SDMS DocID 248056

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1.18

FIELD INVESTIGATIONS OF UNCONTROLLED HAZARDOUS WASTE SITES

FIT PROJECT

TASK REPORT TO THE ENVIRONMENTAL PROTECTION AGENCY CONTRACT NO. 68-01-6056

EVALUATION OF THE HYDROGEOLOGY
AND GROUNDWATER QUALITY
OF
EAST AND NORTH WOBURN, MASSACHUSETTS

VOLUME IV
FINAL REPORT

APPENDIX G - ANALYTICAL DATA

25 June 1982
TDD No. F1-8109-02

Prepared by: Ecology and Environment, Inc.
Field Investigation Team (FIT)
Region 1

Submitted to: John Hackler

ecology and environment, inc.

International Specialists in the Environmental Sciences

APPENDIX G

Analytical Data

1. Priority Pollutant Analyses of Groundwater Samples

SI-1

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

SI
Sample Number

ORGANICS ANALYSIS DATA SHEET

C# 762 -A1000

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10746
QC Report NO. 18-40, 17-34, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

recycled paper
ecology and environment

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number: CF#762-A1000

Laboratory Name: Mead CompuChem

Lab Sample ID NO. 10746

QC Report NO. 18-40, 17-34, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND 42
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND 46
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	*
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

ND = NOT DETECTED

recycled paper

ecology and environment

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 — Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MA 8173

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01461 QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1. 49	Aluminum	5,890
2. 50	Chromium	22
3. 51	Barium	33
4. 52	Beryllium	<2
5. 53	Cadmium	<5
6. 54	Cobalt	80
7. 55	Copper	84
8. 56	Iron	18,400
	Lead	75
10. 58	Nickel	27
11. 59	Manganese	5,530
12. 60	Zinc	81
13. 61	Boron	54
14. 62	Vanadium	16

mg/l or mg/kg (circle one)

15. 63	Calcium	137
16. 64	Magnesium	26.1
17. 65	Sodium	37.7

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1. 66	Arsenic	27
2. 67	Antimony	<20
3. 68	Selenium	<10
4. 69	Thallium	<10
5. 70	Mercury	<1
6. 71	Tin	<20
7.	Silver	<20

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number: S2

ORGANICS ANALYSIS DATA SHEET

C# 762-A1001

Laboratory Name: Mead CompuChem
Lab Sample ID NO. 10747
QC Report NO. 18-40, 17-34, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number C# 762-A1001

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10747

QC Report NO. 18-40, 17-34, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

ND = NOT DETECTED

recycled paper

ecology and environment

S2-3

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 – Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MA8174

W2

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01462 QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Aluminum	11,100
2.	Chromium	23
3.	Barium	146
4.	Beryllium	<2
5.	Cadmium	<5
6.	Cobalt	23
7.	Copper	125
8.	Iron	21,200
	Lead	45
10.	Nickel	22
11.	Manganese	377
12.	Zinc	115
13.	Boron	56
14.	Vanadium	46

mg/l or mg/kg (circle one)

15.	Calcium	28.9
16.	Magnesium	8.96
17.	Sodium	23.4

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	20
2.	Antimony	<20
3.	Selenium	<10
4.	Thallium	<10
5.	Mercury	<1
6.	Tin	<20
7.	Silver	<20

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number: S3

ORGANICS ANALYSIS DATA SHEET

C#762-A1002

Laboratory Name: Mead CompuChem
Lab Sample ID NO. 10748
QC Report NO. 18-40, 17-34, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

recycled paper

ecology and environment

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number C# 762-A1002

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10748

QC Report NO. 18-40, 17-34, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

recycled paper

ecology and environment

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 — Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MA8175
(W-3)

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Erco CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01463 QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Aluminum	32,600	11.	Manganese	960
2.	Chromium	93	12.	Zinc	1,340
3.	Barium	52	13.	Boron	357
4.	Beryllium	2.5	14.	Vanadium	64
5.	Cadmium	5.3			
6.	Cobalt	42			mg/l or mg/kg (circle one)
7.	Copper	586			
8.	Iron	18,500	15.	Calcium	146
	Lead	576	16.	Magnesium	14.2
10.	Nickel	100	17.	Sodium	19.9

TASK 2 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Arsenic	13	5.	Mercury	<1
2.	Antimony	<20	6.	Tin	<20
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)
1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

See sample # 2 & 4 pages

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number

S3-4

ORGANICS ANALYSIS DATA SHEET

C# 762-A1003

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10740
QC Report NO. 18-40, 17-33, 27-34

Corrected copy

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number
C# 762 - - 1017

really A1003

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10740

QC Report NO. 18-40, 17-33, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

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P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number: S4

ORGANICS ANALYSIS DATA SHEET

C# 762-A1003

Laboratory Name: Mead CompuChem
Lab Sample ID NO. 10740
QC Report NO. 18-40, 17-33, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

recycled paper
ecology and environment

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number 03
C# 7162-A10

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10740

QC Report NO. 18-40, 17-33, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 — Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MA 8176

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO CASE NO. 762
LAB SAMPLE ID. NO. Tm-81-01464 QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Aluminum	4,500
2.	Chromium	16
3.	Barium	47
4.	Beryllium	<2
5.	Cadmium	<5
6.	Cobalt	<10
7.	Copper	25
8.	Iron	9,890
	Lead	<40
10.	Nickel	<20
11.	Manganese	326
12.	Zinc	34
13.	Boron	43
14.	Vanadium	23

mg/l or mg/kg (circle one)

15.	Calcium	72.3
16.	Magnesium	15.7
17.	Sodium	18.3

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	15
2.	Antimony	<20
3.	Selenium	<10
4.	Thallium	<10
5.	Mercury	<1
6.	Tin	<20
7.	Silver	<20

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

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P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

55
Sample Number

ORGANICS ANALYSIS DATA SHEET

C# 762-A1004

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10752
QC Report NO. 18-41, 17-34, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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recycled paper
ecology and environment

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number: P.# 762-A1004

Laboratory Name: Mead CompuChem

Lab Sample ID NO. 10752

QC Report NO. 18-41, 17-34, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	48
13V	1,1-dichloroethane	69
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

SS-3

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 — Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MA 8177

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Erco
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01465
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Aluminum	1,500
2.	Chromium	< 10
3.	Barium	83
4.	Beryllium	<2
5.	Cadmium	<5
6.	Cobalt	<10
7.	Copper	41
8.	Iron	4,030
9.	Lead	<90
10.	Nickel	< 20
11.	Manganese	833
12.	Zinc	59
13.	Boron	40
14.	Vanadium	<10

mg/l or mg/kg (circle one)

15.	Calcium	37.0
16.	Magnesium	5.63
17.	Sodium	111.5

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	<10
2.	Antimony	<20
3.	Selenium	< 10
4.	Thallium	<10
5.	Mercury	<1
6.	Tin	<20
7.	Silver	<20

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number: S6

ORGANICS ANALYSIS DATA SHEET

C# 762-A1005

Laboratory Name: Mead CompuChem
Lab Sample ID NO. 10732
QC Report NO. 18-40, 17-33, 27-33

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

S6-2

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number #762-A11005

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10732

QC Report NO. 18-40, 17-33, 27-33

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroetnane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene 410	*
86V	toluene	ND
87V	trichloroethylene *	
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 — Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MA 8178

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01466 QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Aluminum	28,800
2.	Chromium	71
3.	Barium	688
4.	Beryllium	4.9
5.	Cadmium	<5
6.	Cobalt	74
7.	Copper	279
8.	Iron	55,200
	Lead	43
10.	Nickel	102
11.	Manganese	3,090
12.	Zinc	256
13.	Boron	97
14.	Vanadium	87

ug/l or mg/kg (circle one)

mg/l or mg/kg (circle one)

15.	Calcium	131
16.	Magnesium	43
17.	Sodium	26.0

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	<10
2.	Antimony	<20
3.	Selenium	<10
4.	Thallium	<10
5.	Mercury	<1
6.	Tin	<10
7.	Silver	<10

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number: S7

ORGANICS ANALYSIS DATA SHEET

C# 762-A10006

Laboratory Name: Mead CompuChem
Lab Sample ID NO. 10751
QC Report NO. 18-41, 17-34, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number C# 762-A1006

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10751

QC Report NO. 18-41, 17-34, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

ND = NOT DETECTED

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Sample No.
MA8179

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01467
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Aluminum	37,700
2.	Chromium	22
3.	Barium	456
4.	Beryllium	3.1
5.	Cadmium	<5
6.	Cobalt	43
7.	Copper	65
8.	Iron	47,400
	Lead	520
10.	Nickel	63
11.	Manganese	1940
12.	Zinc	993
13.	Boron	103
14.	Vanadium	201

mg/l or mg/kg (circle one)

15.	Calcium	67.8
16.	Magnesium	16.6
17.	Sodium	79.4

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	49
2.	Antimony	<20
3.	Selenium	<10
4.	Thallium	<10
5.	Mercury	<1
6.	Tin	<20
7.	Silver	<20

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

OMMENTS:

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Sample Number S8

ORGANICS ANALYSIS DATA SHEET

C#762-A1007

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10757
QC Report NO. 18-41, 17-34, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

S8-2

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number C#762-A1007

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10757

QC Report NO. 18-41, 17-34, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	38
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	64
86V	toluene	ND
87V	trichloroethylene	112
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

ND = NOT DETECTED

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Sample No.
MA 8180

(w 8)

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01468
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Aluminum	11,400
2.	Chromium	26
3.	Barium	132
4.	Beryllium	<2
5.	Cadmium	<5
6.	Cobalt	21
7.	Copper	118
8.	Iron	12,900
	Lead	<40
10.	Nickel	<20
11.	Manganese	653
12.	Zinc	477
13.	Boron	46
14.	Vanadium	15

mg/l or mg/kg (circle one)

15.	Calcium	29.0
16.	Magnesium	5.86
17.	Sodium	34.4

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	<10
2.	Antimony	<20
3.	Selenium	<10
4.	Thallium	<10
5.	Mercury	<1
6.	Tin	<10
7.	Silver	<10

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

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S9-1

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Sample Number 59

ORGANICS ANALYSIS DATA SHEET

C# 762-A1008

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10736
QC Report NO. 13-40, 17-33, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number C# 762-A1008

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10736

QC Report NO. 19-40, 17-33, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

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Sample No.
MA 8181

(w 9)

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01469
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Aluminum	4,530
2.	Chromium	11
3.	Barium	119
4.	Beryllium	<2
5.	Cadmium	<5
6.	Cobalt	<10
7.	Copper	69
8.	Iron	14,900
	Lead	325
10.	Nickel	<20
11.	Manganese	1020
12.	Zinc	254
13.	Boron	105
14.	Vanadium	20

mg/l or mg/kg (circle one)

15.	Calcium	45.7
16.	Magnesium	3.69
17.	Sodium	41.5

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	17
2.	Antimony	<20
3.	Selenium	<10
4.	Thallium	<10
5.	Mercury	<1
6.	Tin	<20
7.	Silver	<20

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

S10-1

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
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S10
Sample Number

ORGANICS ANALYSIS DATA SHEET

C# 762-A1009

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10749
QC Report NO. 18-40, 17-34, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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S10-3

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
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703/557-2490 FTS 8-557-2490

Sample No.
MA 8182

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01470
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Aluminum	6,290
2.	Chromium	22
3.	Barium	76
4.	Beryllium	<2
5.	Cadmium	<5
6.	Cobalt	19
7.	Copper	47
8.	Iron	14,700
	Lead	<40
10.	Nickel	21
11.	Manganese	443
12.	Zinc	82
13.	Boron	40
14.	Vanadium	16

mg/l or mg/kg (circle one)

15.	Calcium	17.7
16.	Magnesium	3.75
17.	Sodium	20.6

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	<10
2.	Antimony	<20
3.	Selenium	<10
4.	Thallium	<10
5.	Mercury	<1
6.	Tin	<20
7.	Silver	<20

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

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S11
Sample Number

ORGANICS ANALYSIS DATA SHEET

C#762-A1010

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10750
QC Report NO. 18-40, 17-34, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number C#762-A1010

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10750

QC Report NO. 18-40, 17-34, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	10
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	69
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

ND = NOT DETECTED

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ecology and environment

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703/557-2490 FTS 8-557-2490

Sample No.
MA 8183

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01471
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Aluminum	113	11.	Manganese	68
2.	Chromium	<10	12.	Zinc	<10
3.	Barium	14	13.	Boron	43
4.	Beryllium	<2	14.	Vanadium	<10
5.	Cadmium	<5			
6.	Cobalt	<10			mg/l or mg/kg (circle one)
7.	Copper	<20			
8.	Iron	308	15.	Calcium	21.0
	Lead	<40	16.	Magnesium	4.46
10.	Nickel	<20	17.	Sodium	74.3

TASK 2 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Arsenic	<10	5.	Mercury	<1
2.	Antimony	<20	6.	Tin	<20
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)
1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

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Sample Number: 512

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ORGANICS ANALYSIS DATA SHEET

C#762-A1011

Laboratory Name: Mead CompuChem
Lab Sample ID NO. 10744
QC Report NO. 18-40, 17-33, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
8A	4-nitrophenol	ND
9A	2,4-dinitrophenol	ND
0A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
6B	1,3-dichlorobenzene	ND
7B	1,4-dichlorobenzene	ND
	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number
P# 762 - A1011

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10744

QC Report NO. 18-40, 17-33, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	*
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

ND = NOT DETECTED

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703/557-2490 FTS 8-557-2490

Sample No.
MA 8184

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01472 QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Aluminum	19,300.	11.	Manganese	293
2.	Chromium	16	12.	Zinc	65
3.	Barium	46	13.	Boron	23
4.	Beryllium	<2	14.	Vanadium	17.
5.	Cadmium	<5			
6.	Cobalt	<10			mg/l or mg/kg (circle one)
7.	Copper	45			
8.	Iron	7,600	15.	Calcium	22.0
	Lead	46	16.	Magnesium	4.11
10.	Nickel	<20	17.	Sodium	16.0

TASK 2 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Arsenic	13	5.	Mercury	<1
2.	Antimony	<20	6.	Tin	<20
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)
1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

MMENTS:

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U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
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Sample Number S13

ORGANICS ANALYSIS DATA SHEET

#762-A1012

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10743
QC Report NO. 18-40, 17-33, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
	acenaphthene	ND
5	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number C# 762-A1012

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10745

QC Report NO. 18-40, 17-33, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

ND = NOT DETECTED

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US ENVIRONMENTAL PROTECTION AGENCY
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Sample No.
MA 8185

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO CASE NO. 762
LAB SAMPLE ID. NO. Tm-81-01473 QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Aluminum	5,800	11.	Manganese	2,590
2.	Chromium	25	12.	Zinc	266
3.	Barium	338	13.	Boron	53
4.	Beryllium	6.7	14.	Vanadium	<10
5.	Cadmium	<5			
6.	Cobalt	14			mg/l or mg/kg (circle one)
7.	Copper	279			
8.	Iron	34,300	15.	Calcium	35.7
	Lead -	144	16.	Magnesium	11.1
0.	Nickel	<20	17.	Sodium	13.5

TASK 2 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Arsenic	<10	5.	Mercury	<1
2.	Antimony	<20	6.	Tin	<20
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)
1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

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S14-1

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S14
Sample Number

ORGANICS ANALYSIS DATA SHEET

C# 162-A1013

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10742
QC Report NO. 19-40, 17-33, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number C# 762-A1013

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10742

QC Report NO. 18-40, 17-33, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene 260	[illegible]
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

ecology and environment

S14-3

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
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703/557-2490 FTS 8-557-2490

Sample No.
MA 8186

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01474
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Aluminum	20,400	11.	Manganese	1,730
2.	Chromium	26	12.	Zinc	220
3.	Barium	712	13.	Boron	44
4.	Beryllium	2.4	14.	Vanadium	27
5.	Cadmium	<5			
6.	Cobalt	31			mg/l or mg/kg (circle one)
7.	Copper	120			
8.	Iron	14,000	15.	Calcium	50.3
	Lead	113	16.	Magnesium	13.7
0.	Nickel	31	17.	Sodium	37.3

TASK 2 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Arsenic	<10	5.	Mercury	<1
2.	Antimony	<20	6.	Tin	<20
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)
1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

OMMENTS:

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S15-1

S18
Sample Number

C#762-A1014

ORGANICS ANALYSIS DATA SHEET

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10734
QC Report NO. 19-40, 17-33, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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ecology and environment

≠ 515-2

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number ≠ 762-A1014

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10734

QC Report NO. 18-40, 17-33, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

ND = NOT DETECTED

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Sample No.
MA 8187

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO CASE NO. 762
LAB SAMPLE ID. NO. Tm-81-01475 QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Aluminum	23,900
2.	Chromium	23
3.	Barium	259
4.	Beryllium	2.7
5.	Cadmium	< 5
6.	Cobalt	32
7.	Copper	271
8.	Iron	37,000
9.	Lead	172
10.	Nickel	59
11.	Manganese	2,630
12.	Zinc	408
13.	Boron	87
14.	Vanadium	62

mg/l or mg/kg (circle one)

15.	Calcium	58.5
16.	Magnesium	10.7
17.	Sodium	30.2

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	68
2.	Antimony	< 20
3.	Selenium	< 10
4.	Thallium	< 10
5.	Mercury	< 1
6.	Tin	< 20
7.	Silver	< 20

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

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S16-1

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
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S16
Sample Number

ORGANICS ANALYSIS DATA SHEET

C# 762-A1015

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10743
QC Report NO. 18-40, 17-33, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number CF#762-A1015

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10743

QC Report NO. 18-40, 17-33, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

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Sample No.
MA 8188

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01476
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Aluminum	18,200
2.	Chromium	81
3.	Barium	121
4.	Beryllium	<2
5.	Cadmium	<5
6.	Cobalt	29
7.	Copper	119
8.	Iron	9,230
	Lead	149
10.	Nickel	25
11.	Manganese	553
12.	Zinc	145
13.	Boron	37
14.	Vanadium	19

mg/l or mg/kg (circle one)

15.	Calcium	19.0
16.	Magnesium	3.97
17.	Sodium	17.9

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	<10
2.	Antimony	<20
3.	Selenium	<10
4.	Thallium	<10
5.	Mercury	<1
6.	Tin	<20
7.	Silver	<20

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

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Sample Number: 517

ORGANICS ANALYSIS DATA SHEET

C#762 - A1016

Laboratory Name: Mead CompuChem
Lab Sample ID NO. 10716
QC Report NO. K-11 17-33 07-35

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

recycled paper ecology and environment

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number: PH 762-A1016

Laboratory Name: Mead CompuChem

Lab Sample ID NO. 10716

QC Report NO. 15-40, 17-35, 27-33

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

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Sample No.
MA 8189

17(w17)

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME E&CO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01477
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Aluminum	1,820	11.	Manganese	243
2.	Chromium	<10	12.	Zinc	17
3.	Barium	26	13.	Boron	34
4.	Beryllium	<2	14.	Vanadium	<10
5.	Cadmium	<5			
6.	Cobalt	<10			mg/l or mg/kg (circle one)
7.	Copper	<20			
8.	Iron	3,410	15.	Calcium	20.9
	Lead	<40	16.	Magnesium	5.15
10.	Nickel	<20	17.	Sodium	9.24

TASK 2 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Arsenic	<10	5.	Mercury	<1
2.	Antimony	<20	6.	Tin	<20
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)
1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

OMMENTS:

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U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number: S18

ORGANICS ANALYSIS DATA SHEET

C#762-A1017

Laboratory Name: Mead CompuChem
Lab Sample ID NO. 10741
QC Report NO. 18-40, 17-33, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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ecology and environment

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number C# 762-A1017

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10741

QC Report NO. 18-40, 17-33, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
[illegible] V	dichlorobromomethane	ND
[illegible] V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

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US ENVIRONMENTAL PROTECTION AGENCY
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703/557-2490 FTS 8-557-2490

Sample No.
MA 8190

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01478 QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Aluminum	1,810
2.	Chromium	23
3.	Barium	41
4.	Beryllium	<2
5.	Cadmium	<5
6.	Cobalt	<10
7.	Copper	69
8.	Iron	10,600
9.	Lead	94
10.	Nickel	17
11.	Manganese	249
12.	Zinc	369
13.	Boron	36
14.	Vanadium	20

ug/l or mg/kg (circle one)

mg/l or mg/kg (circle one)

15.	Calcium	13.0
16.	Magnesium	2.95
17.	Sodium	12.9

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	100
2.	Antimony	<20
3.	Selenium	<10
4.	Thallium	<10
5.	Mercury	<1
6.	Tin	<20
7.	Silver	<20

ug/l or mg/kg (circle one)

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

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S19

Sample Number

S19-1

ORGANICS ANALYSIS DATA SHEET

C#762-A1018

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10733
QC Report NO. 19-40, 17-33, 27-33

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
0A	4,6-dinitro-o-cresol	ND
4A	pentachlorophenol	ND
5A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

S19-2

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number C# 762-A1018

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10733

QC Report NO. 18-40, 17-33, 27-33

	VOLATILES	ug/l
2V	acrolein	ND
3V	acryionitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	16
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

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US ENVIRONMENTAL PROTECTION AGENCY
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703/557-2490 FTS 8-557-2490

Sample No.
MA 8191

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01479
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Aluminum	33,200	11.	Manganese	959
2.	Chromium	47	12.	Zinc	472
3.	Barium	226	13.	Boron	71
4.	Beryllium	4.2	14.	Vanadium	66
5.	Cadmium	< 5			
6.	Cobalt	48			mg/l or mg/kg (circle one)
7.	Copper	521			
8.	Iron	26,000	15.	Calcium	80.2
	Lead	140	16.	Magnesium	16.6
10.	Nickel	72	17.	Sodium	20.7

TASK 2 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Arsenic	14	5.	Mercury	<1
2.	Antimony	<20	6.	Tin	< 20
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)
1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

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520
Sample Number

S20-1

ORGANICS ANALYSIS DATA SHEET

C# 762-A1019

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10737
QC Report NO. 18-40, 17-33, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

S20-2

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number #7172-A1019

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10737

QC Report NO. 18-34, 17-33, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene 13	*
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

ND = NOT DETECTED

S20-3

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 — Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MA 8192

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01480
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Aluminum	9,730	11.	Manganese	102
2.	Chromium	17	12.	Zinc	37
3.	Barium	73	13.	Boron	24
4.	Beryllium	<2	14.	Vanadium	39
5.	Cadmium	<5			
6.	Cobalt	<10			mg/l or mg/kg (circle one)
7.	Copper	61			
8.	Iron	9,200	15.	Calcium	24.7
	Lead	<40	16.	Magnesium	3.15
10.	Nickel	<20	17.	Sodium	4.51

TASK 2 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Arsenic	<10	5.	Mercury	<1
2.	Antimony	<20	6.	Tin	<10
3.	Selenium	<10	7.	Silver	<10
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)
1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

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S21

Sample Number

S21-1

ORGANICS ANALYSIS DATA SHEET

C# 76.2-A/B/H
P1020

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10718
QC Report NO. 18-40, 17-33, 27-33

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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S21-2

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number C# 762-A10-16

A1020

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10718

QC Report NO. 18-40, 17-33, 27-33

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	*
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	580
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	100
86V	toluene	ND
87V	trichloroethylene	660
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

ND = NOT DETECTED

S21-3

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 — Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MA 8193

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01481
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Aluminum	11,700
2.	Chromium	34
3.	Barium	142
4.	Beryllium	<2
5.	Cadmium	<5
6.	Cobalt	19
7.	Copper	172
8.	Iron	21,900
	Lead	41
10.	Nickel	36
11.	Manganese	1260
12.	Zinc	192
13.	Boron	155
14.	Vanadium	16

mg/l or mg/kg (circle one)

15.	Calcium	37.1
16.	Magnesium	6.84
17.	Sodium	37.6

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	<10
2.	Antimony	<20
3.	Selenium	<10
4.	Thallium	<10
5.	Mercury	<1
6.	Tin	<20
7.	Silver	<20

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number S22

ORGANICS ANALYSIS DATA SHEET

C# 762-A1021

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10753
QC Report NO. 18-41, 17-34, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

recycled paper

S22-2

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number #762-A1021

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10753

QC Report NO. 18-41, 17-34, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
V	1,2-dichloroethane	ND
V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

recycled paper

ecology and environment

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 — Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MA 8194

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01482 QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

	Aluminum	15,800
	[illegible]m	12
	[illegible]	189
	Beryllium	<2
	Cadmium	<5
	Cobalt	19
7.	Copper	44
8.	Iron	6,900
	Lead	<40
10.	Nickel	<20

ug/l or mg/kg (circle one)

11.	Manganese	1,300
12.	Zinc	56
13.	Boron	40
14.	Vanadium	16

mg/l or mg/kg (circle one)

15.	Calcium	34.3
16.	Magnesium	6.85
17.	Sodium	35.2

TASK 2 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Arsenic	<10
2.	Antimony	<20
3.	Selenium	<10
4.	Thallium	<10

ug/l or mg/kg (circle one)

5.	Mercury	<1
6.	Tin	<20
7.	Silver	<20

TASK 3 (Elements to be identified and measured.)

ug/l or mg/kg (circle one)

1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

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S22-4

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number C#762-A1022

S22 Dupl.

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10717

QC Report NO. 18-40, 17-33, 27-33

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	39
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number

S22-5
S22
Dupl.

ORGANICS ANALYSIS DATA SHEET

CH 762 - A10232

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10717
QC Report NO. 18-40, 17-33, 27-33

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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S23-1

Sample Number AC 231

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME JTC ENVIRONMENTAL CONSULTANTS, INC.

8010-04B-466
WELL (GW-2) S23

LAB SAMPLE ID NO. 81- 1132

QC REPORT NO. JTC-7

	ACID COMPOUNDS	ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2- chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4- dimethylphenol	ND
57A	2- nitrophenol	ND
58A	4- nitrophenol	2831
59A	2,4- dinitrophenol	ND
60A	4,6- dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	198

	BASE/NEUTRAL COMPOUNDS	
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4- trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4- dinitrotoluene	ND
36B	2,6- dinitrotoluene	ND
37B	1,2- diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4- chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	2669
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	275,731
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	62,524
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	4226
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

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ecology and environment

Lab Name: JTC ENVIRONMENTAL CONSULTANTS, INC.

QC Report No: JTC-7

S23-2

Sample Number: A0201

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D-5 nitrobenzene	B/N	987	145	681
2-fluorobiphenyl	B/N	ND	93	0
D-8 napthalene	B/N	ND	95	0
D-6 phenol	Acid	66	105	63
2-fluorophenol	Acid	ND	100	0
D-6 benzene	Vol.	29	25	116
D-8 toluene	Vol.	46	25	184

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: Fit (specify)
1.	3522-94-9	Hexane, 2,2,5-Trimethyl	B/N	890
2.	27554-26-3	1,2-benzenedicarboxylicacid, diisooctylester	B/N	869
3.	17851-53-5	1,2-benzenedicarboxylicacid butyl 2-methylpropylester	B/N	962
4.	131-16-8	1,2-benzenedicarboxylicacid dipropylester	B/N	955
5.	557-35-7	octane, 2-bromo	B/N	971
6.	92-52-4	1,1' biphenyl	B/N	994
7.	107-39-1	1-pentene, 2,4,4-trimethyl	B/N	933
8.	5342-78-9	Pentane, 2,2-4-trimethyl-4-nitro	B/N	811
9.	54411-01-7	cyclohexane, 1-methyl-2-pentyl	B/N	640
10.	18712-14-6	1,2 benzisothiazole, 3-methoxy-1,1-dioxide	Acid	637
11.	27554-26-3	1,2-benzenedicarboxyliacid, diisooctylester	Acid	874
12.	122-39-4	benzenamine, N-phenyl	Acid	981
13.	54965-08-1	benzofuran, 2,3-dihydro-1 2-methyl-7-phenyl	Acid	837
14.	617-86-2	triethyl silane	Vol.	850
15.	107-34-1	2,4,4-trimethyl-1-pentene	Vol.	945
16.	110-12-3	5 methyl-2-hexanone	Vol.	946
17.	598-96-9	3,4,4-trimethyl-2-pentene	Vol.	985
18.	24254-55-5	1-methylpentyl hydroperoxide	Vol.	8[illegible]
19.				
20.				

AO 201
CASE # 430

S23-3

LABORATORY NAME JTC ENVIRONMENTAL CONSULTANTS, INC.

LAB SAMPLE ID NO. 81- 1132

QC REPORT NO. JTC- 7

VOLATILES		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	11
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
9V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	75
87V	trichloroethylene	ND
8V	vinyl chloride	ND

PESTICIDES		ug/l
89P	aldrin	2.13 ‡
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	23.2 ‡
94P	4,4'-DDD	ND
95P	α-endosulfan	2.13
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	2.93 ‡
101P	heptachlor epoxide	1.52
102P	α-BHC	5.17
103P	β-BHC	ND
104P	γ-BHC	ND
105P	δ-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS		
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l

ND = Not detected

NA = Not Analyzed

‡ could not be confirmed on 2nd column due to coeluting peaks

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ecology and environment

S24-1

S. ENVIRONMENTAL PROTECTION AGENCY - HWI Sample Management Office
O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number
A 0127

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ENERGY RESOURCES CO. INC.

OLD, WELL (GW-10) S24

LAB SAMPLE ID NO. 25-052

QC REPORT NO. ERCO #3

	ACID COMPOUNDS	ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2- chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4- dimethylphenol	ND
57A	2- nitrophenol	ND
58A	4- nitrophenol	ND
59A	2,4- dinitrophenol	ND
60A	4,6- dinitro-o-cresol	ND
64A	pentachlorophenol	ND
5A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4- trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4- dinitrotoluene	ND
36B	2,6- dinitrotoluene	ND
7B	1,2- diphenylhydrazine (as azobenzene)	ND
9B	fluoranthene	ND
40B	4- chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	10
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	18
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

Sample Number
A 0127

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME ENERGY RESOURCES CO. INC.

LAB SAMPLE ID NO. 25-052

QC REPORT NO. ERCO #3

	* VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	
6V	carbon tetrachloride	
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	
13V	1,1-dichloroethane	
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	
29V	1,1-dichloroethylene	
30V	1,2-trans-dichloroethylene	
32V	1,2-dichloropropane	
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	
86V	toluene	
87V	trichloroethylene	
[illegible]V	vinyl chloride	

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α -endosulfan	ND
96P	β -endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α -BHC	ND
103P	β -BHC	ND
104P	δ -BHC	ND
105P	γ -BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

* All volatiles except for acrolein & acrylonitrile are not aplicable.

