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Brown & Root Environmental

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Aiken, SC 29803

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AIK-98-0100

March 5, 1998

Project Number HK 7330

Mr. Lance Laughmiller
Atlantic Division
Naval Facilities Engineering Command
Code 1823
6500Hampton Boulevard
Norfolk, Virginia 23508

Reference: CLEAN Contract No. N62472-90-D-1298

Subject: Slocum Creek Human Health Fish Collection
MCAS Cherry Point

Dear ~~Mr. Laughm~~Lance miller:

Please find attached the information you requested regarding the fish species found in Slocum Creek as they relate to potential fish collection for human health concerns. A table has been provided containing the necessary information. A paragraph is included that briefly explains the information in the table. The information was gathered by one of our fisheries biologists, along with my help.

Please feel free to call me at (803) 649-7963 if you have any questions.

Sincerely,

Kent T. Cubbage

Kent T. Cubbage
Lead Ecological Risk Assessor

KTC:spd

Enclosure

cc: Mr. Matthew Cochran, B&RE (w/enclosure)
Files:

The attached table presents the species of fish that may inhabit Slocum Creek. There is no standard reference that lists fish home ranges or territories. Thus, the table has four categories per species: edibility, seasonal distribution in the Neuse River estuary (of which Slocum Creek is a part), abundance in Slocum Creek, and whether a species is eaten, present year-round, and travels relatively short distances during its life history (i.e., meets each of those three criteria). The last category can be used to identify those species of fish that could conceivably reflect contaminant inputs into the limited area of Slocum Creek near MCAS Cherry Point. However, it should be noted that virtually all of those species will travel long distances if forced to due to lack of food (e.g., no baitfish), poor water quality (e.g., low dissolved oxygen), or weather (e.g., warmer water in winter). Therefore, even these species may be exposed to contaminants from non-Navy sources. For simplicity, only common names of fish species are provided.

Species	Edibility	Year-round or seasonally found in Neuse River estuary	Abundance*	Eaten, inhabit Neuse River estuary year-round, don't travel long distances
Atlantic menhaden	Never eaten	NA	A	
Spot	Regularly eaten	Warmer Months	A	
Pumpkinseed	Regularly eaten	YR	A	√
Striped mullet	Regularly eaten	Juveniles = YR, adults warmer months	A	
Gizzard Shad	Infrequently eaten	NA	A	
Longnose Gar	Never eaten	NA	C	
Redear Sunfish	Regularly eaten	YR	C	√
Bluegill	Regularly eaten	YR	C	√
Black crappie	Regularly eaten	YR	C	√
Largemouth bass	Regularly eaten	YR	C	√
Golden Shiner	Never eaten	NA	C	
Atlantic croaker	Regularly eaten	YR	U	
White catfish	Regularly eaten	YR	U	√
Brown bullhead	Infrequently eaten	YR	U	√
Flier	Infrequently eaten	YR	U	√
Chain pickerel	Infrequently eaten	YR	U	√
Red drum	Regularly eaten	Most months, not mid-winter	U	
Pinfish	Infrequently eaten	Warmer months	U	
Creek chubsucker	Never eaten	NA	U	
Southern Flounder	Regularly eaten	Warmer months, not mid-winter	U	
American eel	Infrequently eaten	Seasonal	U	
Yellow perch	Regularly eaten	YR	U	√
Carp	Infrequently eaten	YR	U	√
White perch	Regularly eaten	Seasonal	U	
Bowfin	Never eaten	NA	U	
Alewife	Never eaten	NA	U	
Inland silverside	Never eaten	NA	U	
Warmouth	Regularly eaten	YR	U	√
Eastern mosquitofish	Never eaten	NA	U	
Redbreast sunfish	Regularly eaten	YR	U	√
Hogchoker	Never eaten	NA	U	
Threadfin shad	Never eaten	NA	U	
Redfin pickerel	Infrequently eaten	YR	U	√
Striped bass	Regularly eaten	Seasonal	R	
Bluefish	Regularly eaten	Seasonal	R	
Spotted sea trout	Regularly eaten	Most months, not mid-winter	R	
Bluespotted sunfish	Infrequently eaten	YR	R	√
Hickory shad	Regularly eaten (roe only)	Seasonal	R	
Silver perch	Infrequently eaten	Seasonal	R	
American shad	Regularly eaten	Seasonal	R	

Atlantic needlefish	Never eaten	NA	R	
Ladyfish	Infrequently eaten	Seasonal	R	
Inshore lizard fish	Never eaten	NA	R	
Summer flounder	Regularly eaten	YR	R	

* from Fleming and Hightower (1995) fish collections conducted during March-August 1992
NA = Not applicable since it is not eaten
YR = Year-round
A = Abundant in 1992 fish collections
C = Common in 1992 fish collections
U = Uncommon in 1992 fish collections
R = Rare in 1992 fish collections

Table 2. Common and scientific names (Robins et al. 1991) of the species collected by fyke netting, gill netting, and electrofishing within Goose, Hancock, and Slocum Creeks during March-August, 1992.

	Species	Scientific name
✓	Atlantic menhaden	*Brevoortia tyrannus*
	Spot	*Leiostomus xanthurus*
	Pumpkinseed	*Lepomis gibossus*
✓	Striped mullet	*Mugil cephalus*
✓	Gizzard shad	*Dorosoma cepedianum*
✓	Longnose gar	*Lepisosteus osseus*
	Redear sunfish	*Lepomis microlophus*
	Bluegill	*Lepomis macrochirus*
	Black crappie	*Pomoxis nigromaculatus*
O	Largemouth bass	*Micropterus salmoides*
✓	Golden shiner	*Notemigonus crysoleucas*
	Atlantic croaker	*Micropogon undulatus*
O	White catfish	*Amelurus catus*
	Brown bullhead	*Amleurus nebulosus*
✓	Flier	*Centrarchus macropterus*
	Chain pickerel	*Esox niger*
*	Red drum	*Sclaenops ocellata*
✓	Pinfish	*Lagodon rhomboides*
✓	Creek chubsucker	*Erimyzon oblongus*
*	Southern flounder	*Paralichthys lethostigma*
✓	American eel	*Anguilla rostrata*
	Yellow perch	*Perca flavescens*
O ✓	Carp	*Cyprinus carpio*
	White perch	*Morone americana*
O ✓	Bowfin	*Amia calva*
✓	Alewife	*Alosa pseudoharengus*
✓	Inland silverside	*Menidia beryllina*
	Warmouth	*Lepomis gulosus*
✓	Eastern mosquitofish	*Gambusia spp.*

✓ Fish Typically NOT EATEN

* Fish Typically EATEN

All others potentially EATEN

O RECOMMENDED EXAMPLES TO SAMPLE IN STATE LETTER

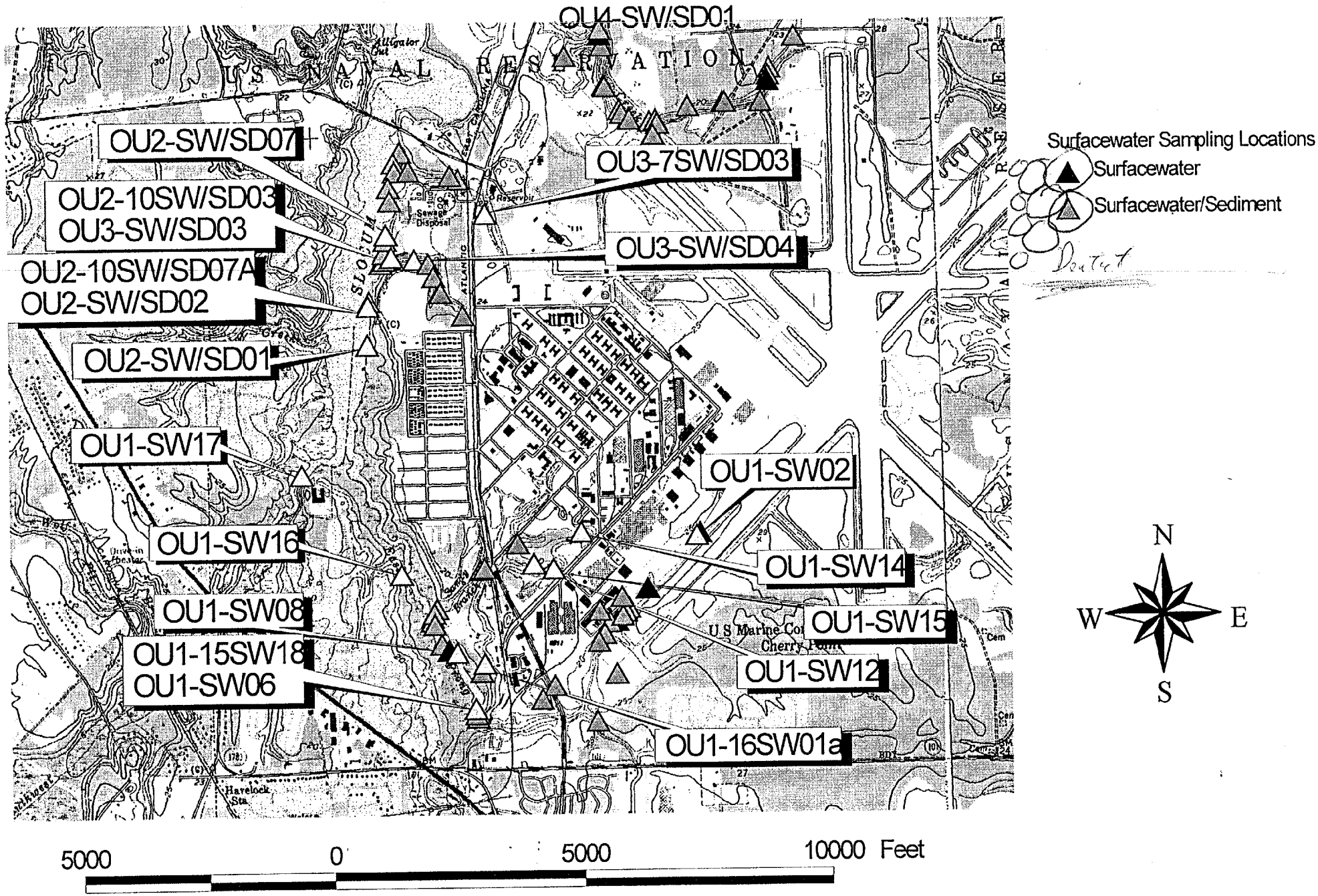
Info obtained from Hightower & Fleming Study 1995

Table 2 continued.

