



United States Department of the Interior

U.S. GEOLOGICAL SURVEY
WATER RESOURCES
677 Ala Moana Blvd., Suite 415
Honolulu, HI 96813
Phone: (808) 587-2400/Fax: (808) 587-2401

October 6, 2003

Ms. Geraldine Bell, Superintendent
Kaloko-Honokohau National Historical Park
U.S. Department of the Interior, National Park Service
73-4786 Kanalani St., #14
Kailua-Kona, Hawaii 96740

Dear Ms. Bell:

Attached are the results of our water, fish, and sediment sampling conducted during August 2002. The results are briefly summarized below.

Water.—Water samples were collected from each of the 3 wells in the Park using a submersible pump. No semi-volatile organic compounds were detected in the water. Note that phenol, which was previously detected in 1997 and 1998 samples, was not detected in the 2002 samples.

Semipermeable Membrane Devices.—Semipermeable membrane devices (SPMDs) were deployed in each of the 3 wells for about a month and analyzed for organochlorine compounds using a custom method (lab code LC8380). Although lindane and DDE were detected in the SPMD samples, these compounds also were detected in the dialysis blank, which indicates laboratory contamination as a likely source. Pentachloroanisole, which is a metabolite of pentachlorophenol, was detected in the SPMD deployed in KAH0 well 2.

Fish.—No organochlorine pesticides were detected in the fish (awa and mullet fillet samples) that humans may consume or the smaller fish and shrimp that native water birds may consume. Mercury in awa and mullet (fillet samples) was found at low concentrations of less than 12 nanograms per gram, and more commonly less than 1 nanogram per gram (wet weight basis). For comparison, the Food and Drug Administration recommends a limit of 1,000 nanograms per gram (1 part per million) for methyl mercury.

Sediment.—Phthalate and naphthalene compounds were detected in sediment samples from both Kaloko and Aimakapa fishponds. In general, phthalate and naphthalene were detected at estimated concentrations below their respective reporting limits. Phthalates are most commonly used as plastacizers, although phthalates also may be found in nail polish, perfume, adhesives, caulking, and paint pigments (see for example <http://www.phthalates.org/whatare/index.asp>).

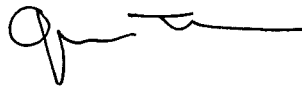
Ms. Geraldine Bell

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Naphthalene is used in insecticides and for making dyes, resins, leather, and tanning agents, and may be produced by burning wood or tobacco (see for example <http://www.atsdr.cdc.gov/tfacts67.html>). Phenol was detected in a sediment sample from the north shore of Aimakapa fishpond at an estimated concentration of 130 micrograms per kilogram.

If you have any questions, please do not hesitate to call me at (808) 587-2405.

Sincerely,

A handwritten signature in black ink, appearing to read 'Gordon Tribble', with a long horizontal line extending to the right.

Gordon Tribble
District Chief

Enclosures

WATER SAMPLES

ANALYTICAL RESULTS FOR SEMI-VOLATILE ORGANIC COMPOUNDS

1. KAHO well 1
2. KAHO well 2
3. KAHO well 3
4. KAHO well 1, field replicate
5. KAHO well 2, source solution blank (organic blank water)
6. KAHO well 3, field blank, performed before sampling

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194120156013501 -- 8-4161-02 KAHOWELL 2

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	Time	FLOW RATE (G/M) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L) (34556)	1,2-DI- PHENYL- HYDRA- ZINE WATER TOT.REC (UG/L) (82626)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L) (34621)	2,4-DI- METHYL- PHENOL TOTAL (UG/L) (34606)	2,4-DI- CHLORO- PHENOL TOTAL (UG/L) (34601)	2,4,- DI- NITRO- PHENOL TOTAL (UG/L) (34616)	
AUG 2002 26...	1645	.14	42	7.3	7.8	9170	22.0	<3	<2	<3	<.7	<3	<3	
Date	Time	2,4-DI- NITRO- TOLUENE TOTAL (UG/L) (34611)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L) (34626)	2- CHLORO- NAPH- THALENE TOTAL (UG/L) (34581)	2- CHLORO- PHENOL TOTAL (UG/L) (34586)	2- NITRO- PHENOL TOTAL (UG/L) (34591)	3,3'- DI- CHLORO- BENZI- DINE TOTAL (UG/L) (34631)	4,6- DINITRO -ORTHO- CRESOL TOTAL (UG/L) (34657)	4- BROMO- PHENYL ETHER TOTAL (UG/L) (34636)	4- CHLORO- PHENYL ETHER TOTAL (UG/L) (34641)	4- NITRO- PHENOL TOTAL (UG/L) (34646)	ACE- NAPHTH- ENE TOTAL (UG/L) (34205)	ACE- NAPHTH- YLENE TOTAL (UG/L) (34200)	2,4,- DI- ANTHRA- CENE TOTAL (UG/L) (34220)
AUG 2002 26...		<3	<2	<2	<2	<1	<5	<3	<2	<2	<3	<2	<2	<2
Date	Time	BENZENE NITRO- WATER UNFLTRD RECOVER (UG/L) (34447)	BENZI- DINE TOTAL (UG/L) (39120)	BENZO- A- PYRENE TOTAL (UG/L) (34247)	BENZO B FLUOR- AN- THENE TOTAL (UG/L) (34230)	BENZO K FLUOR- AN- THENE TOTAL (UG/L) (34242)	BENZO- [A]- ANTHRA- CENE WAT UNF TOTAL (UG/L) (34526)	BENZO- [GHI]- PERY- LENE TOTAL (UG/L) (34521)	BIS (2- CHLORO- ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS (2- CHLORO- ETHYL) ETHER UNFLTRD RECOVER (UG/L) (34273)	BIS (2- CHLORO- ISO- PROPYL) ETHER TOTAL (UG/L) (34283)	BIS (2- ETHYL HEXYL) PHTHAL- ATE TOTAL (UG/L) (39100)	CHRY- SENE TOTAL (UG/L) (34320)	CYCLOPE NTADIEN CHLORO- UNFLTRD RECOVER (UG/L) (34386)
AUG 2002 26...		<2	<40	<1	<2	<2	<2	<3	<3	<2	<2	<6	<3	<4
Date	Time	DIETHYL PHTHAL- ATE TOTAL (UG/L) (34336)	DI- METHYL PHTHAL- ATE TOTAL (UG/L) (34341)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L) (39110)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L) (34596)	FLUOR- ANTHENE TOTAL (UG/L) (34376)	FLUOR- ENE TOTAL (UG/L) (34381)	HEXA- CHLORO- BENZENE TOTAL (UG/L) (39700)	INDENO (1,2,3- CD) PYRENE TOTAL (UG/L) (34403)	ISO- PHORONE TOTAL (UG/L) (34408)	N-BUTYL BENZYL PHTHAL- ATE TOTAL (UG/L) (34292)	N-NITRO -SODI- METHYL- AMINE TOTAL (UG/L) (34438)	N- NITRO- SODI-N- PROPYL- AMINE TOTAL (UG/L) (34428)	N-NITRO -SODI- PHENYL- AMINE TOTAL (UG/L) (34433)
AUG 2002 26...		<2	<2	<2	<5	<2	<2	<2	<3	<2	<4	<3	<2	<2
Date	Time	PARA- CHLORO- META CRESOL TOTAL (UG/L) (34452)	PENTA- CHLORO- PHENOL TOTAL (UG/L) (39032)	PHENAN- THRENE TOTAL (UG/L) (34461)	PHENOL UNFILT. WATER TOTAL (UG/L) (34694)	PYRENE TOTAL (UG/L) (34469)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	ETHANE HEXA- CHLORO- WATER UNFLTRD RECOVER (UG/L) (34396)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	NAPHTH- ALENE TOTAL (UG/L) (34696)	
AUG 2002 26...		<3	<4	<2	<3.0	<2	<2	<2	<2	<2	<2	<1	<5	

Remark codes used in this report:
< -- Less than

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194125156015501 -- 8-4161-01 KAHU WELL 3

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	Time	FLOW RATE (G/M) (00059)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L) (34556)	1,2-DI- PHENYL- HYDRA- ZINE WATER TOT.REC (UG/L) (82626)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L) (34621)	2,4-DI- METHYL- PHENOL TOTAL (UG/L) (34606)	2,4-DI- CHLORO- PHENOL TOTAL (UG/L) (34601)	2,4,- DI- NITRO- PHENOL TOTAL (UG/L) (34616)
AUG 2002 27...	1120	.15	50	7.1	7.2	11100	21.8	<3	<2	<3	<.7	<3	<3
Date	2,4-DI- NITRO- TOLUENE TOTAL (UG/L) (34611)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L) (34626)	2- CHLORO- NAPH- THALENE TOTAL (UG/L) (34581)	2- CHLORO- PHENOL TOTAL (UG/L) (34586)	2- NITRO- PHENOL TOTAL (UG/L) (34591)	3,3'- DI- CHLORO- BENZI- DINE TOTAL (UG/L) (34631)	4,6- DINITRO -ORTHO- CRESOL TOTAL (UG/L) (34657)	4- BROMO- PHENYL ETHER TOTAL (UG/L) (34636)	4- CHLORO- PHENYL ETHER TOTAL (UG/L) (34641)	4- NITRO- PHENOL TOTAL (UG/L) (34646)	ACE- NAPHTH- ENE TOTAL (UG/L) (34205)	ACE- NAPHTH- YLENE TOTAL (UG/L) (34200)	ANTHRA- CENE TOTAL (UG/L) (34220)
AUG 2002 27...	<3	<2	<2	<2	<1	<5	<3	<2	<2	<3	<2	<2	<2
Date	BENZENE NITRO- WATER UNFLTRD RECOVER (UG/L) (34447)	BENZI- DINE TOTAL (UG/L) (39120)	BENZO- A- PYRENE TOTAL (UG/L) (34247)	BENZO B FLUOR- AN- THENE TOTAL (UG/L) (34230)	BENZO K FLUOR- AN- THENE TOTAL (UG/L) (34242)	BENZO- [A]- ANTHRA- CENE WAT UNF (UG/L) (34526)	BENZO- [GHI]- PERY- LENE TOTAL (UG/L) (34521)	BIS (2- CHLORO- ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS (2- CHLORO- ETHYL) ETHER UNFLTRD RECOVER (UG/L) (34273)	BIS (2- CHLORO- ISO- PROPYL) ETHER TOTAL (UG/L) (34283)	BIS (2- ETHYL HEXYL) PHTHAL- ATE TOTAL (UG/L) (39100)	CHRY- SENE TOTAL (UG/L) (34320)	CYCLOPE NTADIEN HEXA- CHLORO- UNFLTRD RECOVER (UG/L) (34386)
AUG 2002 27...	<2	<40	<1	<2	<2	<2	<3	<3	<2	<2	<6	<3	<4
Date	DIETHYL PHTHAL- ATE TOTAL (UG/L) (34336)	DI- METHYL PHTHAL- ATE TOTAL (UG/L) (34341)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L) (39110)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L) (34596)	FLUOR- ANTHENE TOTAL (UG/L) (34376)	FLUOR- ENE TOTAL (UG/L) (34381)	HEXA- CHLORO- BENZENE TOTAL (UG/L) (39700)	INDENO (1,2,3- CD) PYRENE TOTAL (UG/L) (34403)	ISO- PHORONE TOTAL (UG/L) (34408)	N-BUTYL BENZYL PHTHAL- ATE TOTAL (UG/L) (34292)	N-NITRO -SODI- METHYL- AMINE TOTAL (UG/L) (34438)	N- NITRO- SODI-N- PROPYL- AMINE TOTAL (UG/L) (34428)	N-NITRO -SODI- PHENYL- AMINE TOTAL (UG/L) (34433)
AUG 2002 27...	<2	<2	<2	<5	<2	<2	<2	<3	<2	<4	<3	<2	<2
Date	PARA- CHLORO- META CRESOL TOTAL (UG/L) (34452)	PENTA- CHLORO- PHENOL TOTAL (UG/L) (39032)	PHENAN- THRENE TOTAL (UG/L) (34461)	PHENOL UNFLTRD WATER TOTAL (UG/L) (34694)	PYRENE TOTAL (UG/L) (34469)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	ETHANE HEXA- CHLORO- WATER UNFLTRD RECOVER (UG/L) (34396)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	NAPHTH- ALENE TOTAL (UG/L) (34696)	
AUG 2002 27...	<3	<4	<2	<3.0	<2	<2	<2	<2	<2	<2	<1	<5	

Remark codes used in this report:
< -- Less than

WATER-QUALITY DATA

								PUMP				PH			
								OR FLOW				WATER		SPE-	
								PERIOD				WHOLE		CIFIC	
								PRIOR				FIELD		CON-	
								TO SAM-				(STAND-		DUCT-	
								PLING				ARD		ANCE	
								FLOW				UNITS)		WATER	
								RATE				(MG/L)		(DEG C)	
								(G/M)				(00400)		(00010)	
								(00059)				(00300)		(00095)	
AUG 2002															
26...	1210	kaho well 1 field replicate						.12	60	5.1	7.8	19000	23.6		
									</						

Remark codes used in this report:

