N00296.002163
MOFFETT FIELD
SSIC NO. 5090.3

5090
Ser 09ER5SD/L5139
01 Feb 95

Ms. Susan Gladstone
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Subject: Moffett Federal Airfield (MFA) Site 9 Source Control Measure (SCM) Self-Monitoring Report for November 7, 1994 to November 13, 1994

Dear Ms. Gladstone:

The U.S. Navy is submitting this self-monitoring report for the three Site 9 source control measures at MFA. This self-monitoring report covers operations from November 7, 1994, to November 13, 1994. This report contains, in attachments, information on flow volumes, process stream pH and temperature, documentation of any leakage or overflow, system maintenance, discharge limit exceedences, and all sample analytical results.

The Building 6 and Building 12 treatment systems ran continuously during this reporting period. The Building 45 treatment system did not run and was not sampled due to transfer pump malfunctions. Discharge limits for organic constituents were met by the Building 6 and 12 systems for this week of operation. The Building 6 system samples exceeded the discharge limits for selenium and zinc in both the total and dissolved metals analyses. The Building 12 system samples exceeded the discharge limit for copper and lead in the total metals analysis. Details of all discharge limit exceedences are included as an attachment. The weekly fish toxicity tests showed the treatment systems effluent to be nontoxic to the three-spined stickleback. Also, the inorganic levels in the NASA settling basin (the storm drain system receiving waters) were all below allowable discharge levels.

The constituents that exceeded discharge limits during this week of operation are all naturally occurring in MFA groundwater. These constituents are at levels consistent with those found in background data, historical extraction well data, basewide aquifer data, and receiving water data. These constituents will continue to be monitored to evaluate if the fluctuating effluent concentrations are due to changing natural levels or are introduced by the systems.

SUBJ: MOFFETT FEDERAL AIRFIELD (MFA) SITE 9 SOURCE CONTROL MEASURE (SCM) SELF-MONITORING REPORT FOR NOVEMBER 7, 1994 TO NOVEMBER 13, 1994

I certify that the information contained in this document and all attachments is, to the best of my knowledge, accurate and complete. Please call me at 415-244-2563 or Mark Kadnuck at 303-295-1101 if you have any questions or comments.

Sincerely,

Original signed by:

Stephen Chao
BRAC Environmental Coordinator

Enclosure
Blind copy to:
09ER5, 09ER5ST, 09ER5DC
Mark Kadnuck (PRC)
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N00296.002163
MOFFETT FIELD
SSIC NO. 5090.3

MOFFETT FEDERAL AIRFIELD SITE 9 SOURCE CONTROL MEASURES SELF-MONITORING REPORT FOR NOVEMBER 7, 1994 TO NOVEMBER 13, 1994

THE ABOVE IDENTIFIED REPORT IS INCOMPLETE. IT COULD NOT BE DETERMINED WHETHER PAGES ARE MISSING OR THE DOCUMENT WAS ISSUED WITHOUT THESE PAGES.

QUESTIONS MAY BE DIRECTED TO:

DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
NAVAL FACILITIES ENGINEERING COMMAND SOUTHWEST
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

TELEPHONE: (619) 532-3676

MOFFETT FEDERAL AIRFIELD
SITE 9 SOURCE CONTROL MEASURES
SELF-MONITORING REPORT

Reporting Period: Nov. 7, 1994 - Nov. 13, 1994

System Data*	Bldg 45 System	Bldg 12 System	Bldg 6 System
Total Flow for Period (gal)	NA	19950	23980
Influent pH	NA	7.13	7.84
Effluent pH	NA	7.39	7.76
Influent Temperature (C)	NA	20.5	19.2
Effluent Temperature (C)	NA	15.5	16.1

* Analytical data is attached

Leakage or Overflow Documentation (include date, time, duration, location, and volume)
None

Treatment System Maintenance for Period
Building 45: System down. Transfer pump returned to manufacturer for repair.
Building 12: None
Building 6: None

MOFFETT FEDERAL AIRFIELD
SITE 9 SOURCE CONTROL MEASURES
SELF-MONITORING REPORT

Reporting Period: Nov. 7, 1994 - Nov. 13, 1994

TREATMENT SYSTEM
DISCHARGE LIMIT EXCEEDENCE SUMMARY

Sample ID	Analyte	Concentration (ug/L)	Discharge Limit (ug/L)
TS-S9-SP4-06	Se (tot)	6.4	5
TS-S9-SP4-06	Zn (tot)	172	110
TS-S9-SP4-06	Se (diss)	7.5	5
TS-S9-SP4-06	Zn (diss)	139	110
TS-S9-SP4-12	Cu (tot)	12.8	11.8
TS-S9-SP4-12	Pb (tot)	8.8	3.2

SAMPLE ID DESCRIPTION

BUILDING 6:
TS-S9-SP1-06 -- System Influent
TS-S9-SP3-06 -- GAC Bed 1 Effluent
TS-S9-SP4-06 -- System Effluent

BUILDING 12:
TS-S9-SP1-12 -- System Influent
TS-S9-SP3-12 -- GAC Bed 1 Effluent
TS-S9-SP4-12 -- System Effluent

BUILDING 45:
TS-S9-SP1-45 -- W61-1 System Influent
TS-S9-SP2-45 -- FP9-1 System Influent
TS-S9-SP3-45 -- Air Stripper Effluent
TS-S9-SP5-45 -- GAC Bed 1 Effluent
TS-S9-SP6-45 -- System Effluent

NASA SETTLING BASIN:
RW-S9-NSB-01 -- Settling Basin Effluent

CERTIFICATION

I certify that the information contained in this document is, to the best of my knowledge, accurate and complete.