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0005-01F-517 Sample Number

A0627

ORGANICS ANALYSIS DATA SHEET - Page 2

Orin Well GW-10 (S24-3)

LABORATORY NAME MEAD TECHNOLOGY LABORATORY

SAMPLE ID NO. 3069

QC REPORT NO. 04

	VOLATILES	ug/l
V	acrolein	ND
V	acrylonitrile	ND
V	benzene	ND
V	carbon tetrachloride	"
V	chlorobenzene	ND
0V	1,2-dichloroethane	ND
1V	1,1,1-trichloroethane	ND
3V	1,1-dichloroethane	ND
4V	1,1,2-trichloroethane	ND
5V	1,1,2,2-tetrachloroethane	ND
6V	chloroethane	ND
9	2-chloroethylvinyl ether	ND
	chloroform	ND
9V	1,1-dichloroethylene	ND
0V	1,2-trans-dichloroethylene	ND
2V	1,2-dichloropropane	ND
3V	1,3-dichloropropylene	ND
V	ethylbenzene	ND
V	methylene chloride	ND
V	methyl chloride	ND
V	methyl bromide	ND
V	bromoform	ND
V	dichlorobromomethane	ND
V	trichlorofluoromethane	ND
V	dichlorodifluoromethane	ND
V	chlorodibromomethane	ND
V	tetrachloroethylene	ND
V	toluene	ND
	trichloroethylene	ND
V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α -endosulfan	ND
96P	β -endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	ND
104P	γ-BHC	ND
105P	δ-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B	2,3,7,8-tetrachlorodibenzo-p-dioxin

*Less than 10 ug/l (pesticides less than 1 ug/l)

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INORGANICS ANALYSIS DATA SHEET

585- 75

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8020

LAB SAMPLE ID NO. 7676 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	4,790.	10.	Nickel	<20.
2.	Chromium	32.	11.	Manganese	220.
3.	Barium	259.	12.	Zinc	72.
4.	Beryllium	<2.	13.	Boron	<10.
5.	Cadmium	<5.	14.	Vanadium	<10.
6.	Cobalt	<10.	15.	Calcium	7,600.
7.	Copper	<20.	16.	Magnesium	3,100.
8.	Iron	200.	17.	Sodium	90,300.
9.	Lead	<40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<250 [a]
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 250
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl
e) average of two replicate determinations

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Sample Number
A 0129

ORGANICS ANALYSIS DATA SHEET

S25

LABORATORY NAME ENERGY RESOURCES CO. INC.

LAB SAMPLE ID NO. 25-054

QC REPORT NO. ERCO #3

	ACID COMPOUNDS	ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2- chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4- dimethylphenol	ND
57A	2- nitrophenol	ND
58A	4- nitrophenol	ND
59A	2,4- dinitrophenol	ND
60A	4,6- dinitro-o-cresol	ND
64A	pentachlorophenol	ND
5A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4- trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4- dinitrotoluene	ND
36B	2,6- dinitrotoluene	ND
B	1,2- diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4- chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	*
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

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6005-01F-379

Sample Number A0129

ORGANICS ANALYSIS DATA SHEET - Page 2

Olin Well (GW-5) 525-2

LABORATORY NAME MEAD TECHNOLOGY LABORATORY

SAMPLE ID NO. 3071

QC REPORT NO. 24

	VOLATILES	ug/l
V	acrolein	ND
V	acrylonitrile	ND
V	benzene	ND
V	carbon tetrachloride	ND
V	chlorobenzene	ND
V	1,2-dichloroethane	ND
V	1,1,1-trichloroethane	ND
V	1,1-dichloroethane	ND
V	1,1,2-trichloroethane	ND
V	1,1,2,2-tetrachloroethane	ND
V	chloroethane	ND
V	2-chloroethylvinyl ether	ND
	chloroform	ND
V	1,1-dichloroethylene	ND
V	1,2-trans-dichloroethylene	ND
V	1,2-dichloropropane	ND
V	1,3-dichloropropylene	ND
V	ethylbenzene	ND
V	methylene chloride	ND
V	methyl chloride	ND
V	methyl bromide	ND
V	bromoform	ND
V	dichlorobromomethane	ND
V	trichlorofluoromethane	ND
V	dichlorodifluoromethane	ND
	chlorodibromomethane	ND
	tetrachloroethylene	ND
	toluene	ND
	trichloroethylene	ND
	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α -endosulfan	ND
96P	β -endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	ND
104P	γ-BHC	ND
105P	δ-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	

*Less than 10 ug/l (pesticides less than 1 ug/l)

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Sample Number
A 0129

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME ENERGY RESOURCES CO. INC.

LAB SAMPLE ID NO. 25-054

QC REPORT NO. ERCO #3

	* VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	
6V	carbon tetrachloride	
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	
13V	1,1-dichloroethane	
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	
29V	1,1-dichloroethylene	
30V	1,2-trans-dichloroethylene	
32V	1,2-dichloropropane	
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	
86V	toluene	
87V	trichloroethylene	
88V	vinyl chloride	

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α -endosulfan	ND
96P	β -endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α -BHC	ND
103P	β -BHC	ND
104P	δ -BHC	ND
105P	γ -BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

* All volatiles except for acrolein & acrylonitrile are not applicable.

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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INORGANICS ANALYSIS DATA SHEET

S25- 75

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8022

LAB SAMPLE ID NO. 7678 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	579.	10.	Nickel	<20.
2.	Chromium	142.	11.	Manganese	920.
3.	Barium	19.	12.	Zinc	43.
4.	Beryllium	<2.	13.	Boron	61.
5.	Cadmium	<5.	14.	Vanadium	<10.
6.	Cobalt	12.	15.	Calcium	45,500.
7.	Copper	<20.	16.	Magnesium	7,000.
8.	Iron	1,670.	17.	Sodium	295,000.
9.	Lead	<40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<250.[a]
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 250.
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl
e) average of two replicate determinations

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(6Z 3 526-1

Sample Number
A0173

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO. _____
QC REPORT NO. 8

SAMPLE ID: A0173
LAB ID: A0173A
DATE EXTRACTED: 02/08/81
DATE INJECTED: 02/25/81
STD. ID: 02/23/81
CONC. FACTOR: 769.231

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
58A	4-NITROPHENOL	N/D
)A	2,4-DINITROPHENOL	N/D
0A	4,6-DINITRO-O-CRESOL	N/D
4A	PENTCHLOROPHENOL	N/D
65A	PHENOL	N/D

SAMPLE ID: A0173
LAB ID: A0173BN
DATE EXTRACTED: 02/07/81
DATE INJECTED: 03/26/81
STD. ID: 03/25/81
CONC. FACTOR: 1428.571

	BASE/NEUTRAL COMPOUNDS	UG/L
1B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
12B	HEXACHLOROETHANE	N/D
18B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
27B	1,4-DICHLOROBENZENE	N/D
9B	3,3'-DICHLOROBENZIDINE	N/D
B	2,4-DINITROTOLUENE	N/D
6B	2,6-DINITROTOLUENE	N/D
B	1,2-DIPHENYLHYDRAZINE	N/D
39B	FLUORANTHENE	N/D
40B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0173
LAB ID: A0173BN
DATE EXTRACTED: 02/07/81
DATE INJECTED: 03/26/81
STD. ID: 03/25/81
CONC. FACTOR: 1428.571

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	N/D
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	N/D
69B	DI-N-OCTYL PHTHALATE	N/D
70B	DIETHYL PHTHALATE	N/D
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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S26-2

Sample Number
A0173

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO.
QC REPORT NO. 8

SAMPLE ID: A173
LAB ID: A173V
DATE EXTRACTED:
DATE INJECTED: 02/19/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	N/D
5V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	N/D
13V	1,1-DICHLOROETHANE	N/D
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	*
29V	1,1-DICHLOROETHYLENE	N/D
30V	1,2-TRANS-DICHLORO ETHYLENE	N/D
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	11.2
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	19.600
87V	TRICHLOROETHYLENE	*
88V	VINYL CHLORIDE	N/D

	PESTICIDES	µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	ND
104P	γ-BHC	**
105P	δ-BHC	**
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0173

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	103	100	113
D_8-Toluene	VOA	111	100	111
2-Fluorophenol	Acid	63	100	63
D_5-Phenol	Acid	37	100	37
2-Fluorobiphenyl	BN	93	100	93
D_5-Nitrobenzene	BN	88	100	88
D_8-Naphthalene	BN	89	100	89

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	6958	PROPANE, 2-BROMO-1-CHLORO	VOA	83
2.	667	2-BUTENE, 1-CHLORO-	"	94
3.	4874	NAPHTHALENE, 2-METHYL	BN	97
4.	6777	AZETIDINE, 1,1'-METHLENEBIS	"	90
5.	2868	2-BUTANONE, 1,1,1-TRIFLUORO	"	86
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S26-4

INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8058

LAB SAMPLE ID NO. 9488 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	274,000.	10.	Nickel	200.
2.	Chromium	290.	11.	Manganese	17,200.
3.	Barium	2,160.	12.	Zinc	1,360.
4.	Beryllium	< 2.	13.	Boron	100.
5.	Cadmium	< 5.	14.	Vanadium	550.
6.	Cobalt	250.	15.	Calcium	513,000.
7.	Copper	980.	16.	Magnesium	95,000.
8.	Iron	475,000.	17.	Sodium	260,000.
9.	Lead	< 50.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	100.[a]	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<100.[b]	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 50.
b) with a detection limit of 100.
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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(GZ 2) S27-1

Sample Number
A0172

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO. _____
QC REPORT NO. 8

SAMPLE ID: A0172
LAB ID: A0172A
DATE EXTRACTED: 02/08/81
DATE INJECTED: 02/25/81
STD. ID: 02/23/81
CONC. FACTOR: 666.667

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
59A	4-NITROPHENOL	N/D
[illegible]A	2,4-DINITROPHENOL	N/D
[illegible]A	4,6-DINITRO-O-CRESOL	N/D
[illegible]A	PENTCHLOROPHENOL	N/D
65A	PHENOL	N/D

SAMPLE ID: A0172
LAB ID: A0172BN
DATE EXTRACTED: 02/07/81
DATE INJECTED: 03/26/81
STD. ID: 03/25/81
CONC. FACTOR: 769.231

	BASE/NEUTRAL COMPOUNDS	UG/L
1B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
12B	HEXACHLOROETHANE	N/D
18B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
27B	1,4-DICHLOROBENZENE	N/D
[illegible]B	3,3'-DICHLOROBENZIDINE	N/D
[illegible]	2,4-DINITROTOLUENE	N/D
6B	2,6-DINITROTOLUENE	N/D
[illegible]	1,2-DIPHENYLHYDRAZINE	N/D
[illegible]	FLUORANTHENE	14.200
[illegible]B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0172
LAB ID: A0172BN
DATE EXTRACTED: 02/07/81
DATE INJECTED: 03/26/81
STD. ID: 03/25/81
CONC. FACTOR: 769.231

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	N/D
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	N/D
69B	DI-N-OCTYL PHTHALATE	N/D
70B	DIETHYL PHTHALATE	N/D
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	*
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	*
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	*
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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527-2

Sample Number
A0172

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO.
QC REPORT NO. 8

SAMPLE ID: A172
LAB ID: A172V
DATE EXTRACTED:
DATE INJECTED: 02/18/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	N/D
5V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	N/D
13V	1,1-DICHLOROETHANE	*
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	N/D
29V	1,1-DICHLOROETHYLENE	N/D
30V	1,2-TRANS-DICHLORO ETHYLENE	N/D
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	*
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	11.0
87V	TRICHLOROETHYLENE	*
88V	VINYL CHLORIDE	N/D

PESTICIDES		µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	**
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	**
102P	α-BHC	**
103P	β-BHC	**
104P	γ-BHC	ND
105P	δ-BHC	**
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0172

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	98	100	98
D_8-Toluene	VOA	104	100	104
2-Fluorophenol	Acid	53	100	53
D_5-Phenol	Acid	50	100	50
2-Fluorobiphenyl	BN	91	100	91
D_5-Nitrobenzene	BN	89	100	89
D_8-Naphthalene	BN	96	100	96

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	89	PENTADECANE (9)	VOA	72
2.	1105	OXIRANE, 2,3-DIETHYL	"	80
3.	3346	HEXANE, 2,2,3-TRIMETHYL	"	94
4.	1700	ACETYLCHLORIDE, CHLORO	"	82
5.	667	2-BUTENE, 1-CHLORO-	"	95
6.	11350	CYCLOHEXANONE, PHENYLHYDRAZONE	BN	76
7.	102	CHLORINEDIOXIDE (ClO2)	"	92
8.	10427	2-PYRROLIDINONE, 5-(CYCLOHEXYL	"	81
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
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S27-4

INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8057

LAB SAMPLE ID NO. 9487 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	304,000.	10.	Nickel	360.
2.	Chromium	890.	11.	Manganese	2,550.
3.	Barium	920.	12.	Zinc	14,600.
4.	Beryllium	< 2.	13.	Boron	120.
5.	Cadmium	40.	14.	Vanadium	640.
6.	Cobalt	200.	15.	Calcium	245,000.
7.	Copper	11,500.	16.	Magnesium	32,000.
8.	Iron	365,000.	17.	Sodium	40,100.
9.	Lead	4,550.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	2000.[a]	5.	Mercury	2.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<100.[b]	7.	Silver	<20.
4.	Thallium	30.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 1000.
b) with a detection limit of 100.
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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(GZ-6) (528-1)

Sample Number
A0170

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO. _____
QC REPORT NO. 8

SAMPLE ID: A0170
LAB ID: A0170A
DATE EXTRACTED: 02/08/81
DATE INJECTED: 02/25/81
STD. ID: 02/23/81
CONC. FACTOR: 714.286

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
58A	4-NITROPHENOL	N/D
59A	2,4-DINITROPHENOL	N/D
60A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
65A	PHENOL	N/D

SAMPLE ID: A0170
LAB ID: A0170BN
DATE EXTRACTED: 02/07/81
DATE INJECTED: 03/26/81
STD. ID: 03/25/81
CONC. FACTOR: 1000.000

	BASE/NEUTRAL COMPOUNDS	UG/L
1B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
12B	HEXACHLOROETHANE	N/D
16B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
27B	1,4-DICHLOROBENZENE	N/D
28B	3,3'-DICHLOROBENZIDINE	N/D
29B	2,4-DINITROTOLUENE	N/D
30B	2,6-DINITROTOLUENE	N/D
37B	1,2-DIPHENYLHYDRAZINE	N/D
39B	FLUORANTHENE	N/D
40B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0170
LAB ID: A0170BN
DATE EXTRACTED: 02/07/81
DATE INJECTED: 03/26/81
STD. ID: 03/25/81
CONC. FACTOR: 1000.000

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	N/D
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	N/D
69B	DI-N-OCTYL PHTHALATE	N/D
70B	DIETHYL PHTHALATE	N/D
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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S28-2

Sample Number
A0170

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO.
QC REPORT NO. 8

SAMPLE ID: A170
LAB ID: A17CV2
DATE EXTRACTED:
DATE INJECTED: 02/19/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	N/D
6V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	N/D
12V	1,1-DICHLOROETHANE	*
V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	N/D
29V	1,1-DICHLOROETHYLENE	N/D
30V	1,2-TRANS-DICHLORO ETHYLENE	N/D
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	12.1
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	10.4
87V	TRICHLOROETHYLENE	*
	VINYL CHLORIDE	N/D

PESTICIDES		µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	**
93P	4,4'-DDE	**
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	**
102P	α-BHC	**
103P	β-BHC	**
104P	γ-BHC	ND
105P	δ-BHC	**
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS
129B 2,3,7,8-tetrachlorodibenzo-p-dioxin

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0170

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	98	100	98
D_8-Toluene	VOA	107	100	107
2-Fluorophenol	Acid	38	100	38
D_5-Phenol	Acid	34	100	34
2-Fluorobiphenyl	BN	90	100	90
D_5-Nitrobenzene	BN	88	100	88
D_8-Naphthalene	BN	90	100	90

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	6958	PROPANE, 2-PROPYL-1-CHLORO	VOA	82
2.	2877	BUTANE, 1,3-DICHLORO	"	92
3.	9246	1,1'-BIPHENYL, 4-FLUORO-	BN	97
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
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20.				

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S28-4

INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8055

LAB SAMPLE ID NO. 9485 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	70,200.	10.	Nickel	100.
2.	Chromium	340.	11.	Manganese	1,850.
3.	Barium	80.	12.	Zinc	5,150.
4.	Beryllium	< 2.	13.	Boron	240.
5.	Cadmium	5.	14.	Vanadium	250
6.	Cobalt	60.	15.	Calcium	115,000.
7.	Copper	1,220.	16.	Magnesium	30,500.
8.	Iron	380,000.	17.	Sodium	142,000.
9.	Lead	80.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	1000.[a]	5.	Mercury	2.
2.	Antimony	<20.	6.	Tin	<250.[b]
3.	Selenium	<100.[a]	7.	Silver	<20.
4.	Thallium	10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 100.
b) with a detection limit of 250.
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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(GZ5) (S29-1)

Sample Number
A0171

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO. _____
QC REPORT NO. 8

SAMPLE ID: A0171
LAB ID: A0171A
DATE EXTRACTED: 02/08/81
DATE INJECTED: 02/25/81
STD. ID: 02/23/81
CONC. FACTOR: 588.235

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
A	4-NITROPHENOL	N/D
A	2,4-DINITROPHENOL	N/D
A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
65A	PHENOL	N/D

SAMPLE ID: A0171
LAB ID: A0171BN
DATE EXTRACTED: 02/07/81
DATE INJECTED: 03/26/81
STD. ID: 03/25/81
CONC. FACTOR: 1666.667

	BASE/NEUTRAL COMPOUNDS	UG/L
1B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
12B	HEXACHLOROETHANE	N/D
18B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
27B	1,4-DICHLOROBENZENE	N/D
	3,3'-DICHLOROBENZIDINE	N/D
	2,4-DINITROTOLUENE	N/D
	2,6-DINITROTOLUENE	N/D
	1,2-DIPHENYLHYDRAZINE	N/D
39B	FLUORANTHENE	N/D
40B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0171
LAB ID: A0171BN
DATE EXTRACTED: 02/07/81
DATE INJECTED: 03/26/81
STD. ID: 03/25/81
CONC. FACTOR: 1666.667

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	N/D
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	*
69B	DI-N-OCTYL PHTHALATE	N/D
70B	DIETHYL PHTHALATE	N/D
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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S29-2

Sample Number
A0171

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO.
QC REPORT NO. 8

SAMPLE ID: A171
LAB ID: A171V
DATE EXTRACTED:
DATE INJECTED: 02/18/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	N/D
5V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	N/D
13V	1,1-DICHLOROETHANE	N/D
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	N/D
29V	1,1-DICHLOROETHYLENE	N/D
30V	1,2-TRANS-DICHLORO ETHYLENE	*
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	*
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	13.6
87V	TRICHLOROETHYLENE	*
1V	VINYL CHLORIDE	N/D

PESTICIDES		µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	**
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	N.
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	**
104P	γ-BHC	ND
105P	δ-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS		
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	?

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0171

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	101	100	101
D_8-Toluene	VOA	105	100	105
2-Fluorophenol	Acid	63	100	63
D_5-Phenol	Acid	52	100	52
2-Fluorobiphenyl	BN	108	100	108
D_5-Nitrobenzene	BN	125	100	125
D_8-Naphthalene	BN	113	100	113

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	3467	2-PROPENDICACID, 2-METHOXYETHYL	10A	81
2.	6958	PROPANE, 2-BROMO-1-CHLORO	"	82
3.	2877	BUTANE, 1,3-DICHLORO	"	91
4.	2610	HYDRAZINE, (PHENYLMETHYL)-	"	97
5.	386	2H-TETRAZOLE, 2-METHYL	3N	99
6.	1563	CARBONOCHLORIDOTHIOICACID, O-ME	"	50
7.	205	FORMAMIDE, N,N-DIMETHYL	"	99
8.	11177	ETHANE, 1,2-DIBROMO	"	86
9.	5328	DL-NORVALINE, ETHYLESTER	"	83
10.	5582	3-HEXANETHIOL, 3-ETHYL-	"	80
11.	483	2-BUTYNE-1,4-DIOL	"	89
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

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529-4

INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8056

LAB SAMPLE ID NO. 9486 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	362,000.	10.	Nickel	280.
2.	Chromium	2,070.	11.	Manganese	1,500.
3.	Barium	1,480.	12.	Zinc	17,400.
4.	Beryllium	< 2.	13.	Boron	80.
5.	Cadmium	< 5.	14.	Vanadium	570.
6.	Cobalt	110.	15.	Calcium	203,000.
7.	Copper	47,800.	16.	Magnesium	46,900.
8.	Iron	269,000.	17.	Sodium	37,100
9.	Lead	3,880.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	7000.[a]	5.	Mercury	2.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<100.[b]	7.	Silver	<20.
4.	Thallium	50.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 1000.
b) with a detection limit of 100.
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S30-1

SAMPLE ID	A1219 S30	SAMPLE ID	A1219
LAB ID	22937A15	LAB ID	22937B11
DATE EXTRACTED	1/23/82	DATE EXTRACTED	1/22/82
DATE INJECTED	2/18/82	DATE INJECTED	2/21/82
STD ID	SENS230 PHEN399	STD ID	BENZ495 BNSTD496
CONC FACTOR	1000	CONC FACTOR	1000

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	*
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S30-2

SAMPLE ID A1219
LAB ID 22937V13
DATE INJECTED 1/24/82
STD ID BFB140 VOA278
CONC. FACTOR ----------

SAMPLE ID A1219
LAB ID 22937 TRACE #5749
DATE EXTRACTED 1/23/82
DATE INJECTED 2/1/82
STD ID TRACE #5751
CONC. FACTOR 100

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
~~XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX~~		
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

WEST COAST TECHNICAL SERVICE INC.

ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
A1219

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	48	50	96
1-Chloro-2-Bromopropane	VOA	45	50	90
Toluene - d8	VOA	47	50	94
2-Fluorophenol	ACID	63	105	60
Phenol - d5	ACID	61	106	58
Nitrobenzene - d5	B/N	88	101	87
2-Fluorobiphenyl	B/N	83	101	82
Naphthalene-D8	B/N	66	101	65

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		UNKNOWN	ACID #126	NO GOOD FIT
2.		UNKNOWN	B/N #326	NO GOOD FIT
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

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INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8810 (E29) S30

LAB SAMPLE ID NO. 8436 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	100.	10.	Nickel	< 20.
2.	Chromium	< 10.	11.	Manganese	460.
3.	Barium	< 10.	12.	Zinc	100.
4.	Beryllium	< 2.	13.	Boron	< 10.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	28,800.
7.	Copper	< 20.	16.	Magnesium	3400.
8.	Iron	40,500.	17.	Sodium	11,400.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

8C05-OIN-228

S31-1

Woburn Priority Pollutant Survey

September 28, 1980

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On July 28, 1980, Daniel Gran and Brian Sullivan, EPA, S&A Division, and Ed Polouski, Massachusetts Department of Quality Engineering, conducted a sampling survey in the Woburn area. Water samples from 15 sites were collected for 129 priority pollutant analysis. All samples were obtained as grab samples, preserved on site, and properly handled to maintain chain of custody. The "Sampling & Cleaning Methods for 129 Priority Pollutants, EPA, Region I, Surveillance & Analysis Division, May 9, 1979" protocal was followed in this survey.

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Woburn Sampling Sites (7/28/80)

Station		Description
WHWS01	A 3	Drainage ditch on west side of railroad tracks. South side of Eames Street bridge . Wilmington, MA
WHWS02	A 4	Drainage ditch on west side of railroad tracks just prior to entering culvert Wilmington - Woburn, MA
MY10A	A 5	Aberjona River just before culvert. Intersection of Atlantic Street and Commerce Way Woburn, MA
WHWS03		City Tap water 22 Munroe Avenue Woburn, MA
WHWS04	(S40)	City well G Woburn, MA
WHWS05		City well C-2 Woburn, MA
WHWS06		City well D Woburn, MA
MY08	A6	Aberjona river, downstream of culvert on Mishuwam Road Woburn, MA
WHWS07	([redacted]) (S31)	Marshall's Company - 60' well Building 3 Woburn, MA
WHWS09	A7	Hall's Brook just downstream of railroad bridge and before impoundment area Woburn, MA
WHWS10	A8	Water impoundment on Hall's Brook. East bank, 50 feet south of drainage pipe just north of Digital Company Woburn, MA
MY17A		Upper Mystic Lake at Narrows - east side Winchester, MA
MY17		Aberjona River - gaging station off Mystic Valley Parkway Winchester, MA
WHWS11	A9	Whittemore Pond - 50 ft. from south end of pond Woburn, MA

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Woburn Organics
(Units--ug/l)

Station		Trichloroethylene	Phenol	N-Nitrosodiphenylamine	Bis (2-Ethylhexyl) Phthalate	1,2-Dichloroethane
WHWS01	3	14	ND	ND	ND	ND
WHWS02	4	54	*	170	420	*
MY10A	5	ND	ND	ND	ND	ND
WHWS03		ND	ND	ND	ND	ND
WHWS04		400	ND	ND	ND	ND
WHWS05		ND	ND	ND	ND	ND
WHWS06		ND	ND	ND	ND	ND
MY08	6	*	ND	ND	ND	ND
WHWS07		ND	ND	ND	ND	ND
WHWS09	7	15	ND	*	*	ND
WHWS10	8	53	ND	ND	ND	ND
MY17A		ND	ND	ND	ND	ND
MY17		ND	ND	ND	ND	ND
WHWS11	9	ND	ND	ND	ND	ND
MY11	10	27	ND	ND	ND	ND

* Less than 10 ug/l
ND Not detected

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Woburn Organics
(Units--ug/l)

Station		1,1,1-Trichloroethane	1,1-Dichloroethane	Chloroethane	1,1-Dichloroethylene	Tetrachloroethylene
WHWS01	3	60	55	15	*	*
WHWS02	4	20	29	ND	ND	*
My10A	5	ND	ND	ND	ND	ND
WHWS03		ND	ND	ND	ND	ND
WHWS04		*	ND	ND	ND	43
WHWS05		ND	ND	ND	ND	ND
WHWS06		ND	ND	ND	ND	ND
MY08	6	*	ND	ND	ND	ND
WHWS07		ND	ND	ND	ND	ND
WHWS09	7	ND	*	ND	ND	ND
WHWS10	8	22	11	ND	*	ND
MY17A		ND	ND	ND	ND	ND
MY17		*	ND	ND	ND	ND
WHWS11	9	ND	ND	ND	ND	ND
MY11	10	ND	ND	ND	ND	ND

* Less than 10 ug/l
ND Not detected

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Woburn Organics
(Units--ug/l)

Station	1,1,2-Trichloroethane	1,1-Dichloroethylene	1,2-Trans-Dichloroethylene	Toluene	Vinyl Chloride	Chloroform
WHWS01	ND	ND	ND	ND	ND	ND
WHWS02	12	*	74	*	36	ND
MY10A	ND	ND	ND	ND	ND	ND
WHWS03	ND	ND	ND	ND	ND	*
WHWS04	ND	ND	11	ND	ND	ND
WHWS05	ND	ND	ND	ND	ND	ND
WHWS06	ND	ND	ND	ND	ND	ND
MY08	ND	ND	ND	ND	ND	ND
WHWS07	ND	ND	ND	ND	ND	ND
WHWS09	ND	ND	*	ND	ND	ND
WHWS10	ND	ND	13	ND	ND	*
MY17A	ND	ND	ND	ND	ND	ND
MY17	ND	ND	ND	ND	ND	ND
WHWS11	ND	ND	ND	ND	ND	ND
MY11	ND	ND	ND	ND	ND	ND

* Less than 10 ug/l
ND Not detected

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Woburn Organics
(Units--ug/l)

Station	Chlordane	Methylene Chloride	Butylbenzyl Phthalate
WHWS01	ND	ND	ND
WHWS02	ND	ND	ND
MY10A	ND	ND	ND
WHWS03	**	ND	ND
WHWS04	ND	ND	ND
WHWS05	ND	ND	ND
WHWS06	ND	1600	ND
MY08	ND	ND	ND
WHWS07	ND	ND	*
WHWS09	ND	ND	ND
WHWS10	ND	ND	ND
MY17A	0.2	ND	ND
MY17	**	ND	ND
WHWS11	ND	ND	ND
MY11	**	ND	ND

* Less than 10 ug/l
** Less than 0.1 ug/l
ND Not detected

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Woburn Inorganics
(Units--ug/l)

Station		Ca	Mg	Na	As	Sb	Se	Tl	Hg	Sn	Ag	CN	Cr^{+6}
WHWS01	3	22,700	3,790	18,300	K10	K20	K10	K10	K1	K20	K20	K10	D
WHWS02	4	44,500	6,810	81,800	K10	K20	K10	K10	K1	K100	K20	K10	K20
MY10A	5	67,900	66,400	46,500	200	K20	K10	K10	K1	K100	K20	K10	70
WHWS03		4,940	704	8,780	K10	K20	K10	K10	K1	K20	K20	K10	K20
WHWS04		35,100	7,550	42,600	K10	K20	K10	K10	K1	K20	K20	K10	K20
WHWS05		18,400	2,460	31,300	K10	K20	K10	K10	K1	K20	K20	K10	K20
WHWS06		17,600	3,220	27,500	K10	K20	K10	K10	K1	K20	K20	K10	K20
MY08	6	68,500	11,600	65,600	27	K20	K10	K10	K1	K100	K20	K10	K20
WHWS07		26,700	7,600	25,000	K10	K20	K10	K10	K1	K20	K20	K10	K20
WHWS09	7	38,800	7,890	48,500	K10	K20	K10	K10	K1	K20	K20	K10	K20
WHWS10	8	75,100	12,200	66,100	K10	K20	K10	K10	K1	K100	K20	10	K20
MY17A		32,200	6,470	45,200	K10	K20	K10	K10	K1	K20	K20	10	K20
MY17		48,300	8,960	62,100	K10	K20	K10	K10	K1	K20	K20	K10	K20
WHWS11	9	14,400	3,700	39,900	K10	K20	K10	K10	K1	K20	K20	K10	K20
MY11	10	43,700	8,290	49,400	K10	K20	K10	K10	K1	K100	K20	10	K20

K Less than
D Sample lost

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Woburn Inorganics
(Units--ug/l)

Station		Al	Cr	Ba	Be	Cd	Co	Cu	Fe	Pb	Ni	Mn	Zn	B	V
WHWS01	3	K50	K10	22	K2	K5	K10	K20	6,800	K40	K20	568	K10	60	K10
WHWS02	4	181	K10	30	K2	K5	11	K20	6,910	K40	K20	1,770	30	68	K10
MY10A	5	79	43	83	K2	K5	K10	K20	8,010	K40	K20	588	12	155	K10
WHWS03		60	K10	K10	K2	K5	K10	K20	445	K40	K20	11	K10	K10	K10
WHWS04		K50	K10	19	K2	K5	K10	K20	39	K40	K20	556	K10	77	K10
WHWS05		K50	K10	15	K2	K5	K10	K20	47	K40	K20	151	K10	26	K10
WHWS06		K50	K10	K10	K2	K5	K10	K20	K20	K40	K20	71	K10	19	K10
MY08	6	149	K10	49	K2	K5	K10	K20	3,760	K40	K20	2,050	K10	123	K10
WHWS07		53	K10	K10	K2	K5	K10	287	3,940	88	K20	19	3,380	19	K10
WHWS09	7	99	K10	35	K2	K5	K10	24	737	K40	K20	1,100	K10	118	K10
WHWS10	8	57	K10	41	K2	K5	K10	K20	1,560	K40	K20	1,100	695	123	K10
MY17A		71	K10	32	2	K5	K10	K20	680	K40	K20	118	79	49	K10
MY17		K50	K10	45	K2	K5	K10	K20	383	K40	K20	170	263	66	K10
WHWS11	9	K50	K10	18	K2	K5	K10	K20	1,490	K40	K20	46	K10	40	K10
MY11	10	64	K10	22	K2	K5	K10	K20	1,200	K40	K20	292	156	69	K10

