APPENDIX A

Borehole Logs

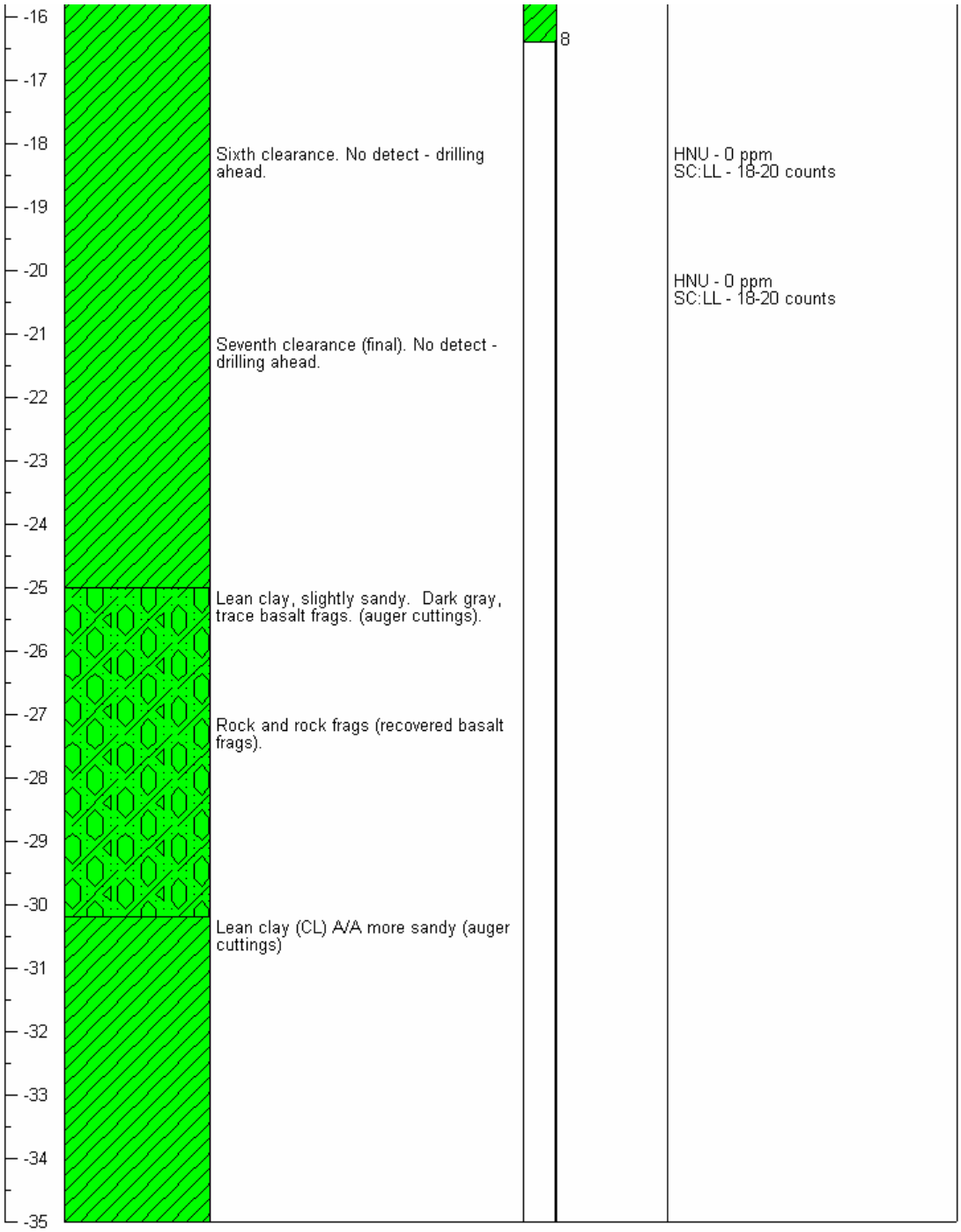
Drilling Log	**Vertical Hole No.** ERDC MW-1
Makua Military Reservation	**Size and Type of Bit:** 7" 3 way
Drilling agency: Valley Drilling	**Datum for elevation shown:** MSL
Name of Driller: John Surigad	**Date Started:** 9/19/02
Manufacturer's designation of drill: Mobile B-90	**Completed:** 9/19/02
Total No. of overburden samples taken: Disturbed 3	**Total Depth of Hole:** 35 ft
GPS Coord. N 21 deg. 31.614' W 158 deg. 13.13.628' **Undisturbed**	**Elevation ground water:** 7.5 ft

Depth	Lithology	Description	Blow Counts	Comments
0		SAND (SP) Black w/ basalt cobbles. Very hard drilling - bit chattered on rocks. Small amt of limestone cobbles present @ 2-3.0 ft		HNU - 1.1 SC:LL - 0 counts (backs round)
-2				
		First clearance. No detect - drilling ahead.		Note: Run 3 in PVC Pipe to 3.0 ft to clear. Run device inside PVC pipe to clear.
-4		HNU - 0.0 SC:LL - 0 counts		
		Rock drilled through - very slow drilling	Blow Counts #1	
		Silty sands (SP-SM), dark black w/ cobbles & frags of basalt & limestone (damp)	30 20 20	FEREX 4.021 Sampled w/ 2" sampler MW-1 5.0' - 6.0' Good recovery.
-6		Second clearance. No detect - drilling ahead.		
		HNU - 0.0 SC:LL - 0 counts		
				7.5 ft Approx. water table
-8		As above		
		Third clearance. No detect - drilling ahead. HNU - 0.0 ppm SC:LL - 0 counts.	Blow Counts #2	
-10			6	MW-2 Sample 10.0' - 11.5' Bottom part of sample is wet. Water table is appx. 7.0' - 8.0'
		AA - wet	8 8	
-12		Fourth clearance. No detect - drilling ahead. Drilling smooth, below water table.		
-14				
		Fifth clearance. No detect - drilling ahead. HNU - 0.0 ppm SC:LL - 0 counts		15.0' end of UXO clearance

-16					
		Smooth drilling. No chattering. Sand (SP) w/ trace of basalt frags from cuttings rec. from auger			
-18					
-20		Sand (SP) black w/ trace of basalt frags. (from auger), wet. Some clay (CL) present. Drilling smooth.			Note: Smooth drilling from 15' - 35' indicates sand with some CL present.
-22					
-24					
		Sand (SP) from auger, wet w/ CL			
-26					
-28		Drilling smooth			
-30		Sand (SP) from auger, wet, w/ CL			
-32					
		AA drilling smooth			
-34					

Drilling Log	**Vertical Hole No.** ERDC MW-2
Makua Military Reservation	**Size and Type of Bit:** 7" 3 way
Drilling agency: Valley Drilling	**Datum for elevation shown:** MSL
Name of Driller: John Surigad	**Date Started:** 10/09/02
Manufacturer's designation of drill: Mobile B-90	**Completed:** 10/09/02
Total No. of overburden samples taken: Disturbed 3	**Total Depth of Hole:** 35 ft
GPS Coord. N 21 deg. 32.063' W 158 deg. 13.13.694' **Undisturbed**	**Elevation ground water:** 11.7 ft

Depth	Lithology	Description	Blow Counts	Comments
0		Silty sand (SM), black, slightly sandy w/ basalt frags.		HNU - 0 ppm SC:LL - 18-20 counts
-1				
		Clay (CL) Black, sl. sandy, basalt frags.		Background counts 18-20 ppm
-2				
-3		First clearance. No detect - drilling ahead.		
-4				
-5			Blow Counts 10	Lean clay (CL) dark gray w/ silt
			20	
-6		Second clearance. No detect - drilling ahead.	20	HNU - 0 ppm SC:LL - 18-20 counts
-7				
-8				
-9		Third clearance. No detect - drilling ahead.		HNU - 0 ppm SC:LL - 18-20 counts
-10			Blow Counts 10	Lean clay (CL) dark gray w/ sand/silts. Inclusions and lenses.
-11			20 20	
-12		Fourth clearance. No detect - drilling ahead.		11.7' (Approx. water table) HNU - 0 ppm SC:LL - 18-20 counts
-13				
-14				
-15		Fifth clearance. No detect - drilling ahead.	Blow Counts 6 6	HNU - 0 ppm SC:LL - 18-20 counts Lean clay (CL) sl. sandy, dark gray to black. Trace basalt frags.


-16
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-29
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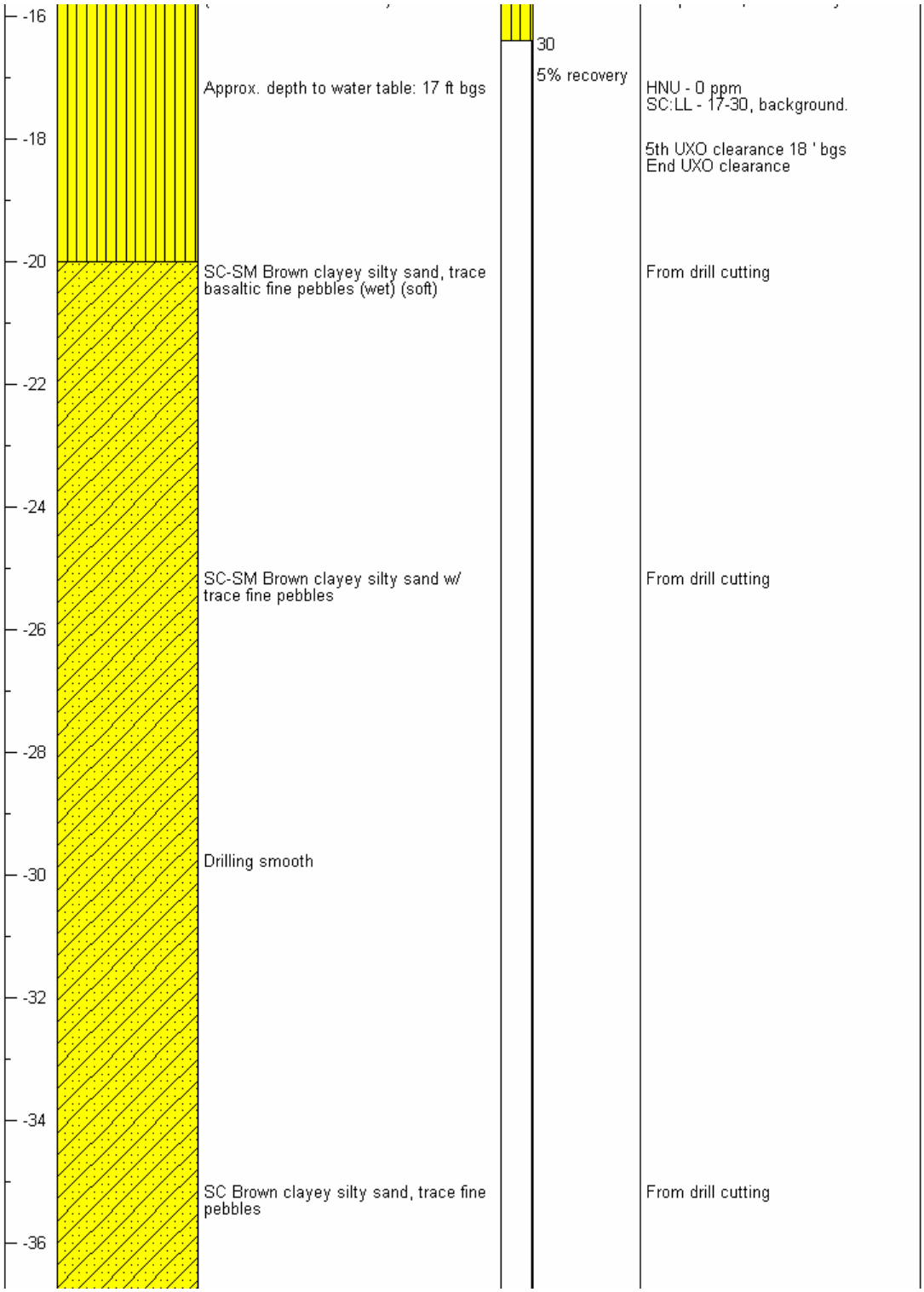
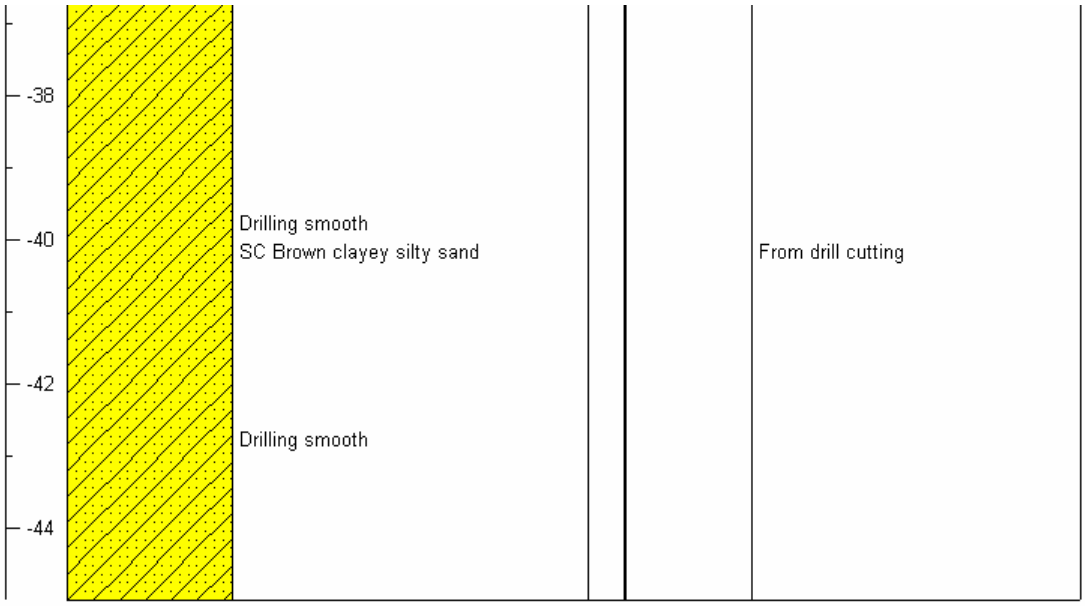
-31
-32
-33
-34
-35
8
Sixth clearance. No detect - drilling ahead.
HNU - 0 ppm
SC:LL - 18-20 counts
HNU - 0 ppm
SC:LL - 18-20 counts
Seventh clearance (final). No detect - drilling ahead.
Lean clay, slightly sandy. Dark gray, trace basalt frags. (auger cuttings).
Rock and rock frags (recovered basalt frags).
Lean clay (CL) A/A more sandy (auger cuttings)

Drilling Log	**Vertical Hole No.** ERDC MW-3A
Makua Military Reservation	**Size and Type of Bit:** 10' - dia Hollow Stm. Auger
Drilling agency: Valley Drilling	**Datum for elevation shown:** MSL (approx. 20')
Name of Driller: John Surigad	**Date Started:** 10/14/02
Manufacturer's designation of drill: Mobile B-90	**Completed:** 10/14/02
Total No. of overburden samples taken: Disturbed 3	**Total Depth of Hole:** 45 ft
Undisturbed	**Elevation ground water:** 17' bgs

Depth	Lithology	Description	Blow Counts	Comments
0		ML Dark brown sandy clayey silt with few basaltic gravel fragments (dry) (loose) (fill)		HNU - 0 ppm SC:LL - 17-35 background
-2				
				UXO clearance
-4				
		ML Dark brown sandy clayey silt, few basaltic gravel fragments (dry) (loose)	#1 7 21 27	Sample w/ 2" dia split spoon sampler. 140 lb. hammer. Sample ID: MMRSSMW-3A-5.0'
-6				
			25% recovery	HNU - 0 ppm SC:LL - 20-30, background
-8				
				2nd UXO clearance at 6' bgs
				3rd UXO clearance
-10		ML Dark brown sandy clayey silt, few basaltic fine gravel (dry) (dense to very dense)	#2 30 50	Sample w/ 2" dia split spoon sampler. 140 lb. hammer. Sample ID: MMRSSMW-3A-10.0' Sampler refusal<1'.
			33% recovery	
-12				4th UXO clearance. HNU - 0 ppm SC:LL 20-35, background.
-14				
		ML Dark brown clayey sandy silt, trace basaltic gravel, fine gravel (moist) (medium dense to dense)	#3 20 20	Sample w/ 2" dia split spoon sampler. 140 lb. hammer. Rock in sample shoe, low recovery.

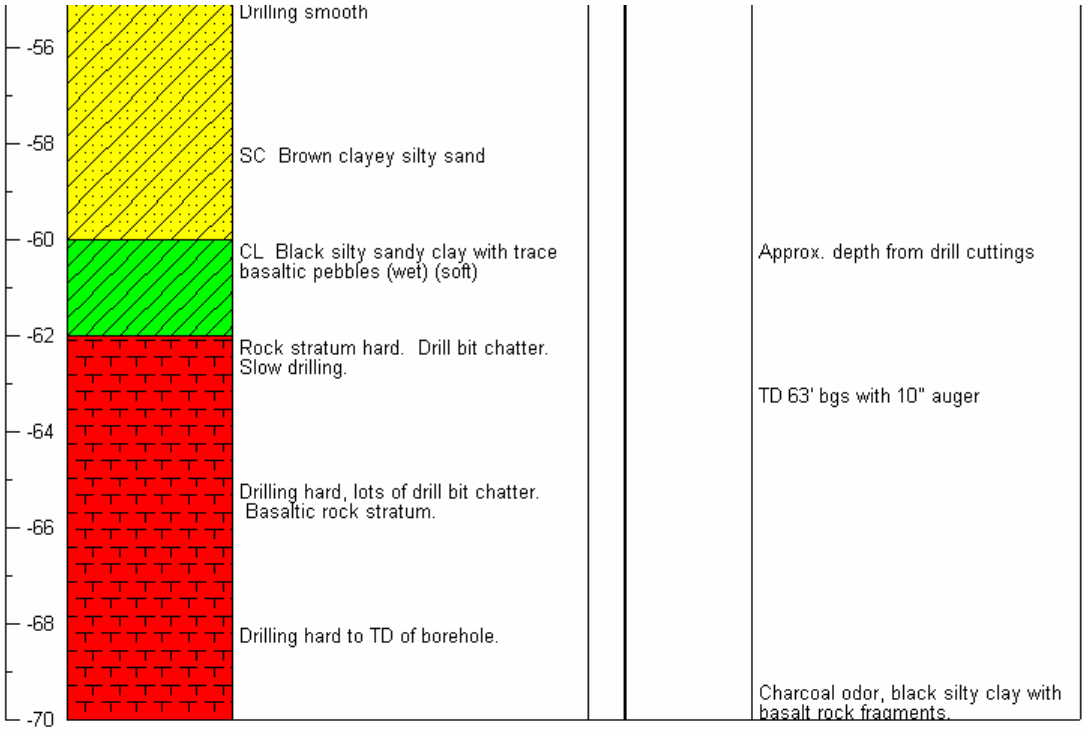

-16
-18
-20
-22
-24
-26
-28
-30
-32
-34
-36
Approx. depth to water table: 17 ft bgs
SC-SM Brown clayey silty sand, trace basaltic fine pebbles (wet) (soft)
SC-SM Brown clayey silty sand w/ trace fine pebbles
Drilling smooth
SC Brown clayey silty sand, trace fine pebbles
30
5% recovery
HNU - 0 ppm
SC:LL - 17-30, background.
5th UXO clearance 18 ' bgs
End UXO clearance
From drill cutting
From drill cutting
From drill cutting


-38
-40
-42
-44
Drilling smooth
SC Brown clayey silty sand
Drilling smooth
From drill cutting

Drilling Log	**Vertical Hole No.** ERDC MW-3B
Makua Military Reservation	**Size and Type of Bit:**
Drilling agency: Valley Drilling	**Datum for elevation shown:** MSL (appx. 20')
Name of Driller: John Surigad	**Date Started:** 10/16/02
Manufacturer's designation of drill: Mobile B-90	**Completed:**
Total No. of overburden samples taken: Disturbed 3	**Total Depth of Hole:** 70 ft
Undisturbed	**Elevation ground water:** 4' (16' bgs)

Depth	Lithology	Description	Blow Counts	Comments
0		ML Dark brown sandy clayey silt, few basaltic fine gravel (dry) (loose) (fill)		HNU - 0 SC:LL - 19 to 31, BG
-2				
				UXO clearance
-4				
		ML Dark brown sandy clayey silt, few basaltic fine gravel (dry) (medium) (dense)	#1 12 26 30 20%	Sample w/ 2 in diameter split spoon sampler, 140 lb hammer Sample ID: MMRSSMW-3B-5.0 HNU - 0 SC:LL - 20 to 30, BG UXO clearance
-6				
		Drilling smooth		
-8				
				UXO clearance
-10		ML Dark brown sandy clayey silt, few basaltic fine gravel fragments (dry) (medium dense to dense)	#2 15 25 40 60%	Sample w/ 2 in diameter split spoon sampler, 140 lb hammer Sample ID: MMRSSMW-3B-10.0' HNU - 0 SC:LL - 15 to 35, BG UXO clearance
-12				
		Drilling smooth		
-14				
-16		ML-SC Dark brown sandy clayey silt, clayey sand at about 16' bgs, few basaltic gravel and cobble (wet) (medium dense) Approx. water table at 16' bgs	#3 15 25 20 75%	Sample w/ 2 in diameter split spoon sampler, 140 lb hammer Sample ID: MMRSSMW-3B-15.0' HNU - 0, SC:LL- 15 to 33 BG, UXO clearance End UXO clearance
-18				
-20				HNU - 0 End HNU monitoring
-22		Drilling smooth		

-24				
		SC Brown clayey silty sand		From drill cuttings
-26				
-28		Drilling smooth		
-30		SC Brown clayey silty sand		From drill cuttings
-32				
-34				
		SC Brown clayey silty sand		From drill cuttings
-36				
-38				
-40		SC Brown clayey silty sand		From drill cuttings
-42				
-44				
		Drilling smooth		
-46				
-48				
-50		SC Brown clayey silty sand		From drill cuttings
-52				
-54				


-56
-58
-60
-62
-64
-66
-68
-70
Drilling smooth
SC Brown clayey silty sand
CL Black silty sandy clay with trace basaltic pebbles (wet) (soft)
Rock stratum hard. Drill bit chatter. Slow drilling.
Drilling hard, lots of drill bit chatter. Basaltic rock stratum.
Drilling hard to TD of borehole.
Approx. depth from drill cuttings
TD 63' bgs with 10" auger
Charcoal odor, black silty clay with basalt rock fragments.

Drilling Log	**Vertical Hole No.** ERDC MW-3C
Makua Military Reservation	**Size and Type of Bit:** 10" tri-cone
Drilling agency: Valley Drilling	**Datum for elevation shown:** MSL
Name of Driller: John Surigad	**Date Started:** 11/20/02
Manufacturer's designation of drill: Mobile B-90	**Completed:** 11/27/02
Total No. of overburden samples taken: **Disturbed** 2	**Total Depth of Hole:** 106 ft
Undisturbed	**Elevation ground water:** 15.5' bgs

Depth	Lithology	Description	Blow Counts		Comments
0					Drilling performed using 6 " diameter hollow stem auger to facilitate UXO clearance. UXO clearance conducted every 3' down to 21' bgs. HNU scintillometer readings taken on drill cuttings at the same time as UXO clearance. HNU - 0 SC:LL - 15 to 15 (background) levels.
-2					
-4					
-6					
-8					
-10		SPT 8/13/20 (ML) Dark brown clayey silt, dry, loose, few fine to coarse sub-angular basaltic gravel frag.			
-12		(CL) Dark brown (10YR3/3) clayey silt, medium plasticity, dry. loose from drill cuttings.			
-14					
-16		SPT 4/12/16 (CH) olive gray (5Y4/0) sandy clay with silt, stiff, moist.			Appx. water table.
-18					
-20					
-22		End of UXO clearance.			
-24					
-26		Basaltic rock layer at appx. 26' bgs to appx. 45' bgs.			
-28					
-30					
-32					
-34					
-36					
-38					
-40					
-42					
-44					
-46		(CL) Black silty clay with trace of basalt frags from drill cuttings.			

-48
-50
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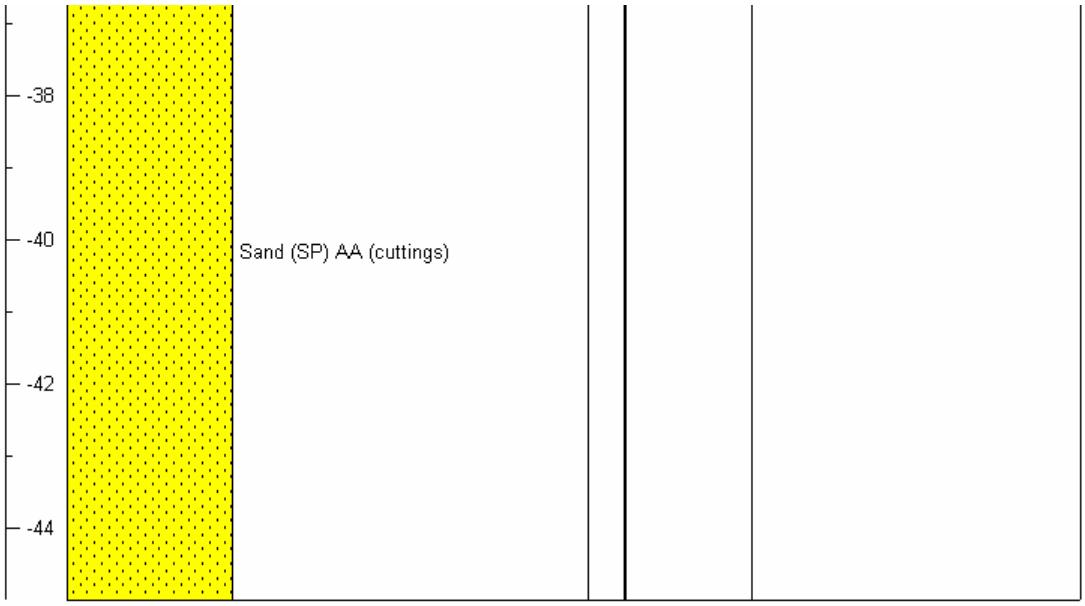
-74
-76
-78
-80
-82
-84
-86
-88
-90
-92
-94
-96
-98
-100
-102
-104
-106
Basaltic rock layer at appx. 60' bgs to appx. 85' bgs
(CL) Black silty clay, soft, trace basaltic frags.
Overdrilled to 106' bgs, set bottom of well casing @ 100' bgs.

Drilling Log	**Vertical Hole No.** ERDC MW-4A
Makua Military Reservation	**Size and Type of Bit:** 7" 3 way
Drilling agency: Valley Drilling	**Datum for elevation shown:** MSL
Name of Driller: John Surigad	**Date Started:** 9/20/02
Manufacturer's designation of drill: Mobile B-90	**Completed:** 9/20/02
Total No. of overburden samples taken: **Disturbed** 2	**Total Depth of Hole:** 45 ft
GPS Coord. N 21 deg. 31.734' W 158 deg. 13.570' **Undisturbed**	**Elevation ground water:** 16.9'

Depth	Lithology	Description	Blow Counts	Comments
0		Fine sand (SM) Brown fill?		HNU - 0.0 ppm SC:LL - 18-20 counts (only background)
-2				
		First clearance, no detect 0A		HNU - 0.0 ppm SC:LL - 18-20 counts (background only)
-4		Sand (SP) White, brown calcareous, well rounded, paleo-beach sand. Well sorted, coarse grained.		
			Blow counts 10 10 12	Sampled w/ 2" sampler from 5.0' to 6.5' Sand (SP)
-6		Second clearance HNU - O.0. ppm SC:LL 18 total counts (only background)		
-8		A.A. (cuttings)		
		Third clearance/NT/OA HNU - 0.0 ppm SC:LL - 0 counts (only background)	Blow counts 7 17 17	Sampled w/ 2" sampler from 10.0' to 11.5' Sand (SP) w/ sorted, white, coarse grained
-10				
-12		Fourth clearance/NT/0A HNU - 0.0 ppm SC:LL - 0 counts (only background)		
-14		Sand (SP) A/A, white to brown (cuttings)		
		Fifth clearance Sand (SP) slightly damp HNU - 0.0 ppm		

-16		SC:LL - 18-20 counts (only background)			Note: Drilling ahead to 20.0' - let hole set for 20 minutes to see if water comes back into hole. Measured 16.9' w/ electrical tape.
		16.9' Water Table			
-18		Sand (SP) A/A			
-20		Sand (SP) White to brown, well-sorted, coarse grained, wet (auger cutting)			HNU - 0.0 ppm SC:LL 18-20 counts (only background)
-22					
-24					
		Sand (SP) AA (cuttings)			
-26					
-28					
-30		Sand (SP) AA (cuttings)			
-32					
-34					
		Sand (SP) AA (cuttings)			
-36					


-38
-40
-42
-44
Sand (SP) AA (cuttings)

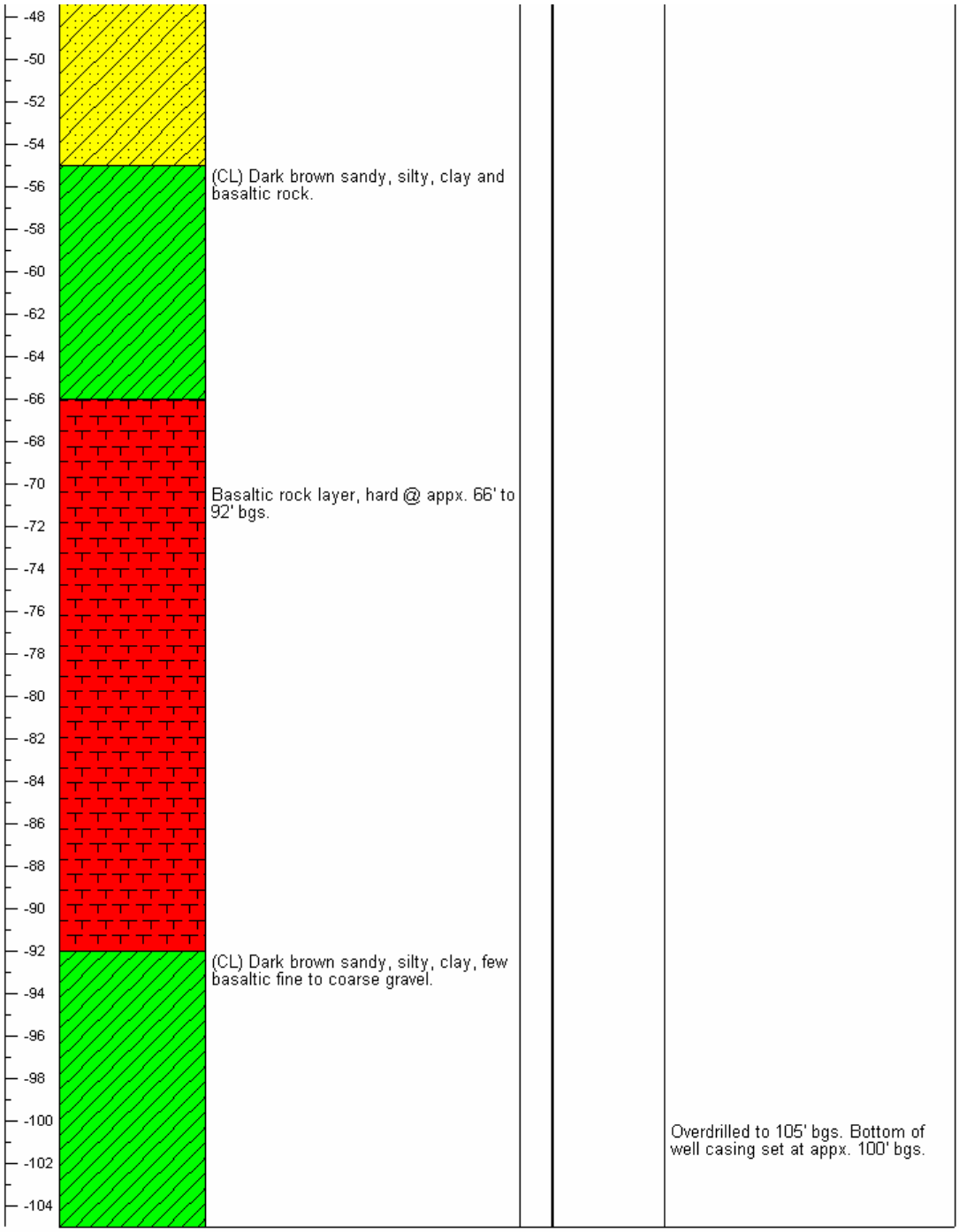
Drilling Log	**Vertical Hole No.** ERDC MW-4B
Makua Military Reservation	**Size and Type of Bit:** 7" 3 way
Drilling agency: Valley Drilling	**Datum for elevation shown:** MSL
Name of Driller: John Surigad	**Date Started:** 9/20/02
Manufacturer's designation of drill: Mobile B-90	**Completed:** 9/20/02
Total No. of overburden samples taken: **Disturbed** 2	**Total Depth of Hole:** 70 ft
GPS Coord. N 21 deg. 31.742' W 158 deg. 573' (Acc. 19') **Undisturbed**	**Elevation ground water:** 16.8'

Depth	Lithology	Description	Blow Counts	Comments
0		Fine sand (SM) brown. Fill?		HNU - 0 ppm SC:LL - 18 - 20 counts (background)
-2				
-4		First clearance. ND/DA. End of fill.		HNU - 0 ppm SC:LL - 18 - 20 counts (background)
-6		Sand (SP) brown to white. Very well sorted. Second clearance. ND/DA.	Blow Counts 20 30 30	Sampled with 2" D.T. Sands (SP) HNU - 0 ppm SC:LL - 18 - 20 counts
-8		Sand (SP) cuttings.		
-10		Third clearance. HNU - 0 ppm SC:LL - 18 - 20 counts	Blow Counts 15 15 20	Sampled with 2" D.T. Sand (SP)
-12		Fourth clearance. ND/DA. Sand (SP) Brown to white (cuttings).		
-14				
-16		Fifth clearance. HNU - 0 ppm SC:LL - 18 - 20 counts Sand (SP) A/A. Water table at 16.8'		Note: Drilled hole to 20', let set 20 min to check water level.
-18				
-20				HNU - 0 ppm SC:LL - 18 - 20 counts
-22		Sand (SP) A/A.		
-24				
-26		Sand (SP) A/A (cuttings)		
-28				
-30		Sand (SP) A/A (cuttings)		

-32					
-34					
-36		Sand (SP) A/A (cuttings)			
-38					
-40		Sand (SP) A/A			
-42					
-44					
-46		Sand (SP) A/A			
-48					
-50		Sand (SP) A/A			
-52					
-54					
-56		Sand (SP) A/A			
-58					
-60		Rock at 59 to 60', then back into sand (SP) A/A			
-62					
-64					
-66		Sand (SP) A/A			
-68					
-70		Not as hard, last two feet.			Note: Removed hard black material from auger bit.