Mark A. Kadnuck, P.E.
Project Engineer

COLORADO REGISTERED PROFESSIONAL ENGINEER
MARK A. KADNUCK
29842
02-09-95

week of 11-21-94

Inchcape Testing Services
Anametrix Laboratories

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NAME: Jean Barranco

COMPANY: PRC

FAX #: (303) 295-2818

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a411142

PRELIM RESULTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SP106

Lab Name: Anametrix, Inc. Contract:

Lab Code: 003 Case No.: 0235 SAS No.: SDG No.: SP306

Matrix: (soil/water) WATER Lab Sample ID: 9411142-01

Sample wt/vol: .100 (g/mL) ML Lab File ID: HRN14201

Level: (low/med) Date Received: 11/09/94

% Moisture: not dec._____ Date Analyzed: 11/14/94

GC Column: RTX-502. ID: .53 (mm) Dilution Factor: 50.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	25.	U
74-87-3	Chloromethane	25.	U
75-01-4	Vinyl chloride	25.	U
74-83-9	Bromomethane	25.	U
75-00-3	Chloroethane	25.	U
75-69-4	Trichlorofluoromethane	25.	U
76-13-1	Trichlorotrifluoroethane	13.	J
75-35-4	1,1-Dichloroethene	18.	J
75-09-2	Methylene chloride	25.	
156-60-5	trans-1,2-Dichloroethene	25.	U
75-34-3	1,1-Dichloroethane	25.	U
156-59-2	cis-1,2-Dichloroethene	310.	
67-66-3	Chloroform	25.	U
71-55-6	1,1,1-Trichloroethane	25.	U
56-23-5	Carbon tetrachloride	25.	U
107-06-2	1,2-Dichloroethane	25.	U
79-01-6	Trichloroethene	1200.	
78-87-5	1,2-Dichloropropane	25.	U
75-27-4	Bromodichloromethane	25.	U
110-75-8	2-Chloroethylvinylether	25.	U
10061-01-5	cis-1,3-Dichloropropene	25.	U
10061-02-6	trans-1,3-Dichloropropene	25.	U
79-00-5	1,1,2-Trichloroethane	25.	U
127-18-4	Tetrachloroethene	70.	
124-48-1	Dibromochloromethane	25.	U
108-90-7	Chlorobenzene	25.	U
75-25-2	Bromoform	25.	U
79-34-5	1,1,2,2-Tetrachloroethane	25.	U
541-73-1	1,3-Dichlorobenzene	25.	U
106-46-7	1,4-Dichlorobenzene	25.	U
95-50-1	1,2-Dichlorobenzene	25.	U

PRELIM RESULTS

2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SP306

Lab Name: Anametrix, Inc. Contract:

Lab Code: 003 Case No.: 0235 SAS No.: SDG No.: SP306

Matrix: (soil/water) WATER Lab Sample ID: 9411142-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: HPN14202

Level: (low/med) Date Received: 11/09/94

% Moisture: not dec._____ Date Analyzed: 11/12/94

GC Column: RTX-502. ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	.5	U
74-87-3	Chloromethane	.5	U
75-01-4	Vinyl chloride	.5	U
74-83-9	Bromomethane	.5	U
75-00-3	Chloroethane	.5	U
75-69-4	Trichlorofluoromethane	.5	U
76-13-1	Trichlorotrifluoroethane	.5	U
75-35-4	1,1-Dichloroethene	.5	U
75-09-2	Methylene chloride	.5	U
156-60-5	trans-1,2-Dichloroethene	.5	U
75-34-3	1,1-Dichloroethane	.5	U
156-59-2	cis-1,2-Dichloroethene	.5	U
67-66-3	Chloroform	.5	U
71-55-6	1,1,1-Trichloroethane	.5	U
56-23-5	Carbon tetrachloride	.5	U
107-06-2	1,2-Dichloroethane	.5	U
79-01-6	Trichloroethene	.5	U
78-87-5	1,2-Dichloropropane	.5	U
75-27-4	Bromodichloromethane	.5	U
110-75-8	2-Chloroethylvinylether	.5	U
10061-01-5	cis-1,3-Dichloropropene	.5	U
10061-02-6	trans-1,3-Dichloropropene	.5	U
79-00-5	1,1,2-Trichloroethane	.5	U
127-18-4	Tetrachloroethene	.5	U
124-48-1	Dibromochloromethane	.5	U
108-90-7	Chlorobenzene	.5	U
75-25-2	Bromoform	.5	U
79-34-5	1,1,2,2-Tetrachloroethane	.5	U
541-73-1	1,3-Dichlorobenzene	.5	U
106-46-7	1,4-Dichlorobenzene	.5	U
95-50-1	1,2-Dichlorobenzene	.5	U

3

PRELIM RESULTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SP406

Lab Name: Anametrix, Inc. Contract:

Lab Code: 003 Case No.: 0235 SAS No.: SDG No.: SP306

Matrix: (soil/water) WATER Lab Sample ID: 9411142-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: HPN14203