K Less than

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S32-1

Sample Number
A0154

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-019

QC REPORT NO. LV-5

Insultab

Well (E9) S32

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	
24A	2- chlorophenol	
31A	2,4-dichlorophenol	
34A	2,4- dimethylphenol	
57A	2- nitrophenol	
58A	4- nitrophenol	
59A	2,4- dinitrophenol	
60A	4,6- dinitro-o-cresol	
64A	pentachlorophenol	
65A	phenol	

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	
8B	1,2,4- trichlorobenzene	
9B	hexachlorobenzene	
12B	hexachloroethane	
18B	bis(2-chloroethyl)ether	
20B	2-chloronaphthalene	
25B	1,2-dichlorobenzene	
26B	1,3-dichlorobenzene	
27B	1,4-dichlorobenzene	
28B	3,3'-dichlorobenzidine	
35B	2,4- dinitrotoluene	
36B	2,6- dinitrotoluene	
37B	1,2- diphenylhydrazine (as azobenzene)	
39B	fluoranthene	
40B	4- chlorophenyl phenyl ether	

BASE/NEUTRAL COMPOUNDS

		ug
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	
43B	bis (2-chloroethoxy) methane	
52B	hexachlorobutadiene	
53B	hexachlorocyclopentadiene	
54B	isophorone	
55B	naphthalene	
56B	nitrobenzene	
61B	N-nitrosodimethylamine	
62B	N-nitrosodiphenylamine	
63B	N-nitrosodi-n-propylamine	
66B	bis (2-ethylhexyl) phthalate	
67B	butyl benzyl phthalate	
68B	di-n-butyl phthalate	
69B	di-n-octyl phthalate	
70B	diethyl phthalate	
71B	dimethyl phthalate	
72B	benzo(a)anthracene	
73B	benzo(a)pyrene.	
74B	3,4-benzofluoranthene	
75B	benzo(k)fluoranthene	
76B	chrysene	
77B	acenaphthylene	
78B	anthracene	
79B	benzo(ghi)perylene	
80B	fluorene	
81B	phenanthrene	
82B	dibenzo(a,h)anthracene	
83B	indeno(1,2,3-cd)pyrene	
84B	pyrene	

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S32-2 Sample Number

A0154

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-019

QC REPORT NO. LV-5

Insulfab

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	
13V	1,1-dichloroethane	
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	
29V	1,1-dichloroethylene	
30V	1,2-trans-dichloroethylene	
32V	1,2-dichloropropane	
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	
86V	toluene	
87V	trichloroethylene	
88V	vinyl chloride	

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	
91P	chlordane	
92P	4,4'-DDT	
93P	4,4'-DDE	
94P	4,4'-DDD	
95P	-endosulfan	
96P	-endosulfan	
97P	endosulfan sulfate	
98P	endrin	
99P	endrin aldehyde	
100P	heptachlor	
101P	heptachlor epoxide	
102P	-BHC	
103P	-BHC	
104P	-BHC	
105P	-BHC	
106P	PCB-1242	
107P	PCB-1254	
108P	PCB-1221	
109P	PCB-1232	
110P	PCB-1248	
111P	PCB-1260	
112P	PCB-1016	
113P	toxaphene	

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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INSULTAB S32-3

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Anatec SAMPLE NO. MA8034

LAB SAMPLE ID NO. 2035 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	130	10.	Nickel	<20
2.	Chromium	<10	11.	Manganese	83
3.	Barium	42	12.	Zinc	24
4.	Beryllium	<2	13.	Boron	270
5.	Cadmium	<5	14.	Vanadium	32
6.	Cobalt	<10	15.	Calcium	120,000
7.	Copper	21	16.	Magnesium	13,000
8.	Iron	32	17.	Sodium	57,000
9.	Lead	<40			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	13	5.	Mercury	<1
2.	Antimony	<20	6.	Tin	180
3.	Selenium	87	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S33-1

SAMPLE ID	A1213 S33	SAMPLE ID	A1213
LAB ID	22937A10	LAB ID	22937B7
DATE EXTRACTED	1/23/82	DATE EXTRACTED	1/22/82
DATE INJECTED	2/13/82	DATE INJECTED	2/21/82
STD ID	SENS280 PHEN399	STD ID	BENZ494 BNSTD495
CONC FACTOR	1000	CONC FACTOR	1000

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	88
67B	butyl benzyl phthalate	21
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S33-2

SAMPLE ID	A1213	SAMPLE ID	A1213
LAB ID	22937V9	LAB ID	22937 TRACE #5752
DATE INJECTED	1/24/82	DATE EXTRACTED	1/23/82
STD ID	BFB140 V0A278	DATE INJECTED	2/1/82
CONC. FACTOR	--------	STD ID	TRACE #5756
		CONC. FACTOR	100

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
~~17V~~	~~bis(chloromethyl) ether~~	
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	*
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	*
86V	toluene	ND
87V	trichloroethylene	42
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

WEST COAST TECHNICAL SERVICE INC.
ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
A1213

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	56	50	112
1-Chloro-2-Bromopropane	VOA	50	50	100
Toluene - d8	VOA	55	50	110
2-Fluorophenol	ACID	28	105	27
Phenol - d5	ACID	4	106	4
Nitrobenzene - d5	B/N	125	101	124
2-Fluorobiphenyl	B/N	90	101	89
Naphthalene-D8	B/N	68	101	67

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		UNKNOWN	ACID #82	NO GOOD FIT
2.		UNKNOWN	ACID #189	NO GOOD FIT
3.		UNKNOWN	B/N #326	NO GOOD FIT
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

U.S. ENVIRONMENTAL PROTECTION AGENCY - HWI Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313 - 703/ 557-2490/FTS-8-557-2490

INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8804 (E26) S33

LAB SAMPLE ID NO. 8432 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

			ug/l				ug/l
1.	Aluminum	<	50.	10.	Nickel	<	20.
2.	Chromium	<	10.	11.	Manganese		180.
3.	Barium		20.	12.	Zinc		3930.
4.	Beryllium	<	2.	13.	Boron		20.
5.	Cadmium	<	5.	14.	Vanadium	<	10.
6.	Cobalt	<	10.	15.	Calcium		18,500.
7.	Copper		40.	16.	Magnesium		4300.
8.	Iron		560.	17.	Sodium		8700.
9.	Lead	<	40.				

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

S33-5

Sample Numbe
A0155

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-019

QC REPORT NO. LV-5

WELL (E 26) S33 Solar Power

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	
24A	2- chlorophenol	
31A	2,4-dichlorophenol	
34A	2,4- dimethylphenol	
57A	2- nitrophenol	
58A	4- nitrophenol	
59A	2,4- dinitrophenol	
60A	4,6- dinitro-o-cresol	
64A	pentachlorophenol	
65A	phenol	

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	
8B	1,2,4- trichlorobenzene	
9B	hexachlorobenzene	
12B	hexachloroethane	
18B	bis(2-chloroethyl)ether	
20B	2-chloronaphthalene	
25B	1,2-dichlorobenzene	
26B	1,3-dichlorobenzene	
27B	1,4-dichlorobenzene	
28B	3,3'-dichlorobenzidine	
35B	2,4- dinitrotoluene	
36B	2,6- dinitrotoluene	
37B	1,2- diphenylhydrazine (as azobenzene)	
39B	fluoranthene	
40B	4- chlorophenyl phenyl ether	

BASE/NEUTRAL COMPOUNDS

		u
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	
43B	bis (2-chloroethoxy) methane	
52B	hexachlorobutadiene	
53B	hexachlorocyclopentadiene	
54B	isophorone	
55B	naphthalene	
56B	nitrobenzene	
61B	N-nitrosodimethylamine	
62B	N-nitrosodiphenylamine	
63B	N-nitrosodi-n-propylamine	
66B	bis (2-ethylhexyl) phthalate	
67B	butyl benzyl phthalate	
68B	di-n-butyl phthalate	
69B	di-n-octyl phthalate	
70B	diethyl phthalate	
71B	dimethyl phthalate	
72B	benzo(a)anthracene	
73B	benzo(a)pyrene.	
74B	3,4-benzofluoranthene	
75B	benzo(k)fluoranthene	
76B	chrysene	
77B	acenaphthylene	
78B	anthracene	
79B	benzo(ghi)perylene	
80B	fluorene	
81B	phenanthrene	
82B	dibenzo(a,h)anthracene	
83B	indeno(1,2,3-cd)pyrene	
84B	pyrene	

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S33-6 Sample Num

ORGANICS ANALYSIS DATA SHEET - Page 2 A0155

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-019

QC REPORT NO. LV-5

Solar Power

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	
13V	1,1-dichloroethane	
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	*
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	*
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	*
86V	toluene	ND
87V	trichloroethylene	21
88V	vinyl chloride	ND

	PESTICIDES	
89P	aldrin	ND
90P	dieldrin	
91P	chlordane	
92P	4,4'-DDT	
93P	4,4'-DDE	
94P	4,4'-DDD	
95P	-endosulfan	
96P	-endosulfan	
97P	endosulfan sulfate	
98P	endrin	
99P	endrin aldehyde	
100P	heptachlor	
101P	heptachlor epoxide	
102P	-BHC	
103P	-BHC	
104P	-BHC	
105P	-BHC	
106P	PCB-1242	
107P	PCB-1254	
108P	PCB-1221	
109P	PCB-1232	
110P	PCB-1248	
111P	PCB-1260	
112P	PCB-1016	
113P	toxaphene	

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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Solar Power

S33-7

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Anatec SAMPLE NO. MA 8033

LAB SAMPLE ID NO. 2034 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	86	10.	Nickel	<20
2.	Chromium	<40	11.	Manganese	110
3.	Barium	11	12.	Zinc	5500
4.	Beryllium	<2	13.	Boron	180
5.	Cadmium	<5	14.	Vanadium	15
6.	Cobalt	<10	15.	Calcium	10,000
7.	Copper	<20	16.	Magnesium	2,300
8.	Iron	1,400	17.	Sodium	3,200
9.	Lead	<40			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10	5.	Mercury	1.1
2.	Antimony	<20	6.	Tin	31
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S33-8

SAMPLE ID A1225 S33 Dupl	SAMPLE ID A1225
LAB ID 22937A4	LAB ID 22937B18
DATE EXTRACTED 1-23-82	DATE EXTRACTED 1-22-82
DATE INJECTED 2-17-82	DATE INJECTED 2-22-82
STD ID SENS229 PHEN398	STD ID BENZ496 BNSTD497
CONC FACTOR 1000	CONC FACTOR 1000

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	24
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S33-9

SAMPLE ID A1225
LAB ID 22937V18
DATE INJECTED 1-24-82
STD ID BFB140 VOA278
CONC. FACTOR ----------

SAMPLE ID A1225
LAB ID 22937 TRACE #5761
DATE EXTRACTED 1-23-82
DATE INJECTED 2-2-82
STD ID TRACE #5762
CONC. FACTOR 100

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
~~17V~~	~~bis(chloromethyl)ether~~	
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	*
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	*
86V	toluene	ND
87V	trichloroethylene	32
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

S33-10

WEST COAST TECHNICAL SERVICE INC.
ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 4

Sample Number
A1225

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	48	50	96
1-Chloro-2-Bromopropane	VOA	45	50	90
Toluene - d8	VOA	47	50	94
2-Fluorophenol	ACID	32	105	30
Phenol - d5	ACID	15	106	14
Nitrobenzene - d5	B/N	92	101	91
2-Fluorobiphenyl	B/N	75	101	74
Naphthalene-D8	B/N	49	101	49

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		UNKNOWN	ACID #132	NO GOOD FIT
2.		UNKNOWN	B/N #240	NO GOOD FIT
3.		UNKNOWN	B/N #325	NO GOOD FIT
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

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INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8815 (E26) S33 DUPL.

LAB SAMPLE ID NO. 8441 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

			ug/l				ug/l
1.	Aluminum	<	50.	10.	Nickel	<	20.
2.	Chromium	<	10.	11.	Manganese		180.
3.	Barium	<	10.	12.	Zinc		4020.
4.	Beryllium	<	2.	13.	Boron		20.
5.	Cadmium	<	5.	14.	Vanadium	<	10.
6.	Cobalt	<	10.	15.	Calcium		18,300.
7.	Copper		40.	16.	Magnesium		4300.
8.	Iron		600.	17.	Sodium		8500.
9.	Lead	<	40.				

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20
3.	Selenium	<20[a]	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 20.
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

WCTS WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S34-1

SAMPLE ID	S34 A1212 (E4)	SAMPLE ID	A1212
LAB ID	22937A9	LAB ID	22937B6
DATE EXTRACTED	1/23/82	DATE EXTRACTED	1/22/82
DATE INJECTED	2/17/82	DATE INJECTED	2/21/82
STD ID	SENS229 PHEN398	STD ID	BENZ494 BNSTD495
CONC FACTOR	1000	CONC FACTOR	1000

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	18
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S34-2

SAMPLE ID	A1212	SAMPLE ID	A1212
LAB ID	22937V2	LAB ID	22937 TRACE #5750
DATE INJECTED	1/23/82	DATE EXTRACTED	1/23/82
STD ID	BFB138 VOA276	DATE INJECTED	2/1/82
CONC. FACTOR	---------	STD ID	TRACE #5756
		CONC. FACTOR	100

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
~~17V~~	~~bis(chloromethyl) ether~~	
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

WEST COAST TECHNICAL SERVICE INC.
ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
A1212

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	56	50	112
1-Chloro-2-Bromopropane	VOA	54	50	108
Toluene - d8	VOA	56	50	112
2-Fluorophenol	ACID	56	105	53
Phenol - d5	ACID	46	106	43
Nitrobenzene - d5	B/N	134	101	133
2-Fluorobiphenyl	B/N	97	101	96
Naphthalene-D8	B/N	58	101	57

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		UNKNOWN	B/N #241	NO GOOD FIT
2.		UNKNOWN	B/N #327	NO GOOD FIT
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

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INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8803 (E4) S34

LAB SAMPLE ID NO. 8431 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	1100.	10.	Nickel	< 20.
2.	Chromium	10.	11.	Manganese	230.
3.	Barium	20.	12.	Zinc	17,100.
4.	Beryllium	< 2	13.	Boron	< 10.
5.	Cadmium	10.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	17,800.
7.	Copper	< 20.	16.	Magnesium	2200.
8.	Iron	71,900.	17.	Sodium	10,700.
9.	Lead	40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

WCTS WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S35-1

SAMPLE ID	A1220 S35	SAMPLE ID	A1220
LAB ID	22937A13	LAB ID	22937B14
DATE EXTRACTED	1/23/82	DATE EXTRACTED	1/22/82
DATE INJECTED	2/18/82	DATE INJECTED	2/22/82
STD ID	SENS230 PHEN399	STD ID	BENZ496 BNSTD497
CONC FACTOR	1000	CONC FACTOR	1000

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

(1) COELUTE

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	*
73B	benzo(a)pyrene	*
74B	3,4-benzofluoranthene	*
75B	benzo(k)fluoranthene	ND
76B	chrysene	*
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	*
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	*
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

(1)

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S35-2

SAMPLE ID	A1220	SAMPLE ID	A1220
LAB ID	22937 V14	LAB ID	22937 TRACE #5754, 5755
DATE INJECTED	1/24/82	DATE EXTRACTED	1/23/82
STD ID	BFB140 VOA278	DATE INJECTED	2/1/82
CONC. FACTOR	-------	STD ID	TRACE #5751
		CONC. FACTOR	100

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
~~17V~~	~~bis-chloromethyl ether~~	~~XXXXXXXXXX~~
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	0.3**
103P	beta-BHC	ND
104P	gamma-BHC	0.6**
105P	delta-BHC	1.0**
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

S35-3

WEST COAST TECHNICAL SERVICE INC.

ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
A1220

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	47	50	94
1-Chloro-2-Bromopropane	VOA	44	50	88
Toluene - d8	VOA	46	50	92
2-Fluorophenol	ACID	74	105	70
Phenol - d5	ACID	70	106	66
Nitrobenzene - d5	B/N	79	101	78
2-Fluorobiphenyl	B/N	64	101	63
Naphthalene-D8	B/N	51	101	50

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		UNKNOWN	B/N #324	NO GOOD FIT
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

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INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA8811 (E12) S35

LAB SAMPLE ID NO. 8437 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	108,000.	10.	Nickel	100.
2.	Chromium	710.	11.	Manganese	11,800.
3.	Barium	1060.	12.	Zinc	2580.
4.	Beryllium	< 3.	13.	Boron	< 100.[a]
5.	Cadmium	5.	14.	Vanadium	170.
6.	Cobalt	70.	15.	Calcium	72,700.
7.	Copper	1060.	16.	Magnesium	36,700.
8.	Iron	563,000.	17.	Sodium	125,000.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	900.[a]	5.	Mercury	4.
2.	Antimony	<20.[c]	6.	Tin	<40[b]
3.	Selenium	<20.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 100.
b) with a detection limit of 40.
c) with a detection limit of 20.
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

8010-043-433

Sample Number
AC 47

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-020

QC REPORT NO. LV-5

Ms Sheffrey (WEIL (= 3) 536)

S36-1

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	
24A	2- chlorophenol	
31A	2,4-dichlorophenol	
34A	2,4- dimethylphenol	
57A	2- nitrophenol	
58A	4- nitrophenol	
59A	2,4- dinitrophenol	
60A	4,6- dinitro-o-cresol	
64A	pentachlorophenol	
65A	phenol	

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	
8B	1,2,4- trichlorobenzene	
9B	hexachlorobenzene	
12B	hexachloroethane	
18B	bis(2-chloroethyl)ether	
20B	2-chloronaphthalene	
25B	1,2-dichlorobenzene	
26B	1,3-dichlorobenzene	
27B	1,4-dichlorobenzene	
28B	3,3'-dichlorobenzidine	
35B	2,4- dinitrotoluene	
36B	2,6- dinitrotoluene	
37B	1,2- diphenylhydrazine (as azobenzene)	
39B	fluoranthene	
40B	4- chlorophenyl phenyl ether	

BASE/NEUTRAL COMPOUNDS

		ug
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	
43B	bis (2-chloroethoxy) methane	
52B	hexachlorobutadiene	
53B	hexachlorocyclopentadiene	
54B	isophorone	
55B	naphthalene	
56B	nitrobenzene	
61B	N-nitrosodimethylamine	
62B	N-nitrosodiphenylamine	
63B	N-nitrosodi-n-propylamine	
66B	bis (2-ethylhexyl) phthalate	
67B	butyl benzyl phthalate	
68B	di-n-butyl phthalate	
69B	di-n-octyl phthalate	
70B	diethyl phthalate	
71B	dimethyl phthalate	
72B	benzo(a)anthracene	
73B	benzo(a)pyrene.	
74B	3,4-benzofluoranthene	
75B	benzo(k)fluoranthene	
76B	chrysene	
77B	acenaphthylene	
78B	anthracene	
79B	benzo(ghi)perylene	
80B	fluorene	
81B	phenanthrene	
82B	dibenzo(a,h)anthracene	
83B	indeno(1,2,3-cd)pyrene	
84B	pyrene	

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536-2

Sample Number A0147

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-020

QC REPORT NO. LV-5

McSheffrey

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	
13V	1,1-dichloroethane	
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	*
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	
32V	1,2-dichloropropane	
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	
86V	toluene	
V	trichloroethylene	*
V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P.	dieldrin	
91P	chlordane	
92P	4,4'-DDT	
93P	4,4'-DDE	
94P	4,4'-DDD	
95P	-endosulfan	
96P	-endosulfan	
97P	endosulfan sulfate	
98P	endrin	
99P	endrin aldehyde	
100P	heptachlor	
101P	heptachlor epoxide	
102P	-BHC	
103P	-BHC	
104P	-BHC	
105P	-BHC	
106P	PCB-1242	
107P	PCB-1254	
108P	PCB-1221	
109P	PCB-1232	
110P	PCB-1248	
111P	PCB-1260	
112P	PCB-1016	
113P	toxaphene	

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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S36-3

INORGANICS ANALYSIS DATA SHEET

585-93

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8041

LAB SAMPLE ID NO. 9211 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	< 50.	10.	Nickel	< 20.
2.	Chromium	< 10.	11.	Manganese	170.
3.	Barium	10.	12.	Zinc	12,200.
4.	Beryllium	< 2.	13.	Boron	< 10.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	55,800.
7.	Copper	220.	16.	Magnesium	4,700.
8.	Iron	560.	17.	Sodium	18,200.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.[e]	6.	Tin	<20.
3.	Selenium	< 10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bot
e) average of two replicate determinations
f) insufficient sample aliquot

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S37-1

Sample Number
A0153

ORGANICS ANALYSIS DATA SHEET

WELL (E 27) S37

Rohatecks Sugar

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-02-002

QC REPORT NO. LV-5

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	
24A	2- chlorophenol	
31A	2,4-dichlorophenol	
34A	2,4- dimethylphenol	
57A	2- nitrophenol	
58A	4- nitrophenol	
59A	2,4- dinitrophenol	
60A	4,6- dinitro-o-cresol	
64A	pentachlorophenol	
65A	phenol	

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	
8B	1,2,4- trichlorobenzene	
9B	hexachlorobenzene	
12B	hexachloroethane	
18B	bis(2-chloroethyl)ether	
20B	2-chloronaphthalene	
25B	1,2-dichlorobenzene	
26B	1,3-dichlorobenzene	
27B	1,4-dichlorobenzene	
28B	3,3'-dichlorobenzidine	
35B	2,4- dinitrotoluene	
36B	2,6- dinitrotoluene	
37B	1,2- diphenylhydrazine (as azobenzene)	
39B	fluoranthene	
40B	4- chlorophenyl phenyl ether	

BASE/NEUTRAL COMPOUNDS

		u
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	
43B	bis (2-chloroethoxy) methane	
52B	hexachlorobutadiene	
53B	hexachlorocyclopentadiene	
54B	isophorone	
55B	naphthalene	
56B	nitrobenzene	
61B	N-nitrosodimethylamine	
62B	N-nitrosodiphenylamine	
63B	N-nitrosodi-n-propylamine	
66B	bis (2-ethylhexyl) phthalate	
67B	butyl benzyl phthalate	
68B	di-n-butyl phthalate	
69B	di-n-octyl phthalate	
70B	diethyl phthalate	
71B	dimethyl phthalate	
72B	benzo(a)anthracene	
73B	benzo(a)pyrene.	
74B	3,4-benzofluoranthene	
75B	benzo(k)fluoranthene	
76B	chrysene	
77B	acenaphthylene	
78B	anthracene	
79B	benzo(ghi)perylene	
80B	fluorene	
81B	phenanthrene	
82B	dibenzo(a,h)anthracene	
83B	indeno(1,2,3-cd)pyrene	
84B	pyrene	

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Kohsteens Sugar

Sample Number A0153

ORGANICS ANALYSIS DATA SHEET - Page 2

S37-2

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-02-002

QC REPORT NO. LV-5

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	
4V	benzene	
6V	carbon tetrachloride	
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	
13V	1,1-dichloroethane	
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	
29V	1,1-dichloroethylene	
30V	1,2-trans-dichloroethylene	*
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	
86V	toluene	
87V	trichloroethylene	19
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	
91P	chlordane	
92P	4,4'-DDT	
93P	4,4'-DDE	
94P	4,4'-DDD	
95P	-endosulfan	
96P	-endosulfan	
97P	endosulfan sulfate	
98P	endrin	
99P	endrin aldehyde	
100P	heptachlor	
101P	heptachlor epoxide	
102P	-BHC	
103P	-BHC	
104P	-BHC	
105P	-BHC	
106P	PCB-1242	
107P	PCB-1254	
108P	PCB-1221	
109P	PCB-1232	
110P	PCB-1248	
111P	PCB-1260	
112P	PCB-1016	
113P	toxaphene	

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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Rohstein's Sugar S37-3

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Anatec SAMPLE NO. MA8035

LAB SAMPLE ID NO. 2036 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	150	10.	Nickel	28
2.	Chromium	<10	11.	Manganese	780
3.	Barium	12	12.	Zinc	150
4.	Beryllium	<2	13.	Boron	230
5.	Cadmium	<5	14.	Vanadium	22
6.	Cobalt	<10	15.	Calcium	40,000
7.	Copper	67	16.	Magnesium	7,300
8.	Iron	4,900	17.	Sodium	28,000
9.	Lead	<40			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10	5.	Mercury	<1
2.	Antimony	<20	6.	Tin	110
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:

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8010-04B-434

Sample Number A0153

ORGANICS ANALYSIS DATA SHEET

538-1

Well (E11) 538

Rifle Range Subdivision

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-020

QC REPORT NO. LV-5

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	
24A	2- chlorophenol	
31A	2,4-dichlorophenol	
34A	2,4- dimethylphenol	
57A	2- nitrophenol	
58A	4- nitrophenol	
59A	2,4- dinitrophenol	
60A	4,6- dinitro-o-cresol	
64A	pentachlorophenol	
65A	phenol	

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	
8B	1,2,4- trichlorobenzene	
9B	hexachlorobenzene	
12B	hexachloroethane	
18B	bis(2-chloroethyl)ether	
20B	2-chloronaphthalene	
25B	1,2-dichlorobenzene	
26B	1,3-dichlorobenzene	
27B	1,4-dichlorobenzene	
28B	3,3'-dichlorobenzidine	
35B	2,4- dinitrotoluene	
36B	2,6- dinitrotoluene	
37B	1,2- diphenylhydrazine (as azobenzene)	
39B	fluoranthene	
40B	4- chlorophenyl phenyl ether	

BASE/NEUTRAL COMPOUNDS

41B	4-bromophenyl phenyl ether	N
42B	bis (2-chloroisopropyl) ether	
43B	bis (2-chloroethoxy) methane	
52B	hexachlorobutadiene	
53B	hexachlorocyclopentadiene	
54B	isophorone	
55B	naphthalene	
56B	nitrobenzene	
61B	N-nitrosodimethylamine	
62B	N-nitrosodiphenylamine	
63B	N-nitrosodi-n-propylamine	
66B	bis (2-ethylhexyl) phthalate	
67B	butyl benzyl phthalate	
68B	di-n-butyl phthalate	
69B	di-n-octyl phthalate	
70B	diethyl phthalate	
71B	dimethyl phthalate	
72B	benzo(a)anthracene	
73B	benzo(a)pyrene	
74B	3,4-benzofluoranthene	
75B	benzo(k)fluoranthene	
76B	chrysene	
77B	acenaphthylene	
78B	anthracene	
79B	benzo(ghi)perylene	
80B	fluorene	
81B	phenanthrene	
82B	dibenzo(a,h)anthracene	
83B	indeno(1,2,3-cd)pyrene	
84B	pyrene	

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S38-2

Sample Numb

A0158

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-020

QC REPORT NO. LV-5

Rifle Range Clubhouse

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	*
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	
29V	1,1-dichloroethylene	
30V	1,2-trans-dichloroethylene	210
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	89
86V	toluene	ND
87V	trichloroethylene	280
88V	vinyl chloride	ND

	PESTICIDES	
89P	aldrin	ND
90P.	dieldrin	
91P	chlordane	
92P	4,4'-DDT	
93P	4,4'-DDE	
94P	4,4'-DDD	
95P	-endosulfan	
96P	-endosulfan	
97P	endosulfan sulfate	
98P	endrin	
99P	endrin aldehyde	
100P	heptachlor	
101P	heptachlor epoxide	
102P	-BHC	
103P	-BHC	
104P	-BHC	
105P	-BHC	
106P	PCB-1242	
107P	PCB-1254	
108P	PCB-1221	
109P	PCB-1232	
110P	PCB-1248	
111P	PCB-1260	
112P	PCB-1016	
113P	toxaphene	

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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S38-3

INORGANICS ANALYSIS DATA SHEET

585-93

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8042

LAB SAMPLE ID NO. 9212 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	< 50.	10.	Nickel	< 20.
2.	Chromium	< 10.	11.	Manganese	20.
3.	Barium	10.	12.	Zinc	180.
4.	Beryllium	< 2.	13.	Boron	< 10.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	47,300.
7.	Copper	60.	16.	Magnesium	9,500.
8.	Iron	500.	17.	Sodium	40,000.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottl
e) average of two replicate determinations
f) insufficient sample aliquot

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S38A-1 | A0145

ORGANICS ANALYSIS DATA SHEET

Well (EIIA) S38A
Rifle range House

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-020

QC REPORT NO. LV-5

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	
24A	2- chlorophenol	
31A	2,4-dichlorophenol	
34A	2,4- dimethylphenol	
57A	2- nitrophenol	
58A	4- nitrophenol	
59A	2,4- dinitrophenol	
60A	4,6- dinitro-o-cresol	
64A	pentachlorophenol	
65A	phenol	

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	
8B	1,2,4- trichlorobenzene	
9B	hexachlorobenzene	
12B	hexachloroethane	
18B	bis(2-chloroethyl)ether	
20B	2-chloronaphthalene	
25B	1,2-dichlorobenzene	
26B	1,3-dichlorobenzene	
27B	1,4-dichlorobenzene	
28B	3,3'-dichlorobenzidine	
35B	2,4- dinitrotoluene	
36B	2,6- dinitrotoluene	
37B	1,2- diphenylhydrazine (as azobenzene)	
39B	fluoranthene	
40B	4- chlorophenyl phenyl ether	

BASE/NEUTRAL COMPOUNDS

		ug
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	
43B	bis (2-chloroethoxy) methane	
52B	hexachlorobutadiene	
53B	hexachlorocyclopentadiene	
54B	isophorone	
55B	naphthalene	
56B	nitrobenzene	
61B	N-nitrosodimethylamine	
62B	N-nitrosodiphenylamine	
63B	N-nitrosodi-n-propylamine	
66B	bis (2-ethylhexyl) phthalate	
67B	butyl benzyl phthalate	
68B	di-n-butyl phthalate	
69B	di-n-octyl phthalate	
70B	diethyl phthalate	
71B	dimethyl phthalate	
72B	benzo(a)anthracene	
73B	benzo(a)pyrene.	
74B	3,4-benzofluoranthene	
75B	benzo(k)fluoranthene	
76B	chrysene	
77B	acenaphthylene	
78B	anthracene	
79B	benzo(ghi)perylene	
80B	fluorene	
81B	phenanthrene	
82B	dibenzo(a,h)anthracene	
83B	indeno(1,2,3-cd)pyrene	
84B	pyrene	

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Sample Number

538A-2

A0145

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME ACURFX

LAB SAMPLE ID NO. A81-01-020

QC REPORT NO. LV-5

Rifle Range House

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	*
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	
29V	1,1-dichloroethylene	
30V	1,2-trans-dichloroethylene	120
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	63
86V	toluene	ND
7V	trichloroethylene	160
9V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	
91P	chlordane	
92P	4,4'-DDT	
93P	4,4'-DDE	
94P	4,4'-DDD	
95P	-endosulfan	
96P	-endosulfan	
97P	endosulfan sulfate	
98P	endrin	
99P	endrin aldehyde	
100P	heptachlor	
101P	heptachlor epoxide	
102P	-BHC	
103P	-BHC	
104P	-BHC	
105P	-BHC	
106P	PCB-1242	
107P	PCB-1254	
108P	PCB-1221	
109P	PCB-1232	
110P	PCB-1248	
111P	PCB-1260	
112P	PCB-1016	
113P	toxaphene	

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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Case 390

538A-3

585-93

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8039

LAB SAMPLE ID NO. 9209 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

			ug/l				ug/l
1.	Aluminum	<	50.	10.	Nickel	<	20.
2.	Chromium	<	10.	11.	Manganese	<	10.
3.	Barium		20.	12.	Zinc		50
4.	Beryllium	<	2.	13.	Boron	<	10.
5.	Cadmium	<	5.	14.	Vanadium	<	10.
6.	Cobalt	<	10.	15.	Calcium		42,000.
7.	Copper		60.	16.	Magnesium		7,900.
8.	Iron		80.	17.	Sodium		37,000.
9.	Lead	<	40.				