Species	Scientific name
Redbreast sunfish	*Lepomis auritus*
✓ Hogchoker	*Trinectes maculatus*
✓ Threadfin shad	*Dorosoma petenense*
✓ Redfin pickerel	*Esox americanus*
Striped bass	*Morone saxatilis*
Bluefish	*Pomatomus saltatrix*
* Spotted sea trout	*Cynoscion nebulosus*
✓ Bluespotted sunfish	*Enneacanthus gloriosus*
✓ Hickory shad	*Alosa mediocris*
Silver perch	*Bairdiella chrysura*
American shad	*Alosa sapidissima*
✓ Atlantic needlefish	*Strongylura marina*
✓ Ladyfish	*Elops saurus*

MCAS Cherry Point Facility

Surface water exceedances of NC awqc HH numbers for Pesticides and PCBs

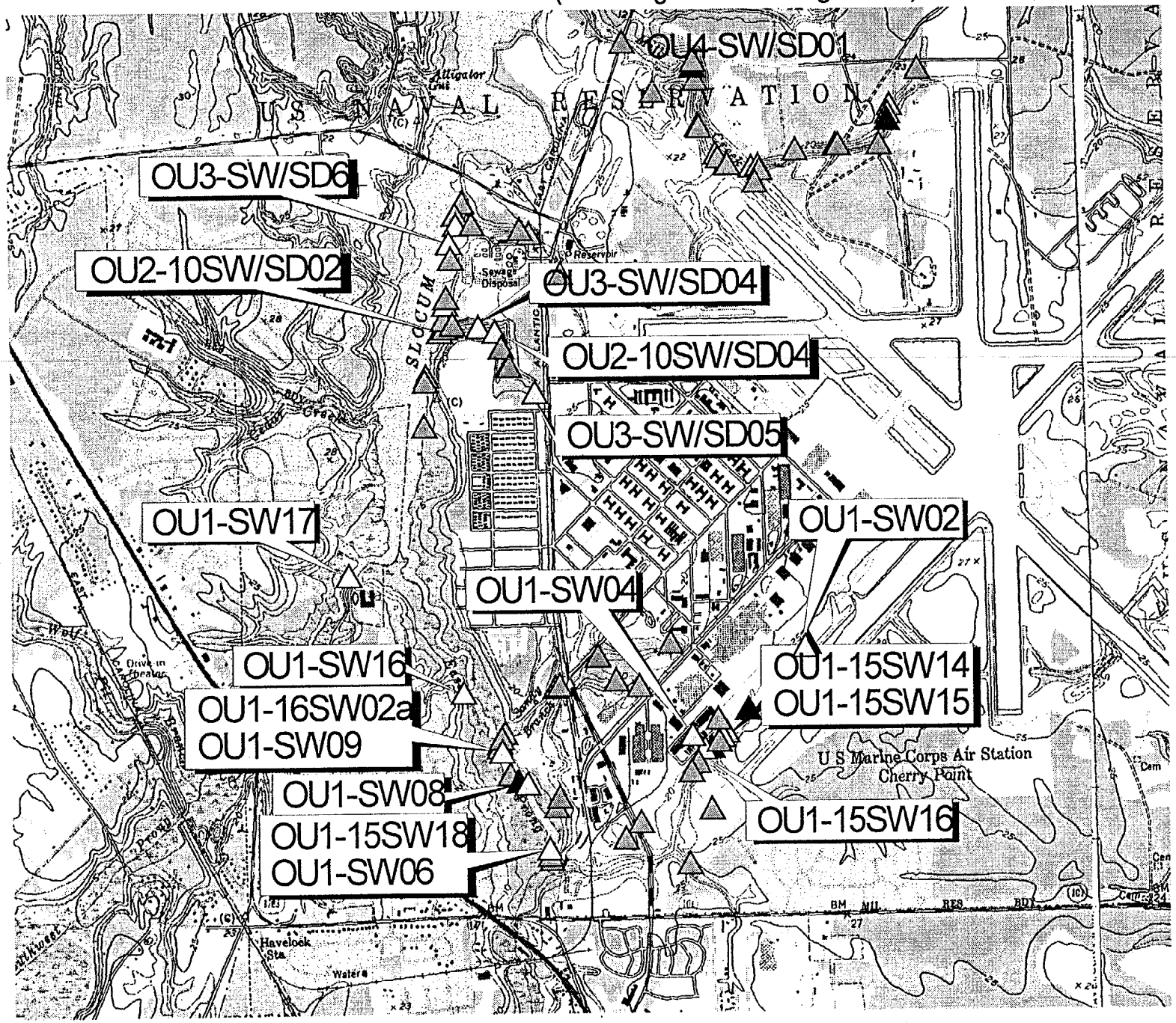


Surface Water Exceedances of NC Aqudac HH numbers for Pesticides and PCBs

LOCATION	SAMPLE_COD	PARAMETER	NUMERIC_RE	QUAL	UNITS	NC_AWQC_FR	NC_AWQC_BR	AWQC_HHWO	AWQC_HHO	CRITERIA_U
OU13-SW/SD04	NORMAL	4,4'-DDD	0.150000		UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU13-SW/SD03	AVG	ENDRIN ALDEHYDE	0.525000		UG/L	0.810000	0.810000	0.760000	0.810000	UG/L
OU13-SW/SD03	DUP	ENDRIN ALDEHYDE	1.000000		UG/L	0.810000	0.810000	0.760000	0.810000	UG/L
OU1-SW02	NORMAL	ALPHA-BHC	0.001800	J	UG/L	0.010000	0.004000	0.003900	0.013000	UG/L
OU1-SW06	NORMAL	4,4'-DDE	0.011000	J	UG/L	0.000590	0.000590	0.000590	0.000590	UG/L
OU1-SW06	NORMAL	ALPHA-CHLORDANE	0.029000	J	UG/L	0.000588	0.000588	0.000570	0.000590	UG/L
OU1-SW06	NORMAL	DIELDRIN	0.050000	J	UG/L	0.000144	0.000144	0.000140	0.000140	UG/L
OU1-SW07	NORMAL	4,4'-DDD	0.012000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU1-SW12	NORMAL	DIELDRIN	0.003900	J	UG/L	0.000144	0.000144	0.000140	0.000140	UG/L
OU1-SW12	NORMAL	ENDOSULFAN II	0.006600	J	UG/L	0.050000	0.009000	0.930000	2.000000	UG/L
OU1-SW14	NORMAL	ALDRIN	0.005600	J	UG/L	0.000136	0.000136	0.000130	0.000140	UG/L
OU1-SW15	NORMAL	ALDRIN	0.004000	J	UG/L	0.000136	0.000136	0.000130	0.000140	UG/L
OU1-SW15	NORMAL	DELTA-BHC	0.003800	J	UG/L	0.010000	0.004000	0.003900	0.013000	UG/L
OU1-SW15	NORMAL	DIELDRIN	0.025000	J	UG/L	0.000144	0.000144	0.000140	0.000140	UG/L
OU1-SW16	NORMAL	4,4'-DDD	0.053000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU1-SW17	NORMAL	4,4'-DDD	0.050000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU1-SW08	DUP	ALPHA-CHLORDANE	0.029000	J	UG/L	0.000588	0.000588	0.000570	0.000590	UG/L
OU1-SW08	AVG	ALPHA-CHLORDANE	0.077000	J	UG/L	0.000588	0.000588	0.000570	0.000590	UG/L
OU4-SW/SD01	NORMAL	4,4'-DDD	0.014000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU2-SW/SD01	NORMAL	4,4'-DDD	0.039000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU2-SW/SD02	NORMAL	4,4'-DDD	0.027000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU2-SW/SD07	NORMAL	4,4'-DDD	0.034000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU3-SW/SD03	NORMAL	4,4'-DDD	0.028000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU3-SW/SD04	NORMAL	GAMMA-BHC (LINDANE)	0.008100	J	UG/L	0.010000	0.004000	0.019000	0.063000	UG/L
OU3-SW/SD04	NORMAL	HEPTACHLOR EPOXIDE	0.001900	J	UG/L	0.000110	0.000110	0.000100	0.000110	UG/L
OU3-SW/SD06	DUP	GAMMA-BHC (LINDANE)	0.001600	J	UG/L	0.010000	0.004000	0.019000	0.063000	UG/L
OU3-SW/SD06	AVG	GAMMA-BHC (LINDANE)	0.001600	J	UG/L	0.010000	0.004000	0.019000	0.063000	UG/L
OU3-7SW/SD03	NORMAL	ENDOSULFAN I	0.050000		UG/L	0.050000	0.009000	0.930000	2.000000	UG/L

MCAS CHERRY POINT FACILITY

Surface Water Metals exceedances of standards by 10 times
(excluding calcuim &magnesium)