Level: (low/med) Date Received: 11/09/94

% Moisture: not dec._____ Date Analyzed: 11/12/94

GC Column: RTX-502. ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	.5	U
74-87-3	Chloromethane	.5	U
75-01-4	Vinyl chloride	.5	U
74-83-9	Bromomethane	.5	U
75-00-3	Chloroethane	.5	U
75-69-4	Trichlorofluoromethane	.5	U
76-13-1	Trichlorotrifluoroethane	.5	U
75-35-4	1,1-Dichloroethene	.5	U
75-09-2	Methylene chloride	.5	U
156-60-5	trans-1,2-Dichloroethene	.5	U
75-34-3	1,1-Dichloroethane	.5	U
156-59-2	cis-1,2-Dichloroethene	.5	U
67-66-3	Chloroform	.5	U
71-55-6	1,1,1-Trichloroethane	.5	U
56-23-5	Carbon tetrachloride	.5	U
107-06-2	1,2-Dichloroethane	.5	U
79-01-6	Trichloroethene	.5	U
78-87-5	1,2-Dichloropropane	.5	U
75-27-4	Bromodichloromethane	.5	U
110-75-8	2-Chloroethylvinylether	.5	U
10061-01-5	cis-1,3-Dichloropropene	.5	U
10061-02-6	trans-1,3-Dichloropropene	.5	U
79-00-5	1,1,2-Trichloroethane	.5	U
127-18-4	Tetrachloroethene	.5	U
124-48-1	Dibromochloromethane	.5	U
108-90-7	Chlorobenzene	.5	U
75-25-2	Bromoform	.5	U
79-34-5	1,1,2,2-Tetrachloroethane	.5	U
541-73-1	1,3-Dichlorobenzene	.5	U
106-46-7	1,4-Dichlorobenzene	.5	U
95-50-1	1,2-Dichlorobenzene	.5	U

4

PRELIM RESULTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SP112

Lab Name: Anametrix, Inc. Contract:

Lab Code: 003 Case No.: 0235 SAS No.: SDG No.: SP306

Matrix: (soil/water) WATER Lab Sample ID: 9411142-04

Sample wt/vol: .500 (g/mL) ML Lab File ID: HPN14204

Level: (low/med) Date Received: 11/09/94

% Moisture: not dec._____ Date Analyzed: 11/14/94

GC Column: RTX-502. ID: .53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.	U
74-87-3	Chloromethane	5.	U
75-01-4	Vinyl chloride	35.	
74-83-9	Bromomethane	5.	U
75-00-3	Chloroethane	5.	U
75-69-4	Trichlorofluoromethane	5.	U
76-13-1	Trichlorotrifluoroethane	5.	U
75-35-4	1,1-Dichloroethene	6.	
75-09-2	Methylene chloride	6.	
156-60-5	trans-1,2-Dichloroethene	23.	
75-34-3	1,1-Dichloroethane	19.	
156-59-2	cis-1,2-Dichloroethene	200.	
67-66-3	Chloroform	5.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon tetrachloride	5.	U
107-06-2	1,2-Dichloroethane	5.	U
79-01-6	Trichloroethene	5.	U
78-87-5	1,2-Dichloropropane	5.	U
75-27-4	Bromodichloromethane	5.	U
110-75-8	2-Chloroethylvinylether	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
127-18-4	Tetrachloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
108-90-7	Chlorobenzene	5.	U
75-25-2	Bromoform	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
541-73-1	1,3-Dichlorobenzene	5.	U
106-46-7	1,4-Dichlorobenzene	5.	U
95-50-1	1,2-Dichlorobenzene	5.	U

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PRELIM RESULTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SP312

Lab Name: Anametrix, Inc. Contract:

Lab Code: 003 Case No.: 0235 SAS No.: SDG No.: SP306

Matrix: (soil/water) WATER Lab Sample ID: 9411142-05

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: HPN14205

Level: (low/med) Date Received: 11/09/94

% Moisture: not dec._____ Date Analyzed: 11/12/94

GC Column: RTX-502. ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	.5	U
74-87-3	Chloromethane	.5	U
75-01-4	Vinyl chloride	.5	U
74-83-9	Bromomethane	.5	U
75-00-3	Chloroethane	.5	U
75-69-4	Trichlorofluoromethane	.5	U
76-13-1	Trichlorotrifluoroethane	.5	U
75-35-4	1,1-Dichloroethene	.5	U
75-09-2	Methylene chloride	.5	U
156-60-5	trans-1,2-Dichloroethene	.5	U
75-34-3	1,1-Dichloroethane	.5	U
156-59-2	cis-1,2-Dichloroethene	.5	U
67-66-3	Chloroform	.5	U
71-55-6	1,1,1-Trichloroethane	.5	U
56-23-5	Carbon tetrachloride	.5	U
107-06-2	1,2-Dichloroethane	.5	U
79-01-6	Trichloroethene	.5	U
78-87-5	1,2-Dichloropropane	.5	U
75-27-4	Bromodichloromethane	.5	U
110-75-8	2-Chloroethylvinylether	.5	U
10061-01-5	cis-1,3-Dichloropropene	.5	U
10061-02-6	trans-1,3-Dichloropropene	.5	U
79-00-5	1,1,2-Trichloroethane	.5	U
127-18-4	Tetrachloroethene	.5	U
124-48-1	Dibromochloromethane	.5	U
108-90-7	Chlorobenzene	.5	U
75-25-2	Bromoform	.5	U
79-34-5	1,1,2,2-Tetrachloroethane	.5	U
541-73-1	1,3-Dichlorobenzene	.5	U
106-46-7	1,4-Dichlorobenzene	.5	U
95-50-1	1,2-Dichlorobenzene	.5	U