Drilling Log	**Vertical Hole No.** ERDC MW-4C
Makua Military Reservation	**Size and Type of Bit:** 10" Tri-cone, Mud rotary
Drilling agency: Valley Drilling	**Datum for elevation shown:** MSL- 235.36'
Name of Driller: John Surigad	**Date Started:** 12/04/02
Manufacturer's designation of drill: Mobile B-90	**Completed:**
Total No. of overburden samples taken: Disturbed 0	**Total Depth of Hole:** 105 ft
Undisturbed 0	**Elevation ground water:** 15' bgs

Depth	Lithology	Description	Blow Counts		Comments
0					Drilling performed initially using 6" diameter hllow stem auger to facilitate UXO clearance. UXO clearance conducted every 3' down to 21' bgs. HNU and scintillometer readings taken on drill cuttins at the same time as UXO clearances (every 3 feet) HNU - 6:0 SC:LL - 15 - 45.
-2					
-4					
-6		(SC) Brown, clayey, silty, sand, loose, from cuttings. Smooth drilling.			
-8					
-10					
-12					
-14					
-16		Approximate water table.			
-18					
-20					
-22		End UXO clearance			
-24					
-26		(SC) Brown, clayey, silty, sand w/ trace fine to coarse basaltic gravel from drill cuttings.			
-28					
-30					
-32					
-34					
-36					
-38					38' bgs encountered cavities or void, slow drilling due to borehole instability and drilling mud loss.
-40					
-42					
-44					
-46					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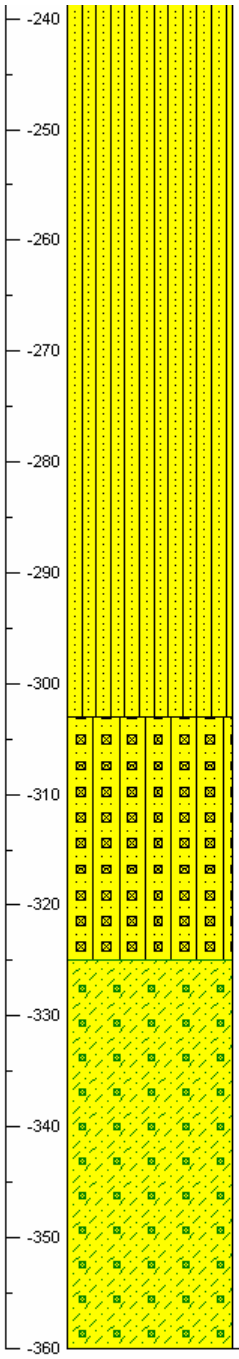
-76
-78
-80
-82
-84
-86
-88
-90
-92
-94
-96
-98
-100
-102
-104
(CL) Dark brown sandy, silty, clay and basaltic rock.
Basaltic rock layer, hard @ appx. 66' to 92' bgs.
(CL) Dark brown sandy, silty, clay, few basaltic fine to coarse gravel.
Overdrilled to 105' bgs. Bottom of well casing set at appx. 100' bgs.

Drilling Log	**Vertical Hole No.** ERDC MW-5
Makua Military Reservation	**Size and Type of Bit:** 10" Tri-cone, Mud rotary
Drilling agency: Valley Drilling	**Datum for elevation shown:** MSL- 235.36'
Name of Driller: John Surigad	**Date Started:** 12/04/02
Manufacturer's designation of drill: Mobile B-90	**Completed:**
Total No. of overburden samples taken: Disturbed 0	**Total Depth of Hole:** 360 ft
Undisturbed 0	**Elevation ground water:** 15' bgs

Depth	Lithology	Description	Blow Counts	Comments
0				Air rotary drilling.
-10				
-20		(ML) dk brown clayey silt to silty clay, moist. Few basaltic rocks.		From drill cuttings HNU - 0 SC:LL - BG
-30				
-40		Basaltic rock layers mixed with dk brown clayey silt (ML) Drilled through rock layers mixed with dk brown clayey silt (ML), dry.		From drill cuttings HNU - 0 SC:LL - BG
-50		Basaltic rock layers mixed with dk brown clayey silt (ML).		From drill cuttings HNU - 0 SC:LL - BG
-60				
-70		(ML) dk brown clayey silt, dry.		From drill cuttings HNU - 0 SC:LL - BG
-80		Drilling smooth.		
-90		(ML) Dk brown clayey silt, dry.		From drill cuttings HNU - 0 SC:LL - BG
-100		Drilling smooth.		Air rotary drilling, Air volume 1,000

			ft3/m
-110	(ML) Brown clayey silt. Drilling smooth.		
			HNU:0 Scintillometer - 33.5
-120			
-130			HNU - 0 Scintillometer - 32.5
-140			HNU - 0 Scintillometer - 33.4
	(ML) Brown clayey silt. Void of boulders of basaltic rock pieces. Plasticity - moderate. Poorly sorted.		
-150			
-160	Same as above.		HNU - 0
-170			Scintillometer - 31.7
-180			HNU - 0
-190			Scintillometer - 33.6
-200			
-210	(ML) Light brown clayey silt.		HNU - 0
-220	(SM) Fine grained silty sand. Very fine grained, poorly sorted.		Scintillometer - 39.0
-230			HNU - 0



-240		Scintillometer - 38.7
-250		HNU - 0
-260	(SM) Fine grained silty sand. Some clay lenses, very thin. Light brown in color. Poorly sorted.	Scintillometer - 31.0
-270		HNU - 0
-280	Same as above.	Scintillometer - 34.6
-290		HNU - 0
-300	(GM) Silty gravels. Gravel size 1-2 cm. Some silt matrix, appx. 25%. Poorly sorted.	Scintillometer - 31.8
		HNU - 0
-310		Scintillometer - 32.8
-320		HNU - 0
-330	(GC) Clayey gravel. Loose gravel 2-5 cm in size. Well-rounded, poorly sorted. Some clay matrix, 10-15%.	Scintillometer - 33.3
-340		HNU - 0
-350		
-360	Same as above.	Scintillometer - 31.4

ERDC-B-1

Drilling Log	**Vertical Hole No.** ERDC-B-1
Makua Military Reservation	**Size and Type of Bit:** 10" Hollow stem
Drilling agency: Valley Drilling	**Datum for elevation shown:** MSL 450'
Name of Driller: Tim Robertson	**Date Started:** 2/7/03
Manufacturer's designation of drill: Mobile B-59	**Completed:** 2/7/03
Total No. of overburden samples taken: Disturbed 8	**Total Depth of Hole:** 44 ft
Undisturbed 0	**Elevation ground water:** 25' to 50' MSL

Depth	Lithology	Description	Blow Counts	Comments
0		CL - organic rich clay. Brown in color, high plasticity, moist, small (less than 1cm) pebbles of basalt rock.	Blow Counts 10 18 18	ID:MMRBHSS1-1 SC:LL=20.2 HNU=0 Time 9:30
-10		8' - color change to light gray 10' - back to brown color	10 18 35	ID:MMRBHSS1-2 SC:LL=20.0 HNU=0 Time 9:45
			5 7 50	ID:MMRBHSS1-3 SC:LL=20.1 HNU=0 Time 10:30
-20		UXO clearance completed at 20 feet	22 25 36	ID:MMRBHSS1-4 SC:LL=21.7 HNU=0 Time 11:00
			20 34 50	ID:MMRBHSS1-5 SC:LL=22.2 HNU=0 Time 11:30
-30			15 50 66% recovery	ID:MMRBHSS1-6 SC:LL=22.8 HNU=0 Time 11:45
			24 45 48	ID:MMRBHSS1-7 SC:LL=22.7 HNU=0 Time 12:00
-40			25 54 50 % recovery	ID:MMRBHSS1-8 SC:LL=21.7 HNU=0 SC:LL=18.3 Time 12:15
		Basalt boulder @ 44 feet. Basalt chips in cuttings. Auger refusal. TD 44.0 ft		- Cannot collect sample at 45' and 50' due to boulder.
-50				

ERDC-B-2

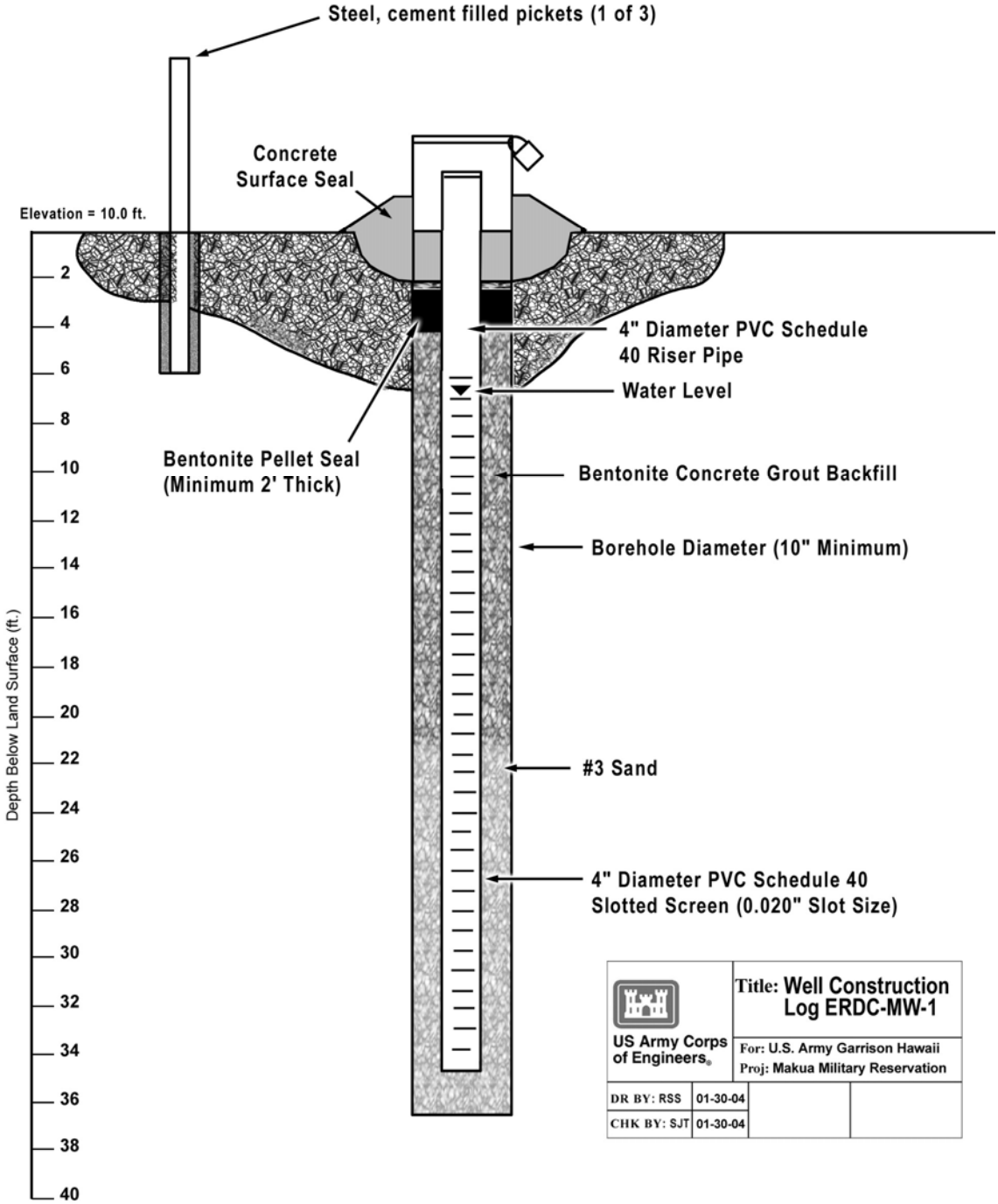
Drilling Log	**Vertical Hole No.** ERDC-B-2
Makua Military Reservation	**Size and Type of Bit:** 10" Hollow stem
Drilling agency: Valley Drilling	**Datum for elevation shown:** MSL 450'
Name of Driller: Tim Robertson	**Date Started:** 2/10/03
Manufacturer's designation of drill: Mobile B-59	**Completed:** 2/10/03
Total No. of overburden samples taken: Disturbed 8	**Total Depth of Hole:** 46 ft
Undisturbed 0	**Elevation ground water:** 25' to 50' MSL

Depth	Lithology	Description	Blow Counts	Comments
0		CL Clay - High plasticity high moisture content, dark brown in color.		
		Boulder at 5', many small rocks in (CL) clay matrix.	Blow Counts 7 10 8	ID: MMRBHSS2-1 SC:LL=18.5 HNU=0
-10			10 15 18	ID: MMRBHSS2-2 SC:LL=20.0 HNU=0
			18 30 38	ID: MMRBHSS2-3 SC:LL=19.5 HNU=0
-20		UXO clearance completed at 20 feet	25 32 50	ID: MMRBHSS2-4 SC:LL=21.6 HNU=0
		Hit rock at 25'. Switch to air hammer bit. Past rock at 26'	15 50	ID: MMRBHSS2-5 70% recovery SC:LL=21.5 HNU=0
-30		Hard drilling	32 45 50	ID: MMRBHSS2-6 SC:LL=20.7 HNU=0
		Small rocks at 37'	52 125	ID: MMRBHSS2-7 60 % recovery SC:LL=22.0 HNU=0
-40				ID: MMRBHSS2-8
		GC Gravel with clay. Some large gravel pieces. Clay has high plasticity, dark brown.		
		Hit rock at 46'. Auger refusal. TD 46.0 ft		
-50				

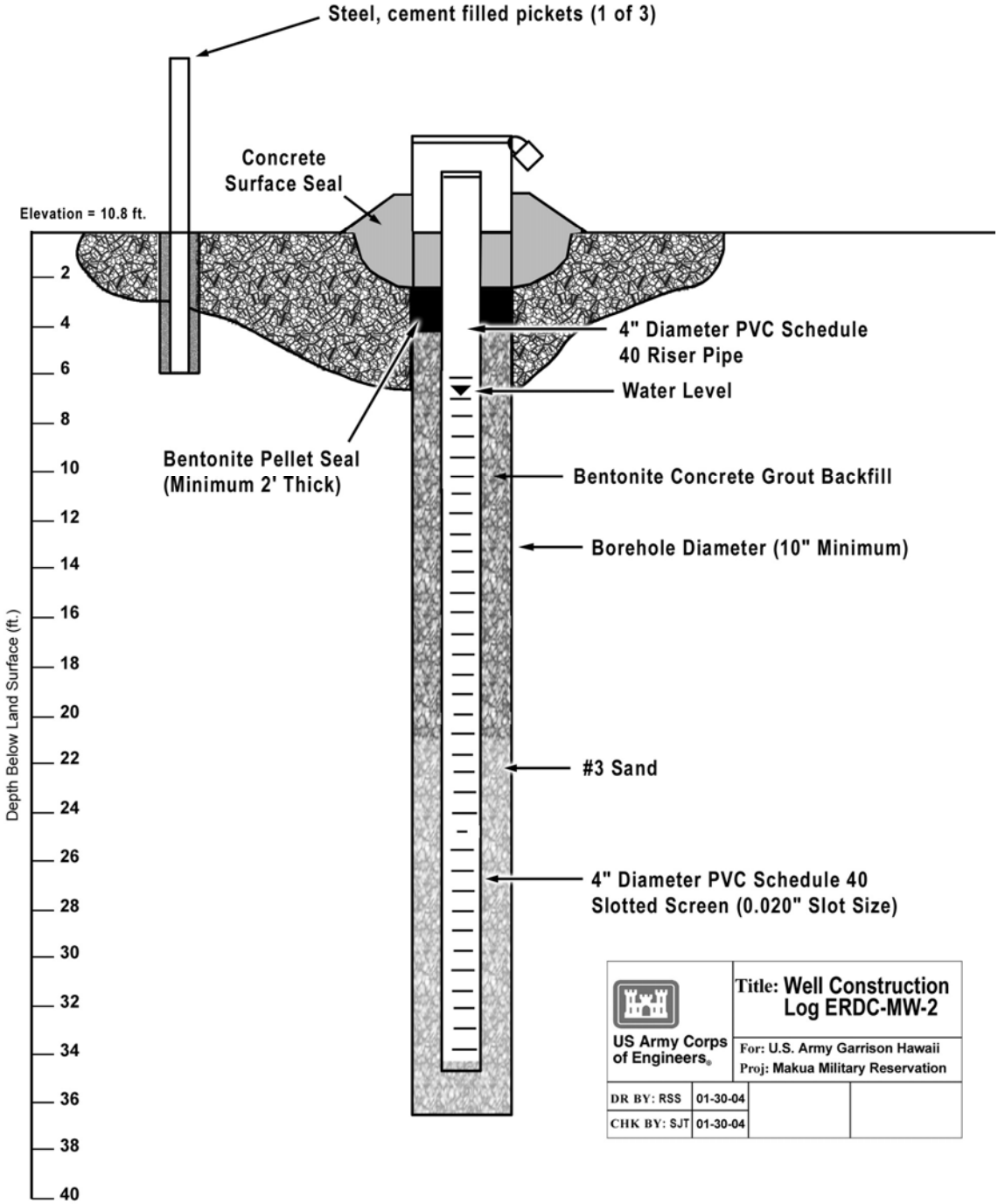
ERDC-B-3

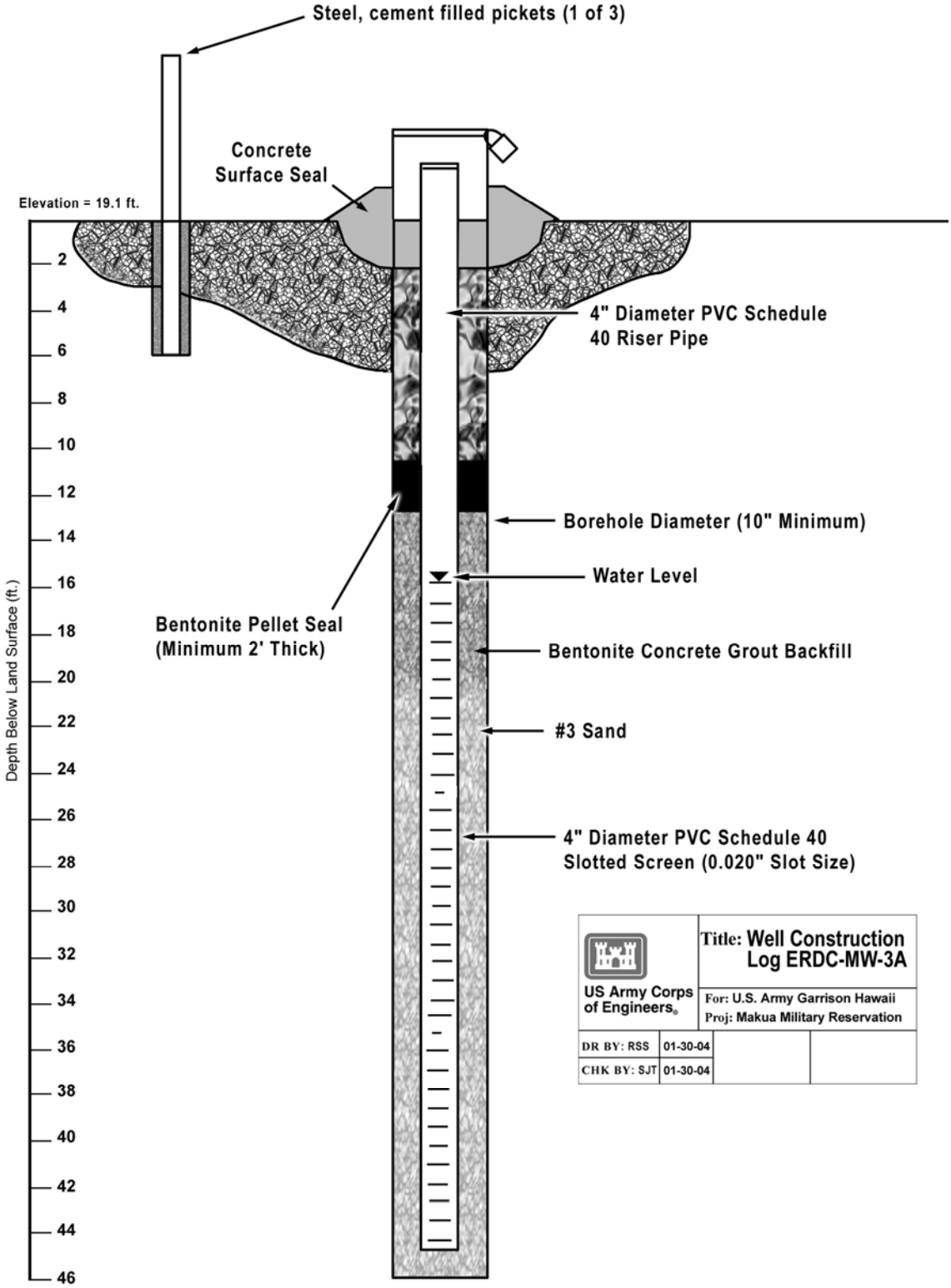
Drilling Log	**Vertical Hole No.** ERDC-B-3
Makua Military Reservation	**Size and Type of Bit:** 8" Hollow stem
Drilling agency: Valley Drilling	**Datum for elevation shown:** MSL 85'
Name of Driller: Tim Robertson	**Date Started:** 2/17/03
Manufacturer's designation of drill: Mobile B-59	**Completed:** 2/17/03
Total No. of overburden samples taken: Disturbed 0	**Total Depth of Hole:** 20 ft
Undisturbed 0	**Elevation ground water:** 8' to 10' MSL

Depth	Lithology	Description	Blow Counts	Comments
0		CL Clayey Silt with minimal gravel. Light brown		
				ID = MMRBHSS3-1 SC:LL=28.0 HNU=0
			100% recovery	
		Rock at 7.5'		
-10			0% recovery	SC:LL=31.0 HNU=0
		CL Clayey Silt with gravel. Light brown, gravel limiting recovery of sample.		
			Blow Count = 50/4 inches 25% recovery	ID = MMRBHSS3-2 SC:LL=29.0 HNU=0
		GC Gravely Clay with some silt. Light brown.		
		UXO clearance complete at 20 feet. Auger refusal at 20 feet, due to large basalt rock. TD 20.0 ft		
-20				

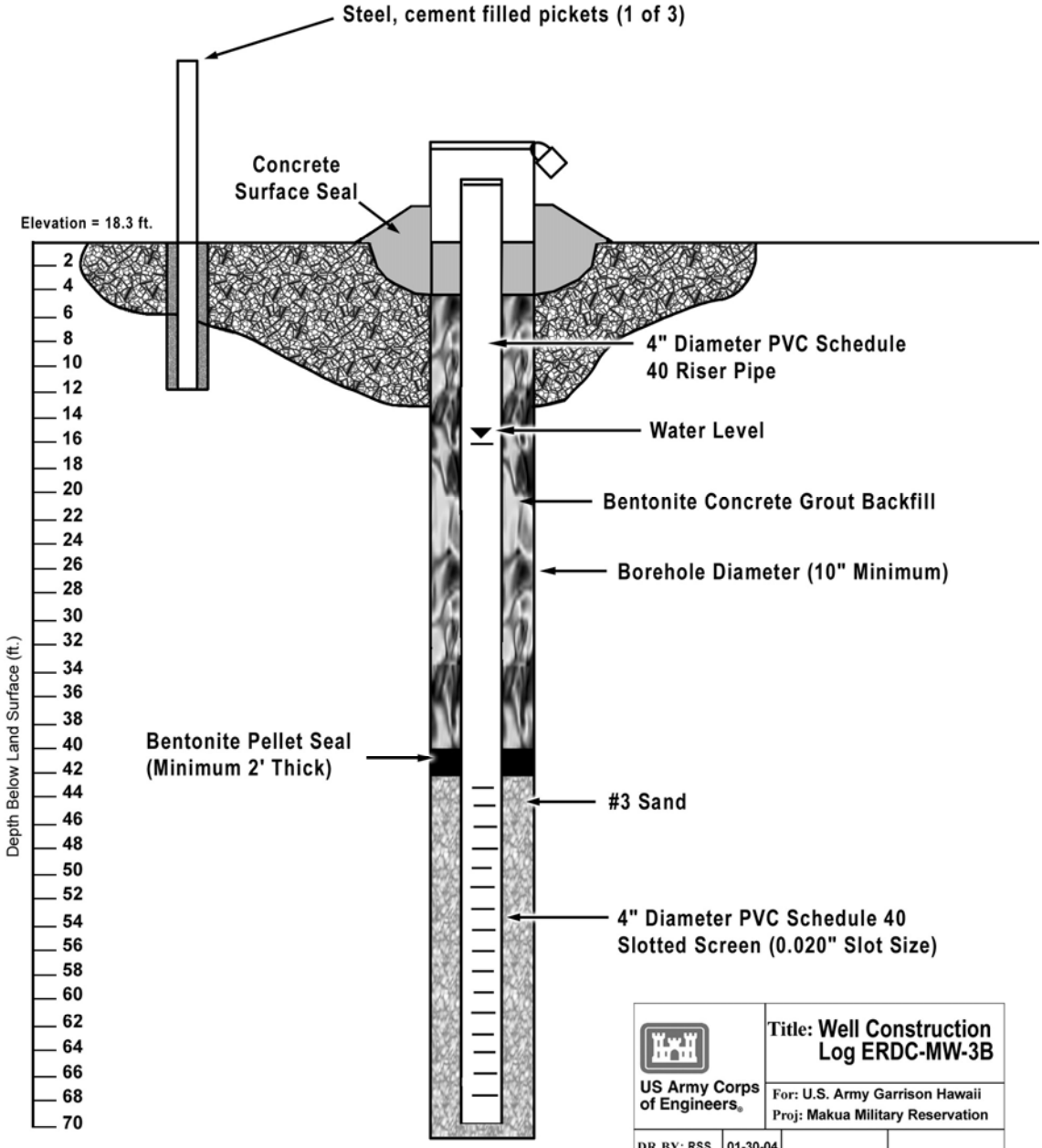


US Army Corps of Engineers®	Title: Well Construction Log ERDC-MW-1		
	For: U.S. Army Garrison Hawaii Proj: Makua Military Reservation		
DR BY: RSS	01-30-04		
CHK BY: SJT	01-30-04		

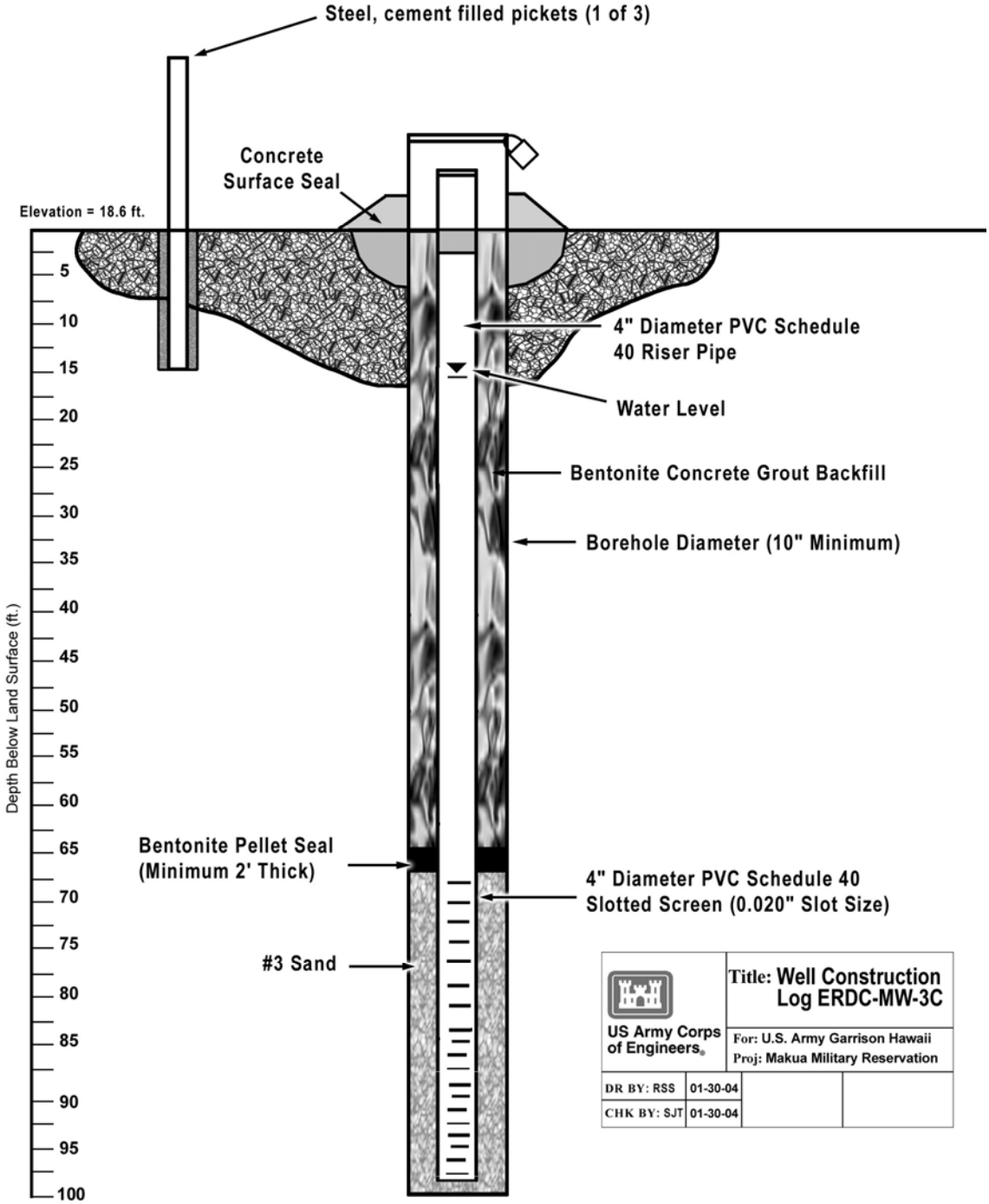

Steel, cement filled pickets (1 of 3)
Concrete Surface Seal
Elevation = 10.8 ft.
Depth Below Land Surface (ft.)
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
4" Diameter PVC Schedule 40 Riser Pipe
Water Level
Bentonite Pellet Seal (Minimum 2' Thick)
Bentonite Concrete Grout Backfill
Borehole Diameter (10" Minimum)
#3 Sand
4" Diameter PVC Schedule 40 Slotted Screen (0.020" Slot Size)
US Army Corps of Engineers
Title: Well Construction Log ERDC-MW-2
For: U.S. Army Garrison Hawaii
Proj: Makua Military Reservation
DR BY: RSS
01-30-04
CHK BY: SJT
01-30-04

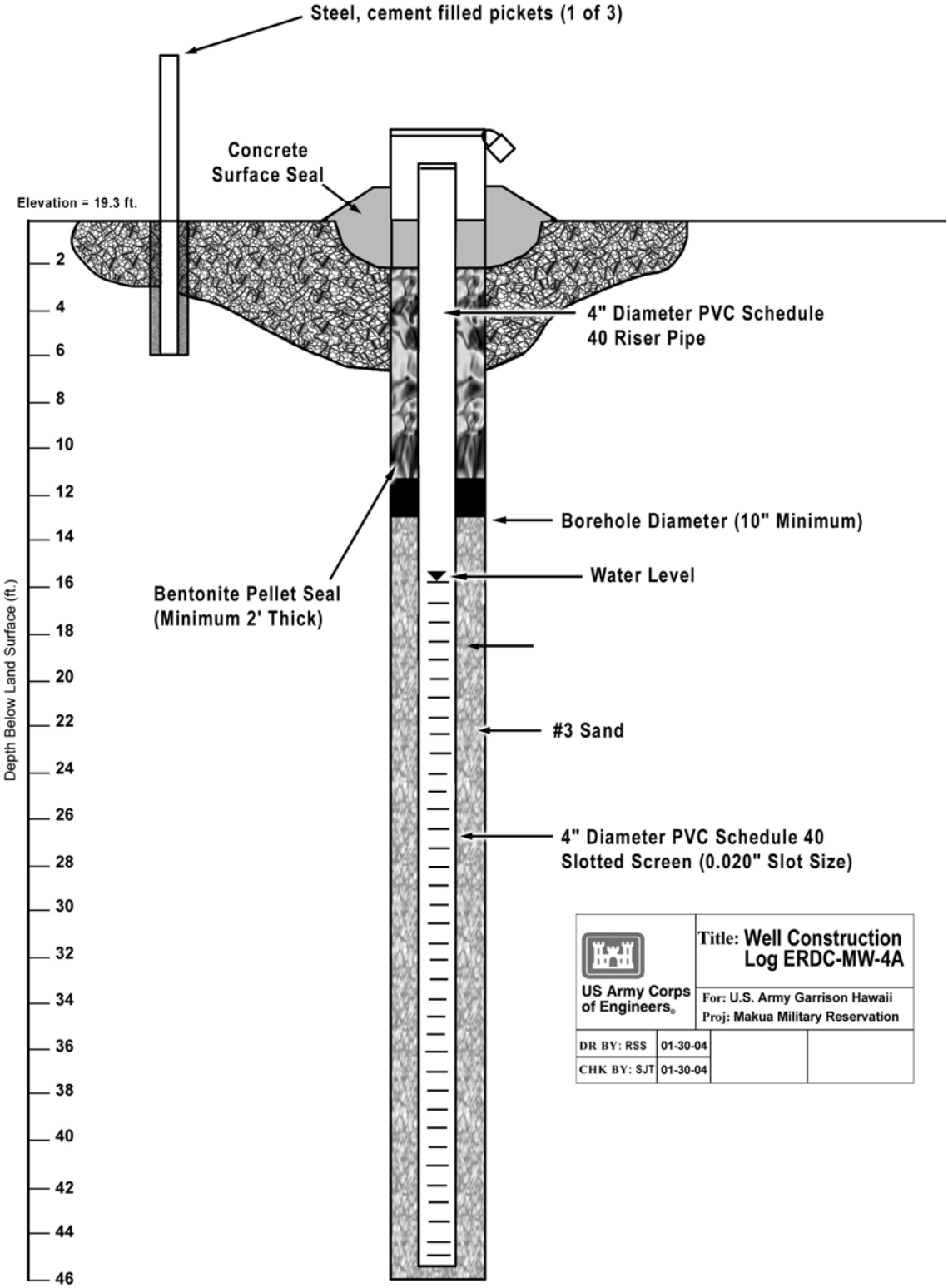


US Army Corps of Engineers®	Title: Well Construction Log ERDC-MW-3A	
	For: U.S. Army Garrison Hawaii Proj: Makua Military Reservation	
DR BY: RSS	01-30-04	
CHK BY: SJT	01-30-04	

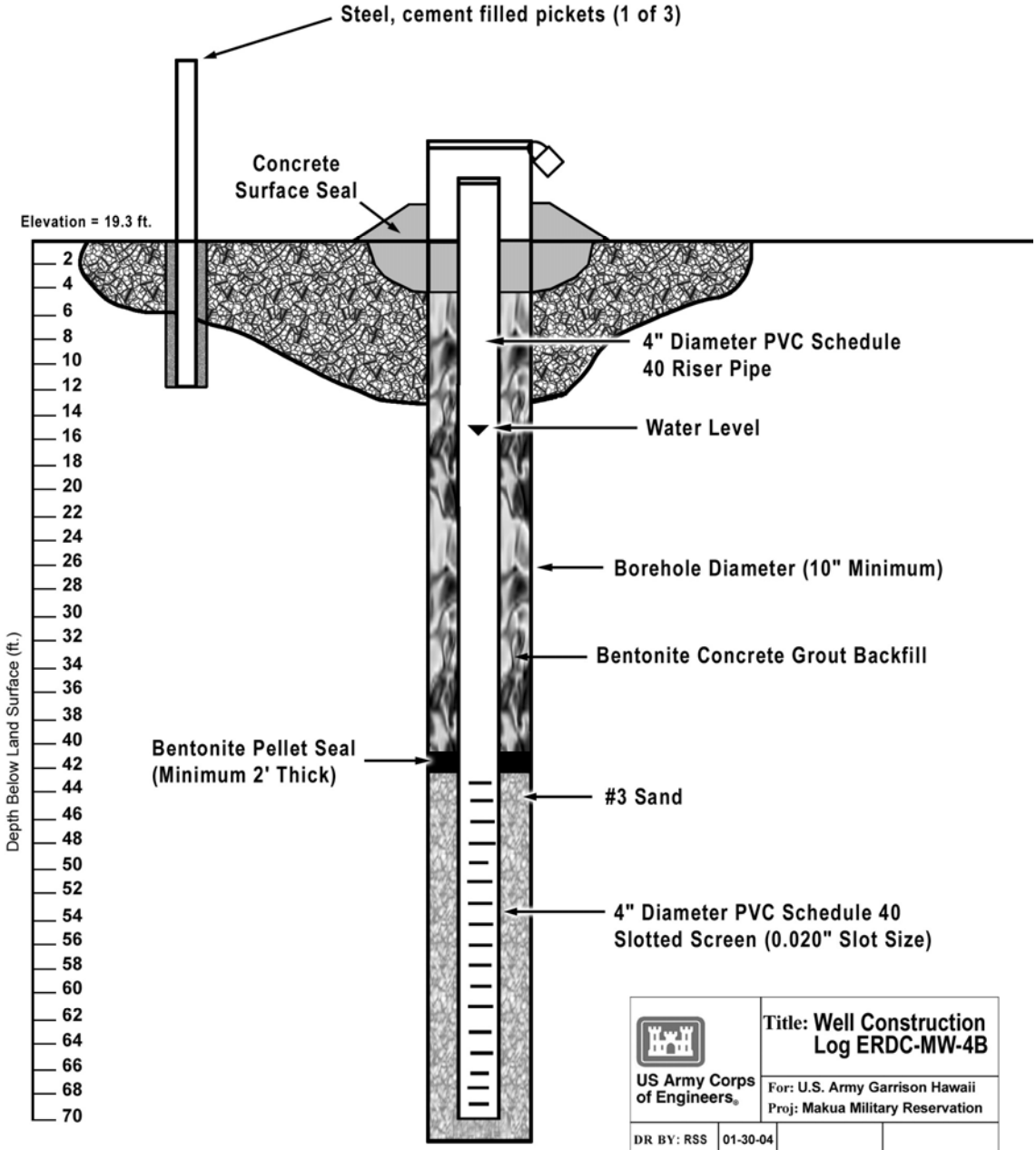


US Army Corps of Engineers®	Title: Well Construction Log ERDC-MW-3B	
	For: U.S. Army Garrison Hawaii Proj: Makua Military Reservation	
DR BY: RSS	01-30-04	
CHK BY: SJT	01-30-04	