Surfacewater Sampling Locations

- Surfacewater
- Surfacewater/Sediment

N
W E
S

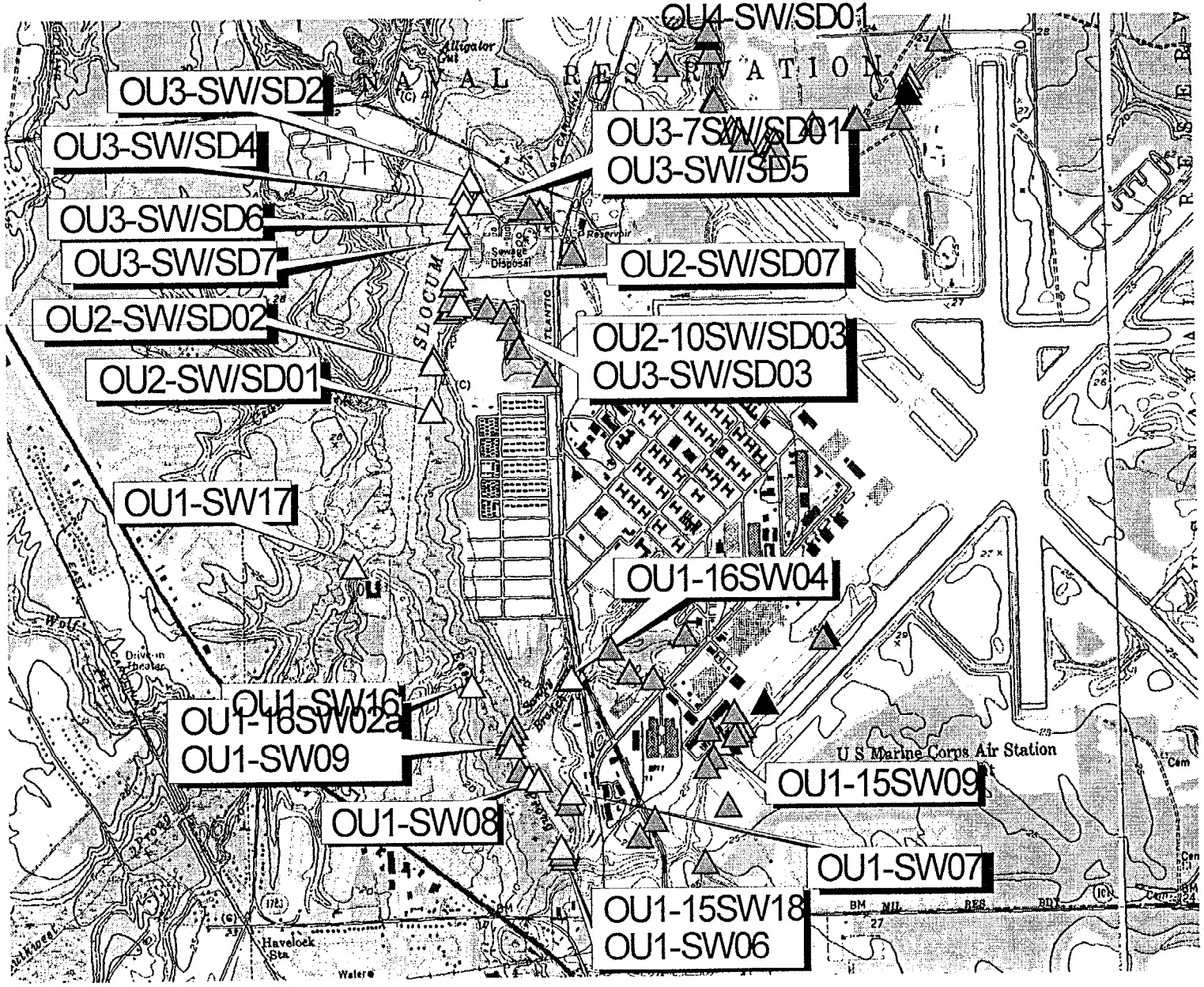
5000 0 5000 10000 Feet

SURFACE WATER METALS EXCEEDANCES OF 10 TIMES THE NC-AWQC-FR STANDERS
(excluding calcium and magnesium)

LOCATION	SAMPLE_	PARAMETER	NUMERIC_RE	QU	UNITS	NC_AWQC_HH	NC_AWQC_FR	NC_AWQC_BR	AWQC_HHWO	AWQC_HHO	CRITE
OU1-15SW09	NORMAL	SILVER	20.000000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-15SW14	NORMAL	BERYLLIUM	6.200000		UG/L	0.117000	0.117000	0.117000	0.007600	0.130000	UG/L
OU1-15SW14	NORMAL	LEAD	259.000000		UG/L	-1.000000	25.000000	25.000000	50.000000	-1.000000	UG/L
OU13-SW/SD01	NORMAL	SILVER	4.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD01	NORMAL	SILVER	3.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD02	NORMAL	SILVER	4.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD02	NORMAL	SILVER	4.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD07	NORMAL	MERCURY	1.300000		UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU13-SW/SD07	NORMAL	MERCURY	0.960000		UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU13-SW/SD08	NORMAL	SILVER	3.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD08	NORMAL	SILVER	5.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW02	NORMAL	ALUMINUM	2190.000000		UG/L	-1.000000	87.000000	87.000000	-1.000000	-1.000000	UG/L
OU1-SW04	NORMAL	ALUMINUM	939.000000		UG/L	-1.000000	87.000000	87.000000	-1.000000	-1.000000	UG/L
OU1-SW06	NORMAL	MANGANESE	1340.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW06	NORMAL	MANGANESE	1870.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW09	NORMAL	MANGANESE	2010.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW09	NORMAL	MANGANESE	2050.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW09	NORMAL	SILVER	3.000000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW16	NORMAL	MANGANESE	2550.000000	J	UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW16	NORMAL	MANGANESE	2710.000000	J	UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW17	NORMAL	MANGANESE	1910.000000	J	UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW17	NORMAL	MANGANESE	2500.000000	J	UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU2-10SW/SD02	NORMAL	MERCURY	0.210000	J	UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU2-10SW/SD04	NORMAL	SILVER	3.400000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU2-10SW/SD06A	NORMAL	CYANIDE	140.000000		UG/L	-1.000000	5.000000	1.000000	700.000000	220000.000000	UG/L
OU3-SW/SD04	NORMAL	IRON	11600.000000		UG/L	-1.000000	1000.000000	-1.000000	300.000000	-1.000000	UG/L
OU3-SW/SD05	NORMAL	ALUMINUM	1010.000000		UG/L	-1.000000	87.000000	87.000000	-1.000000	-1.000000	UG/L
OU3-SW/SD4	NORMAL	MERCURY	0.210000		UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU3-SW/SD6	NORMAL	MERCURY	0.450000	J	UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU13-SW/SD03	DUP	SILVER	3.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW08	DUP	MANGANESE	2590.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	DUP	MANGANESE	2650.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	DUP	MANGANESE	2710.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	DUP	MANGANESE	2920.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	DUP	SILVER	3.000000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW08	DUP	SILVER	3.000000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD03	AVG	SILVER	2.250000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW08	AVG	MANGANESE	2785.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	AVG	MANGANESE	2650.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	AVG	SILVER	2.250000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW08	AVG	SILVER	2.250000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L

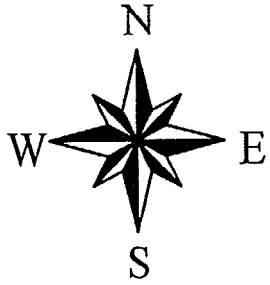
MCAS Cherry Point Facility

Surface water exceedances of MAGNESUIUM at 100 times the NC awqc fr



Surfacewater Sampling Locations

- ▲ Surfacewater
- △ Surfacewater/Sediment



5000 0 5000 10000 Feet

MCAS CHERRY POINT

Surface water exceedances of 100 times the NNC-AWQC-FR standards for Metals

LOCATION	SAMPLE_COD	PARAMETER	NUMERIC_RE	QUAL	UNITS	CRITERIA_U	NC_AWQC_FR	NC_AWQC_BR	AWQC_HHWO	AWQC_HHO	NC_AWQC_HH
OU1-15SW09	NORMAL	SILVER	20.000000		UG/L	UG/L	0.060000	0.100000	91.000000	-1.000000	-1.000000
OU13-SW/SD07	NORMAL	MERCURY	1.300000		UG/L	UG/L	0.012000	0.025000	0.140000	0.150000	-1.000000
OU13-SW/SD01	NORMAL	MAGNESIUM	169000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD01	NORMAL	MAGNESIUM	153000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD02	NORMAL	MAGNESIUM	45400.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD02	NORMAL	MAGNESIUM	91900.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	NORMAL	MAGNESIUM	228000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	DUP	MAGNESIUM	229000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	DUP	MAGNESIUM	227000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	DUP	MAGNESIUM	226000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	AVG	MAGNESIUM	228000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	AVG	MAGNESIUM	227000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD04	NORMAL	MAGNESIUM	172000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD04	NORMAL	MAGNESIUM	176000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD05	NORMAL	MAGNESIUM	137000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD05	NORMAL	MAGNESIUM	138000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD08	NORMAL	MAGNESIUM	29200.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD08	NORMAL	MAGNESIUM	30600.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD10	NORMAL	MAGNESIUM	58100.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD10	NORMAL	MAGNESIUM	64300.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD11	NORMAL	MAGNESIUM	128000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD11	NORMAL	MAGNESIUM	126000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW06	NORMAL	MAGNESIUM	166000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW06	NORMAL	MAGNESIUM	220000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW07	NORMAL	MAGNESIUM	127000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW07	NORMAL	MAGNESIUM	136000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	DUP	MAGNESIUM	381000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	DUP	MAGNESIUM	420000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	DUP	MAGNESIUM	393000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	DUP	MAGNESIUM	467000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	AVG	MAGNESIUM	443500.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	AVG	MAGNESIUM	387000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW09	NORMAL	MAGNESIUM	442000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW09	NORMAL	MAGNESIUM	476000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW10	NORMAL	MAGNESIUM	25500.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW10	NORMAL	MAGNESIUM	28700.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW16	NORMAL	MAGNESIUM	459000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW16	NORMAL	MAGNESIUM	452000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW17	NORMAL	MAGNESIUM	467000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000

