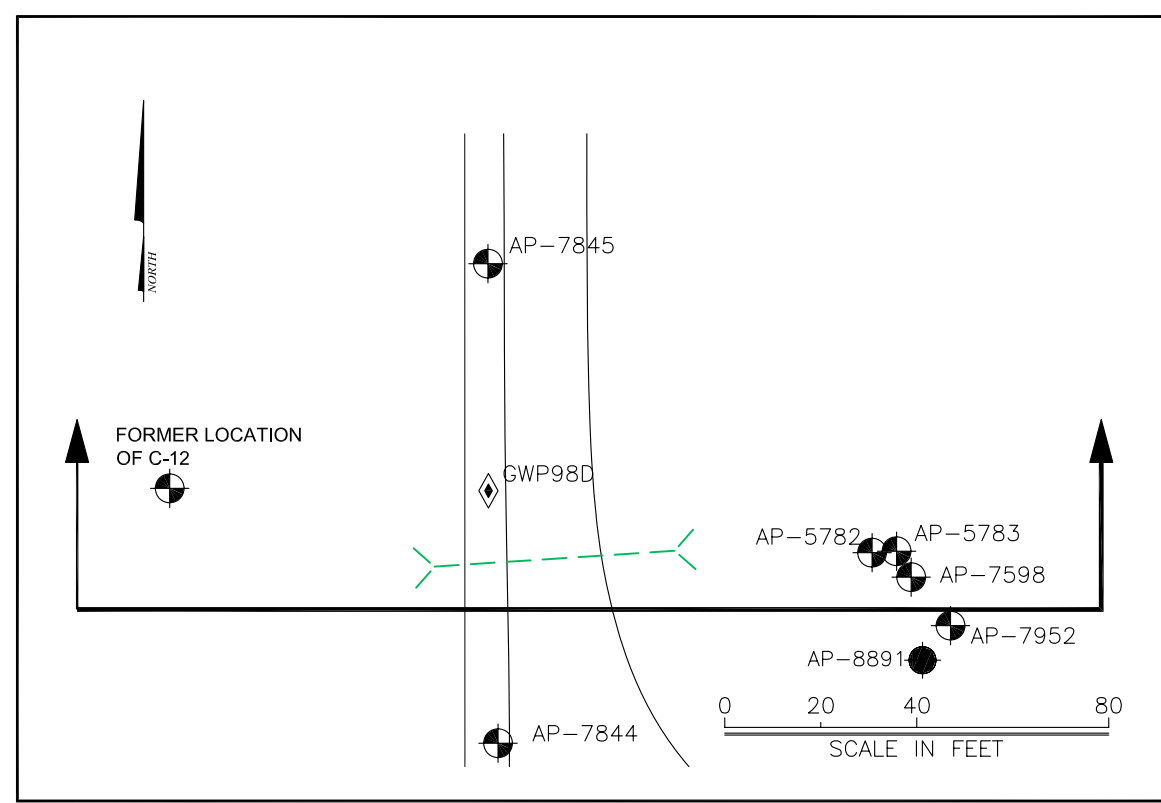
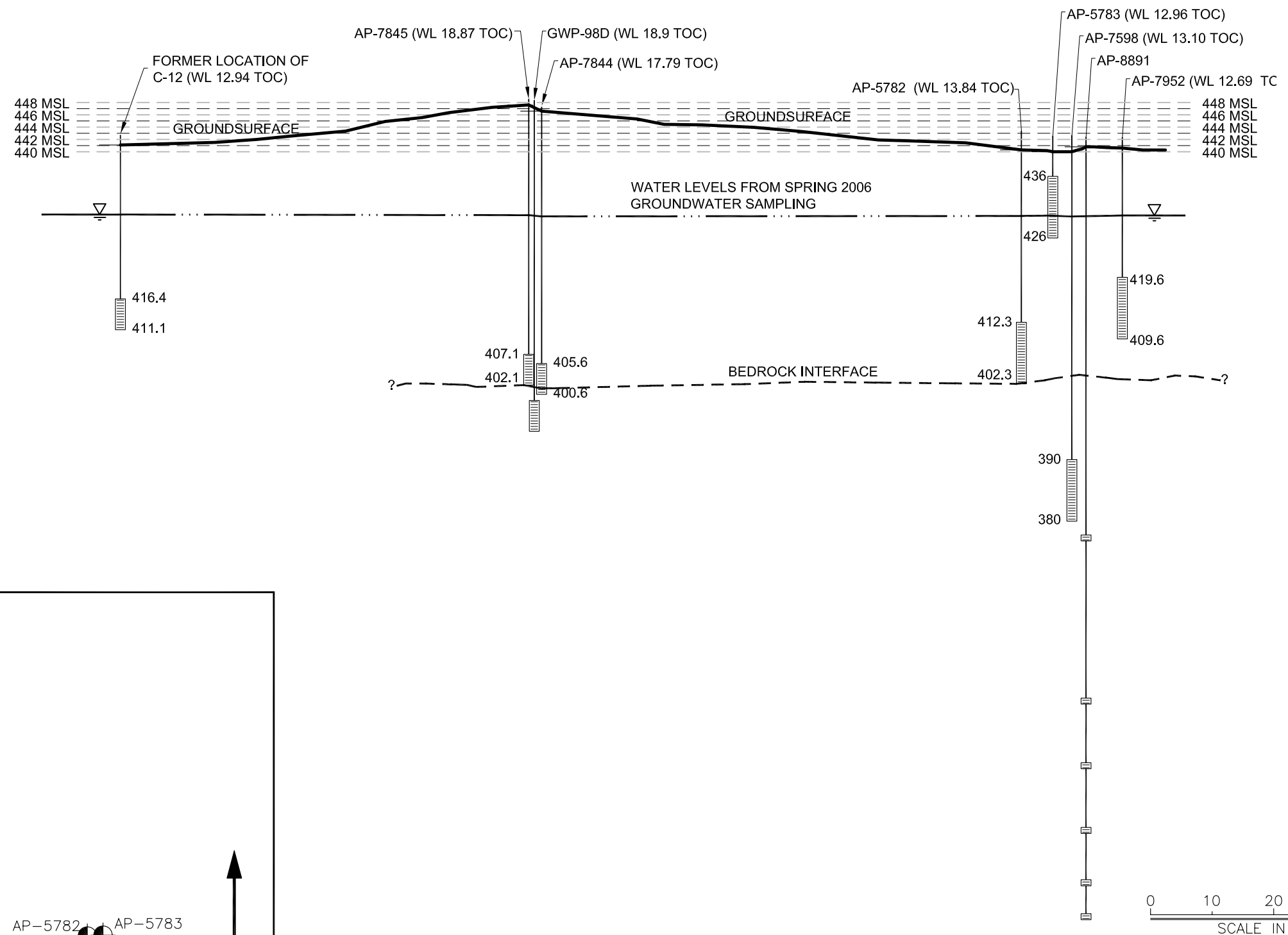
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 FAIRBANKS, ALASKA

ALASKA DISTRICT
 CORPS OF ENGINEERS
 ANCHORAGE, ALASKA

Monitoring Well Locations Dated 6/06
 Thaw Channel Treatment System

Operable Unit 3
 Fort Wainwright, Alaska

CONTRACT: W911KB-05-D-0006	FIGURE: 2	DATE: 9/06
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NOTE
ELEVATIONS SHOWN IN
NAVD 88 DATUM

LEGEND
● AP-5783 MONITORING WELL
LOCATION

FAIRBANKS ENVIRONMENTAL SERVICES 748 GAFFNEY ROAD, SUITE 200 FAIRBANKS, ALASKA		ALASKA DISTRICT CORPS OF ENGINEERS ANCHORAGE, ALASKA
Approximate Screen Elevations at Thaw Channel		
Operable Unit 3 Fort Wainwright, Alaska		
CONTRACT: W911KB-05-D-0006	FIGURE: 3	DATE: 9/06