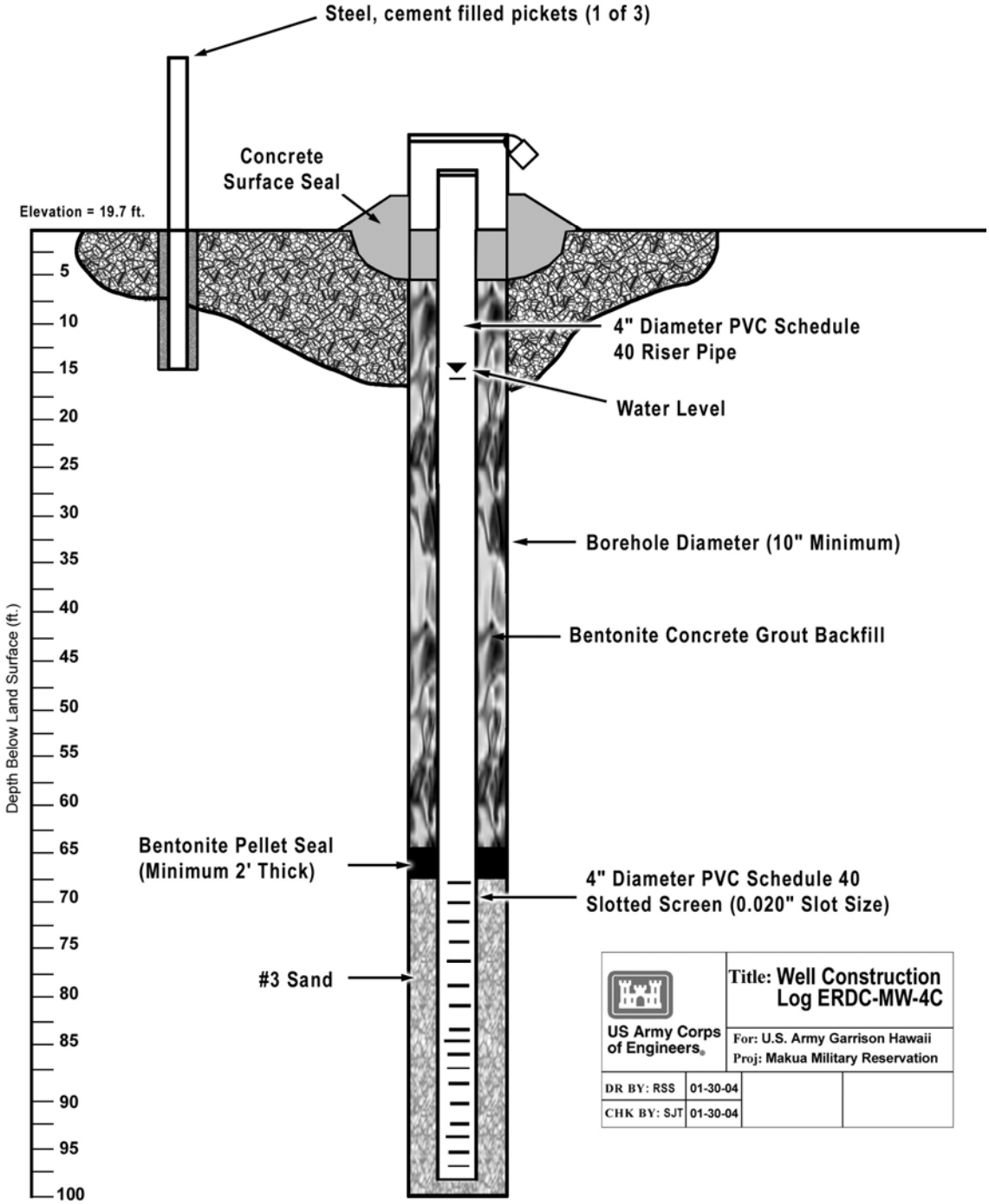

Steel, cement filled pickets (1 of 3)
Concrete Surface Seal
Elevation = 18.6 ft.
Depth Below Land Surface (ft.)
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100
4" Diameter PVC Schedule 40 Riser Pipe
Water Level
Bentonite Concrete Grout Backfill
Borehole Diameter (10" Minimum)
Bentonite Pellet Seal (Minimum 2' Thick)
4" Diameter PVC Schedule 40 Slotted Screen (0.020" Slot Size)
#3 Sand
US Army Corps of Engineers
Title: Well Construction Log ERDC-MW-3C
For: U.S. Army Garrison Hawaii
Proj: Makua Military Reservation
DR BY: RSS
01-30-04
CHK BY: SJT
01-30-04



US Army Corps of Engineers®	Title: Well Construction Log ERDC-MW-4A	
	For: U.S. Army Garrison Hawaii Proj: Makua Military Reservation	
DR BY: RSS	01-30-04	
CHK BY: SJT	01-30-04	



US Army Corps of Engineers®	Title: Well Construction Log ERDC-MW-4B	
	For: U.S. Army Garrison Hawaii Proj: Makua Military Reservation	
DR BY: RSS	01-30-04	
CHK BY: SJT	01-30-04	


Steel, cement filled pickets (1 of 3)
Concrete Surface Seal
Elevation = 19.7 ft.
Depth Below Land Surface (ft.)
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100
4" Diameter PVC Schedule 40 Riser Pipe
Water Level
Borehole Diameter (10" Minimum)
Bentonite Concrete Grout Backfill
Bentonite Pellet Seal (Minimum 2' Thick)
4" Diameter PVC Schedule 40 Slotted Screen (0.020" Slot Size)
#3 Sand
US Army Corps of Engineers
Title: Well Construction Log ERDC-MW-4C
For: U.S. Army Garrison Hawaii
Proj: Makua Military Reservation
DR BY: RSS
01-30-04
CHK BY: SJT
01-30-04

APPENDIX B

Shallow Soil Sample Results—Detected Compounds Below Region IX PRG

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory													
Compound			2,4,6-TNT	2,4-D	2,4-DB	2,4-DNT	2,6-DNT	4,4'-DDE	4-AM-2,6-DNT	ALDRIN	ALPHA-BHC	BENZENE	BETA-BHC
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			57456.587	7683332.57	4924850.32	1231212.58	615606.291	7024.543		101.394	359.31	1314.658	1257.584
Sample Number	**Short Name**	**Sample Area**											
ERDC-BK 1A	ERDC-BK 1A	Background											
ERDC-BK 1B	ERDC-BK 1B	Background											
ERDC-BK 4A	ERDC-BK 4A	Background											
ERDC-BK 4B	ERDC-BK 4B	Background											
ERDC-BK 5A	ERDC-BK 5A	Background											
ERDC-BK 5B	ERDC-BK 5B	Background											
ERDC-BK 6A	ERDC-BK 6A	Background											
ERDC-BK 6B	ERDC-BK 6B	Background											
MMR105FASS 1-1F	105-FA 1-01	105 Firing Area		33								7.3J	
MMR105FASS 1-1FRE	105-FA 1-01	105 Firing Area											
MMR105FASS1-1F	105-FA 1-01	105 Firing Area											
MMR105FASS1-2F	105-FA 1-02	105 Firing Area											
MMR105FASSBLANK	105-FA BLANK	105 Firing Area											
MMRAGSS1-2	AREA-G 1-02	Area G											
MMRAREAGSS 1-2F	AREA-G 1-02	Area G										4.9J	
MMRAREAGSS1-2F	AREA-G 1-02	Area G											
MMRBADGERSS 1-10F	BADGER 1-10	Badger										2.5J	
MMRBADGERSS1-10	BADGER 1-10	Badger											
MMRBADGERSS1-10F	BADGER 1-10	Badger											
MMRBADGERSS1-6	BADGER 1-06	Badger											
MMRBUFFALOSS 1-6F	BUFFALO 1-06	Buffalo										7.1J	
MMRBUFFALOSS1-2	BUFFALO 1-02	Buffalo											

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory													
Compound			2,4,6-TNT	2,4-D	2,4-DB	2,4-DNT	2,6-DNT	4,4'-DDE	4-AM-2,6-DNT	ALDRIN	ALPHA-BHC	BENZENE	BETA-BHC
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			57456.587	7683332.57	4924850.32	1231212.58	615606.291	7024.543		101.394	359.31	1314.658	1257.584
Sample Number	**Short Name**	**Sample Area**											
MMRBUFFALOSS1-3	BUFFALO 1-03	Buffalo											
MMRBUFFALOSS1-6F	BUFFALO 1-06	Buffalo											
MMRCAASS 1-1F	CAA 1-01	Counter Attack Area											
MMRCAASS 1-7F	CAA 1-07	Counter Attack Area											
MMRCAASS1-12	CAA 1-12	Counter Attack Area											
MMRCAASS1-1F	CAA 1-01	Counter Attack Area											
MMRCAASS1-2	CAA 1-02	Counter Attack Area											
MMRCAASS1-4	CAA 1-04	Counter Attack Area											
MMRCAASS1-7F	CAA 1-07	Counter Attack Area											
MMRCOYOTESS 1-2F	COYOTE 1-02	Coyote											
MMRCOYOTESS1-1	COYOTE 1-01	Coyote											
MMRCOYOTESS1-2F	COYOTE 1-02	Coyote											
MMRDBSS 1-1F	DB 1-01	Deer Berms	340J						140J			5.3J	
MMRDBSS1-1F	DB 1-01	Deer Berms											
MMRDBSS1-2	DB 1-02	Deer Berms											
MMRDBSSDL 1-1F	DB 1-01	Deer Berms											
MMRDEEDSSS 1-1F	DEEDS 1-01	Deeds										6.4J	
MMRDEEDSSS1-1	DEEDS 1-01	Deeds											
MMRDEEDSSS1-1F	DEEDS 1-01	Deeds											
MMRDEERSS 1-1F	DEER 1-01	Deer										2.8J	
MMRDEERSS1-13	DEER 1-13	Deer											

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory													
Compound			2,4,6-TNT	2,4-D	2,4-DB	2,4-DNT	2,6-DNT	4,4'-DDE	4-AM-2,6-DNT	ALDRIN	ALPHA-BHC	BENZENE	BETA-BHC
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			57456.587	7683332.57	4924850.32	1231212.58	615606.291	7024.543		101.394	359.31	1314.658	1257.584
Sample Number	**Short Name**	**Sample Area**											
MMRDEERSS1-15	DEER 1-15	Deer											
MMRDEERSS1-1F	DEER 1-01	Deer											
MMRDEERSS1-1FDUP	DEER 1-01	Deer											
MMRDEERSS1-4	DEER 1-04	Deer											
MMRDEERSS1-4DUP	DEER 1-04	Deer											
MMRDEERSS1-4F	DEER 1-04	Deer											
MMRDEERSS1-9	DEER 1-09	Deer											
MMRDEMOPITSS 1-1F	DEMO-PIT 1-01	Demo Pit											
MMRDEMOPITSS1-1F	DEMO-PIT 1-01	Demo Pit											
MMRDPASS 1-1	DEMO-PIT 1-01	Demo Pit											
MMRDPASS BLANK	DEMO-PIT BLANK	Demo Pit											
MMRDPASS1-2	DEMO-PIT 1-02	Demo Pit											
MMRELKSS 1-7F	ELK 1-07	Elk										3.6J	
MMRELKSS1-4	ELK 1-04	Elk											
MMRELKSS1-7F	ELK 1-07	Elk											
MMRFOXSS 1-3F	FOX 1-03	Fox											
MMRFOXSS1-2	FOX 1-02	Fox											
MMRFOXSS1-2DUP	FOX 1-02	Fox											
MMRFOXSS1-3F	FOX 1-03	Fox											
MMRMSFASS 1-1F	MSFA 1.01	Makua Stream Firing Area											
MMRMSFASS 1-1FRE	MSFA 1-01	Makua Stream Firing Area										2.7J	
MMRMSFASS 1-2F	MSFA 1-02	Makua Stream										8.1J	

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory													
Compound			2,4,6-TNT	2,4-D	2,4-DB	2,4-DNT	2,6-DNT	4,4'-DDE	4-AM-2,6-DNT	ALDRIN	ALPHA-BHC	BENZENE	BETA-BHC
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			57456.587	7683332.57	4924850.32	1231212.58	615606.291	7024.543		101.394	359.31	1314.658	1257.584
Sample Number	**Short Name**	**Sample Area**											
		Firing Area											
MMRMSFASS 1-2FRE	MSFA 1-02	Makua Stream Firing Area										4.6J	
MMRMSFASS 1-3F	MSFA 1-03	Makua Stream Firing Area			18J						1.6J	5J	
MMRMSFASS 1-3FRE	MSFA 1-03	Makua Stream Firing Area										2.9J	
MMRMSFASS1-1F	MSFA 1-01	Makua Stream Firing Area											
MMRMSFASS1-2F	MSFA 1-02	Makua Stream Firing Area											
MMRMSFASS1-3	MSFA 1-03	Makua Stream Firing Area											
MMRMSFASS1-3F	MSFA 1-03	Makua Stream Firing Area											
MMRMTASS 1-3F	MTA 1-03	Misc Training Area											
MMRMTASS 1-3FRE	MTA 1-03	Misc Training Area											
MMRMTASS1-3F	MTA 1-03	Misc Training Area											

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory													
Compound			2,4,6-TNT	2,4-D	2,4-DB	2,4-DNT	2,6-DNT	4,4'-DDE	4-AM-2,6-DNT	ALDRIN	ALPHA-BHC	BENZENE	BETA-BHC
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			57456.587	7683332.57	4924850.32	1231212.58	615606.291	7024.543		101.394	359.31	1314.658	1257.584
Sample Number	**Short Name**	**Sample Area**											
MMRMTASS1-5	MTA 1-05	Misc Training Area											
MMROB/OD BLIND BLANK	OB/OD BLINDBLANK	OB/OD Area											
MMROB/ODBLIND BLANK	OB/OD BLINDBLANK	OB/OD Area									6.8	18	
MMROB/ODBLINDBLANK	OB/OD BLINDBLANK	OB/OD Area											
MMROB/ODSS 1-1F	OB/OD 1-01	OB/OD Area				24000E	3400					3.2J	
MMROB/ODSS 1-1FDL	OB/OD 1-01	OB/OD Area				23000	3200J						
MMROB/ODSS 1-1FMS	OB/OD 1-01	OB/OD Area											
MMROB/ODSS 1-2F	OB/OD 1-02	OB/OD Area									1.7J	2.2J	
MMROB/ODSS 1-3F	OB/OD 1-03	OB/OD Area				1500		2.6J			5.9	12	7.6
MMROB/ODSS 1-3FRE	OB/OD 1-03	OB/OD Area										8.1	
MMROB/ODSS 1-4F	OB/OD 1-04	OB/OD Area				280J		2.5J		4.8	3.1	10	
MMROB/ODSS 1-4FRE	OB/OD 1-04	OB/OD Area										13	
MMROB/ODSS 1-5F	OB/OD 1-05	OB/OD Area				320J					12	6.5J	
MMROB/ODSS1-1F	OB/OD 1-01	OB/OD Area											
MMROB/ODSS1-2F	OB/OD 1-02	OB/OD Area											
MMROB/ODSS1-3F	OB/OD 1-03	OB/OD Area											
MMROB/ODSS1-4F	OB/OD 1-04	OB/OD Area											
MMROB/ODSS1-5F	OB/OD 1-05	OB/OD Area											
MMRPBPSS 1-1F	PBP 1-01	Propose Burn Pit										1J	
MMRPBPSS 1-1FRE	PBP 1-01	Propose Burn Pit										1.5J	

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory

Compound			2,4,6-TNT	2,4-D	2,4-DB	2,4-DNT	2,6-DNT	4,4'-DDE	4-AM-2,6-DNT	ALDRIN	ALPHA-BHC	BENZENE	BETA-BHC
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			57456.587	7683332.57	4924850.32	1231212.58	615606.291	7024.543		101.394	359.31	1314.658	1257.584
Sample Number	**Short Name**	**Sample Area**											
MMRPBPSS1-1	PBP 1-01	Propose Burn Pit											
MMRPBPSS1-1F	PBP 1-01	Propose Burn Pit											
MMRSSBADGER 1-5	BADGER 1-05	Badger											
MMRSSDEEDS 1-2	DEEDS 1-02	Deeds											
MMRSSWOLF 1-5	WOLF 1-05	Wolf											
MMRWOLFSS 1-5F	WOLF 1-05	Wolf										2.3J	
MMRWOLFSS1-3	WOLF 1-03	Wolf											
MMRWOLFSS1-5F	WOLF 1-05	Wolf											
MMRWSBPSS 1-1F	WSBP 1-01	Weather Station Burn Pit											
MMRWSBPSS1-1	WSBP 1-01	Weather Station Burn Pit											
MMRWSBPSS1-1F	WSBP 1-01	Weather Station Burn Pit											
WSBPSS 1-1	WSBP 1-01	Weather Station Burn Pit											

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limits.

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			BIS(2-CHLOROETHYL)ETHER	CHLORIDE	CYANIDE	DALAPON	DELTA-BHC	DICAMBA	DICHLOROPROP	DIELDRIN	DIETHYLPHTHALATE	DI-N-BUTYLPHTHALATE	DINOSEB
Unit			UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			553.9		12313.101	1833092.91		1833092.91		107.731	100000000	61560629.09	61103.097
Sample Number	**Short Name**	**Sample Area**											
ERDC-BK 1A	ERDC-BK 1A	Background											
ERDC-BK 1B	ERDC-BK 1B	Background											
ERDC-BK 4A	ERDC-BK 4A	Background											
ERDC-BK 4B	ERDC-BK 4B	Background											
ERDC-BK 5A	ERDC-BK 5A	Background											
ERDC-BK 5B	ERDC-BK 5B	Background											
ERDC-BK 6A	ERDC-BK 6A	Background											
ERDC-BK 6B	ERDC-BK 6B	Background											
MMR105FASS1-1F	105-FA 1-01	105 Firing Area							65			580	
MMR105FASS1-1FRE	105-FA 1-01	105 Firing Area											
MMR105FASS1-1F	105-FA 1-01	105 Firing Area		18.1	0.765J								
MMR105FASS1-2F	105-FA 1-02	105 Firing Area		14.1									
MMR105FASSBLANK	105-FA BLANK	105 Firing Area											
MMRAGSS1-2	AREA-G 1-02	Area G											
MMRAREAGSS1-2F	AREA-G 1-02	Area G											
MMRAREAGSS1-2F	AREA-G 1-02	Area G		30.1	0.289J								
MMRBADGERSS 1-10F	BADGER 1-10	Badger											
MMRBADGERSS1-10	BADGER 1-10	Badger											
MMRBADGERSS1-10F	BADGER 1-10	Badger		16.1	0.952J								

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			BIS(2-CHLOROETHYL)ETHER	CHLORIDE	CYANIDE	DALAPON	DELTA-BHC	DICAMBA	DICHLOROPROP	DIELDRIN	DIETHYLPHTHALATE	DI-N-BUTYLPHTHALATE	DINOSEB
Unit			UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			553.9		12313.101	1833092.91		1833092.91		107.731	100000000	61560629.09	61103.097
Sample Number	**Short Name**	**Sample Area**											
MMRBADGERSS1-6	BADGER 1-06	Badger											
MMRBUFFALOSS 1-6F	BUFFALO 1-06	Buffalo									430		
MMRBUFFALOSS1-2	BUFFALO 1-02	Buffalo											
MMRBUFFALOSS1-3	BUFFALO 1-03	Buffalo											
MMRBUFFALOSS1-6F	BUFFALO 1-06	Buffalo		11.9	0.329J								
MMRCAASS 1-1F	CAA 1-01	Counter Attack Area											
MMRCAASS 1-7F	CAA 1-07	Counter Attack Area											
MMRCAASS1-12	CAA 1-12	Counter Attack Area											
MMRCAASS1-1F	CAA 1-01	Counter Attack Area		81	2.64								
MMRCAASS1-2	CAA 1-02	Counter Attack Area											
MMRCAASS1-4	CAA 1-04	Counter Attack Area											
MMRCAASS1-7F	CAA 1-07	Counter Attack Area		54.7	0.751J								
MMRCOYOTESS 1-2F	COYOTE 1-02	Coyote											
MMRCOYOTESS1-1	COYOTE 1-01	Coyote											
MMRCOYOTESS1-2F	COYOTE 1-02	Coyote		14.6	0.359J								

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			BIS(2-CHLOROETHYL)ETHER	CHLORIDE	CYANIDE	DALAPON	DELTA-BHC	DICAMBA	DICHLOROPROP	DIELDRIN	DIETHYLPHTHALATE	DI-N-BUTYLPHTHALATE	DINOSEB
Unit			UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			553.9		12313.101	1833092.91		1833092.91		107.731	100000000	61560629.09	61103.097
Sample Number	**Short Name**	**Sample Area**											
MMRDBSS 1-1F	DB 1-01	Deer Berms											
MMRDBSS1-1F	DB 1-01	Deer Berms		25	0.733J								
MMRDBSS1-2	DB 1-02	Deer Berms											
MMRDBSSDL 1-1F	DB 1-01	Deer Berms											
MMRDEEDSSS 1-1F	DEEDS 1-01	Deeds											
MMRDEEDSSS 1-1	DEEDS 1-01	Deeds											
MMRDEEDSSS 1-1F	DEEDS 1-01	Deeds		13.1	0.26J								
MMRDEERSS 1-1F	DEER 1-01	Deer											
MMRDEERSS1-13	DEER 1-13	Deer											
MMRDEERSS1-15	DEER 1-15	Deer											
MMRDEERSS1-1F	DEER 1-01	Deer		25.3	0.825J								
MMRDEERSS1-1FDUP	DEER 1-01	Deer		25.1									
MMRDEERSS1-4	DEER 1-04	Deer											
MMRDEERSS1-4DUP	DEER 1-04	Deer											
MMRDEERSS1-4F	DEER 1-04	Deer		14.6									
MMRDEERSS1-9	DEER 1-09	Deer											

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			BIS(2-CHLOROETHYL)ETHER	CHLORIDE	CYANIDE	DALAPON	DELTA-BHC	DICAMBA	DICHLOROPROP	DIELDRIN	DIETHYLPHTHALATE	DI-N-BUTYLPHTHALATE	DINOSEB
Unit			UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			553.9		12313.101	1833092.91		1833092.91		107.731	100000000	61560629.09	61103.097
Sample Number	**Short Name**	**Sample Area**											
MMRDEMOPITSS 1-1F	DEMO-PIT 1-01	Demo Pit											
MMRDEMOPITSS1-1F	DEMO-PIT 1-01	Demo Pit		69.8									
MMRDPASS 1-1	DEMO-PIT 1-01	Demo Pit											
MMRDPASS BLANK	DEMO-PIT BLANK	Demo Pit											
MMRDPASS1-2	DEMO-PIT 1-02	Demo Pit											
MMRELKSS 1-7F	ELK 1-07	Elk											
MMRELKSS1-4	ELK 1-04	Elk											
MMRELKSS1-7F	ELK 1-07	Elk		44.7	0.895J								
MMRFOXSS 1-3F	FOX 1-03	Fox				16J							
MMRFOXSS1-2	FOX 1-02	Fox											
MMRFOXSS1-2DUP	FOX 1-02	Fox											
MMRFOXSS1-3F	FOX 1-03	Fox		20	0.32J								
MMRMSFASS 1-1F	MSFA 1.01	Makua Stream Firing Area								2.4J			
MMRMSFASS 1-1FRE	MSFA 1-01	Makua Stream Firing Area											

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			BIS(2-CHLOROETHYL)ETHER	CHLORIDE	CYANIDE	DALAPON	DELTA-BHC	DICAMBA	DICHLOROPROP	DIELDRIN	DIETHYLPHTHALATE	DI-N-BUTYLPHTHALATE	DINOSEB
Unit			UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			553.9		12313.101	1833092.91		1833092.91		107.731	100000000	61560629.09	61103.097
Sample Number	**Short Name**	**Sample Area**											
MMRMSFASS 1-2F	MSFA 1-02	Makua Stream Firing Area										300J	
MMRMSFASS 1-2FRE	MSFA 1-02	Makua Stream Firing Area											
MMRMSFASS 1-3F	MSFA 1-03	Makua Stream Firing Area					2.5						
MMRMSFASS 1-3FRE	MSFA 1-03	Makua Stream Firing Area											
MMRMSFASS1-1F	MSFA 1-01	Makua Stream Firing Area		27.4									
MMRMSFASS1-2F	MSFA 1-02	Makua Stream Firing Area		42.4									
MMRMSFASS1-3	MSFA 1-03	Makua Stream Firing Area											
MMRMSFASS1-3F	MSFA 1-03	Makua Stream Firing Area		21.5									
MMRMTASS 1-3F	MTA 1-03	Misc Training Area											8.1J
MMRMTASS 1-3FRE	MTA 1-03	Misc Training Area											
MMRMTASS1-3F	MTA 1-03	Misc Training Area		78.2	0.755J								

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			BIS(2-CHLOROETHYL)ETHER	CHLORIDE	CYANIDE	DALAPON	DELTA-BHC	DICAMBA	DICHLOROPROP	DIELDRIN	DIETHYLPHTHALATE	DI-N-BUTYLPHTHALATE	DINOSEB
Unit			UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			553.9		12313.101	1833092.91		1833092.91		107.731	100000000	61560629.09	61103.097
Sample Number	**Short Name**	**Sample Area**											
MMRMTASS1-5	MTA 1-05	Misc Training Area											
MMROB/OD BLIND BLANK	OB/OD BLINDBLANK	OB/OD Area											
MMROB/ODBLIND BLANK	OB/OD BLINDBLANK	OB/OD Area										210J	8.7J
MMROB/ODBLINDBLANK	OB/OD BLINDBLANK	OB/OD Area		21.6									
MMROB/ODSS 1-1F	OB/OD 1-01	OB/OD Area	19J				5.7	180E		3.8J		23000E	5.6J
MMROB/ODSS 1-1FDL	OB/OD 1-01	OB/OD Area										29000	
MMROB/ODSS 1-1FMS	OB/OD 1-01	OB/OD Area						143					
MMROB/ODSS 1-2F	OB/OD 1-02	OB/OD Area										190J	3.5J
MMROB/ODSS 1-3F	OB/OD 1-03	OB/OD Area					4.7					900	
MMROB/ODSS 1-3FRE	OB/OD 1-03	OB/OD Area											
MMROB/ODSS 1-4F	OB/OD 1-04	OB/OD Area					4.9			22		490	
MMROB/ODSS 1-4FRE	OB/OD 1-04	OB/OD Area											
MMROB/ODSS 1-5F	OB/OD 1-05	OB/OD Area								3.5J		660	8.8J
MMROB/ODSS 1-1F	OB/OD 1-01	OB/OD Area		48.7									
MMROB/ODSS 1-2F	OB/OD 1-02	OB/OD Area		27.8									

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			BIS(2-CHLOROETHYL)ETHER	CHLORIDE	CYANIDE	DALAPON	DELTA-BHC	DICAMBA	DICHLOROPROP	DIELDRIN	DIETHYLPHTHALATE	DI-N-BUTYLPHTHALATE	DINOSEB
Unit			UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			553.9		12313.101	1833092.91		1833092.91		107.731	100000000	61560629.09	61103.097
Sample Number	**Short Name**	**Sample Area**											
MMROB/ODSS 1-3F	OB/OD 1-03	OB/OD Area		36.9									
MMROB/ODSS 1-4F	OB/OD 1-04	OB/OD Area		57.8									
MMROB/ODSS 1-5F	OB/OD 1-05	OB/OD Area		19.4									
MMRPBPSS 1-1F	PBP 1-01	Propose Burn Pit											
MMRPBPSS 1-1FRE	PBP 1-01	Propose Burn Pit											
MMRPBPSS1-1	PBP 1-01	Propose Burn Pit											
MMRPBPSS1-1F	PBP 1-01	Propose Burn Pit		17.1									
MMRSSBADGER 1-5	BADGER 1-05	Badger											
MMRSSDEEDS 1-2	DEEDS 1-02	Deeds											
MMRSSWOLF 1-5	WOLF 1-05	Wolf											
MMRWOLFSS 1-5F	WOLF 1-05	Wolf											
MMRWOLFSS1-3	WOLF 1-03	Wolf											
MMRWOLFSS1-5F	WOLF 1-05	Wolf		20.7									
MMRWSBPSS 1-1F	WSBP 1-01	Weather Station Burn Pit											

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)

Compound			BIS(2-CHLOROETHYL)ETHER	CHLORIDE	CYANIDE	DALAPON	DELTA-BHC	DICAMBA	DICHLOROPROP	DIELDRIN	DIETHYLPHTHALATE	DI-N-BUTYLPHTHALATE	DINOSEB
Unit			UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			553.9		12313.101	1833092.91		1833092.91		107.731	100000000	61560629.09	61103.097
Sample Number	**Short Name**	**Sample Area**											
MMRWSBPSS1-1	WSBP 1-01	Weather Station Burn Pit											
MMRWSBPSS1-1F	WSBP 1-01	Weather Station Burn Pit		22.7	3.31								
WSBPSS 1-1	WSBP 1-01	Weather Station Burn Pit											

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limits.

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	FLUORIDE	HEPTACHLOR	HEPTACHLOR EPOXIDE	HMX	MCPA	MCPP
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial						18330.92		3666.281	108.084	53.448	3055154.85	30551.54	
Sample Number	**Short Name**	**Sample Area**											
ERDC-BK 1A	ERDC-BK 1A	Background											
ERDC-BK 1B	ERDC-BK 1B	Background											
ERDC-BK 4A	ERDC-BK 4A	Background											
ERDC-BK 4B	ERDC-BK 4B	Background											
ERDC-BK 5A	ERDC-BK 5A	Background											
ERDC-BK 5B	ERDC-BK 5B	Background											
ERDC-BK 6A	ERDC-BK 6A	Background											
ERDC-BK 6B	ERDC-BK 6B	Background											
MMR105FASS 1-1F	105-FA 1-01	105 Firing Area										720J	
MMR105FASS 1-1FRE	105-FA 1-01	105 Firing Area											
MMR105FASS1-1F	105-FA 1-01	105 Firing Area											
MMR105FASS1-2F	105-FA 1-02	105 Firing Area											
MMR105FASSBLANK	105-FA BLANK	105 Firing Area											
MMRAGSS1-2	AREA-G 1-02	Area G											
MMRAREAGSS 1-2F	AREA-G 1-02	Area G											
MMRAREAGSS1-2F	AREA-G 1-02	Area G											
MMRBADGERSS 1-10F	BADGER 1-10	Badger											
MMRBADGERSS1-10	BADGER 1-10	Badger											
MMRBADGERSS1-10F	BADGER 1-10	Badger											
MMRBADGERSS1-6	BADGER 1-06	Badger											
MMRBUFFALOSS 1-6F	BUFFALO 1-06	Buffalo	11	3.7J									

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	FLUORIDE	HEPTACHLOR	HEPTACHLOR EPOXIDE	HMX	MCPA	MCPP
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial						18330.92		3666.281	108.084	53.448	3055154.85	30551.54	
Sample Number	**Short Name**	**Sample Area**											
MMRBUFFALOSS1-2	BUFFALO 1-02	Buffalo											
MMRBUFFALOSS1-3	BUFFALO 1-03	Buffalo											
MMRBUFFALOSS1-6F	BUFFALO 1-06	Buffalo											
MMRCAASS 1-1F	CAA 1-01	Counter Attack Area											2300J
MMRCAASS 1-7F	CAA 1-07	Counter Attack Area	6.1										
MMRCAASS1-12	CAA 1-12	Counter Attack Area											
MMRCAASS1-1F	CAA 1-01	Counter Attack Area											
MMRCAASS1-2	CAA 1-02	Counter Attack Area											
MMRCAASS1-4	CAA 1-04	Counter Attack Area											
MMRCAASS1-7F	CAA 1-07	Counter Attack Area											
MMRCOYOTESS 1-2F	COYOTE 1-02	Coyote	7.4	3J									
MMRCOYOTESS1-1	COYOTE 1-01	Coyote											
MMRCOYOTESS1-2F	COYOTE 1-02	Coyote											
MMRDBSS 1-1F	DB 1-01	Deer Berms	2.6										
MMRDBSS1-1F	DB 1-01	Deer Berms											
MMRDBSS1-2	DB 1-02	Deer Berms											
MMRDBSSDL 1-1F	DB 1-01	Deer Berms											
MMRDEEDSSS 1-1F	DEEDS 1-01	Deeds											
MMRDEEDSSS1-1	DEEDS 1-01	Deeds											
MMRDEEDSSS1-1F	DEEDS 1-01	Deeds						3.5					

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	FLUORIDE	HEPTACHLOR	HEPTACHLOR EPOXIDE	HMX	MCPA	MCPP
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial						18330.92		3666.281	108.084	53.448	3055154.85	30551.54	
Sample Number	**Short Name**	**Sample Area**											
MMRDEERSS 1-1F	DEER 1-01	Deer	5	2.9J									
MMRDEERSS1-13	DEER 1-13	Deer											
MMRDEERSS1-15	DEER 1-15	Deer											
MMRDEERSS1-1F	DEER 1-01	Deer											
MMRDEERSS1-1FDUP	DEER 1-01	Deer											
MMRDEERSS1-4	DEER 1-04	Deer											
MMRDEERSS1-4DUP	DEER 1-04	Deer											
MMRDEERSS1-4F	DEER 1-04	Deer						1.34					
MMRDEERSS1-9	DEER 1-09	Deer											
MMRDEMOPITSS 1-1F	DEMO-PIT 1-01	Demo Pit											
MMRDEMOPITSS1-1F	DEMO-PIT 1-01	Demo Pit											
MMRDPASS 1-1	DEMO-PIT 1-01	Demo Pit									500		
MMRDPASS BLANK	DEMO-PIT BLANK	Demo Pit											
MMRDPASS1-2	DEMO-PIT 1-02	Demo Pit											
MMRELKSS 1-7F	ELK 1-07	Elk											
MMRELKSS1-4	ELK 1-04	Elk											
MMRELKSS1-7F	ELK 1-07	Elk											
MMRFOXSS 1-3F	FOX 1-03	Fox		3.6J									
MMRFOXSS1-2	FOX 1-02	Fox											
MMRFOXSS1-2DUP	FOX 1-02	Fox											
MMRFOXSS1-3F	FOX 1-03	Fox											
MMRMSFASS 1-1F	MSFA 1.01	Makua Stream Firing Area											

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	FLUORIDE	HEPTACHLOR	HEPTACHLOR EPOXIDE	HMX	MCPA	MCPP
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial						18330.92		3666.281	108.084	53.448	3055154.85	30551.54	
Sample Number	**Short Name**	**Sample Area**											
MMRMSFASS 1-1FRE	MSFA 1-01	Makua Stream Firing Area											
MMRMSFASS 1-2F	MSFA 1-02	Makua Stream Firing Area				2.4J							
MMRMSFASS 1-2FRE	MSFA 1-02	Makua Stream Firing Area											
MMRMSFASS 1-3F	MSFA 1-03	Makua Stream Firing Area											
MMRMSFASS 1-3FRE	MSFA 1-03	Makua Stream Firing Area											
MMRMSFASS1-1F	MSFA 1-01	Makua Stream Firing Area											
MMRMSFASS1-2F	MSFA 1-02	Makua Stream Firing Area											
MMRMSFASS1-3	MSFA 1-03	Makua Stream Firing Area											
MMRMSFASS1-3F	MSFA 1-03	Makua Stream Firing Area											
MMRMTASS 1-3F	MTA 1-03	Misc Training Area								1.3J			4100

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	FLUORIDE	HEPTACHLOR	HEPTACHLOR EPOXIDE	HMX	MCPA	MCPP
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial						18330.92		3666.281	108.084	53.448	3055154.85	30551.54	
Sample Number	**Short Name**	**Sample Area**											
MMRMTASS 1-3FRE	MTA 1-03	Misc Training Area											
MMRMTASS1-3F	MTA 1-03	Misc Training Area											
MMRMTASS1-5	MTA 1-05	Misc Training Area											
MMROB/OD BLIND BLANK	OB/OD BLINDBLANK	OB/OD Area											
MMROB/ODBLIND BLANK	OB/OD BLINDBLANK	OB/OD Area			1.1J		35		11				
MMROB/ODBLINDBLANK	OB/OD BLINDBLANK	OB/OD Area						2.17					
MMROB/ODSS 1-1F	OB/OD 1-01	OB/OD Area					5.1		22	4.9			
MMROB/ODSS 1-1FDL	OB/OD 1-01	OB/OD Area											
MMROB/ODSS 1-1FMS	OB/OD 1-01	OB/OD Area											
MMROB/ODSS 1-2F	OB/OD 1-02	OB/OD Area							3.2				
MMROB/ODSS 1-3F	OB/OD 1-03	OB/OD Area	2.8		4.5	21	1.6J		5.4				
MMROB/ODSS 1-3FRE	OB/OD 1-03	OB/OD Area											
MMROB/ODSS 1-4F	OB/OD 1-04	OB/OD Area			4.8	11	8.8			4.7			
MMROB/ODSS 1-4FRE	OB/OD 1-04	OB/OD Area											
MMROB/ODSS 1-5F	OB/OD 1-05	OB/OD Area					38		50	1.7J	370J		
MMROB/ODSS1-1F	OB/OD 1-01	OB/OD Area						1.34					
MMROB/ODSS1-2F	OB/OD 1-02	OB/OD Area											
MMROB/ODSS1-3F	OB/OD 1-03	OB/OD Area											
MMROB/ODSS1-4F	OB/OD 1-04	OB/OD Area						3.65					

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)

Compound			ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	FLUORIDE	HEPTACHLOR	HEPTACHLOR EPOXIDE	HMX	MCPA	MCPP
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial						18330.92		3666.281	108.084	53.448	3055154.85	30551.54	
Sample Number	**Short Name**	**Sample Area**											
MMROB/ODSS1-5F	OB/OD 1-05	OB/OD Area						2.6					
MMRPBPSS 1-1F	PBP 1-01	Propose Burn Pit											
MMRPBPSS 1-1FRE	PBP 1-01	Propose Burn Pit											
MMRPBPSS1-1	PBP 1-01	Propose Burn Pit											
MMRPBPSS1-1F	PBP 1-01	Propose Burn Pit						8.78					
MMRSSBADGER 1-5	BADGER 1-05	Badger											
MMRSSDEEDS 1-2	DEEDS 1-02	Deeds											
MMRSSWOLF 1-5	WOLF 1-05	Wolf											
MMRWOLFSS 1-5F	WOLF 1-05	Wolf											
MMRWOLFSS1-3	WOLF 1-03	Wolf											
MMRWOLFSS1-5F	WOLF 1-05	Wolf											
MMRWSBPSS 1-1F	WSBP 1-01	Weather Station Burn Pit	5.3	1.9J									
MMRWSBPSS1-1	WSBP 1-01	Weather Station Burn Pit											
MMRWSBPSS1-1F	WSBP 1-01	Weather Station Burn Pit						1.57					
WSBPSS 1-1	WSBP 1-01	Weather Station Burn Pit											

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limits.