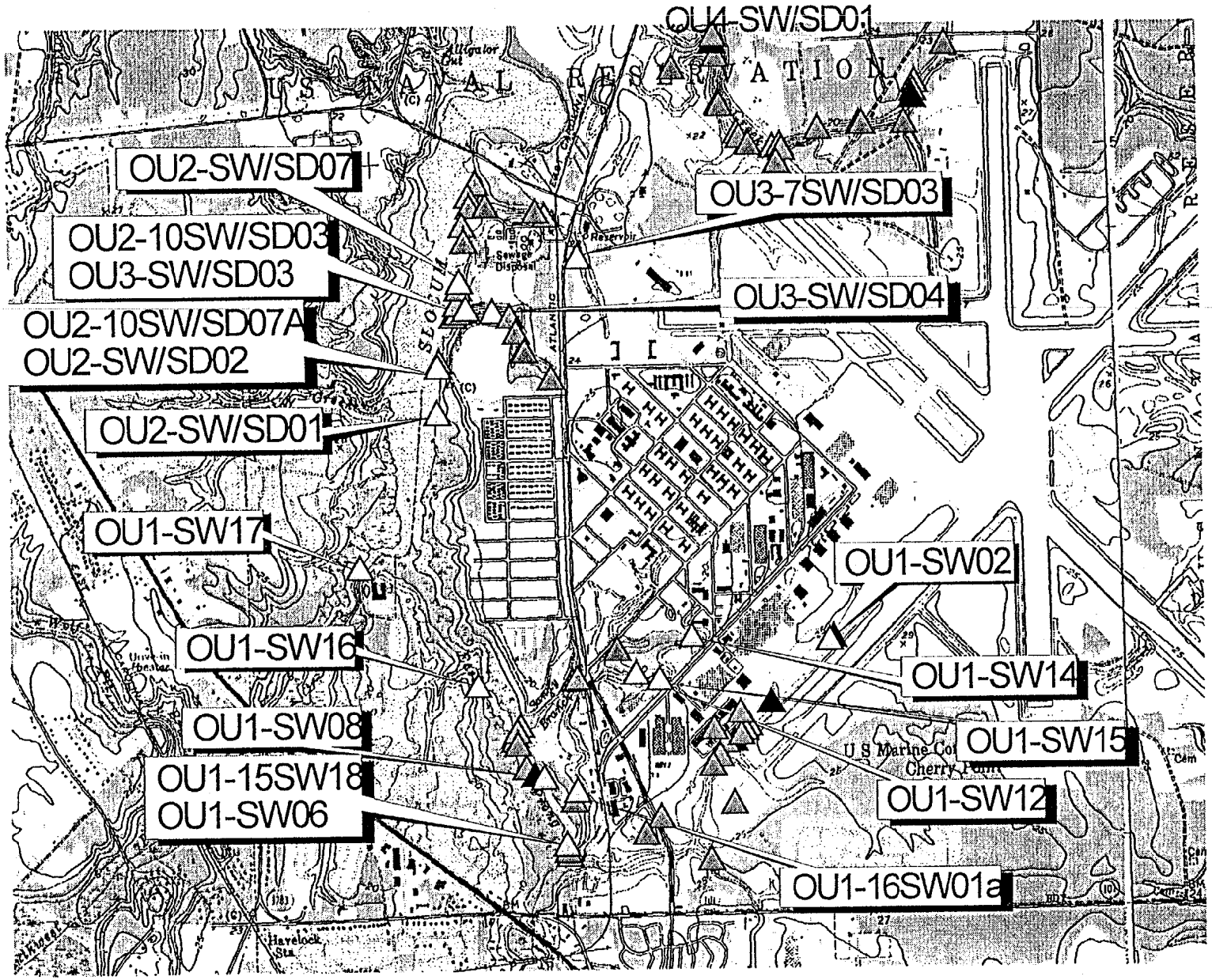
MCAS CHERRY POINT

Surface water exceedances of 100 times the NNC-AWQC-FR standards for Metals

OU1-SW17	NORMAL	MAGNESIUM	472000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW-STP	NORMAL	MAGNESIUM	70600.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW-STP	NORMAL	MAGNESIUM	75000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD01	NORMAL	MAGNESIUM	379000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD01	NORMAL	MAGNESIUM	395000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD02	NORMAL	MAGNESIUM	407000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD02	NORMAL	MAGNESIUM	396000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD07	NORMAL	MAGNESIUM	402000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD07	NORMAL	MAGNESIUM	414000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD03	NORMAL	MAGNESIUM	393000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD03	NORMAL	MAGNESIUM	387000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD2	NORMAL	MAGNESIUM	357000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD2	NORMAL	MAGNESIUM	369000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD3	NORMAL	MAGNESIUM	350000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD3	NORMAL	MAGNESIUM	372000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD4	NORMAL	MAGNESIUM	355000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD4	NORMAL	MAGNESIUM	369000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD5	NORMAL	MAGNESIUM	308000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD5	NORMAL	MAGNESIUM	107000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD6	NORMAL	MAGNESIUM	360000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD6	NORMAL	MAGNESIUM	372000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD7	NORMAL	MAGNESIUM	355000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD7	NORMAL	MAGNESIUM	386000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU4-SW/SD01	NORMAL	MAGNESIUM	465000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU4-SW/SD01	NORMAL	MAGNESIUM	456000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000

