M60050.002081
MCAS EL TORO
SSIC # 5090.3

MCAS EL TORO

INTERIM GROUNDWATER TREATMENT SYSTEM

MONTHLY MONITORING REPORT

AUGUST 1989

MCAS EL TORO

INTERIM GROUNDWATER TREATMENT SYSTEM

SUMMARY OF MONTHLY MONITORING

SAMPLE DATE: JULY 28, 1989

Concentration, µg/ℓ

ANALYTICAL RESULTS:

Compound	Extraction Well PS-3	Extraction Well PS-4	GAC Inlet	Unit 1 Outlet	Unit 2 Outlet
Chloroform	2.6	2.4	3	ND	ND
Tetrachloroethene (PCE)	76	60	100	0.6	ND
Trichloroethene (TCE)	65	70	99	0.2	ND
cis-1, 2-Dichloroethene	5.8	8	7.9	ND	ND

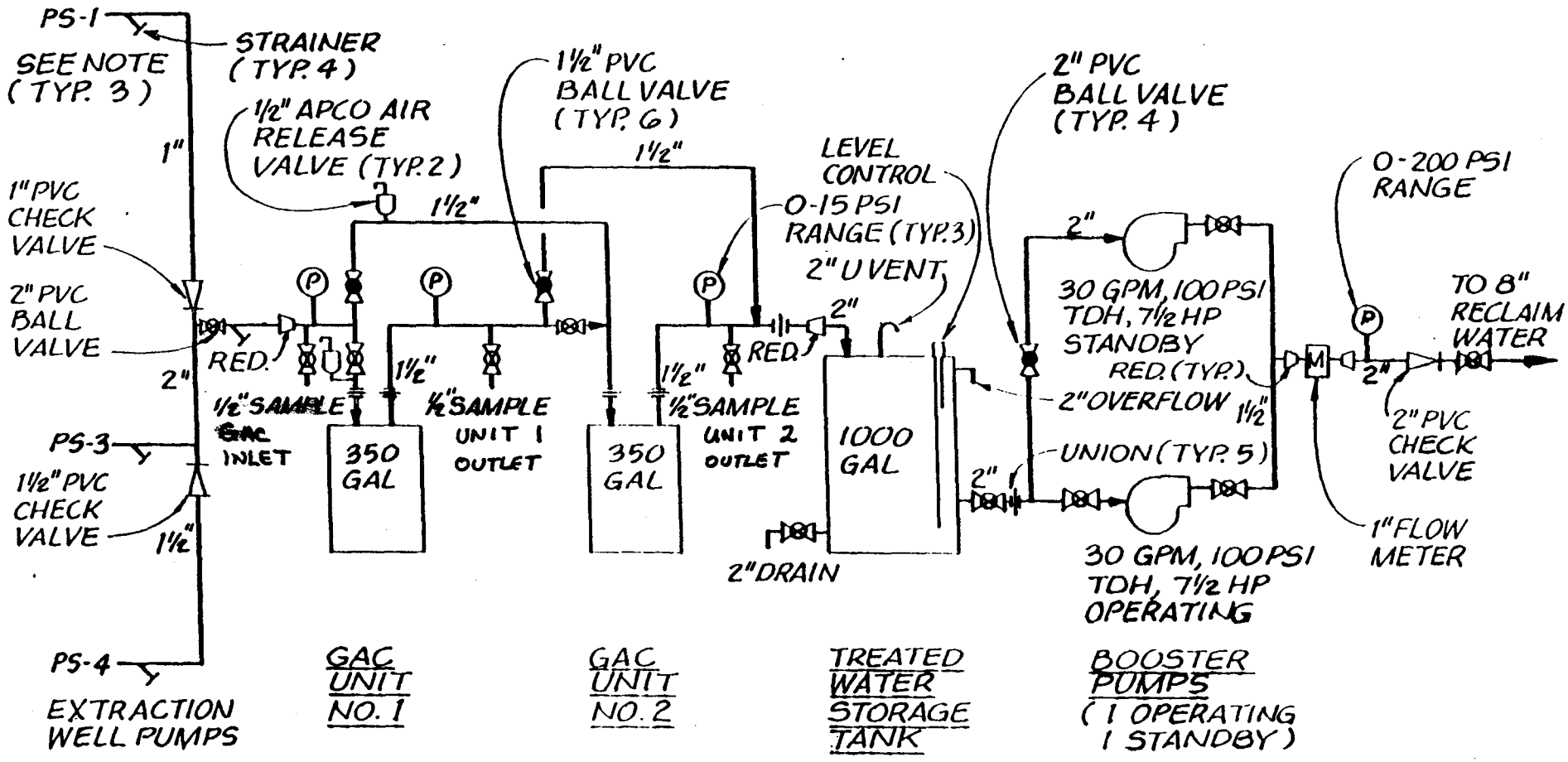
Note: ND - Nondetectable

SYSTEM OPERATION:

1. PS-3 and PS-4 were pumping groundwater to the treatment system.
2. Treated water was pumped to the golf course storage tank.
3. PS-1 was not used because of railcar activity.