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			METHOXYCHLOR	MTBE	NITRATE-N	NITRITE	NITROGLYCERIN	N-NITROSODIPHENYLAMINE	OCDD	OCDF	ORTHOPHOSPHATE-P	PCB-1254	PCB-1260	PERCHLORATE
Unit			UG/KG	UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			305515.4	61539.56			34741.46					221.857	221.857	
Sample Number	**Short Name**	**Sample Area**												
ERDC-BK 1A	ERDC-BK 1A	Background							0.131					
ERDC-BK 1B	ERDC-BK 1B	Background							0.104					
ERDC-BK 4A	ERDC-BK 4A	Background							0.593	0.032				
ERDC-BK 4B	ERDC-BK 4B	Background							0.312					
ERDC-BK 5A	ERDC-BK 5A	Background							0.212					
ERDC-BK 5B	ERDC-BK 5B	Background							0.1X					
ERDC-BK 6A	ERDC-BK 6A	Background							1.865	0.167				
ERDC-BK 6B	ERDC-BK 6B	Background							0.659	0.052				
MMR105FASS 1-1F	105-FA 1-01	105 Firing Area		2.5J										
MMR105FASS 1-1FRE	105-FA 1-01	105 Firing Area		10										
MMR105FASS1-1F	105-FA 1-01	105 Firing Area			33.1	2.2			0.206		32.1			
MMR105FASS1-2F	105-FA 1-02	105 Firing Area			3.58				0.048		3.64J			
MMR105FASSBLANK	105-FA BLANK	105 Firing Area												
MMRAGSS1-2	AREA-G 1-02	Area G												
MMRAREAGSS 1-2F	AREA-G 1-02	Area G												
MMRAREAGSS1-2F	AREA-G 1-02	Area G			2.25									
MMRBADGERSS 1-10F	BADGER 1-10	Badger												
MMRBADGERSS1-10	BADGER 1-10	Badger												
MMRBADGERSS1-10F	BADGER 1-10	Badger			16.5				0.032					
MMRBADGERSS1-6	BADGER 1-06	Badger												
MMRBUFFALOSS 1-6F	BUFFALO 1-06	Buffalo												
MMRBUFFALOSS1-2	BUFFALO 1-02	Buffalo												
MMRBUFFALOSS1-3	BUFFALO 1-03	Buffalo												

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			METHOXYCHLOR	MTBE	NITRATE-N	NITRITE	NITROGLYCERIN	N-NITROSODIPHENYLAMINE	OCDD	OCDF	ORTHOPHOSPHATE-P	PCB-1254	PCB-1260	PERCHLORATE
Unit			UG/KG	UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			305515.4	61539.56			34741.46					221.857	221.857	
Sample Number	**Short Name**	**Sample Area**												
MMRBUFFALOSS1-6F	BUFFALO 1-06	Buffalo			6.42				0.026					
MMRCAASS 1-1F	CAA 1-01	Counter Attack Area												
MMRCAASS 1-7F	CAA 1-07	Counter Attack Area												
MMRCAASS1-12	CAA 1-12	Counter Attack Area												
MMRCAASS1-1F	CAA 1-01	Counter Attack Area			42.2				0.022					
MMRCAASS1-2	CAA 1-02	Counter Attack Area												
MMRCAASS1-4	CAA 1-04	Counter Attack Area												
MMRCAASS1-7F	CAA 1-07	Counter Attack Area			27.9				0.016X					
MMRCOYOTESS 1-2F	COYOTE 1-02	Coyote												
MMRCOYOTESS1-1	COYOTE 1-01	Coyote												
MMRCOYOTESS1-2F	COYOTE 1-02	Coyote			8.08				0.023					
MMRDBSS 1-1F	DB 1-01	Deer Berms												
MMRDBSS1-1F	DB 1-01	Deer Berms			17				0.037					
MMRDBSS1-2	DB 1-02	Deer Berms												
MMRDBSSDL 1-1F	DB 1-01	Deer Berms												
MMRDEEDSSS 1-1F	DEEDS 1-01	Deeds												
MMRDEEDSSS1-1	DEEDS 1-01	Deeds												
MMRDEEDSSS1-1F	DEEDS 1-01	Deeds			5.15				0.057	0.008	3.17J			
MMRDEERSS 1-1F	DEER 1-01	Deer												
MMRDEERSS1-13	DEER 1-13	Deer												
MMRDEERSS1-15	DEER 1-15	Deer												
MMRDEERSS1-1F	DEER 1-01	Deer			7.36				0.341					

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			METHOXYCHLOR	MTBE	NITRATE-N	NITRITE	NITROGLYCERIN	N-NITROSODIPHENYLAMINE	OCDD	OCDF	ORTHOPHOSPHATE-P	PCB-1254	PCB-1260	PERCHLORATE
Unit			UG/KG	UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			305515.4	61539.56			34741.46					221.857	221.857	
Sample Number	**Short Name**	**Sample Area**												
MMRDEERSS1-1FDUP	DEER 1-01	Deer			7.32									
MMRDEERSS1-4	DEER 1-04	Deer												
MMRDEERSS1-4DUP	DEER 1-04	Deer												
MMRDEERSS1-4F	DEER 1-04	Deer			5.28									
MMRDEERSS1-9	DEER 1-09	Deer												
MMRDEMOPITSS 1-1F	DEMO-PIT 1-01	Demo Pit												
MMRDEMOPITSS1-1F	DEMO-PIT 1-01	Demo Pit			5.72				0.746	0.009				
MMRDPASS 1-1	DEMO-PIT 1-01	Demo Pit												
MMRDPASS BLANK	DEMO-PIT BLANK	Demo Pit												
MMRDPASS1-2	DEMO-PIT 1-02	Demo Pit												
MMRELKSS 1-7F	ELK 1-07	Elk												
MMRELKSS1-4	ELK 1-04	Elk												
MMRELKSS1-7F	ELK 1-07	Elk			14.3				0.022X					
MMRFOXSS 1-3F	FOX 1-03	Fox												
MMRFOXSS1-2	FOX 1-02	Fox												
MMRFOXSS1-2DUP	FOX 1-02	Fox												
MMRFOXSS1-3F	FOX 1-03	Fox			7.85				0.023					
MMRMSFASS 1-1F	MSFA 1.01	Makua Stream Firing Area												
MMRMSFASS 1-1FRE	MSFA 1-01	Makua Stream Firing Area												
MMRMSFASS 1-2F	MSFA 1-02	Makua Stream Firing Area												

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			METHOXYCHLOR	MTBE	NITRATE-N	NITRITE	NITROGLYCERIN	N-NITROSODIPHENYLAMINE	OCDD	OCDF	ORTHOPHOSPHATE-P	PCB-1254	PCB-1260	PERCHLORATE
Unit			UG/KG	UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			305515.4	61539.56			34741.46					221.857	221.857	
Sample Number	**Short Name**	**Sample Area**												
MMRMSFASS 1-2FRE	MSFA 1-02	Makua Stream Firing Area												
MMRMSFASS 1-3F	MSFA 1-03	Makua Stream Firing Area	7.1J											
MMRMSFASS 1-3FRE	MSFA 1-03	Makua Stream Firing Area												
MMRMSFASS1-1F	MSFA 1-01	Makua Stream Firing Area			8.41						3.74J			
MMRMSFASS1-2F	MSFA 1-02	Makua Stream Firing Area			25.8						7.76			
MMRMSFASS1-3	MSFA 1-03	Makua Stream Firing Area							0.078					
MMRMSFASS1-3F	MSFA 1-03	Makua Stream Firing Area			11.2						3.99J			
MMRMTASS 1-3F	MTA 1-03	Misc Training Area		2.9J										
MMRMTASS 1-3FRE	MTA 1-03	Misc Training Area		1.6J										
MMRMTASS1-3F	MTA 1-03	Misc Training Area			3.86						3.29J			
MMRMTASS1-5	MTA 1-05	Misc Training Area												
MMROB/OD BLIND BLANK	OB/OD BLINDBLANK	OB/OD Area							1.242	0.041				

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			METHOXYCHLOR	MTBE	NITRATE-N	NITRITE	NITROGLYCERIN	N-NITROSODIPHENYLAMINE	OCDD	OCDF	ORTHOPHOSPHATE-P	PCB-1254	PCB-1260	PERCHLORATE
Unit			UG/KG	UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			305515.4	61539.56			34741.46					221.857	221.857	
Sample Number	**Short Name**	**Sample Area**												
MMROB/ODBLINDBLANK	OB/OD BLINDBLANK	OB/OD Area	39											
MMROB/ODBLINDBLANK	OB/OD BLINDBLANK	OB/OD Area			5.95									
MMROB/ODSS 1-1F	OB/OD 1-01	OB/OD Area	160					600				50	28J	
MMROB/ODSS 1-1FDL	OB/OD 1-01	OB/OD Area												
MMROB/ODSS 1-1FMS	OB/OD 1-01	OB/OD Area												
MMROB/ODSS 1-2F	OB/OD 1-02	OB/OD Area												
MMROB/ODSS 1-3F	OB/OD 1-03	OB/OD Area	26											
MMROB/ODSS 1-3FRE	OB/OD 1-03	OB/OD Area												
MMROB/ODSS 1-4F	OB/OD 1-04	OB/OD Area	96											
MMROB/ODSS 1-4FRE	OB/OD 1-04	OB/OD Area												
MMROB/ODSS 1-5F	OB/OD 1-05	OB/OD Area	53									24J		
MMROB/ODSS1-1F	OB/OD 1-01	OB/OD Area			6.15				0.875	0.04				89.5J
MMROB/ODSS1-2F	OB/OD 1-02	OB/OD Area			3.24				0.12		2.34J			
MMROB/ODSS1-3F	OB/OD 1-03	OB/OD Area			9.72				0.194		3.97J			
MMROB/ODSS1-4F	OB/OD 1-04	OB/OD Area			2.4				1.222	0.076	6.74			
MMROB/ODSS1-5F	OB/OD 1-05	OB/OD Area			5.03				1.036	0.036				
MMRPBPSS 1-1F	PBP 1-01	Propose Burn Pit		0.92J										
MMRPBPSS 1-1FRE	PBP 1-01	Propose Burn Pit		1J										
MMRPBPSS1-1	PBP 1-01	Propose Burn Pit												
MMRPBPSS1-1F	PBP 1-01	Propose Burn Pit			4.82						4J			
MMRSSBADGER 1-5	BADGER 1-05	Badger					1600							
MMRSSDEEDS 1-2	DEEDS 1-02	Deeds					220JN							

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			METHOXYCHLOR	MTBE	NITRATE-N	NITRITE	NITROGLYCERIN	N-NITROSODIPHENYLAMINE	OCDD	OCDF	ORTHOPHOSPHATE-P	PCB-1254	PCB-1260	PERCHLORATE
Unit			UG/KG	UG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			305515.4	61539.56			34741.46					221.857	221.857	
Sample Number	**Short Name**	**Sample Area**												
MMRSSWOLF 1-5	WOLF 1-05	Wolf					320JN							
MMRWOLFSS 1-5F	WOLF 1-05	Wolf		0.98J										
MMRWOLFSS1-3	WOLF 1-03	Wolf												
MMRWOLFSS1-5F	WOLF 1-05	Wolf			5.77									
MMRWSBPSS 1-1F	WSBP 1-01	Weather Station Burn Pit												
MMRWSBPSS1-1	WSBP 1-01	Weather Station Burn Pit												
MMRWSBPSS1-1F	WSBP 1-01	Weather Station Burn Pit			2.87				0.037					
WSBPSS 1-1	WSBP 1-01	Weather Station Burn Pit					18000							

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limits.

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			RDX	SALINITY	SULFATE	SULFIDE	TETRYL	TOLUENE	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDD
Unit			UG/KG	MG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			4421.641				611030.9	520000						
Sample Number	**Short Name**	**Sample Area**												
ERDC-BK 1A	ERDC-BK 1A	Background												
ERDC-BK 1B	ERDC-BK 1B	Background												
ERDC-BK 4A	ERDC-BK 4A	Background							0.045	0.013			0.005	
ERDC-BK 4B	ERDC-BK 4B	Background							0.027					
ERDC-BK 5A	ERDC-BK 5A	Background												
ERDC-BK 5B	ERDC-BK 5B	Background								0.168				
ERDC-BK 6A	ERDC-BK 6A	Background							0.132	0.077X				
ERDC-BK 6B	ERDC-BK 6B	Background							0.052	0.022				
MMR105FASS 1-1F	105-FA 1-01	105 Firing Area						2.1J						
MMR105FASS 1-1FRE	105-FA 1-01	105 Firing Area						1.2J						
MMR105FASS1-1F	105-FA 1-01	105 Firing Area			15.8	23.3								
MMR105FASS1-2F	105-FA 1-02	105 Firing Area			8.29						0.009X		0.008X	
MMR105FASSBLANK	105-FA BLANK	105 Firing Area		18										
MMRAGSS1-2	AREA-G 1-02	Area G		62.2										
MMRAREAGSS 1-2F	AREA-G 1-02	Area G						0.58J						
MMRAREAGSS1-2F	AREA-G 1-02	Area G			83.9									
MMRBADGERSS 1-10F	BADGER 1-10	Badger												
MMRBADGERSS1-10	BADGER 1-10	Badger		26.9										
MMRBADGERSS1-10F	BADGER 1-10	Badger			22.6	13.5								

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			RDX	SALINITY	SULFATE	SULFIDE	TETRYL	TOLUENE	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDD
Unit			UG/KG	MG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			4421.641				611030.9	520000						
Sample Number	**Short Name**	**Sample Area**												
MMRBADGERSS1-6	BADGER 1-06	Badger		62.1										
MMRBUFFALOSS 1-6F	BUFFALO 1-06	Buffalo						0.5J						
MMRBUFFALOSS1-2	BUFFALO 1-02	Buffalo		26.7										
MMRBUFFALOSS1-3	BUFFALO 1-03	Buffalo		8.89J										
MMRBUFFALOSS1-6F	BUFFALO 1-06	Buffalo			27.4									
MMRCAASS 1-1F	CAA 1-01	Counter Attack Area						1.8J						
MMRCAASS 1-7F	CAA 1-07	Counter Attack Area						2.3J						
MMRCAASS1-12	CAA 1-12	Counter Attack Area		17.8										
MMRCAASS1-1F	CAA 1-01	Counter Attack Area			31.9									
MMRCAASS1-2	CAA 1-02	Counter Attack Area		70.9										
MMRCAASS1-4	CAA 1-04	Counter Attack Area		44.6										
MMRCAASS1-7F	CAA 1-07	Counter Attack Area			68.2									
MMRCOYOTESS 1-2F	COYOTE 1-02	Coyote						2J						
MMRCOYOTESS1-1	COYOTE 1-01	Coyote		8.9J										
MMRCOYOTESS1-2F	COYOTE 1-02	Coyote			38.9									

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			RDX	SALINITY	SULFATE	SULFIDE	TETRYL	TOLUENE	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDD
Unit			UG/KG	MG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			4421.641				611030.9	520000						
Sample Number	**Short Name**	**Sample Area**												
MMRDBSS 1-1F	DB 1-01	Deer Berms					20000E	0.9J						
MMRDBSS1-1F	DB 1-01	Deer Berms			51.2					0.003				
MMRDBSS1-2	DB 1-02	Deer Berms		286										
MMRDBSSDL 1-1F	DB 1-01	Deer Berms					21000							
MMRDEEDSSS 1-1F	DEEDS 1-01	Deeds						1.9J						
MMRDEEDSSS1-1	DEEDS 1-01	Deeds		17.8										
MMRDEEDSSS1-1F	DEEDS 1-01	Deeds			12									
MMRDEERSS 1-1F	DEER 1-01	Deer												
MMRDEERSS1-13	DEER 1-13	Deer		108										
MMRDEERSS1-15	DEER 1-15	Deer		8.91J										
MMRDEERSS1-1F	DEER 1-01	Deer			87.5				0.03					
MMRDEERSS1-1FDUP	DEER 1-01	Deer			87.8									
MMRDEERSS1-4	DEER 1-04	Deer		44.6										
MMRDEERSS1-4DUP	DEER 1-04	Deer		44.3										
MMRDEERSS1-4F	DEER 1-04	Deer			9.28									
MMRDEERSS1-9	DEER 1-09	Deer		285										
MMRDEMOPITSS 1-1F	DEMO-PIT 1-01	Demo Pit	700											
MMRDEMOPITSS1-1F	DEMO-PIT 1-01	Demo Pit			126				0.037					
MMRDPASS 1-1	DEMO-PIT 1-01	Demo Pit	400J											
MMRDPASS BLANK	DEMO-PIT BLANK	Demo Pit	920											

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			RDX	SALINITY	SULFATE	SULFIDE	TETRYL	TOLUENE	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDD
Unit			UG/KG	MG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			4421.641				611030.9	520000						
Sample Number	**Short Name**	**Sample Area**												
MMRDPASS1-2	DEMO-PIT 1-02	Demo Pit		89.4										
MMRELKSS 1-7F	ELK 1-07	Elk												
MMRELKSS1-4	ELK 1-04	Elk		53.7										
MMRELKSS1-7F	ELK 1-07	Elk			106									
MMRFOXSS 1-3F	FOX 1-03	Fox						1.6J						
MMRFOXSS1-2	FOX 1-02	Fox		53.4										
MMRFOXSS1-2DUP	FOX 1-02	Fox		53.6										
MMRFOXSS1-3F	FOX 1-03	Fox			57.6									
MMRMSFASS 1-1F	MSFA 1.01	Makua Stream Firing Area						1.7J						
MMRMSFASS 1-1FRE	MSFA 1-01	Makua Stream Firing Area						0.5J						
MMRMSFASS 1-2F	MSFA 1-02	Makua Stream Firing Area						1.5J						
MMRMSFASS 1-2FRE	MSFA 1-02	Makua Stream Firing Area												
MMRMSFASS 1-3F	MSFA 1-03	Makua Stream Firing Area						1J						
MMRMSFASS 1-3FRE	MSFA 1-03	Makua Stream Firing Area						0.48J						

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			RDX	SALINITY	SULFATE	SULFIDE	TETRYL	TOLUENE	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDD
Unit			UG/KG	MG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			4421.641				611030.9	520000						
Sample Number	**Short Name**	**Sample Area**												
MMRMSFASS1-1F	MSFA 1-01	Makua Stream Firing Area			8.58						0.012		0.007X	
MMRMSFASS1-2F	MSFA 1-02	Makua Stream Firing Area			13.3									
MMRMSFASS1-3	MSFA 1-03	Makua Stream Firing Area												
MMRMSFASS1-3F	MSFA 1-03	Makua Stream Firing Area			10.1									
MMRMTASS 1-3F	MTA 1-03	Misc Training Area						1.7J						
MMRMTASS 1-3FRE	MTA 1-03	Misc Training Area						1.2J						
MMRMTASS1-3F	MTA 1-03	Misc Training Area			10.4	32								
MMRMTASS1-5	MTA 1-05	Misc Training Area		8.95J										
MMROB/OD BLIND BLANK	OB/OD BLINDBLANK	OB/OD Area							0.128	0.018				0.018
MMROB/ODBLIND BLANK	OB/OD BLINDBLANK	OB/OD Area	1500					0.86J						

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			RDX	SALINITY	SULFATE	SULFIDE	TETRYL	TOLUENE	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDD
Unit			UG/KG	MG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			4421.641				611030.9	520000						
Sample Number	**Short Name**	**Sample Area**												
MMROB/ODBLINDBLANK	OB/OD BLINDBLANK	OB/OD Area			14.8									
MMROB/ODSS 1-1F	OB/OD 1-01	OB/OD Area						0.68J						
MMROB/ODSS 1-1FDL	OB/OD 1-01	OB/OD Area												
MMROB/ODSS 1-1FMS	OB/OD 1-01	OB/OD Area												
MMROB/ODSS 1-2F	OB/OD 1-02	OB/OD Area						0.71J						
MMROB/ODSS 1-3F	OB/OD 1-03	OB/OD Area						2.1J						
MMROB/ODSS 1-3FRE	OB/OD 1-03	OB/OD Area						1.4J						
MMROB/ODSS 1-4F	OB/OD 1-04	OB/OD Area						2.4J						
MMROB/ODSS 1-4FRE	OB/OD 1-04	OB/OD Area						1.2J						
MMROB/ODSS 1-5F	OB/OD 1-05	OB/OD Area	400J					0.84J						
MMROB/ODSS1-1F	OB/OD 1-01	OB/OD Area			28.7				0.101	0.015		0.008		0.008
MMROB/ODSS1-2F	OB/OD 1-02	OB/OD Area			10.1				0.016					
MMROB/ODSS1-3F	OB/OD 1-03	OB/OD Area			7.91				0.02X					
MMROB/ODSS1-4F	OB/OD 1-04	OB/OD Area			8.67				0.09	0.011				
MMROB/ODSS1-5F	OB/OD 1-05	OB/OD Area			13.7				0.099	0.014			0.004	0.016
MMRPBPSS 1-1F	PBP 1-01	Propose Burn Pit												
MMRPBPSS 1-1FRE	PBP 1-01	Propose Burn Pit												
MMRPBPSS1-1	PBP 1-01	Propose Burn Pit		62.3										

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)														
Compound			RDX	SALINITY	SULFATE	SULFIDE	TETRYL	TOLUENE	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDD
Unit			UG/KG	MG/KG	MG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial			4421.641				611030.9	520000						
Sample Number	**Short Name**	**Sample Area**												
MMRPBPSS1-1F	PBP 1-01	Propose Burn Pit			7.8									0.011
MMRSSBADGER 1-5	BADGER 1-05	Badger												
MMRSSDEEDS 1-2	DEEDS 1-02	Deeds												
MMRSSWOLF 1-5	WOLF 1-05	Wolf												
MMRWOLFSS 1-5F	WOLF 1-05	Wolf												
MMRWOLFSS1-3	WOLF 1-03	Wolf		26.6										
MMRWOLFSS1-5F	WOLF 1-05	Wolf			83.7									
MMRWSBPSS 1-1F	WSBP 1-01	Weather Station Burn Pit												
MMRWSBPSS1-1	WSBP 1-01	Weather Station Burn Pit		195										
MMRWSBPSS1-1F	WSBP 1-01	Weather Station Burn Pit			19.6									
WSBPSS 1-1	WSBP 1-01	Weather Station Burn Pit												

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limits.

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			1,2,3,7,8,9-HxCDD	1,2,3,7,8-PeCDD	2,3,4,6,7,8-HxCDF	Total HpCDD	Total HpCDF	Total HxCDD	Total HxCDF	Total PeCDD	Total PeCDF	Total TCDD	Total TCDF
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial													
Sample Number	**Short Name**	**Sample Area**											
ERDC-BK 1A	ERDC-BK 1A	Background											
ERDC-BK 1B	ERDC-BK 1B	Background											
ERDC-BK 4A	ERDC-BK 4A	Background				0.045	0.151		0.005				
ERDC-BK 4B	ERDC-BK 4B	Background				0.027	0.033						
ERDC-BK 5A	ERDC-BK 5A	Background											
ERDC-BK 5B	ERDC-BK 5B	Background				3.837	0.168	4.082	3.786	3.517	4.249	1.653	1.786
ERDC-BK 6A	ERDC-BK 6A	Background				0.132	0.485						
ERDC-BK 6B	ERDC-BK 6B	Background				0.101	0.181	4.495	3.641	5.232	5.294	2.213	1.94
MMR105FASS 1-1F	105-FA 1-01	105 Firing Area											
MMR105FASS 1-1FRE	105-FA 1-01	105 Firing Area											
MMR105FASS1-1F	105-FA 1-01	105 Firing Area											
MMR105FASS1-2F	105-FA 1-02	105 Firing Area	0.026		0.004X	4.729	4.464	4.759	3.685	4.863	5.287	2.248	0.003
MMR105FASSBLANK	105-FA BLANK	105 Firing Area											
MMRAGSS1-2	AREA-G 1-02	Area G											
MMRAREAGSS 1-2F	AREA-G 1-02	Area G											
MMRAREAGSS1-2F	AREA-G 1-02	Area G											
MMRBADGERSS 1-10F	BADGER 1-10	Badger											
MMRBADGERSS1-10	BADGER 1-10	Badger											
MMRBADGERSS1-10F	BADGER 1-10	Badger											
MMRBADGERSS1-6	BADGER 1-06	Badger											
MMRBUFFALOSS 1-6F	BUFFALO 1-06	Buffalo											
MMRBUFFALOSS1-2	BUFFALO 1-02	Buffalo											
MMRBUFFALOSS1-3	BUFFALO 1-03	Buffalo											

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			1,2,3,7,8,9-HxCDD	1,2,3,7,8-PeCDD	2,3,4,6,7,8-HxCDF	Total HpCDD	Total HpCDF	Total HxCDD	Total HxCDF	Total PeCDD	Total PeCDF	Total TCDD	Total TCDF
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial													
Sample Number	**Short Name**	**Sample Area**											
MMRBUFFALOSS1-6F	BUFFALO 1-06	Buffalo											
MMRCAASS 1-1F	CAA 1-01	Counter Attack Area											
MMRCAASS 1-7F	CAA 1-07	Counter Attack Area											
MMRCAASS1-12	CAA 1-12	Counter Attack Area											
MMRCAASS1-1F	CAA 1-01	Counter Attack Area											
MMRCAASS1-2	CAA 1-02	Counter Attack Area											
MMRCAASS1-4	CAA 1-04	Counter Attack Area											
MMRCAASS1-7F	CAA 1-07	Counter Attack Area											
MMRCOYOTESS 1-2F	COYOTE 1-02	Coyote											
MMRCOYOTESS1-1	COYOTE 1-01	Coyote											
MMRCOYOTESS1-2F	COYOTE 1-02	Coyote											
MMRDBSS 1-1F	DB 1-01	Deer Berms											
MMRDBSS1-1F	DB 1-01	Deer Berms					0.003						
MMRDBSS1-2	DB 1-02	Deer Berms											
MMRDBSSDL 1-1F	DB 1-01	Deer Berms											
MMRDEEDSSS 1-1F	DEEDS 1-01	Deeds											
MMRDEEDSSS1-1	DEEDS 1-01	Deeds											
MMRDEEDSSS1-1F	DEEDS 1-01	Deeds											
MMRDEERSS 1-1F	DEER 1-01	Deer											
MMRDEERSS1-13	DEER 1-13	Deer											
MMRDEERSS1-15	DEER 1-15	Deer											
MMRDEERSS1-1F	DEER 1-01	Deer				0.055							
MMRDEERSS1-1FDUP	DEER 1-01	Deer											

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			1,2,3,7,8,9-HxCDD	1,2,3,7,8-PeCDD	2,3,4,6,7,8-HxCDF	Total HpCDD	Total HpCDF	Total HxCDD	Total HxCDF	Total PeCDD	Total PeCDF	Total TCDD	Total TCDF
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial													
Sample Number	**Short Name**	**Sample Area**											
MMRDEERSS1-4	DEER 1-04	Deer											
MMRDEERSS1-4DUP	DEER 1-04	Deer											
MMRDEERSS1-4F	DEER 1-04	Deer											
MMRDEERSS1-9	DEER 1-09	Deer											
MMRDEMOPITSS 1-1F	DEMO-PIT 1-01	Demo Pit											
MMRDEMOPITSS1-1F	DEMO-PIT 1-01	Demo Pit				0.066	0.007		0.009				
MMRDPASS 1-1	DEMO-PIT 1-01	Demo Pit											
MMRDPASS BLANK	DEMO-PIT BLANK	Demo Pit											
MMRDPASS1-2	DEMO-PIT 1-02	Demo Pit											
MMRELKSS 1-7F	ELK 1-07	Elk											
MMRELKSS1-4	ELK 1-04	Elk											
MMRELKSS1-7F	ELK 1-07	Elk											
MMRFOXSS 1-3F	FOX 1-03	Fox											
MMRFOXSS1-2	FOX 1-02	Fox											
MMRFOXSS1-2DUP	FOX 1-02	Fox											
MMRFOXSS1-3F	FOX 1-03	Fox											
MMRMSFASS 1-1F	MSFA 1.01	Makua Stream Firing Area											
MMRMSFASS 1-1FRE	MSFA 1-01	Makua Stream Firing Area											
MMRMSFASS 1-2F	MSFA 1-02	Makua Stream Firing Area											
MMRMSFASS 1-2FRE	MSFA 1-02	Makua Stream Firing Area											
MMRMSFASS 1-3F	MSFA 1-03	Makua Stream Firing Area											
MMRMSFASS 1-3FRE	MSFA 1-03	Makua Stream Firing Area											
MMRMSFASS1-1F	MSFA 1-01	Makua Stream Firing Area	0.016		0.011	4.583	4.871	5.314	3.993	5.2	5.362	2.431	2.104

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			1,2,3,7,8,9-HxCDD	1,2,3,7,8-PeCDD	2,3,4,6,7,8-HxCDF	Total HpCDD	Total HpCDF	Total HxCDD	Total HxCDF	Total PeCDD	Total PeCDF	Total TCDD	Total TCDF
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial													
Sample Number	**Short Name**	**Sample Area**											
MMRMSFASS1-2F	MSFA 1-02	Makua Stream Firing Area											
MMRMSFASS1-3	MSFA 1-03	Makua Stream Firing Area											
MMRMSFASS1-3F	MSFA 1-03	Makua Stream Firing Area											
MMRMTASS 1-3F	MTA 1-03	Misc Training Area											
MMRMTASS 1-3FRE	MTA 1-03	Misc Training Area											
MMRMTASS1-3F	MTA 1-03	Misc Training Area	0.012X										
MMRMTASS1-5	MTA 1-05	Misc Training Area											
MMROB/OD BLIND BLANK	OB/OD BLINDBLANK	OB/OD Area	0.035X			0.24	0.048	0.018	0.029				
MMROB/ODBLIND BLANK	OB/OD BLINDBLANK	OB/OD Area											
MMROB/ODBLINDBLANK	OB/OD BLINDBLANK	OB/OD Area											
MMROB/ODSS 1-1F	OB/OD 1-01	OB/OD Area											
MMROB/ODSS 1-1FDL	OB/OD 1-01	OB/OD Area											
MMROB/ODSS 1-1FMS	OB/OD 1-01	OB/OD Area											
MMROB/ODSS 1-2F	OB/OD 1-02	OB/OD Area											
MMROB/ODSS 1-3F	OB/OD 1-03	OB/OD Area											
MMROB/ODSS 1-3FRE	OB/OD 1-03	OB/OD Area											
MMROB/ODSS 1-4F	OB/OD 1-04	OB/OD Area											
MMROB/ODSS 1-4FRE	OB/OD 1-04	OB/OD Area											
MMROB/ODSS 1-5F	OB/OD 1-05	OB/OD Area											
MMROB/ODSS1-1F	OB/OD 1-01	OB/OD Area	0.01	0.24X		0.101	0.053	0.04	0.035				
MMROB/ODSS1-2F	OB/OD 1-02	OB/OD Area	0.01			0.016	0.016	0.01					

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - EMAX Laboratory (Continued)													
Compound			1,2,3,7,8,9-HxCDD	1,2,3,7,8-PeCDD	2,3,4,6,7,8-HxCDF	Total HpCDD	Total HpCDF	Total HxCDD	Total HxCDF	Total PeCDD	Total PeCDF	Total TCDD	Total TCDF
Unit			UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
PRG Industrial													
Sample Number	**Short Name**	**Sample Area**											
MMROB/ODSS1-3F	OB/OD 1-03	OB/OD Area				0.019	0.007						
MMROB/ODSS1-4F	OB/OD 1-04	OB/OD Area				0.156	0.047		0.008				
MMROB/ODSS1-5F	OB/OD 1-05	OB/OD Area	0.032X			0.179	0.046	0.016	0.027				
MMRPBPSS 1-1F	PBP 1-01	Propose Burn Pit											
MMRPBPSS 1-1FRE	PBP 1-01	Propose Burn Pit											
MMRPBPSS1-1	PBP 1-01	Propose Burn Pit											
MMRPBPSS1-1F	PBP 1-01	Propose Burn Pit	0.017					0.028					
MMRSSBADGER 1-5	BADGER 1-05	Badger											
MMRSSDEEDS 1-2	DEEDS 1-02	Deeds											
MMRSSWOLF 1-5	WOLF 1-05	Wolf											
MMRWOLFSS 1-5F	WOLF 1-05	Wolf											
MMRWOLFSS1-3	WOLF 1-03	Wolf											
MMRWOLFSS1-5F	WOLF 1-05	Wolf											
MMRWSBPSS 1-1F	WSBP 1-01	Weather Station Burn Pit											
MMRWSBPSS1-1	WSBP 1-01	Weather Station Burn Pit											
MMRWSBPSS1-1F	WSBP 1-01	Weather Station Burn Pit											
WSBPSS 1-1	WSBP 1-01	Weather Station Burn Pit											

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limits.