MCAS Cherry Point Facility

Surface water exceedances of NC awqc HH numbers for Pesticides and PCBs

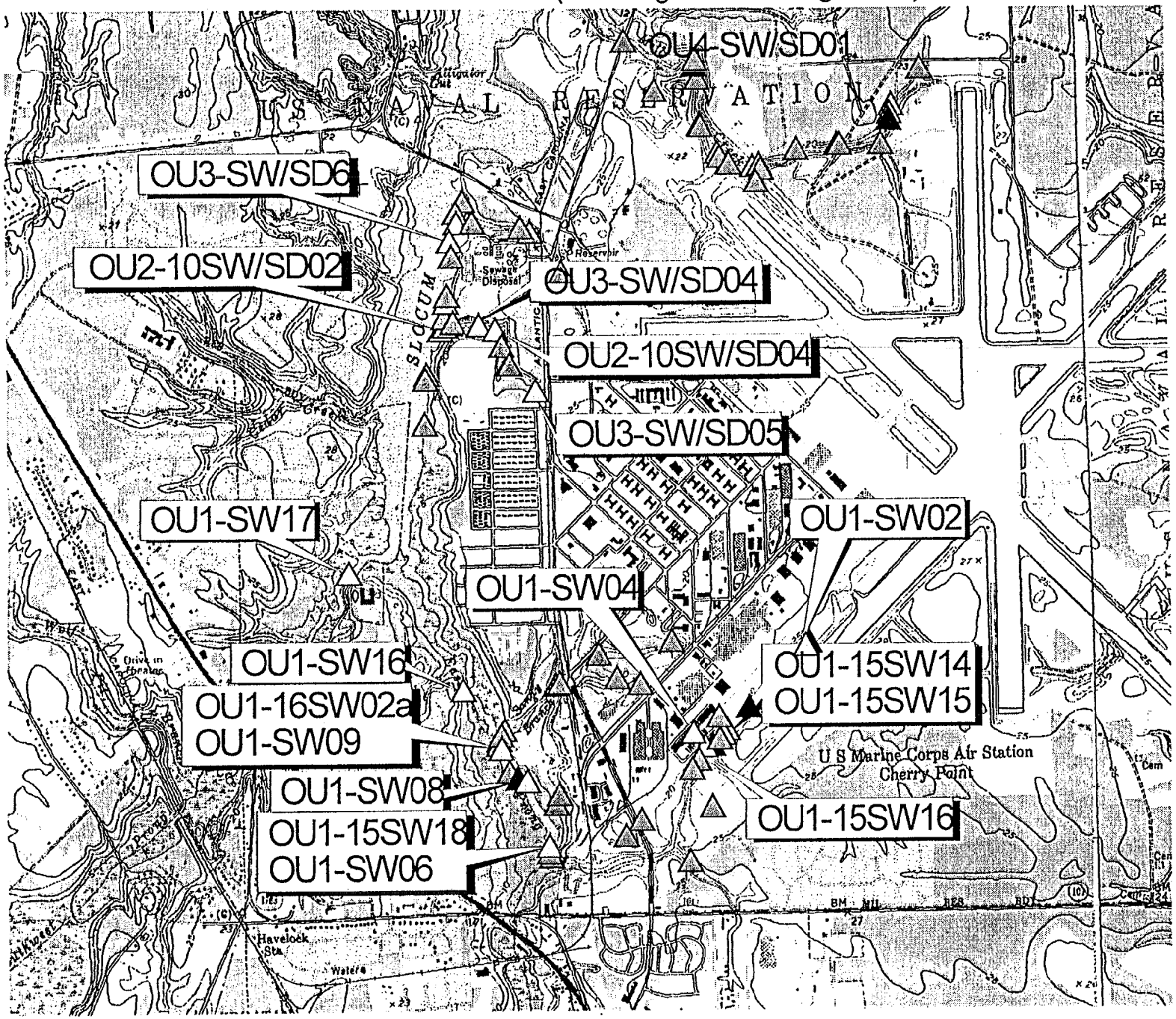


Surface Water Exceedances of NC Aqudac HH numbers for Pesticides and PCBs

LOCATION	SAMPLE_COD	PARAMETER	NUMERIC_RE	QUAL	UNITS	NC_AWQC_FR	NC_AWQC_BR	AWQC_HHWO	AWQC_HHO	CRITERIA_U
OU13-SW/SD04	NORMAL	4,4'-DDD	0.150000		UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU13-SW/SD03	AVG	ENDRIN ALDEHYDE	0.525000		UG/L	0.810000	0.810000	0.760000	0.810000	UG/L
OU13-SW/SD03	DUP	ENDRIN ALDEHYDE	1.000000		UG/L	0.810000	0.810000	0.760000	0.810000	UG/L
OU1-SW02	NORMAL	ALPHA-BHC	0.001800	J	UG/L	0.010000	0.004000	0.003900	0.013000	UG/L
OU1-SW06	NORMAL	4,4'-DDE	0.011000	J	UG/L	0.000590	0.000590	0.000590	0.000590	UG/L
OU1-SW06	NORMAL	ALPHA-CHLORDANE	0.029000	J	UG/L	0.000588	0.000588	0.000570	0.000590	UG/L
OU1-SW06	NORMAL	DIELDRIN	0.050000	J	UG/L	0.000144	0.000144	0.000140	0.000140	UG/L
OU1-SW07	NORMAL	4,4'-DDD	0.012000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU1-SW12	NORMAL	DIELDRIN	0.003900	J	UG/L	0.000144	0.000144	0.000140	0.000140	UG/L
OU1-SW12	NORMAL	ENDOSULFAN II	0.006600	J	UG/L	0.050000	0.009000	0.930000	2.000000	UG/L
OU1-SW14	NORMAL	ALDRIN	0.005600	J	UG/L	0.000136	0.000136	0.000130	0.000140	UG/L
OU1-SW15	NORMAL	ALDRIN	0.004000	J	UG/L	0.000136	0.000136	0.000130	0.000140	UG/L
OU1-SW15	NORMAL	DELTA-BHC	0.003800	J	UG/L	0.010000	0.004000	0.003900	0.013000	UG/L
OU1-SW15	NORMAL	DIELDRIN	0.025000	J	UG/L	0.000144	0.000144	0.000140	0.000140	UG/L
OU1-SW16	NORMAL	4,4'-DDD	0.053000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU1-SW17	NORMAL	4,4'-DDD	0.050000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU1-SW08	DUP	ALPHA-CHLORDANE	0.029000	J	UG/L	0.000588	0.000588	0.000570	0.000590	UG/L
OU1-SW08	AVG	ALPHA-CHLORDANE	0.077000	J	UG/L	0.000588	0.000588	0.000570	0.000590	UG/L
OU4-SW/SD01	NORMAL	4,4'-DDD	0.014000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU2-SW/SD01	NORMAL	4,4'-DDD	0.039000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU2-SW/SD02	NORMAL	4,4'-DDD	0.027000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU2-SW/SD07	NORMAL	4,4'-DDD	0.034000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU3-SW/SD03	NORMAL	4,4'-DDD	0.028000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU3-SW/SD04	NORMAL	GAMMA-BHC (LINDANE)	0.008100	J	UG/L	0.010000	0.004000	0.019000	0.063000	UG/L
OU3-SW/SD04	NORMAL	HEPTACHLOR EPOXIDE	0.001900	J	UG/L	0.000110	0.000110	0.000100	0.000110	UG/L
OU3-SW/SD06	DUP	GAMMA-BHC (LINDANE)	0.001600	J	UG/L	0.010000	0.004000	0.019000	0.063000	UG/L
OU3-SW/SD06	AVG	GAMMA-BHC (LINDANE)	0.001600	J	UG/L	0.010000	0.004000	0.019000	0.063000	UG/L
OU3-7SW/SD03	NORMAL	ENDOSULFAN I	0.050000		UG/L	0.050000	0.009000	0.930000	2.000000	UG/L

MCAS CHERRY POINT FACILITY

Surface Water Metals exceedances of standards by 10 times
(excluding calcuim &magnesium)

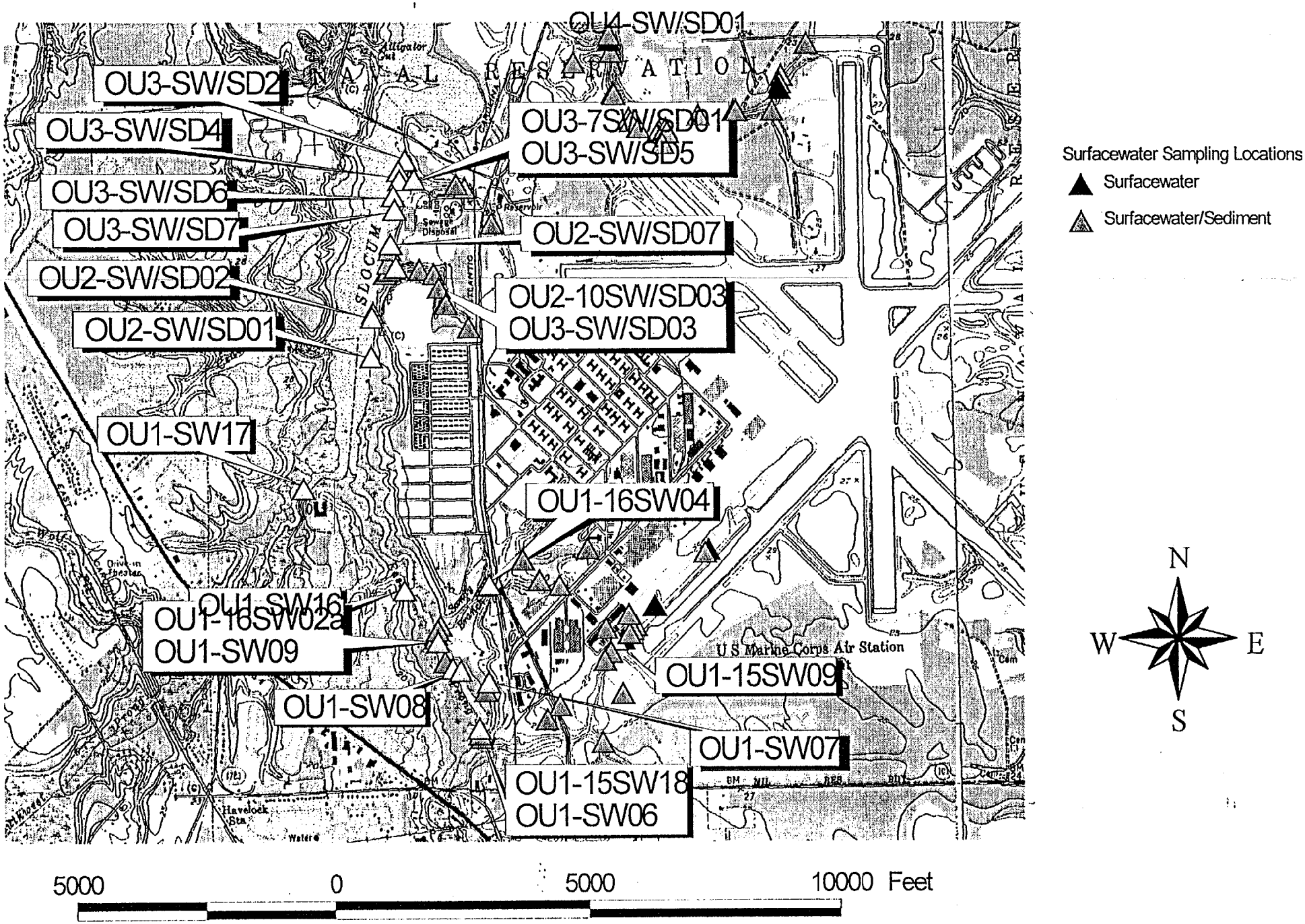


SURFACE WATER METALS EXCEEDANCES OF 10 TIMES THE NC-AWQC-FR STANDERS
(excluding calcium and magnesium)

LOCATION	SAMPLE_	PARAMETER	NUMERIC_RE	QU	UNITS	NC_AWQC_HH	NC_AWQC_FR	NC_AWQC_BR	AWQC_HHWO	AWQC_HHO	CRITE
OU1-15SW09	NORMAL	SILVER	20.000000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-15SW14	NORMAL	BERYLLIUM	6.200000		UG/L	0.117000	0.117000	0.117000	0.007600	0.130000	UG/L
OU1-15SW14	NORMAL	LEAD	259.000000		UG/L	-1.000000	25.000000	25.000000	50.000000	-1.000000	UG/L
OU13-SW/SD01	NORMAL	SILVER	4.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD01	NORMAL	SILVER	3.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD02	NORMAL	SILVER	4.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD02	NORMAL	SILVER	4.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD07	NORMAL	MERCURY	1.300000		UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU13-SW/SD07	NORMAL	MERCURY	0.960000		UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU13-SW/SD08	NORMAL	SILVER	3.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD08	NORMAL	SILVER	5.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW02	NORMAL	ALUMINUM	2190.000000		UG/L	-1.000000	87.000000	87.000000	-1.000000	-1.000000	UG/L
OU1-SW04	NORMAL	ALUMINUM	939.000000		UG/L	-1.000000	87.000000	87.000000	-1.000000	-1.000000	UG/L
OU1-SW06	NORMAL	MANGANESE	1340.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW06	NORMAL	MANGANESE	1870.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW09	NORMAL	MANGANESE	2010.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW09	NORMAL	MANGANESE	2050.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW09	NORMAL	SILVER	3.000000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW16	NORMAL	MANGANESE	2550.000000	J	UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW16	NORMAL	MANGANESE	2710.000000	J	UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW17	NORMAL	MANGANESE	1910.000000	J	UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW17	NORMAL	MANGANESE	2500.000000	J	UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU2-10SW/SD02	NORMAL	MERCURY	0.210000	J	UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU2-10SW/SD04	NORMAL	SILVER	3.400000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU2-10SW/SD06A	NORMAL	CYANIDE	140.000000		UG/L	-1.000000	5.000000	1.000000	700.000000	220000.000000	UG/L
OU3-SW/SD04	NORMAL	IRON	11600.000000		UG/L	-1.000000	1000.000000	-1.000000	300.000000	-1.000000	UG/L
OU3-SW/SD05	NORMAL	ALUMINUM	1010.000000		UG/L	-1.000000	87.000000	87.000000	-1.000000	-1.000000	UG/L
OU3-SW/SD4	NORMAL	MERCURY	0.210000		UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU3-SW/SD6	NORMAL	MERCURY	0.450000	J	UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU13-SW/SD03	DUP	SILVER	3.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW08	DUP	MANGANESE	2590.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	DUP	MANGANESE	2650.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	DUP	MANGANESE	2710.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	DUP	MANGANESE	2920.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	DUP	SILVER	3.000000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW08	DUP	SILVER	3.000000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD03	AVG	SILVER	2.250000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW08	AVG	MANGANESE	2785.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	AVG	MANGANESE	2650.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	AVG	SILVER	2.250000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW08	AVG	SILVER	2.250000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L