PRELIM RESULTS

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SP412

Lab Name: Anametrix, Inc. Contract:

Lab Code: 003 Case No.: 0235 SAS No.: SDG No.: SP306

Matrix: (soil/water) WATER Lab Sample ID: 9411142-06

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: HPN14206

Level: (low/med) Date Received: 11/09/94

% Moisture: not dec._____ Date Analyzed: 11/12/94

GC Column: RTX-502. ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	.5	U
74-87-3	Chloromethane	.5	U
75-01-4	Vinyl chloride	.5	U
74-83-9	Bromomethane	.5	U
75-00-3	Chloroethane	.5	U
75-69-4	Trichlorofluoromethane	.5	U
76-13-1	Trichlorotrifluoroethane	.5	U
75-35-4	1,1-Dichloroethene	.5	U
75-09-2	Methylene chloride	.5	U
156-60-5	trans-1,2-Dichloroethene	.5	U
75-34-3	1,1-Dichloroethane	.5	U
156-59-2	cis-1,2-Dichloroethene	.5	U
67-66-3	Chloroform	.5	U
71-55-6	1,1,1-Trichloroethane	.5	U
56-23-5	Carbon tetrachloride	.5	U
107-06-2	1,2-Dichloroethane	.5	U
79-01-6	Trichloroethene	.5	U
78-87-5	1,2-Dichloropropane	.5	U
75-27-4	Bromodichloromethane	.5	U
110-75-8	2-Chloroethylvinylether	.5	U
10061-01-5	cis-1,3-Dichloropropene	.5	U
10061-02-6	trans-1,3-Dichloropropene	.5	U
79-00-5	1,1,2-Trichloroethane	.5	U
127-18-4	Tetrachloroethene	.5	U
124-48-1	Dibromochloromethane	.5	U
108-90-7	Chlorobenzene	.5	U
75-25-2	Bromoform	.5	U
79-34-5	1,1,2,2-Tetrachloroethane	.5	U
541-73-1	1,3-Dichlorobenzene	.5	U
106-46-7	1,4-Dichlorobenzene	.5	U
95-50-1	1,2-Dichlorobenzene	.5	U

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PRELIM RESULTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB-01

Lab Name: Anametrix, Inc. Contract:

Lab Code: 003 Case No.: 0235 SAS No.: SDG No.: SP306

Matrix: (soil/water) WATER Lab Sample ID: 9411142-08

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: HPN14208

Level: (low/med) Date Received: 11/09/94

% Moisture: not dec._____ Date Analyzed: 11/12/94

GC Column: RTX-502. ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	.5	U
74-87-3	Chloromethane	.5	U
75-01-4	Vinyl chloride	.5	U
74-83-9	Bromomethane	.5	U
75-00-3	Chloroethane	.5	U
75-69-4	Trichlorofluoromethane	.5	U
76-13-1	Trichlorotrifluoroethane	.5	U
75-35-4	1,1-Dichloroethene	.5	U
75-09-2	Methylene chloride	.5	U
156-60-5	trans-1,2-Dichloroethene	.5	U
75-34-3	1,1-Dichloroethane	.5	U
156-59-2	cis-1,2-Dichloroethene	.5	U
67-66-3	Chloroform	.5	U
71-55-6	1,1,1-Trichloroethane	.5	U
56-23-5	Carbon tetrachloride	.5	U
107-06-2	1,2-Dichloroethane	.5	U
79-01-6	Trichloroethene	.5	U
78-87-5	1,2-Dichloropropane	.5	U
75-27-4	Bromodichloromethane	.5	U
110-75-8	2-Chloroethylvinylether	.5	U
10061-01-5	cis-1,3-Dichloropropene	.5	U
10061-02-6	trans-1,3-Dichloropropene	.5	U
79-00-5	1,1,2-Trichloroethane	.5	U
127-18-4	Tetrachloroethene	.5	U
124-48-1	Dibromochloromethane	.5	U
108-90-7	Chlorobenzene	.5	U
75-25-2	Bromoform	.5	U
79-34-5	1,1,2,2-Tetrachloroethane	.5	U
541-73-1	1,3-Dichlorobenzene	.5	U
106-46-7	1,4-Dichlorobenzene	.5	U
95-50-1	1,2-Dichlorobenzene	.5	U

8

PRELIM RESULTS

Inchcape Testing Services
Anametrix Laboratories

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NAME: Jean Barranco

COMPANY: PRC

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COMMENTS: CTO : 0235 SDG : SP406
Moffet site 9 - 5 days TAT
Metals : -01D, -01T, -02D, -03T, -04D, -04T,
-06D, -06T and 07T.

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

NSB01T

Lab Name: ANAMETRIX INC Contract: 000000

Lab Code: ANAMET Case No.: 0235 SAS No.: 000000 SDG No.: SP406

Matrix (soil/water): WATER Lab Sample ID: 11142-07T

Level (low/med): LOW Date Received: 11/09/94

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.2	B		P
7440-36-0	Antimony	1.1	U		P
7440-38-2	Arsenic	3.4	B		P
7440-39-3	Barium	386			P
7440-41-7	Beryllium	0.10	B		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	156000			P
7440-47-3	Chromium	0.80	U		P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	0.30	U		P
7439-89-6	Iron	206			P
7439-92-1	Lead	1.2	B		P
7439-95-4	Magnesium	65500			P
7439-96-5	Manganese	471			P
7439-97-6	Mercury	0.10	U		CV
7439-98-7	Molybdenum	0.83	B		P
7440-02-0	Nickel	12.5	B		P
7440-09-7	Potassium	2430	B	E	P
7782-49-2	Selenium	2.3	U		P
7440-22-4	Silver	0.40	U		P
7440-23-5	Sodium	59800			P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	0.90	U		P
7440-66-6	Zinc	77.3		E	P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