< -- Less than

WATER-QUALITY DATA

Date	Time	Field sample comment	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L) (34556)	1,2-DI- PHENYL- HYDRA- ZINE WATER TOT.REC (UG/L) (82626)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L) (34621)	2,4-DI- METHYL- PHENOL TOTAL (UG/L) (34606)	2,4-DI- CHLORO- PHENOL TOTAL (UG/L) (34601)	2,4,- DI- NITRO- PHENOL TOTAL (UG/L) (34616)					
AUG 2002 26...	1615	kaho well 2 source solution blank		<3	<2	<3	<.7	<3	<3				
Date	2,4-DI- NITRO- TOLUENE TOTAL (UG/L) (34611)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L) (34626)	2- CHLORO- NAPH- THALENE TOTAL (UG/L) (34581)	2- CHLORO- PHENOL TOTAL (UG/L) (34586)	2- NITRO- PHENOL TOTAL (UG/L) (34591)	3,3'- DI- CHLORO- BENZI- DINE TOTAL (UG/L) (34631)	4,6- DINITRO -ORTHO- CRESOL TOTAL (UG/L) (34657)	4- BROMO- PHENYL ETHER TOTAL (UG/L) (34636)	4- CHLORO- PHENYL ETHER TOTAL (UG/L) (34641)	4- NITRO- PHENOL TOTAL (UG/L) (34646)	ACE- NAPHTH- ENE TOTAL (UG/L) (34205)	ACE- NAPHTH- YLENE TOTAL (UG/L) (34200)	ANTHRA- CENE TOTAL (UG/L) (34220)
AUG 2002 26...	<3	<2	<2	<2	<1	<5	<3	<2	<2	<3	<2	<2	<2
Date	BENZENE NITRO- WATER UNFLTRD RECOVER (UG/L) (34447)	BENZI- DINE TOTAL (UG/L) (39120)	BENZO- A- PYRENE TOTAL (UG/L) (34247)	BENZO B FLUOR- AN- THENE TOTAL (UG/L) (34230)	BENZO K FLUOR- AN- THENE TOTAL (UG/L) (34242)	BENZO- [A]- ANTHRA- CENE WAT UNF (UG/L) (34526)	BENZO- [GHI]- PERY- LENE TOTAL (UG/L) (34521)	BIS (2- CHLORO- ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS (2- CHLORO- ETHYL) ETHER UNFLTRD RECOVER (UG/L) (34273)	BIS (2- CHLORO- ISO- PROPYL) ETHER TOTAL (UG/L) (34283)	BIS (2- ETHYL HEXYL) PHTHAL- ATE TOTAL (UG/L) (39100)	CHRY- SENE TOTAL (UG/L) (34320)	CYCLOPE NTADIEN HEXA- CHLORO- UNFLTRD RECOVER (UG/L) (34386)
AUG 2002 26...	<2	<40	<1	<2	<2	<2	<3	<3	<2	<2	<6	<3	<4
Date	DIETHYL PHTHAL- ATE TOTAL (UG/L) (34336)	DI- METHYL PHTHAL- ATE TOTAL (UG/L) (34341)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L) (39110)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L) (34596)	FLUOR- ANTHENE TOTAL (UG/L) (34376)	FLUOR- ENE TOTAL (UG/L) (34381)	HEXA- CHLORO- BENZENE TOTAL (UG/L) (39700)	INDENO (1,2,3- CD) PYRENE TOTAL (UG/L) (34403)	ISO- PHORONE TOTAL (UG/L) (34408)	N-BUTYL BENZYL PHTHAL- ATE TOTAL (UG/L) (34292)	N-NITRO -SODI- METHYL- AMINE TOTAL (UG/L) (34438)	N- NITRO- SODI-N- PROPYL- AMINE TOTAL (UG/L) (34428)	N-NITRO -SODI- PHENYL- AMINE TOTAL (UG/L) (34433)
AUG 2002 26...	<2	<2	<2	<5	<2	<2	<2	<3	<2	M	<3	<2	<2
Date	PARA- CHLORO- META CRESOL TOTAL (UG/L) (34452)	PENTA- CHLORO- PHENOL TOTAL (UG/L) (39032)	PHENAN- THRENE TOTAL (UG/L) (34461)	PHENOL UNFLTRD WATER TOTAL (UG/L) (34694)	PYRENE TOTAL (UG/L) (34469)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	ETHANE HEXA- CHLORO- WATER UNFLTRD RECOVER (UG/L) (34396)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	NAPHTH- ALENE TOTAL (UG/L) (34696)	
AUG 2002 26...	<3	<4	<2	<3.0	<2	<2	<2	<2	<2	<2	<1	<5	

Remark codes used in this report:

< -- Less than

M -- Presence verified, not quantified

WATER-QUALITY DATA

Date	Time	Field sample comment	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L) (34556)	1,2-DI- PHENYL- HYDRA- ZINE WATER TOT. REC (UG/L) (82626)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L) (34621)	2,4-DI- METHYL- PHENOL TOTAL (UG/L) (34606)	2,4-DI- CHLORO- PHENOL TOTAL (UG/L) (34601)	2,4,- DI- NITRO- PHENOL TOTAL (UG/L) (34616)					
AUG 2002 27...	0955	kaho well 3 field blank, performed before sampling		<3	<2	<3	<.7	<3					
Date	2,4-DI- NITRO- TOLUENE TOTAL (UG/L) (34611)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L) (34626)	2- CHLORO- NAPH- THALENE TOTAL (UG/L) (34581)	2- CHLORO- PHENOL TOTAL (UG/L) (34586)	2- NITRO- PHENOL TOTAL (UG/L) (34591)	3,3'- DI- CHLORO- BENZI- DINE TOTAL (UG/L) (34631)	4,6- DINITRO -ORTHO- CRESOL TOTAL (UG/L) (34657)	4- BROMO- PHENYL ETHER TOTAL (UG/L) (34636)	4- CHLORO- PHENYL ETHER TOTAL (UG/L) (34641)	4- NITRO- PHENOL TOTAL (UG/L) (34646)	ACE- NAPHTH- ENE TOTAL (UG/L) (34205)	ACE- NAPHTH- YLENE TOTAL (UG/L) (34200)	ANTHRA- CENE TOTAL (UG/L) (34220)
AUG 2002 27...	<3	<2	<2	<2	<1	<5	<3	<2	<2	<3	<2	<2	<2
Date	BENZENE NITRO- WATER UNFLTRD RECOVER (UG/L) (34447)	BENZI- DINE TOTAL (UG/L) (39120)	BENZO- A- PYRENE TOTAL (UG/L) (34247)	BENZO B FLUOR- AN- THENE TOTAL (UG/L) (34230)	BENZO K FLUOR- AN- THENE TOTAL (UG/L) (34242)	BENZO- [A]- ANTHRA- CENE WAT UNF TOTAL (UG/L) (34526)	BENZO- [GHI]- PERY- LENE TOTAL (UG/L) (34521)	BIS (2- CHLORO- ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS (2- CHLORO- ETHYL) ETHER UNFLTRD RECOVER (UG/L) (34273)	BIS (2- CHLORO- ISO- PROPYL) ETHER TOTAL (UG/L) (34283)	BIS (2- ETHYL HEXYL) PHTHAL- ATE TOTAL (UG/L) (39100)	CHRY- SENE TOTAL (UG/L) (34320)	CYCLOPE NTADIEN HEXA- CHLORO- UNFLTRD RECOVER (UG/L) (34386)
AUG 2002 27...	<2	<40	<1	<2	<2	<2	<3	<3	<2	<2	<6	<3	<4
Date	DIETHYL PHTHAL- ATE TOTAL (UG/L) (34336)	DI- METHYL PHTHAL- ATE TOTAL (UG/L) (34341)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L) (39110)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L) (34596)	FLUOR- ANTHENE TOTAL (UG/L) (34376)	FLUOR- ENE TOTAL (UG/L) (34381)	HEXA- CHLORO- BENZENE TOTAL (UG/L) (39700)	INDENO (1,2,3- CD) PYRENE TOTAL (UG/L) (34403)	ISO- PHORONE TOTAL (UG/L) (34408)	N-BUTYL BENZYL PHTHAL- ATE TOTAL (UG/L) (34292)	N-NITRO -SODI- METHYL- AMINE TOTAL (UG/L) (34438)	N- NITRO- SODI-N- PROPYL- AMINE TOTAL (UG/L) (34428)	N-NITRO -SODI- PHENYL- AMINE TOTAL (UG/L) (34433)
AUG 2002 27...	<2	<2	<2	<5	<2	<2	<2	<3	<2	<4	M	<2	<2
Date	PARA- CHLORO- META CRESOL TOTAL (UG/L) (34452)	PENTA- CHLORO- PHENOL TOTAL (UG/L) (39032)	PHENAN- THRENE TOTAL (UG/L) (34461)	PHENOL UNFILT. WATER TOTAL (UG/L) (34694)	PYRENE TOTAL (UG/L) (34469)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	ETHANE HEXA- CHLORO- WATER UNFLTRD RECOVER (UG/L) (34396)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	NAPHTH- ALENE TOTAL (UG/L) (34696)	
AUG 2002 27...	<3	<4	<2	<3.0	<2	<2	<2	<2	<2	<2	<1	<5	

Remark codes used in this report:

< -- Less than

M -- Presence verified, not quantified

SEMIPERMEABLE MEMBRANE DEVICE SAMPLES

ANALYTICAL RESULTS FOR ORGANOCHLORINE PESTICIDES

1. KAHO well 1
2. KAHO well 2
3. KAHO well 3
4. KAHO well 3, ambient blank (exposed to air)
5. Dialysis blank from Environmental Sampling Technologies
6. National Water Quality Laboratory reagent blank
7. National Water Quality Laboratory reagent spike

Analytical Group (Functional Analytical Lab Group)		Starlms Run Template Name	
GC Water/Sediment/Tissue		NAWQA Tissues	
Analyst's E-mail User ID (E-mail Name)			
markovch@usgs.gov Dennis J. Markovchick DJM 7/23/03			
Instrument ID		Run Name (Starlms Identifier)	
GC-E		E03016	
		Analysis Date	
		7/23/03	
Pre Sequence Post Sequence (Please Circle One)			

Cup Number*	Sample ID	Test ID (WatStore Code)	Analyte Name (Optional)	Lab Code	Result ug/kg	Analyst Comments
	20030350024		alpha-HCH	LC8380	< 5.0	
	20030350024		Hexachlorobenzene (HCB)	LC8380	< 5.0	
	20030350024		Pentachloroanisole (PCA)	LC8380	< 5.0	
	20030350024		beta-HCH	LC8380	< 5.0	
	20030350024		gamma-HCH (Lindane)	LC8380	E 0.52	
	20030350024		delta-HCH	LC8380	< 5.0	
	20030350024		Heptachlor	LC8380	< 5.0	
	20030350024		Aldrin	LC8380	< 5.0	
	20030350024		DCPA (Dacthal)	LC8380	< 5.0	
	20030350024		Heptachlor Epoxide	LC8380	< 5.0	
	20030350024		Oxychlorane	LC8380	< 5.0	
	20030350024		trans-Chlordane	LC8380	< 5.0	
	20030350024		o,p'-DDE	LC8380	< 5.0	
	20030350024		cis-Chlordane	LC8380	< 5.0	
	20030350024		trans- Nonachlor	LC8380	< 5.0	
	20030350024		Dieldrin	LC8380	< 5.0	
	20030350024		p,p'-DDE	LC8380	E 1.2	
	20030350024		o,p'-DDD	LC8380	< 5.0	
	20030350024		Endrin	LC8380	< 5.0	
	20030350024		cis-Nonachlor	LC8380	< 5.0	
	20030350024		p,p'-DDD	LC8380	< 5.0	
	20030350024		o,p'-DDT	LC8380	< 5.0	
	20030350024		p,p'-DDT	LC8380	< 5.0	
	20030350024		o,p'-Methoxychlor	LC8380	< 5.0	
	20030350024		p,p'-Methoxychlor	LC8380	< 5.0	
	20030350024		Mirex	LC8380	< 5.0	
	20030350024		Toxaphene	LC8380	< 200	
	20030350024		PCB's - Total	LC8380	< 50	
	20030350024		alpha d6-HCH, surr % rec	LC8380	107	
	20030350024		Nonachlorobiphenyl, surr % rec	LC8380	111	
	20030350024		% Lipid	LC8380	100	
	20030350024		Weight (grams)	LC8380	8.998	
	20030350024		Set Number (for QC reference)	LC8380	200312706	

For D-R (sample ruined) and D-M (memo sent):

Analyst _____	Date _____
Supervisor _____	Date _____
Sent to BDT _____	Date _____
Sent to BDT _____	Date _____

Credit/Debt Done: YES/NO/NA
District Contacted? YES/NO

U.S. GEOLOGICAL SURVEY - NATIONAL WATER QUALITY LABORATORY
ANALYTICAL SERVICES REQUEST

THIS SECTION MANDATORY FOR SAMPLE LOGIN

RECORD NUMBER
00200449
SAMPLE TRACKING ID

1 5
User Code

9 6 8 9 9 L H 0 0
Project Account

030350024
NWQL

1 9 4 0 5 3 1 5 6 0 1 3 0 0 1
STATION ID

2 0 0 2 0 8 2 6
Begin Date (YYYYMMDD)

1 3 1 3
Begin Time

6
Medium Code

9
Sample Type

(808) 587-2433
District Contact Phone Number

2 0 0 2 0 9 2 5
End Date (YYYYMMDD)

0 8 1 6
End Time

dsoki@usgs.gov
District Contact Email

SITE / SAMPLE / SPECIAL PROJECT INFORMATION (Optional)

15 State 001 County Geologic Unit Code H Analysis Status* 5 Analysis Source* A Hydrologic Condition* 9 Hydrologic Event* Chain of Custody Sample Set A
CL02018 NWQL Proposal Number Duane Wydoski NWQL Contact Name dwydoski@usgs.gov NWQL Contact Email Kaloko Program/Project

Station Name: Kaho well 1

Field ID: Kaho 1

Comments to NWQL: do not use an aliquot until the sample has been concentrated or diluted to a known volume; samples have not undergone any form of clean up (see attached letter from Environmental Sampling Technologies)

Hazard (please explain): glass ampule contains hexane

ANALYTICAL WORK REQUESTS: SCHEDULES AND LAB CODES (CIRCLE A=add D=delete)

SCHED 1: 8380 A D SCHED 2: SCHED 3: SCHED 4: SCHED 5: SCHED 6:
Lab Code: 8380 A D Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D
Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D
Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D

SHIPPING INFORMATION (Please fill in number of containers sent)

ALF COD FA FCN IQE IRM RA RU SUR TPCN
BGC CRB FAM FU IQL MBAS RAM RUR SUSO UAS
C18 CU FAR FUS IQM OAG RAR RURCT TBI WCA
CC CUR FCA GCC IRE PHE RCB RURCV TBY 1 glass ampule
CHY DOC FCC GCV IRL PIC RCN RUS TOC

NWQL Login Comments:

1 - Call CL

Collected by: Delwyn Oki

Phone No. (808) 587-2433

Date Shipped: 01/30/2003

FIELD VALUES

Lab/P Code	Value	Remark	Lab/P Code	Value	Remark	Lab/P Code	Value	Remark
21/00095			51/00400			2/39086		
Specific Conductance uS/cm @ 25 deg C			pH Standard Units			Alkalinity - IT mg/L as CaCO3		
/			/			/		

Field Comments: 2 SPMD's combined into single sample—deployed 8/26/02 and retrieved 9/25/02

MANDATORY FOR NWIS

Analytical Group (Functional Analytical Lab Group)		Starlins Run Template Name	
GC Water/Sediment/Tissue		NAWQA Tissues	
Analyst's E-mail/ User ID (E-mail Name)			
markovch@usgs.gov Dennis J. Markovchick DJM 7/23/03			
Instrument ID		Run Name (StarLIMS Identifier)	Analysis Date
GC-E		E03016	7/23/03
Pre Sequence Post Sequence (Please Circle One)			