MCAS Cherry Point Facility

Surface water exceedances of MAGNESUIUM at 100 times the NC awqc fr



MCAS CHERRY POINT

Surface water exceedances of 100 times the NNC-AWQC-FR standards for Metals

LOCATION	SAMPLE_COD	PARAMETER	NUMERIC_RE	QUAL	UNITS	CRITERIA_U	NC_AWQC_FR	NC_AWQC_BR	AWQC_HHWO	AWQC_HHO	NC_AWQC_HH
OU1-15SW09	NORMAL	SILVER	20.000000		UG/L	UG/L	0.060000	0.100000	91.000000	-1.000000	-1.000000
OU13-SW/SD07	NORMAL	MERCURY	1.300000		UG/L	UG/L	0.012000	0.025000	0.140000	0.150000	-1.000000
OU13-SW/SD01	NORMAL	MAGNESIUM	169000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD01	NORMAL	MAGNESIUM	153000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD02	NORMAL	MAGNESIUM	45400.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD02	NORMAL	MAGNESIUM	91900.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	NORMAL	MAGNESIUM	228000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	DUP	MAGNESIUM	229000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	DUP	MAGNESIUM	227000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	DUP	MAGNESIUM	226000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	AVG	MAGNESIUM	228000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	AVG	MAGNESIUM	227000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD04	NORMAL	MAGNESIUM	172000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD04	NORMAL	MAGNESIUM	176000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD05	NORMAL	MAGNESIUM	137000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD05	NORMAL	MAGNESIUM	138000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD08	NORMAL	MAGNESIUM	29200.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD08	NORMAL	MAGNESIUM	30600.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD10	NORMAL	MAGNESIUM	58100.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD10	NORMAL	MAGNESIUM	64300.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD11	NORMAL	MAGNESIUM	128000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD11	NORMAL	MAGNESIUM	126000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW06	NORMAL	MAGNESIUM	166000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW06	NORMAL	MAGNESIUM	220000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW07	NORMAL	MAGNESIUM	127000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW07	NORMAL	MAGNESIUM	136000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	DUP	MAGNESIUM	381000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	DUP	MAGNESIUM	420000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	DUP	MAGNESIUM	393000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	DUP	MAGNESIUM	467000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	AVG	MAGNESIUM	443500.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	AVG	MAGNESIUM	387000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW09	NORMAL	MAGNESIUM	442000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW09	NORMAL	MAGNESIUM	476000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW10	NORMAL	MAGNESIUM	25500.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW10	NORMAL	MAGNESIUM	28700.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW16	NORMAL	MAGNESIUM	459000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW16	NORMAL	MAGNESIUM	452000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW17	NORMAL	MAGNESIUM	467000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000

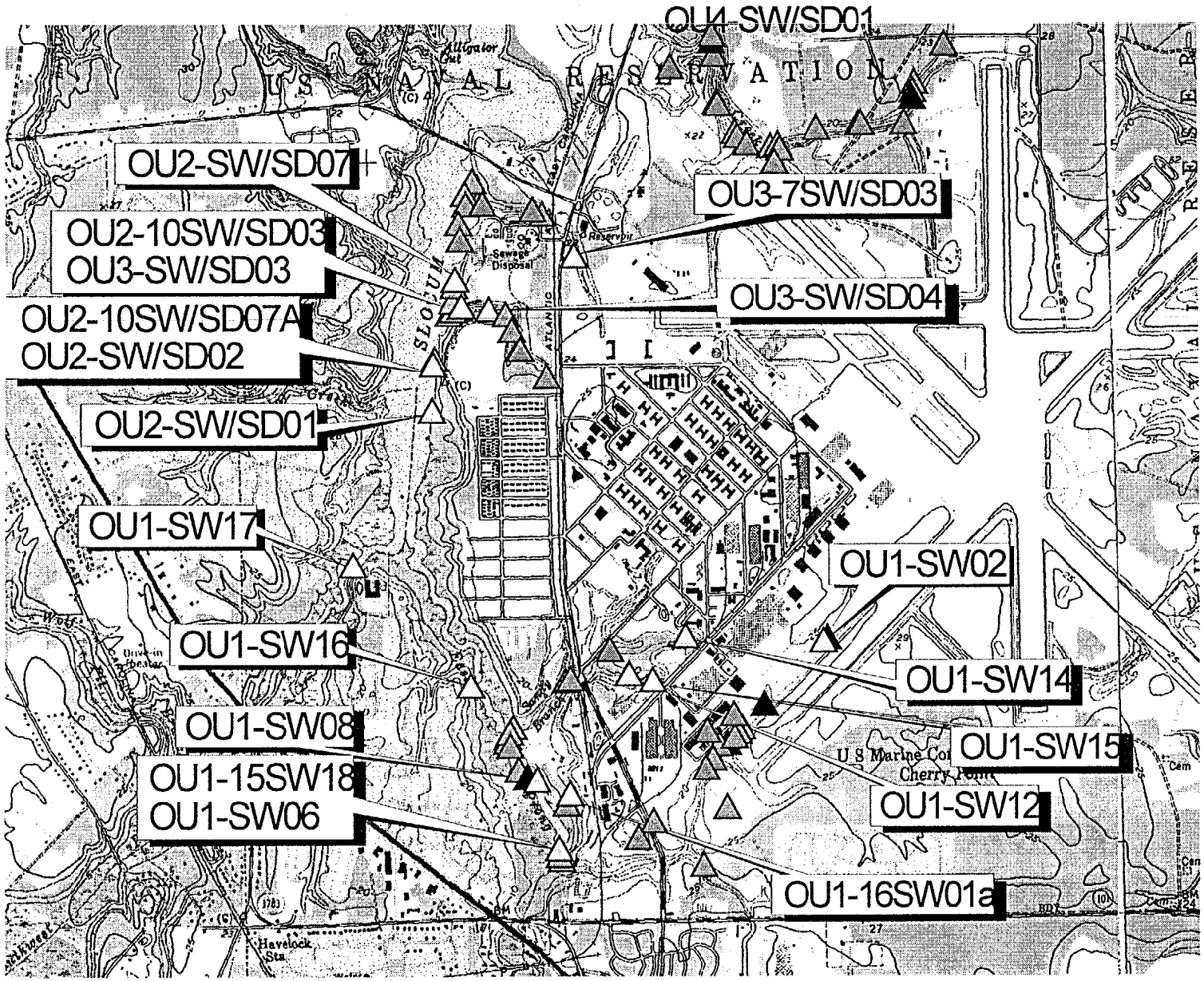
MCAS CHERRY POINT

Surface water exceedances of 100 times the NNC-AWQC-FR standards for Metals

OU1-SW17	NORMAL	MAGNESIUM	472000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW-STP	NORMAL	MAGNESIUM	70600.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW-STP	NORMAL	MAGNESIUM	75000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD01	NORMAL	MAGNESIUM	379000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD01	NORMAL	MAGNESIUM	395000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD02	NORMAL	MAGNESIUM	407000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD02	NORMAL	MAGNESIUM	396000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD07	NORMAL	MAGNESIUM	402000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD07	NORMAL	MAGNESIUM	414000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD03	NORMAL	MAGNESIUM	393000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD03	NORMAL	MAGNESIUM	387000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD2	NORMAL	MAGNESIUM	357000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD2	NORMAL	MAGNESIUM	369000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD3	NORMAL	MAGNESIUM	350000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD3	NORMAL	MAGNESIUM	372000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD4	NORMAL	MAGNESIUM	355000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD4	NORMAL	MAGNESIUM	369000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD5	NORMAL	MAGNESIUM	308000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD5	NORMAL	MAGNESIUM	107000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD6	NORMAL	MAGNESIUM	360000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD6	NORMAL	MAGNESIUM	372000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD7	NORMAL	MAGNESIUM	355000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD7	NORMAL	MAGNESIUM	386000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU4-SW/SD01	NORMAL	MAGNESIUM	465000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU4-SW/SD01	NORMAL	MAGNESIUM	456000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000