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bot
e) average of two replicate determinations
f) insufficient sample aliquot

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Y010-048-432

Sample Number A0148

ORGANICS ANALYSIS DATA SHEET

S39-1

Well (420) S39 Rifle Range Well H

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-0202

QC REPORT NO. LV-5

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	
24A	2- chlorophenol	
31A	2,4-dichlorophenol	
34A	2,4- dimethylphenol	
57A	2- nitrophenol	
58A	4- nitrophenol	
59A	2,4- dinitrophenol	
60A	4,6- dinitro-o-cresol	
64A	pentachlorophenol	
65A	phenol	

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	
8B	1,2,4- trichlorobenzene	
9B	hexachlorobenzene	
12B	hexachloroethane	
18B	bis(2-chloroethyl)ether	
20B	2-chloronaphthalene	
25B	1,2-dichlorobenzene	
26B	1,3-dichlorobenzene	
27B	1,4-dichlorobenzene	
28B	3,3'-dichlorobenzidine	
35B	2,4- dinitrotoluene	
36B	2,6- dinitrotoluene	
37B	1,2- diphenylhydrazine (as azobenzene)	
39B	fluoranthene	
40B	4- chlorophenyl phenyl ether	

BASE/NEUTRAL COMPOUNDS

		u
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	
43B	bis (2-chloroethoxy) methane	
52B	hexachlorobutadiene	
53B	hexachlorocyclopentadiene	
54B	isophorone	
55B	naphthalene	
56B	nitrobenzene	
61B	N-nitrosodimethylamine	
62B	N-nitrosodiphenylamine	
63B	N-nitrosodi-n-propylamine	
66B	bis (2-ethylhexyl) phthalate	
67B	butyl benzyl phthalate	
68B	di-n-butyl phthalate	
69B	di-n-octyl phthalate	
70B	diethyl phthalate	
71B	dimethyl phthalate	
72B	benzo(a)anthracene	
73B	benzo(a)pyrene.	
74B	3,4-benzofluoranthene	
75B	benzo(k)fluoranthene	
76B	chrysene	
77B	acenaphthylene	
78B	anthracene	
79B	benzo(ghi)perylene	
80B	fluorene	
81B	phenanthrene	
82B	dibenzo(a,h)anthracene	
83B	indeno(1,2,3-cd)pyrene	
84B	pyrene	

S39-2

Sample Numb

A0148

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-020

QC REPORT NO. LV-5

Rifle Range Well #1

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	*
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	
29V	1,1-dichloroethylene	
30V	1,2-trans-dichloroethylene	21
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	41
86V	toluene	ND
87V	trichloroethylene	73
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	
91P	chlordane	
92P	4,4'-DDT	
93P	4,4'-DDE	
94P	4,4'-DDD	
95P	-endosulfan	
96P	-endosulfan	
97P	endosulfan sulfate	
98P	endrin	
99P	endrin aldehyde	
100P	heptachlor	
101P	heptachlor epoxide	
102P	-BHC	
103P	-BHC	
104P	-BHC	
105P	-BHC	
106P	PCB-1242	
107P	PCB-1254	
108P	PCB-1221	
109P	PCB-1232	
110P	PCB-1248	
111P	PCB-1260	
112P	PCB-1016	
113P	toxaphene	

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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S39-3

INORGANICS ANALYSIS DATA SHEET

585-93

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8040

LAB SAMPLE ID NO. 9210 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	< 50.	10.	Nickel	< 20.
2.	Chromium	< 10.	11.	Manganese	1,300.
3.	Barium	20.	12.	Zinc	< 10.
4.	Beryllium	< 2.	13.	Boron	< 10.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	38,100.
7.	Copper	< 20.	16.	Magnesium	8,100.
8.	Iron	180.	17.	Sodium	40,400.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.[e]	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<100.[a]
3.	Selenium	<10.[e]	7.	Silver	<20.[e]
4.	Thallium	<10.[e]			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 100.
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bott
e) average of two replicate determinations
f) insufficient sample aliquot

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S40-1

Sample Number
A0150

ORGANICS ANALYSIS DATA SHEET

WELL (419) S40

6 Well of mars Rifle Loss

LABORATORY NAME ACURFX

LAB SAMPLE ID NO. A81-01-019

QC REPORT NO. LV-5

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	
24A	2- chlorophenol	
31A	2,4-dichlorophenol	
34A	2,4- dimethylphenol	
57A	2- nitrophenol	
58A	4- nitrophenol	
59A	2,4- dinitrophenol	
60A	4,6- dinitro-o-cresol	
64A	pentachlorophenol	
65A	phenol	

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	
8B	1,2,4- trichlorobenzene	
9B	hexachlorobenzene	
12B	hexachloroethane	
18B	bis(2-chloroethyl)ether	
20B	2-chloronaphthalene	
25B	1,2-dichlorobenzene	
26B	1,3-dichlorobenzene	
27B	1,4-dichlorobenzene	
28B	3,3'-dichlorobenzidine	
35B	2,4- dinitrotoluene	
36B	2,6- dinitrotoluene	
37B	1,2- diphenylhydrazine (as azobenzene)	
39B	fluoranthene	
40B	4- chlorophenyl phenyl ether	

BASE/NEUTRAL COMPOUNDS

		ug
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	
43B	bis (2-chloroethoxy) methane	
52B	hexachlorobutadiene	
53B	hexachlorocyclopentadiene	
54B	isophorone	
55B	naphthalene	
56B	nitrobenzene	
61B	N-nitrosodimethylamine	
62B	N-nitrosodiphenylamine	
63B	N-nitrosodi-n-propylamine	
66B	bis (2-ethylhexyl) phthalate	
67B	butyl benzyl phthalate	
68B	di-n-butyl phthalate	
69B	di-n-octyl phthalate	
70B	diethyl phthalate	
71B	dimethyl phthalate	
72B	benzo(a)anthracene	
73B	benzo(a)pyrene.	
74B	3,4-benzofluoranthene	
75B	benzo(k)fluoranthene	
76B	chrysene	
77B	acenaphthylene	
78B	anthracene	
79B	benzo(ghi)perylene	
80B	fluorene	
81B	phenanthrene	
82B	dibenzo(a,h)anthracene	
83B	indeno(1,2,3-cd)pyrene	
84B	pyrene	

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Sample Number

540-2

A0150

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-019

QC REPORT NO. LV-5

G Well of Moss Rifle Assoc

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	
13V	1,1-dichloroethane	
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	
29V	1,1-dichloroethylene	
30V	1,2-trans-dichloroethylene	14
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	36
86V	toluene	ND
87V	trichloroethylene	210
88V	vinyl chloride	ND

	PESTICIDES	ug
89P	aldrin	ND
90P.	dieldrin	
91P	chlordane	
92P	4,4'-DDT	
93P	4,4'-DDE	
94P	4,4'-DDD	
95P	-endosulfan	
96P	-endosulfan	
97P	endosulfan sulfate	
98P	endrin	
99P	endrin aldehyde	
100P	heptachlor	
101P	heptachlor epoxide	
102P	-BHC	
103P	-BHC	
104P	-BHC	
105P	-BHC	
106P	PCB-1242	
107P	PCB-1254	
108P	PCB-1221	
109P	PCB-1232	
110P	PCB-1248	
111P	PCB-1260	
112P	PCB-1016	
113P	toxaphene	

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not Detected

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S40-3

Rifle Range Well G

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Airatec SAMPLE NO. MA 8038

LAB SAMPLE ID NO. 2039 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	140	10.	Nickel	<20
2.	Chromium	<10	11.	Manganese	420
3.	Barium	44	12.	Zinc	13
4.	Beryllium	<2	13.	Boron	210
5.	Cadmium	<5	14.	Vanadium	20
6.	Cobalt	<10	15.	Calcium	41,000
7.	Copper	<20	16.	Magnesium	7,500
8.	Iron	66	17.	Sodium	25,000
9.	Lead	270			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10	5.	Mercury	1.1
2.	Antimony	<20	6.	Tin	79
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:

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S41-1

Sample Number
A0157

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-019

QC REPORT NO. LV-5

No Plastics Well (436) S41

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	
24A	2- chlorophenol	
31A	2,4-dichlorophenol	
34A	2,4- dimethylphenol	
57A	2- nitrophenol	
58A	4- nitrophenol	
59A	2,4- dinitrophenol	
60A	4,6- dinitro-o-cresol	
64A	pentachlorophenol	
65A	phenol	

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	
8B	1,2,4- trichlorobenzene	
9B	hexachlorobenzene	
12B	hexachloroethane	
18B	bis(2-chloroethyl)ether	
20B	2-chloronaphthalene	
25B	1,2-dichlorobenzene	
26B	1,3-dichlorobenzene	
27B	1,4-dichlorobenzene	
28B	3,3'-dichlorobenzidine	
35B	2,4- dinitrotoluene	
36B	2,6- dinitrotoluene	
37B	1,2- diphenylhydrazine (as azobenzene)	
39B	fluoranthene	
40B	4- chlorophenyl phenyl ether	

BASE/NEUTRAL COMPOUNDS

		ug
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	
43B	bis (2-chloroethoxy) methane	
52B	hexachlorobutadiene	
53B	hexachlorocyclopentadiene	
54B	isophorone	
55B	naphthalene	
56B	nitrobenzene	
61B	N-nitrosodimethylamine	
62B	N-nitrosodiphenylamine	
63B	N-nitrosodi-n-propylamine	
66B	bis (2-ethylhexyl) phthalate	
67B	butyl benzyl phthalate	
68B	di-n-butyl phthalate	
69B	di-n-octyl phthalate	
70B	diethyl phthalate	
71B	dimethyl phthalate	
72B	benzo(a)anthracene	
73B	benzo(a)pyrene.	
74B	3,4-benzofluoranthene	
75B	benzo(k)fluoranthene	
76B	chrysene	
77B	acenaphthylene	
78B	anthracene	
79B	benzo(ghi)perylene	
80B	fluorene	
81B	phenanthrene	
82B	dibenzo(a,h)anthracene	
83B	indeno(1,2,3-cd)pyrene	
84B	pyrene	

recycled paper
recycled paper

S41-2 Sample Numl

ORGANICS ANALYSIS DATA SHEET - Page 2 A0157

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-019

QC REPORT NO. LV-5

No Plastics

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	
13V	1,1-dichloroethane	
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	
29V	1,1-dichloroethylene	
30V	1,2-trans-dichloroethylene	*
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	12
86V	toluene	ND
87V	trichloroethylene	12
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	
91P	chlordane	
92P	4,4'-DDT	
93P	4,4'-DDE	
94P	4,4'-DDD	
95P	-endosulfan	
96P	-endosulfan	
97P	endosulfan sulfate	
98P	endrin	
99P	endrin aldehyde	
100P	heptachlor	
101P	heptachlor epoxide	
102P	-BHC	
103P	-BHC	
104P	-BHC	
105P	-BHC	
106P	PCB-1242	
107P	PCB-1254	
108P	PCB-1221	
109P	PCB-1232	
110P	PCB-1248	
111P	PCB-1260	
112P	PCB-1016	
113P	toxaphene	

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

recycled paper
recycled paper
recycled paper
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INORGANICS ANALYSIS DATA SHEET N.E. PLASTICS

S41-3

LABORATORY NAME Anatec SAMPLE NO. MA8031

LAB SAMPLE ID NO. 2032 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	160	10.	Nickel	<20
2.	Chromium	<10	11.	Manganese	130
3.	Barium	110	12.	Zinc	190
4.	Beryllium	<2	13.	Boron	180
5.	Cadmium	<5	14.	Vanadium	36
6.	Cobalt	<10	15.	Calcium	55,000
7.	Copper	23	16.	Magnesium	11,000
8.	Iron	35	17.	Sodium	36,000
9.	Lead	<40			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10	5.	Mercury	1.2
2.	Antimony	<20	6.	Tin	100
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:

recycled paper

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S42-1

Sample Number A0156

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-019

QC REPORT NO. LV-5

Well (E 8) S42

Mirra Well

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	
24A	2- chlórophenol	
31A	2,4-dichlorophenol	
34A	2,4- dimethylphenol	
57A	2- nitrophenol	
58A	4- nitrophenol	
59A	2,4- dinitrophenol	
60A	4,6- dinitro-o-cresol	
64A	pentachlorophenol	
65A	phenol	

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	
8B	1,2,4- trichlorobenzene	
9B	hexachlorobenzene	
12B	hexachloroethane	
18B	bis(2-chloroethyl)ether	
20B	2-chloronaphthalene	
25B	1,2-dichlorobenzene	
26B	1,3-dichlorobenzene	
27B	1,4-dichlorobenzene	
28B	3,3'-dichlorobenzidine	
35B	2,4- dinitrotoluene	
36B	2,6- dinitrotoluene	
37B	1,2- diphenylhydrazine (as azobenzene)	
39B	fluoranthene	
40B	4- chlorophenyl phenyl ether	

BASE/NEUTRAL COMPOUNDS

41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	
43B	bis (2-chloroethoxy) methane	
52B	hexachlorobutadiene	
53B	hexachlorocyclopentadiene	
54B	isophorene	
55B	naphthalene	
56B	nitrobenzene	
61B	N-nitrosodimethylamine	
62B	N-nitrosodiphenylamine	
63B	N-nitrosodi-n-propylamine	
66B	bis (2-ethylhexyl) phthalate	
67B	butyl benzyl phthalate	
68B	di-n-butyl phthalate	
69B	di-n-octyl phthalate	
70B	diethyl phthalate	
71B	dimethyl phthalate	
72B	benzo(a)anthracene	
73B	benzo(a)pyrene.	
74B	3,4-benzofluoranthene	
75B	benzo(k)fluoranthene	
76B	chrysene	
77B	acenaphthylene	
78B	anthracene	
79B	benzo(ghi)perylene	
80B	fluorene	
81B	phenanthrene	
82B	dibenzo(a,h)anthracene	
83B	indeno(1,2,3-cd)pyrene	
84B	pyrene	

recycled paper

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S42-2

Sample Number

A0156

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-019

QC REPORT NO. LV-5

Mira Well

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene.	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	
13V	1,1-dichloroethane	
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	
29V	1,1-dichloroethylene	
30V	1,2-trans-dichloroethylene	
32V	1,2-dichloropropane	
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	
86V	toluene	
87V	trichloroethylene	*
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P.	dieldrin	
91P	chlordane	
92P	4,4'-DDT	
93P	4,4'-DDE	
94P	4,4'-DDD	
95P	-endosulfan	
96P	-endosulfan	
97P	endosulfan sulfate	
98P	endrin	
99P	endrin aldehyde	
100P	heptachlor	
101P	heptachlor epoxide	
102P	-BHC	
103P	-BHC	
104P	-BHC	
105P	-BHC	
106P	PCB-1242	
107P	PCB-1254	
108P	PCB-1221	
109P	PCB-1232	
110P	PCB-1248	
111P	PCB-1260	
112P	PCB-1016	
113P	toxaphene	

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not Detected

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INORGANICS ANALYSIS DATA SHEET

MIRRA well WASHINGTON ST.

S42-3

LABORATORY NAME Anatec SAMPLE NO. MA8032

LAB SAMPLE ID NO. 2033 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	140	10.	Nickel	<20
2.	Chromium	<10	11.	Manganese	150.
3.	Barium	35	12.	Zinc	520
4.	Beryllium	<2	13.	Boron	260
5.	Cadmium	<5	14.	Vanadium	19
6.	Cobalt	<10	15.	Calcium	60,000
7.	Copper	150	16.	Magnesium	10,000
8.	Iron	88	17.	Sodium	17,000
9.	Lead	<40			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10	5.	Mercury	2.4
2.	Antimony	<20	6.	Tin	84
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:

recycled paper
recycled paper
recycled paper

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ecology and environment

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S43-1

SAMPLE ID	A1217 S43		SAMPLE ID	A1217	
LAB ID	22937A3		LAB ID	22937B10	
DATE EXTRACTED	1/23/82		DATE EXTRACTED	1/22/82	
DATE INJECTED	2/17/82		DATE INJECTED	2/21/82	
STD ID	SENS229	PHEN398	STD ID	BENZ495	BNSTD496
CONC FACTOR	1000		CONC FACTOR	1000	

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	*
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S43-2

SAMPLE ID	A1217	SAMPLE ID	A1217
LAB ID	22937V12	LAB ID	22937 TRACE #5744
DATE INJECTED	1/24/82	DATE EXTRACTED	1/23/82
STD ID	BFB140 VOA278	DATE INJECTED	2/1/82
CONC. FACTOR	----------	STD ID	TRACE #5751
		CONC. FACTOR	100

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
~~17V~~	~~bis(chloromethyl) ether~~	
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	*
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	*
86V	toluene	*
87V	trichloroethylene	*
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

WEST COAST TECHNICAL SERVICE INC.
ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
A1217

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	40	50	80
1-Chloro-2-Bromopropane	VOA	39	50	78
Toluene - d8	VOA	45	50	90
2-Fluorophenol	ACID	53	105	50
Phenol - d5	ACID	47	106	44
Nitrobenzene - d5	B/N	83	101	82
2-Fluorobiphenyl	B/N	78	101	77
Naphthalene-D8	B/N	58	101	57

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		C9 AROMATIC HYDROCARBON	VOA #402	GENERAL FIT
2.		UNKNOWN	B/N #326	NO GOOD FIT
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

U.S. ENVIRONMENTAL PROTECTION AGENCY - HWI Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313 - 703/557-2490/FTS-8-557-2490

INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8808 (E42) S43

LAB SAMPLE ID NO. 8435 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	50.	10.	Nickel	< 20.
2.	Chromium	20.	11.	Manganese	390.
3.	Barium	10	12.	Zinc	130.
4.	Beryllium	< 2.	13.	Boron	< 10.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	16,500.
7.	Copper	< 20.	16.	Magnesium	4400.
8.	Iron	44,300.	17.	Sodium	43,700.
9.	Lead	80.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

S44-1 | Sample Number A2137

Well (364) S44

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Toxicon Laboratories

LAB SAMPLE ID NO. 672/1

QC REPORT NO. 2

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2- chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4- dimethylphenol	ND
57A	2- nitrophenol	ND
58A	4- nitrophenol	ND
59A	2,4- dinitrophenol	ND
60A	4,6- dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4- trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4- dinitrotoluene	ND
36B	2,6- dinitrotoluene	ND
7B	1,2- diphenylhydrazine (as azobenzene)	ND
[illegible]B	fluoranthene	ND
40B	4- chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS

		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	Blank contaminant
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	Blank contaminant
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

recycled paper
recycled paper
recycled paper

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0006-01E-002

Sample Number S44-2

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Toxicon Laboratories IT

LAB SAMPLE ID NO. 672/1

QC REPORT NO. 2

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
	chloroform	ND
2[illegible]V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	Blank Contaminant
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
5V	tetrachloroethylene	ND
6V	toluene	ND
7[illegible]	trichloroethylene	ND
[illegible]	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P.	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	-endosulfan	ND
96P	-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	-BHC	ND
103P	-BHC	ND
104P	-BHC	ND
105P	-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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S44-3

U.S. ENVIRONMENTAL PROTECTION AGENCY - TPA Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313 - 703/557-2490/FTS-8-557-2490

INORGANICS ANALYSIS DATA SHEET

585-82

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8029

LAB SAMPLE ID NO. 8232 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	980.	10.	Nickel	<20.
2.	Chromium	53.	11.	Manganese	3,250.
3.	Barium	225.	12.	Zinc	188.
4.	Beryllium	<2.	13.	Boron	94.
5.	Cadmium	17.	14.	Vanadium	<10.
6.	Cobalt	44.	15.	Calcium	47,100.
7.	Copper	95.	16.	Magnesium	7,710.
8.	Iron	115,000.	17.	Sodium	70,000.
9.	Lead	1,460.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl
e) average of two replicate determinations

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WCTS WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S45 - 1

SAMPLE ID	A1221 S45	SAMPLE ID	A1221
LAB ID	22937A14	LAB ID	22937B15
DATE EXTRACTED	1/23/82	DATE EXTRACTED	1/22/82
DATE INJECTED	2/18/82	DATE INJECTED	2/22/82
STD ID	SENS230 PHEN399	STD ID	BENZ496 BNSTD497
CONC FACTOR	1000	CONC FACTOR	1000

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S45-2

SAMPLE ID A1221
LAB ID 22837V15
DATE INJECTED 1-24-82
STD ID BFB140 VOA278
CONC. FACTOR ---------

SAMPLE ID A1221
LAB ID 22937 TRACE #5758
DATE EXTRACTED 1-23-82
DATE INJECTED 2-2-82
STD ID TRACE #5757
CONC. FACTOR 100

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
~~17V~~	~~bis(chloromethyl)ether~~	~~ND~~
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	0.1**
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	0.1**
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	0.1**
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

WEST COAST TECHNICAL SERVICE INC.
ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
A1221

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	43	50	86
1-Chloro-2-Bromopropane	VOA	41	50	82
Toluene - d8	VOA	43	50	86
2-Fluorophenol	ACID	82	105	78
Phenol - d5	ACID	73	106	69
Nitrobenzene - d5	B/N	69	101	68
2-Fluorobiphenyl	B/N	63	101	62
Naphthalene-D8	B/N	53	101	52

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		UNKNOWN	B/N #326	NO GOOD FIT
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

U.S. ENVIRONMENTAL PROTECTION AGENCY - HWI Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313 - 703/557-2490/FTS-8-557-2490

INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8812 (422) S45

LAB SAMPLE ID NO. 8438 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	150.	10.	Nickel	20.
2.	Chromium	< 10.	11.	Manganese	350.
3.	Barium	10.	12.	Zinc	530.
4.	Beryllium	< 2.	13.	Boron	40.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	15,600.
7.	Copper	20.	16.	Magnesium	5000.
8.	Iron	37,000.	17.	Sodium	50,700.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

(022-317

S46-1

U.S. ENVIRONMENTAL PROTECTION AGENCY - HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number
A 0131

ORGANICS ANALYSIS DATA SHEET

WELL(6) S46

LABORATORY NAME ENERGY RESOURCES CO. INC.

LAB SAMPLE ID NO. 25-056

QC REPORT NO. ERCO #3

	ACID COMPOUNDS	ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2- chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4- dimethylphenol	ND
57A	2- nitrophenol	ND
58A	4- nitrophenol	ND
59A	2,4- dinitrophenol	ND
60A	4,6- dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4- trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4- dinitrotoluene	ND
36B	2,6- dinitrotoluene	ND
37B	1,2- diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4- chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

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S46-2

Sample Number
A 0131

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME ENERGY RESOURCES CO. INC.

LAB SAMPLE ID NO. 25-056

QC REPORT NO. ERCO #3

	* VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	
6V	carbon tetrachloride	
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	
13V	1,1-dichloroethane	
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	
29V	1,1-dichloroethylene	
30V	1,2-trans-dichloroethylene	
32V	1,2-dichloropropane	
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	
86V	toluene	
87V	trichloroethylene	
88V	vinyl chloride	

* All volatiles except for acrolein & acrylonitrile are not applicable.

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	ND
104P	δ-BHC	ND
105P	γ-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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0005-01E - 581 (S46-3) Sample Number AO 131

ORGANICS ANALYSIS DATA SHEET - Page 2

J.J. Riley - Old Well New Well W-6

LABORATORY NAME MEAD TECHNOLOGY LABORATORY

SAMPLE ID NO. 3073

C REPORT NO. 24

	VOLATILES	ug/l
V	acrolein	ND
V	acrylonitrile	ND
V	benzene	ND
V	carbon tetrachloride	ND
V	chlorobenzene	ND
V	1,2-dichloroethane	ND
V	1,1,1-trichloroethane	133
V	1,1-dichloroethane	ND
V	1,1,2-trichloroethane	ND
V	1,1,2,2-tetrachloroethane	ND
V	chloroethane	ND
V	2-chloroethylvinyl ether	ND
	chloroform	ND
V	1,1-dichloroethylene	ND
V	1,2-trans-dichloroethylene	116
V	1,2-dichloropropane	ND
V	1,3-dichloropropylene	ND
V	ethylbenzene	ND
V	methylene chloride	ND
V	methyl chloride	ND
V	methyl bromide	ND
V	bromoform	ND
V	dichlorobromomethane	ND
V	trichlorofluoromethane	ND
V	dichlorodifluoromethane	ND
V	chlorodibromomethane	ND
V	tetrachloroethylene	28
	toluene	ND
	trichloroethylene	1372
	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α -endosulfan	ND
96P	β -endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	ND
104P	γ-BHC	ND
105P	δ-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	

*Less than 10 ug/l (pesticides less than 1 ug/l)

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INORGANICS ANALYSIS DATA SHEET

585- 76

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8024

LAB SAMPLE ID NO. 7680 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	<50.	10.	Nickel	<20
2.	Chromium	<10.	11.	Manganese	410.
3.	Barium	19.	12.	Zinc	<10.
4.	Beryllium	<2.	13.	Boron	85.
5.	Cadmium	<5.	14.	Vanadium	<10.
6.	Cobalt	<10.	15.	Calcium	32,600.
7.	Copper	<20.	16.	Magnesium	6,800.
8.	Iron	490.	17.	Sodium	71,500.
9.	Lead	<40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl
e) average of two replicate determinations

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P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number
A 0130

ORGANICS ANALYSIS DATA SHEET

(ω 439) S47

LABORATORY NAME ENERGY RESOURCES CO. INC.

LAB SAMPLE ID NO. 25-055

QC REPORT NO. ERCO #3

	ACID COMPOUNDS	ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2- chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4- dimethylphenol	ND
57A	2- nitrophenol	ND
58A	4- nitrophenol	ND
59A	2,4- dinitrophenol	ND
60A	4,6- dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4- trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4- dinitrotoluene	ND
36B	2,6- dinitrotoluene	ND
37B	1,2- diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4- chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	*
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

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Sample No. [illegible]
A 0130

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME ENERGY RESOURCES CO. INC.

LAB SAMPLE ID NO. 25-055

QC REPORT NO. ERCO #3

* VOLATILES		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
5V	benzene	
6V	carbon tetrachloride	
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	
13V	1,1-dichloroethane	
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	
29V	1,1-dichloroethylene	
30V	1,2-trans-dichloroethylene	
32V	1,2-dichloropropane	
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	
86V	toluene	
87V	trichloroethylene	
88V	vinyl chloride	

* All volatiles except for acrolein & acrylonitrile are not applicable.

PESTICIDES		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α -endosulfan	ND
96P	β -endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α -BHC	ND
103P	β -BHC	ND
104P	δ -BHC	ND
105P	γ -BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS		
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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S47-3

Sample Number 10130

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME MEAD TECHNOLOGY LABORATORY

J. J. RILEY - New Well

SAMPLE ID NO. 3072

DEC 23 1983 W 439

C REPORT NO. 24

	VOLATILES	ug/l
V	acrolein	ND
V	acrylonitrile	ND
V	benzene	ND
V	carbon tetrachloride	ND
V	chlorobenzene	*
V	1,2-dichloroethane	ND
V	1,1,1-trichloroethane	28
V	1,1-dichloroethane	ND
V	1,1,2-trichloroethane	ND
V	1,1,2,2-tetrachloroethane	ND
V	chloroethane	ND
V	2-chloroethylvinyl ether	ND
	chloroform	ND
V	1,1-dichloroethylene	ND
V	1,2-trans-dichloroethylene	12
V	1,2-dichloropropane	ND
V	1,3-dichloropropylene	ND
V	ethylbenzene	ND
V	methylene chloride	ND
V	methyl chloride	ND
V	methyl bromide	ND
	bromoform	ND
	dichlorobromomethane	ND
	trichlorofluoromethane	ND
	dichlorodifluoromethane	ND
	chlorodibromomethane	ND
	tetrachloroethylene	ND
	toluene	ND
	ichloroethylene	53
	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α -endosulfan	ND
96P	β -endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	ND
104P	γ-BHC	ND
105P	δ-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	

*Less than 10 ug/l (pesticides less than 1 ug/l)

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ND - Not d...