Cup Number*	Sample ID	Test ID (WatStore Code)	Analyte Name (Optional)	Lab Code	Result ug/kg	Analyst Comments
	20030350021		alpha-HCH	LC8380	< 5.0	
	20030350021		Hexachlorobenzene (HCB)	LC8380	< 5.0	
	20030350021		Pentachloroanisole (PCA)	LC8380	E0.47	
	20030350021		beta-HCH	LC8380	< 5.0	
	20030350021		gamma-HCH (Lindane)	LC8380	E0.24	
	20030350021		delta-HCH	LC8380	< 5.0	
	20030350021		Heptachlor	LC8380	< 5.0	
	20030350021		Aldrin	LC8380	< 5.0	
	20030350021		DCPA (Dacthal)	LC8380	< 5.0	
	20030350021		Heptachlor Epoxide	LC8380	< 5.0	
	20030350021		Oxychlorane	LC8380	< 5.0	
	20030350021		trans-Chlordane	LC8380	< 5.0	
	20030350021		o,p'-DDE	LC8380	< 5.0	
	20030350021		cis-Chlordane	LC8380	< 5.0	
	20030350021		trans- Nonachlor	LC8380	< 5.0	
	20030350021		Dieldrin	LC8380	< 5.0	
	20030350021		p,p'-DDE	LC8380	E0.76	
	20030350021		o,p'-DDD	LC8380	< 5.0	
	20030350021		Endrin	LC8380	< 5.0	
	20030350021		cis-Nonachlor	LC8380	< 5.0	
	20030350021		p,p'-DDD	LC8380	< 5.0	
	20030350021		o,p'-DDT	LC8380	< 5.0	
	20030350021		p,p'-DDT	LC8380	< 5.0	
	20030350021		o,p'-Methoxychlor	LC8380	< 5.0	
	20030350021		p,p'-Methoxychlor	LC8380	< 5.0	
	20030350021		Mirex	LC8380	< 5.0	
	20030350021		Toxaphene	LC8380	<200.	
	20030350021		PCB's - Total	LC8380	<50.	
	20030350021		alpha d6-HCH, surr % rec	LC8380	64	
	20030350021		Nonachlorobiphenyl, surr % rec	LC8380	76	
	20030350021		% Lipid	LC8380	100	
	20030350021		Weight (grams)	LC8380	17.996	
	20030350021		Set Number (for QC reference)	LC8380	200312706	

For D-R (sample ruined) and D-M (memo sent):

Analyst _____	Date _____
Supervisor _____	Date _____
Sent to BDT _____	Date _____
Sent to BDT _____	Date _____

Credit/Debt Done: YES/NO/NA
District Contacted? YES/NO

U.S. GEOLOGICAL SURVEY - NATIONAL WATER QUALITY LABORATORY
ANALYTICAL SERVICES REQUEST

THIS SECTION MANDATORY FOR SAMPLE LOGIN

NWIS RECORD NUMBER
00200450
SAMPLE TRACKING ID

1 5
User Code

9 6 8 9 9 L H 0 0
Project Account

030350021
NWQL LABORATORY ID

1 9 4 1 2 0 1 5 6 0 1 3 5 0 1
STATION ID

2 0 0 2 0 8 2 6
Begin Date (YYYYMMDD)

1 8 0 1
Begin Time

6
Medium Code

9
Sample Type

(808) 587-2433
District Contact Phone Number

2 0 0 2 0 9 2 5
End Date (YYYYMMDD)

0 8 3 8
End Time

dsoki@usgs.gov
District Contact Email

SITE / SAMPLE / SPECIAL PROJECT INFORMATION (Optional)

15 State 001 County
Geologic Unit Code H Analysis Status* 5 Analysis Source* A Hydrologic Condition* 9 Hydrologic Event*
Chain of Custody Sample Set B
CL02018 NWQL Proposal Number Duane Wydoski NWQL Contact Name dwydoski@usgs.gov NWQL Contact Email Kaloko Program/Project

Station Name: Kaho well 2

Field ID: Kaho 2

Comments to NWQL: do not use an aliquot until the sample has been concentrated or diluted to a known volume; samples have not undergone any form of clean up (see attached letter from Environmental Sampling Technologies)

Hazard (please explain): glass ampule contains hexane

ANALYTICAL WORK REQUESTS: SCHEDULES AND LAB CODES (CIRCLE A=add D=delete)

SCHED 1: 8380 (A) D Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D
Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D
Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D

SHIPPING INFORMATION (Please fill in number of containers sent)

ALF COD FA FCN IQE IRM RA RU SUR TPCN
BGC CRB FAM FU IQL MBAS RAM RUR SUSO UAS
C18 CU FAR FUS IQM OAG RAR RURCT TBI WCA
CC CUR FCA GCC IRE PHE RCB RURCV TBY 1 glass ampule
CHY DOC FCC GCV IRL PIC RCN RUS TOC

NWQL Login Comments:

1-call

Collected by: Delwyn Oki

Phone No. (808) 587-2433

Date Shipped: 01/30/2003

FIELD VALUES

Lab/P Code	Value	Remark	Lab/P Code	Value	Remark	Lab/P Code	Value	Remark
21/00095			51/00400			2/39086		
Specific Conductance uS/cm @ 25 deg C			pH Standard Units			Alkalinity - IT mg/L as CaCO3		
/			/			/		

Field Comments: 4 SPMD's combined into single sample—deployed 8/26/02 and retrieved 9/25/02

MANDATORY FOR NWIS

Analytical Group (Functional Analytical Lab Group)		Starlims Run Template Name
GC Water/Sediment/Tissue		NAWQA Tissues
Analyst's E-mail/User ID (E-mail Name)		
markovch@usgs.gov Dennis J. Markovchick DJM 7/23/03		
Instrument ID	Run Name (StarLIMS Identifier)	Analysis Date
GC-E	E03016	7/23/03
Pre Sequence Post Sequence (Please Circle One)		

Cup Number*	Sample ID	Test ID (WatStore Code)	Analyte Name (Optional)	Lab Code	Result ug/kg	Analyst Comments
	20030350022		alpha-HCH	LC8380	< 5.0	
	20030350022		Hexachlorobenzene (HCB)	LC8380	< 5.0	
	20030350022		Pentachloroanisole (PCA)	LC8380	< 5.0	
	20030350022		beta-HCH	LC8380	< 5.0	
	20030350022		gamma-HCH (Lindane)	LC8380	E0.52	
	20030350022		delta-HCH	LC8380	< 5.0	
	20030350022		Heptachlor	LC8380	< 5.0	
	20030350022		Aldrin	LC8380	< 5.0	
	20030350022		DCPA (Dacthal)	LC8380	< 5.0	
	20030350022		Heptachlor Epoxide	LC8380	< 5.0	
	20030350022		Oxychlordane	LC8380	< 5.0	
	20030350022		trans-Chlordane	LC8380	< 5.0	
	20030350022		o,p'-DDE	LC8380	< 5.0	
	20030350022		cis-Chlordane	LC8380	< 5.0	
	20030350022		trans- Nonachlor	LC8380	< 5.0	
	20030350022		Dieldrin	LC8380	< 5.0	
	20030350022		p,p'-DDE	LC8380	E0.87	
	20030350022		o,p'-DDD	LC8380	< 5.0	
	20030350022		Endrin	LC8380	< 5.0	
	20030350022		cis-Nonachlor	LC8380	< 5.0	
	20030350022		p,p'-DDD	LC8380	< 5.0	
	20030350022		o,p'-DDT	LC8380	< 5.0	
	20030350022		p,p'-DDT	LC8380	< 5.0	
	20030350022		o,p'-Methoxychlor	LC8380	< 5.0	
	20030350022		p,p'-Methoxychlor	LC8380	< 5.0	
	20030350022		Mirex	LC8380	< 5.0	
	20030350022		Toxaphene	LC8380	< 200.	
	20030350022		PCB's - Total	LC8380	< 50.	
	20030350022		alpha d6-HCH, surr % rec	LC8380	94	
	20030350022		Nonachlorobiphenyl, surr % rec	LC8380	103	
	20030350022		% Lipid	LC8380	100	
	20030350022		Weight (grams)	LC8380	8.998	
	20030350022		Set Number (for QC reference)	LC8380	200312706	

For D-R (sample ruined) and D-M (memo sent):

Analyst _____	Date _____
Supervisor _____	Date _____
Sent to BDT _____	Date _____
Sent to BDT _____	Date _____

Credit/Debt Done: YES/NO/NA
District Contacted? YES/NO

U.S. GEOLOGICAL SURVEY - NATIONAL WATER QUALITY LABORATORY
ANALYTICAL SERVICES REQUEST

THIS SECTION MANDATORY FOR SAMPLE LOGIN

NWIS RECORD NUMBER
00200451
SAMPLE TRACKING ID

1 5
User Code

9 6 8 9 9 L H 0 0
Project Account

030350022
NWQL LABORATORY ID

1 9 4 1 2 5 1 5 6 0 1 5 5 0 1
STATION ID

2 0 0 2 0 8 2 7
Begin Date (YYYYMMDD)

1 3 3 0
Begin Time

6
Medium Code

9
Sample Type

(808) 587-2433
District Contact Phone Number

2 0 0 2 0 9 2 5
End Date (YYYYMMDD)

0 9 1 5
End Time

dsoki@usgs.gov
District Contact Email

SITE / SAMPLE / SPECIAL PROJECT INFORMATION (Optional)

15 State 001 County
Geologic Unit Code H Analysis Status* 5 Analysis Source* A Hydrologic Condition* 9 Hydrologic Event*
Chain of Custody
CL02018 NWQL Proposal Number Duane Wydoski NWQL Contact Name dwydoski@usgs.gov NWQL Contact Email Kaloko Program/Project

Station Name: Kaho well 3

Field ID: Kaho 3

Comments to NWQL: do not use an aliquot until the sample has been concentrated or diluted to a known volume; samples have not undergone any form of clean up (see attached letter from Environmental Sampling Technologies)

Hazard (please explain): glass ampule contains hexane

ANALYTICAL WORK REQUESTS: SCHEDULES AND LAB CODES (CIRCLE A=add D=delete)

SCHED 1: SCHED 2: SCHED 3: SCHED 4: SCHED 5: SCHED 6:
Lab Code: 8380 A D Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D
Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D
Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D Lab Code: A D

SHIPPING INFORMATION (Please fill in number of containers sent)

ALF COD FA FCN IQE IRM RA RU SUR TPCN
BGC CRB FAM FU IQL MBAS RAM RUR SUSO UAS
C18 CU FAR FUS IQM OAG RAR RURCT TBI WCA
CC CUR FCA GCC IRE PHE RCB RURCV TBY 1 glass ampule
CHY DOC FCC GCV IRL PIC RCN RUS TOC

NWQL Login Comments:

1-Call CD

Collected by: Delwyn Oki

Phone No. (808) 587-2433

Date Shipped: 01/30/2003

FIELD VALUES

Lab/P Code	Value	Remark	Lab/P Code	Value	Remark	Lab/P Code	Value	Remark
21/00095			51/00400			2/39086		
Specific Conductance uS/cm @ 25 deg C			pH Standard Units			Alkalinity - IT mg/L as CaCO3		
/99111	100		/			/		

Field Comments: 2 SPMD's combined into single sample—deployed 8/27/02 and retrieved 9/25/02

Analytical Group (Functional Analytical Lab Group)		Starlms Run Template Name	
GC Water/Sediment/Tissue		NAWQA Tissues	
Analyst's E-mail User ID (E-mail Name)			
markovch@usgs.gov Dennis J. Markovchick DJM 7/23/03			
Instrument ID	Run Name (Starlms Identifier)		Analysis Date
GC-ES	E03016		7/23/03
Pre Sequence Post Sequence (Please Circle One)			

Cup Number*	Sample ID	Test ID (WatStore Code)	Analyte Name (Optional)	Lab Code	Result ug/kg	Analyst Comments
	20030350020		alpha-HCH	LC8380	< 5.0	
	20030350020		Hexachlorobenzene (HCB)	LC8380	< 5.0	
	20030350020		Pentachloroanisole (PCA)	LC8380	< 5.0	
	20030350020		beta-HCH	LC8380	< 5.0	
	20030350020		gamma-HCH (Lindane)	LC8380	E0.99	
	20030350020		delta-HCH	LC8380	< 5.0	
	20030350020		Heptachlor	LC8380	< 5.0	
	20030350020		Aldrin	LC8380	< 5.0	
	20030350020		DCPA (Dacthal)	LC8380	< 5.0	
	20030350020		Heptachlor Epoxide	LC8380	< 5.0	
	20030350020		Oxychlordane	LC8380	< 5.0	
	20030350020		trans-Chlordane	LC8380	< 5.0	
	20030350020		o,p'-DDE	LC8380	< 5.0	
	20030350020		cis-Chlordane	LC8380	< 5.0	
	20030350020		trans- Nonachlor	LC8380	< 5.0	
	20030350020		Dieldrin	LC8380	< 5.0	
	20030350020		p,p'-DDE	LC8380	E0.87	
	20030350020		o,p'-DDD	LC8380	< 5.0	
	20030350020		Endrin	LC8380	< 5.0	
	20030350020		cis-Nonachlor	LC8380	< 5.0	
	20030350020		p,p'-DDD	LC8380	< 5.0	
	20030350020		o,p'-DDT	LC8380	< 5.0	
	20030350020		p,p'-DDT	LC8380	< 5.0	
	20030350020		o,p'-Methoxychlor	LC8380	< 5.0	
	20030350020		p,p'-Methoxychlor	LC8380	< 5.0	
	20030350020		Mirex	LC8380	< 5.0	
	20030350020		Toxaphene	LC8380	<200.	
	20030350020		PCB's - Total	LC8380	<50.	
	20030350020		alpha d6-HCH, surr % rec	LC8380	99	
	20030350020		Nonachlorobiphenyl, surr % rec	LC8380	96	
	20030350020		% Lipid	LC8380	100	
	20030350020		Weight (grams)	LC8380	8.998	
	20030350020		Set Number (for QC reference)	LC8380	200312706	

For D-R (sample ruined) and D-M (memo sent):

Analyst _____	Date _____
Supervisor _____	Date _____
Sent to BDT _____	Date _____
Sent to BDT _____	Date _____

Credit/Debt Done: YES/NO/NA
District Contacted? YES/NO

U.S. GEOLOGICAL SURVEY - NATIONAL WATER QUALITY LABORATORY
ANALYTICAL SERVICES REQUEST

THIS SECTION MANDATORY FOR SAMPLE LOGIN

NWIS RECORD NUMBER
00200019
SAMPLE TRACKING ID

1 5
User Code

9 6 8 9 9 L H 0 0
Project Account

030350020
NWQL LABORATORY ID

1 9 4 1 2 5 1 5 6 0 1 5 5 0 1
STATION ID

2 0 0 2 0 8 2 7
Begin Date (YYYYMMDD)

1 3 4 0
Begin Time

Q
Medium Code

2
Sample Type

(808) 587-2433
District Contact Phone Number

2 0 0 2 0 9 2 5
End Date (YYYYMMDD)

0 9 2 2
End Time

dsoki@usgs.gov
District Contact Email

SITE / SAMPLE / SPECIAL PROJECT INFORMATION (Optional)

15 State	001 County	 Geologic Unit Code	H Analysis Status*	5 Analysis Source*	A Hydrologic Condition*	9 Hydrologic Event*	 Chain of Custody	Sample Set D
CL02018 NWQL Proposal Number		Duane Wydoski NWQL Contact Name		dwodoski@usgs.gov NWQL Contact Email		Kaloko Program/Project		