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - SEQUOIA Laboratory

Compound		2,4-D	2,4-Dinitrotoluene	2-Butanone	Acetone	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (b+k) fluoranthene (total)	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Benzoic acid	Bis(2-ethylhexyl)phthalate	Chloride	Chrysene
Unit		UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	UG/KG
PRG Industrial		7,683,332.57	1,231,212.58	27,102,009.10	6,035,956.57	100,000,000.00	2,109.62	210.96	2,109.62			21,096.23		123,121.26		210,962.29
Sample Name	**Compound Type/Test**						YES	YES	YES	YES	YES	YES	YES			
MMRCAASS1-7F	8151A Herbicides	61														
	8270C default							59JB		62J	280J		430JD			50J
	8270C SIM PAH						24J	43B	40B	63J	30J	23JD				
	Chloride 300.0														67	
	Cyanide Total 335.2															
	Nitrate as N 300.0															
	Sulfate-300.0															
	zzPhosphorus-365.2															
MMRDEERBERM1-1F	8270C default										210J		300JD			
	8270C SIM PAH							30B	27B	41J	20J	14JD				
	Chloride 300.0														12	
	Nitrate as N 300.0															
	Sulfate-300.0															
	zzPhosphorus-365.2															
MMRMSBS-1.5	8260B low + Oxys			3.1J	29J											
	8270C default													81J		
	Ni Total ICPMS 6020															
	Nitrite as N 300.0															
MMROB/ODSSI-5	8082 PCBs															
	8270C default		570								450					
	8270C SIM PAH					15J	18J	10JB	13JB	13J	26J	23JD				
	Chloride 300.0														25	
	Nitrate as N 300.0															
	Sulfate-300.0															
	zzPhosphorus-365.2															

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limits.

Note: J = Semiquantified Results, B = Compounds also present in laboratory blanks and is likely contamination from other samples in the laboratory

Appendix B - Shallow Soil Sample Results - Compounds Detected Below PRGs (Metals Excluded) - SEQUOIA Laboratory (Continued)

Compound		Dibenz (a,h) anthracene	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Indeno (1,2,3-cd) pyrene	Methylene chloride	Nickel	Nitrate as N	Nitrite as N	N-Nitrosodiphenyl amine	PCB-1260	Phosphorus	Pyrene	Sulfate as SO4
Unit		UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	MG/KG	MG/KG	MG/KG	UG/KG	UG/KG	MG/KG	UG/KG	MG/KG
PRG Industrial		210.96	61,560,629.09	24,624,251.63	22,000,353.33	2,109.62	20,526.53	20,439.16			351,775.02	743.60		29,126,200.70	
Sample Name	**Compound Type/Test**	YES	YES	YES	YES	YES	YES			YES					
MMRCAASS1-7F	8151A Herbicides														
	8270C default	240JD		94JD		240J									
	8270C SIM PAH	35JD				71D									
	Chloride 300.0														
	Cyanide Total 335.2														
	Nitrate as N 300.0								34						
	Sulfate-300.0														69
	zzPhosphorus-365.2												64		
MMRDEERBERM1-1F	8270C default	230JD				190J									
	8270C SIM PAH	24JD				49									
	Chloride 300.0														
	Nitrate as N 300.0								8.2						
	Sulfate-300.0														65
	zzPhosphorus-365.2												360		
MMRMSBS-1.5	8260B low + Oxys						0.89J								
	8270C default														
	Ni Total ICPMS 6020							190							
	Nitrite as N 300.0														
MMROB/ODSSI-5	8082 PCBs											42			
	8270C default	440D	1400								60J				
	8270C SIM PAH	7.5JD			19J	56D								16J	
	Chloride 300.0														
	Nitrate as N 300.0								4.6						
	Sulfate-300.0														15
	zzPhosphorus-365.2												250		

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limits.

Note: J = Semiquantified Results, B = Compounds also present in laboratory blanks and is likely contamination from other samples in the laboratory

APPENDIX C

TCLP Metal Concentrations

Appendix C - TCLP Metal Concentrations for Soil Samples in the Makua Valley (Boreholes and Shallow Soil Samples
(Values Reported Above Laboratory Detection Limits)

Compound			ALUMINUM	ARSENIC	BARIUM	BORON	CADMIUM	CALCIUM	COPPER	IRON	LEAD	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	POTASSIUM	SELENIUM	SODIUM	STRONTIUM	TITANIUM	ZINC
Unit			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
Sample Label	**Short Name**	**Location**																			
MMR105FASS1-1F	105-FA 1-01	105 Firing Area			0.598																
MMR105FASS1-2F	105-FA 1-02	105 Firing Area			0.432									3.18J							
MMRAREAGSS1-2F	AREA-G 1-02	Area G			1.35									5.28							
MMRBACKGROUND 1-10	NFBR 1-10	North Fire Break Road	0.323J		0.511	0.242J		17.8				23.2	0.139J			8.62J		1240	0.232		0.422
MMR-BACKGROUND 1-2	BG 1-02	Background			0.626																
MMRBACKGROUND 1-3	BG 1-03	Background			0.55	0.272J		227				39.5	0.128J			27.3		1340	1.09		0.364
MMRBACKGROUND 1-4	BG 1-04	Background	0.36J		0.475	0.212J		12.8				28.7	0.187J			4.65J		1260	0.123	0.00535J	0.392
MMRBACKGROUND 1-5	BG 1-05	Background			0.669	0.35J		34.6				23.2	0.0709J			10.7J		1110	0.374		0.714
MMRBACKGROUND 1-6	BG 1-06	Background			0.574	0.376J		85.9		0.156J		48.1	0.128J			7.32J		1440	0.508	0.00725J	0.555
MMRBACKGROUND 1-7	NFBR 1-07	North Fire Break Road			0.426	0.25J		36.5				31.1	0.0276J					1280	0.263		0.432
MMRBACKGROUND 1-8	NFBR 1-08	North Fire Break Road			0.501	0.255J		424				70.4	0.0398J			9.58J		1300	1.52		0.428
MMRBACKGROUND 1-9	NFBR 1-09	North Fire Break Road			0.671	0.316J		30.9				22.5	0.127J			4.35J		1270	0.244		0.585
MMRBADGERSS1-10F	BADGER 1-10	Badger			0.712																
MMRBHSS1-2	BHSS1-2	Borehole			0.835	0.314J		8.93				21.1	0.221J			4.2J		1090	0.0961J		0.678
MMRBHSS2-1	BHSS2-1	Borehole		0.0225J	0.437	0.389J	0.0159J	32.8	2.25		0.0532	32.6	0.493J		0.0409J			1120	0.376		14.4
MMRBHSS2-3	BHSS2-3	Borehole		0.0211J	0.819	0.216J		15.4				30	0.0306J					1120	0.186		0.367
MMRBHSS3-1	BHSS3-1	Borehole			1.34						0.0403J										
MMRBUFFALOSS1-6F	BUFFALO 1-06	Buffalo			1.1																
MMRCAASS1-1F	CAA 1-01	Counter Attack Area			0.988																
MMRCAASS1-7F	CAA 1-07	Counter Attack Area			1.11																
MMRCOYOTESS1-2F	COYOTE 1-02	Coyote			0.798												0.0293J				
MMRDBSS1-1F	DB 1-01	Deer Berms			0.975												0.0302J				
MMRDEEDSSS1-1F	DEEDS 1-01	Deeds			1.02																
MMRDEERSS1-1F	DEER 1-01	Deer			0.625																
MMRDEERSS1-4F	DEER 1-04	Deer			0.483																
MMRDEMOPITSS1-1F	DEMO-PIT 1-01	Demo Pit			0.417																
MMRELKSS1-7F	ELK 1-07	Elk			1.31																
MMRFOXSS1-3F	FOX 1-03	Fox		0.0226J	0.781																
MMRKASBS-0.5	KASBA-0.5	Kaluakauila Stream			0.979																
MMRKASBS-1.0	KASBA-1.0	Kaluakauila Stream			0.837												0.0455J				
MMRKSBS-0.5	KSBS-0.5	Koiahi Gulch			0.766												0.0275J				
MMRKSBS-1.0	KSBS-1.0	Koiahi Gulch			0.693																
MMRKSBS-1.5	KSBS-1.5	Koiahi Gulch			0.755												0.0252J				
MMRMSBS-0.5	MSBS-0.5	Makua Stream			0.794												0.0364J				
MMRMSBS-1.0	MSBS-1.0	Makua Stream			1.06																
MMRMSBS-1.5	MSBS-1.5	Makua Stream			0.87												0.0277J				
MMRMSFASS 1-1F	MSFA 1-01	Makua Stream Firing Area			0.805																
MMRMSFASS1-1F	MSFA 1-01	Makua Stream Firing Area												2.93J							
MMRMSFASS1-2F	MSFA 1-02	Makua Stream Firing Area			0.795																
MMRMSFASS1-3F	MSFA 1-03	Makua Stream Firing Area			0.727																
MMRMTASS1-3F	MTA 1-03	Misc Training Area			0.747																
MMROB/ODSS 1-1F	OB/OD 1-01	OB/OD area			1.01		0.0198J														

Appendix C - TCLP Metal Concentrations for Soil Samples in the Makua Valley (Boreholes and Shallow Soil Samples (Values Reported Above Laboratory Detection Limits)

Compound			ALUMINUM	ARSENIC	BARIUM	BORON	CADMIUM	CALCIUM	COPPER	IRON	LEAD	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	POTASSIUM	SELENIUM	SODIUM	STRONTIUM	TITANIUM	ZINC
Unit			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
Sample Label	**Short Name**	**Location**																			
MMROB/ODSS 1-2F	OB/OD 1-02	OB/OD area			0.801																
MMROB/ODSS 1-3F	OB/OD 1-03	OB/OD area			0.907																
MMROB/ODSS 1-4F	OB/OD 1-04	OB/OD area			0.993						0.108										
MMROB/ODSS 1-5F	OB/OD 1-05	OB/OD area			1.01						0.0143J										
MMROB/ODSS1-5F	OB/OD 1-05	OB/OD area												2.77J							
MMRPBPSS1-1F	PBP 1-01	Propose Burn Pit			0.921																
MMRPSBS-0.5	PSBS-0.5	Punapohaku Stream			0.665																
MMRPSBS-1.0	PSBS-1.0	Punapohaku Stream			0.747												0.0284J				
MMRPSBS-1.5	PSBS-1.5	Punapohaku Stream			0.778																
MMRS-BACKGROUND 1-1	BG 1-01	Background			0.43																
MMRWOLFSS1-5F	WOLF 1-05	Wolf			0.51						0.016J			3.25J							
MMRWSBPSS1-1F	WSBP 1-01	Weather Station Burn Pan			1.17									1.51J							

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limits.

J = Semiquantified result

APPENDIX D

Groundwater Chemistry Data for Makua Military Reservation

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Values Below PRGs or MCLs)

		Compound											
		1,2,4-TRIMETHYL BENZENE	2,4,6-TNT	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BETA-BHC	BICARBONATE ALKALINITY	BIS(2-ETHYL HEXYL)PHTHALATE	BORON	BROMIDE
Unit		UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	UG/L	MG/L	UG/L	MG/L	MG/L
PRG		12.33	2.24	0.01	36.50		2.56	0.34	0.04		4.80	7.30	
MCL						0.01	2.00	5.00					
Sample Name*	**Location**												
MMRMW1-R1	WELL 01	0.48J					0.005J					0.065J	0.838
MMRMW1-R2	WELL 01				0.061J		0.005J			151		0.061J	0.727
MMRMW1-R3	WELL 01				0.081J		0.007J					0.087J	0.942
MMRMW1-R4	WELL 01						0.006J					0.083J	1.25
MMR-MW1-R5	WELL 01						0.005J					0.063J	0.609
MMRMW1-R6	WELL 01				0.066J		0.004J					0.061J	0.832
MWRMW2-R1	WELL 02												
MMRMW2-R1	WELL 02	0.38J			0.123J		0.023					0.085J	0.712
MMRMW2-R2	WELL 02						0.02			192		0.096J	0.753
MMRMW2-R3	WELL 02						0.024					0.136	0.971
MMRMW2-R4	WELL 02						0.025					0.108	0.694
MMR-MW2-R5	WELL 02						0.022					0.086J	0.763
MMRMW2-R6	WELL 02						0.022					0.116	0.619
MWRMW3A-R1	WELL 03A												
MMRMW3A-R1	WELL 03A	0.4J					0.002J					0.063J	
MMRMW3A-R2	WELL 03A						0.002J			202		0.064J	
MMRMW3A-R3	WELL 03A				0.16J		0.003J					0.058J	
MMRMW3A-R4	WELL 03A						0.005J					0.08J	0.621
MMR-MW3A-R5	WELL 03A						0.004J					0.059J	
MMRMW3A-R6	WELL 03A						0.004J					0.058J	
MMRMW-3B	WELL 03B	0.48J			0.787		0.019	0.92J				1.2	
MMRMW3B-R2	WELL 03B				0.308		0.018	0.8J		323		1.22	0.794
MMRMW3B-R2DUP	WELL 03B												
MMRMW3B-R3	WELL 03B			0.039J	0.733		0.024	0.37J	0.049J			1.55	
MMRMW3B-R4	WELL 03B				0.164J		0.02					1.46	
MMRMW3B-R4-RIN	WELL 03B RIN							0.21J					
MMR-MW3B-R5	WELL 03B				0.107J		0.018					1.25	0.56
MMRMW3B-R6	WELL 03B				0.068J		0.018					1.18	
MMRMW-3C	WELL 03C	0.52J			0.127J	0.005J	0.002J					0.468	0.379J
MMRMW3C-R2	WELL 03C				0.067J		0.002J			181		0.458	
MMRMW3C-R3	WELL 03C				1.22		0.007J					0.46	
MMRMW3C-R4	WELL 03C				0.485		0.008J					0.316	0.43J
MMR-MW3C-R5	WELL 03C				0.066J		0.006J					0.444	0.389J
MMRMW3C-R6	WELL 03C				0.112J		0.005J					0.429	
MMRMW4AR1	WELL 04A												

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Values Below PRGs or MCLs)

		Compound											
		1,2,4-TRIMETHYL BENZENE	2,4,6-TNT	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BETA-BHC	BICARBONATE ALKALINITY	BIS(2-ETHYL HEXYL)PHTHALATE	BORON	BROMIDE
Unit		UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	UG/L	MG/L	UG/L	MG/L	MG/L
PRG		12.33	2.24	0.01	36.50		2.56	0.34	0.04		4.80	7.30	
MCL						0.01	2.00	5.00					
Sample Name*	**Location**												
MMRMW4A-R1	WELL 04A	0.45J	0.61JN			0.005J	0.002J					0.137	0.82
MMRMW4A-R2	WELL 04A		0.26JN		0.071J					312		0.117	0.712
MMRMW4A-R3	WELL 04A				0.227		0.002J					0.128	0.585
MMRMW4A-R3DUP	WELL 04A												0.594
MMRMW4A-R4	WELL 04A											0.118	1.12
MMR-MW4A-R5	WELL 04A											0.135	0.861
MMRMW4A-R6	WELL 04A											0.114	0.772
MMRMW-4B	WELL 04B				0.063J	0.004J						0.113	0.744
MMRMW-4BDUP	WELL 04B												0.735
MMRMW4B-R2	WELL 04B				0.155J					265		0.105	
MMRMW4B-R3	WELL 04B				0.973		0.004J					0.122	0.795
MMRMW4B-R4	WELL 04B											0.106	0.569
MMRMW4B-R4DUP	WELL 04B												0.564
MMR-MW4B-R5	WELL 04B											0.112	0.687
MMRMW4B-R6	WELL 04B											0.122	0.624
MMRMW-4C	WELL 04C	0.4J					0.006J					0.106	0.742
MMRMW4C-R2	WELL 04C				0.12J		0.007J			184		0.105	0.806
MMRMW4C-R2DUP	WELL 04C									186			0.741
MMRMW4C-R3	WELL 04C				10.7		0.048				14J	0.145	0.572
MMRMW4C-R4	WELL 04C				0.129J		0.009J					0.128	0.983
MMR-MW4C-R5	WELL 04C				0.075J		0.01J					0.132	0.761
MMRMW4C-R6	WELL 04C				0.1J		0.01J					0.127	0.704
MW-5-R1	WELL 05				0.88	0.01J	0.009J					0.066J	0.657
MMRMW5-R2	WELL 05				0.113J		0.011			118		0.059J	0.639
MMRMW5-R2DUP	WELL 05									123			
MMRMW5-R3	WELL 05				0.168J		0.013					0.069J	0.594
MMRMW5-R4	WELL 05				0.076J		0.011					0.066J	0.934
MMR-MW5-R5	WELL 05				0.479		0.012					0.069J	0.7
MMRMW5-R6	WELL 05				0.122J		0.011					0.057J	0.665
MMRMW5RIN-R2	WELL 05 RIN							0.63J					
MMRMWSP7-R2	WELL SP07				0.087J		0.01			212		0.056J	
MMRSP-7	WELL SP07						0.009J					0.056J	
MMRSP-7DUP	WELL SP07												
MMRSP7-R3	WELL SP07				1.67		0.015					0.07J	
MMRSP7-R4	WELL SP07						0.011					0.061J	0.558

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits
(Values Below PRGs or MCLs)

		Compound											
		1,2,4-TRIMETHYL BENZENE	2,4,6-TNT	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BETA-BHC	BICARBONATE ALKALINITY	BIS(2-ETHYL HEXYL)PHTHALATE	BORON	BROMIDE
Unit		UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	UG/L	MG/L	UG/L	MG/L	MG/L
PRG		12.33	2.24	0.01	36.50		2.56	0.34	0.04		4.80	7.30	
MCL						0.01	2.00	5.00					
Sample Name*	**Location**												
MMR-SP7-R5	WELL SP07						0.011					0.069J	0.328J
MMR-SP7-R5DUP	WELL SP07												0.309J
MMRSP7-R6	WELL SP07						0.009J					0.054J	

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limit

* R1,2,3,4,5,6 at the end of sample name denotes sample round 1,2,3,4,5 or 6. RIN = rinsate sample DUP = Duplicate

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound											
		CADMIUM	CALCIUM	CHLORIDE	CHLORIDE-CL	CHLOROFORM	CHROMIUM	COPPER	DELTA-BHC	ENDOSULFAN I	ENDRIN KETONE	ETHYLBENZENE	FLUORIDE
Unit		MG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L	MG/L
PRG		0.02				6.17		1.46				2.91	2.19
MCL		0.01					0.10	1.30				700.00	4.00
Sample Name*	**Location**												
MMRMW1-R1	WELL 01		39.2		188							0.25J	0.312
MMRMW1-R2	WELL 01		39.9		200		0.009J						0.379
MMRMW1-R3	WELL 01		51.1	193									0.373
MMRMW1-R4	WELL 01		49.5	197									0.42
MMR-MW1-R5	WELL 01		37.7	208									0.467
MMRMW1-R6	WELL 01		34.7	176									0.216
MWRMW2-R1	WELL 02												
MMRMW2-R1	WELL 02		46.7		171								0.227
MMRMW2-R2	WELL 02		50.9		202								0.336
MMRMW2-R3	WELL 02		68.6	231									0.396
MMRMW2-R4	WELL 02		55.3	191									0.345
MMR-MW2-R5	WELL 02		43.4	185									0.577
MMRMW2-R6	WELL 02		60.3	191									0.214
MWRMW3A-R1	WELL 03A												
MMRMW3A-R1	WELL 03A		60.9		42.2								0.156
MMRMW3A-R2	WELL 03A		61.1		48.6								0.289
MMRMW3A-R3	WELL 03A		60.7	54.8									0.251
MMRMW3A-R4	WELL 03A		101	53.8									0.227
MMR-MW3A-R5	WELL 03A		61.3	2.29J		0.32J							0.302
MMRMW3A-R6	WELL 03A		66.4	50.2									0.164
MMRMW-3B	WELL 03B		18.6		37								1.13
MMRMW3B-R2	WELL 03B		15.8		164								0.675
MMRMW3B-R2DUP	WELL 03B												
MMRMW3B-R3	WELL 03B		20.7	38.8					0.024J				1.26
MMRMW3B-R4	WELL 03B		17.7	37.8									1.3
MMRMW3B-R4-RIN	WELL 03B RIN												
MMR-MW3B-R5	WELL 03B		14.8	39.3									1.62
MMRMW3B-R6	WELL 03B		13.1	32.4									1.22
MMRMW-3C	WELL 03C		0.852J		55.2								1.57
MMRMW3C-R2	WELL 03C		1.52		65		0.009J	0.005J		0.45			1.67
MMRMW3C-R3	WELL 03C		4.43	57.7						0.26			1.43
MMRMW3C-R4	WELL 03C		18	56.6									0.896
MMR-MW3C-R5	WELL 03C		5.76	59.1		0.3J							1.3
MMRMW3C-R6	WELL 03C		3.41	52.9									1.18
MMRMW4AR1	WELL 04A												

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound											
		CADMIUM	CALCIUM	CHLORIDE	CHLORIDE-CL	CHLOROFORM	CHROMIUM	COPPER	DELTA-BHC	ENDOSULFAN I	ENDRIN KETONE	ETHYLBENZENE	FLUORIDE
Unit		MG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L	MG/L
PRG		0.02				6.17		1.46				2.91	2.19
MCL		0.01					0.10	1.30				700.00	4.00
Sample Name*	**Location**												
MMRMW4A-R1	WELL 04A		80		172								0.55
MMRMW4A-R2	WELL 04A		67.5		172								0.655
MMRMW4A-R3	WELL 04A		80	188									0.525
MMRMW4A-R3DUP	WELL 04A			186									0.524
MMRMW4A-R4	WELL 04A		73.9	133									0.483
MMR-MW4A-R5	WELL 04A		84.1	204									0.798
MMRMW4A-R6	WELL 04A		70.1	198									0.483
MMRMW-4B	WELL 04B		59.2		161								0.537
MMRMW-4BDUP	WELL 04B				160								0.52
MMRMW4B-R2	WELL 04B		53.4		36.7								1.32
MMRMW4B-R3	WELL 04B		58.4	153				0.007J					0.581
MMRMW4B-R4	WELL 04B		60.1	168									0.461
MMRMW4B-R4DUP	WELL 04B			167									0.498
MMR-MW4B-R5	WELL 04B		57.5	149							0.099J		0.684
MMRMW4B-R6	WELL 04B		62.1	157			0.01J						0.426
MMRMW-4C	WELL 04C	0.002J	35.3		173								0.402
MMRMW4C-R2	WELL 04C		37.5		182								0.459
MMRMW4C-R2DUP	WELL 04C				184								0.454
MMRMW4C-R3	WELL 04C		53.4	180			0.043	0.023					0.411
MMRMW4C-R4	WELL 04C		42.6	181									0.328
MMR-MW4C-R5	WELL 04C		46.2	186									0.508
MMRMW4C-R6	WELL 04C		45.7	165			0.007J						0.379
MW-5-R1	WELL 05	0.003J	35.2		157		0.016J	0.005J					0.334
MMRMW5-R2	WELL 05		35.5		157		0.017J						0.342
MMRMW5-R2DUP	WELL 05												
MMRMW5-R3	WELL 05		40.9	152			0.018J						0.331
MMRMW5-R4	WELL 05		39.8	153			0.016J						0.339
MMR-MW5-R5	WELL 05		38.7	160			0.017J						0.614
MMRMW5-R6	WELL 05		35.4	148			0.018J						0.177
MMRMW5RIN-R2	WELL 05 RIN											0.23J	
MMRMWSP7-R2	WELL SP07		71.8		53.7		0.012J						0.27
MMRSP-7	WELL SP07		66.4		49.9								0.168
MMRSP-7DUP	WELL SP07				49.8								0.171
MMRSP7-R3	WELL SP07		103	61.5			0.012J						0.216
MMRSP7-R4	WELL SP07		78.1	50.3			0.008J						0.248

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound											
		CADMIUM	CALCIUM	CHLORIDE	CHLORIDE-CL	CHLOROFORM	CHROMIUM	COPPER	DELTA-BHC	ENDOSULFAN I	ENDRIN KETONE	ETHYLBENZENE	FLUORIDE
Unit		MG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L	MG/L
PRG		0.02				6.17		1.46				2.91	2.19
MCL		0.01					0.10	1.30				700.00	4.00
Sample Name*	**Location**												
MMR-SP7-R5	WELL SP07		73	51.9		0.28J	0.007J						0.324
MMR-SP7-R5DUP	WELL SP07			51.4									0.322
MMRSP7-R6	WELL SP07		66	44.6		0.25J	0.007J						0.167

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limit

* R1,2,3,4,5,6 at the end of sample name denotes sample round 1,2,3,4,5 or 6. RIN = rinsate sample DUP = Duplicate

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound											
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MOLYBDENUM	NICKEL	NITRATE-N	NITRITE	ORTHOPHOSPHATE-P	O-XYLENE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L
PRG		0.01	10.95				0.88	0.18	0.73		1.00		
MCL		0.20		0.02									
Sample Name*	**Location**												
MMRMW1-R1	WELL 01				1J	20.1	0.006J			1.33		0.297J	0.38J
MMRMW1-R2	WELL 01		0.119J		0.47J	21	0.009J			1.25		0.334J	
MMRMW1-R3	WELL 01		0.054J			27.1	0.012J			1.4		0.378J	
MMRMW1-R4	WELL 01		0.102J			25.3	0.009J			1.38		0.56	
MMR-MW1-R5	WELL 01					19.3	0.004J		0.011J	1.28		0.356J	
MMRMW1-R6	WELL 01		0.225J			18.1	0.009J			1.46		0.349J	
MWRMW2-R1	WELL 02												
MMRMW2-R1	WELL 02		0.362J		0.42J	49.1	0.315			0.202			
MMRMW2-R2	WELL 02		0.095J		0.41J	54.5	0.137		0.012J	0.26		0.367J	
MMRMW2-R3	WELL 02		0.074J			74.7	0.085J			1.68		0.209J	
MMRMW2-R4	WELL 02					58.2	0.212	0.01J		0.26		0.384J	
MMR-MW2-R5	WELL 02		0.063J			47.5	0.205		0.014J	0.2		0.384J	
MMRMW2-R6	WELL 02		0.041J			66.3	0.041J			2.35		0.401J	
MWRMW3A-R1	WELL 03A												
MMRMW3A-R1	WELL 03A				0.45J	22.7	0.034J			0.767			
MMRMW3A-R2	WELL 03A		0.034J			22.3	0.029J			0.723	0.162	0.251J	
MMRMW3A-R3	WELL 03A		0.209J			22	0.042J			0.783		0.243J	
MMRMW3A-R4	WELL 03A					27	0.038J			0.673		0.477J	
MMR-MW3A-R5	WELL 03A					21	0.025J		0.01J	0.446		0.218J	
MMRMW3A-R6	WELL 03A					22.4	0.018J			0.731		0.268J	
MMRMW-3B	WELL 03B		0.207J		0.7J	24.7	0.201					4.93	0.28J
MMRMW3B-R2	WELL 03B		0.272J		0.4J	23.5	0.183	0.009J		2.09		0.406J	
MMRMW3B-R2DUP	WELL 03B												
MMRMW3B-R3	WELL 03B		1.21			28.5	0.237					5.62	
MMRMW3B-R4	WELL 03B		0.375J			25.7	0.216					6.19	
MMRMW3B-R4-RIN	WELL 03B RIN												
MMR-MW3B-R5	WELL 03B		0.322J			22.8	0.186					6.08	
MMRMW3B-R6	WELL 03B		0.347J			20.5	0.166					5.64	
MMRMW-3C	WELL 03C		0.144J		0.7J	1.01	0.021J			0.497		3.33	0.27J
MMRMW3C-R2	WELL 03C	0.039J	0.057J			1.21	0.022J	0.009J	0.013J	0.446		3.03	
MMRMW3C-R3	WELL 03C		1.49			3.08	0.057J			0.399		3.08	
MMRMW3C-R4	WELL 03C		0.541J			11.7	0.094J	0.008J		0.363		1.9	
MMR-MW3C-R5	WELL 03C		0.133J			4.32	0.057J	0.009J		0.45		2.5	
MMRMW3C-R6	WELL 03C		0.145J			2.74	0.041J			0.515		2.98	
MMRMW4AR1	WELL 04A												

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound											
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MOLYBDENUM	NICKEL	NITRATE-N	NITRITE	ORTHOPHOSPHATE-P	O-XYLENE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L
PRG		0.01	10.95				0.88	0.18	0.73		1.00		
MCL		0.20		0.02									
Sample Name*	**Location**												
MMRMW4A-R1	WELL 04A				0.58J	68.7				2.11		0.368J	0.21J
MMRMW4A-R2	WELL 04A		0.052J		0.31J	57.7	0.004J			2.25		0.372J	
MMRMW4A-R3	WELL 04A		0.282J			64.7	0.007J			2.29		0.349J	
MMRMW4A-R3DUP	WELL 04A									2.3		0.379J	
MMRMW4A-R4	WELL 04A					55.7				2.28		0.403J	
MMR-MW4A-R5	WELL 04A		0.026J			67.5				2.44		0.441J	
MMRMW4A-R6	WELL 04A					55.7				2.37		0.465J	
MMRMW-4B	WELL 04B		0.069J			62.1	0.034J			2.19		0.411J	
MMRMW-4BDUP	WELL 04B									2.19		0.352J	
MMRMW4B-R2	WELL 04B		0.057J		0.45J	56.2	0.012J	0.008J				5.17	
MMRMW4B-R3	WELL 04B		1.42			56	0.059J			2.4		0.42J	
MMRMW4B-R4	WELL 04B		0.057J			50.8				2.19		0.449J	
MMRMW4B-R4DUP	WELL 04B									2.18		0.447J	
MMR-MW4B-R5	WELL 04B		0.094J			50.7	0.007J		0.012J	2.39		0.409J	
MMRMW4B-R6	WELL 04B		0.025J			54.1	0.004J			2.28		0.42J	
MMRMW-4C	WELL 04C		0.04J		0.47J	30.1	0.003J			2.09		0.331J	
MMRMW4C-R2	WELL 04C		0.053J		0.36J	32.3	0.003J			2.22		0.35J	
MMRMW4C-R2DUP	WELL 04C									2.22		0.308J	
MMRMW4C-R3	WELL 04C		17.4			43.1	0.443		0.04	2.14		0.369J	
MMRMW4C-R4	WELL 04C		0.095J			31.9	0.004J			2.22		0.405J	
MMR-MW4C-R5	WELL 04C		0.092J			35.9	0.007J		0.013J	2.29		0.34J	
MMRMW4C-R6	WELL 04C		0.159J			35.8	0.004J			2.24		0.388J	
MW-5-R1	WELL 05		1.74	0.009J		42.9	0.054J	0.009J	0.017J	0.891			
MMRMW5-R2	WELL 05		0.182J		0.41J	46.2	0.021J		0.012J	1.22		0.511	
MMRMW5-R2DUP	WELL 05												
MMRMW5-R3	WELL 05		0.151J			55.1	0.012J			1.14		0.525	
MMRMW5-R4	WELL 05		0.038J			50	0.004J			1.19		0.498J	
MMR-MW5-R5	WELL 05		0.077J			51.3	0.015J		0.016J	1.18		0.589	
MMRMW5-R6	WELL 05		0.069J			48.7	0.005J			1.23		0.545	
MMRMW5RIN-R2	WELL 05 RIN				1.1J								0.41J
MMRMWSP7-R2	WELL SP07		0.026J			22.8	0.006J			1.96		0.195J	
MMRSP-7	WELL SP07					20.6	0.005J			1.88			
MMRSP-7DUP	WELL SP07									1.87			
MMRSP7-R3	WELL SP07		2.09			28.5	0.035J			2.16			
MMRSP7-R4	WELL SP07					23.5		0.01J		3.52		0.48J	

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound											
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MOLYBDENUM	NICKEL	NITRATE-N	NITRITE	ORTHOPHOS PHATE-P	O-XYLENE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L
PRG		0.01	10.95				0.88	0.18	0.73		1.00		
MCL		0.20		0.02									
Sample Name*	**Location**												
MMR-SP7-R5	WELL SP07		0.032J			23.1			0.014J	2.46		0.21J	
MMR-SP7-R5DUP	WELL SP07									2.44		0.179J	
MMRSP7-R6	WELL SP07					21.2				1.97	0.097J		

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limit

* R1,2,3,4,5,6 at the end of sample name denotes sample round 1,2,3,4,5 or 6. RIN = rinsate sample DUP = Duplicate

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound												
		POTASSIUM	RDX	SELENIUM	SILICA	SODIUM	STRONTIUM	SULFATE	THALLIUM	TITANIUM	TOLUENE	TSS	VANADIUM	ZINC
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L
PRG			0.61	0.18			21.90		0.00		723.42		0.26	10.95
MCL				0.05					0.00		1,000.00			
Sample Name*	**Location**													
MMRMW1-R1	WELL 01	3.61J				148	0.249	19.3			0.76J		0.054	
MMRMW1-R2	WELL 01	2.68J			79.6	145	0.248	43.7		0.007J	0.82J		0.051	
MMRMW1-R3	WELL 01	4.83J				185	0.335	42.1		0.002J			0.068	
MMRMW1-R4	WELL 01	4.71J				181	0.308	37.2		0.002J	1.4		0.064	
MMR-MW1-R5	WELL 01	4.12J				142	0.223	40.4					0.056	
MMRMW1-R6	WELL 01	3.4J				138	0.209	34.8		0.005J			0.053	
MWRMW2-R1	WELL 02													
MMRMW2-R1	WELL 02	3.06J				79.7	0.25	39.2		0.01J	0.25J		0.007J	0.014J
MMRMW2-R2	WELL 02	1.69J			67	84.3	0.289	47.2			0.74J		0.015	
MMRMW2-R3	WELL 02	1.4J				116	0.435	38.1		0.002J			0.035	
MMRMW2-R4	WELL 02	3.4J				107	0.294	55			0.85J		0.019	
MMR-MW2-R5	WELL 02	2.7J				77	0.218	45.1					0.011	0.006J
MMRMW2-R6	WELL 02	2.52J				100	0.338	41.3					0.026	0.018J
MWRMW3A-R1	WELL 03A													
MMRMW3A-R1	WELL 03A	3.71J				30.6	0.331	10.2			0.29J		0.006J	0.005J
MMRMW3A-R2	WELL 03A	2.94J			64.3	30.1	0.338	10.9		0.003J	0.44J		0.005J	0.005J
MMRMW3A-R3	WELL 03A	2J				29.7	0.341	11.5		0.017J			0.009J	
MMRMW3A-R4	WELL 03A	2.77J				37	0.423	13					0.012	0.005J
MMR-MW3A-R5	WELL 03A	2.81J				28.8	0.308	12.8	0.009J				0.009J	0.007J
MMRMW3A-R6	WELL 03A	1.79J				32.7	0.345	13.2					0.014	0.007J
MMRMW-3B	WELL 03B	18.9				111	0.184	1.29		0.125	0.64J			
MMRMW3B-R2	WELL 03B	19.3			35.3	116	0.165	36.7		0.002J	0.74J			
MMRMW3B-R2DUP	WELL 03B				34.9									
MMRMW3B-R3	WELL 03B	24.1				142	0.218	0.526		0.081J				0.011J
MMRMW3B-R4	WELL 03B	21.1				128	0.166	0.869		0.016J				0.007J
MMRMW3B-R4-RIN	WELL 03B RIN										1			
MMR-MW3B-R5	WELL 03B	18.8				113	0.147	0.817		0.012J				0.008J
MMRMW3B-R6	WELL 03B	17.6				108	0.137	0.992		0.007J				
MMRMW-3C	WELL 03C	5.21				119	0.011J	12.2		0.014J	0.53J		0.036	0.006J
MMRMW3C-R2	WELL 03C	4.42J			42.3	126	0.015J	13.4		0.005J	0.31J		0.035	0.01J
MMRMW3C-R3	WELL 03C	6.6				125	0.044	12.5		0.119			0.035	0.007J
MMRMW3C-R4	WELL 03C	6.29				88.5	0.123	11		0.061J	1.2		0.021	0.007J
MMR-MW3C-R5	WELL 03C	5.96				123	0.049	12.4		0.012J			0.032	
MMRMW3C-R6	WELL 03C	6.13				120	0.029	13.2		0.012J			0.029	0.006J
MMRMW4AR1	WELL 04A													