2

FORM I - IN (ILM02.1)

PRELIM RESULTS

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SP106D

Lab Name: ANAMETRIX INC Contract: 000000

Lab Code: ANAMET Case No.: 0235 SAS No.: 000000 SDG No.: SP406

Matrix (soil/water): WATER Lab Sample ID: 11142-01D

Level (low/med): LOW Date Received: 11/09/94

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14.4	U		P
7440-36-0	Antimony	1.1	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	25.4	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	183000			P
7440-47-3	Chromium	0.80	U		P
7440-48-4	Cobalt	0.70	U		P
7440-50-8	Copper	1.4	B		P
7439-89-6	Iron	10.1	U		P
7439-92-1	Lead	1.4	B		P
7439-95-4	Magnesium	60500			P
7439-96-5	Manganese	31.1			P
7439-97-6	Mercury	0.10	U		CV
7439-98-7	Molybdenum	1.6	B		P
7440-02-0	Nickel	2.5	B		P
7440-09-7	Potassium	1460	B	E	P
7782-49-2	Selenium	6.3			P
7440-22-4	Silver	0.40	U		P
7440-23-5	Sodium	38300			P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	1.3	B		P
7440-66-6	Zinc	35.9		E	P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

3

PRELIM RESULTS

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SP106T

Lab Name: ANAMETRIX INC Contract: 000000

Lab Code: ANAMET Case No.: 0235 SAS No.: 000000 SDG No.: SP406

Matrix (soil/water): WATER Lab Sample ID: 11142-01T

Level (low/med): LOW Date Received: 11/09/94

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16.4	B		P
7440-36-0	Antimony	1.1	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	27.3	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	188000			P
7440-47-3	Chromium	0.80	U		P
7440-48-4	Cobalt	0.70	U		P
7440-50-8	Copper	2.4	B		P
7439-89-6	Iron	12.8	B		P
7439-92-1	Lead	1.2	B		P
7439-95-4	Magnesium	61700			P
7439-96-5	Manganese	29.8			P
7439-97-6	Mercury	0.10	U		CV
7439-98-7	Molybdenum	1.8	B		P
7440-02-0	Nickel	1.4	U		P
7440-09-7	Potassium	1510	B	E	P
7782-49-2	Selenium	7.2			P
7440-22-4	Silver	0.40	U		P
7440-23-5	Sodium	39100			P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.6	B		P
7440-66-6	Zinc	56.0		E	P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

PRELIM RESULTS

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SP112D

Lab Name: ANAMETRIX INC Contract: 000000

Lab Code: ANAMET Case No.: 0235 SAS No.: 000000 SDG No.: SP406

Matrix (soil/water): WATER Lab Sample ID: 11142-04D

Level (low/med): LOW Date Received: 11/09/94

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.7	B		P
7440-36-0	Antimony	1.1	U		P
7440-38-2	Arsenic	11.5			P
7440-39-3	Barium	414			P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	159000			P
7440-47-3	Chromium	0.80	U		P
7440-48-4	Cobalt	0.70	U		P
7440-50-8	Copper	0.30	U		P
7439-89-6	Iron	2700			P
7439-92-1	Lead	2.2	B		P
7439-95-4	Magnesium	65700			P
7439-96-5	Manganese	554			P
7439-97-6	Mercury	0.10	U		CV
7439-98-7	Molybdenum	0.86	B		P
7440-02-0	Nickel	1.4	U		P
7440-09-7	Potassium	2420	B	E	P
7782-49-2	Selenium	2.3	U		P
7440-22-4	Silver	0.40	U		P
7440-23-5	Sodium	60200			P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	0.90	U		P
7440-66-6	Zinc	33.7		E	P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

PRELIM RESULTS

5

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SP112T

Lab Name: ANAMETRIX INC Contract: 000000

Lab Code: ANAMET Case No.: 0235 SAS No.: 000000 SDG No.: SP406

Matrix (soil/water): WATER Lab Sample ID: 11142-04T

Level (low/med): LOW Date Received: 11/09/94

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.1	B		P
7440-36-0	Antimony	1.1	U		P
7440-38-2	Arsenic	11.9			P
7440-39-3	Barium	453			P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	161000			P
7440-47-3	Chromium	0.80	U		P
7440-48-4	Cobalt	0.70	U		P
7440-50-8	Copper	0.30	U		P
7439-89-6	Iron	3120			P
7439-92-1	Lead	1.5	B		P
7439-95-4	Magnesium	67400			P
7439-96-5	Manganese	608			P
7439-97-6	Mercury	0.10	U		CV
7439-98-7	Molybdenum	0.79	B		P
7440-02-0	Nickel	1.4	U		P
7440-09-7	Potassium	2520	B	E	P
7782-49-2	Selenium	2.3	U		P
7440-22-4	Silver	0.44	B		P
7440-23-5	Sodium	62000			P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	0.90	U		P
7440-66-6	Zinc	70.1		E	P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