Station Name: Kaho well 3

Field ID: Kaho 3, ambient blank

Comments to NWQL: do not use an aliquot until the sample has been concentrated or diluted to a known volume; samples have not undergone any form of clean up (see attached letter from Environmental Sampling Technologies)

Hazard (please explain): glass ampule contains hexane

ANALYTICAL WORK REQUESTS: SCHEDULES AND LAB CODES (CIRCLE A=add D=delete)

SCHED 1: 8380	SCHED 2:	SCHED 3:	SCHED 4:	SCHED 5:	SCHED 6:
Lab Code: 8380	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D
Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D
Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D

SHIPPING INFORMATION (Please fill in number of containers sent)

ALF	COD	FA	FCN	IQE	IRM	RA	RU	SUR	TPCN
BGC	CRB	FAM	FU	IQL	MBAS	RAM	RUR	SUSO	UAS
C18	CU	FAR	FUS	IQM	OAG	RAR	RURCT	TBI	WCA
CC	CUR	FCA	GCC	IRE	PHE	RCB	RURCV	TBY	1 glass ampule
CHY	DOC	FCC	GCV	IRL	PIC	RCN	RUS	TOC	

NWQL Login Comments:

1-Call CL

Collected by: Delwyn Oki

Phone No. (808) 587-2433

Date Shipped: 01/30/2003

FIELD VALUES

Lab/P Code	Value	Remark	Lab/P Code	Value	Remark	Lab/P Code	Value	Remark
21/00095 Specific Conductance uS/cm @ 25 deg C			51/00400 pH Standard Units			2/39086 Alkalinity - IT mg/L as CaCO3		
/99100	200		/99102	90		/		

Field Comments: 2 SPMD's combined into single sample—ambient blank exposed to air on 8/27/02 from 13:40 to 13:43:30, and on 9/25/02 from 09:19 to 09:22

MANDATORY FOR NWIS

Analytical Group (Functional Analytical Lab Group)		Starlms Run Template Name	
GC Water/Sediment/Tissue		NAWQA Tissues	
Analysts E-mail User ID (E-mail Name)			
markovch@usgs.gov Dennis J. Markovchick DTM 7/23/03			
Instrument ID		Run Name (StarLIMS Identifier)	
GC-E		E03016	
		Analysis Date	
		7/23/03	
Pre Sequence Post Sequence (Please Circle One)			

Cup Number*	Sample ID	Test ID (WatStore Code)	Analyte Name (Optional)	Lab Code	Result ug/kg	Analyst Comments
	20030350023		alpha-HCH	LC8380	< 5.0	
	20030350023		Hexachlorobenzene (HCB)	LC8380	< 5.0	
	20030350023		Pentachloroanisole (PCA)	LC8380	<5.0	
	20030350023		beta-HCH	LC8380	< 5.0	
	20030350023		gamma-HCH (Lindane)	LC8380	E 1.1	
	20030350023		delta-HCH	LC8380	< 5.0	
	20030350023		Heptachlor	LC8380	< 5.0	
	20030350023		Aldrin	LC8380	< 5.0	
	20030350023		DCPA (Dacthal)	LC8380	< 5.0	
	20030350023		Heptachlor Epoxide	LC8380	< 5.0	
	20030350023		Oxychlorane	LC8380	< 5.0	
	20030350023		trans-Chlordane	LC8380	< 5.0	
	20030350023		o,p'-DDE	LC8380	< 5.0	
	20030350023		cis-Chlordane	LC8380	< 5.0	
	20030350023		trans- Nonachlor	LC8380	< 5.0	
	20030350023		Dieldrin	LC8380	< 5.0	
	20030350023		p,p'-DDE	LC8380	E0.57	
	20030350023		o,p'-DDD	LC8380	< 5.0	
	20030350023		Endrin	LC8380	< 5.0	
	20030350023		cis-Nonachlor	LC8380	< 5.0	
	20030350023		p,p'-DDD	LC8380	< 5.0	
	20030350023		o,p'-DDT	LC8380	< 5.0	
	20030350023		p,p'-DDT	LC8380	< 5.0	
	20030350023		o,p'-Methoxychlor	LC8380	< 5.0	
	20030350023		p,p'-Methoxychlor	LC8380	< 5.0	
	20030350023		Mirex	LC8380	< 5.0	
	20030350023		Toxaphene	LC8380	<200.	
	20030350023		PCB's - Total	LC8380	<50.	
	20030350023		alpha d6-HCH, surr % rec	LC8380	99	
	20030350023		Nonachlorobiphenyl, surr % rec	LC8380	104	
	20030350023		% Lipid	LC8380	100	
	20030350023		Weight (grams)	LC8380	8.998	
	20030350023		Set Number (for QC reference)	LC8380	200312706	

For D-R (sample ruined) and D-M (memo sent):

Analyst _____ Date _____
 Supervisor _____ Date _____
 Sent to BDT _____ Date _____
 Sent to BDT _____ Date _____

Credit/Debt Done: YES/NO/NA
 District Contacted? YES/NO

**U.S. GEOLOGICAL SURVEY - NATIONAL WATER QUALITY LABORATORY
ANALYTICAL SERVICES REQUEST**

THIS SECTION MANDATORY FOR SAMPLE LOGIN

NWIS RECORD NUMBER 00200020 SAMPLE TRACKING ID	User Code 1 5	Project Account 9 6 8 9 9 L H 0 0	 030350023 NWQL LABORATORY ID
STATION ID 1 9 4 1 2 5 1 5 6 0 1 5 5 0 1	Begin Date (YYYYMMDD) 2 0 0 2 1 2 3 0	Begin Time 1 2 0 0	Medium Code Q
District Contact Phone Number (808) 587-2433	End Date (YYYYMMDD) 2 0 0 2	End Time 	District Contact Email dsoki@usgs.gov

SITE / SAMPLE / SPECIAL PROJECT INFORMATION (Optional)

15 State	001 County	Geologic Unit Code	H Analysis Status*	2 Analysis Source*	A Hydrologic Condition*	9 Hydrologic Event*	Chain of Custody	Sample Set E
CL02018 NWQL Proposal Number		Duane Wydoski NWQL Contact Name		dwydoski@usgs.gov NWQL Contact Email		Kaloko Program/Project		

Station Name: Kaho well 3 Field ID: Kaho 3, dialysis blank

Comments to NWQL: do not use an aliquot until the sample has been concentrated or diluted to a known volume; samples have not undergone any form of clean up (see attached letter from Environmental Sampling Technologies)

Hazard (please explain): glass ampule contains hexane

ANALYTICAL WORK REQUESTS: SCHEDULES AND LAB CODES (CIRCLE A=add D=delete)

SCHED 1: _____	SCHED 2: _____	SCHED 3: _____	SCHED 4: _____	SCHED 5: _____	SCHED 6: _____
Lab Code: 8380 (A) D	Lab Code: _____ A D	Lab Code: _____ A D	Lab Code: _____ A D	Lab Code: _____ A D	Lab Code: _____ A D
Lab Code: _____ A D	Lab Code: _____ A D	Lab Code: _____ A D	Lab Code: _____ A D	Lab Code: _____ A D	Lab Code: _____ A D
Lab Code: _____ A D	Lab Code: _____ A D	Lab Code: _____ A D	Lab Code: _____ A D	Lab Code: _____ A D	Lab Code: _____ A D

SHIPPING INFORMATION (Please fill in number of containers sent)

ALF	COD	FA	FCN	IQE	IRM	RA	RU	SUR	TPCN
BGC	CRB	FAM	FU	IQL	MBAS	RAM	RUR	SUSO	UAS
C18	CU	FAR	FUS	IQM	OAG	RAR	RURCT	TBI	WCA
CC	CUR	FCA	GCC	IRE	PHE	RCB	RURCV	TBY	1 glass ampule
CHY	DOC	FCC	GCV	IRL	PIC	RCN	RUS	TOC	

NWQL Login Comments: _____

1-Call CL

Collected by: Delwyn Oki Phone No. (808) 587-2433 Date Shipped: 01/30/2003

FIELD VALUES

Lab/P Code	Value	Remark	Lab/P Code	Value	Remark	Lab/P Code	Value	Remark
21/00095 Specific Conductance uS/cm @ 25 deg C			51/00400 pH Standard Units			2/39086 Alkalinity - IT mg/L as CaCO3		
/99100	200		/99102	200		/		

Field Comments: 2 SPMD's combined into single sample—dialysis blank processed by Environmental Sampling Technologies laboratory on 12/30/02

Analytical Group (Functional Analytical Lab Group)		Starlms Run Template Name	
GC Water/Sediment/Tissue		NAWQA Tissues	
Analyst's E-mail/User ID (E-mail Name)			
markovch@usgs.gov Dennis J. Markovchick DJM 7/23/03			
Instrument ID		Run Name (StarLIMS Identifier)	
GC-E		E03016	
		Analysis Date	
		7/23/03	
Pre Sequence Post Sequence (Please Circle One)			

Cup Number*	Sample ID	Test ID (WatStore Code)	Analyte Name (Optional)	Lab Code	Result %	Analyst Comments
	20031278005		alpha-HCH	LC8380	<5.0	
	20031278005		Hexachlorobenzene (HCB)	LC8380	<5.0	
	20031278005		Pentachloroanisole (PCA)	LC8380	<5.0	
	20031278005		beta-HCH	LC8380	<5.0	
	20031278005		gamma-HCH (Lindane)	LC8380	<5.0	
	20031278005		delta-HCH	LC8380	<5.0	
	20031278005		Heptachlor	LC8380	<5.0	
	20031278005		Aldrin	LC8380	<5.0	
	20031278005		DCPA (Dacthal)	LC8380	<5.0	
	20031278005		Heptachlor Epoxide	LC8380	<5.0	
	20031278005		Oxychlordane	LC8380	<5.0	
	20031278005		trans-Chlordane	LC8380	<5.0	
	20031278005		o,p'-DDE	LC8380	<5.0	
	20031278005		cis-Chlordane	LC8380	<5.0	
	20031278005		trans- Nonachlor	LC8380	<5.0	
	20031278005		Dieldrin	LC8380	<5.0	
	20031278005		p,p'-DDE	LC8380	<5.0	
	20031278005		o,p'-DDD	LC8380	<5.0	
	20031278005		Endrin	LC8380	<5.0	
	20031278005		cis-Nonachlor	LC8380	<5.0	
	20031278005		p,p'-DDD	LC8380	<5.0	
	20031278005		o,p'-DDT	LC8380	<5.0	
	20031278005		p,p'-DDT	LC8380	<5.0	
	20031278005		o,p'-Methoxychlor	LC8380	<5.0	
	20031278005		p,p'-Methoxychlor	LC8380	<5.0	
	20031278005		Mirex	LC8380	<5.0	
	20031278005		Toxaphene	LC8380	<200	
	20031278005		PCB's - Total	LC8380	<50	
	20031278005		alpha d6-HCH, surr % rec	LC8380	137	
	20031278005		Nonachlorobiphenyl, surr % rec	LC8380	106	
	20031278005		% Lipid	LC8380	0	
	20031278005		Weight (grams)	LC8380	1	
	20031278005		Set Number (for QC reference)	LC8380	200312706	

For D-R (sample ruined) and D-M (memo sent):

Analyst _____ Date _____
 Supervisor _____ Date _____
 Sent to BDT _____ Date _____
 Sent to BDT _____ Date _____

Credit/Debt Done: YES/NO/NA
 District Contacted? YES/NO

REAGENT SPIKE

✓ MCM 7-24-03

Analytical Group (Functional Analytical Lab Group)		Starlims Run Template Name	
GC Water/Sediment/Tissue		NAWQA Tissues	
Analyst's E-mail/ User ID (E-mail Name)			
markovch@usgs.gov Dennis J. Markovchick DSM 7/23/03			
Instrument ID		Run Name (Starlims Identifier)	Analysis Date
GC-E		E03016	7/23/03
Pre Sequence Post Sequence (Please Circle One)			

Cup Number*	Sample ID	Test ID (WatStore Code)	Analyte Name (Optional)	Lab Code	Result %	Analyst Comments
	20031279005		alpha-HCH	LC8380	135	
	20031279005		Hexachlorobenzene (HCB)	LC8380	100	
	20031279005		Pentachloroanisole (PCA)	LC8380	108	
	20031279005		beta-HCH	LC8380	110	
	20031279005		gamma-HCH (Lindane)	LC8380	98	
	20031279005		delta-HCH	LC8380	115	
	20031279005		Heptachlor	LC8380	90	
	20031279005		Aldrin	LC8380	107	
	20031279005		DCPA (Dacthal)	LC8380	99	
	20031279005		Heptachlor Epoxide	LC8380	113	
	20031279005		Oxychlordan	LC8380	113	
	20031279005		trans-Chlordan	LC8380	117	
	20031279005		o,p'-DDE	LC8380	114	
	20031279005		cis-Chlordan	LC8380	131	
	20031279005		trans- Nonachlor	LC8380	113	
	20031279005		Dieldrin	LC8380	116	
	20031279005		p,p'-DDE	LC8380	112	
	20031279005		o,p'-DDD	LC8380	110	
	20031279005		Endrin	LC8380	123	
	20031279005		cis-Nonachlor	LC8380	125	
	20031279005		p,p'-DDD	LC8380	D-U	
	20031279005		o,p'-DDT	LC8380	D-U	
	20031279005		p,p'-DDT	LC8380	149	
	20031279005		o,p'-Methoxychlor	LC8380	152	
	20031279005		p,p'-Methoxychlor	LC8380	130	
	20031279005		Mirex	LC8380	99	
	20031279005		Toxaphene	LC8380	<200	
	20031279005		PCB's - Total	LC8380	101	
	20031279005		alpha d6-HCH, surr % rec	LC8380	139	
	20031279005		Nonachlorobiphenyl, surr % rec	LC8380	103	
	20031279005		% Lipid	LC8380	0	
	20031279005		Weight (grams)	LC8380	1	
	20031279005		Set Number (for QC reference)	LC8380	200312706	

or D-R (sample ruined) and D-M (memo sent):

Analyst _____ Date _____
 supervisor _____ Date _____
 sent to BDT _____ Date _____
 sent to BDT _____ Date _____

Credit/Debt Done: YES/NO/NA

District Contacted? YES/NO

FISH-TISSUE SAMPLES

ANALYTICAL RESULTS FOR ORGANOCHLORINE PESTICIDES AND TOTAL PCB

1. **Aimakapa fishpond composite samples (6 total)**
2. **Kaloko fishpond composite samples (7 total)**

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194037156013001 -- Aimakapa Fishpond, East Shore, HI