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INORGANICS ANALYSIS DATA SHEET

585- 76

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8023

LAB SAMPLE ID NO. 7679 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	<50.	10.	Nickel	<20.
2.	Chromium	<10.	11.	Manganese	1,200.
3.	Barium	83.	12.	Zinc	43.
4.	Beryllium	<2.	13.	Boron	108.
5.	Cadmium	<5.	14.	Vanadium	<10.
6.	Cobalt	<10.	15.	Calcium	69,700.
7.	Copper	<20.	16.	Magnesium	9,900.
8.	Iron	134.	17.	Sodium	220,000.
9.	Lead	<40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.[e]
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl
e) average of two replicate determinations

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(E 39) S48-1

Sample Number
A0176

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO. _____
QC REPORT NO. 8

SAMPLE ID: A0176
LAB ID: A0176A
DATE EXTRACTED: 02/15/81
DATE INJECTED: 02/26/81
STD. ID: 02/23/81
CONC. FACTOR: 588.235

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
[illegible]9A	4-NITROPHENOL	N/D
[illegible]9A	2,4-DINITROPHENOL	N/D
[illegible]A	4,6-DINITRO-O-CRESOL	N/D
[illegible]4A	PENTCHLOROPHENOL	N/D
65A	PHENOL	N/D

SAMPLE ID: A0176
LAB ID: A0176BN
DATE EXTRACTED: 02/14/81
DATE INJECTED: 03/04/81
STD. ID: 03/25/81
CONC. FACTOR: 666.667

	BASE/NEUTRAL COMPOUNDS	UG/L
1B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
12B	HEXACHLOROETHANE	N/D
18B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
27B	1,4-DICHLOROBENZENE	N/D
	3,3'-DICHLOROBENZIDINE	N/D
[illegible]	2,4-DINITROTOLUENE	N/D
	2,6-DINITROTOLUENE	N/D
[illegible]	1,2-DIPHENYLHYDRAZINE	N/D
39B	FLUORANTHENE	20.800
40B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0176
LAB ID: A0176BN
DATE EXTRACTED: 02/14/81
DATE INJECTED: 03/04/81
STD. ID: 03/25/81
CONC. FACTOR: 666.667

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	771.000
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	82.900
69B	DI-N-OCTYL PHTHALATE	N/D
70B	DIETHYL PHTHALATE	N/D
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLOROD[illegible] BENZO-P-DIOXIN	N/D

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S48-2

Sample Number
AC176

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO.
QC REPORT NO. 8

SAMPLE ID: A176
LAB ID: A176V
DATE EXTPACTED:
DATE INJECTED: 02/19/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	N/D
6V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	N/D
13V	1,1-DICHLOROETHANE	N/D
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	N/D
29V	1,1-DICHLOROETHYLENE	N/D
30V	1,2-TRANS-DICHLORO ETHYLENE	N/D
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	20.200
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	*
87V	TRICHLOROETHYLENE	*
88V	VINYL CHLORIDE	N/D

PESTICIDES		µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	**
104P	γ-BHC	ND
105P	δ-BHC	**
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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E 39

INORGANICS ANALYSIS DATA SHEET

585-100

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8061

LAB SAMPLE ID NO. 9616 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	12,300.	10.	Nickel	20.
2.	Chromium	30.	11.	Manganese	1300.
3.	Barium	150.	12.	Zinc	1400.
4.	Beryllium	2.	13.	Boron	50.
5.	Cadmium	5.	14.	Vanadium	< 10.
6.	Cobalt	20.	15.	Calcium	25,000.
7.	Copper	140.	16.	Magnesium	9200.
8.	Iron	637,000.	17.	Sodium	45,900.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	90.	5.	Mercury	49.[c]
2.	Antimony	< 20.	6.	Tin	<20.
3.	Selenium	<50.[a]	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 50
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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S49-1

Sample Number
A0174

ORGANICS ANALYSIS DATA SHEET

S49

LABORATORY NAME Systems, Science and Software

LAB SAMPLE ID NO. _____

QC REPORT NO. 8

SAMPLE ID: A0174
LAB ID: A0174A
DATE EXTRACTED: 02/15/81
DATE INJECTED: 02/26/81
STD. ID: 02/23/81
CONC. FACTOR: 714.286

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
59A	4-NITROPHENOL	N/D
[illegible]A	2,4-DINITROPHENOL	N/D
60A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
[illegible]	PHENOL	132.000

SAMPLE ID: A0174
LAB ID: A0174BN
DATE EXTRACTED: 02/14/81
DATE INJECTED: 03/04/81
STD. ID: 03/25/81
CONC. FACTOR: 769.231

	BASE/NEUTRAL COMPOUNDS	UG/L
[illegible]B	ACENAPHTHENE	N/D
[illegible]B	BENZIDINE	N/D
[illegible]B	1,2,4-TRICHLOROBENZENE	N/D
[illegible]B	HEXACHLOROBENZENE	N/D
2B	HEXACHLOROETHANE	N/D
8B	BIS(2-CHLOROETHYL) ETHER	N/D
0B	2-CHLORONAPHTHALENE	N/D
5B	1,2-DICHLOROBENZENE	N/D
6B	1,3-DICHLOROBENZENE	N/D
7B	1,4-DICHLOROBENZENE	N/D
	3,3'-DICHLOROBENZIDINE	N/D
[illegible]	2,4-DINITROTOLUENE	N/D
5B	2,6-DINITROTOLUENE	N/D
[illegible]	1,2-DIPHENYLHYDRAZINE	N/D
[illegible]	FLUORANTHENE	N/D
0B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0174
LAB ID: A0174BN
DATE EXTRACTED: 02/14/81
DATE INJECTED: 03/04/81
STD. ID: 03/25/81
CONC. FACTOR: 769.231

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	2650.000
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	38.100
69B	DI-N-OCTYL PHTHALATE	N/D
70B	DIETHYL PHTHALATE	N/D
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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Sample Number
A0174

S49-2

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO.
QC REPORT NO. 8

SAMPLE ID: A174
LAB ID: A174V
DATE EXTRACTED:
DATE INJECTED: 02/19/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	*
6V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	N/D
13V	1,1-DICHLOROETHANE	N/D
14V	1,1,2-TRICHLOROETHANE	N/D
[illegible]	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	N/D
29V	1,1-DICHLOROETHYLENE	N/D
30V	1,2-TRANS-DICHLORO ETHYLENE	N/D
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	23.400
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
35V	TETRACHLOROETHYLENE	N/D
36V	TOLUENE	*
37V	TRICHLOROETHYLENE	*
38V	VINYL CHLORIDE	N/D

	PESTICIDES	µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	**
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	**
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	**
104P	γ-BHC	**
105P	δ-BHC	**
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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S49-3

E 38

INORGANICS ANALYSIS DATA SHEET

585-100

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8059

LAB SAMPLE ID NO. 9614 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	100.	10.	Nickel	< 20.
2.	Chromium	10.	11.	Manganese	250.
3.	Barium	40.	12.	Zinc	540.
4.	Beryllium	< 2.	13.	Boron	10.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	18,000.
7.	Copper	20.	16.	Magnesium	2,300.
8.	Iron	50,900.	17.	Sodium	23,500.
9.	Lead	560.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	90.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

SAMPLE ID	A1215	S49
LAB ID	22937A12	
DATE EXTRACTED	1/23/82	
DATE INJECTED	2/18/82	
STD ID	SENS230	PHEN399
CONC FACTOR	1000	

SAMPLE ID	A1215	S49-4
LAB ID	22937B9	
DATE EXTRACTED	1/22/82	
DATE INJECTED	2/21/82	
STD ID	BENZ495	BNSTD496
CONC FACTOR	1000	

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	*

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	35
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

S49-5

SAMPLE ID	A1215
LAB ID	22937V11
DATE INJECTED	1/24/82
STD ID	BFB140 VOA278
CONC. FACTOR	---------

SAMPLE ID	A1215
LAB ID	22937 TRACE #'s 5740, 5742, 5746
DATE EXTRACTED	1/23/82
DATE INJECTED	2/1/82
STD ID	TRACE # 5736, 5751
CONC. FACTOR	100

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	*
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
~~17V~~	~~bis(chloromethyl)ether~~	
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	*
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

ORGANICS ANALYSIS DATA SHEET - Page 3

S49-6

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0176

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	104	100	104
D_8-Toluene	VOA	117	100	117
2-Fluorophenol	Acid	76	100	76
D_5-Phenol	Acid	71	100	71
2-Fluorobiphenyl	BN	44	100	44
D_5-Nitrobenzene	BN	56	100	56
D_8-Naphthalene	BN	65	100	65

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	80	ETHENE, CHLORO	VOA	70
2.	535	PENTANE, 3-METHYL-	"	95
3.	6958	PROPANE, 2-BROMO-1-CHLORO	"	80
4.	2872	BUTANE, 1,4-DICHLORO	"	96
5.	880	2-OXABICYCLO[2.2.1]HEPTANE	BN	76
6.	11350	CYCLOHEXANONE, PHENYLHYDRAZONE	"	77
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

2/15/80

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WEST COAST TECHNICAL SERVICE INC.
ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
A1215

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	51	50	102
1-Chloro-2-Bromopropane	VOA	47	50	94
Toluene - d8	VOA	51	50	102
2-Fluorophenol	ACID	61	105	58
Phenol - d5	ACID	54	106	51
Nitrobenzene - d5	B/N	89	101	88
2-Fluorobiphenyl	B/N	80	101	79
Naphthalene-D8	B/N	59	101	58

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		UNKNOWN	VOA #287	NO GOOD FIT
2.		UNKNOWN	ACID #125	NO GOOD FIT
3.		UNKNOWN	B/N #326	NO GOOD FIT
4.				
5.				
6.				
7.				
8.				
9.				
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15.				
16.				
17.				
18.				
19.				
20.				

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INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8806 (E38) S49

LAB SAMPLE ID NO. 8434 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	250.	10.	Nickel	< 20.
2.	Chromium	10.	11.	Manganese	460.
3.	Barium	50.	12.	Zinc	2960.
4.	Beryllium	< 2.	13.	Boron	< 10.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	18,100.
7.	Copper	20.	16.	Magnesium	4200.
8.	Iron	65,100.	17.	Sodium	34,500.
9.	Lead	640.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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(W424) S50-1

Sample Number
A0175

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO. _____
QC REPORT NO. 8

SAMPLE ID: A0175
LAB ID: A0175A2
DATE EXTRACTED: 02/15/81
DATE INJECTED: 02/26/81
STD. ID: 02/23/81
CONC. FACTOR: 714.286

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
[illegible]9A	4-NITROPHENOL	N/D
[illegible]A	2,4-DINITROPHENOL	N/D
[illegible]0A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
65A	PHENOL	N/D

SAMPLE ID: A0175
LAB ID: A0175BN
DATE EXTRACTED: 02/14/81
DATE INJECTED: 03/04/81
STD. ID: 03/25/81
CONC. FACTOR: 909.091

	BASE/NEUTRAL COMPOUNDS	UG/L
1B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
12B	HEXACHLOROETHANE	N/D
18B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
27B	1,4-DICHLOROBENZENE	N/D
[illegible]	3,3'-DICHLOROBENZIDINE	N/D
	2,4-DINITROTOLUENE	N/D
[illegible]B	2,6-DINITROTOLUENE	N/D
[illegible]	1,2-DIPHENYLHYDRAZINE	N/D
[illegible]9B	FLUORANTHENE	N/D
40B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0175
LAB ID: A0175BN
DATE EXTRACTED: 02/14/81
DATE INJECTED: 03/04/81
STD. ID: 03/25/81
CONC. FACTOR: 909.091

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	310.000
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	N/D
69B	DI-N-OCTYL PHTHALATE	N/D
70B	DIETHYL PHTHALATE	N/D
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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S50-2

Sample Number
A0175

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO.
QC REPORT NO. 8

SAMPLE ID: A175
LAB ID: A175V
DATE EXTRACTED:
DATE INJECTED: 02/19/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	N/D
6V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	N/D
13V	1,1-DICHLOROETHANE	N/D
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	N/D
29V	1,1-DICHLOROETHYLENE	N/D
30V	1,2-TRANS-DICHLORO ETHYLENE	*
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	21,600
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	*
87V	TRICHLOROETHYLENE	*
88V	VINYL CHLORIDE	N/D

PESTICIDES		µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	**
94P	4,4'-DDD	ND
95P	α-endosulfan	**
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	**
104P	γ-BHC	ND
105P	δ-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS		
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	?

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0175

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	105	100	105
D_8-Toluene	VOA	116	100	116
2-Fluorophenol	Acid	39	100	39
D_5-Phenol	Acid	49	100	49
2-Fluorobiphenyl	BN	44	100	44
D_5-Nitrobenzene	BN	45	100	45
D_8-Naphthalene	BN	61	100	61

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	89	PENTABROMOE 191	VOA	73
2.	1958	PROPANE, 2-BROMO-1-CHLORO	"	93
3.	2872	BUTANE, 1,4-DICHLORO-	"	97
4.	20370	1,2-BENZENEDICARBOXYLIC ACID, DI	ACID	85
5.	343	2-CYCLOPENTEN-1-ONE	BN	61
6.	9246	1,1'-BIPHENYL, 4-FLUORO-	"	98
7.	22045	2-THIOPHENECARBOXYLIC ACID, 4,5	"	79
8.	4863	HEPTANE, 5-ETHYL-2-METHYL-	"	93
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

2/15/80

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S50-4

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W424

INORGANICS ANALYSIS DATA SHEET

585-100

LABORATORY NAME Versar Inc. SAMPLE NO. MA8060

LAB SAMPLE ID NO. 9615 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	< 50.	10.	Nickel	< 20.
2.	Chromium	< 10.	11.	Manganese	320.
3.	Barium	< 10.	12.	Zinc	< 10
4.	Beryllium	< 2.	13.	Boron	< 10.
5.	Cadmium	< 5	14.	Vanadium	< 10
6.	Cobalt	< 10.	15.	Calcium	8,100.
7.	Copper	< 20.	16.	Magnesium	1,600.
8.	Iron	24,900.	17.	Sodium	18,400.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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8010-04B-455
(AG 7) 551
551-1

Sample Number
A0160

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO. _____
QC REPORT NO. 7

SAMPLE ID: A0160
LAB ID: A0160A
DATE EXTRACTED: 02/07/81
DATE INJECTED: 02/24/81
STD. ID: 02/23/81
CONC. FACTOR: 689.655

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
[illegible]A	4-NITROPHENOL	N/D
59A	2,4-DINITROPHENOL	N/D
60A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
65A	PHENOL	N/D

SAMPLE ID: A0160
LAB ID: A0160BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 1818.182

	BASE/NEUTRAL COMPOUNDS	UG/L
1B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
12B	HEXACHLOROETHANE	N/D
18B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
27B	1,4-DICHLOROBENZENE	N/D
28B	3,3'-DICHLOROBENZIDINE	N/D
[illegible]	2,4-DINITROTOLUENE	N/D
[illegible]	2,6-DINITROTOLUENE	N/D
37B	1,2-DIPHENYLHYDRAZINE	N/D
39B	FLUORANTHENE	N/D
40B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0160
LAB ID: A0160BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 1818.182

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	*
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	N/D
69B	DI-N-OCTYL PHTHALATE	*
70B	DIETHYL PHTHALATE	N/D
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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S51-2

Sample Number
A016C

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software

LAB SAMPLE ID NO.

QC REPORT NO. 7

SAMPLE ID: A16C
LAB ID: A16CV
DATE EXTRACTED:
DATE INJECTED: 02/17/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
*		
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	N/D
5V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	*
13V	1,1-DICHLOROETHANE	*
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	N/D
29V	1,1-DICHLOROETHYLENE	N/D
30V	1,2-TRANS-DICHLORO ETHYLENE	*
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	*
44V	METHYLENE CHLORIDE	13.3
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	*
87V	TRICHLOROETHYLENE	10.0
88V	VINYL CHLORIDE	N/D

	PESTICIDES	µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	**
102P	α-BHC	ND
103P	β-BHC	ND
104P	γ-BHC	ND
105P	δ-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	)

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 7

Sample Number: A016C

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	113	100	113
D_8-Toluene	VOA	108	100	108
2-Fluorophenol	Acid	591	100	591
D_5-Phenol	Acid	6.6	100	6.6
2-Fluorobiphenyl	BN	94	100	94
D_5-Nitrobenzene	BN	99	100	99
D_8-Naphthalene	BN	90	100	90

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	1285	PROPANE, 1-ISOCYANATE	BN	90
2.	6281	FORMAMIDE, N-(1,1 DIMETHYL ETHYL)	"	97
3.	2808	1,3,5 CYCLOHEPTANE	"	99
4.	2880	ISOTHIAZOLE, -5METHYL	"	82
5.	1793	1-PENTYN -3-OL,3-ETHYL	VOA	87
6.	3351	PENTANE,3-ETHYL-2,2-DIMETHYL	"	90
7.	1700	ACETYLCHLORIDE, CHLORO-	"	87
8.	2877	BUTANE, 1,3-DICHLORO-	"	90
9.	20651	2-PIPERIDINECARBOXAMIDE	"	92
10.	7658	2H-PYRIDO[1,2-A]PYRIMIDIN-2-ON	ACID	85
11.	3789	1H-INDEN-1-ONE, 2,3-DIHYDRO	"	93
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

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(S51-4)

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Lexington Mass
02173
attention Ed Taylor

Page 378

INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8046

LAB SAMPLE ID NO. 9476 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	< 50.	10.	Nickel	< 20.
2.	Chromium	< 10.	11.	Manganese	300.
3.	Barium	30.	12.	Zinc	20.
4.	Beryllium	< 2.	13.	Boron	40.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	30,400.
7.	Copper	< 20.	16.	Magnesium	6,400.
8.	Iron	1,000.	17.	Sodium	45,900.
9.	Lead	40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.[e]	6.	Tin	<100.[ae]
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 100.
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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(E 37) S52-1

Sample Number
A0166

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO.
QC REPORT NO. 8

SAMPLE ID: A0166
LAB ID: A0166A
DATE EXTRACTED: 02/07/81
DATE INJECTED: 02/24/81
STD. ID: 02/23/81
CONC. FACTOR: 714.286

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	34.700
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
[illegible]A	2-NITROPHENOL	N/D
[illegible]8A	4-NITROPHENOL	N/D
[illegible]A	2,4-DINITROPHENOL	N/D
60A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
65A	PHENOL	266.000

SAMPLE ID: A0166
LAB ID: A0166BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 1000.000

	BASE/NEUTRAL COMPOUNDS	UG/L
1B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
12B	HEXACHLOROETHANE	N/D
18B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
	1,4-DICHLOROBENZENE	N/D
28B	3,3'-DICHLOROBENZIDINE	N/D
3[illegible]	2,4-DINITROTOLUENE	N/D
3[illegible]	2,6-DINITROTOLUENE	N/D
37B	1,2-DIPHENYLHYDRAZINE	N/D
39B	FLUORANTHENE	N/D
40B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0166
LAB ID: A0166BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 1000.000

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	35.800
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	*
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	N/D
69B	DI-N-OCTYL PHTHALATE	*
70B	DIETHYL PHTHALATE	*
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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S52-2

Sample Number
A0166

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software

LAB SAMPLE ID NO.

QC REPORT NO. 8

SAMPLE ID: A166
LAB ID: A166V
DATE EXTRACTED:
DATE INJECTED: 02/18/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	75.800
6V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	82.200
11V	1,1,1-TRICHLOROETHANE	N/D
13V	1,1-DICHLOROETHANE	N/D
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	N/D
29V	1,1-DICHLOROETHYLENE	N/D
30V	1,2-TRANS-DICHLORO ETHYLENE	N/D
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	18.500
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	106.000
87V	TRICHLOROETHYLENE	*
88V	VINYL CHLORIDE	N/D

PESTICIDES		µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	**
93P	4,4'-DDE	**
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	**
103P	β-BHC	ND
104P	γ-BHC	**
105P	δ-BHC	**
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B 2,3,7,8-tetrachlorodibenzo-p-dioxin

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0166

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_5-Benzene	VOA	100	100	100
D_8-Toluene	VOA	99	100	99
2-Fluorophenol	Acid	37	100	37
D_5-Phenol	Acid	42	100	42
2-Fluorobiphenyl	BN	112	100	112
D_5-Nitrobenzene	BN	93	100	93
D_8-Naphthalene	BN	102	100	102

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	172	1-H 1,2,4 TRIAZOLE 3-AMINE	BN	85
2.	1165	1,3 DIMETHYL BENZENE	"	99
3.	1074	1,4 DIMETHYL BENZENE	"	99
4.	6281	FORMAMIDE N(1,1 DIMETHYL ETHYL)	"	97
5.	3317	BENZENE 1-ETHYL 2-METHYL	"	99
6.	3415	BENZENE 1-ETHYL 3METHYL	"	96
7.	725	BENZENE 1,2,4 TRIMETHYL	"	98
8.	2673	BENZENE 1,2,3 TRIMETHYL	"	98
9.	214	2-METHYL -1-PHENOL	"	97
10.	91	HEXADECANOIC ACID	"	96
11.	3132	METHANE, BROMOCHLORO	VOA	99
12.	1849	1-HEPTENE, 6-METHYL-	"	79
13.	6958	PROPANE, 2-BROMO-1CHLORO	"	81
14.	2872	BUTANE, 1-4 DICHLORO	"	94
15.	20651	2-PIPERIDINECARBOXAMIDE, N-(2,6)	"	92
16.	690	BENZENE, METHYL	"	99
17.	1436	BENZENE, ETHYL	"	96
18.	4175	BENZENEACETICACID	ACID	91
19.				
20.				

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INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8052

LAB SAMPLE ID NO. 9482 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	26,500.	10.	Nickel	40.
2.	Chromium	60.	11.	Manganese	940.
3.	Barium	180.	12.	Zinc	2,440.
4.	Beryllium	< 2.	13.	Boron	40.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	20.	15.	Calcium	14,300.
7.	Copper	60	16.	Magnesium	9,300.
8.	Iron	118,000.	17.	Sodium	18,600.
9.	Lead	40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	30.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	30.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S52-5

SAMPLE ID	A1214 S52	SAMPLE ID	A1214
LAB ID	22937A11	LAB ID	22937B8
DATE EXTRACTED	1/23/82	DATE EXTRACTED	1/22/82
DATE INJECTED	2/18/82	DATE INJECTED	2/21/82
STD ID	SENS230 PHEN399	STD ID	BENZ494 BNSTD495
CONC FACTOR	---------	CONC FACTOR	1000

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	22

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	27
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	*
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S52-6

SAMPLE ID	A1214	SAMPLE ID	A1214
LAB ID	22937V10	LAB ID	22937 TRACE #5753
DATE INJECTED	1/24/82	DATE EXTRACTED	1/23/82
STD ID	BFB140 VOA278	DATE INJECTED	2/1/82
CONC. FACTOR	---------	STD ID	TRACE #5356
		CONC. FACTOR	100

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	53
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	76
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	16
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	41
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

WEST COAST TECHNICAL SERVICE INC.

ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
A1214

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	51	50	102
1-Chloro-2-Bromopropane	VOA	44	50	88
Toluene - d8	VOA	47	50	94
2-Fluorophenol	ACID	70	105	67
Phenol - d5	ACID	66	106	62
Nitrobenzene - d5	B/N	117	101	116
2-Fluorobiphenyl	B/N	85	101	84
Naphthalene-D8	B/N	65	101	64

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		UNKNOWN	VOA #195	NO GOOD FIT
2.		METHYL PHENOL	ACID #115	GENERAL FIT
3.		2-METHYL PHENOL	ACID #130	984
4.		XYLENE ISOMER	B/N #61	979
5.		XYLENE ISOMER	B/N #70	981
6.		ETHYL METHYL BENZENE	B/N #90	GENERAL FIT
7.		TRIMETHYL BENZENE		
8.		ISOMER	B/N #100	978
9.		TRIMETHYL BENZENE		
10.		ISOMER	B/N #113	980
11.		C9 AROMATIC HYDROCARBON	B/N #121	GENERAL FIT
12.		UNKNOWN	B/N #326	NO GOOD FIT
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

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INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8805 (E37) S52

LAB SAMPLE ID NO. 8433 QC REPORT NO. _____

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	104,000.	10.	Nickel	160.
2.	Chromium	220.	11.	Manganese	3200.
3.	Barium	500.	12.	Zinc	2550.
4.	Beryllium	< 2.	13.	Boron	< 100.[a]
5.	Cadmium	< 5.	14.	Vanadium	250.
6.	Cobalt	80.	15.	Calcium	56,700.
7.	Copper	200.	16.	Magnesium	50,300.
8.	Iron	240,000.	17.	Sodium	24,400.
9.	Lead	640.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	30.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<20[b]	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 100.
b) with a detection limit of 20.
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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(w 426) S53-1

Sample Number
A0165

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO. _____
QC REPORT NO. 8

SAMPLE ID: A0165
LAB ID: A0165A
DATE EXTRACTED: 02/07/81
DATE INJECTED: 02/24/81
STD. ID: 02/23/81
CONC. FACTOR: 714.286

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
8A	4-NITROPHENOL	N/D
9A	2,4-DINITROPHENOL	N/D
60A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
65A	PHENOL	57.300

SAMPLE ID: A0165
LAB ID: A0165BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 2000.000

	BASE/NEUTRAL COMPOUNDS	UG/L
.B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
.2B	HEXACHLOROETHANE	N/D
.8B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
	1,4-DICHLOROBENZENE	N/D
	3,3'-DICHLOROBENZIDINE	N/D
	2,4-DINITROTOLUENE	N/D
	2,6-DINITROTOLUENE	N/D
37B	1,2-DIPHENYLHYDRAZINE	N/D
39B	FLUORANTHENE	N/D
40B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0165
LAB ID: A0165BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 2000.000

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	*
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	34.800
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	N/D
69B	DI-N-OCTYL PHTHALATE	*
70B	DIETHYL PHTHALATE	*
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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S53-2

Sample Number
A0165

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software

LAB SAMPLE ID NO.

QC REPORT NO. 8

SAMPLE ID: A165
LAB ID: A165V
DATE EXTRACTED:
DATE INJECTED: 02/18/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	*
6V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	N/D
13V	1,1-DICHLOROETHANE	N/D
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	N/D
29V	1,1-DICHLOROETHYLENE	N/D
30V	1,2-TRANS-DICHLORO ETHYLENE	N/D
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	16.300
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	63.300
87V	TRICHLOROETHYLENE	*
88V	VINYL CHLORIDE	N/D

PESTICIDES		µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	ND
104P	γ-BHC	ND
105P	δ-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B 2,3,7,8-tetrachlorodibenzo-p-dioxin

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0165

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	97	100	97
D_8-Toluene	VOA	98	100	98
2-Fluorophenol	Acid	542	100	542
D_5-Phenol	Acid	572	100	572
2-Fluorobiphenyl	BN	107	100	107
D_5-Nitrobenzene	BN	81	100	81
D_8-Naphthalene	BN	79	100	79

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	5151	1,3,2 DIOXATHIOLANE, 4-METHYL 2 OXIDE	BN	58
2.	172	1H, 1,2,4 TRIAZOL 3-AMINE	"	84
3.	6281	FORMAMIDE N-(1,1 DIMETHYLETHYL)	"	97
4.	1404	EICOSANE	"	95
5.	3655	PENTACOSANE	"	97
6.	6057	CYCLOHEXANE 1,2-DIMETHYL-CIS-	"	92
7.	15575	10-UNDECENOIC ACID, OCTYLESTER	"	72
8.	6723	OCTANE 2-CYCLOHEXYL	"	89
9.	3146	OCTADECANE	"	93
10.	16079	HYDROXYLAMINE O-DECYL	"	82
11.	89	PENTABORANE (9)	VOA	73
12.	10427	2-PYRROLIDINONE, 5-(OIC.	"	91
13.	2084	HEXANE, 2,2-DIMETHYL-	"	93
14.	14291	ETHANONE, 2-HYDROXY-1,2-DI.	"	80
15.	769	1H-PYRAZOLE, 3,5-DIMETHYL	"	88
16.	2872	BUTANE, 1,4-DICHLORO-	"	95
17.	467	1,2,3-THIADIAZOLE	ACID	96
18.	5210	OCTANOIC ACID	"	76
19.	5673	BENZENE, (1-AZIDOETHYL)	"	89
20.	3590	3-HEXANOL, 2,5-DIMETHYL-	"	88

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S53-4

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INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8051

LAB SAMPLE ID NO. 9481 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	8,800.	10.	Nickel	20.
2.	Chromium	30.	11.	Manganese	710.
3.	Barium	50.	12.	Zinc	1,320.
4.	Beryllium	< 2.	13.	Boron	20.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	10.	15.	Calcium	10,100.
7.	Copper	20.	16.	Magnesium	3,300.
8.	Iron	101,000.	17.	Sodium	10,400.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	300.[a]
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 100.
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

WCTS WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S53-5

SAMPLE ID	A1211 S53		SAMPLE ID	A1211	
LAB ID	22937A8		LAB ID	22937B5	
DATE EXTRACTED	1/23/82		DATE EXTRACTED	1/22/82	
DATE INJECTED	2/17/82		DATE INJECTED	2/21/82	
STD ID	SENS229	PHEN398	STD ID	BEN7494	BNSTD495
CONC FACTOR	1000		CONC FACTOR	1000	

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	*

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

(1) UNRESOLVED COMPOUNDS

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	*
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	*
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

(1)

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S53-6

SAMPLE ID	A1211	SAMPLE ID	A1211
LAB ID	22937V4	LAB ID	22937 TRACE #5741
DATE INJECTED	1/23/82	DATE EXTRACTED	1/23/82
STD ID	BFB139 VOA277	DATE INJECTED	2/1/82
CONC. FACTOR	---------	STD ID	TRACE #5745
		CONC. FACTOR	50

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	*
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

WEST COAST TECHNICAL SERVICE INC.

ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
A1211

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	52	50	104
1-Chloro-2-Bromopropane	VOA	50	50	100
Toluene - d8	VOA	55	50	110
2-Fluorophenol	ACID	61	105	58
Phenol - d5	ACID	66	106	62
Nitrobenzene - d5	B/N	91	101	90
2-Fluorobiphenyl	B/N	76	101	75
Naphthalene-D8	B/N	59	101	58

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

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INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8802 (426) S53

LAB SAMPLE ID NO. 8430 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	146,000.	10.	Nickel	260.
2.	Chromium	300.	11.	Manganese	7870.
3.	Barium	1000.	12.	Zinc	3860.
4.	Beryllium	< 2.	13.	Boron	< 100.[a]
5.	Cadmium	< 5.	14.	Vanadium	340.
6.	Cobalt	160.	15.	Calcium	62,800.
7.	Copper	460.	16.	Magnesium	61,700.
8.	Iron	349,000.	17.	Sodium	17,700.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	140.	5.	Mercury	<1.
2.	Antimony	<20	6.	Tin	<20.
3.	Selenium	<40[b]	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 100.
b) with a detection limit of 40.
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

8006-01-211 S54-1

The Commonwealth of Massachusetts

Department Of Environmental Quality Engineering

Lawrence Experiment Station

37 Shattuck Street, Lawrence, Massachusetts 01843

TO: Raymond Donlan

FROM: John E. Pellerin

DATE: June 27, 1980

SUBJECT: ATLANTIC GELATIN,WOBURN

Six samples were received for volatile organic analysis by gas chromatography-mass spectroscopy. They were colledted June 20, 1980 by David Erekson. The samples were analyzed according to the EPA procedure, "Method 624-Organics by Purge and Trap." Only those organic compounds which have a significant vapor pressure in aqueous solution at room temperature and thus are amenable to partition by purging are detected by this procedure. Each run was spiked with a three compound internal standard. No standards were available for quantitation of trichlorofluoromethane or 1,1,2 trichloro-1,2,2 trifluoroethane. The spectra obtained were compared to a mass spectral index and a mass spectral data base for identification. The following table lists the sample numbers,locations and volatile compounds detected:

Sample #	Location	Volatile Compounds	ppb
001632	(Atlantic Gelatin Well #1) S57	Trichloroethylene	1.3
001633	(Atlantic Gelatin Well #2) S58	Trichlorofluoromethane	---
		1,1,1 Trichloroethane	1.3
		Trichloroethylene	7.0
001634	(Atlantic Gelatin Well #4A) S54	1,1 dichloroethylene	3.9
		1,1 dichloroethane	15
		t-1,2-dichloroethylene	91
		1,1,1 Trichloroethane	67
		Trichloroethylene	2290
001635	(Atlantic Gelatin Well #5) S59	1,1 dichloroethylene	6.3
		1,1 dichloroethane	20
		t-1,2 dichloroethylene	8.2
		1,1,1 Trichloroethane	58
		Trichloroethylene	59
		Tetrachloroethylene	1.6

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S54-2

Sample #	Location	Volatile Compounds	ppb
001636	(Atlantic Gelatin Well #6) S55	Trichlorofluoromethane	---
		t-1,2 dichloroethylene	12
		1,1,2-trichloro-1,2,2-Trifluoroethane	---
		1,1,1 Trichloroethane	26
		Trichloroethylene	54
		Tetrachloroethylene	1.0
001637	(Atlantic Gelatin Well #7) S51	t-1,2 dichloroethylene	1.4
		1,1,1 Trichloroethane	1.5
		Trichloroethylene	5.3

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P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

(AG-6) S55-1

Sample Number
A0161

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO. _____
QC REPORT NO. 8

SAMPLE ID: A0161
LAB ID: A0161A
DATE EXTRACTED: 02/07/81
DATE INJECTED: 02/24/81
STD. ID: 02/23/81
CONC. FACTOR: 1000.000

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOPOPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
A	4-NITROPHENOL	N/D
9A	2,4-DINITROPHENOL	N/D
0A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
65A	PHENOL	N/D

SAMPLE ID: A0161
LAB ID: A0161BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 1250.000

	BASE/NEUTRAL COMPOUNDS	UG/L
1B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
12B	HEXACHLOROETHANE	N/D
18B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
	1,4-DICHLOROBENZENE	N/D
	3,3'-DICHLOROBENZIDINE	N/D
	2,4-DINITROTOLUENE	N/D
8	2,6-DINITROTOLUENE	N/D
37B	1,2-DIPHENYLHYDRAZINE	N/D
39B	FLUORANTHENE	N/D
40B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0161
LAB ID: A0161BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 1250.000

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	*
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	N/D
69B	DI-N-OCTYL PHTHALATE	*
70B	DIETHYL PHTHALATE	*
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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S55-2

Sample Number
A0161

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software

LAB SAMPLE ID NO.

