3.2.c YPLSP

YAKIMA AGRICULTURAL RESEARCH LABORATORY
CLOSURE CERTIFICATION REPORT
HAZARDOUS WASTE SEPTIC SYSTEM REMEDIATION

VOLUME II OF II

NOVEMBER 19, 1991
Our Project Number 90042

Prepared for

U.S. DEPARTMENT OF AGRICULTURE

HONG WEST & ASSOCIATES
P.O. BOX 596, LYNNWOOD, WASHINGTON 98046, (206)774-0106

In association with
SWEET-EDWARDS/EMCON
CHEM-SAFE SERVICES, INC.
BIOSPHERICS, INC.

USEPA SF
1599704

3.2

RECEIVED
JAN 27 1992
RCRA COMPLIANCE SECTION

Phase One
June, 1990

Biospherics Incorporated

MEMO

To: Biogroundwater - Stuart Cohen

From: Laboratory Division - Beltsville Office

Re: CS2 (6/13)

Date: July 23, 1990

Enclosed please find the Task 8 results for Hong West's samples collected on June 11, 1990. Samples were submitted by Hong West.

LAB NAME: BIOSPHERICS INCORPORATED

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Water

CASE: CS2(06/13)

Analytical Methodology/Sample Chronicle

Parameter	Method	Date Extracted	Date Analyzed
Metals-EP Toxicity	EPA 1310/6010	06/21/90	07/03/90
	7470	06/26/90	06/26/90
Pesticides-EP Toxicity	EPA 8080	06/22/90	06/29-30/90
Herbicides-EP Toxicity	EPA 8150	07/03/90	07/06/90
Organophosphorus Pesticides-EP Toxicity	EPA 8140	06/25/90	06/28/90

QA Summary

Metals EP Toxicity
The process blank and laboratory control sample results were within acceptable limits.

Herbicides-EP Toxicity
The process blank and surrogate recovery results were within acceptable limits.

Pesticides-EP Toxicity
The process blank result was within acceptable limits. The surrogate was diluted out because of high background of non-target compounds. ✓

Organophosphorus Pesticides-EP Toxicity
The process blank result was within acceptable limits. The surrogate was diluted out because of high concentration of target compounds. ✓

BIOSPHERICS INCORPORATED

HONG-WEST EP TOXICITY RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Water

UNITS: mg/L

CASE: CS2(06/13)

Client I.D.:	90042-TR-1	
Lab I.D.:	9010218	PQL
Parameter:		
Arsenic	<0.5	0.5
Barium	<10	10
Cadmium	<0.1	0.1
Chromium	<0.5	0.5
Lead	<0.5	0.5
Mercury	<0.02	0.02
Selenium	<0.1	0.1
Silver	<0.5	0.5

PQL - Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
EP TOXICITY HERBICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS2(06/13)	UNITS:	µg/L
LAB No.:	9010218	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-TR-1	DATE EXTRACTED:	07/03/90
REFERENCED METHOD:	EPA 8150	DATE ANALYZED:	07/06/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
94-75-7	2,4-D	4600	1000
93-72-1	Silvex	BQL	1

Surrogate % Rec. 120

BQL - Below Practical Quantitation Limit
All positive results confirmed by second column

ORGANIC ANALYSIS DATA SHEET
EP TOXICITY PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS2(06/13)	UNITS:	µg/L
LAB No.:	9010218	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-TR-1	DATE EXTRACTED:	06/22/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/29-30/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
58-89-9	Lindane	BQL	20
72-20-8	Endrin	BQL	20
72-43-5	Methoxychlor	BQL	20
8001-35-2	Toxaphene	BQL	100

Surrogate % Rec. *

BQL - Below Practical Quantitation Limit
* - Surrogate diluted out

ORGANIC ANALYSIS DATA SHEET
EP TOXICITY ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS2(06/13)	UNITS:	µg/L
LAB No.:	9010218	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-TR-1	DATE EXTRACTED:	06/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/28/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
2600-69-3	Phorate	24	4.0
298-04-4	Disulfoton	3700	400
298-00-0	Methyl Parathion	BQL	0.2
56-38-2	Parathion	BQL	0.2