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	Field sample comment												
		ALDRIN, BIOTA, WH ORG WW, REC (UG/KG) (49353)	ALPHA- BHC, BIOTA, WH ORG WW, REC (UG/KG) (49366)	BENZENE HEXA- CHLORO- BIOTA, WH ORG WW, REC (UG/KG) (49367)	BETA- BHC, BIOTA, WH ORG WW, REC (UG/KG) (49365)	CIS- CHLOR- DANE, BIOTA, WH ORG WW, REC (UG/KG) (49380)	CIS- NONA- CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49359)	DCPA, BIOTA, WH ORG WW, REC (UG/KG) (49378)					
AUG 2002													
28...	awa, chanos chanos, fillet	aimakapa fishpond compo	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
28...	awa, chanos chanos, fillet	aimakapa fishpond compo	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
28...	awa, chanos chanos, fillet	aimakapa fishpond compo	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
28...	mullet, mugil cephalus, fillet	aimakapa fishpond c	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
28...	glass shrimp, palaemon debilis, whole organism	aim	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
28...	guppy, poecilia reticulata, whole organism	aimakap	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Date	DELTA- BHC, BIOTA, WH ORG WW, REC (UG/KG) (49364)	DIEL- DRIN, BIOTA, WH ORG WW, REC (UG/KG) (49371)	ENDRIN, BIOTA, WH ORG WW, REC (UG/KG) (49370)	HEPTA- CHLOR EPOXIDE BIOTA, WH ORG WW, REC (UG/KG) (49368)	HEPTA- CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49369)	LINDANE BIOTA, WH ORG WW, REC (UG/KG) (49363)	LIPIDS, BIOTA, WH ORG WW, REC PERCENT (49289)	METHOXY CHLOR, O,P'-, BIOTA, WH ORG WW, REC (UG/KG) (49362)	METHOXY CHLOR, P,P'-, BIOTA, WH ORG WW, REC (UG/KG) (49361)	MIREX, BIOTA, WH ORG WW, REC (UG/KG) (49360)	O,P'- DDD, BIOTA, WH ORG WW, REC (UG/KG) (49374)	O,P'- DDE, BIOTA, WH ORG WW, REC (UG/KG) (49373)	O,P'- DDT, BIOTA, WH ORG WW, REC (UG/KG) (49377)
AUG 2002													
28...	<5	<5	<5	<5	<5	<5	1.8	<5	<5	<5	<5	<5	<5
28...	<5	<5	<5	<5	<5	<5	8.9	<5	<5	<5	<5	<5	<5
28...	<5	<5	<5	<5	<5	<5	1.0	<5	<5	<5	<5	<5	<5
28...	<5	<5	<5	<5	<5	<5	3.6	<5	<5	<5	<5	<5	<5
28...	<5	<5	<5	<5	<5	<5	1.2	<5	<5	<5	<5	<5	<5
28...	<5	<5	<5	<5	<5	<5	3.0	<5	<5	<5	<5	<5	<5
Date	OXY- CHLOR DANE, BIOTA, WH ORG WW, REC (UG/KG) (49357)	P,P'- DDD, BIOTA, WH ORG WW, REC (UG/KG) (49375)	P,P'- DDE, BIOTA, WH ORG WW, REC (UG/KG) (49372)	P,P'- DDT, BIOTA, WH ORG WW, REC (UG/KG) (49376)	PCB, BIOTA, WH ORG WW, REC (UG/KG) (49354)	PENTA CHLORO ANISOLE BIOTA, WH ORG WW, REC (UG/KG) (49356)	TOXA- PHENE, BIOTA, WH ORG WW, REC (UG/KG) (49355)	TRANS- CHLOR- DANE, BIOTA, WH ORG WW, REC (UG/KG) (49379)	TRANS- NONA- CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49358)				
AUG 2002													
28...	<5	<5	<5	<5	<50	<5	<200	<5	<5				
28...	<5	<5	<5	<5	<50	<5	<200	<5	<5				
28...	<5	<5	<5	<5	<50	<5	<200	<5	<5				
28...	<5	<5	<5	<5	<50	<5	<200	<5	<5				
28...	<5	<5	<5	<5	<50	<5	<200	<5	<5				
28...	<5	<5	<5	<5	<50	<5	<200	<5	<5				

Remark codes used in this report:

< -- Less than

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194120156015701 -- Kaloko Fishpond, Northeast Shore, HI

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	Field sample comment													
		ALDRIN, BIOTA, WH ORG WW, REC (UG/KG) (49353)	ALPHA-BHC, BIOTA, WH ORG WW, REC (UG/KG) (49366)	BENZENE-HEXA-CHLORO-BIOTA, WH ORG WW, REC (UG/KG) (49367)	BETA-BHC, BIOTA, WH ORG WW, REC (UG/KG) (49365)	CIS-CHLOR-DANE, BIOTA, WH ORG WW, REC (UG/KG) (49380)	CIS-NONA-CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49359)	DCPA, BIOTA, WH ORG WW, REC (UG/KG) (49378)						
AUG 2002														
29...	mullet, mugil cephalus, fillet kaloko fishpond com	<5	<5	<5	<5	<5	<5	<5						
29...	mullet, mugil cephalus, fillet kaloko fishpond com	<5	<5	<5	<5	<5	<5	<5						
29...	awa, chanos chanos, fillet kaloko fishpond composi	<5	<5	<5	<5	<5	<5	<5						
29...	awa, chanos chanos, fillet kaloko fishpond composi	<5	<5	<5	<5	<5	<5	<5						
29...	awa, chanos chanos, fillet kaloko fishpond composi	<5	<5	<5	<5	<5	<5	<5						
29...	glass shrimp, palaemon debilis, whole organism kal	<5	<5	<5	<5	<5	<5	<5						
29...	mosquito fish, gambusia affinis, whole organism ka	<5	<5	<5	<5	<5	<5	<5						
Date														
	DELTA-BHC, BIOTA, WH ORG WW, REC (UG/KG) (49364)	DIEL-DRIN, BIOTA, WH ORG WW, REC (UG/KG) (49371)	ENDRIN, BIOTA, WH ORG WW, REC (UG/KG) (49370)	HEPTA-CHLOR EPOXIDE BIOTA, WH ORG WW, REC (UG/KG) (49368)	HEPTA-CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49369)	LINDANE BIOTA, WH ORG WW, REC (UG/KG) (49363)	LIPIDS, BIOTA, WH ORG WW, REC PERCENT (49289)	METHOXY CHLOR, O,P' -, BIOTA, WH ORG WW, REC (UG/KG) (49362)	METHOXY CHLOR, P,P' -, BIOTA, WH ORG WW, REC (UG/KG) (49361)	MIREX, BIOTA, WH ORG WW, REC (UG/KG) (49360)	O,P' -DDD, BIOTA, WH ORG WW, REC (UG/KG) (49374)	O,P' -DDE, BIOTA, WH ORG WW, REC (UG/KG) (49373)	O,P' -DDT, BIOTA, WH ORG WW, REC (UG/KG) (49377)	
AUG 2002														
29...	<5	<5	<5	<5	<5	<5	.9	<5	<5	<5	<5	<5	<5	
29...	<5	<5	<5	<5	<5	<5	1.0	<5	<5	<5	<5	<5	<5	
29...	<5	<5	<5	<5	<5	<5	1.0	<5	<5	<5	<5	<5	<5	
29...	<5	<5	<5	<5	<5	<5	1.3	<5	<5	<5	<5	<5	<5	
29...	<5	<5	<5	<5	<5	<5	1.2	<5	<5	<5	<5	<5	<5	
29...	<5	<5	<5	<5	<5	<5	1.2	<5	<5	<5	<5	<5	<5	
29...	<5	<5	<5	<5	<5	<5	3.2	<5	<5	<5	<5	<5	<5	
Date														
	OXY-CHLOR DANE, BIOTA, WH ORG WW, REC (UG/KG) (49357)	P,P' -DDD, BIOTA, WH ORG WW, REC (UG/KG) (49375)	P,P' -DDE, BIOTA, WH ORG WW, REC (UG/KG) (49372)	P,P' -DDT, BIOTA, WH ORG WW, REC (UG/KG) (49376)	PCB, BIOTA, WH ORG WW, REC (UG/KG) (49354)	PENTA CHLORO ANISOLE BIOTA, WH ORG WW, REC (UG/KG) (49356)	TOXA-PHENE, BIOTA, WH ORG WW, REC (UG/KG) (49355)	TRANS-CHLOR-DANE, BIOTA, WH ORG WW, REC (UG/KG) (49379)	TRANS-NONA-CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49358)					
AUG 2002														
29...	<5	<5	<5	<5	<50	<5	<200	<5	<5					
29...	<5	<5	<5	<5	<50	<5	<200	<5	<5					
29...	<5	<5	<5	<5	<50	<5	<200	<5	<5					
29...	<5	<5	<5	<5	<50	<5	<200	<5	<5					
29...	<5	<5	<5	<5	<50	<5	<200	<5	<5					
29...	<5	<5	<5	<5	<50	<5	<200	<5	<5					
29...	<5	<5	<5	<5	<50	<5	<200	<5	<5					

Remark codes used in this report:

< -- Less than

FISH-TISSUE SAMPLES

ANALYTICAL RESULTS FOR
MERCURY

Mercury concentrations in tissue of fish from Aimakapa and Kaloko fishponds, Kaloko-Honokohau National Historical Park, Hawaii

Fishpond	Date Sampled	Sample no.	Fish	Concentration, in nanograms per gram (wet)
Aimakapa	8/28/2002	Aimakapa M1	Awa (<i>Chanos chanos</i>)	0.46
Aimakapa	8/28/2002	Aimakapa M2	Awa (<i>Chanos chanos</i>)	0.32
Aimakapa	8/28/2002	Aimakapa M3	Awa (<i>Chanos chanos</i>)	0.26
Aimakapa	8/28/2002	Aimakapa M3*	Awa (<i>Chanos chanos</i>)	0.26
Aimakapa	8/28/2002	Aimakapa M4	Mullet (<i>Mugil cephalus</i>)	0.19
Kaloko	8/29/2002	Kaloko M1	Mullet (<i>Mugil cephalus</i>)	0.79
Kaloko	8/29/2002	Kaloko M1*	Mullet (<i>Mugil cephalus</i>)	0.77
Kaloko	8/29/2002	Kaloko M2	Mullet (<i>Mugil cephalus</i>)	0.72
Kaloko	8/29/2002	Kaloko M3	Awa (<i>Chanos chanos</i>)	1.03
Kaloko	8/29/2002	Kaloko M3*	Awa (<i>Chanos chanos</i>)	1.09
Kaloko	8/29/2002	Kaloko M4	Awa (<i>Chanos chanos</i>)	11.25

*Duplicate analysis of tissue in separate digestion bombs

SEDIMENT SAMPLES

ANALYTICAL RESULTS FOR ORGANIC COMPOUNDS

1. Aimakapa fishpond, south shore
2. Aimakapa fishpond, east shore
3. Aimakapa fishpond, north shore
4. Kaloko fishpond, southeast shore
5. Kaloko fishpond, west shore
6. Kaloko fishpond, northeast shore

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194034156013201 -- Aimagapa Fishpond, South Shore, HI

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	CARBON, INORG, SED, BM WS, <2MM (G/KG) (49270)	CARBON, ORG + INORG, SED, BM WS, <2MM (G/KG) (49272)	CARBON, ORGANIC, SED, BM WS, <2MM (G/KG) (49271)	2,2'-BI QUINO- LINE, SED, BM WS, <2MM (UG/KG) (49391)	3,5-XYLENOL, SED, BM WS, <2MM (UG/KG) (49421)	4-BROMO PHNPHNL, SED, BM WS, <2MM (UG/KG) (49454)	4CHLORO PHNPHN, SED, BM WS, <2MM (UG/KG) (49455)	4HCYPEN PHENAN, SED, BM WS, <2MM (UG/KG) (49411)	9,10-ANTHRA- QUINONE, SED, BM WS, <2MM (UG/KG) (49437)	9H-FLU-ORENE, 1METHYL, SED, BM WS, <2MM (UG/KG) (49398)	9H-FLU-ORENE, SED, BM WS, <2MM (UG/KG) (49399)	ACENAPH, THENE, SED, BM WS, <2MM (UG/KG) (49429)	ACENAPH, THYLENE, SED, BM WS, <2MM (UG/KG) (49428)
AUG 2002 27...	20	170	150	<780	<780	<780	<780	<780	<780	<780	<780	<780	<780
Date	ACRI-DINE, SED, BM WS, <2MM (UG/KG) (49430)	ALDRIN, SED, BM WS, <2MM (UG/KG) (49319)	ALPHA-BHC, SED, BM WS, <2MM (UG/KG) (49338)	ANTHRA-CENE, 2-METHYL, SED, BM WS, <2MM (UG/KG) (49435)	ANTHRA-CENE, SED, BM WS, <2MM (UG/KG) (49434)	AZO-BENZENE, SED, BM WS, <2MM (UG/KG) (49443)	BENZ (A) ANTHRA-CENE, SED, BM WS, <2MM (UG/KG) (49436)	BENZENE 124TRI-CHLORO-, SED, BM WS, <2MM (UG/KG) (49438)	BENZENE HEXA-CHLORO-, SED, BM WS, <2MM (UG/KG) (49343)	BENZENE M-DI-CHLORO-, SED, BM WS, <2MM (UG/KG) (49441)	BENZENE NITRO-, SED, BM WS, <2MM (UG/KG) (49444)	BENZENE O-DI-CHLORO-, SED, BM WS, <2MM (UG/KG) (49439)	BENZENE P-DI-CHLORO-, SED, BM WS, <2MM (UG/KG) (49442)
AUG 2002 27...	<780	<14	<14	<780	<780	<780	<780	<780	<14	<780	<780	<780	<780
Date	BENZENE PNTCHLR, NITRO-, SED, BM WS, <2MM (UG/KG) (49446)	BENZO (A) PYRENE, SED, BM WS, <2MM (UG/KG) (49389)	BENZOB FLUOR-ANTHENE, SED, BM WS, <2MM (UG/KG) (49458)	BENZO (G HI) PERY LENE, SED, BM WS, <2MM (UG/KG) (49408)	BENZO K FLUOR-ANTHENE, SED, BM WS, <2MM (UG/KG) (49397)	BENZOCI NNOLINE, BED MAT, WS, <2MM DRY WGT, REC (UG/KG) (49468)	BETA-BHC, SED, BM WS, <2MM (UG/KG) (49339)	BIS2CHL, ETHYL, SED, BM WS, <2MM (UG/KG) (49456)	CARBA-ZOLE, SED, BM WS, <2MM (UG/KG) (49449)	CHLORO-NEB, SED, BM WS, <2MM (UG/KG) (49322)	CHRY-SENE, SED, BM WS, <2MM (UG/KG) (49450)	CIS-CHLOR-DANE, SED, BM WS, <2MM (UG/KG) (49320)	CIS-NONA-CHLOR, SED, BM WS, <2MM (UG/KG) (49316)
AUG 2002 27...	<780	<780	<780	<780	<780	<780	<14	<780	<780	<70	<780	<14	<14
Date	CIS-PER-METHRIN, SED, BM WS, <2MM (UG/KG) (49349)	DCPA, SED, BM WS, <2MM (UG/KG) (49324)	DIBENZ (AH), AN THRACEN, SED, BM WS, <2MM (UG/KG) (49461)	DIEL-DRIN, SED, BM WS, <2MM (UG/KG) (49331)	DIPHNYL AMINE, N NITROSO, SED, BM WS, <2MM (UG/KG) (49433)	DPROPYL AMINE, N NITROSO, SED, BM WS, <2MM (UG/KG) (49431)	ENDO-SULFAN I, SED, BM WS, <2MM (UG/KG) (49332)	ENDRIN, SED, BM WS, <2MM (UG/KG) (49335)	FLUOR-ANTHENE, BED MAT, WS, <2MM DRY WGT, REC (UG/KG) (49466)	HEPTA-CHLOR, EPOXIDE, SED, BM WS, <2MM (UG/KG) (49342)	HEPTA-CHLOR, SED, BM WS, <2MM (UG/KG) (49341)	INDENO 123-CD, PYRENE, SED, BM WS, <2MM (UG/KG) (49390)	ISODRIN, SED, BM WS, <2MM (UG/KG) (49344)
AUG 2002 27...	<70	<70	<780	<14	<780	<780	<14	<28	<780	<14	<14	<780	<14
Date	ISOPHOR-ONE, SED, BM WS, <2MM (UG/KG) (49400)	ISO-QUINO-LINE, SED, BM WS, <2MM (UG/KG) (49394)	LINDANE, SED, BM WS, <2MM (UG/KG) (49345)	M-CRE-SOL, 4-CHLORO-, SED, BM WS, <2MM (UG/KG) (49422)	METHANE 2CHLORO-ETHOXY, SED, BM WS, <2MM (UG/KG) (49401)	METHOXY CHLOR, O, P', SED, BM WS, <2MM (UG/KG) (49347)	METHOXY CHLOR, P, P', SED, BM WS, <2MM (UG/KG) (49346)	MIREX, SED, BM WS, <2MM (UG/KG) (49348)	NAPTHAL ENE, 12 DIMETHL, SED, BM WS, <2MM (UG/KG) (49403)	NAPTHAL ENE, 16 DIMETHL, SED, BM WS, <2MM (UG/KG) (49404)	NAPTHAL ENE, 236 TRIMETH, SED, BM WS, <2MM (UG/KG) (49405)	NAPTHAL ENE, 26 DIMETHL, SED, BM WS, <2MM (UG/KG) (49406)	NAPTHAL ENE, 2-CHLORO-, SED, BM WS, <2MM (UG/KG) (49407)
AUG 2002 27...	<780	<780	<14	<780	<780	<70	<70	<14	<780	<780	<780	E760	<780