QC REPORT NO. 8

SAMPLE ID: A161
LAB ID: A161V
DATE EXTRACTED:
DATE INJECTED: 02/17/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	N/D
6V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	69.700
13V	1,1-DICHLOROETHANE	*
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	N/D
29V	1,1-DICHLOROETHYLENE	*
30V	1,2-TRANS-DICHLORO ETHYLENE	14.9
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	*
44V	METHYLENE CHLORIDE	18.000
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	102.000
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	*
87V	TRICHLOROETHYLENE	76.400
88V	VINYL CHLORIDE	N/D

	PESTICIDES	µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	ND
104P	γ-BHC	ND
105P	δ-BHC	~~ND~~
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B	2,3,7,8-tetrachlorodibenzo-p-dioxi-

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0161

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	113	100	113
D_8-Toluene	VOA	111	100	111
2-Fluorophenol	Acid	34	100	34
D_5-Phenol	Acid	12	100	12
2-Fluorobiphenyl	BN	94	100	94
D_5-Nitrobenzene	BN	81	100	81
D_8-Naphthalene	BN	80	100	80

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	5751	1,3,2 DIOXATHOLANE 4-METHYL,2-OXIDE	BN	59
2.	172	1H,1,2,4 TRIAZOLE-3-4-AMINE	"	92
3.	5915	PENTANE, 2,2,3,4 TETRAMETHYL	"	86
4.	4668	PENTAN 2,2,4,4 TETRAMETHYL	"	94
5.	748	1,2,3 TRICHLOROPROPANE	"	98
6.	6281	FORMAMIDE N-(1,1 DIMETHYLETHYL)	"	96
7.	23039	1-PROPANAM,3-(2-METHOXY-1-METHYLETHOXY)	"	68
8.	10580	1,2 HEXADIENE, 5 METHYL	"	88
9.	4156	2-NONANONE	"	51
10.	611	BENZENE METHANADL,α-1-(METHYL AMINO) ETHYL	"	64
11.	11173	ETANE,1,1,2-TRICHLORO-1,2,2-T	VOA	99.9
12.	6958	PROPANE,2-BROMO-1-CHLORO-	"	82
13.	2877	BUTANE,1,3-DICHLORO-	"	90
14.				
15.				
16.				
17.				
18.				
19.				
20.				

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S55-4

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INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8047

LAB SAMPLE ID NO. 9477 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	< 50.	10.	Nickel	< 20.
2.	Chromium	< 10.	11.	Manganese	1,120.
3.	Barium	150.	12.	Zinc	50.
4.	Beryllium	< 2.	13.	Boron	180.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	74,400.
7.	Copper	< 20.	16.	Magnesium	10,500.
8.	Iron	2,140.	17.	Sodium	46,100.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	30.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<100.[a]
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 100.
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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BEAUCHAMPS S56-1

Sample Number A0169

ORGANICS ANALYSIS DATA SHEET

WELL (E25) S56

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO. _____
QC REPORT NO. 8

SAMPLE ID: A0169
LAB ID: A0169A
DATE EXTRACTED: 02/07/81
DATE INJECTED: 02/25/81
STD. ID: 02/23/81
CONC. FACTOR: 625.000

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
[illegible]A	4-NITROPHENOL	N/D
[illegible]A	2,4-DINITROPHENOL	N/D
[illegible]A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
65A	PHENOL	38.700

SAMPLE ID: A0169
LAB ID: A0169BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/26/81
STD. ID: 03/25/81
CONC. FACTOR: 909.091

	BASE/NEUTRAL COMPOUNDS	UG/L
1B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
12B	HEXACHLOROETHANE	N/D
18B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
27B	1,4-DICHLOROBENZENE	N/D
[illegible]	3,3'-DICHLOROBENZIDINE	N/D
[illegible]	2,4-DINITROTOLUENE	N/D
[illegible]	2,6-DINITROTOLUENE	N/D
[illegible]B	1,2-DIPHENYLHYDRAZINE	N/D
39B	FLUORANTHENE	N/D
40B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0169
LAB ID: A0169BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/26/81
STD. ID: 03/25/81
CONC. FACTOR: 909.091

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	N/D
67B	BUTYL BENZYL PHTHALATE	*
68B	DI-N-BUTYL PHTHALATE	38.700
69B	DI-N-OCTYL PHTHALATE	N/D
70B	DIETHYL PHTHALATE	N/D
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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S56-2

Sample Number
A0169

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software

LAB SAMPLE ID NO.

QC REPORT NO. 8

SAMPLE ID: A169
LAB ID: A169V
DATE EXTRACTED:
DATE INJECTED: 02/18/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	*
6V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	611.000
13V	1,1-DICHLOROETHANE	*
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	*
29V	1,1-DICHLOROETHYLENE	*
30V	1,2-TRANS-DICHLORO ETHYLENE	N/D
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	13.3
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	775.000
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	*
86V	TOLUENE	45.000
87V	TRICHLOROETHYLENE	135.000
88V	VINYL CHLORIDE	N/D

PESTICIDES		µg/l
89P	aldrin	**
90P	dieldrin	**
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	**
103P	β-BHC	ND
104P	γ-BHC	ND
105P	δ-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B	2,3,7,8-tetrachlorodibenzo-p-dioxin

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0169

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	95	100	95
D_8-Toluene	VOA	96	100	96
2-Fluorophenol	Acid	27	100	27
D_5-Phenol	Acid	28	100	28
2-Fluorobiphenyl	BN	96	100	96
D_5-Nitrobenzene	BN	42	100	42
D_8-Naphthalene	BN	62	100	62

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	2605	PROPANOIC ACID, 2-CHLORO-, METHYL	VOA	65
2.	379	METHANE, DICHLORO	"	99
3.	84	METHANE, THIOBIS	"	100
4.	3132	METHANE, BROMOCHLORO	"	99
5.	5000	6-HEPTEN-3-ONE, 5-HYDROXY-4-MET	"	90
6.	6958	PROPANE, 2-BROMO-1-CHLORO	"	82
7.	667	2-BUTENE, -1-CHLORO	"	94
8.	8116	BICYCLO[2.2.2] OCT-2-ENE, 1,2,3	"	54
9.	1752	2(5H)-FURANONE, 5-ETHYL	"	74
10.	2404	BUTANE, 3-METHYL-1-(METHYLTHIO)	"	55
11.	9533	ACETIC ACID, MERCAPTO-, CYCLOHEXY	"	56
12.	6174	ETHANEDIAL MONOHYDRATE, DIMER	ACID	97
13.	467	1,2,3-THIADIAZOLE	"	90
14.	9246	1,1'-BIPHENYL, 4-FLUORO	B/N	98
15.	5622	ISOQUINOLINE, 1,2,3,4-TETRAHYDR	"	76
16.	24606	METHANONE, (5-BROMO-6-METHOXY-2	"	73
17.	14612	PYRIDINE, 2,3-BIS(TRIFLUOROMETH	"	66
18.				
19.				
20.				

2/15/80

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INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8054

LAB SAMPLE ID NO. 9484 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	< 50.	10.	Nickel	20.
2.	Chromium	< 10.	11.	Manganese	12,500.
3.	Barium	60.	12.	Zinc	30.
4.	Beryllium	< 2.	13.	Boron	3,170.
5.	Cadmium	< 5.	14.	Vanadium	30.
6.	Cobalt	< 10.	15.	Calcium	80,700.
7.	Copper	< 20.	16.	Magnesium	13,200.
8.	Iron	5,200.	17.	Sodium	68,800.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	30.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<100.[a]
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 100.
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottl
e) average of two replicate determinations
f) insufficient sample aliquot

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8010-04B-451
(AG 1) 557-1

Sample Number
A0164

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO. _____
QC REPORT NO. 8

SAMPLE ID: A0164
LAB ID: A0164A
DATE EXTRACTED: 02/07/81
DATE INJECTED: 02/24/81
STD. ID: 02/23/81
CONC. FACTOR: 625.000

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
8A	4-NITROPHENOL	N/D
9A	2,4-DINITROPHENOL	N/D
0A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
65A	PHENOL	N/D

SAMPLE ID: A0164
LAB ID: A0164BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 1428.571

	BASE/NEUTRAL COMPOUNDS	UG/L
.B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
3B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
.2B	HEXACHLOROETHANE	N/D
.8B	BIS(2-CHLOROETHYL) ETHER	N/D
0B	2-CHLORONAPHTHALENE	N/D
5B	1,2-DICHLOROBENZENE	N/D
6B	1,3-DICHLOROBENZENE	N/D
	1,4-DICHLOROBENZENE	N/D
	3,3'-DICHLOROBENZIDINE	N/D
	2,4-DINITROTOLUENE	N/D
	2,6-DINITROTOLUENE	N/D
7B	1,2-DIPHENYLHYDRAZINE	N/D
9B	FLUORANTHENE	N/D
0B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0164
LAB ID: A0164BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 1428.571

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	*
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	N/D
69B	DI-N-OCTYL PHTHALATE	*
70B	DIETHYL PHTHALATE	*
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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SS7-2

Sample Number
A0164

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software

LAB SAMPLE ID NO.

QC REPORT NO. 8

SAMPLE ID: A164
LAB ID: A164V
DATE EXTRACTED:
DATE INJECTED: 02/18/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	N/D
5V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	*
13V	1,1-DICHLOROETHANE	N/D
14V	1,1,2-TRICHLOROETHANE	N/D
V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	*
29V	1,1-DICHLOROETHYLENE	N/D
30V	1,2-TRANS-DICHLORO ETHYLENE	N/D
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	15.800
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	75.300
87V	TRICHLOROETHYLENE	*
88V	VINYL CHLORIDE	N/D

PESTICIDES		µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	**
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	**
104P	γ-BHC	ND
105P	δ-BHC	**
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS

129B 2,3,7,8-tetrachlorodibenzo-p-dioxin

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0164

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	100	100	100
D_8-Toluene	VOA	100	100	100
2-Fluorophenol	Acid	11	100	11
D_5-Phenol	Acid	15	100	15
2-Fluorobiphenyl	BN	73	100	73
D_5-Nitrobenzene	BN	8.5	100	8.5
D_8-Naphthalene	BN	25	100	25

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	6281	FORMAMIDE (N-(1,1 DIMETHYL ETHYL)	BN	97
2.	8396	UREA N,N' BIS(1,1 DIMETHYLETHYL)	"	97
3.	8980	DECANE, 2,2-DIMETHYL-	VOA	90
4.	6952	PROPANE, 2-BROMO-1-CHLORO	"	80
5.	665	1-PROPENE, 3-CHLORO-2-METHYL	"	93
6.	473	SILACYCLOPENTANE	ACID	91
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

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INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8050

LAB SAMPLE ID NO. 9480 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	< 50.	10.	Nickel	< 20.
2.	Chromium	< 10.	11.	Manganese	30.
3.	Barium	30.	12.	Zinc	240.
4.	Beryllium	< 2.	13.	Boron	30.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	34,100.
7.	Copper	< 20.	16.	Magnesium	4,400.
8.	Iron	3980.	17.	Sodium	47,200.
9.	Lead	40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<100.[a]
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 100.
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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(AG 2) S58-1

Sample Number
A0163

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO.
QC REPORT NO. 8

SAMPLE ID: A0163
LAB ID: A0163A
DATE EXTRACTED: 02/07/81
DATE INJECTED: 02/24/81
STD. ID: 02/23/81
CONC. FACTOR: 1333.333

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
58A	4-NITROPHENOL	N/D
59A	2,4-DINITROPHENOL	N/D
60A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
65A	PHENOL	N/D

SAMPLE ID: A0163
LAB ID: A0163BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 4000.000

	BASE/NEUTRAL COMPOUNDS	UG/L
1B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
12B	HEXACHLOROETHANE	N/D
18B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
[illegible]	1,4-DICHLOROBENZENE	N/D
[illegible]	3,3'-DICHLOROBENZIDINE	N/D
[illegible]	2,4-DINITROTOLUENE	N/D
36B	2,6-DINITROTOLUENE	N/D
37B	1,2-DIPHENYLHYDRAZINE	N/D
39B	FLUORANTHENE	N/D
40B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0163
LAB ID: A0163BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 4000.000

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	*
67B	BUTYL BENZYL PHTHALATE	35.200
68B	DI-N-BUTYL PHTHALATE	N/D
69B	DI-N-OCTYL PHTHALATE	*
70B	DIETHYL PHTHALATE	*
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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S58-2

Sample Number
A0163

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software

LAB SAMPLE ID NO.

QC REPORT NO. 8

SAMPLE ID: A163
LAB ID: A163V
DATE EXTRACTED:
DATE INJECTED: 02/17/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	N/D
6V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	*
13V	1,1-DICHLOROETHANE	*
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	*
29V	1,1-DICHLOROETHYLENE	*
30V	1,2-TRANS-DICHLORO ETHYLENE	*
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	*
44V	METHYLENE CHLORIDE	12.4
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	*
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	N/D
87V	TRICHLOROETHYLENE	*
88V	VINYL CHLORIDE	N/D

PESTICIDES		µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	ND
104P	γ-BHC	ND
105P	δ-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS		
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0163

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	113	100	113
D_8-Toluene	VOA	106	100	106
2-Fluorophenol	Acid	9.6	100	9.6
D_5-Phenol	Acid	6.0	100	6.0
2-Fluorobiphenyl	BN	77	100	77
D_5-Nitrobenzene	BN	110	100	110
D_8-Naphthalene	BN	76	100	76

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	5151	1,3,2 DIOXANTHOLANE 4-METHYL, 2-OXIDE	BN	58
2.	8172	PROLINE 5-OXO METHYL ESTER	"	76
3.	1189	METHYL BENZENE	"	100
4.	6281	FORMAMIDE N(1,1 DIMETHYL ETHYL)	"	98
5.	10804	CYCLOPENTANE, 1-BROMO-2 CHLORO TRANS	"	84
6.	748	PROPANE, 1,2,3 TRICHLORO	"	97
7.	2248	BENZENE, 1-FLUORO 4-METHOXY	"	94
8.	8766	HEXANAL 4,4 DIMETHYL	"	74
9.	9825	PROPANAL 2,3 DICHLORO 2-METHYL	"	93
10.	8396	UREA N N' BIS (1,1 DIMETHYL ETHYL)	"	96
11.	5282	ETHER, BUTYLPENTYL	VOA	76
12.	5000	6-HEPTEN-3-ONE, 5-HYDROXY	"	95
13.	6758	PROPANE, 2-BROMO-1-CHLORO-	"	85
14.	2877	BUTANE, 1,3-DICHLORO-	"	93
15.	20370	1,2-BENZENEDICARBOXYLIC ACID, DI	ACID	89
16.	23582	1,2-BENZENEDICARBOXYLIC ACID, 2-	"	95
17.	13944	1H-BENZOTRIAZOLE, 1-(PHENYLMETH	"	88
18.	3357	3-PYRIDAZINAMINE, 6-CHLORO-	"	95
19.				
20.				

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INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8049

LAB SAMPLE ID NO. 9479 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	< 50.	10.	Nickel	< 20.
2.	Chromium	< 10.	11.	Manganese	130.
3.	Barium	40.	12.	Zinc	350.
4.	Beryllium	< 2.	13.	Boron	40.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	38,500.
7.	Copper	20.	16.	Magnesium	5,600.
8.	Iron	160.	17.	Sodium	43,700.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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(AG 5) (S59-1)

Sample Number
A0162

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO. _____
QC REPORT NO. 8

SAMPLE ID: A0162
LAB ID: A0162A
DATE EXTRACTED: 02/07/81
DATE INJECTED: 02/24/81
STD. ID: 02/23/81
CONC. FACTOR: 833.333

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
8A	4-NITROPHENOL	N/D
59A	2,4-DINITROPHENOL	N/D
0A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
65A	PHENOL	N/D

SAMPLE ID: A0162
LAB ID: A0162BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 2000.000

	BASE/NEUTRAL COMPOUNDS	UG/L
.B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
3B	1,2,4-TRICHLOROBENZENE	N/D
8	HEXACHLOROBENZENE	N/D
2B	HEXACHLOROETHANE	N/D
8B	BIS(2-CHLOROETHYL) ETHER	N/D
0B	2-CHLORONAPHTHALENE	N/D
5B	1,2-DICHLOROBENZENE	N/D
6B	1,3-DICHLOROBENZENE	N/D
	1,4-DICHLOROBENZENE	N/D
	3,3'-DICHLOROBENZIDINE	N/D
5	2,4-DINITROTOLUENE	N/D
	2,6-DINITROTOLUENE	N/D
7B	1,2-DIPHENYLHYDRAZINE	N/D
9B	FLUORANTHENE	N/D
0B	4-CHLOROPHENYL PHENYL ETHER	N/D

SAMPLE ID: A0162
LAB ID: A0162BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/05/81
STD. ID: 03/04/81
CONC. FACTOR: 2000.000

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	*
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	N/D
69B	DI-N-OCTYL PHTHALATE	*
70B	DIETHYL PHTHALATE	*
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI BENZO-P-DIOXIN	N/D

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S59-2

Sample Number
A0162

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO.
QC REPORT NO. 8

SAMPLE ID: A162
LAB ID: A162V
DATE EXTRACTED:
DATE INJECTED: 02/17/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	N/D
6V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	55.300
13V	1,1-DICHLOROETHANE	25.200
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)ETHER	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
23V	CHLOROFORM	N/D
29V	1,1-DICHLOROETHYLENE	*
30V	1,2-TRANS-DICHLORO ETHYLENE	17.500
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	13.1
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	*
86V	TOLUENE	*
87V	TRICHLOROETHYLENE	90.600
88V	VINYL CHLORIDE	N/D

PESTICIDES		µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	~~**~~
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	~~**~~
103P	β-BHC	ND
104P	γ-BHC	ND
105P	δ-BHC	~~**~~
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

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S59-3

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0162

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	108	100	108
D_8-Toluene	VOA	101	100	101
2-Fluorophenol	Acid	11	100	11
D_5-Phenol	Acid	14	100	14
2-Fluorobiphenyl	BN	80	100	80
D_5-Nitrobenzene	BN	77	100	77
D_8-Naphthalene	BN	74	100	74

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	8172	PROLINE, 5-OXOMETHYL ESTER	BN	62
2.	6281	FORMAMIDE N-(1,1 DIMETHYLETHYL)	"	96
3.	748	1,2,3 TRICHLORO PROPANE	"	84
4.	10580	1,2 HEXADIENE-5 METHYL	"	75
5.	8396	UREA, N,N'BIS(1,1 DIMETHYETHYL)	"	91
6.	29840	1-PENTATRIACONTANOL	VOA	68
7.	9902	BENZENE PROPANOIC ACID, BETA-OX	"	66
8.	3132	METHANE, BROMOCHLORO-	"	99.8
9.	10427	2-PYRROLIDINONE, 5-(CYCLO	"	87
10.	5000	6-HEPTEN-3-ONE, 5-HYDROXY-4-	"	91
11.	6958	PROPANE, 2-BROMO-1-CHLORO-	"	83
12.	667	2-BUTENE, 1-CHLORO-	"	95
13.	9246	1,1'-BIPHENYL, 4-FLUORO-	ACID	98
14.	467	1,2,3-THIADIAZOLE	"	94
15.				
16.				
17.				
18.				
19.				
20.				

2/15/80

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INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8048

LAB SAMPLE ID NO. 9478 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	< 50.	10.	Nickel	< 20.
2.	Chromium	< 10.	11.	Manganese	240.
3.	Barium	60.	12.	Zinc	40.
4.	Beryllium	< 2.	13.	Boron	40.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	60,500.
7.	Copper	< 20.	16.	Magnesium	8,300.
8.	Iron	80.	17.	Sodium	48,900.
9.	Lead	50.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.[c]	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<100.[a]
3.	Selenium	<10.[c]	7.	Silver	<20.[c]
4.	Thallium	<10.[c]			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 100.
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

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S60 -1

S60
Sample Number

ORGANICS ANALYSIS DATA SHEET

C#762-A1023

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10756
QC Report NO. 18-41, 17-34, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

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S60-2

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number #762-A1023

Laboratory Name Mead CompuChem

Lab Sample ID NO. 107566

QC Report NO. 18-31, 17-34, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = NOT DETECTED

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

(pesticides less than, 1ug/l)

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S60-3

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 — Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MA 8196

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01484
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Aluminum	916	11.	Manganese	22
2.	Chromium	10	12.	Zinc	72
3.	Barium	11	13.	Boron	22
4.	Beryllium	<2	14.	Vanadium	12
5.	Cadmium	<5			
6.	Cobalt	<10			mg/l or mg/kg (circle one)
7.	Copper	<20			
8.	Iron	1,170	15.	Calcium	19.7
	Lead	<40	16.	Magnesium	.958
10.	Nickel	<20	17.	Sodium	21.8

TASK 2 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Arsenic	<10	5.	Mercury	<1
2.	Antimony	<20	6.	Tin	<20
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)
1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

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WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S61-1

SAMPLE ID	A1223 S61	SAMPLE ID	A1223
LAB ID	22937A16	LAB ID	22937B17
DATE EXTRACTED	1-23-82	DATE EXTRACTED	1-22-82
DATE INJECTED	2-18-82	DATE INJECTED	2-22-82
STD ID	SENS230 PHEN399	STD ID	BENZ496 BNSTD497
CONC FACTOR	1000	CONC FACTOR	1000

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S61-2

SAMPLE ID A1223
LAB ID 22937V17
DATE INJECTED 1-24-82
STD ID BFB140 VOA278
CONC. FACTOR ----------

SAMPLE ID A1223
LAB ID 22937 TRACE #5760
DATE EXTRACTED 1-23-82
DATE INJECTED 2-2-82
STD ID TRACE #5762
CONC. FACTOR 100

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
~~17V~~	~~bis(chloromethyl) ether~~	
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

WEST COAST TECHNICAL SERVICE INC.
ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
A1223

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	48	50	96
1-Chloro-2-Bromopropane	VOA	44	50	88
Toluene - d8	VOA	48	50	96
2-Fluorophenol	ACID	94	105	90
Phenol - d5	ACID	58	106	55
Nitrobenzene - d5	B/N	110	101	109
2-Fluorobiphenyl	B/N	92	101	91
Naphthalene-D8	B/N	48	101	47

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		UNKNOWN	ACID #104	NO GOOD FIT
2.		UNKNOWN	ACID #188	NO GOOD FIT
3.		3-CHLOROTHIENO-(2,3-B)		
4.		PYRIDINE	B/N #240	899
5.		UNKNOWN	B/N #326	NO GOOD FIT
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

S61-4

U.S. ENVIRONMENTAL PROTECTION AGENCY - HWI Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313 - 703/ 557-2490/FTS-8-557-2490

INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8814 (S61)

LAB SAMPLE ID NO. 8440 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	24,400.	10.	Nickel	20.
2.	Chromium	60.	11.	Manganese	500.
3.	Barium	160.	12.	Zinc	310.
4.	Beryllium	< 2.	13.	Boron	< 10.
5.	Cadmium	10.	14.	Vanadium	70
6.	Cobalt	20.	15.	Calcium	245,000.
7.	Copper	240.	16.	Magnesium	11,700.
8.	Iron	36,000.	17.	Sodium	54,100.
9.	Lead	80.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	20.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<20[a]	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 20.
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S62-1

SAMPLE ID	A1210 S-62	SAMPLE ID	A1210
LAB ID	22937A5	LAB ID	22937B2
DATE EXTRACTED	1/23/82	DATE EXTRACTED	1/22/82
DATE INJECTED	2/17/82	DATE INJECTED	2/21/82
STD ID	SENS229 PHEN398	STD ID	BENZ494 BNSTD495
CONC FACTOR	1000	CONC FACTOR	1000

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	*

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	57
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY S62-2

SAMPLE ID	A1210	SAMPLE ID	A1210
LAB ID	22937V1	LAB ID	22937 TRACE #5739
DATE INJECTED	1/23/82	DATE EXTRACTED	1/23/82
STD ID	BFB138 V0A276	DATE INJECTED	2/1/82
CONC. FACTOR	---------	STD ID	TRACE #5737
		CONC. FACTOR	50

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
~~17V~~	~~bis(chloromethyl) ether~~	
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	*
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	*
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

S62-3

U.S. ENVIRONMENTAL PROTECTION AGENCY - HWI Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313 - 703/ 557-2490/FTS-8-557-2490

INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8801 (S62)

LAB SAMPLE ID NO. 8429 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	66,500.	10.	Nickel	60.
2.	Chromium	70.	11.	Manganese	2610.
3.	Barium	340.	12.	Zinc	2560.
4.	Beryllium	< 2.	13.	Boron	< 10.
5.	Cadmium	10.	14.	Vanadium	80.
6.	Cobalt	40.	15.	Calcium	223,000.
7.	Copper	200.	16.	Magnesium	20,000.
8.	Iron	119,000.	17.	Sodium	33,800.
9.	Lead	160.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	70.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<20[a]	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 20.
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

Sample No: A1210
Lab Standard ID: SENS229 PHEN394
BENZ494 BNSTD495

U.S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: WEST COAST TECHNICAL SERVICE, INC
Report No: 6077-3
Page 4 of 5

QUALITY CONTROL REPORT
A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (ug/l)			
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	% Recovery*
	6	4	A	PENTACHLOROPHENOL	0	0	54	0
	2	2	A	4-CHLORO-3-METHYLPHENOL	0	18	52	35
	6	5	A	PHENOL	6	24	51	35
	2	4	A	2-CHLOROPHENOL	0	17	51	33
	5	8	A	4-NITROPHENOL	0	5	51	10
				2-FLUOROPHENOL	44	62	105	59
				PHENOL D5	47	57	106	54
	2	7	B	1,4-DICHLOROBENZENE	0	28	52	54
	6	3	B	N-NITROSO-DI-N-PROPYLAMINE	0	12	52	23
		8	B	1,2,4-TRICHLOROBENZENE	0	35	51	69
		1	B	ACENAPHTHENE	0	25	52	48
	3	6	B	2,6-DINITROTOLUENE	0	43	54	80
	7	0	B	DIETHYLPHTHALATE	3	3	0	--
	6	8	B	DI-N-BUTHYLPHTHALATE	5	19	51	27
	8	4	B	PYRENE	0	8	52	15
	6	6	B	BIS(2-ETHYLHEXYL)PHTHALATE	57	46	0	--
				NITROBENZENE D5	104	114	101	113
				2-FLUOROBIPHENYL	74	71	101	70
				NAPHTHALENE D8	64	62	101	61

This QC Report also covers the following sample numbers: A1210-A1215, A1217, A1219-A1223, H0364-H0371

$$* \text{ Recovery} = \frac{(SSR-SR)}{(SA)} \times 100$$

562-4

recycled paper
ecology and environment

Sample No: A1210
Lab Standard ID: SENS229 PHEN398
BENZ494 BNSTD495

U.S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: WEST COAST TECHNICAL SERVICE, INC.
Report No: 6077-3
Page 5 of 5

QUALITY CONTROL REPORT
B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (ug/l)		Relative Percent Difference (RPD)*
P.	P.	#		COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
	6	5	A	PHENOL	6	8	29
				2- FLUOROPHENOL	44	62	34
				PHENOL D5	47	57	19
	7	0	B	DIETHYLPHTHALATE	3	4	29
	6	8	B	DI-N-BUTHYLPHTHALATE	5	5	0
	6	6	B	BIS(2-ETHYLHEXYL) PHTHALATE	57	39	38
				NITROBENZENE D5	104	105	1
				2-FLUOROBIPHENYL	74	72	3
				NAPHTHALENE D8	64	63	2

This QC Report also covers the following sample numbers: A1210-A1215, A1217, A1219-A1223, h0364-h0371

$$*RPD = \frac{(D_1 - D_2)}{[(D_1 + D_2)/2]} \times 100$$

S62-5

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ecology and environment

Sam. No: A1221
Lab Standard ID: BFB139 VOA277
TRACE #5745

U.S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: WEST COAST TECHNICAL SERVICE, INC
Report No: 6077-3
Page 5 of 5

QUALITY CONTROL REPORT
B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (ug/l)		Relative Percent Difference (RPD)*
P.	P.	#		COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
	4	4	V	METHYLENE CHLORIDE	4	5	22
	8	5	V	TETRACHLOROETHYLENE	1	ND	200
				BENZENE D6	52	47	10
				1-CHLORO-2-BROMOPROPANE	50	43	15
				TOLUENE D8	55	47	16
				PESTICIDES	ND	ND	--

This QC Report also covers the following sample numbers: A1210-A1215, A1217, A1219-A1223, H0364-H0371

$$*RPD = \frac{(D_1 - D_2)}{[(D_1 + D_2)/2]} \times 100$$

S62-6

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ecology and environment

WEST COAST TECHNICAL SERVICE INC.
ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
A1210

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	59	50	118
1-Chloro-2-Bromopropane	VOA	56	50	112
Toluene - d8	VOA	60	50	120
2-Fluorophenol	ACID	44	105	42
Phenol - d5	ACID	47	106	44
Nitrobenzene - d5	B/N	104	101	103
2-Fluorobiphenyl	B/N	74	101	73
Naphthalene-D8	B/N	64	101	63

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		UNKNOWN	ACID #153	NO GOOD FIT
2.		UNKNOWN	B/N #327	NO GOOD FIT
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

Sample No: A1211
Lab Standard ID: BFB139 VOA277
TRACE # 5747

U.S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: WEST COAST TECHNICAL SERVICE, INC
Report No: 6077-3
Page 4 of 5

QUALITY CONTROL REPORT
A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (ug/l)			
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	% Recovery*
		4	V	BENZENE	ND	25	25	100
				TOLUENE	ND	28	25	112
		7	V	CHLOROBENZENE	ND	26	25	104
				BENZENE D6	50	46	50	92
				1-CHLORO-2-BROMOPROPANE	52	44	50	88
				TOLUENE D8	55	47	50	94
	4	4	V	METHYLENE CHLORIDE	4	5	0	--
	8	5	V	TETRACHLOROETHYLENE	1	ND	0	--
1	0	0	P	HEPTACHLOR	ND	1.05	5.0	21
	8	9	P	ALDRIN	ND	4.24	5.3	80
	9	0	P	DIELDRIN	ND	4.35	5.0	87
	9	2	P	4,4'-DDT	ND	5.0	5.0	100