MCAS Cherry Point Facility

Surface water exceedances of NC awqc HH numbers for Pesticides and PCBs



Surfacewater Sampling Locations

- ▲ Surfacewater
- △ Surfacewater/Sediment

N
W E
S

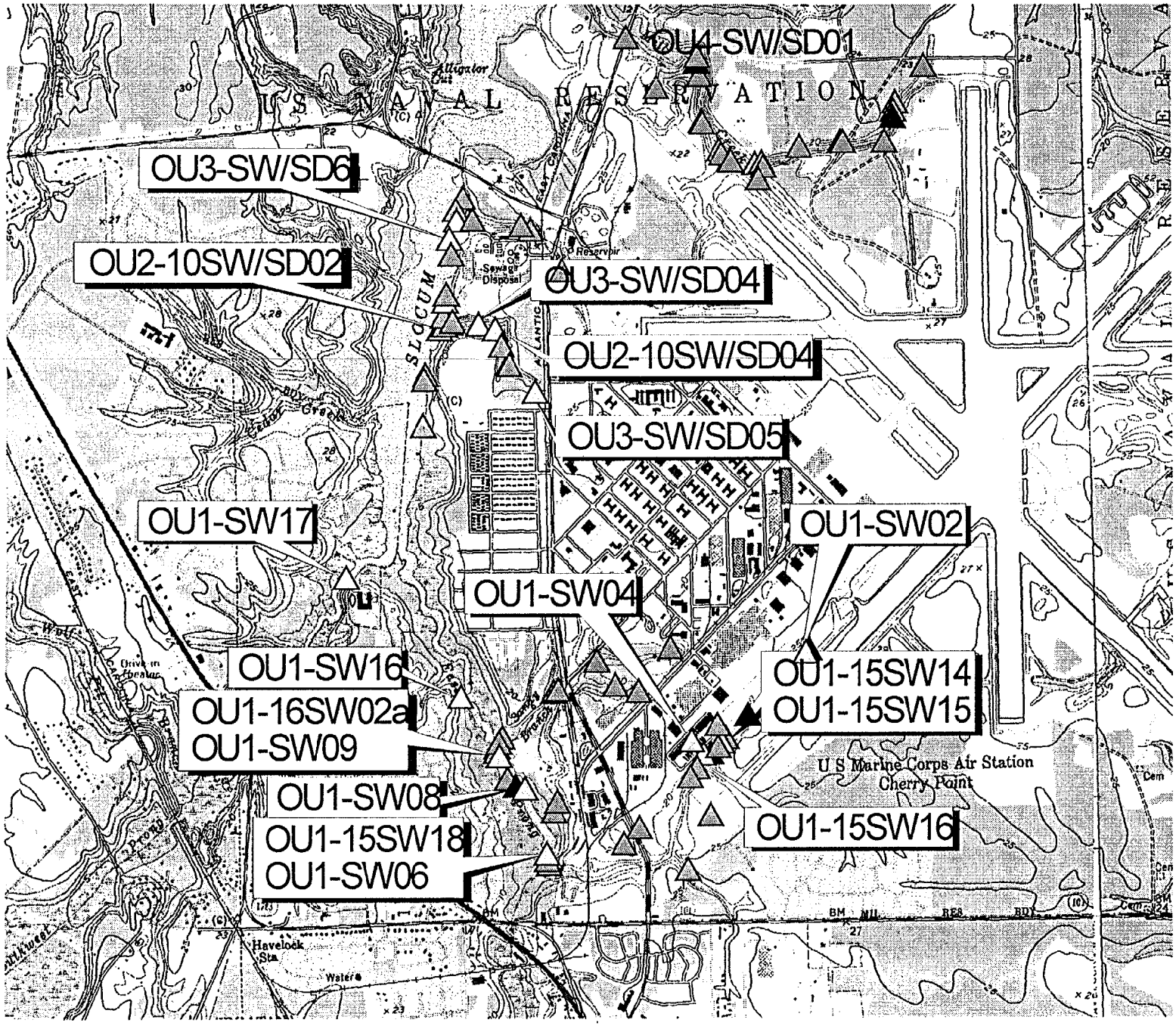
5000 0 5000 10000 Feet

Surface Water Exceedances of NC Aqudac HH numbers for Pesticides and PCBs

LOCATION	SAMPLE_COD	PARAMETER	NUMERIC_RE	QUAL	UNITS	NC_AWQC_FR	NC_AWQC_BR	AWQC_HHWO	AWQC_HHO	CRITERIA_U
OU13-SW/SD04	NORMAL	4,4'-DDD	0.150000		UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU13-SW/SD03	AVG	ENDRIN ALDEHYDE	0.525000		UG/L	0.810000	0.810000	0.760000	0.810000	UG/L
OU13-SW/SD03	DUP	ENDRIN ALDEHYDE	1.000000		UG/L	0.810000	0.810000	0.760000	0.810000	UG/L
OU1-SW02	NORMAL	ALPHA-BHC	0.001800	J	UG/L	0.010000	0.004000	0.003900	0.013000	UG/L
OU1-SW06	NORMAL	4,4'-DDE	0.011000	J	UG/L	0.000590	0.000590	0.000590	0.000590	UG/L
OU1-SW06	NORMAL	ALPHA-CHLORDANE	0.029000	J	UG/L	0.000588	0.000588	0.000570	0.000590	UG/L
OU1-SW06	NORMAL	DIELDRIN	0.050000	J	UG/L	0.000144	0.000144	0.000140	0.000140	UG/L
OU1-SW07	NORMAL	4,4'-DDD	0.012000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU1-SW12	NORMAL	DIELDRIN	0.003900	J	UG/L	0.000144	0.000144	0.000140	0.000140	UG/L
OU1-SW12	NORMAL	ENDOSULFAN II	0.006600	J	UG/L	0.050000	0.009000	0.930000	2.000000	UG/L
OU1-SW14	NORMAL	ALDRIN	0.005600	J	UG/L	0.000136	0.000136	0.000130	0.000140	UG/L
OU1-SW15	NORMAL	ALDRIN	0.004000	J	UG/L	0.000136	0.000136	0.000130	0.000140	UG/L
OU1-SW15	NORMAL	DELTA-BHC	0.003800	J	UG/L	0.010000	0.004000	0.003900	0.013000	UG/L
OU1-SW15	NORMAL	DIELDRIN	0.025000	J	UG/L	0.000144	0.000144	0.000140	0.000140	UG/L
OU1-SW16	NORMAL	4,4'-DDD	0.053000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU1-SW17	NORMAL	4,4'-DDD	0.050000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU1-SW08	DUP	ALPHA-CHLORDANE	0.029000	J	UG/L	0.000588	0.000588	0.000570	0.000590	UG/L
OU1-SW08	AVG	ALPHA-CHLORDANE	0.077000	J	UG/L	0.000588	0.000588	0.000570	0.000590	UG/L
OU4-SW/SD01	NORMAL	4,4'-DDD	0.014000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU2-SW/SD01	NORMAL	4,4'-DDD	0.039000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU2-SW/SD02	NORMAL	4,4'-DDD	0.027000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU2-SW/SD07	NORMAL	4,4'-DDD	0.034000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU3-SW/SD03	NORMAL	4,4'-DDD	0.028000	J	UG/L	0.000840	0.000840	0.000830	0.000840	UG/L
OU3-SW/SD04	NORMAL	GAMMA-BHC (LINDANE)	0.008100	J	UG/L	0.010000	0.004000	0.019000	0.063000	UG/L
OU3-SW/SD04	NORMAL	HEPTACHLOR EPOXIDE	0.001900	J	UG/L	0.000110	0.000110	0.000100	0.000110	UG/L
OU3-SW/SD06	DUP	GAMMA-BHC (LINDANE)	0.001600	J	UG/L	0.010000	0.004000	0.019000	0.063000	UG/L
OU3-SW/SD06	AVG	GAMMA-BHC (LINDANE)	0.001600	J	UG/L	0.010000	0.004000	0.019000	0.063000	UG/L
OU3-7SW/SD03	NORMAL	ENDOSULFAN I	0.050000		UG/L	0.050000	0.009000	0.930000	2.000000	UG/L

MCAS CHERRY POINT FACILITY

Surface Water Metals exceedances of standards by 10 times
(excluding calcuim &magnesium)