EL TO) MCAS
INTERIM GROUNDWATER
TREATMENT SYSTEM
SCHEMATIC FLOW DIAGRAM

FIGURE 2



WELL PS-3 MCAS - EL TORO INTERIM GROUNDWATER TREATMENT SYSTEM

CONCENTRATION (ug/l)

|--> Pumping to treatment system

COMPOUNDS	MCL	DOHS Action Level	Detection Limit (12/13/88)	12/13/88	1/23/89	6/5/89	Detection Limit (7/28/89)	7/28/89
VOLATILE PRIORITY POLLUTANTS:								
Acrolein			10.0	ND	ND	ND	10.0	ND
Acrylonitrile			10.0	ND	ND	ND	10.0	ND
Benzene	5	0.7	1.0	ND	ND	ND	1.0	ND
Bromoform			1.0	ND	ND	ND	1.0	ND
Carbon Tetrachloride	5	5	1.0	ND	ND	ND	1.0	ND
Chlorobenzene			1.0	ND	ND	ND	1.0	ND
Dibromochloromethane			1.0	ND	ND	ND	1.0	ND
Chloroethane			10.0	ND	ND	ND	10.0	ND
2-Chloroethylvinylether			10.0	ND	ND	ND	10.0	ND
Chloroform			1.0	ND	12	3.7	1.0	2.6
Dichlorobromomethane			1.0	ND	ND	ND	1.0	ND
1,1-Dichloroethane		20	1.0	ND	ND	ND	1.0	ND
1,2-Dichloroethane	5	1	1.0	ND	ND	ND	1.0	ND
1,1-Dichloroethene (DCE)	7	6	1.0	ND	ND	ND	1.0	ND
1,1-Dichloropropane			1.0	ND	ND	ND	1.0	ND
Ethylbenzene		680	1.0	ND	ND	ND	1.0	ND
Methyl Bromide			10.0	ND	ND	ND	10.0	ND
Methyl Chloride			10.0	ND	ND	ND	10.0	ND
Methylene Chloride		40	50.0	ND	ND	ND	50.0	ND
1,1,2,2-Tetrachloroethane		1	1.0	ND	ND	ND	1.0	ND
Tetrachloroethene (PCE)		4	1.0	24	81	83	1.0	76
Toluene		100	5.0	ND	ND	ND	5.0	ND
1,1,1-Trichloroethane (TCA)	200	200	1.0	ND	ND	ND	1.0	ND
1,1,2-Trichloroethane		100	1.0	ND	ND	ND	1.0	ND
Trichloroethene (TCE)	5	5	1.0	33	64	70	1.0	65
Vinyl Chloride	2	2	10.0	ND	ND	ND	10.0	ND
trans-1,3-Dichloropropene			1.0	ND	ND	ND	1.0	ND
cis-1,3-Dichloropropene			1.0	ND	ND	ND	1.0	ND
trans-1,2-Dichloroethene		16	1.0	ND	ND	ND	1.0	ND
cis-1,2-Dichloroethene			1.0	ND	4.8	7.4	1.0	5.8
Trichlorofluoromethane		3400	10.0	ND	ND	ND	10.0	ND
m,p-Xylenes		620	10.0	ND	ND	ND	1.0	ND
1,2-Dichlorobenzene		130	5.0	ND	ND	ND	1.0	ND
1,3-Dichlorobenzene		130	5.0	ND	ND	ND	1.0	ND
1,4-Dichlorobenzene		0.5	5.0	ND	ND	ND	1.0	ND

VOLATILE NON-PRIORITY POLLUTANTS:

WELL PS-3 EL TORO INTERIM GROUNDWATER TREATMENT SYSTEM

CONCENTRATION (ug/l)

|--> Pumping to treatment system

COMPOUNDS	MCL	DOHS Action Level	Detection Limit	12/13/88	1/23/89	6/5/89	Detection Limit (7/28/89)	7/28/89
HAZARDOUS SUBSTANCES COMPOUNDS:								
Acetone			100	ND	ND	ND	100.0	ND
Methylethylketone (2-Butanone)			10.00	ND	ND	ND	10.0	ND
Carbon Disulfide			1.00	NA	NA	ND	1.0	ND
2-Hexanone			10	NA	NA	ND	10.0	ND
4-Methyl-2-Pentanone			10	NA	NA	ND	10.0	ND
Styrene			1.00	ND	ND	ND	1.0	ND
Tetrahydrofuran			100.00	ND	ND	ND	100.0	ND
Vinyl Acetate			50.0	NA	NA	ND	50.0	ND
o-xylene		620	1.00	ND	ND	ND	1.0	ND