PRELIM RESULTS

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SP406T

Lab Name: ANAMETRIX INC Contract: 000000

Lab Code: ANAMET Case No.: 0235 SAS No.: 000000 SDG No.: SP406

Matrix (soil/water): WATER Lab Sample ID: 11142-03T

Level (low/med): LOW Date Received: 11/09/94

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	29.8	B		P
7440-36-0	Antimony	1.1	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	35.4	B		P
7440-41-7	Beryllium	0.12	B		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	185000			P
7440-47-3	Chromium	0.80	U		P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	3.2	B		P
7439-89-6	Iron	120			P
7439-92-1	Lead	1.5	B		P
7439-95-4	Magnesium	61800			P
7439-96-5	Manganese	28.2			P
7439-97-6	Mercury	0.10	U		CV
7439-98-7	Molybdenum	3.5	B		P
7440-02-0	Nickel	13.0	B		P
7440-09-7	Potassium	1610	B	E	P
7782-49-2	Selenium	6.4			P
7440-22-4	Silver	0.40	U		P
7440-23-5	Sodium	39600			P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	B		P
7440-66-6	Zinc	172		E	P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN (ILM02.1)

PRELIM RESULTS

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SP412D

Lab Name: ANAMETRIX INC Contract: 000000

Lab Code: ANAMET Case No.: 0235 SAS No.: 000000 SDG No.: SP406

Matrix (soil/water): WATER Lab Sample ID: 11142-06D

Level (low/med): LOW Date Received: 11/09/94

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.8	B		P
7440-36-0	Antimony	1.1	U		P
7440-38-2	Arsenic	2.3	B		P
7440-39-3	Barium	398			P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	159000			P
7440-47-3	Chromium	0.80	U		P
7440-48-4	Cobalt	3.0	B		P
7440-50-8	Copper	0.30	U		P
7439-89-6	Iron	227			P
7439-92-1	Lead	0.60	U		P
7439-95-4	Magnesium	66800			P
7439-96-5	Manganese	481			P
7439-97-6	Mercury	0.10	U		CV
7439-98-7	Molybdenum	1.0	B		P
7440-02-0	Nickel	13.7	B		P
7440-09-7	Potassium	2460	B	E	P
7782-49-2	Selenium	2.3	U		P
7440-22-4	Silver	0.60	B		P
7440-23-5	Sodium	61600			P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	0.91	B		P
7440-66-6	Zinc	60.6		E	P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

PRELIM RESULTS

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SP412T

Lab Name: ANAMETRIX INC Contract: 000000

Lab Code: ANAMET Case No.: 0235 SAS No.: 000000 SDG No.: SP406

Matrix (soil/water): WATER Lab Sample ID: 11142-06T

Level (low/med): LOW Date Received: 11/09/94

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	219			P
7440-36-0	Antimony	1.1	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	50.0	B		P
7440-41-7	Beryllium	0.11	B		P
7440-43-9	Cadmium	0.26	B		P
7440-70-2	Calcium	74900			P
7440-47-3	Chromium	2.0	B		P
7440-48-4	Cobalt	0.70	U		P
7440-50-8	Copper	12.8	B		P
7439-89-6	Iron	338			P
7439-92-1	Lead	8.8			P
7439-95-4	Magnesium	27200			P
7439-96-5	Manganese	52.2			P
7439-97-6	Mercury	0.10	U		CV
7439-98-7	Molybdenum	4.5	B		P
7440-02-0	Nickel	2.3	B		P
7440-09-7	Potassium	2920	B	E	P
7782-49-2	Selenium	3.6	B		P
7440-22-4	Silver	0.43	B		P
7440-23-5	Sodium	40200			P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	3.0	B		P
7440-66-6	Zinc	97.1		E	P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

10

PRELIM RESULTS

FORM I - IN (ILM02.1)

Inchcape Testing Services
Anametrix Laboratories

FAX TRANSMITTAL COVER SHEET

TO: DATE: 11-23-92

NAME: Jean Barranco

COMPANY: PRC

FAX #: (303) 295-2818

TOTAL NUMBER OF PAGES (INCLUDING THIS COVER SHEET): 3

NOTE: Please confirm receipt of the fax and return this coversheet via fax:

RECEIVED BY: _____ DATE: _____

FROM:

NAME: Tracey Pham

ITS - ANAMETRIX LABORATORIES
FAX : (408) 432 - 8198
PHONE : (408) 432 - 8192

If all pages are not received, please notify the sender at (408) 432 - 8192.

COMMENTS: CTO : 0235 SDG : 406
Moffet Site 9
TPHg / BTEX : -01 → -06

9411147

PRELIM RESULTS

ANAMETRIX, INC.
1961 Concourse Drive, San Jose, CA 95131, (408) 432-8192

TOTAL FUEL HYDROCARBON REPORT

TPHg with BTEX

Workorder # 9411142 Client Project # 0235

ANAMETRIX ID #	01	02	03	04	05
CLIENT ID #	Sp 106	Sp306	Sp 406	Sp 112	Sp 312
CONCENTRATION UNITS	µg/L	→			→
BENZENE	<1.0	<0.5	<0.5	920	<0.5
TOLUENE	↓	↓	↓	460	↓
ETHYLBENZENE	↓	1.0	↓	1000	↓
XYLENES	↓	4.2	↓	1100	↓
GASOLINE	680	<50	<50	17000	<50
% SURROGATE RECOVERY	91%	119%	91%	99%	97%
INSTRUMENT #	HP8	→	→	→	→
DATE ANALYZED	11/21/94	11/18/94	11/21/94	11/22/94	11/22/94
RLMF *	2	1	1	50	1

Date: 11/23/94 Date: [illegible]