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound												
		POTASSIUM	RDX	SELENIUM	SILICA	SODIUM	STRONTIUM	SULFATE	THALLIUM	TITANIUM	TOLUENE	TSS	VANADIUM	ZINC
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L
PRG			0.61	0.18			21.90		0.00		723.42		0.26	10.95
MCL				0.05					0.00		1,000.00			
Sample Name*	**Location**													
MMRMW4A-R1	WELL 04A	4.35J	0.62J			108	0.511	41.4		0.002J	0.36J		0.027	
MMRMW4A-R2	WELL 04A	3.44J	0.48J		76.8	92.5	0.431	45.6		0.003J	0.59J		0.022	
MMRMW4A-R3	WELL 04A	2.05J				104	0.525	42.1	0.009J	0.024J			0.027	
MMRMW4A-R3DUP	WELL 04A							40.5						
MMRMW4A-R4	WELL 04A	2.41J				93.1	0.452	41.7					0.023	0.012J
MMR-MW4A-R5	WELL 04A	2.76J				112	0.494	42.6					0.028	0.012J
MMRMW4A-R6	WELL 04A	2.45J	0.23J			102	0.417	45.9					0.024	0.012J
MMRMW-4B	WELL 04B	3.82J				103	0.399	35.5		0.007J			0.029	
MMRMW-4BDUP	WELL 04B							33.7						
MMRMW4B-R2	WELL 04B	3.56J		0.007J	73.3	106	0.348	0.613		0.002J	0.82J		0.023	
MMRMW4B-R3	WELL 04B	4.19J				88.7	0.383	33.2	0.006J	0.134			0.035	
MMRMW4B-R4	WELL 04B	3.61J		0.006J		79.2	0.328	36.4		0.005J	0.41J		0.026	0.011J
MMRMW4B-R4DUP	WELL 04B							34.7						
MMR-MW4B-R5	WELL 04B	3.57J				82.7	0.338	32.2		0.003J			0.029	
MMRMW4B-R6	WELL 04B	3.85J				92.3	0.372	36.3					0.033	0.018J
MMRMW-4C	WELL 04C	10.7				107	0.263	35.5		0.002J	0.31J		0.025	0.008J
MMRMW4C-R2	WELL 04C	10.9			72.5	109	0.274	34.6		0.004J	0.61J		0.027	
MMRMW4C-R2DUP	WELL 04C							36.7						
MMRMW4C-R3	WELL 04C	16.4				136	0.415	37.9		1.37			0.071	0.098
MMRMW4C-R4	WELL 04C	12.3				110	0.289	33.3		0.008J	1.7		0.026	
MMR-MW4C-R5	WELL 04C	12.4				116	0.307	32.6		0.007J			0.028	
MMRMW4C-R6	WELL 04C	12.1				110	0.3	33.7		0.009J			0.029	
MW-5-R1	WELL 05	5.05		0.016		71.7	0.221		0.012	0.161			0.023	0.013J
MMRMW5-R2	WELL 05	4.72J		0.006J	110	67.9	0.23	88.2		0.013J	0.78J		0.025	0.036
MMRMW5-R2DUP	WELL 05				110									
MMRMW5-R3	WELL 05	5.58		0.007J		82.3	0.278	90.9		0.009J			0.032	0.028
MMRMW5-R4	WELL 05	5.12		0.006J		71.1	0.229	83.8		0.003J			0.028	0.009J
MMR-MW5-R5	WELL 05	5.06		0.006J		77.4	0.235	94.7		0.004J			0.029	0.017J
MMRMW5-R6	WELL 05	4.16J		0.006J		74.1	0.219	89.5		0.001J			0.029	0.007J
MMRMW5RIN-R2	WELL 05 RIN										2.7			
MMRMWSP7-R2	WELL SP07	2.82J			63.1	28.2	0.442	8.64		0.011J	0.58J		0.008J	
MMRSP-7	WELL SP07	2.25J				26.2	0.416	8.29					0.007J	
MMRSP-7DUP	WELL SP07							8.26						
MMRSP7-R3	WELL SP07	2.36J				32.4	0.653	8.56		0.196			0.015	
MMRSP7-R4	WELL SP07	3.33J				27.9	0.454	10.6					0.011	0.007J

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound												
		POTASSIUM	RDX	SELENIUM	SILICA	SODIUM	STRONTIUM	SULFATE	THALLIUM	TITANIUM	TOLUENE	TSS	VANADIUM	ZINC
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L
PRG			0.61	0.18			21.90		0.00		723.42		0.26	10.95
MCL				0.05					0.00		1,000.00			
Sample Name*	**Location**													
MMR-SP7-R5	WELL SP07	2.26J				29.5	0.415	9.51					0.009J	0.021
MMR-SP7-R5DUP	WELL SP07							9.43						
MMRSP7-R6	WELL SP07	1.91J				26.2	0.376	10.4					0.007J	0.006J

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limit

* R1,2,3,4,5,6 at the end of sample name denotes sample round 1,2,3,4,5 or 6. RIN = rinsate sample DUP = Duplicate

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound										
		Total HpCDD	Total HpCDF	Total HxCDD	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDD	OCDD	OCDF
Unit		pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG												
MCL												
Sample Name*	**Location**											
MMRMW1-R1	WELL 01	3.952				3.952	3.867X				25.14B	4.667
MMRMW1-R2	WELL 01											
MMRMW1-R3	WELL 01											
MMRMW1-R4	WELL 01											
MMR-MW1-R5	WELL 01											
MMRMW1-R6	WELL 01											
MWRMW2-R1	WELL 02	8.361	4.219			5.296	2.298X				18.03B	5.644
MMRMW2-R1	WELL 02											
MMRMW2-R2	WELL 02											
MMRMW2-R3	WELL 02											
MMRMW2-R4	WELL 02											
MMR-MW2-R5	WELL 02											
MMRMW2-R6	WELL 02											
MWRMW3A-R1	WELL 03A	1.609				1.609					11.24B	1.549
MMRMW3A-R1	WELL 03A											
MMRMW3A-R2	WELL 03A											
MMRMW3A-R3	WELL 03A											
MMRMW3A-R4	WELL 03A											
MMR-MW3A-R5	WELL 03A											

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound										
		Total HpCDD	Total HpCDF	Total HxCDD	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDD	OCDD	OCDF
Unit		pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG												
MCL												
Sample Name*	**Location**											
MMRMW3A-R6	WELL 03A											
MMRMW-3B	WELL 03B						1.433X				7.131B	
MMRMW3B-R2	WELL 03B											
MMRMW3B-R2DUP	WELL 03B											
MMRMW3B-R3	WELL 03B											
MMRMW3B-R4	WELL 03B											
MMRMW3B-R4-RIN	WELL 03B RIN											
MMR-MW3B-R5	WELL 03B											
MMRMW3B-R6	WELL 03B											
MMRMW-3C	WELL 03C											
MMRMW3C-R2	WELL 03C											
MMRMW3C-R3	WELL 03C											
MMRMW3C-R4	WELL 03C											
MMR-MW3C-R5	WELL 03C											
MMRMW3C-R6	WELL 03C											
MMRMW4AR1	WELL 04A	2.783				2.783					20.28B	
MMRMW4A-R1	WELL 04A											

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound										
		Total HpCDD	Total HpCDF	Total HxCDD	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDD	OCDD	OCDF
Unit		pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG												
MCL												
Sample Name*	**Location**											
MMRMW4A-R2	WELL 04A											
MMRMW4A-R3	WELL 04A											
MMRMW4A-R3DUP	WELL 04A											
MMRMW4A-R4	WELL 04A											
MMR-MW4A-R5	WELL 04A											
MMRMW4A-R6	WELL 04A											
MMRMW-4B	WELL 04B	3.949	2.195			3.949	6.079X				19.86B	4.707X
MMRMW-4BDUP	WELL 04B											
MMRMW4B-R2	WELL 04B											
MMRMW4B-R3	WELL 04B											
MMRMW4B-R4	WELL 04B											
MMRMW4B-R4DUP	WELL 04B											
MMR-MW4B-R5	WELL 04B											
MMRMW4B-R6	WELL 04B											
MMRMW-4C	WELL 04C						2.062X				9.351B	
MMRMW4C-R2	WELL 04C											
MMRMW4C-	WELL 04C											

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound										
		Total HpCDD	Total HpCDF	Total HxCDD	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDD	OCDD	OCDF
Unit		pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG												
MCL												
Sample Name*	**Location**											
R2DUP												
MMRMW4C-R3	WELL 04C											
MMRMW4C-R4	WELL 04C											
MMR-MW4C-R5	WELL 04C											
MMRMW4C-R6	WELL 04C											
MW-5-R1	WELL 05											
MMRMW5-R2	WELL 05	94.66	49.38	10.89	8.43	58.6	14.63	3.09	2.746I	2.472	333.1B	76.19
MMRMW5-R2DUP	WELL 05											
MMRMW5-R3	WELL 05											
MMRMW5-R4	WELL 05											
MMR-MW5-R5	WELL 05											
MMRMW5-R6	WELL 05											
MMRMW5RIN-R2	WELL 05 RIN											
MMRMWSP7-R2	WELL SP07											
MMRSP-7	WELL SP07										15.38B	3.661
MMRSP-7DUP	WELL SP07											
MMRSP7-R3	WELL SP07											

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - EMAX Laboratory - Values Reported Above Laboratory Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound										
		Total HpCDD	Total HpCDF	Total HxCDD	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDD	OCDD	OCDF
Unit		pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG												
MCL												
Sample Name*	**Location**											
MMRSP7-R4	WELL SP07											
MMR-SP7-R5	WELL SP07											
MMR-SP7-R5DUP	WELL SP07											
MMRSP7-R6	WELL SP07											

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limit

* R1,2,3,4,5,6 at the end of sample name denotes sample round 1,2,3,4,5 or 6. RIN = rinsate sample DUP = Duplicate

Appendix D - Groundwater Chemistry Data for Makua Military Reservation - Sequoia Laboratory - Values Reported Above Laboratory Detection Limits
(Values Below PRGs or MCLs)

		Compound													
		1,2,4-Trimethylbenzene	Acetone	Aluminum	Arsenic	Barium	Benzene	Beryllium	Boron	Bromomethane	Cadmium	Calcium	Carbon disulfide		
Unit		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L		
PRG		12.33	608.33	36500		2550	0.34	70	7300	8.66	20		1,042.86		
MCL					10	2000	5.00	4000		-999.00	10				
Sample Name*	**Location**														
MMRMW3B-R3	Well MW-3B		3.00J	100.00J	3.50J	19.00	0.41J		1200.00		2.60J	15000.00	1.60J		
MMRMW3B-R4-DUP	Well MW-3B		3.10J		3.50J	19.00	0.18J		1200.00		2.10J	12000.00			
MMRMW-4C	Well MW-4C	0.30		31.00	2.70	8.80			120.00	0.81		38000.00			
MMRMW5-R2	Well MW-5			790.00		10.00	0.09J	0.22J	72.00J		2.90J	34000.00			
Trip Blank - R4			3.70J										1.50J		

		Compound													
		Chloride	Chloroform	Chromium	Copper	Ethylbenzene	Fluoride	Iodomethane	Iron	m,p-Xylene	Magnesium	Manganese	Chloride	Chloroform	
Unit		MG/L	UG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	UG/L	
PRG			6.17		1460	2.91	2.19		10950			0.88		6.18	
MCL				100	1300	700.00	4.00								
Sample Name*	**Location**														
MMRMW3B-R3	Well MW-3B	37.00	0.091J	3.80J			1.30		400.00		21000.00	170.00	37.01	0.091J	
MMRMW3B-R4-DUP	Well MW-3B	38.00					1.30		280.00J		20000.00	150.00	38.01		
MMRMW-4C	Well MW-4C	170.00				0.14		0.50	14.00	0.61	31000.00	6.00	170.01		
MMRMW5-R2	Well MW-5			14.00	2.70J				1000.00	0.40J	44000.00	16.00			
Trip Blank - R4			0.11J											0.11J	

		Compound													
		Nickel	Nitrate as N	o-Xylene	Potassium	Selenium	Silver	Sodium	Spec. Cond.	Strontium	Thallium	Titanium	Toluene	Vanadium	Zinc
Unit		UG/L	MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UMHOS/CM	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
PRG		0.73				182	0.18			21900			723.42	255	1095
MCL						50							1,000.00		
Sample Name*	**Location**														
MMRMW3B-R3	Well MW-3B	3.10J			18000.00	1.60J		110000.00	700.00	160.00		12.00	0.10J		
MMRMW3B-R4-DUP	Well MW-3B	1.80J			18000.00	3.40J		110000.00	710.00	140.00	0.34J	1.70J	0.12J		6.40J
MMRMW-4C	Well MW-4C	2.70	2.50	0.23	10000.00	5.00	1.50	100000.00		260.00		2.30	0.44	22.00	
MMRMW5-R2	Well MW-5	5.80J		0.11J	4500.00	3.40J		69000.00		240.00	0.19J	92.00	0.63	26.00	35.00
Trip Blank - R4													0.11J		

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limit

* R1,2,3,4,5,6 at the end of sample name denotes sample round 1,2,3,4,5 or 6. DUP = Duplicate sample to sample sent to EMAX laboratory

APPENDIX E

Surface Water Sampling Results

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Values Below PRGs or MCLs)														
		Compound												
		1,2,4-TRI-METHYLBENZENE	2,4-DNT	2-BUTANONE	ACETONE	ALDRIN	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BERYLLIUM	BETA-BHC	BORON
Unit		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	UG/L	MG/L
PRG		12.33	73.00	1,904.35	608.33	0.00	0.01	36.50		2.56	0.34	0.07	0.04	7.30
MCL									0.01	2.00	5.00	0.00		
Sample Label	**Location**													
MMRKASR2-1	Kaluakauila Stream							1.54		0.009J				0.087J
MMRKASR2-2	Kaluakauila Stream							0.971		0.009J				0.094J
MMR-KAS-R3-1	Kaluakauila Stream				5.5J			4.95		0.014				0.069J
MMR-KAS-R3-2	Kaluakauila Stream							7.65		0.026				0.072J
MMRKASSW-R1	Kaluakauila Stream							2.4		0.007J	0.25J		0.034J	0.065J
MMRKASSW-R2	Kaluakauila Stream							1.32		0.006J				0.06J
MMRKASSW-R3	Kaluakauila Stream							2.33		0.007J				0.072J
MMRKASSW-R4	Kaluakauila Stream							1.98		0.007J				0.073J
MMRKASSW-R5	Kaluakauila Stream							1.5		0.008J				0.074J
MMRKASSW-R6	Kaluakauila Stream							0.759		0.009J				0.078J
MMRKGSR2-1	Koiahi Gulch Stream							5.98		0.017				0.064J
MMRKGSR2-2	Koiahi Gulch Stream							4.26		0.014				0.052J
MMRKGSR2-3	Koiahi Gulch Stream							3.7		0.015				0.054J
MMRKGSR2-4	Koiahi Gulch Stream							4.13		0.015				0.063J
MMRKGSR2-5	Koiahi Gulch							3.95		0.015				0.062J

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Values Below PRGs or MCLs)														
		Compound												
		1,2,4-TRI-METHYLBENZENE	2,4-DNT	2-BUTANONE	ACETONE	ALDRIN	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BERYLLIUM	BETA-BHC	BORON
Unit		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	UG/L	MG/L
PRG		12.33	73.00	1,904.35	608.33	0.00	0.01	36.50		2.56	0.34	0.07	0.04	7.30
MCL									0.01	2.00	5.00	0.00		
Sample Label	**Location**													
	Stream													
MMR-KGS-R3-1	Koiahi Gulch Stream							16.5		0.036				0.044J
MMR-KGS-R3-2	Koiahi Gulch Stream							27.5		0.059				0.045J
MMR-KGS-R3-3	Koiahi Gulch Stream							2.7		0.014				0.053J
MMR-KGS-R3-4	Koiahi Gulch Stream							0.569		0.013				0.068J
MMRKSSW-R1	Koiahi Gulch Stream					0.03J	0.032J	2.42		0.008J	0.31J			0.031J
MMRKSSW-R1DUP	Koiahi Gulch Stream													
MMRKSSW-R2	Koiahi Gulch Stream							24.3	0.006J	0.051				0.042J
MMRKSSW-R3	Koiahi Gulch Stream							2.72		0.013				0.044J
MMRKSSW-R4	Koiahi Gulch Stream							2.35	0.004J	0.012				0.047J
MMRISCOR1-1	Makua Stream							3.68		0.007J				0.053J
MMRISCOR1-10	Makua Stream			18							0.25J			
MMRISCOR1-11	Makua Stream							4.24		0.01J				0.051J
MMRISCOR1-12	Makua Stream		0.23J	12				5.48		0.008J	0.25J			0.041J
MMRISCOR1-13	Makua Stream							7.45		0.019				0.049J
MMRISCOR1-14	Makua Stream													
MMRISCOR1-15	Makua Stream							6.63		0.012				0.046J
MMRISCOR1-16	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Values Below PRGs or MCLs)														
		Compound												
		1,2,4-TRI-METHYLBENZENE	2,4-DNT	2-BUTANONE	ACETONE	ALDRIN	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BERYLLIUM	BETA-BHC	BORON
Unit		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	UG/L	MG/L
PRG		12.33	73.00	1,904.35	608.33	0.00	0.01	36.50		2.56	0.34	0.07	0.04	7.30
MCL									0.01	2.00	5.00	0.00		
Sample Label	**Location**													
MMRISCOR1-17	Makua Stream													
MMRISCOR1-18	Makua Stream							4.43		0.011				0.041J
MMRISCOR1-19	Makua Stream							5.34		0.012				0.039J
MMRISCOR1-1DUP	Makua Stream													
MMRISCOR1-2	Makua Stream			35							0.36J			
MMRISCOR1-20	Makua Stream													
MMRISCOR1-21	Makua Stream							4.75		0.011				0.047J
MMRISCOR1-22	Makua Stream													
MMRISCOR1-23	Makua Stream													
MMRISCOR1-24	Makua Stream													
MMRISCOR1-25	Makua Stream							3.88		0.011				0.043J
MMRISCOR1-26	Makua Stream							5.43		0.01				0.049J
MMRISCOR1-27	Makua Stream													
MMRISCOR1-28	Makua Stream													
MMRISCOR1-3	Makua Stream		0.31J					2.72		0.006J				0.054J
MMRISCOR1-31	Makua Stream							4.04		0.011				0.051J
MMRISCOR1-32	Makua Stream							3.58		0.011				0.051J
MMRISCOR1-36	Makua Stream							2.49		0.01J				0.054J
MMRISCOR1-38	Makua Stream							2.01		0.009J				0.053J
MMRISCOR1-39	Makua Stream													
MMRISCOR1-4	Makua Stream							5.35		0.015				0.054J
MMRISCOR1-40	Makua Stream							1.53		0.009J				0.046J
MMRISCOR1-5	Makua Stream			27							0.27J			

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Values Below PRGs or MCLs)														
		Compound												
		1,2,4-TRI-METHYLBENZENE	2,4-DNT	2-BUTANONE	ACETONE	ALDRIN	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BERYLLIUM	BETA-BHC	BORON
Unit		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	UG/L	MG/L
PRG		12.33	73.00	1,904.35	608.33	0.00	0.01	36.50		2.56	0.34	0.07	0.04	7.30
MCL									0.01	2.00	5.00	0.00		
Sample Label	**Location**													
MMRISCOR1-6	Makua Stream							4.79		0.011				0.061J
MMRISCOR1-7	Makua Stream			21							0.2J			
MMRISCOR1-8	Makua Stream							3.96		0.01				0.053J
MMRISCOR1-9	Makua Stream							9.37		0.031				0.054J
MMRISCOR1-COMP	Makua Stream													
MMRISCOR1-COMPDUP	Makua Stream													
MMR-MSISCO-B01-1	Makua Stream													
MMR-MSISCO-B01-2	Makua Stream													
MMR-MSISCO-B01-3	Makua Stream													
MMR-MSISCO-B01-5	Makua Stream													
MMR-MSISCO-B02-1	Makua Stream													
MMR-MSISCO-B02-2	Makua Stream													
MMR-MSISCO-B02-3	Makua Stream													
MMR-MSISCO-B02-5	Makua Stream													
MMR-MSISCO-B03-1	Makua Stream													
MMR-MSISCO-B03-2	Makua Stream													
MMR-MSISCO-B03-2DUP	Makua Stream													
MMR-MSISCO-B03-3	Makua Stream													
MMR-MSISCO-B03-4	Makua Stream													
MMR-MSISCO-B04-1	Makua Stream													
MMR-MSISCO-B04-2	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Values Below PRGs or MCLs)														
		Compound												
		1,2,4-TRI-METHYLBENZENE	2,4-DNT	2-BUTANONE	ACETONE	ALDRIN	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BERYLLIUM	BETA-BHC	BORON
Unit		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	UG/L	MG/L
PRG		12.33	73.00	1,904.35	608.33	0.00	0.01	36.50		2.56	0.34	0.07	0.04	7.30
MCL									0.01	2.00	5.00	0.00		
Sample Label	**Location**													
MMR-MSISCO-B04-3	Makua Stream													
MMR-MSISCO-B04-5	Makua Stream													
MMR-MSISCO-B05-1	Makua Stream													
MMR-MSISCO-B05-2	Makua Stream													
MMR-MSISCO-B05-3	Makua Stream													
MMR-MSISCO-B06-1	Makua Stream													
MMR-MSISCO-B06-2	Makua Stream													
MMR-MSISCO-B06-3	Makua Stream													
MMR-MSISCO-B07-1	Makua Stream													
MMR-MSISCO-B07-2	Makua Stream													
MMR-MSISCO-B07-2DUP	Makua Stream													
MMR-MSISCO-B07-3	Makua Stream													
MMR-MSISCO-B07-3DUP	Makua Stream													
MMR-MSISCO-B07-4	Makua Stream													
MMR-MSISCO-B08-1	Makua Stream													
MMR-MSISCO-B09-1	Makua Stream													
MMR-MSISCO-B10-1	Makua Stream													
MMR-MSISCO-B10-4	Makua Stream													
MMR-MSISCO-B10-4DUP	Makua Stream													
MMR-MSISCO-B11-1	Makua Stream							111		0.273		0.003J		0.056J
MMR-MSISCO-B11-	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Values Below PRGs or MCLs)														
		Compound												
		1,2,4-TRI-METHYLBENZENE	2,4-DNT	2-BUTANONE	ACETONE	ALDRIN	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BERYLLIUM	BETA-BHC	BORON
Unit		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	UG/L	MG/L
PRG		12.33	73.00	1,904.35	608.33	0.00	0.01	36.50		2.56	0.34	0.07	0.04	7.30
MCL									0.01	2.00	5.00	0.00		
Sample Label	**Location**													
1DUP														
MMR-MSISCO-B12-1	Makua Stream													
MMR-MSISCO-B12-5	Makua Stream													
MMR-MSISCO-B12-5DUP	Makua Stream													
MMR-MSISCO-B13-1	Makua Stream													
MMR-MSISCO-B14-1	Makua Stream													
MMR-MSISCO-B15-1	Makua Stream													
MMR-MSISCO-B15-4	Makua Stream													
MMR-MSISCO-B16-1	Makua Stream													
MMR-MSISCO-B16-4	Makua Stream													
MMR-MSISCO-B17-1	Makua Stream													
MMR-MSISCO-B18-1	Makua Stream													
MMR-MSISCO-B18-4	Makua Stream													
MMR-MSISCO-B19-1	Makua Stream													
MMR-MSISCO-B20-1	Makua Stream													
MMR-MSISCO-B21-1	Makua Stream													
MMR-MSISCO-B21-4	Makua Stream													
MMR-MSISCO-B22-1	Makua Stream													
MMR-MSISCO-B23-1	Makua Stream													
MMR-MSISCO-B23-4	Makua Stream													
MMR-MSISCO-B24-1	Makua Stream													
MMR-MSISCO-B24-4	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Values Below PRGs or MCLs)														
		Compound												
		1,2,4-TRI-METHYLBENZENE	2,4-DNT	2-BUTANONE	ACETONE	ALDRIN	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BERYLLIUM	BETA-BHC	BORON
Unit		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	UG/L	MG/L
PRG		12.33	73.00	1,904.35	608.33	0.00	0.01	36.50		2.56	0.34	0.07	0.04	7.30
MCL									0.01	2.00	5.00	0.00		
Sample Label	**Location**													
MMRMSR2-1	Makua Stream							17.7		0.029				0.059J
MMR-MS-R3-1	Makua Stream				8.3J			169	0.007J	1.02		0.009J		0.044J
MMR-MS-R3-2	Makua Stream							114	0.005J	0.384		0.004J		0.043J
MMR-MS-R3-3	Makua Stream							2.92		0.01J				0.041J
MMRMSSW-R1	Makua Stream	0.34J						4.67		0.013	0.44J			0.051J
MMRMSSW-R2	Makua Stream							4.73		0.011				0.048J
MMRMSSW-R3	Makua Stream							4		0.01				0.054J
MMRMSSW-R4	Makua Stream							4.06		0.011				0.057J
MMRMSSW-R5	Makua Stream							2.75	0.004J	0.013				0.052J
MMR-SW-E2-B01	Makua Stream							41.1		0.101				0.057J
MMR-SW-E2-B02	Makua Stream													
MMR-SW-E2-B03	Makua Stream							31.1		0.068				0.059J
MMR-SW-E2-B04	Makua Stream							21.4		0.048				0.067J
MMR-SW-E2-B05	Makua Stream							193		0.457		0.005J		0.074J
MMR-SW-E2-B06	Makua Stream													
MMR-SW-E2-B07	Makua Stream													
MMR-SW-E2-B08	Makua Stream													
MMR-SW-E2-B09	Makua Stream													
MMR-SW-E2-B10	Makua Stream							45.3		0.099		0.001J		0.05J
MMR-SW-E2-B11	Makua Stream													
MMR-SW-E2-B12	Makua Stream													
MMR-SW-E2-B13	Makua Stream													
MMR-SW-E2-B14	Makua Stream							25.6		0.048				0.059J

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Values Below PRGs or MCLs)														
		Compound												
		1,2,4-TRI-METHYLBENZENE	2,4-DNT	2-BUTANONE	ACETONE	ALDRIN	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BERYLLIUM	BETA-BHC	BORON
Unit		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	UG/L	MG/L
PRG		12.33	73.00	1,904.35	608.33	0.00	0.01	36.50		2.56	0.34	0.07	0.04	7.30
MCL									0.01	2.00	5.00	0.00		
Sample Label	**Location**													
MMR-SW-E2-B15	Makua Stream													
MMR-SW-E2-B16	Makua Stream													
MMR-SW-E2-B17	Makua Stream													
MMR-SW-E2-B18	Makua Stream							16.9		0.032				0.051J
MMR-SW-E2-B19	Makua Stream													
MMR-SW-E2-B20	Makua Stream													
MMR-SW-E2-B21	Makua Stream													
MMR-SW-E2-B22	Makua Stream													
MMR-SW-E2-B23	Makua Stream													
MMR-SW-E2-B23DUP	Makua Stream													
MMR-SW-E2-B24	Makua Stream							10.8		0.023				0.048J
MMR-SW-E3-B01	Makua Stream							82.2	0.004J	0.265		0.003J		0.05J
MMR-SW-E3-B01DUP	Makua Stream													
MMR-SW-E3-B02	Makua Stream													
MMR-SW-E3-B03	Makua Stream							89.3	0.005J	0.221		0.003J		0.044J
MMR-SW-E3-B04	Makua Stream													
MMR-SW-E3-B05	Makua Stream							55.5		0.137		0.002J		0.038J
MMR-SW-E3-B06	Makua Stream													
MMR-SW-E3-B07	Makua Stream							51.2		0.114		0.002J		0.049J
MMR-SW-E3-B08	Makua Stream													
MMR-SW-E3-B09	Makua Stream							17.3		0.037				0.038J
MMR-SW-E3-B10	Makua Stream													
MMR-SW-E3-B11	Makua Stream							28.3		0.056				0.04J

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Values Below PRGs or MCLs)														
		Compound												
		1,2,4-TRI-METHYLBENZENE	2,4-DNT	2-BUTANONE	ACETONE	ALDRIN	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BERYLLIUM	BETA-BHC	BORON
Unit		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	UG/L	MG/L
PRG		12.33	73.00	1,904.35	608.33	0.00	0.01	36.50		2.56	0.34	0.07	0.04	7.30
MCL									0.01	2.00	5.00	0.00		
Sample Label	**Location**													
MMR-SW-E3-B12	Makua Stream													
MMR-SW-E3-B13	Makua Stream							16.3		0.044				0.039J
MMR-SW-E3-B14	Makua Stream													
MMR-SW-E3-B15	Makua Stream							18	0.004J	0.033				0.036J
MMR-SW-E3-B16	Makua Stream													
MMR-SW-E3-B17	Makua Stream							12		0.031				0.042J
MMR-SW-E3-B18	Makua Stream													
MMR-SW-E3-B19	Makua Stream							9	0.005J	0.023				0.034J
MMR-SW-E3-B19DUP	Makua Stream													
MMR-SW-E3-B20	Makua Stream													
MMR-SW-E3-B21	Makua Stream							11.2		0.023				0.037J
MMR-SW-E3-B22	Makua Stream													
MMR-SW-E3-B23	Makua Stream							8.8		0.021				0.038J
MMR-SW-E3-B24	Makua Stream													
MMR-SW-E4-B01	Makua Stream													
MMR-SW-E4-B02	Makua Stream							75		0.256		0.003J		0.046J
MMR-SW-E4-B03	Makua Stream													
MMR-SW-E4-B04	Makua Stream							30.9		0.129		0.001J		0.038J
MMR-SW-E4-B05	Makua Stream													
MMR-SW-E4-B06	Makua Stream							22.8		0.064				0.04J
MMR-SW-E4-B07	Makua Stream													
MMR-SW-E4-B08	Makua Stream													
MMR-SW-E4-B09	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Values Below PRGs or MCLs)														
		Compound												
		1,2,4-TRI-METHYLBENZENE	2,4-DNT	2-BUTANONE	ACETONE	ALDRIN	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BERYLLIUM	BETA-BHC	BORON
Unit		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	UG/L	MG/L
PRG		12.33	73.00	1,904.35	608.33	0.00	0.01	36.50		2.56	0.34	0.07	0.04	7.30
MCL									0.01	2.00	5.00	0.00		
Sample Label	**Location**													
MMR-SW-E4-B10	Makua Stream													
MMR-SW-E4-B11	Makua Stream							12.8		0.031				0.047J
MMR-SW-E4-B12	Makua Stream													
MMR-SW-E4-B13	Makua Stream													
MMR-SW-E4-B14	Makua Stream													
MMR-SW-E4-B15	Makua Stream													
MMR-SW-E4-B15DUP	Makua Stream													
MMR-SW-E4-B16	Makua Stream													
MMR-SW-E4-B17	Makua Stream													
MMR-SW-E4-B18	Makua Stream													
MMR-SW-E4-B19	Makua Stream													
MMR-SW-E4-B20	Makua Stream													
MMR-SW-E4-B21	Makua Stream													
MMR-SW-E4-B22	Makua Stream													
MMR-SW-E4-B23	Makua Stream													
MMR-SW-E4-B24	Makua Stream							6.33		0.013				0.044J
MMR-SW-E4-B25	Makua Stream													
MMR-SW-E4-B27	Makua Stream													
MMR-SW-E4-B28	Makua Stream													
MMRPSR2-1	Punapohaku Stream							0.41		0.009J				0.101
MMR-PS-R3-1	Punapohaku Stream							1.63		0.01J				0.077J

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits
(Values Below PRGs or MCLs)

		Compound												
		1,2,4-TRI-METHYLBENZENE	2,4-DNT	2-BUTANONE	ACETONE	ALDRIN	ALPHA-BHC	ALUMINUM	ARSENIC	BARIUM	BENZENE	BERYLLIUM	BETA-BHC	BORON
Unit		UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	UG/L	MG/L
PRG		12.33	73.00	1,904.35	608.33	0.00	0.01	36.50		2.56	0.34	0.07	0.04	7.30
MCL									0.01	2.00	5.00	0.00		
Sample Label	**Location**													
MMR-PS-R3-2	Punapohaku Stream							1.83		0.007J				0.073J
MMRPSSW-R1	Punapohaku Stream					0.023J		0.962		0.007J	0.26J		0.094J	0.083J
MMRPSSW-R2	Punapohaku Stream							1.02		0.007J				0.079J
MMRPSSW-R3	Punapohaku Stream							0.774		0.006J				0.077J
MMRPSSW-R4	Punapohaku Stream							1.03		0.007J				0.086J
MMRPSSW-R5	Punapohaku Stream							0.448		0.007J				0.082J
MMRPSSW-R6	Punapohaku Stream									0.009J				0.126

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limit

* R1,2,3,4,5,6 at the end of sample name denotes sample round 1,2,3,4,5 or 6. DUP = Duplicate sample to sample sent to EMAX laboratory

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
MMRKASR2-1	Kaluakauila Stream		12.3	63.9										
MMRKASR2-2	Kaluakauila Stream		13.8											
MMR-KAS-R3-1	Kaluakauila Stream		9.75	52.4	0.02		0.009J					0.219	0.016J	
MMR-KAS-R3-2	Kaluakauila Stream		9.11		0.033		0.015							
MMRKASSW-R1	Kaluakauila Stream		8.74	54.4	0.006J		0.006J							
MMRKASSW-R2	Kaluakauila Stream	0.002J	10.2		0.008J		0.007J							
MMRKASSW-R3	Kaluakauila Stream		10.3		0.007J		0.005J							
MMRKASSW-R4	Kaluakauila Stream		9.47		0.007J		0.006J							
MMRKASSW-R5	Kaluakauila Stream		11		0.008J		0.005J							
MMRKASSW-R6	Kaluakauila Stream		11.9											
MMRKGSR2-1	Koiahi Gulch Stream		29.5	30.3	0.017J		0.006J	0.015				0.114		
MMRKGSR2-2	Koiahi Gulch Stream		26.7		0.014J									
MMRKGSR2-3	Koiahi Gulch Stream		29.6		0.012J									
MMRKGSR2-4	Koiahi Gulch		33.8		0.01J		0.006J							