ND: Non-Detectable
NA: Not Analyzed

WELL PS-4 MCAS - EL TORO INTERIM GROUNDWATER TREAMENT SYSTEM

CONCENTRATION, ug/l

|--> Pumping to treatment system

COMPOUNDS	MCL	DOHS Action Level	Detection Limit (1/23/89)	1/23/89	Detection limit (6/5/89)	6/5/89	Detection Limit (7/28/89)	7/28/89
VOLATILE PRIORITY POLLUTANTS:								
Acrolein			25.0	ND	50.0	ND	10.0	ND
Acrylonitrile			25.0	ND	50.0	ND	10.0	ND
Benzene	5	0.7	2.5	ND	5.0	ND	1.0	ND
Bromoform			2.5	ND	5.0	ND	1.0	ND
Carbon Tetrachloride	5	5	2.5	ND	5.0	ND	1.0	ND
Chlorobenzene			2.5	ND	5.0	ND	1.0	ND
Dibromochloromethane			2.5	ND	5.0	ND	1.0	ND
Chloroethane			25.0	ND	50.0	ND	10.0	ND
2-Chloroethylvinylether			25.0	ND	50.0	ND	10.0	ND
Chloroform			2.5	3.1	5.0	ND	1.0	2.4
Dichlorobromomethane			2.5	ND	5.0	ND	1.0	ND
1,1-Dichloroethane		20	2.5	ND	5.0	ND	1.0	ND
1,2-Dichloroethane	5	1	2.5	ND	5.0	ND	1.0	ND
1,1-Dichloroethene (DCE)	7	6	2.5	ND	5.0	ND	1.0	ND
1,1-Dichloropropane			2.5	ND	5.0	ND	1.0	ND
Ethylbenzene		680	2.5	ND	5.0	ND	1.0	ND
Methyl Bromide			25.0	ND	50.0	ND	10.0	ND
Methyl Chloride			25.0	ND	50.0	ND	10.0	ND
Methylene Chloride		40	125.0	ND	50.0	ND	50.0	ND
1,1,2,2-Tetrachloroethane		1	2.5	ND	5.0	ND	1.0	ND
Tetrachloroethene (PCE)		4	2.5	48	5.0	59	1.0	60
Toluene		100	12.5	ND	25.0	ND	5.0	ND
1,1,1-Trichloroethane (TCA)	200	200	2.5	ND	5.0	ND	1.0	ND
1,1,2-Trichloroethane		100	2.5	ND	5.0	ND	1.0	ND
Trichloroethene (TCE)	5	5	2.5	78	5.0	98	1.0	70
Vinyl Chloride	2	2	25.0	ND	50.0	ND	10.0	ND
trans-1,3-Dichloropropene			2.5	ND	5.0	ND	1.0	ND
cis-1,3-Dichloropropene			2.5	ND	5.0	ND	1.0	ND
trans-1,2-Dichloroethene		16	2.5	ND	5.0	ND	1.0	ND
cis-1,2-Dichloroethene			2.5	10	5.0	15	1.0	8
Trichlorofluoromethane		3400	25.0	ND	50.0	ND	10.0	ND
m,p-Xylenes		620	2.5	ND	5.0	ND	1.0	ND
1,2-Dichlorobenzene		130	12.5	ND	25.0	ND	1.0	ND
1,3-Dichlorobenzene		130	12.5	ND	25.0	ND	1.0	ND
1,4-Dichlorobenzene		0.5	12.5	ND	25.0	ND	1.0	ND

VOLATILE NON-PRIORITY POLLUTANTS:

WELL PS-4 MCAS - EL TORO INTERIM GROUNDWATER TREAMENT SYSTEM

CONCENTRATION, ug/l

|--> Pumping to treatment system

COMPOUNDS	MCL	DOHS Action Level	Detection Limit (1/23/89)	1/23/89	Detection limit (6/5/89)	6/5/89	Detection Limit (7/28/89)	7/28/89
HAZARDOUS SUBSTANCES COMPOUNDS								
Acetone			250.0	ND	500.0	ND	100.0	ND
Methylethylketone (2-Butanone)			25.0	ND	50.0	ND	10.0	ND
Carbon Disulfide			NA	NA	5.0	ND	1.0	ND
2-Hexanone			NA	NA	50.0	ND	10.0	ND
4-Methyl-2-Pentanone			NA	NA	50.0	ND	10.0	ND
Styrene			12.5	ND	5.0	ND	1.0	ND
Tetrahydrofuran			25.0	ND	500.0	ND	100.0	ND
Vinyl Acetate			NA	NA	250.0	ND	50.0	ND
o-xylene		620	2.5	ND	5.0	ND	1.0	ND