Analyst: IS Reviewer: [illegible]

METHODS DONE ARE THOSE SPECIFIED BY CRWQCB.
Ametrix Inc. SF Department Form 2-1

ANAMETRIX INC

Inchcape Testing Services
Anametrix Laboratories

FAX TRANSMITTAL COVER SHEET

TO: DATE: 11-30-94

NAME: Jean Barranco

COMPANY: PRC

FAX #: (303) 295-2818

TOTAL NUMBER OF PAGES (INCLUDING THIS COVER SHEET): 4

NOTE: Please confirm receipt of the fax and return this coversheet via fax:

RECEIVED BY: _____ DATE: _____

FROM:

NAME: Tracey Pham

ITS - ANAMETRIX LABORATORIES
FAX : (408) 432 - 8198
PHONE : (408) 432 - 8192

If all pages are not received, please notify the sender at (408) 432 - 8192.

COMMENTS: CTO : 0235 SDG : SP406
Moffet Site 9
TPHd : 01 → 06 and -15

9411142

PRELIM RESULTS

1961 Concourse Drive, San Jose, CA 95131, (408) 432-8192

TOTAL FUEL HYDROCARBON REPORT

TPHg with BTEX

Workorder # 9411 142 Client Project # 0235

ANAMETRIX ID #	06				
CLIENT ID #	SP4112				
CONCENTRATION UNITS	µg/L				
BENZENE	<0.5				
TOLUENE	↓				
ETHYLBENZENE	↓				
XYLENES	↓				
GASOLINE	<50				
% SURROGATE RECOVERY	110%				
INSTRUMENT #	HP8				
DATE ANALYZED	11/21/94				
RLMF *	1				

Date: 11/23/94 Date: 11/22/94

Analyst: IJ Reviewer: CAS

METHODS DONE ARE THOSE SPECIFIED BY CRWQCB.
Anametrix, Inc. GC Department Form 2-1

* RLMF - Reporting Limit Multiplication Factor

/1330(/2913)

PRELIM RESULTS

2

ITS-ANAMETRIX LABORATORIES
1961 Concourse Drive, San Jose, CA 95131, (408) 432-8192 FX (408) 432-8188

TOTAL FUEL HYDROCARBON REPORT

TPH as Diesel / Motor Oil

Workorder # 9411142 Client PRC

Date Extracted 11/14/94 Project # 0235

Matrix (WATER) / SOIL Instrument ID # HP9 / (HP19) / HP23

ANAMETRIX ID #	CLIENT ID #	DATE ANALYZED	REPORTING LIMIT	AMOUNT FOUND ppb / ppm diesel	motor	kero	JP-5	% SURROGATE RECOVERY
-01	SP106	11/16/94	100	ND	150	ND	ND	81%
-02	306	11/16/94	100	ND	ND	ND	ND	83%
-03	406	11/16/94	100	ND	ND	ND	ND	82%
-04	112	11/17/94	200	ND	ND	ND	3300	78%
-05	312	11/16/94	100	ND	"J" 63	ND	ND	84%
-06	412	11/16/94	100	ND	ND	ND	ND	81%
-15	22013	11/17/94	100	ND	ND	ND	ND	83%
BN1412FQ	Method Blank	11/16/94	100	ND	ND	ND	ND	87%

Date: 11/17/94 Date:

Analyst: TS Reviewer:

METHODS PERFORMED ARE THOSE SPECIFIED BY TRIREGIONAL GUIDELINES

PRELIM RESULTS

4441

PRC ENVIRONMENTAL MANAGEMENT INC.

9411142 (10/29) (18) (16)

DATE:

CHAIN-OF-CUSTODY RECORD

DESTINATION Anametrix

PROJECT NAME: Moffett Site 9 SCM

PROJECT JOB #: 044-0235IRSC9C

SAMPLER(S): PRINTED NAME AND SIGNATURE: Mark Kadnuck Mark Kadnuck

SAMPLING TEAM #: 1

	SAMPLE I.D.	DATE OF COLLECTION	TIME OF COLLECTION	SAMPLE MEDIUM (MATRIX)	GRAB	COMP	SAMPLE LOCATION	NUMBER/SIZE OF CONTAINERS	VOC 8010	TPH orig 8015	TPH ext 8015	Total Metals CLP	Diss. Metals CLP						REMARKS
1	TS-59-SP1-06	11-9-94	1550	water	X		Bldg 6 SP1	6x40 ml, 2x1L poly 2x1 Lamber	P	P	V	P	B						5 day TAT
2	TS-59-SP3-06	11-9-94	1615	water	X		Bldg 6 SP3	6x40 ml 2x1L amber	P	P	V								" "
3	TS-59-SP4-06	11-9-94	1640	water	X		Bldg 6 SP4	6x40 ml, 2x1L poly 2x1L amber	P	P	V	P	B						" "
4	TS-59-SP1-12	11-9-94	1345	water	X		Bldg 12 SP1	6x40 ml, 2x1L poly 2x1L amber	P	P	V	P	B						" "
5	TS-59-SP3-12	11-9-94	1405	water	X		Bldg 12 SP3	6x40 ml 2x1L amber	P	P	V								" "
6	TS-59-SP4-12	11-9-94	1420	water	X		Bldg 12 SP4	6x40 ml, 2x1L poly 2x1L amber	P	P	V	P	B						" "
7	RW-59-NSB-01	11-9-94	0915	water	X		~~Bldg~~ NASA Settling Basin	1x1L poly				P							" "
8	TB-01	11-9-94	1500	water	X				P										

PRELIM RESULTS

Laboratory, please distinguish. Call if you are uncertain. The number zero is "0" and the letters O are "O" or "o".