Surrogate % Rec. *

BQL - Below Practical Quantitation Limit
All positive results confirmed by second column
* - Surrogate diluted out

BIOSPHERICS® INCORPORATED

12051 Indian Creek Ct.
Beltsville, MD 20705
(301) 369-3900

Chain of Custody Record

TASK 8

Project: YAEL Site: Tank Removal
Client: Hong West + Assoc Phone: 206 7740106
Address: PO Box 596 Lynnwood, WA 98046
Sampler's Name/Firm: Doug Geller / HWA
Phone: Same Sampler's Signature: Doug Geller

Sample Number	Date	Time	Matrix	No. of Containers	EP Toxicity metals (8)	EP Toxicity Pesticides	EP TOX Herbicides	EP TOX organophos. Insects					Remarks or Sample Location
Preservative Used													
90042-TR-1			H_2O	4	✓	✓	✓	✓					Tank Rinsate

Relinquished by: (Signature) 1	Date/Time	Received by: (Signature)	Relinquished by: (Signature) 4	Date/Time	Shipping Carrier:
Doug Geller	6/11 4PM				
Relinquished by: (Signature) 2	**Date/Time**	**Received by: (Signature)**	**Received for Laboratory by: (Signature)**	**Date/Time**	**Shipping Ticket Number:**
			Sandra Chambers	06/12 9:00	
Relinquished by: (Signature) 3	**Date/Time**	**Received by: (Signature)**	**Chain of Custody Seal: (Circle)** Intact Broken Absent	**Lab Remarks**	

White-Return to Client Yellow-Retain by Lab (Project File) Pink-Retain by Lab (Client Services) Gold-Retain by Sampler

Biospherics Incorporated

MEMO

To: Biogroundwater - Stuart Cohen

From: Laboratory Division - Beltsville Office

Re: CS6 (6/22)

Date: July 27, 1990

Enclosed please find the Task 9 background results for Hong West's samples collected on June 19, 1990. Samples were submitted by Hong West.

LAB NAME: BIOSPHERICS INCORPORATED

CLIENT: Hong West

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

CASE: CS6(06/22)

Analytical Methodology/Sample Chronicle

Parameter	Method	Date Extracted	Date Analyzed
Metals	EPA 6010	06/22/90	06/28-07/02/90
	7470	06/26/90	06/26/90
Pesticides	EPA 8080	06/27/90	06/28/90
Organophosphorus Pesticides	EPA 8140	06/25/90	06/26/90
Volatile Organics	EPA 8240		06/25/90
Semi-volatile Organics	EPA 8270	06/28/90	07/02/90
Cyanide	EPA 9010	06/25/90	06/28/90

QA Summary

*Metals, Cyanide
The process blank, replicate, matrix spike and laboratory control sample results were within acceptable limits. The matrix spike results for 90042-BGS-4 were within acceptable range for all metals except antimony (19%) and copper (225%).

Pesticides and Organophosphorus Pesticides, Semi-volatile organics
The process blank and surrogate recovery results were within acceptable limits.

Volatile Organics
The process blank, surrogate, matrix spike and matrix spike duplicate results were within acceptable limits.

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS6(06/22)

Client I.D.:	90042-BGS-1		90042-BGS-2	
Lab I.D.:	9010641	PQL	9010642	PQL
Parameter:				
Aluminum	7900	175	8780	193
Antimony	<6.1	6.1	<5.7	5.7
Arsenic	3.0	0.86	6.1	0.95
Barium	27.2	20.4	125	18.9
Beryllium	<0.51	0.51	<0.47	0.47
Cadmium	1.3	0.51	2.9	0.47
Calcium	5270	509	6800	472
Chromium	17.4	1.0	46.0	0.94
Cobolt	10.9	5.1	12.4	4.7
Copper	33.4	2.5	28.6	2.4
Iron	20200	254	25900	236
Lead	5.8	0.26	29.4	2.8
Magnesium	6350	2540	5880	2360
Manganese	497	7.6	518	7.1
Mercury	<0.11	0.11	<0.070	0.070
Nickel	29.7	4.1	53.8	3.8