This QC Report also covers the following sample numbers: A1210-A1215, A1217, A1219-A1223, H0364-H0371

$$* \text{ Recovery} = \frac{(SSR-SR)}{(SA)} \times 100$$

S62-8

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APPENDIX G

Analytical Data

2. Priority Pollutant Analyses of Blanks

U.S. ENVIRONMENTAL PROTECTION AGENCY - HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

B-1

Sample Number
A0138
Case 334

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME Toxicon Laboratories

LAB SAMPLE ID NO. 672/2

QC REPORT NO. 2

BLANK
For S44

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2- chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4- dimethylphenol	ND
57A	2- nitrophenol	ND
58A	4- nitrophenol	ND
59A	2,4- dinitrophenol	ND
60A	4,6- dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	2000

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4- trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4- dinitrotoluene	ND
36B	2,6- dinitrotoluene	ND
37B	1,2- diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4- chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS

		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	Blank contaminant
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	Blank contaminant
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

B-2 A4135 Sample Number

Case 334

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Toxicon Laboratories

LAB SAMPLE ID NO. 67212

QC REPORT NO. 2

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	Blank contaminant
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	770
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	13
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P.	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	-endosulfan	ND
96P	-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	-BHC	ND
103P	-BHC	ND
104P	-BHC	ND
105P	-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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ecology and environment

B-3

Lab Name: _____

QC Report No: 2

Sample Number
AØ138
Case 334

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_6 - benzene	VO	110	100	110
d_8 - toluene	VO	86	100	86
2-fluorobiphenyl	B/N	60	100	60
d_5 - pyridine	B/N	ND	100	0
d_5 - nitrobenzene	B/N	65	100	65
d_8 - naphthalene	B/N	68	100	68
d_6 - phenol	AC	74	100	74
2-fluorophenol	AC	77	100	77

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: PBS forward search (specify)
1.	00000-95476	1,2-dimethylbenzene	B/N	981 These 3 compounds are possible "hits" for one peak in the sample.
2.	00001-06423	1,4-dimethylbenzene	B/N	981
3.	00001-05383	1,3-dimethylbenzene	B/N	981
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

Sample No: A 0138 Case 334

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: _____
Report No: _____
Page _____ of _____

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (ug/l)			%
E	P.		#	COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	Recovery*

This QC Report also covers the following sample numbers: _____

$$*\% \text{ Recovery} = \frac{(SSR - SR)}{(SA)} \times 100$$

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Sample # AΦ138 Case 334

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: _____
Report No: _____
Page _____ of _____

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (ug/l)		Relative Percent Difference (RPD)*
P. P. #				COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
7	0	B		diethyl phthalate	Blank contaminant	Blank contaminant	
6	6	B		bis (2-ethylhexyl) phthalate	Blank contaminant	Blank contaminant	
				2-fluorobiphenyl	59	49	19
				d_5-pyridine	ND	ND	ND
				d_5-nitrobenzene	64	54	17
				d_8-naphthalene	67	45	39
6	5	A		phenol	2010 **	1998 **	<1
				d_6-phenol	74	87	16
				2-fluorophenol	77	84	9

This QC Report also covers the following sample numbers: AΦ137; AΦ139

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

** Greater than 2 significant figures to differentiate between the quantities obtained in the two runs.

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Sample Number
METHOD BLANK
Conc. 334

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME TOXICON LABORATORIES

SERVES FOR SAMPLES A0137; A0138; A0139

LAB SAMPLE ID NO. 6720

QC REPORT NO. 2

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2- chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4- dimethylphenol	ND
57A	2- nitrophenol	ND
58A	4- nitrophenol	ND
59A	2,4- dinitrophenol	ND
60A	4,6- dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

BASE/NEUTRAL COMPOUNDS

		ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4- trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4- dinitrotoluene	ND
36B	2,6- dinitrotoluene	ND
37B	1,2- diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4- chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS

		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	*
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

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Sample Number
Case 334

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME TOXICON LABORATORIES

LAB SAMPLE ID NO. 6720

QC REPORT NO. 2

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	31
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P.	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	-endosulfan	ND
96P	-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	-BHC	ND
103P	-BHC	ND
104P	-BHC	ND
105P	-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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technology and environment

Name: _____

QC Report No: 2

Sample Number
METHOD BLANK
Case 334

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_6- benzene	VO	90	100	90
d_8 - toluene	VO	81	100	81
2- fluorobiphenyl	B/N	44	100	44
d_5- pyridine	B/N	ND	100	0
d_5- nitrobenzene	B/N	54	100	54
d_8- naphthalene	B/N	45	100	45
d_6- phenol	AC	76	100	76
2- fluorophenol	AC	71	100	71

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: _____ (specify)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

Sample No: METHOD BLANK Case 334

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: _____
Report No: _____
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QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (ug/l)			
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	% Recovery*

This QC Report also covers the following sample numbers: _____

*% Recovery = $\frac{(SSR - SR)}{(SA)} \times 100$

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Lab Standard ID: _____

HWI SAMPLE MANAGEMENT OFFICE

Report No: _____
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QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)		CONCENTRATION (ug/l)		Relative Percent Difference (RPD)*
P. P. #	COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	

This QC Report also covers the following sample numbers: _____

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

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ecology and environment

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Lab Name: _____

QC Report No: 2

Sample Number
A0139
Case 334

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_6- benzene	VO	96	100	96
d_8- toluene	VO	87	100	87
2- fluorobiphenyl	B/N	54	100	54
d_5- pyridine	B/N	ND	100	0
d_5- nitrobenzene	B/N	54	100	54
d_8- naphthalene	B/N	59	100	59
d_6- phenol	AC	78	100	78
2- fluorophenol	AC	69	100	69

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: PBS forward search (specify)
1.	00000-95476	1,2-dimethylbenzene	B/N	981 these 3 compounds are possible "hits" for one peak in the sample
2.	00001-06423	1,4-dimethylbenzene	B/N	981
3.	00001-05383	1,3-dimethylbenzene	B/N	981
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

B-12 A0134 Sample Number

ORGANICS ANALYSIS DATA SHEET - Page 2 Case 334

LABORATORY NAME TOXICON LABORATORIES

LAB SAMPLE ID NO. 67213

QC REPORT NO. 2

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	Blank contaminant
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P.	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	-endosulfan	ND
96P	-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	-BHC	ND
103P	-BHC	ND
104P	-BHC	ND
105P	-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin

*Less than 10 ug/l
(pesticides less than 0.1 ug/l)

ND = Not detected

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Sample No. A Φ139 Case 334

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: _____
Report No: _____
Page _____ of _____

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (ug/l)			
	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	% Recovery*
		4	V	benzene	ND	27	25	108
	8	6	V	toluene	ND	24	25	96
		7	V	chlorobenzene	ND	20	25	80
	2	7	B	1,4-dichlorobenzene	ND	35	50	70
		8	B	1,2,4-trichlorobenzene	ND	49	50	98
	6	3	B	N-nitroso-di-n-propylamine	ND	32	50	64
		1	B	acenaphthene	ND	36	50	72
	3	5	B	2,4-dinitrotoluene	ND	18	50	36
	6	8	B	di-n-butyl phthalate	ND	52	50	104
	8	4	B	pyrene	ND	33	50	66
	2	4	A	2-chlorophenol	ND	39	50	78
	6	5	A	phenol	19	35	50	32
	2	2	A	p-chloro-m-cresol	ND	59	50	118
	6	4	A	pentachlorophenol	ND	43	50	86
	5	8	A	4-nitrophenol	ND	18	50	36

This QC Report also covers the following sample numbers: AΦ137; AΦ138; AΦ139

*% Recovery = $\frac{(SSR - SR)}{(SA)}$ X 100

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Sample No.: A0134 Case 334

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: _____
Report No: _____
Page _____ of _____

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)		CONCENTRATION (ug/l)		Relative Percent Difference (RPD)*
P. P. #	COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	

This QC Report also covers the following sample numbers: _____

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

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Sample Number
A0139
Case 334

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME TOXICON LABORATORIES

LAB SAMPLE ID NO. 672/3

QC REPORT NO. 2

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2- chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4- dimethylphenol	ND
57A	2- nitrophenol	ND
58A	4- nitrophenol	ND
59A	2,4- dinitrophenol	ND
60A	4,6- dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	19

BASE/NEUTRAL COMPOUNDS

		ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4- trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4- dinitrotoluene	ND
36B	2,6- dinitrotoluene	ND
37B	1,2- diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4- chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS

		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	Blank contaminant
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	Blank contaminant
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

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Sample Number

ORGANICS ANALYSIS DATA SHEET

C# 762-A1024

Blank

Laboratory Name Mead CompuChem
Lab Sample ID NO. 10735
QC Report NO. 18-40, 17-33, 27-34

	ACID COMPOUNDS	ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	NA
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis-(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	NA
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

ND = NOT DETECTED

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number 762-A1024

Laboratory Name Mead CompuChem

Lab Sample ID NO. 10735

QC Report NO. 18-40, 17-33, 27-34

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform 36	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene *	
88V	vinyl chloride	ND

	PESTICIDES	ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	delta-BHC	ND
105P	gamma-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l

ND = NOT DETECTED

(pesticides less than, 1ug/l)

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HWI Sample Management Office
P.O. Box 818 — Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MA 8172

Blank

INORGANICS ANALYSIS DATA SHEET

LABORATORY NAME ERCO
CASE NO. 762
LAB SAMPLE ID. NO. TM-81-01460
QC REPORT NO. 3

TASK 1 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Aluminum	143	11.	Manganese	14
2.	Chromium	<10	12.	Zinc	14
3.	Barium	<10	13.	Boron	19
4.	Beryllium	<2	14.	Vanadium	<10
5.	Cadmium	<5			
6.	Cobalt	<10			mg/l or mg/kg (circle one)
7.	Copper	396			
8.	Iron	41	15.	Calcium	12.2
9.	Lead	<40	16.	Magnesium	5.15
10.	Nickel	<20	17.	Sodium	24.9

TASK 2 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)			ug/l or mg/kg (circle one)
1.	Arsenic	<10	5.	Mercury	<1
2.	Antimony	<20	6.	Tin	<20
3.	Selenium	<10	7.	Silver	<20
4.	Thallium	<10			

TASK 3 (Elements to be identified and measured.)

		ug/l or mg/kg (circle one)
1.	Ammonia	
2.	Cyanide	
3.	Sulfide	

COMMENTS:

ecology and environment

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY B-19

SAMPLE ID A1222 BLANK	SAMPLE ID A1222
LAB ID 22937A2	LAB ID 22937B16
DATE EXTRACTED 1-23-82	DATE EXTRACTED 1-22-82
DATE INJECTED 2-17-82	DATE INJECTED 2-22-82
STD ID SENS229 PHEN398	STD ID BENZ496 BNSTD497
CONC FACTOR 1000	CONC FACTOR 1000

For S 30, 33, 34, 35, 43, 45, 49, 52, 53, 61, 62

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	52
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	*
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

SAMPLE ID A1222
LAB ID 22937V16
DATE INJECTED 1-24-82
STD ID BFB140 VOA278
CONC. FACTOR -----------

SAMPLE ID A1222
LAB ID 22937 TRACE #5759
DATE EXTRACTED 1-23-82
DATE INJECTED 2-2-82
STD ID TRACE #5757
CONC. FACTOR 100

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

WEST COAST TECHNICAL SERVICE INC.

ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
A1222

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	46	50	92
1-Chloro-2-Bromopropane	VOA	43	50	86
Toluene - d8	VOA	45	50	90
2-Fluorophenol	ACID	54	105	51
Phenol - d5	ACID	0	106	0
Nitrobenzene - d5	B/N	101	101	100
2-Fluorobiphenyl	B/N	82	101	81
Naphthalene-D8	B/N	14	101	14

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		UNKNOWN	ACID #113	NO GOOD FIT
2.		UNKNOWN	ACID #177	NO GOOD FIT
3.		UNKNOWN	ACID #205	NO GOOD FIT
4.		UNKNOWN	ACID #137	NO GOOD FIT
5.		3-CHLOROETHIENO-(2,3-		
6.		B)PYRIDINE	B/N #241	940
7.		UNKNOWN	B/N #326	NO GOOD FIT
8.		UNKNOWN	B/N #381	NO GOOD FIT
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY B-22

SAMPLE ID METHOD BLANK
LAB ID 22937A1
DATE EXTRACTED 1-23-82
DATE INJECTED 2-17-82
STD ID SENS229 PHEN398
CONC FACTOR 1000

SAMPLE ID METHOD BLANK
LAB ID 22937B1
DATE EXTRACTED 1-22-82
DATE INJECTED 2-21-82
STD ID BENZ494 BNSTD495
CONC FACTOR 1000

FOR 53C, 33, 34, 35, 43, 45, 49, 52, 53, 61, 62

Acid Compounds		ug/l
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

Base/Neutral Compounds		
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronapthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

Base/Neutral Compounds		ug/l
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl) ether	ND
43B	bis (2-chloroethoxy) methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis (2-ethylhexyl) phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	*
71B	dimethyl phthalate	ND
72B	benzo(a) anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY B-23

SAMPLE ID LAB BLANK
LAB ID 22924V13
DATE INJECTED 1-23-82
STD ID BFB138 VOA2796
CONC. FACTOR ----------

SAMPLE ID METHOD BLANK
LAB ID 22937 TRACE #5738
DATE EXTRACTED 1-23-82
DATE INJECTED 2-1-82
STD ID TRACE #5737
CONC. FACTOR 100

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
~~17V~~	~~bis(chloromethyl) ether~~	
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	alpha-endosulfan	ND
96P	beta-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	alpha-BHC	ND
103P	beta-BHC	ND
104P	gamma-BHC	ND
105P	delta-BHC	ND
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

WEST COAST TECHNICAL SERVICE INC.
ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
LAB BLANK

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	57	50	114
1-Chloro-2-Bromopropane	VOA	55	50	110
Toluene - d8	VOA	57	50	114
2-Fluorophenol	ACID	22	105	21
Phenol - d5	ACID	0	106	0
Nitrobenzene - d5	B/N	96	101	95
2-Fluorobiphenyl	B/N	89	101	88
Naphthalene-D8	B/N	52	101	51

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.		UNKNOWN	ACID #98	NO GOOD FIT
2.		UNKNOWN	ACID #129	NO GOOD FIT
3.		UNKNOWN	ACID #174	NO GOOD FIT
4.		UNKNOWN	B/N #243	NO GOOD FIT
5.		UNKNOWN	B/N #329	NO GOOD FIT
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

WCTS WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY G-25

SAMPLE ID LAB BLANK
LAB ID 22937V3
DATE INJECTED 1-23-82
STD ID BFB139 VOA277
CONC. FACTOR ----------

SAMPLE ID NO SAMPLE
LAB ID
DATE EXTRACTED
DATE INJECTED
STD ID
CONC. FACTOR

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
17V	bis(chloromethyl) ether	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	*
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	NA
90P	dieldrin	NA
91P	chlordane	NA
92P	4,4'-DDT	NA
93P	4,4'-DDE	NA
94P	4,4'-DDD	NA
95P	alpha-endosulfan	NA
96P	beta-endosulfan	NA
97P	endosulfan sulfate	NA
98P	endrin	NA
99P	endrin aldehyde	NA
100P	heptachlor	NA
101P	heptachlor epoxide	NA
102P	alpha-BHC	NA
103P	beta-BHC	NA
104P	gamma-BHC	NA
105P	delta-BHC	NA
106P	PCB-1242	NA
107P	PCB-1254	NA
108P	PCB-1221	NA
109P	PCB-1232	NA
110P	PCB-1248	NA
111P	PCB-1260	NA
112P	PCB-1016	NA
113P	toxaphene	NA

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

WEST COAST TECHNICAL SERVICE INC.
ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No: 3

Sample Number
LAB BLANK

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	47	50	94
1-Chloro-2-Bromopropane	VOA	43	50	86
Toluene - d8	VOA	48	50	96
2-Fluorophenol	ACID	NA	NA	NA
Phenol - d5	ACID	NA	NA	NA
Nitrobenzene - d5	B/N	NA	NA	NA
2-Fluorobiphenyl	B/N	NA	NA	NA
Naphthalene-D8	B/N	NA	NA	NA

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

WCTS WEST COAST TECHNICAL SERVICE INC. INDUSTRIAL CATEGORY B-27

SAMPLE ID LAB BLANK
LAB ID 22937V8
DATE INJECTED 1-24-82
STD ID BFB140 VOA278
CONC. FACTOR ----------

SAMPLE ID NO SAMPLE
LAB ID
DATE EXTRACTED
DATE INJECTED
STD ID
CONC. FACTOR

Volatiles		ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
17V	bis(chloromethyl) ether	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	*
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

Pesticides		ug/l
89P	aldrin	NA
90P	dieldrin	NA
91P	chlordane	NA
92P	4,4'-DDT	NA
93P	4,4'-DDE	NA
94P	4,4'-DDD	NA
95P	alpha-endosulfan	NA
96P	beta-endosulfan	NA
97P	endosulfan sulfate	NA
98P	endrin	NA
99P	endrin aldehyde	NA
100P	heptachlor	NA
101P	heptachlor epoxide	NA
102P	alpha-BHC	NA
103P	beta-BHC	NA
104P	gamma-BHC	NA
105P	delta-BHC	NA
106P	PCB-1242	NA
107P	PCB-1254	NA
108P	PCB-1221	NA
109P	PCB-1232	NA
110P	PCB-1248	NA
111P	PCB-1260	NA
112P	PCB-1016	NA
113P	toxaphene	NA

* = Less than 10 ug/l
(pesticides less than 5 ug/l)
ND = Not detected
** = Not confirmed by GCMS

WEST COAST TECHNICAL SERVICE INC.

ORGANICS ANALYSIS DATA SHEET - Page 3

QC Report No:_____

Sample Number
LAB BLANK

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc.(ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
Benzene - d6	VOA	49	50	98
1-Chloro-2-Bromopropane	VOA	46	50	92
Toluene - d8	VOA	49	50	98
2-Fluorophenol	ACID	NA	NA	NA
Phenol - d5	ACID	NA	NA	NA
Nitrobenzene - d5	B/N	NA	NA	NA
2-Fluorobiphenyl	B/N	NA	NA	NA
Naphthalene-D8	B/N	NA	NA	NA

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

U.S. ENVIRONMENTAL PROTECTION AGENCY - HWI Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313 - 703/ 557-2490/FTS-8-557-2490

INORGANICS ANALYSIS DATA SHEET

585-261

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8813 (BLANK)

LAB SAMPLE ID NO. 8439 QC REPORT NO. FOR E 30, 33, 34, 35, 43, 45, 47, 52, 53, 61, 62

TASK 1 (Elements to be identified and measured)

			ug/l				ug/l
1.	Aluminum	<	50.	10.	Nickel	<	20.
2.	Chromium	<	10.	11.	Manganese	<	10.
3.	Barium	<	10.	12.	Zinc	<	10.
4.	Beryllium	<	2.	13.	Boron		10.
5.	Cadmium	<	5.	14.	Vanadium	<	10.
6.	Cobalt	<	10.	15.	Calcium		38,700.
7.	Copper	<	20.	16.	Magnesium		6700.
8.	Iron	<	20.	17.	Sodium		7400.
9.	Lead	<	40.				

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<40.[a]
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of 40.
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

U.S. ENVIRONMENTAL PROTECTION AGENCY - HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number
A0168

ORGANICS ANALYSIS DATA SHEET

APR 8 1981

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO.
QC REPORT NO. 8

BLANK

For S 51-53, 55-59

SAMPLE ID: A0168
LAB ID: A0168A
DATE EXTRACTED: 02/07/81
DATE INJECTED: 02/25/81
STD. ID: 02/23/81
CONC. FACTOR: 714.286

	ACID COMPOUNDS	UG/L
21A	2,4,6-TRICHLOROPHENOL	N/D
22A	P-CHLORO-M-CRESOL	N/D
24A	2-CHLOROPHENOL	N/D
31A	2,4-DICHLOROPHENOL	N/D
34A	2,4-DIMETHYLPHENOL	N/D
57A	2-NITROPHENOL	N/D
1A	4-NITROPHENOL	N/D
59A	2,4-DINITROPHENOL	N/D
60A	4,6-DINITRO-O-CRESOL	N/D
64A	PENTCHLOROPHENOL	N/D
65A	PHENOL	N/D

SAMPLE ID: A0168
LAB ID: A0169BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/25/81
STD. ID: 03/25/81
CONC. FACTOR: 833.333

	BASE/NEUTRAL COMPOUNDS	UG/L
1B	ACENAPHTHENE	N/D
5B	BENZIDINE	N/D
8B	1,2,4-TRICHLOROBENZENE	N/D
9B	HEXACHLOROBENZENE	N/D
12B	HEXACHLOROETHANE	N/D
18B	BIS(2-CHLOROETHYL) ETHER	N/D
20B	2-CHLORONAPHTHALENE	N/D
25B	1,2-DICHLOROBENZENE	N/D
26B	1,3-DICHLOROBENZENE	N/D
27B	1,4-DICHLOROBENZENE	N/D
[illegible]B	3,3'-DICHLOROBENZIDINE	N/D
[illegible]B	2,4-DINITROTOLUENE	N/D
36B	2,6-DINITROTOLUENE	N/D
37B	1,2-DIPHENYLHYDRAZINE	N/D
39B	FLUORANTHENE	N/D
40B	4-CHLOROPHENYL PHENYL	N/D

SAMPLE ID: A0166
LAB ID: A0168BN
DATE EXTRACTED: 02/06/81
DATE INJECTED: 03/25/81
STD. ID: 03/25/81
CONC. FACTOR: 833.333

	BASE/NEUTRAL COMPOUNDS	UG/L
41B	4-BROMOPHENYL PHENYL ETHER	N/D
42B	BIS(2-CHLOROISOPROPYL) ETHER	N/D
43B	BIS(2-CHLOROETHOXY) METHANE	N/D
52B	HEXACHLOROBUTADIENE	N/D
53B	HEXACHLOROCYCLOPENTA DIENE	N/D
54B	ISOPHORONE	N/D
55B	NAPHTHALENE	N/D
56B	NITROBENZENE	N/D
61B	N-NITROSODIMETHYLAMINE	N/D
62B	N-NITROSODIPHENYLAMINE	N/D
63B	N-NITROSO-N-PROPYLA MINE	N/D
66B	BIS(2-ETHYLHEXYL)PHTHA LATE	N/D
67B	BUTYL BENZYL PHTHALATE	N/D
68B	DI-N-BUTYL PHTHALATE	39.500
69B	DI-N-OCTYL PHTHALATE	N/D
70B	DIETHYL PHTHALATE	N/D
71B	DIMETHYL PHTHALATE	N/D
72B	BENZO(A)ANTHRACENE	N/D
73B	BENZO(A)PYRENE	N/D
74B	3,4-BENZOFLUORANTHENE	N/D
75B	BENZO(K)FLUORANTHENE	N/D
76B	CHRYSENE	N/D
77B	ACENAPHTHYLENE	N/D
78B	ANTHRACENE	N/D
79B	BENZO(GHI)PERYLENE	N/D
80B	FLUORENE	N/D
81B	PHENANTHRENE	N/D
82B	DIBENZO(A,H)ANTHRACENE	N/D
83B	INDENO(1,2,3-CD)PYRENE	N/D
84B	PYRENE	N/D
129B	2,3,7,8-TETRACHLORODI	N/D

Sample Number
A0168

ORGANICS ANALYSIS DATA SHEET - Page 2

LABORATORY NAME Systems, Science and Software
LAB SAMPLE ID NO.
QC REPORT NO. 8

SAMPLE ID: A168
LAB ID: A168V2
DATE EXTRACTED:
DATE INJECTED: 02/18/81
STD. ID: 02/17/81
CONC. FACTOR:

	VOLATILE COMPOUNDS	UG/L
2V	ACROLEIN	N/D
3V	ACRYLONITRILE	N/D
4V	BENZENE	N/D
6V	CARBON TETRACHLORIDE	N/D
7V	CHLOROBENZENE	N/D
10V	1,2-DICHLOROETHANE	N/D
11V	1,1,1-TRICHLOROETHANE	*
13V	1,1-DICHLOROETHANE	N/D
14V	1,1,2-TRICHLOROETHANE	N/D
15V	1,1,2,2-TETRACHLORO ETHANE	N/D
16V	CHLOROETHANE	N/D
17V	BIS(CHLOROMETHYL)E R	N/D
19V	2-CHLOROETHYLVINYL ETHER	N/D
28V	CHLOROFORM	N/D
29V	1,1-DICHLOROETHYLENE	N/D
30V	1,2-TRANS-DICHLORO ETHYLENE	N/D
32V	1,2-DICHLOROPROPANE	N/D
33V	1,3-DICHLOROPROPYLENE	N/D
38V	ETHYLBENZENE	N/D
44V	METHYLENE CHLORIDE	19,800
45V	METHYL CHLORIDE	N/D
46V	METHYL BROMIDE	N/D
47V	BROMOFORM	N/D
48V	DICHLOROBROMOMETHANE	N/D
49V	TRICHLOROFLUOROMETHANE	N/D
50V	DICHLORODIFLUORO METHANE	N/D
51V	CHLORODIBROMOMETHANE	N/D
85V	TETRACHLOROETHYLENE	N/D
86V	TOLUENE	17,400
87V	TRICHLOROETHYLENE	*
88V	VINYL CHLORIDE	N/D

PESTICIDES		µg/l
89P	aldrin	ND
90P	dieldrin	ND
91P	chlordane	ND
92P	4,4'-DDT	ND
93P	4,4'-DDE	ND
94P	4,4'-DDD	ND
95P	α-endosulfan	ND
96P	β-endosulfan	ND
97P	endosulfan sulfate	ND
98P	endrin	ND
99P	endrin aldehyde	ND
100P	heptachlor	ND
101P	heptachlor epoxide	ND
102P	α-BHC	ND
103P	β-BHC	**
104P	γ-BHC	ND
105P	δ-BHC	**
106P	PCB-1242	ND
107P	PCB-1254	ND
108P	PCB-1221	ND
109P	PCB-1232	ND
110P	PCB-1248	ND
111P	PCB-1260	ND
112P	PCB-1016	ND
113P	toxaphene	ND

DIOXINS		
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

* Less than 10 µg/l
(pesticides less than 5 µg/l)

ND = Not detected

APR 8 1981

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: SYSTEMS, SCIENCE AND SOFTWARE

QC Report No: 8

Sample Number: A0168

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc. (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
D_6-Benzene	VOA	176	100	176
D_8-Toluene	VOA	189	100	189
2-Fluorophenol	Acid	11	100	11
D_5-Phenol	Acid	0	100	0
2-Fluorobiphenyl	BN	84	100	84
D_5-Nitrobenzene	BN	72	100	72
D_8-Naphthalene	BN	78	100	78

B. TENTATIVELY IDENTIFIED COMPOUNDS

	NBS #	COMPOUND NAME	Fraction	% Maximum Score Attained Mass Matching Routine: FIT (specify)
1.	89	PENTABORANE (9)	VOA	72
2.	6958	PROPANE, 2-BR[illegible]ORO	"	82
3.	667	2-BUTENE, 1-C[illegible]	"	96
4.	20651	2-PIPER, SINECARBOTAMIDE N(2,6)	"	92
5.	344	3,4-PENTADIENAL	ACID	72
6.	3676	1H-TETRAZABOROLE, 5-CHLORO-4,5	"	79
7.	98	1,3-CYCLOPENTADIENE	"	90
8.	10556	PHENANTHRENE, 2-METHOXY	BN	75
9.	20190	1H-PYRAZOLE, 1,4-BIS(TRIMETHYLSILYL)	"	60
10.	3951	ETHANOL, 2-\4-(1,1-DIMETHYLETHYL) PHENOXY-	"	76
11.	7044	BENZENAMINE, N-\2-METHOXYPHENYL) METHYLENE\-	"	78
12.	16193	NORCINNAMOLAURINE	"	84
13.	13593	P-DIOXANE, 2,5 DIVINYL	"	89
14.				
15.				
16.				
17.				
18.				
19.				

2/15/80

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P.O. Box 818 - Alexandria, Virginia 22313 - 703/ 557-2490/FTS-8-557-2490

INORGANICS ANALYSIS DATA SHEET

585-97

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8053

LAB SAMPLE ID NO. 9483 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	< 50.	10.	Nickel	< 20.
2.	Chromium	< 10.	11.	Manganese	< 10.
3.	Barium	< 10.	12.	Zinc	10.
4.	Beryllium	< 2.	13.	Boron	20.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	14,300.
7.	Copper	< 20.	16.	Magnesium	< 100.
8.	Iron	80.	17.	Sodium	< 100.
9.	Lead	40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.	6.	Tin	<20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bottle
e) average of two replicate determinations
f) insufficient sample aliquot

8010-048-427 Sample Number

ORGANICS ANALYSIS DATA SHEET - Page 2 A0146

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-020

QC REPORT NO. LV-5

FIELD BLANK S32-33, S36-42 TAP (B-34)

	VOLATILES	ug/l
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	
10V	1,2-dichloroethane	
11V	1,1,1-trichloroethane	
13V	1,1-dichloroethane	
14V	1,1,2-trichloroethane	
15V	1,1,2,2-tetrachloroethane	
16V	chloroethane	
19V	2-chloroethylvinyl ether	
23V	chloroform	*
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	*
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	
38V	ethylbenzene	
44V	methylene chloride	
45V	methyl chloride	
46V	methyl bromide	
47V	bromoform	
48V	dichlorobromomethane	
49V	trichlorofluoromethane	
50V	dichlorodifluoromethane	
51V	chlorodibromomethane	
85V	tetrachloroethylene	*
86V	toluene	ND
87V	trichloroethylene	*
88V	vinyl chloride	ND

	PESTICIDES	ug
89P	aldrin	ND
90P	dieldrin	
91P	chlordane	
92P	4,4'-DDT	
93P	4,4'-DDE	
94P	4,4'-DDD	
95P	-endosulfan	
96P	-endosulfan	
97P	endosulfan sulfate	
98P	endrin	
99P	endrin aldehyde	
100P	heptachlor	
101P	heptachlor epoxide	
102P	-BHC	
103P	-BHC	
104P	-BHC	
105P	-BHC	
106P	PCB-1242	
107P	PCB-1254	
108P	PCB-1221	
109P	PCB-1232	
110P	PCB-1248	
111P	PCB-1260	
112P	PCB-1016	
113P	toxaphene	

	DIOXINS	
129B	2,3,7,8-tetrachlorodibenzo-p-dioxin	ND

*Less than 10 ug/l (pesticides less than 0.1 ug/l)

ND = Not detected

recycled paper

P.O. Box 818, Alexandria, VA 22313 - 703/683-0883

Sample Number
A0146

ORGANICS ANALYSIS DATA SHEET

B-35

LABORATORY NAME ACUREX

LAB SAMPLE ID NO. A81-01-020

QC REPORT NO. LV-5

E & E
TAP

ACID COMPOUNDS

		ug/l
21A	2,4,6- trichlorophenol	ND
22A	p-chloro-m-cresol	
24A	2- chlorophenol	
31A	2,4-dichlorophenol	
34A	2,4- dimethylphenol	
57A	2- nitrophenol	
58A	4- nitrophenol	
59A	2,4- dinitrophenol	
60A	4,6- dinitro-o-cresol	
64A	pentachlorophenol	
65A	phenol	

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	
8B	1,2,4- trichlorobenzene	
9B	hexachlorobenzene	
12B	hexachloroethane	
18B	bis(2-chloroethyl)ether	
20B	2-chloronaphthalene	
25B	1,2-dichlorobenzene	
26B	1,3-dichlorobenzene	
27B	1,4-dichlorobenzene	
28B	3,3'-dichlorobenzidine	
35B	2,4- dinitrotoluene	
36B	2,6- dinitrotoluene	
37B	1,2- diphenylhydrazine (as azobenzene)	
39B	fluoranthene	
40B	4- chlorophenyl phenyl ether	

BASE/NEUTRAL COMPOUNDS

		ug/
41B	4-bromophenyl phenyl ether	ND
42B	bis (2-chloroisopropyl) ether	
43B	bis (2-chloroethoxy) methane	
52B	hexachlorobutadiene	
53B	hexachlorocyclopentadiene	
54B	isophorone	
55B	naphthalene	
56B	nitrobenzene	
61B	N-nitrosodimethylamine	
62B	N-nitrosodiphenylamine	
63B	N-nitrosodi-n-propylamine	
66B	bis (2-ethylhexyl) phthalate	
67B	butyl benzyl phthalate	
68B	di-n-butyl phthalate	
69B	di-n-octyl phthalate	
70B	diethyl phthalate	
71B	dimethyl phthalate	
72B	benzo(a)anthracene	
73B	benzo(a)pyrene.	
74B	3,4-benzofluoranthene	
75B	benzo(k)fluoranthene	
76B	chrysene	
77B	acenaphthylene	
78B	anthracene	
79B	benzo(ghi)perylene	
80B	fluorene	
81B	phenanthrene	
82B	dibenzo(a,h)anthracene	
83B	indeno(1,2,3-cd)pyrene	
84B	pyrene	

INORGANICS ANALYSIS DATA SHEET

585-93

LABORATORY NAME Versar Inc. SAMPLE NO. MA 8043

LAB SAMPLE ID NO. 9213 QC REPORT NO.