	SIGNATURE	NAME (print)	COMPANY/TITLE	DATE	TIME
RELINQUISHED BY:	Mark Kadnuck	Mark Kadnuck	PRC	11-10	1450
RECEIVED BY:	Benny S. Carrizosa	BENNY S. CARRIZOSA	INCHCAPE TESTING	11-10-94	1450
RELINQUISHED BY:	Benny S. Carrizosa	BENNY S. CARRIZOSA	INCHCAPE TESTING	11-10-94	1515
RECEIVED BY:	[signature]	Maria S. Barajas	INCHCAPE TESTING	11/10/94	1515
RELINQUISHED BY:					
RECEIVED BY:					

REMARKS:

REQ. TURN AROUND:

INSTRUCTIONS: Enter only one of the following four codes for each analysis required & for each sample listed. The codes should be entered under the columns labeled "ANALYSES REQUIRED".

U = UNPRESERVED AND UNFILTERED SAMPLE P = PRESERVED SAMPLE F = FILTERED SAMPLE B = BOTH PRESERVED & FILTERED SAMPLE

ToxScan Inc.

42 Hangar Way
Watsonville, CA 95076

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PRC Environmental Management, Inc.
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16 November, 1994

ATTN: Jean Barranco

Static acute bioassays were performed on two water samples received from PRC using the 3-spined Stickleback (*Gasterosteus aculeatus*). Samples were collected by PRC personnel and delivered to ToxScan's Watsonville laboratory where the sample set was assigned ToxScan number T-11444. The water was tested using 100%, and 0% (control) concentrations of the sample as delivered. The testing method used was: *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms.* EPA/600/4-90/027, 1991.

All fish were held in the laboratory for at least 2 days prior to test initiation, and no mortality was observed in the species within the week before testing was started.

BIOASSAY CONDITIONS

Date Sampled:	11 November, 1994
Date Started:	15 November, 1994
Lighting:	10-20 microE/M^2/s

	Sticklebacks
No. Fish/Tank:	10
Vol. of Test Solution:	8 L
Test Temperature:	20 ± 2°C

SUMMARY TABLE Percent Survival after 96 hours.

Sample ID	Sticklebacks (*G. aculeatus*)
TS-S9-SP4-06	95
TS-S9-SP4-12	100
Control	100

If you have any questions regarding this report or the methods used for this test please give us a call. Thank you for your patronage.

Raymond P. Markel, Ph.D.
Director, Bioassay Division

96 h Acute Toxicity Test Data Sheet

Lab #	T-11444	Start Date	11 November 1994
Client	PRC Environmental Management, Inc.	End Date	15 November 1994
ID	TS-S9-SP4-06 & TS-S9-SP4-12	Species	G. aculeatus

Treat-ment (ID)	Number Alive at Observation Time (h) 0	24	48	72	96	Environmental Monitoring	0	24	48	72	96
Control	10	10	10	10	10	pH	8.5	8.0	8.1	8.2	8.3
						DO	8.9	6.8	7.8	7.6	8.5
						Temp	19.7	20.1	20.0	19.7	19.9
Control	10	10	10	10	10	pH	8.5	8.0	8.3	8.3	8.2
						DO	8.9	6.7	8.4	8.3	8.2
						Temp	19.6	20.1	19.5	19.2	19.3
-06	10	10	10	10	10	pH	7.6	8.1	8.4	8.3	8.2
						DO	7.5	6.7	8.3	8.5	8.2
						Temp	20.6	20.2	19.8	19.6	19.7
-06	10	10	10	9	9	pH	7.6	8.1	8.4	8.3	8.3
						DO	7.6	6.3	8.5	8.6	8.5
						Temp	20.3	20.4	19.2	19.0	19.0
-12	10	10	10	10	10	pH	7.4	8.0	8.1	8.1	8.2
						DO	6.9	6.3	7.0	8.2	8.2
						Temp	19.4	20.3	19.7	19.6	19.9
-12	10	10	10	10	10	pH	7.5	8.1	8.3	8.3	8.5
						DO	7.4	6.3	8.4	8.6	8.6
						Temp	19.8	20.3	19.4	19.2	19.1

Hardness

Control-initial	168	Sample -06-initial	796	Sample -12-initial	660
Control-final	170	Sample -06-final	580	Sample -12-final	420

Alkalinity

Control-initial	124	Sample -06-initial	370	Sample -12-initial	680
Control-final	120	Sample -06-final	280	Sample -12-final	400

FISH WEIGHT AND LENGTH ANALYSIS SHEET

TEST SPECIFICATIONS:

Date Started:	11 November 1994
Date Completed:	15 November 1994
Test Species:	3-spined Stickleback (*Gasterosteus aculeatus*)
# Organisms/Tank:	10
Volume/Tank:	8 Liters
Test Material Concentrations:	0% (control) and 100%
Replicates/Concentration:	2

Fish Weights and Lengths: Lot Number Gas110394

Fish No.	Weight (g)	Length (mm)
1	0.5342	36
2	0.6186	38
3	0.4097	35
4	0.7930	42
5	0.3993	34
6	0.4104	35
7	0.5017	36
8	0.4537	35
9	0.5271	36
10	0.4484	35
Total	5.0961	362
Mean	0.5096	36.2