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
	Stream													
MMRKGSR2-5	Koiahi Gulch Stream		34.8		0.011J									
MMR-KGS-R3-1	Koiahi Gulch Stream		31.8	19.5	0.1		0.023					0.207	0.052J	0.015J
MMR-KGS-R3-2	Koiahi Gulch Stream		24.2		0.147	0.022	0.049							
MMR-KGS-R3-3	Koiahi Gulch Stream		24.9		0.017J		0.011							
MMR-KGS-R3-4	Koiahi Gulch Stream		38											
MMRKSSW-R1	Koiahi Gulch Stream		26	7.88	0.009J		0.006J		0.025J	0.031J			0.047J	0.045J
MMRKSSW-R1DUP	Koiahi Gulch Stream													
MMRKSSW-R2	Koiahi Gulch Stream		117		0.102	0.013J	0.035							
MMRKSSW-R3	Koiahi Gulch Stream		41.6		0.016J		0.007J							
MMRKSSW-R4	Koiahi Gulch Stream		39.3		0.013J		0.007J							
MMRISCOR1-1	Makua Stream		9.71				0.006J							
MMRISCOR1-10	Makua Stream													
MMRISCOR1-11	Makua Stream		7.83		0.01J		0.008J							
MMRISCOR1-12	Makua Stream		6.56		0.009J		0.011							
MMRISCOR1-13	Makua Stream		8.92		0.02		0.008J							
MMRISCOR1-14	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
MMRISCOR1-15	Makua Stream		8.32		0.018J		0.01							
MMRISCOR1-16	Makua Stream													
MMRISCOR1-17	Makua Stream													
MMRISCOR1-18	Makua Stream		8.73		0.011J		0.009J							
MMRISCOR1-19	Makua Stream		9.08		0.012J		0.006J							
MMRISCOR1-1DUP	Makua Stream													
MMRISCOR1-2	Makua Stream													
MMRISCOR1-20	Makua Stream													
MMRISCOR1-21	Makua Stream		10.1		0.01J		0.006J							
MMRISCOR1-22	Makua Stream													
MMRISCOR1-23	Makua Stream													
MMRISCOR1-24	Makua Stream													
MMRISCOR1-25	Makua Stream		10.1				0.006J							
MMRISCOR1-26	Makua Stream		10.6		0.009J		0.006J							
MMRISCOR1-27	Makua Stream													
MMRISCOR1-28	Makua Stream													
MMRISCOR1-3	Makua Stream		6.9											
MMRISCOR1-31	Makua Stream		12.4		0.008J	0.198								
MMRISCOR1-32	Makua Stream		13.3		0.008J	0.109	0.007J							
MMRISCOR1-36	Makua Stream		18.2			0.176	0.006J							
MMRISCOR1-38	Makua Stream		20.3				0.005J							
MMRISCOR1-39	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
MMRISCOR1-4	Makua Stream		8.09		0.017J		0.027							
MMRISCOR1-40	Makua Stream		18.6				0.007J							
MMRISCOR1-5	Makua Stream													
MMRISCOR1-6	Makua Stream		9.44		0.011J		0.005J							
MMRISCOR1-7	Makua Stream													
MMRISCOR1-8	Makua Stream		8.34		0.008J		0.008J							
MMRISCOR1-9	Makua Stream		11.3		0.024		0.014							
MMRISCOR1-COMP	Makua Stream			26.1								0.273		
MMRISCOR1-COMPDUP	Makua Stream													
MMR-MSISCO-B01-1	Makua Stream													
MMR-MSISCO-B01-2	Makua Stream													
MMR-MSISCO-B01-3	Makua Stream													
MMR-MSISCO-B01-5	Makua Stream													
MMR-MSISCO-B02-1	Makua Stream													
MMR-MSISCO-B02-2	Makua Stream													
MMR-MSISCO-B02-3	Makua Stream													
MMR-MSISCO-B02-5	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
MMR-MSISCO-B03-1	Makua Stream													
MMR-MSISCO-B03-2	Makua Stream													
MMR-MSISCO-B03-2DUP	Makua Stream													
MMR-MSISCO-B03-3	Makua Stream													
MMR-MSISCO-B03-4	Makua Stream													
MMR-MSISCO-B04-1	Makua Stream													
MMR-MSISCO-B04-2	Makua Stream													
MMR-MSISCO-B04-3	Makua Stream													
MMR-MSISCO-B04-5	Makua Stream													
MMR-MSISCO-B05-1	Makua Stream													
MMR-MSISCO-B05-2	Makua Stream													
MMR-MSISCO-B05-3	Makua Stream													
MMR-MSISCO-B06-1	Makua Stream													
MMR-MSISCO-B06-2	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
MMR-MSISCO-B06-3	Makua Stream													
MMR-MSISCO-B07-1	Makua Stream													
MMR-MSISCO-B07-2	Makua Stream													
MMR-MSISCO-B07-2DUP	Makua Stream													
MMR-MSISCO-B07-3	Makua Stream													
MMR-MSISCO-B07-3DUP	Makua Stream													
MMR-MSISCO-B07-4	Makua Stream													
MMR-MSISCO-B08-1	Makua Stream													
MMR-MSISCO-B09-1	Makua Stream													
MMR-MSISCO-B10-1	Makua Stream													
MMR-MSISCO-B10-4	Makua Stream													
MMR-MSISCO-B10-4DUP	Makua Stream													
MMR-MSISCO-B11-1	Makua Stream		18.5		0.516	0.088	0.167							
MMR-MSISCO-B11-1DUP	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
MMR-MSISCO-B12-1	Makua Stream													
MMR-MSISCO-B12-5	Makua Stream													
MMR-MSISCO-B12-5DUP	Makua Stream													
MMR-MSISCO-B13-1	Makua Stream													
MMR-MSISCO-B14-1	Makua Stream													
MMR-MSISCO-B15-1	Makua Stream													
MMR-MSISCO-B15-4	Makua Stream													
MMR-MSISCO-B16-1	Makua Stream													
MMR-MSISCO-B16-4	Makua Stream													
MMR-MSISCO-B17-1	Makua Stream													
MMR-MSISCO-B18-1	Makua Stream													
MMR-MSISCO-B18-4	Makua Stream													
MMR-MSISCO-B19-1	Makua Stream													
MMR-MSISCO-B20-1	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
MMR-MSISCO-B21-1	Makua Stream													
MMR-MSISCO-B21-4	Makua Stream													
MMR-MSISCO-B22-1	Makua Stream													
MMR-MSISCO-B23-1	Makua Stream													
MMR-MSISCO-B23-4	Makua Stream													
MMR-MSISCO-B24-1	Makua Stream													
MMR-MSISCO-B24-4	Makua Stream													
MMRMSR2-1	Makua Stream		11.1	27.8	0.049		0.01							
MMR-MS-R3-1	Makua Stream	0.003J	34.7	11.7	0.927	0.346	0.324					0.166		0.047J
MMR-MS-R3-2	Makua Stream	0.003J	18.8		0.627	0.12	0.184							
MMR-MS-R3-3	Makua Stream		10.3		0.006J									
MMRMSSW-R1	Makua Stream		11.1	37.9	0.014J		0.007J				0.29J	0.116		
MMRMSSW-R2	Makua Stream		9.52		0.015J		0.005J							
MMRMSSW-R3	Makua Stream		10		0.016J		0.009J							
MMRMSSW-R4	Makua Stream		10.8		0.009J		0.006J							
MMRMSSW-R5	Makua Stream		10.8		0.008J		0.005J							
MMR-SW-E2-B01	Makua Stream		13.8		0.146	0.025	0.042							
MMR-SW-E2-B02	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
MMR-SW-E2-B03	Makua Stream		16.3		0.098	0.017J	0.032							
MMR-SW-E2-B04	Makua Stream		19.8		0.066		0.018							
MMR-SW-E2-B05	Makua Stream		23.8		0.866	0.172	0.267							
MMR-SW-E2-B06	Makua Stream													
MMR-SW-E2-B07	Makua Stream													
MMR-SW-E2-B08	Makua Stream													
MMR-SW-E2-B09	Makua Stream													
MMR-SW-E2-B10	Makua Stream		10.7		0.195	0.029	0.053							
MMR-SW-E2-B11	Makua Stream													
MMR-SW-E2-B12	Makua Stream													
MMR-SW-E2-B13	Makua Stream													
MMR-SW-E2-B14	Makua Stream		12.7		0.089	0.011J	0.025							
MMR-SW-E2-B15	Makua Stream													
MMR-SW-E2-B16	Makua Stream													
MMR-SW-E2-B17	Makua Stream													
MMR-SW-E2-B18	Makua Stream		12.2		0.052		0.015							
MMR-SW-E2-B19	Makua Stream													
MMR-SW-E2-B20	Makua Stream													
MMR-SW-E2-B21	Makua Stream													
MMR-SW-E2-B22	Makua Stream													
MMR-SW-E2-B23	Makua Stream													
MMR-SW-E2-B23DUP	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
MMR-SW-E2-B24	Makua Stream		12.3		0.031		0.009J							
MMR-SW-E3-B01	Makua Stream		18.6		0.479	0.105	0.116							
MMR-SW-E3-B01DUP	Makua Stream													
MMR-SW-E3-B02	Makua Stream													
MMR-SW-E3-B03	Makua Stream		15.7		0.475	0.08	0.132							
MMR-SW-E3-B04	Makua Stream													
MMR-SW-E3-B05	Makua Stream		12		0.296	0.046	0.077							
MMR-SW-E3-B06	Makua Stream													
MMR-SW-E3-B07	Makua Stream		12		0.254	0.035	0.068							
MMR-SW-E3-B08	Makua Stream													
MMR-SW-E3-B09	Makua Stream		9.6		0.066		0.018							
MMR-SW-E3-B10	Makua Stream													
MMR-SW-E3-B11	Makua Stream		11		0.125	0.016J	0.033							
MMR-SW-E3-B12	Makua Stream													
MMR-SW-E3-B13	Makua Stream		11.4		0.083	0.013J	0.022							
MMR-SW-E3-B14	Makua Stream													
MMR-SW-E3-B15	Makua Stream		10.9		0.068		0.02							
MMR-SW-E3-B16	Makua Stream													
MMR-SW-E3-B17	Makua Stream		12.3		0.05		0.015							
MMR-SW-E3-B18	Makua Stream													
MMR-SW-E3-B19	Makua Stream		11.3		0.04		0.012							
MMR-SW-E3-	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
B19DUP														
MMR-SW-E3-B20	Makua Stream													
MMR-SW-E3-B21	Makua Stream		12.2		0.037		0.011							
MMR-SW-E3-B22	Makua Stream													
MMR-SW-E3-B23	Makua Stream		12.8		0.032		0.01							
MMR-SW-E3-B24	Makua Stream													
MMR-SW-E4-B01	Makua Stream													
MMR-SW-E4-B02	Makua Stream		7.95		0.463	0.08	0.105							
MMR-SW-E4-B03	Makua Stream													
MMR-SW-E4-B04	Makua Stream		7.53		0.227	0.035	0.047							
MMR-SW-E4-B05	Makua Stream													
MMR-SW-E4-B06	Makua Stream		7.79		0.119	0.014J	0.028							
MMR-SW-E4-B07	Makua Stream													
MMR-SW-E4-B08	Makua Stream													
MMR-SW-E4-B09	Makua Stream													
MMR-SW-E4-B10	Makua Stream													
MMR-SW-E4-B11	Makua Stream		9.04		0.053		0.02							
MMR-SW-E4-B12	Makua Stream													
MMR-SW-E4-B13	Makua Stream													
MMR-SW-E4-B14	Makua Stream													
MMR-SW-E4-B15	Makua Stream													
MMR-SW-E4-B15DUP	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
MMR-SW-E4-B16	Makua Stream													
MMR-SW-E4-B17	Makua Stream													
MMR-SW-E4-B18	Makua Stream													
MMR-SW-E4-B19	Makua Stream													
MMR-SW-E4-B20	Makua Stream													
MMR-SW-E4-B21	Makua Stream													
MMR-SW-E4-B22	Makua Stream													
MMR-SW-E4-B23	Makua Stream													
MMR-SW-E4-B24	Makua Stream		9.65		0.013J									
MMR-SW-E4-B25	Makua Stream													
MMR-SW-E4-B27	Makua Stream													
MMR-SW-E4-B28	Makua Stream													
MMRPSR2-1	Punapohaku Stream		30.2	46.2										
MMR-PS-R3-1	Punapohaku Stream		12.3	26.1			0.008J					0.15		0.016J
MMR-PS-R3-2	Punapohaku Stream		10.8		0.007J		0.007J							
MMRPSSW-R1	Punapohaku Stream		18	47.9	0.008J		0.007J		0.018J			0.117		0.011J
MMRPSSW-R2	Punapohaku Stream		18.3											
MMRPSSW-R3	Punapohaku Stream		17.9											

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound												
		CADMIUM	CALCIUM	CHLORIDE	CHROMIUM	COBALT	COPPER	CYANIDE	DELTA-BHC	ENDRIN	ETHYLBENZENE	FLUORIDE	GAMMA-BHC (LINDANE)	HEPTACHLOR
Unit		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	UG/L
PRG		0.02				0.73	1.46	0.73		10.95	2.91	2.19	0.05	0.02
MCL		0.01			0.10		1.30			2.00	700.00	4.00	0.20	0.40
Sample Label	**Location**													
MMRPSSW-R4	Punapohaku Stream		21.5				0.006J							
MMRPSSW-R5	Punapohaku Stream		21											
MMRPSSW-R6	Punapohaku Stream		33.9											

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limit

* R1,2,3,4,5,6 at the end of sample name denotes sample round 1,2,3,4,5 or 6. DUP = Duplicate sample to sample sent to EMAX laboratory

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	NITRATE-N	ORTHOPHOSPHATE-P	O-XYLENE	PERCHLORATE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
PRG		0.01	10.95				0.88		0.18	0.73				
MCL		0.20		0.02										
Sample Label	**Location**													
MMRKASR2-1	Kaluakauila Stream		1.34			13.5	0.007J				3.4			
MMRKASR2-2	Kaluakauila Stream		0.958J			15.3	0.004J							
MMR-KAS-R3-1	Kaluakauila Stream		8.51			8.14	0.08J				3.99	0.43J		
MMR-KAS-R3-2	Kaluakauila Stream		15.2			8.08	0.248							
MMRKASSW-R1	Kaluakauila Stream		2.5		0.65J	10.3	0.015J				1.51		0.24J	
MMRKASSW-R2	Kaluakauila Stream		1.8			11.1	0.011J							
MMRKASSW-R3	Kaluakauila Stream		2.52			11.3	0.013J							
MMRKASSW-R4	Kaluakauila Stream		2.33			10.3	0.012J							
MMRKASSW-R5	Kaluakauila Stream		1.96			11	0.011J							
MMRKASSW-R6	Kaluakauila Stream		1.02			13.1	0.005J							
MMRKGSR2-1	Koiahi Gulch Stream		7.87			15	0.063J			0.018J	0.935			
MMRKGSR2-2	Koiahi Gulch Stream		5.49			13.6	0.044J			0.01J				
MMRKGSR2-3	Koiahi Gulch Stream		4.85			15.1	0.04J			0.012J				
MMRKGSR2-4	Koiahi Gulch Stream		4.8			17.5	0.039J			0.01J				

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	NITRATE-N	ORTHOPHOSPHATE-P	O-XYLENE	PERCHLORATE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
PRG		0.01	10.95				0.88		0.18	0.73				
MCL		0.20		0.02										
Sample Label	**Location**													
MMRKGSR2-5	Koiahi Gulch Stream		4.53			18.1	0.037J							
MMR-KGS-R3-1	Koiahi Gulch Stream		36.4	0.004J		6.51	0.354			0.03	1.13	1.7		
MMR-KGS-R3-2	Koiahi Gulch Stream		52.1	0.003J		8.12	0.622			0.054				
MMR-KGS-R3-3	Koiahi Gulch Stream		5.59			11.9	0.06J							
MMR-KGS-R3-4	Koiahi Gulch Stream		0.994J			17.9	0.011J							
MMRKSSW-R1	Koiahi Gulch Stream	0.02J	3.35	0.002J	0.83J	4.67	0.047J			0.011J	0.627	1.73	0.31J	2.07
MMRKSSW-R1DUP	Koiahi Gulch Stream													2.6
MMRKSSW-R2	Koiahi Gulch Stream		36	0.033		10.4	0.538			0.045				
MMRKSSW-R3	Koiahi Gulch Stream		4.09			7.66	0.058J			0.012J				
MMRKSSW-R4	Koiahi Gulch Stream		3.57	0.003J		7.55	0.048J			0.016J				
MMRISCOR1-1	Makua Stream		3.56			4.57	0.026J							
MMRISCOR1-10	Makua Stream													
MMRISCOR1-11	Makua Stream		4.41			6.48	0.034J							
MMRISCOR1-12	Makua Stream		4.27			5.5	0.032J	0.161J						
MMRISCOR1-13	Makua Stream		9.05			7.77	0.131							
MMRISCOR1-14	Makua Stream													
MMRISCOR1-15	Makua Stream		6.58			7.72	0.054J		0.012J					

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	NITRATE-N	ORTHOPHOSPHATE-P	O-XYLENE	PERCHLORATE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
PRG		0.01	10.95				0.88		0.18	0.73				
MCL		0.20		0.02										
Sample Label	**Location**													
MMRISCOR1-16	Makua Stream													
MMRISCOR1-17	Makua Stream													
MMRISCOR1-18	Makua Stream		4.69			8.27	0.038J	0.157J						
MMRISCOR1-19	Makua Stream		5.93			8.59	0.059J							
MMRISCOR1-1DUP	Makua Stream													
MMRISCOR1-2	Makua Stream													
MMRISCOR1-20	Makua Stream													
MMRISCOR1-21	Makua Stream		4.77			9.64	0.034J							
MMRISCOR1-22	Makua Stream													
MMRISCOR1-23	Makua Stream													
MMRISCOR1-24	Makua Stream													
MMRISCOR1-25	Makua Stream		4.52			9.37	0.039J							
MMRISCOR1-26	Makua Stream		4.37			9.91	0.027J							
MMRISCOR1-27	Makua Stream													
MMRISCOR1-28	Makua Stream													
MMRISCOR1-3	Makua Stream		3.23			4.73	0.021J							
MMRISCOR1-31	Makua Stream		3.39			10.8	0.021J							
MMRISCOR1-32	Makua Stream		3.46			11.3	0.024J							
MMRISCOR1-36	Makua Stream		2.12			10.9	0.015J		0.011J					
MMRISCOR1-38	Makua Stream		1.9			12	0.013J							
MMRISCOR1-39	Makua Stream				0.33J									
MMRISCOR1-4	Makua Stream		8.58			5.27	0.116							
MMRISCOR1-40	Makua Stream		1.41			10.7	0.01J							
MMRISCOR1-5	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	NITRATE-N	ORTHOPHOSPHATE-P	O-XYLENE	PERCHLORATE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
PRG		0.01	10.95				0.88		0.18	0.73				
MCL		0.20		0.02										
Sample Label	**Location**													
MMRISCOR1-6	Makua Stream		5.63			6.33	0.047J							
MMRISCOR1-7	Makua Stream													
MMRISCOR1-8	Makua Stream		4.95			5.77	0.047J							
MMRISCOR1-9	Makua Stream		12.3			7.2	0.253			0.011J				
MMRISCOR1-COMP	Makua Stream										0.567	0.679		
MMRISCOR1-COMPDUP	Makua Stream													
MMR-MSISCO-B01-1	Makua Stream													
MMR-MSISCO-B01-2	Makua Stream													
MMR-MSISCO-B01-3	Makua Stream													
MMR-MSISCO-B01-5	Makua Stream													
MMR-MSISCO-B02-1	Makua Stream													
MMR-MSISCO-B02-2	Makua Stream													
MMR-MSISCO-B02-3	Makua Stream													
MMR-MSISCO-B02-5	Makua Stream													
MMR-MSISCO-B03-1	Makua Stream													
MMR-MSISCO-B03-2	Makua Stream													
MMR-MSISCO-B03-2DUP	Makua Stream													
MMR-MSISCO-B03-3	Makua Stream													
MMR-MSISCO-B03-4	Makua Stream													
MMR-MSISCO-B04-1	Makua Stream													
MMR-MSISCO-B04-2	Makua Stream													
MMR-MSISCO-B04-3	Makua Stream													
MMR-MSISCO-B04-5	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound												
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	NITRATE-N	ORTHOPHOSPHATE-P	O-XYLENE	PERCHLORATE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
PRG		0.01	10.95				0.88		0.18	0.73				
MCL		0.20		0.02										
Sample Label	**Location**													
MMR-MSISCO-B05-1	Makua Stream													
MMR-MSISCO-B05-2	Makua Stream													
MMR-MSISCO-B05-3	Makua Stream													
MMR-MSISCO-B06-1	Makua Stream													
MMR-MSISCO-B06-2	Makua Stream													
MMR-MSISCO-B06-3	Makua Stream													
MMR-MSISCO-B07-1	Makua Stream													
MMR-MSISCO-B07-2	Makua Stream													
MMR-MSISCO-B07-2DUP	Makua Stream													
MMR-MSISCO-B07-3	Makua Stream													
MMR-MSISCO-B07-3DUP	Makua Stream													
MMR-MSISCO-B07-4	Makua Stream													
MMR-MSISCO-B08-1	Makua Stream													
MMR-MSISCO-B09-1	Makua Stream													
MMR-MSISCO-B10-1	Makua Stream													
MMR-MSISCO-B10-4	Makua Stream													
MMR-MSISCO-B10-4DUP	Makua Stream													
MMR-MSISCO-B11-1	Makua Stream		184			16	2.51			0.237				
MMR-MSISCO-B11-1DUP	Makua Stream													
MMR-MSISCO-B12-1	Makua Stream													
MMR-MSISCO-B12-5	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	NITRATE-N	ORTHOPHOSPHATE-P	O-XYLENE	PERCHLORATE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
PRG		0.01	10.95				0.88		0.18	0.73				
MCL		0.20		0.02										
Sample Label	**Location**													
MMR-MSISCO-B12-5DUP	Makua Stream													
MMR-MSISCO-B13-1	Makua Stream													
MMR-MSISCO-B14-1	Makua Stream													
MMR-MSISCO-B15-1	Makua Stream													
MMR-MSISCO-B15-4	Makua Stream													
MMR-MSISCO-B16-1	Makua Stream													
MMR-MSISCO-B16-4	Makua Stream													
MMR-MSISCO-B17-1	Makua Stream													
MMR-MSISCO-B18-1	Makua Stream													
MMR-MSISCO-B18-4	Makua Stream													
MMR-MSISCO-B19-1	Makua Stream													
MMR-MSISCO-B20-1	Makua Stream													
MMR-MSISCO-B21-1	Makua Stream													
MMR-MSISCO-B21-4	Makua Stream													
MMR-MSISCO-B22-1	Makua Stream													
MMR-MSISCO-B23-1	Makua Stream													
MMR-MSISCO-B23-4	Makua Stream													
MMR-MSISCO-B24-1	Makua Stream													
MMR-MSISCO-B24-4	Makua Stream													
MMRMSR2-1	Makua Stream		17.1			11.5	0.146			0.03	1.59			
MMR-MS-R3-1	Makua Stream		315			30.9	10.3			0.338	0.31	0.332J		
MMR-MS-R3-2	Makua Stream		209	0.002J		16	3.63			0.22				
MMR-MS-R3-3	Makua Stream		3			9.9	0.022J							

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	NITRATE-N	ORTHOPHOSPHATE-P	O-XYLENE	PERCHLORATE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
PRG		0.01	10.95				0.88		0.18	0.73				
MCL		0.20		0.02										
Sample Label	**Location**													
MMRMSSW-R1	Makua Stream		10.9		1.7J	8.9	0.055J			0.018J	1.13	0.228J	0.56J	
MMRMSSW-R2	Makua Stream		4.8			9.01	0.037J		0.009J	0.015J				
MMRMSSW-R3	Makua Stream		4.27			10.4	0.031J							
MMRMSSW-R4	Makua Stream		4.41			10.2	0.03J							
MMRMSSW-R5	Makua Stream		3.17			10.1	0.023J		0.01J					
MMR-SW-E2-B01	Makua Stream		49.5			9.04	0.775			0.083				
MMR-SW-E2-B02	Makua Stream													
MMR-SW-E2-B03	Makua Stream		33			9.06	0.456			0.058				
MMR-SW-E2-B04	Makua Stream		22.6			9.87	0.297			0.039				
MMR-SW-E2-B05	Makua Stream		280			20.4	4.82	0.157J		0.391				
MMR-SW-E2-B06	Makua Stream													
MMR-SW-E2-B07	Makua Stream													
MMR-SW-E2-B08	Makua Stream													
MMR-SW-E2-B09	Makua Stream													
MMR-SW-E2-B10	Makua Stream		61.7			9.8	0.877			0.08				
MMR-SW-E2-B11	Makua Stream													
MMR-SW-E2-B12	Makua Stream													
MMR-SW-E2-B13	Makua Stream													
MMR-SW-E2-B14	Makua Stream		28.6			11	0.31			0.046				
MMR-SW-E2-B15	Makua Stream													
MMR-SW-E2-B16	Makua Stream													
MMR-SW-E2-B17	Makua Stream													
MMR-SW-E2-B18	Makua Stream		17.5			10.6	0.174			0.031				
MMR-SW-E2-B19	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	NITRATE-N	ORTHOPHOSPHATE-P	O-XYLENE	PERCHLORATE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
PRG		0.01	10.95				0.88		0.18	0.73				
MCL		0.20		0.02										
Sample Label	**Location**													
MMR-SW-E2-B20	Makua Stream													
MMR-SW-E2-B21	Makua Stream													
MMR-SW-E2-B22	Makua Stream													
MMR-SW-E2-B23	Makua Stream													
MMR-SW-E2-B23DUP	Makua Stream													
MMR-SW-E2-B24	Makua Stream		10.8			10.7	0.101			0.013J				
MMR-SW-E3-B01	Makua Stream		149			15.9	3.17			0.131				
MMR-SW-E3-B01DUP	Makua Stream													
MMR-SW-E3-B02	Makua Stream													
MMR-SW-E3-B03	Makua Stream		164			15.8	2.45			0.162				
MMR-SW-E3-B04	Makua Stream													
MMR-SW-E3-B05	Makua Stream		100			12.5	1.42			0.098				
MMR-SW-E3-B06	Makua Stream													
MMR-SW-E3-B07	Makua Stream		84.8			12.8	1.1			0.088				
MMR-SW-E3-B08	Makua Stream													
MMR-SW-E3-B09	Makua Stream		22.1			9.46	0.234			0.035				
MMR-SW-E3-B10	Makua Stream													
MMR-SW-E3-B11	Makua Stream		40.3			11.3	0.456			0.05				
MMR-SW-E3-B12	Makua Stream													
MMR-SW-E3-B13	Makua Stream		27.5			11.3	0.325			0.027				
MMR-SW-E3-B14	Makua Stream													
MMR-SW-E3-B15	Makua Stream		21.6			10.4	0.22			0.035				
MMR-SW-E3-B16	Makua Stream													
MMR-SW-E3-B17	Makua Stream		17.5			11.7	0.185			0.027				

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound												
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	NITRATE-N	ORTHOPHOSPHATE-P	O-XYLENE	PERCHLORATE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
PRG		0.01	10.95				0.88		0.18	0.73				
MCL		0.20		0.02										
Sample Label	**Location**													
MMR-SW-E3-B18	Makua Stream													
MMR-SW-E3-B19	Makua Stream		12.6			10.3	0.127			0.02				
MMR-SW-E3-B19DUP	Makua Stream													
MMR-SW-E3-B20	Makua Stream													
MMR-SW-E3-B21	Makua Stream		12.4			10.8	0.114			0.016J				
MMR-SW-E3-B22	Makua Stream													
MMR-SW-E3-B23	Makua Stream		10.2			10.6	0.1J			0.016J				
MMR-SW-E3-B24	Makua Stream													
MMR-SW-E4-B01	Makua Stream													
MMR-SW-E4-B02	Makua Stream		167	0.002J		9.38	2.73			0.136				
MMR-SW-E4-B03	Makua Stream													
MMR-SW-E4-B04	Makua Stream		76			7.91	1.37			0.04				
MMR-SW-E4-B05	Makua Stream													
MMR-SW-E4-B06	Makua Stream		40.7			7.83	0.553			0.047				
MMR-SW-E4-B07	Makua Stream													
MMR-SW-E4-B08	Makua Stream													
MMR-SW-E4-B09	Makua Stream													
MMR-SW-E4-B10	Makua Stream													
MMR-SW-E4-B11	Makua Stream		17.6	0.002J		8	0.208			0.038				
MMR-SW-E4-B12	Makua Stream													
MMR-SW-E4-B13	Makua Stream													
MMR-SW-E4-B14	Makua Stream													
MMR-SW-E4-B15	Makua Stream													
MMR-SW-E4-B15DUP	Makua Stream													

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued) (Values Below PRGs or MCLs)														
		Compound												
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	NITRATE-N	ORTHOPHOSPHATE-P	O-XYLENE	PERCHLORATE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
PRG		0.01	10.95				0.88		0.18	0.73				
MCL		0.20		0.02										
Sample Label	**Location**													
MMR-SW-E4-B16	Makua Stream													
MMR-SW-E4-B17	Makua Stream													
MMR-SW-E4-B18	Makua Stream													
MMR-SW-E4-B19	Makua Stream													
MMR-SW-E4-B20	Makua Stream													
MMR-SW-E4-B21	Makua Stream													
MMR-SW-E4-B22	Makua Stream													
MMR-SW-E4-B23	Makua Stream													
MMR-SW-E4-B24	Makua Stream		4.85			9.44	0.033J			0.015J				
MMR-SW-E4-B25	Makua Stream													
MMR-SW-E4-B27	Makua Stream													
MMR-SW-E4-B28	Makua Stream													
MMRPSR2-1	Punapohaku Stream		0.569J			18.9	0.006J				2.77	0.239J		
MMR-PS-R3-1	Punapohaku Stream		2.93			8.24	0.06J				1.04	0.459J		
MMR-PS-R3-2	Punapohaku Stream		3.33			7.16	0.058J							
MMRPSSW-R1	Punapohaku Stream		1.56		0.72J	10.6	0.011J				2.25	0.289J	0.27J	
MMRPSSW-R2	Punapohaku Stream		1.41			11	0.008J		0.008J	0.012J				
MMRPSSW-R3	Punapohaku Stream		1.17			11.1	0.008J							
MMRPSSW-R4	Punapohaku Stream		1.33			13.2	0.008J			0.011J				

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound												
		HEPTACHLOR EPOXIDE	IRON	LEAD	M/P-XYLENES	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	NITRATE-N	ORTHOPHOSPHATE-P	O-XYLENE	PERCHLORATE
Unit		UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L
PRG		0.01	10.95				0.88		0.18	0.73				
MCL		0.20		0.02										
Sample Label	**Location**													
MMRPSSW-R5	Punapohaku Stream		0.663J			13.4	0.007J							
MMRPSSW-R6	Punapohaku Stream		0.053J			21			0.008J					

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limit

* R1,2,3,4,5,6 at the end of sample name denotes sample round 1,2,3,4,5 or 6. DUP = Duplicate sample to sample sent to EMAX laboratory

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

Compound		POTASSIUM	RDX	SELENIUM	SODIUM	STRONTIUM	STYRENE	SULFATE	SULFIDE	THALLIUM	TIN	TITANIUM	TOLUENE	TSS
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
PRG			0.61	0.18		21.90	1,641.09			0.00			723.42	
MCL				0.05			100.00			0.00			1,000.00	
Sample Label	**Location**													
MMRKASR2-1	Kaluakauila Stream	3.96J			47.7	0.093		17.8				0.109		
MMRKASR2-2	Kaluakauila Stream	5.83			53.1	0.104						0.068J		
MMR-KAS-R3-1	Kaluakauila Stream	4.47J			41.6	0.073		10.6				0.398		88
MMR-KAS-R3-2	Kaluakauila Stream	4.59J			33	0.074						0.824		280
MMRKASSW-R1	Kaluakauila Stream	3.73J			34.2	0.072		12.5		0.006J		0.103	1.1	
MMRKASSW-R2	Kaluakauila Stream	1.92J			32.6	0.067						0.07J		
MMRKASSW-R3	Kaluakauila Stream	3.72J			35.9	0.075						0.101		
MMRKASSW-R4	Kaluakauila Stream	3.88J		0.005J	37.6	0.079						0.095J		
MMRKASSW-R5	Kaluakauila Stream	4.23J			39	0.08						0.075J		
MMRKASSW-R6	Kaluakauila Stream	3.89J			46.1	0.097						0.038J		
MMRKGSR2-1	Koiahi Gulch Stream	5.54			31.1	0.127		6.64				0.496		39
MMRKGSR2-2	Koiahi Gulch Stream	4.38J			27.1	0.115						0.355		31
MMRKGSR2-3	Koiahi Gulch Stream	4.57J			29.5	0.127						0.328		26
MMRKGSR2-4	Koiahi Gulch Stream	5.87			33.2	0.144						0.336		25
MMRKGSR2-5	Koiahi Gulch Stream	4.67J			33.5	0.149						0.326		22

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

Compound		POTASSIUM	RDX	SELENIUM	SODIUM	STRONTIUM	STYRENE	SULFATE	SULFIDE	THALLIUM	TIN	TITANIUM	TOLUENE	TSS
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
PRG			0.61	0.18		21.90	1,641.09			0.00			723.42	
MCL				0.05			100.00			0.00			1,000.00	
Sample Label	**Location**													
MMR-KGS-R3-1	Koiahi Gulch Stream	20.7			15.7	0.132		4.86				1.71		222
MMR-KGS-R3-2	Koiahi Gulch Stream	4.65J			16	0.111						2.89		497
MMR-KGS-R3-3	Koiahi Gulch Stream	3.73J			24.8	0.105						0.277		
MMR-KGS-R3-4	Koiahi Gulch Stream	5.53			31.4	0.162						0.045J		
MMRKSSW-R1	Koiahi Gulch Stream	11.4			6.76	0.132		2.77				0.175	1.4	
MMRKSSW-R1DUP	Koiahi Gulch Stream													
MMRKSSW-R2	Koiahi Gulch Stream	11.4			10.3	0.297						1.89		
MMRKSSW-R3	Koiahi Gulch Stream	15.7		0.005J	8.85	0.211						0.198		
MMRKSSW-R4	Koiahi Gulch Stream	15.5			10.1	0.202						0.171		
MMRISCOR1-1	Makua Stream	5.87			19.3	0.055				0.007J		0.253		112
MMRISCOR1-10	Makua Stream													
MMRISCOR1-11	Makua Stream	4.43J			21.2	0.052						0.243		152
MMRISCOR1-12	Makua Stream	3.25J			17.9	0.044	0.2J					0.352		
MMRISCOR1-13	Makua Stream	4.06J			21.8	0.063						0.602		120
MMRISCOR1-14	Makua Stream													158
MMRISCOR1-15	Makua Stream	3.35J			22.5	0.057						0.409		94
MMRISCOR1-16	Makua Stream													80
MMRISCOR1-17	Makua Stream													52
MMRISCOR1-18	Makua Stream	4.58J	0.37J		24.2	0.06						0.284		38

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

Compound		POTASSIUM	RDX	SELENIUM	SODIUM	STRONTIUM	STYRENE	SULFATE	SULFIDE	THALLIUM	TIN	TITANIUM	TOLUENE	TSS
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
PRG			0.61	0.18		21.90	1,641.09			0.00			723.42	
MCL				0.05			100.00			0.00			1,000.00	
Sample Label	**Location**													
MMRISCOR1-19	Makua Stream	2.87J			24	0.063						0.374		26
MMRISCOR1-1DUP	Makua Stream													110
MMRISCOR1-2	Makua Stream													
MMRISCOR1-20	Makua Stream													25
MMRISCOR1-21	Makua Stream	3.34J			27.9	0.069						0.27		22
MMRISCOR1-22	Makua Stream													17
MMRISCOR1-23	Makua Stream													22
MMRISCOR1-24	Makua Stream													14
MMRISCOR1-25	Makua Stream	3.43J			26.7	0.069						0.254		13
MMRISCOR1-26	Makua Stream	3.8J			27.9	0.071						0.282		
MMRISCOR1-27	Makua Stream													10
MMRISCOR1-28	Makua Stream													13
MMRISCOR1-3	Makua Stream	4.32J			19.6	0.044						0.145		62
MMRISCOR1-31	Makua Stream	3.36J			30.5	0.083						0.207		
MMRISCOR1-32	Makua Stream	3.42J			31.3	0.088						0.194		
MMRISCOR1-36	Makua Stream	5.05			25.8	0.112						0.12		
MMRISCOR1-38	Makua Stream	6.24			24.8	0.121						0.107		
MMRISCOR1-39	Makua Stream												0.29J	
MMRISCOR1-4	Makua Stream	5.02			19.4	0.054						0.458		88
MMRISCOR1-40	Makua Stream	5.7			22.5	0.11						0.076J		
MMRISCOR1-5	Makua Stream													200
MMRISCOR1-6	Makua Stream	5.1			22.5	0.06						0.276		840
MMRISCOR1-7	Makua Stream													232
MMRISCOR1-8	Makua Stream	4.26J			19.6	0.052						0.244		254