TASK 1 (Elements to be identified and measured)

		ug/l			ug/l
1.	Aluminum	< 50.	10.	Nickel	< 20.
2.	Chromium	< 10.	11.	Manganese	40.
3.	Barium	10.	12.	Zinc	< 10.
4.	Beryllium	< 2.	13.	Boron	< 10.
5.	Cadmium	< 5.	14.	Vanadium	< 10.
6.	Cobalt	< 10.	15.	Calcium	13,500.
7.	Copper	200.	16.	Magnesium	2,100.
8.	Iron	60.	17.	Sodium	34,100.
9.	Lead	< 40.			

TASK 2 (Elements to be identified and measured)

		ug/l			ug/l
1.	Arsenic	<10.	5.	Mercury	<1.
2.	Antimony	<20.[a]	6.	Tin	< 20.
3.	Selenium	<10.	7.	Silver	<20.
4.	Thallium	<10.			

TASK 3 (Elements to be identified and measured)

1.	Ammonia	mg/l	4.	Cyanide	mg/l
2.	Fluoride	mg/l	5.	pH	Units
3.	Sulfide	mg/l	6.	TOC	mg/l

COMMENTS:
a) with a detection limit of
b) with a detection limit of
c) with a detection limit of
d) analyzed on a sample aliquot preserved with HCl from F/pH sample bott
e) average of two replicate determinations
f) insufficient sample aliquot

APPENDIX G

Analytical Data

3. Volatile Analyses (NERL)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

V-1

Date: Nov. 16, 1981

Subject: Woburn - 128 VOA

Sent to John H... Via Ray Thompson 11/17/81

From: Elio Gotti & Maria Lafaille

To: ET

Analytical Procedure: Fed Reg Vol 44 #233 Dec. 3, 1979

Method of Quantitation: Internal Std using response factors

Date Samples Received by Laboratory: Nov. 2, 1981

Date Samples Analyzed: Nov 4-5, 1981

Additional Comments:

A FORM 1320-6 (REV. 3-76)

Analytical Conditions for the Purgeables

Instruments:

Tekmar LSC-1
HP-5985

Purge Conditions:

Gas:	Helium
Purge Time and Flow:	12 min, 40 ml/min
Trap:	Six in stainless steel (1/8 in OD) packed with 15 cm 60/80 mesh Tenax-GC plus 8 cm 35/80 mesh Davison type 15 Silica Gel
Desorption Time, Flow, Temperature:	4 min, 20 ml/min, 180°c
Bake out cycle:	7 min

Chromatographic Conditions:

Column:	Eight ft stainless steel (1/8 in OD) packed with 0.2% Carbowax 1500 coated on 60/80 mesh Carbopack C preceded by a 1 ft stainless steel column (1/8 in OD) packed with 3% Carbowax 1500 coated on 60/80 mesh Chromosorb W
Program:	Three min isothermal at ~~35~~ 30 °c then 10°/min to 170 °c held for a total time of 45 min
Injector, Separator, Transfer Temperatures:	off, 275 °c, 275 °c
Carrier Gas and Flow:	Helium, 30 ml/min

Mass Spectrometer Conditions:

Electron Energy:	70 V
Mass Range:	~~35~~ 45-260 AMU
Emission Current:	0.3 ma
Scan Rate:	12,8 msec/amu

V-3

Purgeable Report
(GC/MS)

W4

Sample Number: 50592
Station Location: (W4) S4

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene		ND	
chloroform		ND	
1,2-dichloroethane		ND	
1,1,1-trichloroethane		ND	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene		ND	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene		ND	
1,1,2,2-tetrachloroethane		ND	
toluene		ND	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	

*Concentration is lower than the approximate D.L. because of the compound's response factor and/or a decrease of interferences in the sample's chromatogram.
ND = None detected; approximate sample detection level for priority pollutants 1.0 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than

recycled paper

ecology and environment

Purgeable Report
(GC/MS)

W5

Sample Number: 50593
Station Location: (W5) S5

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride	84	~~B~~ 13	
trichlorofluoromethane		ND	
1,1-dichloroethylene	96	~~B~~ 2	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene		ND	
chloroform	83	~~B~~ JK 1*	
1,2-dichloroethane		ND	
1,1,1-trichloroethane	97	~~B~~ 110	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene	130	~~B~~ K1	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene	164	~~B~~ 2	
1,1,2,2-tetrachloroethane		ND	
toluene	92	~~B~~ 5	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	
ACETONE (tentative)	43	JK 170*	
METHYL ISOPROPYL KETONE	43	JK 15*	

ND = None detected; approximate sample detection level for priority pollutants 1.0 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than
* = Based on previous survey response factor

Purgeable Report
(GC/MS)

V-5

W7

Sample Number: 50597
Station Location: (W7) S7

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene		ND	
chloroform		ND	
1,2-dichloroethane		ND	
1,1,1-trichloroethane		ND	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene		ND	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene		ND	
1,1,2,2-tetrachloroethane		ND	
toluene		ND	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	

ND = None detected; approximate sample detection level for priority pollutants 1.0 ppb
ND* = None detected; approximate sample detection level
J = approximation
< = less than
L = more than

Purgeable Report
(GC/MS)

V-6

W8

Sample Number: 50596
Station Location: (W8) 58

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene	96	~~ND~~ 10	
chloroform		ND	
1,2-dichloroethane		ND	
1,1,1-trichloroethane		ND	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene	130	~~ND~~ 55	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene	164	~~ND~~ 20	
1,1,2,2-tetrachloroethane		ND	
toluene		ND	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	

ND = None detected; approximate sample detection level for priority pollutants 2.0 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than

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Purgeable Report
(GC/MS)

W 21

Sample Number: 50595
Station Location: (W21) S21

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene	96	~~ND~~ 420	
chloroform		ND	
1,2-dichloroethane		ND	
1,1,1-trichloroethane		ND	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene	130	~~ND~~ 520	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene	164	~~ND~~ 98	
1,1,2,2-tetrachloroethane		ND	
toluene		ND	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		~~ND~~	

ND = None detected; approximate sample detection level for priority pollutants 5.0 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than

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V-8

Purgeable Report
(GC/MS)

W 22

Sample Number: 50594
Station Location: (W22) S22

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene	96	~~ND~~ 52	
chloroform		ND	
1,2-dichloroethane		ND	
1,1,1-trichloroethane		ND	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene	130	~~ND~~ 170	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene	164	~~ND~~ 4	
1,1,2,2-tetrachloroethane		ND	
toluene		ND	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	

ND = None detected; approximate sample detection level for priority pollutants 2.0 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than

Purgeable Report
(GC/MS)

RONTSTEINS

Sample Number: 50586
Station Location: (E27) S37

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene		ND	
chloroform		ND	
1,2-dichloroethane		ND	
1,1,1-trichloroethane		ND	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene		ND	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene		ND	
1,1,2,2-tetrachloroethane		ND	
toluene		ND	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	

ND = None detected; approximate sample detection level for priority pollutants 1.0 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than

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V-10

RIFLE RANGE

Purgeable Report
(GC/MS)

Sample Number: 50587
Station Location: E11 (S38)

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene	96	[redacted] 160	
chloroform		ND	
1,2-dichloroethane		ND	
1,1,1-trichloroethane		ND	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene	130	[redacted] 240	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene	164	[redacted] 140	
1,1,2,2-tetrachloroethane		ND	
toluene		ND	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	

ND = None detected; approximate sample detection level for priority pollutants 10 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than

Purgeable Report
(GC/MS)

V-12

W436

Sample Number: 50591
Station Location: W436 (S41)

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene		ND	
chloroform		ND	
1,2-dichloroethane		ND	
1,1,1-trichloroethane	97	~~ND~~ 4	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene	130	~~ND~~ 18	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene	164	~~ND~~ 20	
1,1,2,2-tetrachloroethane		ND	
toluene		ND	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	

ND = None detected; approximate sample detection level for priority pollutants 1.0 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than

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V-11

Purgeable Report
(GC/MS)

CROWLEY

Sample Number: 50588
Station Location: EIIA (S38A)

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene	96	~~ND~~ 110	
chloroform		ND	
1,2-dichloroethane		ND	
1,1,1-trichloroethane		ND	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene	130	~~ND~~ 160	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene	164	~~ND~~ 85	
1,1,2,2-tetrachloroethane		ND	
toluene		ND	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	

ND = None detected; approximate sample detection level for priority pollutants 10 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than

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V-13

NE PLASTICS
W 436A

Purgeable Report
(GC/MS)

Sample Number: 50585
Station Location: W436A (S41A)

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene	96	~~ND~~ 7.7	
chloroform		ND	
1,2-dichloroethane		ND	
1,1,1-trichloroethane		ND	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene	130	~~ND~~ 19	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene	164	~~ND~~ 17	
1,1,2,2-tetrachloroethane		ND	
toluene		ND	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	

ND = None detected; approximate sample detection level for priority pollutants 1.0 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than

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V-16

Purgeable Report
(GC/MS)

W 6

Sample Number: 50589
Station Location: [redacted]6 (S46)

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene	96	[redacted] 10	
chloroform		ND	
1,2-dichloroethane		ND	
1,1,1-trichloroethane		ND	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene	130	[redacted] 5	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene	164	[redacted] 240	
1,1,2,2-tetrachloroethane		ND	
toluene	92	[redacted] 20	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	

ND = None detected; approximate sample detection level for priority pollutants 5.0 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than

V-15

Purgeable Report
(GC/MS)

MIRRA

Sample Number: 50590
Station Location: E8(S42)

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene		ND	
chloroform	83	~~83~~ JK1*	
1,2-dichloroethane		ND	
1,1,1-trichloroethane		ND	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene		ND	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene		ND	
1,1,2,2-tetrachloroethane		ND	
toluene		ND	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	

ND = None detected; approximate sample detection level for priority pollutants 1.0 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than
* = Based on previous survey response factor

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V-17

Purgeable Report
(GC/MS)

Sample Number: 50584
Station Location: (E41) S60

Bliss

Compound	Ion Used to Quantitate	Concentration (ppb)	Comments
chloromethane		ND	
dichlorodifluoromethane		ND	
bromomethane		ND	
vinyl chloride		ND	
chloroethane		ND	
methylene chloride		ND	
trichlorofluoromethane		ND	
1,1-dichloroethylene		ND	
1,1-dichloroethane		ND	
trans-1,2-dichloroethylene		ND	
chloroform		ND	
1,2-dichloroethane		ND	
1,1,1-trichloroethane		ND	
carbon tetrachloride		ND	
bromodichloromethane		ND	
bis-chloromethyl ether		ND	
1,2-dichloropropane		ND	
trans-1,3-dichloropropene		ND	
trichloroethylene		ND	
dibromochloromethane		ND	
cis-1,3-dichloropropene		ND	
1,1,2-trichloroethane		ND	
benzene		ND	
2-chloroethylvinyl ether		ND	
bromoform		ND	
tetrachloroethylene		ND	
1,1,2,2-tetrachloroethane		ND	
toluene		ND	
chlorobenzene		ND	
ethylbenzene		ND	
acrolein		ND*	
acrylonitrile		ND*	
non-priority pollutants			
xylenes		ND	

ND = None detected; approximate sample detection level for priority pollutants 1.0 ppb
ND* = None detected; approximate sample detection level
J = approximation
K = less than
L = more than

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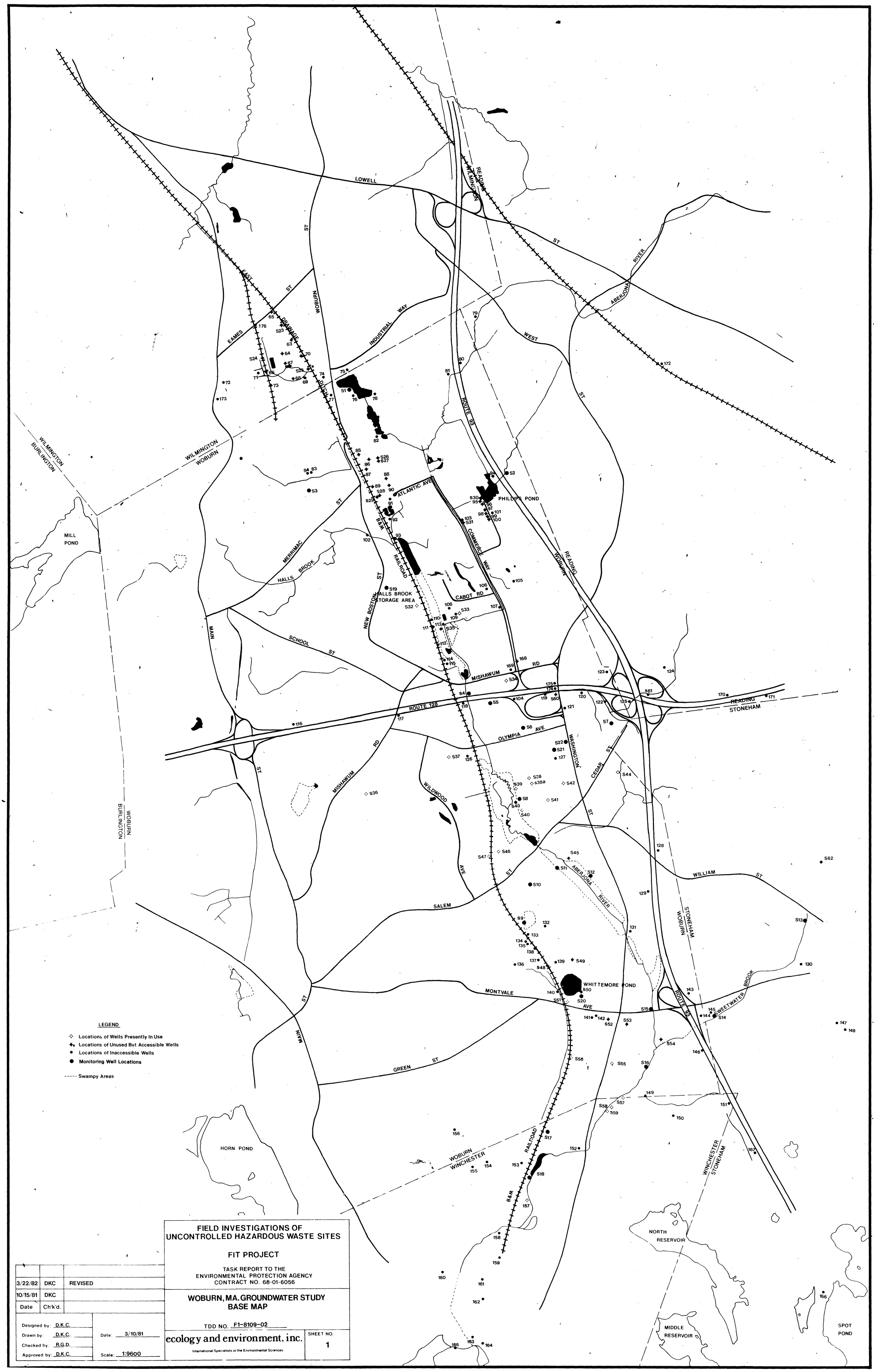

LEGEND

- ◇ Locations of Wells Presently In Use
- ✦ Locations of Unused But Accessible Wells
- • Locations of Inaccessible Wells
- ● Monitoring Well Locations
- ----- Swampy Areas

3/22/82	DKC	REVISED
10/15/81	DKC	
Date	Ch'k'd.	

Designed by: D.K.C.
Drawn by: D.K.C.
Checked by: R.G.D.
Approved by: D.K.C.
Date: 3/10/81
Scale: 1:9600

FIELD INVESTIGATIONS OF UNCONTROLLED HAZARDOUS WASTE SITES

FIT PROJECT

TASK REPORT TO THE ENVIRONMENTAL PROTECTION AGENCY CONTRACT NO. 68-01-6056

WOBURN, MA. GROUNDWATER STUDY BASE MAP

TDD NO. F1-8109-02

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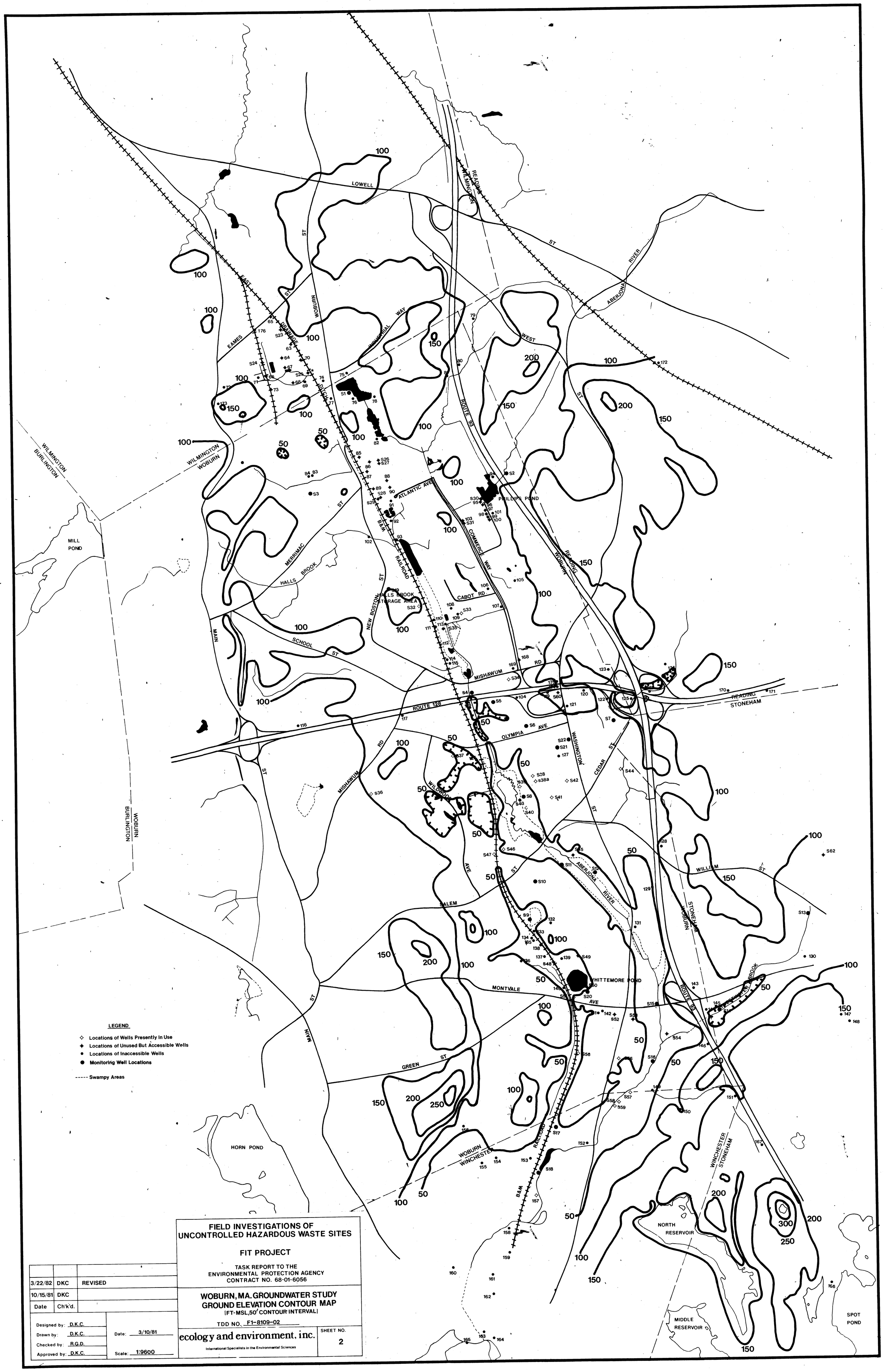
SHEET NO. 1



3/22/82	DKC	REVISED
10/15/81	DKC	
Date	Ch'k'd.	

Designed by: D.K.C.
Drawn by: D.K.C.
Checked by: R.G.D.
Approved by: D.K.C.
Date: 3/10/81
Scale: 1:9600

FIELD INVESTIGATIONS OF UNCONTROLLED HAZARDOUS WASTE SITES

FIT PROJECT

TASK REPORT TO THE ENVIRONMENTAL PROTECTION AGENCY
CONTRACT NO. 68-01-6056

WOBURN, MA. GROUNDWATER STUDY
GROUND ELEVATION CONTOUR MAP
(FT-MSL, 50' CONTOUR INTERVAL)

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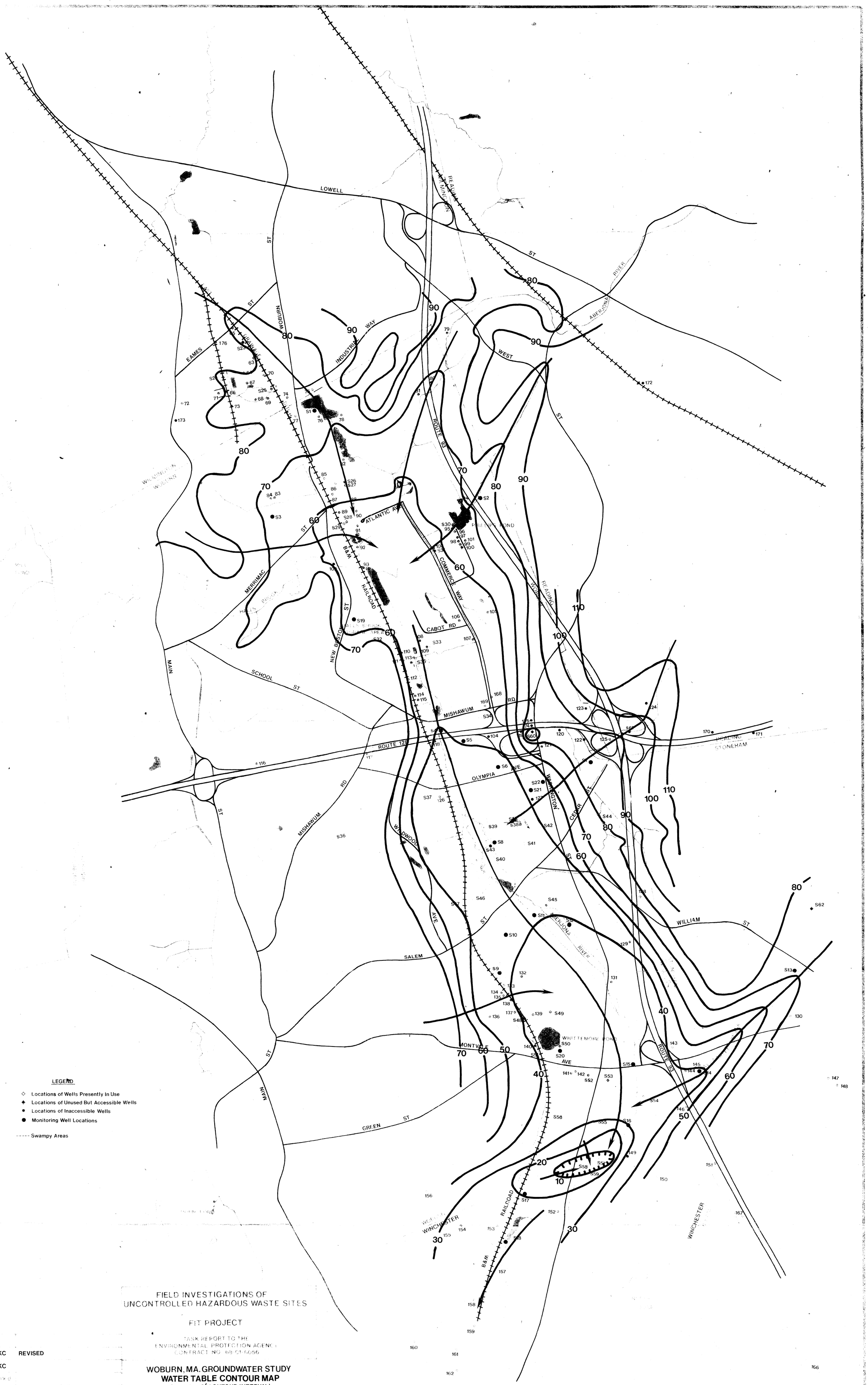
SHEET NO. 2



FIELD INVESTIGATIONS OF
UNCONTROLLED HAZARDOUS WASTE SITES

FIT PROJECT

TASK REPORT TO THE
ENVIRONMENTAL PROTECTION AGENCY
CONTRACT NO. 68-01-6056

WOBURN, MA. GROUNDWATER STUDY
WATER TABLE CONTOUR MAP
(FT-MSL, 10' CONTOUR INTERVAL)

TDD NO. F1-8109-02

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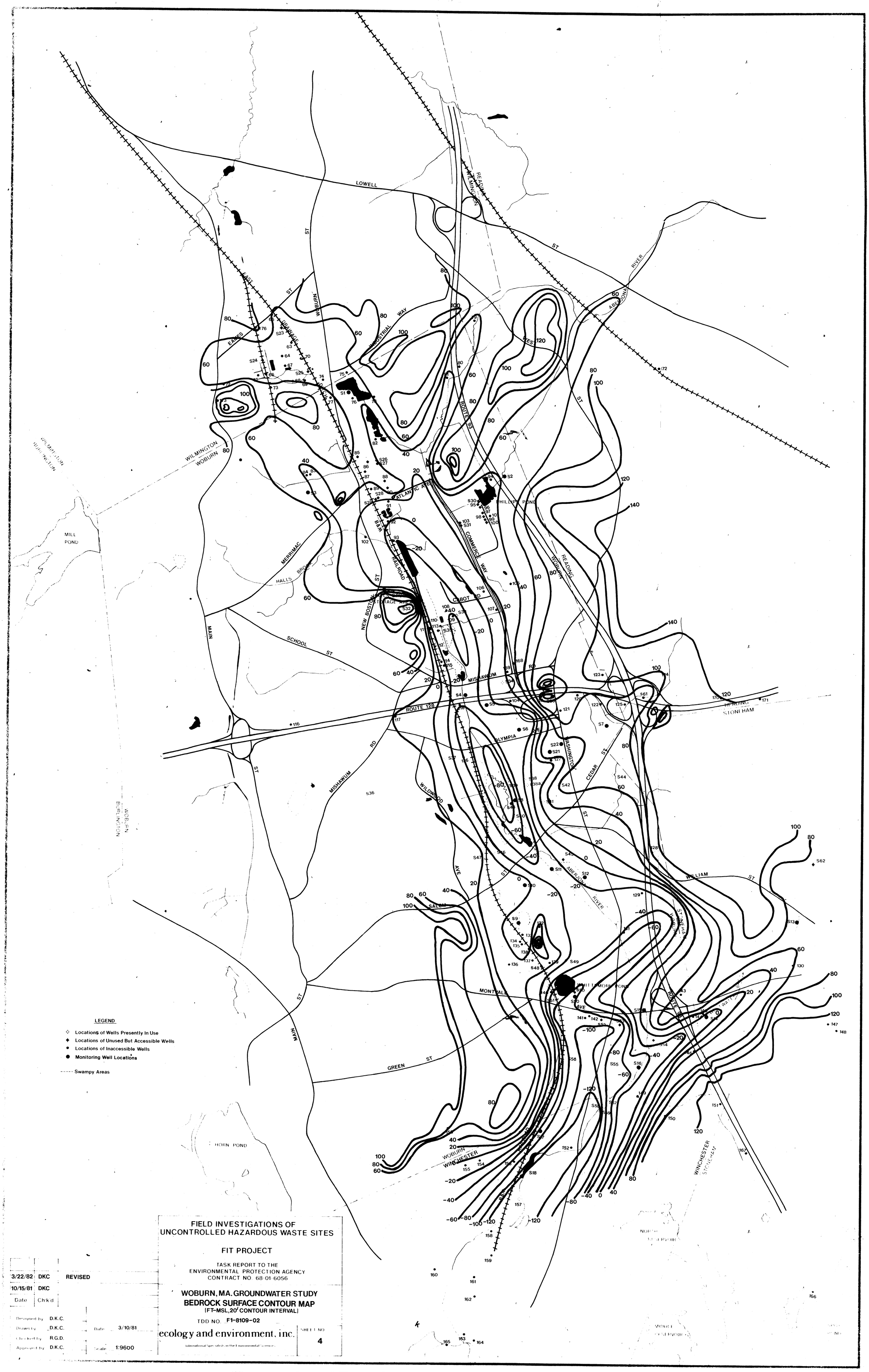
3

3/22/82	DKC	REVISED
10/15/81	DKC	

Date	Check	
	D.K.C.	
	D.K.C.	3/10/81
	R.G.D	
	D.K.C	1:9600



3/22/82	DKC	REVISED
10/15/81	DKC	
Date	Ch'k'd	

Designed by D.K.C.
Drawn by D.K.C. Date 3/10/81
Checked by R.G.D.
Approved by D.K.C. Scale 1:9600

FIELD INVESTIGATIONS OF UNCONTROLLED HAZARDOUS WASTE SITES

FIT PROJECT

TASK REPORT TO THE ENVIRONMENTAL PROTECTION AGENCY CONTRACT NO. 68-01-6056

WOBURN, MA. GROUNDWATER STUDY
BEDROCK SURFACE CONTOUR MAP
(FT-MSL, 20' CONTOUR INTERVAL)

TDD NO. F1-8109-02

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SHEET NO. 4