Surfacewater Sampling Locations

▲ Surfacewater

△ Surfacewater/Sediment

N
W E
S

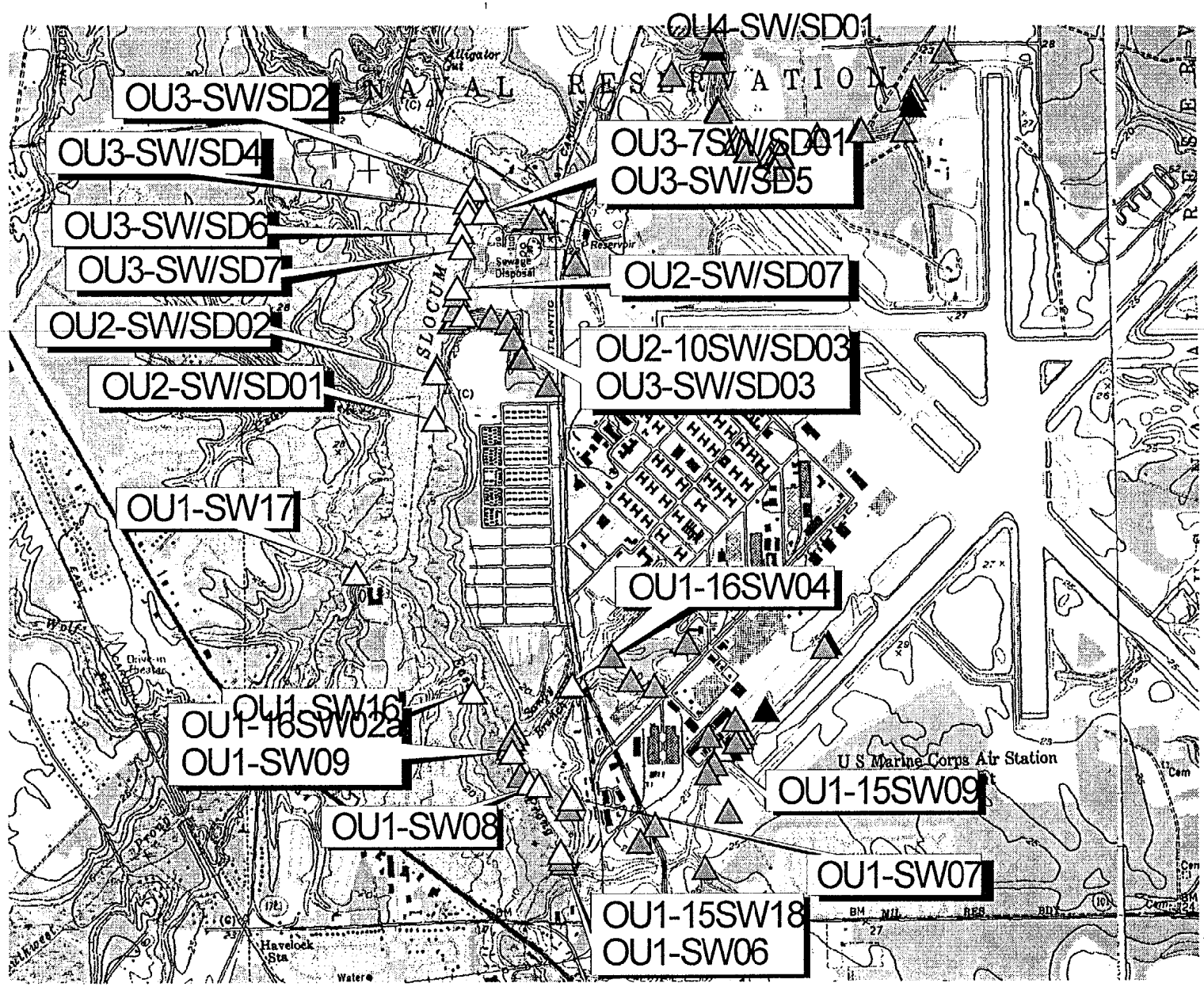
5000 0 5000 10000 Feet

SURFACE WATER METALS EXCEEDANCES OF 10 TIMES THE NC-AWQC-FR STANDERS
(excluding calcium and magnesium)

LOCATION	SAMPLE_	PARAMETER	NUMERIC_RE	QU	UNITS	NC_AWQC_HH	NC_AWQC_FR	NC_AWQC_BR	AWQC_HHWO	AWQC_HHO	CRITE
OU1-15SW09	NORMAL	SILVER	20.000000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-15SW14	NORMAL	BERYLLIUM	6.200000		UG/L	0.117000	0.117000	0.117000	0.007600	0.130000	UG/L
OU1-15SW14	NORMAL	LEAD	259.000000		UG/L	-1.000000	25.000000	25.000000	50.000000	-1.000000	UG/L
OU13-SW/SD01	NORMAL	SILVER	4.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD01	NORMAL	SILVER	3.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD02	NORMAL	SILVER	4.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD02	NORMAL	SILVER	4.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD07	NORMAL	MERCURY	1.300000		UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU13-SW/SD07	NORMAL	MERCURY	0.960000		UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU13-SW/SD08	NORMAL	SILVER	3.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD08	NORMAL	SILVER	5.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW02	NORMAL	ALUMINUM	2190.000000		UG/L	-1.000000	87.000000	87.000000	-1.000000	-1.000000	UG/L
OU1-SW04	NORMAL	ALUMINUM	939.000000		UG/L	-1.000000	87.000000	87.000000	-1.000000	-1.000000	UG/L
OU1-SW06	NORMAL	MANGANESE	1340.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW06	NORMAL	MANGANESE	1870.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW09	NORMAL	MANGANESE	2010.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW09	NORMAL	MANGANESE	2050.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW09	NORMAL	SILVER	3.000000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW16	NORMAL	MANGANESE	2550.000000	J	UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW16	NORMAL	MANGANESE	2710.000000	J	UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW17	NORMAL	MANGANESE	1910.000000	J	UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW17	NORMAL	MANGANESE	2500.000000	J	UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU2-10SW/SD02	NORMAL	MERCURY	0.210000	J	UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU2-10SW/SD04	NORMAL	SILVER	3.400000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU2-10SW/SD06A	NORMAL	CYANIDE	140.000000		UG/L	-1.000000	5.000000	1.000000	700.000000	220000.000000	UG/L
OU3-SW/SD04	NORMAL	IRON	11600.000000		UG/L	-1.000000	1000.000000	-1.000000	300.000000	-1.000000	UG/L
OU3-SW/SD05	NORMAL	ALUMINUM	1010.000000		UG/L	-1.000000	87.000000	87.000000	-1.000000	-1.000000	UG/L
OU3-SW/SD4	NORMAL	MERCURY	0.210000		UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU3-SW/SD6	NORMAL	MERCURY	0.450000	J	UG/L	-1.000000	0.012000	0.025000	0.140000	0.150000	UG/L
OU13-SW/SD03	DUP	SILVER	3.000000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW08	DUP	MANGANESE	2590.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	DUP	MANGANESE	2650.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	DUP	MANGANESE	2710.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	DUP	MANGANESE	2920.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	DUP	SILVER	3.000000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW08	DUP	SILVER	3.000000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU13-SW/SD03	AVG	SILVER	2.250000	J	UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW08	AVG	MANGANESE	2785.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	AVG	MANGANESE	2650.000000		UG/L	-1.000000	100.000000	100.000000	50.000000	100.000000	UG/L
OU1-SW08	AVG	SILVER	2.250000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L
OU1-SW08	AVG	SILVER	2.250000		UG/L	-1.000000	0.060000	0.100000	91.000000	-1.000000	UG/L

MCAS Cherry Point Facility

Surface water exceedances of MAGNESUIUM at 100 times the NC awqc fr



Surfacewater Sampling Locations

▲ Surfacewater

△ Surfacewater/Sediment

N
W E
S

5000 0 5000 10000 Feet

MCAS CHERRY POINT

Surface water exceedances of 100 times the NNC-AWQC-FR standards for Metals

LOCATION	SAMPLE_COD	PARAMETER	NUMERIC_RE	QUAL	UNITS	CRITERIA_U	NC_AWQC_FR	NC_AWQC_BR	AWQC_HHWO	AWQC_HHO	NC_AWQC_HH
OU1-15SW09	NORMAL	SILVER	20.000000		UG/L	UG/L	0.060000	0.100000	91.000000	-1.000000	-1.000000
OU13-SW/SD07	NORMAL	MERCURY	1.300000		UG/L	UG/L	0.012000	0.025000	0.140000	0.150000	-1.000000
OU13-SW/SD01	NORMAL	MAGNESIUM	169000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD01	NORMAL	MAGNESIUM	153000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD02	NORMAL	MAGNESIUM	45400.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD02	NORMAL	MAGNESIUM	91900.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	NORMAL	MAGNESIUM	228000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	DUP	MAGNESIUM	229000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	DUP	MAGNESIUM	227000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	DUP	MAGNESIUM	226000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	AVG	MAGNESIUM	228000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD03	AVG	MAGNESIUM	227000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD04	NORMAL	MAGNESIUM	172000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD04	NORMAL	MAGNESIUM	176000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD05	NORMAL	MAGNESIUM	137000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD05	NORMAL	MAGNESIUM	138000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD08	NORMAL	MAGNESIUM	29200.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD08	NORMAL	MAGNESIUM	30600.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD10	NORMAL	MAGNESIUM	58100.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD10	NORMAL	MAGNESIUM	64300.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD11	NORMAL	MAGNESIUM	128000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU13-SW/SD11	NORMAL	MAGNESIUM	126000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW06	NORMAL	MAGNESIUM	166000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW06	NORMAL	MAGNESIUM	220000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW07	NORMAL	MAGNESIUM	127000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW07	NORMAL	MAGNESIUM	136000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	DUP	MAGNESIUM	381000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	DUP	MAGNESIUM	420000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	DUP	MAGNESIUM	393000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	DUP	MAGNESIUM	467000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	AVG	MAGNESIUM	443500.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW08	AVG	MAGNESIUM	387000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW09	NORMAL	MAGNESIUM	442000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW09	NORMAL	MAGNESIUM	476000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW10	NORMAL	MAGNESIUM	25500.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW10	NORMAL	MAGNESIUM	28700.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW16	NORMAL	MAGNESIUM	459000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW16	NORMAL	MAGNESIUM	452000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW17	NORMAL	MAGNESIUM	467000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000

MCAS CHERRY POINT

Surface water exceedances of 100 times the NNC-AWQC-FR standards for Metals

OU1-SW17	NORMAL	MAGNESIUM	472000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW-STP	NORMAL	MAGNESIUM	70600.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU1-SW-STP	NORMAL	MAGNESIUM	75000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD01	NORMAL	MAGNESIUM	379000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD01	NORMAL	MAGNESIUM	395000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD02	NORMAL	MAGNESIUM	407000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD02	NORMAL	MAGNESIUM	396000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD07	NORMAL	MAGNESIUM	402000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU2-SW/SD07	NORMAL	MAGNESIUM	414000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD03	NORMAL	MAGNESIUM	393000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD03	NORMAL	MAGNESIUM	387000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD2	NORMAL	MAGNESIUM	357000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD2	NORMAL	MAGNESIUM	369000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD3	NORMAL	MAGNESIUM	350000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD3	NORMAL	MAGNESIUM	372000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD4	NORMAL	MAGNESIUM	355000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD4	NORMAL	MAGNESIUM	369000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD5	NORMAL	MAGNESIUM	308000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD5	NORMAL	MAGNESIUM	107000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD6	NORMAL	MAGNESIUM	360000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD6	NORMAL	MAGNESIUM	372000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD7	NORMAL	MAGNESIUM	355000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU3-SW/SD7	NORMAL	MAGNESIUM	386000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU4-SW/SD01	NORMAL	MAGNESIUM	465000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000
OU4-SW/SD01	NORMAL	MAGNESIUM	456000.000000		UG/L	UG/L	200.000000	200.000000	-1.000000	-1.000000	-1.000000