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS6(06/22)

Client I.D.:	90042-BGS-1		90042-BGS-2	
Lab I.D.:	9010641	PQL	9010642	PQL
Parameter:				
Potassium	1780	636	2240	589
Selenium	<0.43	0.43	<0.48	0.48
Silver	1.7	1.0	2.6	0.94
Sodium	533	509	646	472
Thallium	<0.86	0.86	<0.95	0.95
Tin	<10.2	10.2	<9.4	9.4
Vanadium	35.6	5.1	55.2	4.7
Zinc	42.1	2.0	73.9	1.9

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS6(06/22)

Client I.D.:	90042-BGS-3		90042-BGS-4	
Lab I.D.:	9010643	PQL	9010644	PQL
Parameter:				
Aluminum	7780	138	9680	163
Antimony	<5.6	5.6	<5.7	5.7
Arsenic	17.3	4.4	1.9	0.89
Barium	116	18.5	114	19.0
Beryllium	<0.46	0.46	<0.47	0.47
Cadmium	2.0	0.46	1.7	0.47
Calcium	4560	463	8940	95.0
Chromium	17.5	0.93	15.8	0.95
Cobolt	10.5	4.6	8.7	4.8
Copper	30.4	2.3	27.2	2.4
Iron	20700	417	17900	237
Lead	11.6	0.66	5.4	0.53
Magnesium	4320	2320	5570	475
Manganese	458	7.0	423	7.1
Mercury	<0.090	0.090	0.11	0.090
Nickel	20.2	3.7	19.8	3.8

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS6(06/22)

Client I.D.:	90042-BGS-3		90042-BGS-4	
Lab I.D.:	9010643	PQL	9010644	PQL
Parameter:				
Potassium	2100	579	1880	593
Selenium	<0.55	0.55	<0.44	0.44
Silver	2.3	0.93	1.4	0.95
Sodium	507	463	418	95
Thallium	<1.1	<1.1	<0.89	0.89
Tin	<9.3	9.3	<9.5	9.5
Vanadium	43.0	4.6	34.1	4.8
Zinc	45.5	1.8	32.7	1.9

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-CYANIDE

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS6(06/22)

Client I.D.:	90042-BGS-1		90042-BGS-2	
Lab I.D.:	9010641	PQL	9010642	PQL
Parameter:				
Cyanide	<1.0	1.0	<1.0	1.0

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-CYANIDE

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS6(06/22)

Client I.D.:	90042-BGS-3		90042-BGS-4	
Lab I.D.:	9010643	PQL	9010644	PQL
Parameter:				
Cyanide	<1.0	1.0	<1.0	1.0

PQL - Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS6(06/22)	UNITS:	µg/Kg
LAB No.:	9010645	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	90042-T9-4	DATE EXTRACTED:	06/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/26/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	190
2600-69-3	Phorate	BQL	7.6
298-04-4	Disulfoton	BQL	7.6
298-00-0	Methyl Parathion	BQL	7.6
121-75-5	Malathion	BQL	7.6
2921-88-2	Dursban	BQL	7.6
56-38-2	Ethyl Parathion	BQL	7.6
333-41-5	Diazinon	BQL	7.6
55-38-9	Fenthion	BQL	7.6
86-50-0	Azinophos-methyl	BQL	30
311-45-5	Paraoxon	BQL	76
	Surrogate % Rec.	98	

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS6(06/22)	UNITS:	µg/Kg
LAB No.:	9010641	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/20/90
CLIENT I.D.:	90042-BGS-1	DATE EXTRACTED:	06/27/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/28/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.8
319-87-7	Beta-BHC	BQL	0.8
319-86-8	Delta-BHC	BQL	0.8
58-89-9	Lindane	BQL	0.8
76-44-8	Heptachlor	BQL	0.8
309-00-2	Aldrin	BQL	0.8
1024-57-3	Heptachlor Epoxide	BQL	0.8
959-98-8	Endosulfan I	BQL	0.8
60-57-1	Dieldrin	BQL	0.8
75-55-9	4,4'-DDE	0.97	0.8
72-20-8	Endrin	BQL	0.8
33213-65-9	Endosulfan II	BQL	0.8
72-54-8	4,4'-DDD	BQL	0.8
1031-07-8	Endosulfan Sulfate	BQL	0.8
50-29-3	4,4'-DDT	BQL	0.8
72-43-5	Methoxychlor	BQL	0.8
7421-93-4	Endrin Aldehyde	BQL	0.8
57-74-9	Chlordane	BQL	62
8001-35-2	Toxaphene	BQL	39