ND: Non-Detectable
NA: Not Analyzed

GAC INLET MCAS - EL TORO INTERIM GROUNDWATER TREATMENT SYSTEM

CONCENTRATION (ug/l)

COMPOUNDS	MCL	DOHS Action Level	Detection Limit (7/28/89/)	7/28/89
VOLATILE PRIORITY POLLUTANTS:				
Acrolein			25.0	ND
Acrylonitrile			25.0	ND
Benzene	5	0.7	2.5	ND
Bromoform			2.5	ND
Carbon Tetrachloride	5	5	2.5	ND
Chlorobenzene			2.5	ND
Dibromochloromethane			2.5	ND
Chloroethane			25.0	ND
2-Chloroethylvinylether			25.0	ND
Chloroform			2.5	3
Dichlorobromomethane			2.5	ND
1,1-Dichloroethane		20	2.5	ND
1,2-Dichloroethane	5	1	2.5	ND
1,1-Dichloroethene (DCE)	7	6	2.5	ND
1,1-Dichloropropane			2.5	ND
Ethylbenzene		680	2.5	ND
Methyl Bromide			25.0	ND
Methyl Chloride			25.0	ND
Methylene Chloride		40	125.0	ND
1,1,2,2-Tetrachloroethane		1	2.5	ND
Tetrachloroethene (PCE)		4	2.5	100
Toluene		100	12.5	ND
1,1,1-Trichloroethane (TCA)	200	200	2.5	ND
1,1,2-Trichloroethane		100	2.5	ND
Trichloroethene (TCE)	5	5	2.5	99
Vinyl Chloride	2	2	50.0	ND
trans-1,3-Dichloropropene			2.5	ND
cis-1,3-Dichloropropene			2.5	ND
trans-1,2-Dichloroethene		16	2.5	ND
cis-1,2-Dichloroethene			2.5	7.9
Trichlorofluoromethane		3400	25.0	ND
m,p-Xylenes		620	2.5	ND
1,2-Dichlorobenzene		130	2.5	ND
1,3-Dichlorobenzene		130	2.5	ND
1,4-Dichlorobenzene		0.5	2.5	ND

VOLATILE NON-PRIORITY POLLUTANTS:

GAC INLET MCAS - EL TORO INTERIM GROUNDWATER TREATMENT SYSTEM

CONCENTRATION (ug/l)

COMPOUNDS	MCL	DOHS Action Level	Detection Limit (7/28/89/)	7/28/89
HAZARDOUS SUBSTANCES COMPOUNDS				
Acetone			250.0	ND
Methylethylketone (2-Butanone)			25.0	ND
Carbon Disulfide			2.5	NA
2-Hexanone			25.0	NA
4-Methyl-2-Pentanone			25.0	NA
Styrene			2.5	ND
Tetrahydrofuran			250.0	ND
Vinyl Acetate			125.0	NA
o-xylene		620	2.5	ND

ND: Non-Detectable
NA: Not Analyzed

UNIT 1 OUTLET **MCAS - EL TORO INTERIM GROUNDWATER TREATMENT SYSTEM**

CONCENTRATION (ug/l)

COMPOUNDS	MCL	DOHS Action Level	Detection Limit (7/28/89/)	7/28/89
VOLATILE PRIORITY POLLUTANTS:				
Acrolein			1.0	ND
Acrylonitrile			1.0	ND
Benzene	5	0.7	0.1	ND
Bromoform			0.1	ND
Carbon Tetrachloride	5	5	0.1	ND
Chlorobenzene			0.1	ND
Dibromochloromethane			0.1	ND
Chloroethane			10.0	ND
2-Chloroethylvinylether			10.0	ND
Chloroform			1.0	ND
Dichlorobromomethane			1.0	ND
1,1-Dichloroethane		20	1.0	ND
1,2-Dichloroethane	5	1	1.0	ND
1,1-Dichloroethene (DCE)	7	6	1.0	ND
1,1-Dichloropropane			1.0	ND
Ethylbenzene		680	1.0	ND
Methyl Bromide			10.0	ND
Methyl Chloride			10.0	ND
Methylene Chloride		40	50.0	ND
1,1,2,2-Tetrachloroethane		1	1.0	ND
Tetrachloroethene (PCE)		4	1.0	0.6
Toluene		100	5.0	ND
1,1,1-Trichloroethane (TCA)	200	200	1.0	ND
1,1,2-Trichloroethane		100	1.0	ND
Trichloroethene (TCE)	5	5	1.0	0.2
Vinyl Chloride	2	2	10.0	ND
trans-1,3-Dichloropropene			1.0	ND
cis-1,3-Dichloropropene			1.0	ND
trans-1,2-Dichloroethene		16	1.0	ND
cis-1,2-Dichloroethene			1.0	ND
Trichlorofluoromethane		3400	10.0	ND
m,p-Xylenes		620	1.0	ND
1,2-Dichlorobenzene		130	5.0	ND
1,3-Dichlorobenzene		130	5.0	ND
1,4-Dichlorobenzene		0.5	5.0	ND