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194034156013201 -- Aimakapa Fishpond, South Shore, HI

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	NAPHTH- ENE, 2- ETHYL- SED, BM WS, <2MM DW, REC (UG/KG) (49948)	NAPHTH- ALENE, SED, BM WS, <2MM DW, REC (UG/KG) (49402)	O, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49325)	O, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49327)	O, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49329)	OXY- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49318)	P, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49326)	P, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49328)	P, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)	P- CRESOL SED, BM WS, <2MM DW, REC (UG/KG) (49451)	PENTA- CHLORO- ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)	PHENAN- THRENE 1METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49410)
AUG 2002 27...	<780	<780	<14	<14	<28	<14	<14	<14	<28	<700	<780	<14	<780
Date	PHENAN- THRENE SED, BM WS, <2MM DW, REC (UG/KG) (49409)	PHENAN- THRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49393)	PHENOL SED, BM WS, <2MM DW, REC (UG/KG) (49413)	PHENOL ALKYL- SED, BM WS, <2MM DW, REC (UG/KG) (49424)	2CHLORO BED MAT WS, <2MM REC (UG/KG) (49467)	PHTHALA TE, BIS2 ETHHEXL SED, BM WS, <2MM DW, REC (UG/KG) (49426)	PHTHALA TEBUTYL SED, BM WS, <2MM DW, REC (UG/KG) (49427)	PHTHAL- ATE, SED, BM WS, <2MM DW, REC (UG/KG) (49381)	PHTHAL- ATE, D SED, BM WS, <2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE, DI- METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49384)	PHTHAL ATE, D SED, BM WS, <2MM DW, REC (UG/KG) (49382)	PYRENE, 1- METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49388)	PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49387)
AUG 2002 27...	<780	<780	<780	<780	<780	E620	<820	E440	<780	<780	<780	<780	<780
Date	QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49392)	THIOPH- ENE, DI- BENZO- SED, BM WS, <2MM DW, REC (UG/KG) (49452)	TOLUENE 2,4-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49396)	TOXA- PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)					
AUG 2002 27...	<780	<780	<780	<780	<2800	<14	<14	<70					

Remark codes used in this report:

< -- Less than

E -- Estimated value

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194037156013001 -- Aimakapa Fishpond, East Shore, HI

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	CARBON, INORG, SED, BM WS, <2MM DW, REC (G/KG) (49270)	CARBON, ORG + INORG SED, BM WS, <2MM DW, REC (G/KG) (49272)	CARBON, ORGANIC SED, BM WS, <2MM DW, REC (G/KG) (49271)	2,2'-BI QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49391)	3,5-XYLENOL SED, BM WS, <2MM DW, REC (UG/KG) (49421)	4-BROMO PHNPHNL ETHER SED, BM WS, <2MM DW, REC (UG/KG) (49454)	4CHLORO PHNPHNL LETHER SED, BM WS, <2MM DW, REC (UG/KG) (49455)	4HCYPEN PHENAN SED, BM WS, <2MM DW, REC (UG/KG) (49411)	9,10-ANTHRA- QUINONE SED, BM WS, <2MM DW, REC (UG/KG) (49437)	9H-FLU- ORENE, 1METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49398)	9H-FLU- ORENE SED, BM WS, <2MM DW, REC (UG/KG) (49399)	ACENAPH THENE SED, BM WS, <2MM DW, REC (UG/KG) (49429)	ACENAPH THYLENE SED, BM WS, <2MM DW, REC (UG/KG) (49428)
AUG 2002 27...	11	250	240	<1300	<1300	<1300	<1300	<1300	<1300	<1300	<1300	<1300	<1300
Date	ACRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49430)	ALDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49319)	ALPHA- BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49338)	ANTHRA- CENE, 2- METHYL- SED, BM WS, <2MM DW, REC (UG/KG) (49435)	ANTHRA- CENE SED, BM WS, <2MM DW, REC (UG/KG) (49434)	AZO- BENZENE SED, BM WS, <2MM DW, REC (UG/KG) (49443)	BENZ (A) ANTHRA- CENE SED, BM WS, <2MM DW, REC (UG/KG) (49436)	BENZENE 124TRI- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49438)	BENZENE HEXA- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49433)	BENZENE M-DI- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49441)	BENZENE NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49444)	BENZENE O-DI- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49439)	BENZENE P-DI- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49442)
AUG 2002 27...	<1300	<24	<24	<1300	<1300	<1300	<1300	<1300	<24	<1300	<1300	<1300	<1300
Date	BENZENE PNTCHLR NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49446)	BENZO (A) PYRENE SED, BM WS, <2MM DW, REC (UG/KG) (49389)	BENZOB FLUOR- ANTHENE SED, BM WS, <2MM DW, REC (UG/KG) (49458)	BENZO (G HI) PERY LENE SED, BM WS, <2MM DW, REC (UG/KG) (49408)	BENZO K FLUOR- ANTHENE SED, BM WS, <2MM DW, REC (UG/KG) (49397)	BENZOCI NNOLINE BED MAT DRY WGT REC (UG/KG) (49468)	BETA- BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49339)	BIS2CHL ETHYL ETHER SED, BM WS, <2MM DW, REC (UG/KG) (49456)	CARBA- ZOLE SED, BM WS, <2MM DW, REC (UG/KG) (49449)	CHLORO- NEB, SED, BM WS, <2MM DW, REC (UG/KG) (49322)	CHRY- SENE SED, BM WS, <2MM DW, REC (UG/KG) (49450)	CIS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49320)	CIS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49316)
AUG 2002 27...	<1300	<1300	<1300	<1300	<1300	<1300	<24	<1300	<1300	<120	<1300	<24	<24
Date	CIS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49349)	DCPA, SED, BM WS, <2MM DW, REC (UG/KG) (49324)	DIBENZ (AH), AN THRACEN SED, BM WS, <2MM DW, REC (UG/KG) (49461)	DIEL- DRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49331)	DIPHNYL AMINE, N NITROSO SED, BM WS, <2MM DW, REC (UG/KG) (49433)	DPROPYL AMINE, N NITROSO SED, BM WS, <2MM DW, REC (UG/KG) (49431)	ENDO- SULFAN I, SED, BM WS, <2MM DW, REC (UG/KG) (49332)	ENDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49335)	FLUOR- ANTHENE BED MAT DRY WGT REC (UG/KG) (49466)	HEPTA- CHLOR EPOXIDE SED, BM WS, <2MM DW, REC (UG/KG) (49342)	HEPTA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49341)	INDENO 123-CD PYRENE SED, BM WS, <2MM DW, REC (UG/KG) (49390)	ISODRIN SED, BM WS, <2MM DW, REC (UG/KG) (49344)
AUG 2002 27...	<120	<120	<1300	<24	<1300	<1300	<24	<48	<1300	<24	<24	<1300	<24
Date	ISOPHOR ONE SED, BM WS, <2MM DW, REC (UG/KG) (49400)	ISO- QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49394)	LINDANE SED, BM WS, <2MM DW, REC (UG/KG) (49345)	M-CRE- SOL, 4- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49422)	METHANE 2CHLORO ETHOXY SED, BM WS, <2MM DW, REC (UG/KG) (49401)	METHOXY CHLOR, O, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR P, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49346)	MIREX, SED, BM WS, <2MM DW, REC (UG/KG) (49348)	NAPTHAL ENE, 12 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49403)	NAPTHAL ENE, 16 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49404)	NAPTHAL ENE, 236 TRIMETH SED, BM WS, <2MM DW, REC (UG/KG) (49405)	NAPTHAL ENE, 26 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49406)	NAPTHAL ENE, 2- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49407)
AUG 2002 27...	<1300	<1300	<24	<1300	<1300	<120	<120	<24	<1300	E320	<1300	1300	<1300

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194037156013001 -- Aimakapa Fishpond, East Shore, HI

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	NAPHTHAL- ENE, 2- ETHYL- SED, BM WS, <2MM DW, REC (UG/KG) (49948)	NAPHTH- ALENE, SED, BM WS, <2MM DW, REC (UG/KG) (49402)	O, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49325)	O, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49327)	O, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49329)	OXY- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49318)	P, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49326)	P, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49328)	P, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)	P- CRESOL SED, BM WS, <2MM DW, REC (UG/KG) (49451)	PENTA- CHLORO- ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)	PHENAN- THRENE IMETHYL SED, BM WS, <2MM DW, REC (UG/KG) (49410)
AUG 2002 27...	<1300	<1300	<24	<24	<48	<24	<24	<24	<48	<1200	<1300	<24	<1300
Date	PHENAN- THRENE SED, BM WS, <2MM DW, REC (UG/KG) (49409)	PHENAN- THRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49393)	PHENOL SED, BM WS, <2MM DW, REC (UG/KG) (49413)	PHENOL C8- ALKYL- SED, BM WS, <2MM DW, REC (UG/KG) (49424)	PHENOL, 2CHLORO BED MAT WS, <2MM DRY WGT REC (UG/KG) (49467)	PHTHALA TE, BIS2 ETHHEXL SED, BM WS, <2MM DW, REC (UG/KG) (49426)	PHTHALA TEBUTYL BENZYL- SED, BM WS, <2MM DW, REC (UG/KG) (49427)	PHTHAL- ATE, DIBUTYL SED, BM WS, <2MM DW, REC (UG/KG) (49381)	PHTHAL- ATE, D IETHYL SED, BM WS, <2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE, DI- METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49384)	PHTHAL ATE, D IOCTYL SED, BM WS, <2MM DW, REC (UG/KG) (49382)	PYRENE, 1- METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49388)	PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49387)
AUG 2002 27...	<1300	<1300	<1300	<1300	<1200	E970	<1300	E760	<1300	<1300	<1300	<1300	<1300
Date	QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49392)	THIOPH- ENE, DI- BENZO- SED, BM WS, <2MM DW, REC (UG/KG) (49452)	TOLUENE 2,4-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49396)	TOXA- PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)					
AUG 2002 27...	<1300	<1300	<1300	<1300	<4800	<24	<24	<120					

Remark codes used in this report:

< -- Less than

E -- Estimated value

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194042156013501 -- Aimakapa Fishpond, North Shore, HI