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

Compound		POTASSIUM	RDX	SELENIUM	SODIUM	STRONTIUM	STYRENE	SULFATE	SULFIDE	THALLIUM	TIN	TITANIUM	TOLUENE	TSS
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
PRG			0.61	0.18		21.90	1,641.09			0.00			723.42	
MCL				0.05			100.00			0.00			1,000.00	
Sample Label	**Location**													
MMRISCOR1-9	Makua Stream	4.97J			20.4	0.078						0.775		230
MMRISCOR1-COMP	Makua Stream							4.02	1.44					
MMRISCOR1-COMPDUP	Makua Stream								1.53					
MMR-MSISCO-B01-1	Makua Stream													9790
MMR-MSISCO-B01-2	Makua Stream													99
MMR-MSISCO-B01-3	Makua Stream													109
MMR-MSISCO-B01-5	Makua Stream													13
MMR-MSISCO-B02-1	Makua Stream													14700
MMR-MSISCO-B02-2	Makua Stream													192
MMR-MSISCO-B02-3	Makua Stream													4310
MMR-MSISCO-B02-5	Makua Stream													10
MMR-MSISCO-B03-1	Makua Stream													7080
MMR-MSISCO-B03-2	Makua Stream													227
MMR-MSISCO-B03-2DUP	Makua Stream													229
MMR-MSISCO-B03-3	Makua Stream													3020

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

Compound		POTASSIUM	RDX	SELENIUM	SODIUM	STRONTIUM	STYRENE	SULFATE	SULFIDE	THALLIUM	TIN	TITANIUM	TOLUENE	TSS
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
PRG			0.61	0.18		21.90	1,641.09			0.00			723.42	
MCL				0.05			100.00			0.00			1,000.00	
Sample Label	**Location**													
MMR-MSISCO-B03-4	Makua Stream													12
MMR-MSISCO-B04-1	Makua Stream													1550
MMR-MSISCO-B04-2	Makua Stream													127
MMR-MSISCO-B04-3	Makua Stream													10280
MMR-MSISCO-B04-5	Makua Stream													10
MMR-MSISCO-B05-1	Makua Stream													3160
MMR-MSISCO-B05-2	Makua Stream													284
MMR-MSISCO-B05-3	Makua Stream													1200
MMR-MSISCO-B06-1	Makua Stream													3300
MMR-MSISCO-B06-2	Makua Stream													471
MMR-MSISCO-B06-3	Makua Stream													2770
MMR-MSISCO-B07-1	Makua Stream													7700
MMR-MSISCO-B07-2	Makua Stream													379
MMR-MSISCO-B07-2DUP	Makua Stream													372
MMR-MSISCO-B07-3	Makua Stream													9850

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

Compound		POTASSIUM	RDX	SELENIUM	SODIUM	STRONTIUM	STYRENE	SULFATE	SULFIDE	THALLIUM	TIN	TITANIUM	TOLUENE	TSS
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
PRG			0.61	0.18		21.90	1,641.09			0.00			723.42	
MCL				0.05			100.00			0.00			1,000.00	
Sample Label	**Location**													
MMR-MSISCO-B07-3DUP	Makua Stream													9940
MMR-MSISCO-B07-4	Makua Stream													10.5
MMR-MSISCO-B08-1	Makua Stream													7330
MMR-MSISCO-B09-1	Makua Stream													3930
MMR-MSISCO-B10-1	Makua Stream													2310
MMR-MSISCO-B10-4	Makua Stream													10.5
MMR-MSISCO-B10-4DUP	Makua Stream													13
MMR-MSISCO-B11-1	Makua Stream	3.89J			20.4	0.176						15.8		1090
MMR-MSISCO-B11-1DUP	Makua Stream													1090
MMR-MSISCO-B12-1	Makua Stream													3030
MMR-MSISCO-B12-5	Makua Stream													10.5
MMR-MSISCO-B12-5DUP	Makua Stream													10.5
MMR-MSISCO-B13-1	Makua Stream													1320
MMR-MSISCO-B14-1	Makua Stream													829
MMR-MSISCO-B15-1	Makua Stream													964

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

Compound		POTASSIUM	RDX	SELENIUM	SODIUM	STRONTIUM	STYRENE	SULFATE	SULFIDE	THALLIUM	TIN	TITANIUM	TOLUENE	TSS
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
PRG			0.61	0.18		21.90	1,641.09			0.00			723.42	
MCL				0.05			100.00			0.00			1,000.00	
Sample Label	**Location**													
MMR-MSISCO-B15-4	Makua Stream													10.8
MMR-MSISCO-B16-1	Makua Stream													527
MMR-MSISCO-B16-4	Makua Stream													14.5
MMR-MSISCO-B17-1	Makua Stream													380
MMR-MSISCO-B18-1	Makua Stream													348
MMR-MSISCO-B18-4	Makua Stream													14
MMR-MSISCO-B19-1	Makua Stream													297
MMR-MSISCO-B20-1	Makua Stream													174
MMR-MSISCO-B21-1	Makua Stream													257
MMR-MSISCO-B21-4	Makua Stream													11
MMR-MSISCO-B22-1	Makua Stream													186
MMR-MSISCO-B23-1	Makua Stream													115
MMR-MSISCO-B23-4	Makua Stream													11
MMR-MSISCO-B24-1	Makua Stream													159
MMR-MSISCO-B24-4	Makua Stream													12

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

Compound		POTASSIUM	RDX	SELENIUM	SODIUM	STRONTIUM	STYRENE	SULFATE	SULFIDE	THALLIUM	TIN	TITANIUM	TOLUENE	TSS
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
PRG			0.61	0.18		21.90	1,641.09			0.00			723.42	
MCL				0.05			100.00			0.00			1,000.00	
Sample Label	**Location**													
MMRMSR2-1	Makua Stream	3.42J			31.4	0.075		8.35				1.38		72
MMR-MS-R3-1	Makua Stream	4.74J	0.61J		13.9	0.361		6.23		0.009J		24.1		9040
MMR-MS-R3-2	Makua Stream	3.95J			21.6	0.186						16.5		3500
MMR-MS-R3-3	Makua Stream	1.6J			25.9	0.065						0.201		2250
MMRMSSW-R1	Makua Stream	2.86J			26.1	0.067		6.77	1.08			0.353	2.7	
MMRMSSW-R2	Makua Stream	2.63J			26.6	0.068						0.259		
MMRMSSW-R3	Makua Stream	2.14J			27.7	0.071						0.231		
MMRMSSW-R4	Makua Stream	3.33J			29.3	0.077						0.234		
MMRMSSW-R5	Makua Stream	3.12J			28.9	0.076						0.169		
MMR-SW-E2-B01	Makua Stream	5.88			18.7	0.117						3.77		555
MMR-SW-E2-B02	Makua Stream													273
MMR-SW-E2-B03	Makua Stream	5.59			20.7	0.109						2.46		290
MMR-SW-E2-B04	Makua Stream	6.26			20.9	0.125						1.65		192
MMR-SW-E2-B05	Makua Stream	6.07			20.4	0.263						21.9		4190
MMR-SW-E2-B06	Makua Stream													2800
MMR-SW-E2-B07	Makua Stream													1810
MMR-SW-E2-B08	Makua Stream													1340
MMR-SW-E2-B09	Makua Stream													544
MMR-SW-E2-B10	Makua Stream	3.45J		0.006J	21.3	0.094						4.54		705
MMR-SW-E2-B11	Makua Stream													355
MMR-SW-E2-B12	Makua Stream													220
MMR-SW-E2-B13	Makua Stream													183
MMR-SW-E2-B14	Makua Stream	3.95J			27.8	0.092						2.04		220
MMR-SW-E2-B15	Makua Stream													143
MMR-SW-E2-B16	Makua Stream													100

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

Compound		POTASSIUM	RDX	SELENIUM	SODIUM	STRONTIUM	STYRENE	SULFATE	SULFIDE	THALLIUM	TIN	TITANIUM	TOLUENE	TSS
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
PRG			0.61	0.18		21.90	1,641.09			0.00			723.42	
MCL				0.05			100.00			0.00			1,000.00	
Sample Label	**Location**													
MMR-SW-E2-B17	Makua Stream													90
MMR-SW-E2-B18	Makua Stream	2.99J			26.6	0.086						1.27		141
MMR-SW-E2-B19	Makua Stream													107
MMR-SW-E2-B20	Makua Stream													68
MMR-SW-E2-B21	Makua Stream													69.3
MMR-SW-E2-B22	Makua Stream													64
MMR-SW-E2-B23	Makua Stream													48
MMR-SW-E2-B23DUP	Makua Stream													49
MMR-SW-E2-B24	Makua Stream	3.3J			25.8	0.085						0.774		50
MMR-SW-E3-B01	Makua Stream	8.05		0.012	21.1	0.163				0.009J		10.7		3080
MMR-SW-E3-B01DUP	Makua Stream													3000
MMR-SW-E3-B02	Makua Stream													2780
MMR-SW-E3-B03	Makua Stream	6.13		0.01J	23.9	0.142				0.014		12.1		2090
MMR-SW-E3-B04	Makua Stream													1620
MMR-SW-E3-B05	Makua Stream	4.64J		0.01	23.4	0.102						7.38		1230
MMR-SW-E3-B06	Makua Stream													1290
MMR-SW-E3-B07	Makua Stream	4.34J		0.008J	26.3	0.097				0.009J		6.26		725
MMR-SW-E3-B08	Makua Stream													930
MMR-SW-E3-B09	Makua Stream	3.79J			24.4	0.066						1.52		42
MMR-SW-E3-B10	Makua Stream													483
MMR-SW-E3-B11	Makua Stream	4.23J		0.008J	26.9	0.079						2.94		356
MMR-SW-E3-B12	Makua Stream													380
MMR-SW-E3-B13	Makua Stream	3.99J			28	0.078						2.01		228
MMR-SW-E3-B14	Makua Stream													236

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

Compound		POTASSIUM	RDX	SELENIUM	SODIUM	STRONTIUM	STYRENE	SULFATE	SULFIDE	THALLIUM	TIN	TITANIUM	TOLUENE	TSS
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
PRG			0.61	0.18		21.90	1,641.09			0.00			723.42	
MCL				0.05			100.00			0.00			1,000.00	
Sample Label	**Location**													
MMR-SW-E3-B15	Makua Stream	4.27J			25.2	0.073						1.59		169
MMR-SW-E3-B16	Makua Stream													136
MMR-SW-E3-B17	Makua Stream	4J			28.3	0.08						1.23		115
MMR-SW-E3-B18	Makua Stream													126
MMR-SW-E3-B19	Makua Stream	3.09J			25	0.071						0.862		80
MMR-SW-E3-B19DUP	Makua Stream													71
MMR-SW-E3-B20	Makua Stream													74
MMR-SW-E3-B21	Makua Stream	4.01J			27.1	0.078						0.885		51
MMR-SW-E3-B22	Makua Stream													67
MMR-SW-E3-B23	Makua Stream	4.74J			25.2	0.079						0.71		52
MMR-SW-E3-B24	Makua Stream													58
MMR-SW-E4-B01	Makua Stream		1.7											5440
MMR-SW-E4-B02	Makua Stream	3.69J			12.6	0.078						12.6		3170
MMR-SW-E4-B03	Makua Stream		0.37J											2650
MMR-SW-E4-B04	Makua Stream	3.05J			16.4	0.063						5.83		1010
MMR-SW-E4-B05	Makua Stream													828
MMR-SW-E4-B06	Makua Stream	3.12J			20.7	0.056						3.16		485
MMR-SW-E4-B07	Makua Stream													349
MMR-SW-E4-B08	Makua Stream													294
MMR-SW-E4-B09	Makua Stream													215
MMR-SW-E4-B10	Makua Stream													91
MMR-SW-E4-B11	Makua Stream	4.04J			21.6	0.056						1.38		193
MMR-SW-E4-B12	Makua Stream													69
MMR-SW-E4-B13	Makua Stream													102

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

Compound		POTASSIUM	RDX	SELENIUM	SODIUM	STRONTIUM	STYRENE	SULFATE	SULFIDE	THALLIUM	TIN	TITANIUM	TOLUENE	TSS
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
PRG			0.61	0.18		21.90	1,641.09			0.00			723.42	
MCL				0.05			100.00			0.00			1,000.00	
Sample Label	**Location**													
MMR-SW-E4-B14	Makua Stream													76
MMR-SW-E4-B15	Makua Stream													84
MMR-SW-E4-B15DUP	Makua Stream													87
MMR-SW-E4-B16	Makua Stream													94
MMR-SW-E4-B17	Makua Stream													35
MMR-SW-E4-B18	Makua Stream													51
MMR-SW-E4-B19	Makua Stream													44
MMR-SW-E4-B20	Makua Stream													38
MMR-SW-E4-B21	Makua Stream													20
MMR-SW-E4-B22	Makua Stream													28
MMR-SW-E4-B23	Makua Stream													15
MMR-SW-E4-B24	Makua Stream	3.03J			24.9	0.061						0.351		10
MMR-SW-E4-B25	Makua Stream													11
MMR-SW-E4-B27	Makua Stream													11
MMR-SW-E4-B28	Makua Stream													12
MMRPSR2-1	Punapohaku Stream	4.61J			47.2	0.15		16.8				0.035J		
MMR-PS-R3-1	Punapohaku Stream	7.03			29.1	0.067		6.41				0.148		104
MMR-PS-R3-2	Punapohaku Stream	4.03J			26.5	0.06						0.16		55
MMRPSSW-R1	Punapohaku Stream	6.5			31.6	0.097		8.43		0.006J		0.061J	1.2	
MMRPSSW-R2	Punapohaku Stream	5.58			32.5	0.099					0.044J	0.053J		

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

Compound		POTASSIUM	RDX	SELENIUM	SODIUM	STRONTIUM	STYRENE	SULFATE	SULFIDE	THALLIUM	TIN	TITANIUM	TOLUENE	TSS
Unit		MG/L	UG/L	MG/L	MG/L	MG/L	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
PRG			0.61	0.18		21.90	1,641.09			0.00			723.42	
MCL				0.05			100.00			0.00			1,000.00	
Sample Label	**Location**													
MMRPSSW-R3	Punapohaku Stream	5.98			32.1	0.098						0.045J		
MMRPSSW-R4	Punapohaku Stream	6.89			37.4	0.117						0.05J		
MMRPSSW-R5	Punapohaku Stream	8.23			35.3	0.117						0.024J		
MMRPSSW-R6	Punapohaku Stream	12.8			48.4	0.201						0.003J		

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limit

* R1,2,3,4,5,6 at the end of sample name denotes sample round 1,2,3,4,5 or 6. DUP = Duplicate sample to sample sent to EMAX laboratory

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound									
		VANADIUM	ZINC	Total HpCDD	Total HpCDF	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDF	OCDD	OCDF
Unit		MG/L	MG/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG		0.26	10.95								
MCL											
Sample Label	**Location**										
MMRKASR2-1	Kaluakauila Stream		0.01J								
MMRKASR2-2	Kaluakauila Stream										
MMR-KAS-R3-1	Kaluakauila Stream	0.017	0.052								
MMR-KAS-R3-2	Kaluakauila Stream	0.031	0.031								
MMRKASSW-R1	Kaluakauila Stream	0.006J	0.005J	4.924	11.22		4.924	11.22		22.15B	13.64X
MMRKASSW-R2	Kaluakauila Stream	0.009J	0.008J								
MMRKASSW-R3	Kaluakauila Stream	0.006J	0.009J								
MMRKASSW-R4	Kaluakauila Stream	0.01	0.01J								
MMRKASSW-R5	Kaluakauila Stream	0.005J	0.011J								
MMRKASSW-R6	Kaluakauila Stream		0.006J								
MMRKGSR2-1	Koiahi Gulch Stream	0.019	0.01J								
MMRKGSR2-2	Koiahi Gulch Stream	0.013	0.007J								
MMRKGSR2-3	Koiahi Gulch Stream	0.011	0.026								
MMRKGSR2-4	Koiahi Gulch Stream	0.012									
MMRKGSR2-5	Koiahi Gulch Stream	0.011									
MMR-KGS-R3-1	Koiahi Gulch Stream	0.073	0.055								
MMR-KGS-R3-2	Koiahi Gulch Stream	0.119	0.089								
MMR-KGS-R3-3	Koiahi Gulch Stream	0.015	0.109								
MMR-KGS-R3-4	Koiahi Gulch Stream	0.007J	0.024								
MMRKSSW-R1	Koiahi Gulch Stream	0.009J	0.016J	163.4	52.47	35.98	94.79	52.47	8.868I	834.2B	170.7
MMRKSSW-R1DUP	Koiahi Gulch Stream										
MMRKSSW-R2	Koiahi Gulch Stream	0.075	0.091								
MMRKSSW-R3	Koiahi Gulch Stream	0.013	0.015J								
MMRKSSW-R4	Koiahi Gulch Stream	0.012	0.016J								

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound									
		VANADIUM	ZINC	Total HpCDD	Total HpCDF	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDF	OCDD	OCDF
Unit		MG/L	MG/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG		0.26	10.95								
MCL											
Sample Label	**Location**										
MMRISCOR1-1	Makua Stream	0.007J	0.015J								
MMRISCOR1-10	Makua Stream										
MMRISCOR1-11	Makua Stream	0.009J	0.011J								
MMRISCOR1-12	Makua Stream	0.011	0.021								
MMRISCOR1-13	Makua Stream	0.022	0.017J								
MMRISCOR1-14	Makua Stream										
MMRISCOR1-15	Makua Stream	0.017	0.014J								
MMRISCOR1-16	Makua Stream										
MMRISCOR1-17	Makua Stream										
MMRISCOR1-18	Makua Stream	0.013	0.009J								
MMRISCOR1-19	Makua Stream	0.013	0.009J								
MMRISCOR1-1DUP	Makua Stream										
MMRISCOR1-2	Makua Stream										
MMRISCOR1-20	Makua Stream										
MMRISCOR1-21	Makua Stream	0.011	0.01J								
MMRISCOR1-22	Makua Stream										
MMRISCOR1-23	Makua Stream										
MMRISCOR1-24	Makua Stream										
MMRISCOR1-25	Makua Stream	0.01J	0.02J								
MMRISCOR1-26	Makua Stream	0.011	0.01J								
MMRISCOR1-27	Makua Stream										
MMRISCOR1-28	Makua Stream										
MMRISCOR1-3	Makua Stream	0.008J	0.01J								
MMRISCOR1-31	Makua Stream	0.008J	0.01J								

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound									
		VANADIUM	ZINC	Total HpCDD	Total HpCDF	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDF	OCDD	OCDF
Unit		MG/L	MG/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG		0.26	10.95								
MCL											
Sample Label	**Location**										
MMRISCOR1-32	Makua Stream	0.01J	0.006J								
MMRISCOR1-36	Makua Stream	0.009J	0.016J								
MMRISCOR1-38	Makua Stream	0.007J	0.032								
MMRISCOR1-39	Makua Stream										
MMRISCOR1-4	Makua Stream	0.019	0.028								
MMRISCOR1-40	Makua Stream	0.008J	0.08								
MMRISCOR1-5	Makua Stream										
MMRISCOR1-6	Makua Stream	0.011	0.015J								
MMRISCOR1-7	Makua Stream										
MMRISCOR1-8	Makua Stream	0.01	0.017J								
MMRISCOR1-9	Makua Stream	0.03	0.03								
MMRISCOR1-COMP	Makua Stream										
MMRISCOR1-COMPDUP	Makua Stream										
MMR-MSISCO-B01-1	Makua Stream										
MMR-MSISCO-B01-2	Makua Stream										
MMR-MSISCO-B01-3	Makua Stream										
MMR-MSISCO-B01-5	Makua Stream										
MMR-MSISCO-B02-1	Makua Stream										
MMR-MSISCO-B02-2	Makua Stream										
MMR-MSISCO-B02-3	Makua Stream										
MMR-MSISCO-B02-5	Makua Stream										
MMR-MSISCO-B03-1	Makua Stream										
MMR-MSISCO-B03-2	Makua Stream										

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound									
		VANADIUM	ZINC	Total HpCDD	Total HpCDF	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDF	OCDD	OCDF
Unit		MG/L	MG/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG		0.26	10.95								
MCL											
Sample Label	**Location**										
MMR-MSISCO-B03-2DUP	Makua Stream										
MMR-MSISCO-B03-3	Makua Stream										
MMR-MSISCO-B03-4	Makua Stream										
MMR-MSISCO-B04-1	Makua Stream										
MMR-MSISCO-B04-2	Makua Stream										
MMR-MSISCO-B04-3	Makua Stream										
MMR-MSISCO-B04-5	Makua Stream										
MMR-MSISCO-B05-1	Makua Stream										
MMR-MSISCO-B05-2	Makua Stream										
MMR-MSISCO-B05-3	Makua Stream										
MMR-MSISCO-B06-1	Makua Stream										
MMR-MSISCO-B06-2	Makua Stream										
MMR-MSISCO-B06-3	Makua Stream										
MMR-MSISCO-B07-1	Makua Stream										
MMR-MSISCO-B07-2	Makua Stream										
MMR-MSISCO-B07-2DUP	Makua Stream										
MMR-MSISCO-B07-3	Makua Stream										
MMR-MSISCO-B07-3DUP	Makua Stream										
MMR-MSISCO-B07-4	Makua Stream										
MMR-MSISCO-B08-1	Makua Stream										
MMR-MSISCO-B09-1	Makua Stream										
MMR-MSISCO-B10-1	Makua Stream										

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound									
		VANADIUM	ZINC	Total HpCDD	Total HpCDF	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDF	OCDD	OCDF
Unit		MG/L	MG/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG		0.26	10.95								
MCL											
Sample Label	**Location**										
MMR-MSISCO-B10-4	Makua Stream										
MMR-MSISCO-B10-4DUP	Makua Stream										
MMR-MSISCO-B11-1	Makua Stream	0.457	0.257								
MMR-MSISCO-B11-1DUP	Makua Stream										
MMR-MSISCO-B12-1	Makua Stream										
MMR-MSISCO-B12-5	Makua Stream										
MMR-MSISCO-B12-5DUP	Makua Stream										
MMR-MSISCO-B13-1	Makua Stream										
MMR-MSISCO-B14-1	Makua Stream										
MMR-MSISCO-B15-1	Makua Stream										
MMR-MSISCO-B15-4	Makua Stream										
MMR-MSISCO-B16-1	Makua Stream										
MMR-MSISCO-B16-4	Makua Stream										
MMR-MSISCO-B17-1	Makua Stream										
MMR-MSISCO-B18-1	Makua Stream										
MMR-MSISCO-B18-4	Makua Stream										
MMR-MSISCO-B19-1	Makua Stream										
MMR-MSISCO-B20-1	Makua Stream										
MMR-MSISCO-B21-1	Makua Stream										
MMR-MSISCO-B21-4	Makua Stream										
MMR-MSISCO-B22-1	Makua Stream										
MMR-MSISCO-B23-1	Makua Stream										

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound									
		VANADIUM	ZINC	Total HpCDD	Total HpCDF	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDF	OCDD	OCDF
Unit		MG/L	MG/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG		0.26	10.95								
MCL											
Sample Label	**Location**										
MMR-MSISCO-B23-4	Makua Stream										
MMR-MSISCO-B24-1	Makua Stream										
MMR-MSISCO-B24-4	Makua Stream										
MMRMSR2-1	Makua Stream	0.034	0.022								
MMR-MS-R3-1	Makua Stream	0.838	0.498								
MMR-MS-R3-2	Makua Stream	0.505	0.286								
MMR-MS-R3-3	Makua Stream	0.009J	0.008J								
MMRMSSW-R1	Makua Stream	0.012	0.017J				5.164X			28.16B	
MMRMSSW-R2	Makua Stream	0.011	0.013J								
MMRMSSW-R3	Makua Stream	0.008J	0.011J								
MMRMSSW-R4	Makua Stream	0.009J	0.008J								
MMRMSSW-R5	Makua Stream	0.015	0.009J								
MMR-SW-E2-B01	Makua Stream	0.102	0.097								
MMR-SW-E2-B02	Makua Stream										
MMR-SW-E2-B03	Makua Stream	0.067	0.233								
MMR-SW-E2-B04	Makua Stream	0.049	0.069								
MMR-SW-E2-B05	Makua Stream	0.702	0.349								
MMR-SW-E2-B06	Makua Stream										
MMR-SW-E2-B07	Makua Stream										
MMR-SW-E2-B08	Makua Stream										
MMR-SW-E2-B09	Makua Stream										
MMR-SW-E2-B10	Makua Stream	0.123	0.088								
MMR-SW-E2-B11	Makua Stream										
MMR-SW-E2-B12	Makua Stream										

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound									
		VANADIUM	ZINC	Total HpCDD	Total HpCDF	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDF	OCDD	OCDF
Unit		MG/L	MG/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG		0.26	10.95								
MCL											
Sample Label	**Location**										
MMR-SW-E2-B13	Makua Stream										
MMR-SW-E2-B14	Makua Stream	0.059	0.126								
MMR-SW-E2-B15	Makua Stream										
MMR-SW-E2-B16	Makua Stream										
MMR-SW-E2-B17	Makua Stream										
MMR-SW-E2-B18	Makua Stream	0.036	0.073								
MMR-SW-E2-B19	Makua Stream										
MMR-SW-E2-B20	Makua Stream										
MMR-SW-E2-B21	Makua Stream										
MMR-SW-E2-B22	Makua Stream										
MMR-SW-E2-B23	Makua Stream										
MMR-SW-E2-B23DUP	Makua Stream										
MMR-SW-E2-B24	Makua Stream	0.023	0.021								
MMR-SW-E3-B01	Makua Stream	0.375	0.231								
MMR-SW-E3-B01DUP	Makua Stream										
MMR-SW-E3-B02	Makua Stream										
MMR-SW-E3-B03	Makua Stream	0.377	0.205								
MMR-SW-E3-B04	Makua Stream										
MMR-SW-E3-B05	Makua Stream	0.224	0.122								
MMR-SW-E3-B06	Makua Stream										
MMR-SW-E3-B07	Makua Stream	0.182	0.099								
MMR-SW-E3-B08	Makua Stream										
MMR-SW-E3-B09	Makua Stream	0.047	0.09								
MMR-SW-E3-B10	Makua Stream										

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound									
		VANADIUM	ZINC	Total HpCDD	Total HpCDF	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDF	OCDD	OCDF
Unit		MG/L	MG/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG		0.26	10.95								
MCL											
Sample Label	**Location**										
MMR-SW-E3-B11	Makua Stream	0.085	0.069								
MMR-SW-E3-B12	Makua Stream										
MMR-SW-E3-B13	Makua Stream	0.061	0.044								
MMR-SW-E3-B14	Makua Stream										
MMR-SW-E3-B15	Makua Stream	0.045	0.036								
MMR-SW-E3-B16	Makua Stream										
MMR-SW-E3-B17	Makua Stream	0.038	0.044								
MMR-SW-E3-B18	Makua Stream										
MMR-SW-E3-B19	Makua Stream	0.029	0.028								
MMR-SW-E3-B19DUP	Makua Stream										
MMR-SW-E3-B20	Makua Stream										
MMR-SW-E3-B21	Makua Stream	0.028	0.023								
MMR-SW-E3-B22	Makua Stream										
MMR-SW-E3-B23	Makua Stream	0.025	0.033								
MMR-SW-E3-B24	Makua Stream										
MMR-SW-E4-B01	Makua Stream										
MMR-SW-E4-B02	Makua Stream	0.418	0.19								
MMR-SW-E4-B03	Makua Stream										
MMR-SW-E4-B04	Makua Stream	0.175	0.079								
MMR-SW-E4-B05	Makua Stream										
MMR-SW-E4-B06	Makua Stream	0.088	0.108								
MMR-SW-E4-B07	Makua Stream										
MMR-SW-E4-B08	Makua Stream										
MMR-SW-E4-B09	Makua Stream										

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound									
		VANADIUM	ZINC	Total HpCDD	Total HpCDF	Total HxCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,6,7,8-HxCDF	OCDD	OCDF
Unit		MG/L	MG/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG		0.26	10.95								
MCL											
Sample Label	**Location**										
MMR-SW-E4-B10	Makua Stream										
MMR-SW-E4-B11	Makua Stream	0.037	0.168								
MMR-SW-E4-B12	Makua Stream										
MMR-SW-E4-B13	Makua Stream										
MMR-SW-E4-B14	Makua Stream										
MMR-SW-E4-B15	Makua Stream										
MMR-SW-E4-B15DUP	Makua Stream										
MMR-SW-E4-B16	Makua Stream										
MMR-SW-E4-B17	Makua Stream										
MMR-SW-E4-B18	Makua Stream										
MMR-SW-E4-B19	Makua Stream										
MMR-SW-E4-B20	Makua Stream										
MMR-SW-E4-B21	Makua Stream										
MMR-SW-E4-B22	Makua Stream										
MMR-SW-E4-B23	Makua Stream										
MMR-SW-E4-B24	Makua Stream	0.011									
MMR-SW-E4-B25	Makua Stream										
MMR-SW-E4-B27	Makua Stream										
MMR-SW-E4-B28	Makua Stream										
MMRPSR2-1	Punapohaku Stream										
MMR-PS-R3-1	Punapohaku Stream	0.011	0.038								
MMR-PS-R3-2	Punapohaku Stream	0.012	0.067								
MMRPSSW-R1	Punapohaku Stream	0.009J	0.009J				5.298X			26B	
MMRPSSW-R2	Punapohaku Stream	0.005J	0.008J								

Appendix E - Surface Water Sample Laboratory Data - EMAX Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound									
		VANADIUM	ZINC	Total HpCDD	Total HpCDF	Total HxCDF	1,2,3,4,6,7,8 -HpCDD	1,2,3,4,6,7, 8-HpCDF	1,2,3,6,7,8- HxCDF	OCDD	OCDF
Unit		MG/L	MG/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
PRG		0.26	10.95								
MCL											
Sample Label	**Location**										
MMRPSSW-R3	Punapohaku Stream	0.008J	0.005J								
MMRPSSW-R4	Punapohaku Stream	0.007J	0.008J								
MMRPSSW-R5	Punapohaku Stream	0.005J	0.008J								
MMRPSSW-R6	Punapohaku Stream	0.006J	0.008J								

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limit

* R1,2,3,4,5,6 at the end of sample name denotes sample round 1,2,3,4,5 or 6. DUP = Duplicate sample to sample sent to EMAX laboratory

Appendix E - Surface Water Sample Laboratory Data - Sequoia Laboratory - Reported Values Above Detection Limits
(Values Below PRGs or MCLs)

			Compound									
			Aluminum	Arsenic	Barium	Beryllium	Boron	Calcium	Chromium	Copper	Iron	Lead
Unit			UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
PRG			36.50		2.56	0.07	7.30			1.46	10.95	-999.00
MCL				0.01	2.00	0.00			0.10	1.30		0.02
Sample Label	**Location**	**Sample Date**										
MMRKGSR2-3	Koiahi Gulch Stream	1/23/2004	3300	3.8J	14		48J	26000	11	7.2J	4400	1.2J
MMRKASSW-R6-S	Kaluakauila Stream	2/15/2003	770	2.4J	7.3J	0.18J	66J	11000		2.7J	1000	
MMR-KGS-R3-3	Koiahi Gulch Stream	2/28/2004	5600		14	0.18J	52J	23000	17	14	6200	
MMRPSSW-R6-S	Punapohaku Stream	2/15/2003	27J	2.7J	8.1J	0.21J	100	27000		3.1J	13J	

		Compound										
			Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Sodium	Strontium	Thallium	Tin
Unit			UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
PRG				0.88		0.73		0.18		21.90	0.00	
MCL								0.05			0.00	
Sample Label	**Location**	**Sample Date**										
MMRKGSR2-3	Koiahi Gulch Stream	1/23/2004	13000	36	0.081J	5.9J	3500		27000	120		37J
MMRKASSW-R6-S	Kaluakauila Stream	2/15/2003	11000	3.5J		2.9J	3300		38000	84	0.12J	
MMR-KGS-R3-3	Koiahi Gulch Stream	2/28/2004	12000	55		9.2J	4600		25000	120	0.89J	
MMRPSSW-R6-S	Punapohaku Stream	2/15/2003	17000	0.86J		3.1J	11000	2J	40000	170	0.38J	

Appendix E - Surface Water Sample Laboratory Data - Sequoia Laboratory - Reported Values Above Detection Limits (Continued)
(Values Below PRGs or MCLs)

		Compound										
			Titanium	Total Suspended Solids	Vanadium	Zinc						
Unit			UG/L	MG/L	UG/L	UG/L						
PRG				0.00	0.26	10.95						
MMRKGSR2-3	Koiahi Gulch Stream	1/23/2004	240	10	13	7.5J						
MMRKASSW-R6-S	Kaluakauila Stream	2/15/2003	30		2.3J							
MMR-KGS-R3-3	Koiahi Gulch Stream	2/28/2004	270		18	14J						
MMRPSSW-R6-S	Punapohaku Stream	2/15/2003	1.3J		4.5J							

Table Flags E = Rerun of Sample by laboratory, X = Semiquantified Result, J = Semiquantified Result

Notes: Table includes listing of values above laboratory reporting limits only. See the complete database for laboratory detection limits and reporting limit

* R1,2,3,4,5,6 at the end of sample name denotes sample round 1,2,3,4,5 or 6. DUP = Duplicate sample to sample sent to EMAX laboratory

Table 1

Date, Time	Bottle Number	Summary of Analytes		
	MMR-SW-E2-	TSS	Metals and Explosives	Stream
4/06/03 21:58	B01	x	x	Makua
4/06/03 22:12	B02	x		Makua
4/06/03 22:32	B03	x	x	Makua
4/06/03 22:56	B04	x	x	Makua
4/07/03 14:59	B05	x	x	Makua
4/07/03 15:17	B06	x		Makua
4/07/03 15:33	B07	x		Makua
4/07/03 15:56	B08	x		Makua
4/07/03 16:27	B09	x		Makua
4/07/03 16:57	B10	x	x	Makua
4/07/03 17:27	B11	x		Makua
4/07/03 17:57	B12	x		Makua
4/07/03 18:27	B13	x		Makua
4/07/03 18:57	B14	x	x	Makua
4/07/03 19:27	B15	x		Makua
4/07/03 19:57	B16	x		Makua
4/07/03 20:27	B17	x		Makua
4/07/03 20:57	B18	x	x	Makua
4/07/03 21:27	B19	x		Makua
4/07/03 21:57	B20	x		Makua
4/07/03 22:27	B21	x		Makua
4/07/03 22:57	B22	x		Makua
4/07/03 23:27	B23	x		Makua
4/07/03 23:57	B24	x	x	Makua

Key

TSS = Total Suspended Solids
Metals and Explosives = Metals by methods 6010B (dissolved and total) and Explosives by Methods 8330

Table 2

Date, Time	Bottle Number	Summary of Analytes				
	MMR-SW-E3-	TSS	Metals	Explosives	Perchlorates	Stream
1/1/04 17:15	B01	x	x		x	Makua
1/1/04 17:45	B02	x		x		Makua
1/1/04 18:00	B03	x	x			Makua
1/1/04 18:15	B04	x		x		Makua
1/1/04 18:38	B05	x	x		x	Makua
1/1/04 18:59	B06	x		x		Makua
1/1/04 19:19	B07	x	x			Makua
1/1/04 19:40	B08	x		x		Makua
1/1/04 20:11	B09	x	x		x	Makua
1/1/04 20:41	B10	x		x		Makua
1/1/04 21:11	B11	x	x			Makua
1/1/04 21:41	B12	x		x		Makua
1/1/04 22:11	B13	x	x		x	Makua
1/1/04 22:41	B14	x		x		Makua
1/1/04 23:11	B15	x	x			Makua
1/1/04 23:41	B16	x		x		Makua
1/2/04 00:11	B17	x	x			Makua
1/2/04 00:41	B18	x		x		Makua
1/2/04 1:11	B19	x	x		x	Makua
1/2/04 1:41	B20	x		x		Makua
1/2/04 2:11	B21	x	x			Makua
1/2/04 2:41	B22	x		x		Makua
1/2/04 3:11	B23	x	x			Makua
1/2/04 3:41	B24	x		x		Makua

Key

TSS = Total Suspended Solids
Perchlorate by Method 314.0
Metals and Explosives = Metals by methods 6010B (dissolved and total) and Explosives by Methods 8330