VOLATILE NON-PRIORITY POLLUTANTS:

UNIT 1 OUTLET

MCAS - EL TORO INTERIM GROUNDWATER TREATMENT SYSTEM

CONCENTRATION (ug/l)

COMPOUNDS	MCL	DOHS Action Level	Detection Limit (7/28/89/)	7/28/89
HAZARDOUS SUBSTANCES COMPOUNDS				
Acetone			100.0	ND
Methylethylketone (2-Butanone)			10.0	ND
Carbon Disulfide			1.0	NA
2-Hexanone			10.0	NA
4-Methyl-2-Pentanone			10.0	NA
Styrene			1.0	ND
Tetrahydrofuran			100.0	ND
Vinyl Acetate			50.0	NA
o-xylene		620	1.0	ND

ND: Non-Detectable
NA: Not Analyzed

UNIT 2 OUTLET **MCAS - EL TORO INTERIM GROUNDWATER TREATMENT SY**

CONCENTRATION (ug/l)

COMPOUNDS	MCL	DOHS Action Level	Detection Limit (7/28/89)	7/28/89
VOLATILE PRIORITY POLLUTANTS:				
Acrolein			10.00	ND
Acrylonitrile			10.00	ND
Benzene	5	0.7	1.00	ND
Bromoform			1.00	ND
Carbon Tetrachloride	5	5	1.00	ND
Chlorobenzene			1.00	ND
Dibromochloromethane			1.00	ND
Chloroethane			10.00	ND
2-Chloroethylvinylether			10.00	ND
Chloroform			1.00	ND
Dichlorobromomethane			1.00	ND
1,1-Dichloroethane		20	1.00	ND
1,2-Dichloroethane	5	1	1.00	ND
1,1-Dichloroethene (DCE)	7	6	1.00	ND
1,1-Dichloropropane			1.00	ND
Ethylbenzene		680	1.00	ND
Methyl Bromide			10.00	ND
Methyl Chloride			10.00	ND
Methylene Chloride		40	50.00	ND
1,1,2,2-Tetrachloroethane		1	1.00	ND
Tetrachloroethene (PCE)		4	1.00	ND
Toluene		100	1.00	ND
1,1,1-Trichloroethane (TCA)	200	200	1.00	ND
1,1,2-Trichloroethane		100	1.00	ND
Trichloroethene (TCE)	5	5	1.00	ND
Vinyl Chloride	2	2	10.00	ND
trans-1,3-Dichloropropene			1.00	ND
cis-1,3-Dichloropropene			1.00	ND
trans-1,2-Dichloroethene		16	1.00	ND
cis-1,2-Dichloroethene			1.00	ND
Trichlorofluoromethane		3400	10.00	ND
m,p-Xylenes		620	1.00	ND
1,2-Dichlorobenzene		130	5.00	ND
1,3-Dichlorobenzene		130	5.00	ND
1,4-Dichlorobenzene		0.5	5.00	ND

VOLATILE NON-PRIORITY POLLUTANTS:

UNIT 2 OUTLET MCAS - EL TORO INTERIM GROUNDWATER TREATMENT SY

CONCENTRATION (ug/l)

COMPOUNDS	MCL	DOHS Action Level	Detection Limit (7/28/89)	7/28/89
HAZARDOUS SUBSTANCES COMPOUNDS				
Acetone			100.00	ND
Methylethylketone (2-Butanone)			10.00	ND
Carbon Disulfide				NA
2-Hexanone				NA
4-Methyl-2-Pentanone				NA
Styrene			5.00	ND
Tetrahydrofuran			10.00	ND
Vinyl Acetate				NA
o-xylene		620	1.00	ND

ND: Non-Detectable
NA: Not Analyzed