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	CARBON, INORG, SED, BM WS, <2MM DW, REC (G/KG) (49270)	CARBON, ORG + INORG, SED, BM WS, <2MM DW, REC (G/KG) (49272)	CARBON, ORGANIC, SED, BM WS, <2MM DW, REC (G/KG) (49271)	2,2'-BI QUINO-LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49391)	3,5-XYLENOL, SED, BM WS, <2MM DW, REC (UG/KG) (49421)	4-BROMO PHNPHNL, SED, BM WS, <2MM DW, REC (UG/KG) (49454)	4CHLORO PHNPHN, SED, BM WS, <2MM DW, REC (UG/KG) (49455)	4HCYPEN PHENAN, SED, BM WS, <2MM DW, REC (UG/KG) (49411)	9,10-ANTHRA-QUINONE, SED, BM WS, <2MM DW, REC (UG/KG) (49437)	9H-FLU-ORENE, 1METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49398)	9H-FLU-ORENE, SED, BM WS, <2MM DW, REC (UG/KG) (49399)	ACENAPH THENE, SED, BM WS, <2MM DW, REC (UG/KG) (49429)	ACENAPH THYLENE, SED, BM WS, <2MM DW, REC (UG/KG) (49428)
AUG 2002 27...	5.5	130	130	<310	<310	<310	<310	<310	<310	<310	<310	<310	<310
Date	ACRI-DINE, SED, BM WS, <2MM DW, REC (UG/KG) (49430)	ALDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49319)	ALPHA-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49338)	ANTHRA-CENE, 2-METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49435)	ANTHRA-CENE, SED, BM WS, <2MM DW, REC (UG/KG) (49434)	AZO-BENZENE, SED, BM WS, <2MM DW, REC (UG/KG) (49443)	BENZ (A) ANTHRA-CENE, SED, BM WS, <2MM DW, REC (UG/KG) (49436)	124TRI-CHLORO-CHLORO, SED, BM WS, <2MM DW, REC (UG/KG) (49438)	BENZENE HEXA-CHLORO-CHLORO, SED, BM WS, <2MM DW, REC (UG/KG) (49343)	BENZENE M-DI-CHLORO-CHLORO, SED, BM WS, <2MM DW, REC (UG/KG) (49441)	BENZENE NITRO-CHLORO-CHLORO, SED, BM WS, <2MM DW, REC (UG/KG) (49444)	BENZENE O-DI-CHLORO-CHLORO, SED, BM WS, <2MM DW, REC (UG/KG) (49439)	BENZENE P-DI-CHLORO-CHLORO, SED, BM WS, <2MM DW, REC (UG/KG) (49442)
AUG 2002 27...	<310	<6	<6	<310	<310	<310	<310	<310	<6	<310	<310	<310	<310
Date	BENZENE PNTCHLR NITRO-SED, BM WS, <2MM DW, REC (UG/KG) (49446)	BENZO (A) PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49389)	BENZOB FLUOR-ANTHENE, SED, BM WS, <2MM DW, REC (UG/KG) (49458)	BENZO (G HI) PERYLENE, SED, BM WS, <2MM DW, REC (UG/KG) (49408)	BENZO K FLUOR-ANTHENE, SED, BM WS, <2MM DW, REC (UG/KG) (49397)	BENZOCI NNOLINE BED MAT DRY WGT, REC (UG/KG) (49468)	BETA-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49339)	BIS2CHL ETHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49456)	CARBA-ZOLE, SED, BM WS, <2MM DW, REC (UG/KG) (49449)	CHLORO-NEB, SED, BM WS, <2MM DW, REC (UG/KG) (49322)	CHRY-SENE, SED, BM WS, <2MM DW, REC (UG/KG) (49450)	CIS-CHLOR-DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49320)	CIS-NONA-CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49316)
AUG 2002 27...	<310	<310	<310	<310	<310	<310	<6	<310	<310	<30	<310	<6	<6
Date	CIS-PER-METHRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49349)	DCPA, SED, BM WS, <2MM DW, REC (UG/KG) (49324)	DIBENZ (AH), AN THRACEN, SED, BM WS, <2MM DW, REC (UG/KG) (49461)	DIEL-DRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49331)	DIPHNYL AMINE, N NITROSO, SED, BM WS, <2MM DW, REC (UG/KG) (49433)	DPROPYL AMINE, N NITROSO, SED, BM WS, <2MM DW, REC (UG/KG) (49431)	ENDO-SULFAN I, SED, BM WS, <2MM DW, REC (UG/KG) (49332)	ENDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49335)	FLUOR-ANTHENE, BED MAT DRY WGT, REC (UG/KG) (49466)	HEPTA-CHLOR EPOXIDE, SED, BM WS, <2MM DW, REC (UG/KG) (49342)	HEPTA-CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49341)	INDENO 123-CD PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49390)	ISODRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49344)
AUG 2002 27...	<30	<30	<310	<6	<310	<310	<6	<12	<310	<6	<6	<310	<6
Date	ISOPHOR ONE, SED, BM WS, <2MM DW, REC (UG/KG) (49400)	ISO-QUINO-LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49394)	LINDANE, SED, BM WS, <2MM DW, REC (UG/KG) (49345)	M-CRE-SOL, 4-CHLORO-ETHOXY, SED, BM WS, <2MM DW, REC (UG/KG) (49422)	METHANE 2CHLORO ETHOXY, SED, BM WS, <2MM DW, REC (UG/KG) (49401)	METHOXY CHLOR, O, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR, P, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49346)	MIREX, SED, BM WS, <2MM DW, REC (UG/KG) (49348)	NAPTHAL ENE, 12 DIMETHL, SED, BM WS, <2MM DW, REC (UG/KG) (49403)	NAPTHAL ENE, 16 DIMETHL, SED, BM WS, <2MM DW, REC (UG/KG) (49404)	NAPTHAL ENE, 236 TRIMETH, SED, BM WS, <2MM DW, REC (UG/KG) (49405)	NAPTHAL ENE, 26 DIMETHL, SED, BM WS, <2MM DW, REC (UG/KG) (49406)	NAPTHAL ENE, 2-CHLORO-SED, BM WS, <2MM DW, REC (UG/KG) (49407)
AUG 2002 27...	<310	<310	<6	<310	<310	<30	<30	<6	<310	E130	<310	820	<310

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194042156013501 -- Aimakapa Fishpond, North Shore, HI

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	NAPHTHAL ENE, 2- ETHYL- SED, BM WS <2MM DW, REC (UG/KG) (49948)	NAPHTH- ALENE, SED, BM WS, <2MM DW, REC (UG/KG) (49402)	O, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49325)	O, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49327)	O, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49329)	OXY- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49318)	P, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49326)	P, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49328)	P, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)	P- CRESOL SED, BM WS, <2MM DW, REC (UG/KG) (49451)	PENTA- CHLORO- ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)	PHENAN- THRENE 1METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49410)	
	AUG 2002 27...	<310	E37	<6	<6	<12	<6	<6	<12	<300	<310	<6	<310	
	Date	PHENAN THRENE SED, BM WS, <2MM DW, REC (UG/KG) (49409)	PHENAN- THRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49393)	PHENOL SED, BM WS, <2MM DW, REC (UG/KG) (49413)	PHENOL ALKYL- SED, BM WS, <2MM DW, REC (UG/KG) (49424)	PHENOL, 2CHLORO BED MAT WS <2MM DRY WGT REC (UG/KG) (49467)	PHTHALA TE, BIS2 ETHHEXL SED, BM WS, <2MM DW, REC (UG/KG) (49426)	PHTHALA TEBUTYL BENZYL- SED, BM WS, <2MM DW, REC (UG/KG) (49427)	PHTHAL- ATE, DIBUTYL SED, BM WS, <2MM DW, REC (UG/KG) (49381)	PHTHAL- ATE, D IETHYL SED, BM WS, <2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE, DI- METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49384)	PHTHAL ATE, D IOCTYL SED, BM WS, <2MM DW, REC (UG/KG) (49382)	PYRENE, 1- METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49388)	PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49387)
		AUG 2002 27...	<310	<310	E130	<310	<310	E150	E260	E160	E9	<310	E130	<310
Date		QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49392)	THIOPH- ENE, DI- BENZO- SED, BM WS, <2MM DW, REC (UG/KG) (49452)	TOLUENE 2,4-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49396)	TOXA- PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)					
		AUG 2002 27...	<310	<310	<310	<310	<1200	<6	<6	<30				

Remark codes used in this report:

< -- Less than

E -- Estimated value

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194114156015301 -- Kaloko Fishpond, Southeast Shore, HI

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	CARBON, INORG, SED, BM WS, <2MM DW, REC (G/KG) (49270)	CARBON, ORG + INORG, SED, BM WS, <2MM DW, REC (G/KG) (49272)	CARBON, ORGANIC, SED, BM WS, <2MM DW, REC (G/KG) (49271)	2,2'-BI QUINO-LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49391)	3,5-XYLENOL, SED, BM WS, <2MM DW, REC (UG/KG) (49421)	4-BROMO PHNPNHNL, SED, BM WS, <2MM DW, REC (UG/KG) (49454)	4CHLORO PHNPNHNL, SED, BM WS, <2MM DW, REC (UG/KG) (49455)	4HCYPEN PHENAN, SED, BM WS, <2MM DW, REC (UG/KG) (49411)	9,10-ANTHRA-QUINONE, SED, BM WS, <2MM DW, REC (UG/KG) (49437)	9H-FLU-ORENE, 1METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49398)	9H-FLU-ORENE, SED, BM WS, <2MM DW, REC (UG/KG) (49399)	ACENAPH, THENE, SED, BM WS, <2MM DW, REC (UG/KG) (49429)	ACENAPH, THYLENE, SED, BM WS, <2MM DW, REC (UG/KG) (49428)
AUG 2002 27...	3.1	120	120	<350	<350	<350	<350	<350	<350	<350	<350	<350	<350
Date	ACRI-DINE, SED, BM WS, <2MM DW, REC (UG/KG) (49430)	ALDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49319)	ALPHA-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49338)	ANTHRA-CENE, 2-METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49435)	ANTHRA-CENE, SED, BM WS, <2MM DW, REC (UG/KG) (49434)	AZO-BENZENE, SED, BM WS, <2MM DW, REC (UG/KG) (49443)	BENZ (A) ANTHRA-CENE, SED, BM WS, <2MM DW, REC (UG/KG) (49436)	BENZENE 124TRI-CHLORO, SED, BM WS, <2MM DW, REC (UG/KG) (49438)	BENZENE HEXA-CHLORO, SED, BM WS, <2MM DW, REC (UG/KG) (49343)	BENZENE M-DI-CHLORO, SED, BM WS, <2MM DW, REC (UG/KG) (49441)	BENZENE NITRO-SED, BM WS, <2MM DW, REC (UG/KG) (49444)	BENZENE O-DI-CHLORO, SED, BM WS, <2MM DW, REC (UG/KG) (49439)	BENZENE P-DI-CHLORO, SED, BM WS, <2MM DW, REC (UG/KG) (49442)
AUG 2002 27...	<350	<7	<7	<350	<350	<350	<350	<350	<7	<350	<350	<350	<350
Date	BENZENE PNTCHLR, SED, BM WS, <2MM DW, REC (UG/KG) (49446)	BENZO (A) PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49389)	BENZOB FLUOR-ANTHENE, SED, BM WS, <2MM DW, REC (UG/KG) (49458)	BENZO (G HI) PERY LENE, SED, BM WS, <2MM DW, REC (UG/KG) (49408)	BENZO K FLUOR-ANTHENE, SED, BM WS, <2MM DW, REC (UG/KG) (49397)	BENZOCI NNOLINE BED MAT, DRY WGT REC (UG/KG) (49468)	BETA-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49339)	BIS2CHL ETHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49456)	CARBA-ZOLE, SED, BM WS, <2MM DW, REC (UG/KG) (49449)	CHLORO-NEB, SED, BM WS, <2MM DW, REC (UG/KG) (49322)	CHRY-SENE, SED, BM WS, <2MM DW, REC (UG/KG) (49450)	CIS-CHLOR-DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49320)	CIS-NONA-CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49316)
AUG 2002 27...	<350	<350	<350	<350	<350	<350	<7	<350	<350	<35	<350	<7	<7
Date	CIS-PER-METHRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49349)	DCPA, SED, BM WS, <2MM DW, REC (UG/KG) (49324)	DIBENZ (AH), AN THRACEN, SED, BM WS, <2MM DW, REC (UG/KG) (49461)	DIEL-DRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49331)	DIPHNYL AMINE, N NITROSO, SED, BM WS, <2MM DW, REC (UG/KG) (49433)	DPROPYL AMINE, N NITROSO, SED, BM WS, <2MM DW, REC (UG/KG) (49431)	ENDO-SULFAN I, SED, BM WS, <2MM DW, REC (UG/KG) (49332)	ENDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49335)	FLUOR-ANTHENE BED MAT, DRY WGT REC (UG/KG) (49466)	HEPTA-CHLOR EPOXIDE, SED, BM WS, <2MM DW, REC (UG/KG) (49342)	HEPTA-CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49341)	INDENO 123-CD PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49390)	ISODRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49344)
AUG 2002 27...	<35	<35	<350	<7	<350	<350	<7	<14	<350	<7	<7	<350	<7
Date	ISOPHOR ONE, SED, BM WS, <2MM DW, REC (UG/KG) (49400)	ISO-QUINO-LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49394)	LINDANE, SED, BM WS, <2MM DW, REC (UG/KG) (49345)	M-CRE-SOL, 4-CHLORO-ETHOXY, SED, BM WS, <2MM DW, REC (UG/KG) (49422)	METHANE 2CHLORO ETHOXY, SED, BM WS, <2MM DW, REC (UG/KG) (49401)	METHOXY CHLOR, O, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR, P, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49346)	MIREX, SED, BM WS, <2MM DW, REC (UG/KG) (49348)	NAPTHAL ENE, 12 DIMETHL, SED, BM WS, <2MM DW, REC (UG/KG) (49403)	NAPTHAL ENE, 16 DIMETHL, SED, BM WS, <2MM DW, REC (UG/KG) (49404)	NAPTHAL ENE, 236 TRIMETH, SED, BM WS, <2MM DW, REC (UG/KG) (49405)	NAPTHAL ENE, 26 DIMETHL, SED, BM WS, <2MM DW, REC (UG/KG) (49406)	NAPTHAL ENE, 2-CHLORO-SED, BM WS, <2MM DW, REC (UG/KG) (49407)
AUG 2002 27...	<350	<350	<7	<350	<350	<35	<35	<7	<350	E80	<350	E290	<350

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194114156015301 -- Kaloko Fishpond, Southeast Shore, HI

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	NAPHTHAL		OXY										PENTA-		PHENAN	
	ENE, 2-ETHYL- SED BM WS <2MM DW REC (UG/KG) (49948)	NAPHTH- ALENE, SED, BM WS, <2MM DW, REC (UG/KG) (49402)	O, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49325)	O, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49327)	O, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49329)	CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49318)	P, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49326)	P, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49328)	P, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)	P- CRESOL SED, BM WS, <2MM DW, REC (UG/KG) (49451)	CHLORO- ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)	THRENE 1METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49410)			
AUG 2002 27...	<350	<350	<7	<7	<14	<7	<7	<7	<14	<350	<350	<7	<350			
Date	PHENAN THRENE SED, BM WS, <2MM DW, REC (UG/KG) (49409)	PHENAN- THRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49393)	PHENOL SED, BM WS, <2MM DW, REC (UG/KG) (49413)	PHENOL C8- ALKYL- SED, BM WS, <2MM DW, REC (UG/KG) (49424)	PHENOL 2CHLORO BED MAT WS, <2MM DRY WGT REC (UG/KG) (49467)	PHTHALA TE, BIS2 ETHHEXL SED, BM WS, <2MM DW, REC (UG/KG) (49426)	PHTHAL- ATE, DIBUTYL SED, BM WS, <2MM DW, REC (UG/KG) (49381)	PHTHAL- ATE, D SED, BM WS, <2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE, DI- METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49384)	PHTHAL ATE, D SED, BM WS, <2MM DW, REC (UG/KG) (49382)	PYRENE, 1- METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49388)	PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49387)	QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49392)			
AUG 2002 27...	<350	<350	<350	<350	<350	E270	E190	E4	<350	<350	<350	<350	<350			
Date	THIOPH ENE, DI- BENZO- SED, BM WS, <2MM DW, REC (UG/KG) (49452)	TOLUENE 2, 4-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49395)	TOLUENE 2, 6-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49396)	TOXA- PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)									
AUG 2002 27...	<350	<350	<350	<1400	<7	<7	<35									

Remark codes used in this report:

< -- Less than

E -- Estimated value

DISTRICT CODE 15

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY
194119156020201 -- Kaloko Fishpond, West Shore, HI

PROCESS DATE 9-26-03

WATER-QUALITY DATA

Date	CARBON, INORG, SED, BM WS, <2MM (G/KG) (49270)	CARBON, ORG + INORG, SED, BM WS, <2MM (G/KG) (49272)	CARBON, ORGANIC, SED, BM WS, <2MM (G/KG) (49271)	2,2'-BI QUINO-LINE, SED, BM WS, <2MM (UG/KG) (49391)	3,5-XYLENOL, SED, BM WS, <2MM (UG/KG) (49421)	4-BROMO PHNPHNL, SED, BM WS, <2MM (UG/KG) (49454)	4CHLORO PHNPHNL, SED, BM WS, <2MM (UG/KG) (49455)	4HCYPEN PHENAN, SED, BM WS, <2MM (UG/KG) (49411)	9,10-ANTHRA-QUINONE, SED, BM WS, <2MM (UG/KG) (49437)	9H-FLU-ORENE, 1METHYL, SED, BM WS, <2MM (UG/KG) (49398)	9H-FLU-ORENE, SED, BM WS, <2MM (UG/KG) (49399)	ACENAPH, THENE, SED, BM WS, <2MM (UG/KG) (49429)	ACENAPH, THYLENE, SED, BM WS, <2MM (UG/KG) (49428)
AUG 2002 27...	1.3	130	130	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
Date	ACRI-DINE, SED, BM WS, <2MM (UG/KG) (49430)	ALDRIN, SED, BM WS, <2MM (UG/KG) (49319)	ALPHA-BHC, SED, BM WS, <2MM (UG/KG) (49338)	ANTHRA-CENE, 2-METHYL, SED, BM WS, <2MM (UG/KG) (49435)	ANTHRA-CENE, SED, BM WS, <2MM (UG/KG) (49434)	AZO-BENZENE, SED, BM WS, <2MM (UG/KG) (49443)	BENZ (A) ANTHRA-CENE, SED, BM WS, <2MM (UG/KG) (49436)	BENZENE 124TRI-CHLORO, SED, BM WS, <2MM (UG/KG) (49438)	BENZENE HEXA-CHLORO, SED, BM WS, <2MM (UG/KG) (49433)	BENZENE M-DI-CHLORO, SED, BM WS, <2MM (UG/KG) (49441)	BENZENE NITRO-SED, BM WS, <2MM (UG/KG) (49444)	BENZENE O-DI-CHLORO, SED, BM WS, <2MM (UG/KG) (49439)	BENZENE P-DI-CHLORO, SED, BM WS, <2MM (UG/KG) (49442)
AUG 2002 27...	<500	<9	<9	<500	<500	<500	<500	<500	<9	<500	<500	<500	<500
Date	BENZENE PNTCHLR, SED, BM WS, <2MM (UG/KG) (49446)	BENZO (A) PYRENE, SED, BM WS, <2MM (UG/KG) (49389)	BENZOB FLUOR-ANTHENE, SED, BM WS, <2MM (UG/KG) (49458)	BENZO (G HI) PERY LENE, SED, BM WS, <2MM (UG/KG) (49408)	BENZO K FLUOR-ANTHENE, SED, BM WS, <2MM (UG/KG) (49397)	BENZOCI NNOLINE BED MAT, WS <2MM DRY WGT REC (UG/KG) (49468)	BETA-BHC, SED, BM WS, <2MM (UG/KG) (49339)	BIS2CHL ETHYL, SED, BM WS, <2MM (UG/KG) (49456)	CARBA-ZOLE, SED, BM WS, <2MM (UG/KG) (49449)	CHLORO-NEB, SED, BM WS, <2MM (UG/KG) (49322)	CHRY-SENE, SED, BM WS, <2MM (UG/KG) (49450)	CIS-CHLOR-DANE, SED, BM WS, <2MM (UG/KG) (49320)	CIS-NONA-CHLOR, SED, BM WS, <2MM (UG/KG) (49316)
AUG 2002 27...	<500	<500	<500	<500	<500	<500	<9	<500	<500	<45	<500	<9	<9
Date	CIS-PER-METHRIN, SED, BM WS, <2MM (UG/KG) (49349)	DCPA, SED, BM WS, <2MM (UG/KG) (49324)	DIBENZ (AH), AN THRACEN, SED, BM WS, <2MM (UG/KG) (49461)	DIEL-DRIN, SED, BM WS, <2MM (UG/KG) (49331)	DIPHNYL AMINE, N NITROSO, SED, BM WS, <2MM (UG/KG) (49433)	DPROPYL AMINE, N NITROSO, SED, BM WS, <2MM (UG/KG) (49431)	ENDO-SULFAN I, SED, BM WS, <2MM (UG/KG) (49332)	ENDRIN, SED, BM WS, <2MM (UG/KG) (49335)	FLUOR-ANTHENE, BED MAT, WS <2MM DRY WGT REC (UG/KG) (49466)	HEPTA-CHLOR EPOXIDE, SED, BM WS, <2MM (UG/KG) (49342)	HEPTA-CHLOR, SED, BM WS, <2MM (UG/KG) (49341)	INDENO 123-CD PYRENE, SED, BM WS, <2MM (UG/KG) (49390)	ISODRIN, SED, BM WS, <2MM (UG/KG) (49344)
AUG 2002 27...	<45	<45	<500	<9	<500	<500	<9	<18	<500	<9	<9	<500	<9
Date	ISOPHOR ONE, SED, BM WS, <2MM (UG/KG) (49400)	ISO-QUINO-LINE, SED, BM WS, <2MM (UG/KG) (49394)	LINDANE, SED, BM WS, <2MM (UG/KG) (49345)	M-CRE-SOL, 4-CHLORO-ETHOXY, SED, BM WS, <2MM (UG/KG) (49422)	METHANE 2CHLORO ETHOXY, SED, BM WS, <2MM (UG/KG) (49401)	METHOXY CHLOR, O, P'-, SED, BM WS, <2MM (UG/KG) (49347)	METHOXY CHLOR, P, P'-, SED, BM WS, <2MM (UG/KG) (49346)	MIREX, SED, BM WS, <2MM (UG/KG) (49348)	NAPHTHAL ENE, 12 DIMETHL, SED, BM WS, <2MM (UG/KG) (49403)	NAPHTHAL ENE, 16 DIMETHL, SED, BM WS, <2MM (UG/KG) (49404)	NAPHTHAL ENE, 236 TRIMETH, SED, BM WS, <2MM (UG/KG) (49405)	NAPHTHAL ENE, 26 DIMETHL, SED, BM WS, <2MM (UG/KG) (49406)	NAPHTHAL ENE, 2-CHLORO-SED, BM WS, <2MM (UG/KG) (49407)
AUG 2002 27...	<500	<500	<9	<500	<500	<45	<45	<9	<500	E90	<500	E120	<500

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Date	CARBON, INORG, SED, BM WS, <2MM DW, REC (G/KG) (49270)	CARBON, ORG + INORG, SED, BM WS, <2MM DW, REC (G/KG) (49272)	CARBON, ORGANIC, SED, BM WS, <2MM DW, REC (G/KG) (49271)	2,2'-BI QUINO-LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49391)	3,5-XYLENOL, SED, BM WS, <2MM DW, REC (UG/KG) (49421)	4-BROMO PHNPHNL, SED, BM WS, <2MM DW, REC (UG/KG) (49454)	4CHLORO PHNPHN, SED, BM WS, <2MM DW, REC (UG/KG) (49455)	4HCYPEN PHENAN, SED, BM WS, <2MM DW, REC (UG/KG) (49411)	9,10-ANTHRA-QUINONE, SED, BM WS, <2MM DW, REC (UG/KG) (49437)	9H-FLU-ORENE, SED, BM WS, <2MM DW, REC (UG/KG) (49398)	9H-FLU-ORENE, SED, BM WS, <2MM DW, REC (UG/KG) (49399)	ACENAPH-THENE, SED, BM WS, <2MM DW, REC (UG/KG) (49429)	ACENAPH-THYLENE, SED, BM WS, <2MM DW, REC (UG/KG) (49428)
AUG 2002 27...	12	100	88	<320	<320	<320	<320	<320	<320	<320	<320	<320	<320
Date	ACRI-DINE, SED, BM WS, <2MM DW, REC (UG/KG) (49430)	ALDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49319)	ALPHA-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49338)	ANTHRA-CENE, 2-METHYL-, SED, BM WS, <2MM DW, REC (UG/KG) (49435)	ANTHRA-CENE, SED, BM WS, <2MM DW, REC (UG/KG) (49434)	AZO-BENZENE, SED, BM WS, <2MM DW, REC (UG/KG) (49443)	BENZ(A) ANTHRA-CENE, SED, BM WS, <2MM DW, REC (UG/KG) (49436)	BENZENE 124TRI-CHLORO-, SED, BM WS, <2MM DW, REC (UG/KG) (49438)	BENZENE HEXA-CHLORO-, SED, BM WS, <2MM DW, REC (UG/KG) (49343)	BENZENE M-DI-CHLORO-, SED, BM WS, <2MM DW, REC (UG/KG) (49441)	BENZENE NITRO-, SED, BM WS, <2MM DW, REC (UG/KG) (49444)	BENZENE O-DI-CHLORO-, SED, BM WS, <2MM DW, REC (UG/KG) (49439)	BENZENE P-DI-CHLORO-, SED, BM WS, <2MM DW, REC (UG/KG) (49442)
AUG 2002 27...	<320	<5	<5	<320	<320	<320	<320	<320	<5	<320	<320	<320	<320
Date	BENZENE PNTCHLR, SED, BM WS, <2MM DW, REC (UG/KG) (49446)	BENZO(A) PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49389)	BENZOB FLUOR-ANTHENE, SED, BM WS, <2MM DW, REC (UG/KG) (49458)	BENZO(G HI) PERY-LENE, SED, BM WS, <2MM DW, REC (UG/KG) (49408)	BENZO K FLUOR-ANTHENE, SED, BM WS, <2MM DW, REC (UG/KG) (49397)	BENZOCIN NNOLINE BED MAT, WS <2MM DRY WGT REC (UG/KG) (49468)	BETA-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49339)	BIS2CHL ETHYL-ETHER, SED, BM WS, <2MM DW, REC (UG/KG) (49456)	CARBA-ZOLE, SED, BM WS, <2MM DW, REC (UG/KG) (49449)	CHLORO-NEB, SED, BM WS, <2MM DW, REC (UG/KG) (49322)	CHRY-SENE, SED, BM WS, <2MM DW, REC (UG/KG) (49450)	CIS-CHLOR-DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49320)	CIS-NONA-CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49316)
AUG 2002 27...	<320	<320	<320	<320	<320	<320	<5	<320	<320	<25	<320	<5	<5
Date	CIS-PER-METHRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49349)	DCPA, SED, BM WS, <2MM DW, REC (UG/KG) (49324)	DIBENZ(AH), AN THRACEN, SED, BM WS, <2MM DW, REC (UG/KG) (49461)	DIEL-DRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49331)	DIPHNYL AMINE, N NITROSO, SED, BM WS, <2MM DW, REC (UG/KG) (49433)	DPROPYL AMINE, N NITROSO, SED, BM WS, <2MM DW, REC (UG/KG) (49431)	ENDO-SULFAN I, SED, BM WS, <2MM DW, REC (UG/KG) (49332)	ENDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49335)	FLUOR-ANTHENE BED MAT, WS <2MM DRY WGT REC (UG/KG) (49466)	HEPTA-CHLOR EPOXIDE, SED, BM WS, <2MM DW, REC (UG/KG) (49342)	HEPTA-CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49341)	INDENO 123-CD PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49390)	ISODRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49344)
AUG 2002 27...	<25	<25	<320	<5	<320	<320	<5	<10	<320	<5	<5	<320	<5
Date	ISOPHOR-ONE, SED, BM WS, <2MM DW, REC (UG/KG) (49400)	ISO-QUINO-LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49394)	LINDANE, SED, BM WS, <2MM DW, REC (UG/KG) (49345)	M-CRE-SOL, 4-CHLORO-ETHOXY, SED, BM WS, <2MM DW, REC (UG/KG) (49422)	METHANE 2CHLORO ETHOXY, SED, BM WS, <2MM DW, REC (UG/KG) (49401)	METHOXY CHLOR, O, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR P, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49346)	MIREX, SED, BM WS, <2MM DW, REC (UG/KG) (49348)	NAPTHAL ENE, 12 DIMETHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49403)	NAPTHAL ENE, 16 DIMETHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49404)	NAPTHAL ENE, 236 TRIMETH, SED, BM WS, <2MM DW, REC (UG/KG) (49405)	NAPTHAL ENE, 26 DIMETHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49406)	NAPTHAL ENE, 2-CHLORO-, SED, BM WS, <2MM DW, REC (UG/KG) (49407)
AUG 2002 27...	<320	<320	<5	<320	<320	<25	<25	<5	<320	<320	<320	E98	<320

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	NAPTHAL- ENE, 2- ETHYL- SED, BM WS, <2MM DW, REC (UG/KG) (49948)	NAPHTH- ALENE, SED, BM WS, <2MM DW, REC (UG/KG) (49402)	O, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49325)	O, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49327)	O, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49329)	OXY- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49318)	P, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49326)	P, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49328)	P, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)	P- CRESOL SED, BM WS, <2MM DW, REC (UG/KG) (49451)	PENTA- CHLORO- ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)	PHENAN- THRENE 1METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49410)
AUG 2002 27...	<320	<320	<5	<5	<10	<5	<5	<5	<10	<250	<320	<5	<320
	PHENAN- THRENE SED, BM WS, <2MM DW, REC (UG/KG) (49409)	PHENAN- THRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49393)	PHENOL SED, BM WS, <2MM DW, REC (UG/KG) (49413)	PHENOL C8- ALKYL- SED, BM WS, <2MM DW, REC (UG/KG) (49424)	PHENOL, 2CHLORO BED MAT WS, <2MM REC (UG/KG) (49467)	PHTHALA- TE, BIS2 ETHHEXL SED, BM WS, <2MM DW, REC (UG/KG) (49426)	PHTHAL- ATE, DIBUTYL SED, BM WS, <2MM DW, REC (UG/KG) (49381)	PHTHAL- ATE, D IETHYL SED, BM WS, <2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE, DI- METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49384)	PHTHAL ATE, D IOCTYL SED, BM WS, <2MM DW, REC (UG/KG) (49382)	PYRENE, 1- METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49388)	PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49387)	QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49392)
AUG 2002 27...	<320	<320	<320	<320	<320	E200	E140	<320	<320	<320	<320	<320	<320
	THIOPH- ENE, DI- BENZO- SED, BM WS, <2MM DW, REC (UG/KG) (49452)	TOLUENE 2,4-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49396)	TOXA- PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)						
AUG 2002 27...	<320	<320	<320	<1000	<5	<5	<25						

Remark codes used in this report:

< -- Less than

E -- Estimated value