Surrogate % Rec. 83

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS6(06/22)	UNITS:	µg/Kg
LAB No.:	9010642	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/20/90
CLIENT I.D.:	90042-BGS-2	DATE EXTRACTED:	06/27/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/28/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.8
319-87-7	Beta-BHC	BQL	0.8
319-86-8	Delta-BHC	BQL	0.8
58-89-9	Lindane	BQL	0.8
76-44-8	Heptachlor	BQL	0.8
309-00-2	Aldrin	BQL	0.8
1024-57-3	Heptachlor Epoxide	BQL	0.8
959-98-8	Endosulfan I	BQL	0.8
60-57-1	Dieldrin	3.3	0.8
75-55-9	4,4'-DDE	130	15
72-20-8	Endrin	BQL	0.8
33213-65-9	Endosulfan II	BQL	0.8
72-54-8	4,4'-DDD	BQL	0.8
1031-07-8	Endosulfan Sulfate	BQL	0.8
50-29-3	4,4'-DDT	120	15
72-43-5	Methoxychlor	BQL	0.8
7421-93-4	Endrin Aldehyde	BQL	0.8
57-74-9	Chlordane	BQL	6.1
8001-35-2	Toxaphene	BQL	39

Surrogate % Rec. 29

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS6(06/22)	UNITS:	µg/Kg
LAB No.:	9010643	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/20/90
CLIENT I.D.:	90042-BGS-3	DATE EXTRACTED:	06/27/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/28/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	7.6
319-87-7	Beta-BHC	BQL	7.6
319-86-8	Delta-BHC	BQL	7.6
58-89-9	Lindane	BQL	7.6
76-44-8	Heptachlor	BQL	7.6
309-00-2	Aldrin	BQL	7.6
1024-57-3	Heptachlor Epoxide	BQL	7.6
959-98-8	Endosulfan I	BQL	7.6
60-57-1	Dieldrin	13	7.6
75-55-9	4,4'-DDE	160	7.6
72-20-8	Endrin	BQL	7.6
33213-65-9	Endosulfan II	BQL	7.6
72-54-8	4,4'-DDD	BQL	7.6
1031-07-8	Endosulfan Sulfate	BQL	7.6
50-29-3	4,4'-DDT	140	7.6
72-43-5	Methoxychlor	BQL	7.6
7421-93-4	Endrin Aldehyde	BQL	7.6
57-74-9	Chlordane	BQL	6.1
8001-35-2	Toxaphene	BQL	38

Surrogate % Rec. 94

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS6(06/22)	UNITS:	µg/Kg
LAB No.:	9010644	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/20/90
CLIENT I.D.:	90042-BGS-4	DATE EXTRACTED:	06/27/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/28/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.7
319-87-7	Beta-BHC	BQL	.07 ?
319-86-8	Delta-BHC	BQL	0.7
58-89-9	Lindane	BQL	0.7
76-44-8	Heptachlor	BQL	0.7
309-00-2	Aldrin	BQL	0.7
1024-57-3	Heptachlor Epoxide	BQL	0.7
959-98-8	Endosulfan I	BQL	0.7
60-57-1	Dieldrin	BQL	0.7
75-55-9	4,4'-DDE	BQL	0.7
72-20-8	Endrin	BQL	0.7
33213-65-9	Endosulfan II	BQL	0.7
72-54-8	4,4'-DDD	BQL	0.7
1031-07-8	Endosulfan Sulfate	BQL	0.7
50-29-3	4,4'-DDT	BQL	0.7
72-43-5	Methoxychlor	BQL	0.7
7421-93-4	Endrin Aldehyde	BQL	0.7
57-74-9	Chlordane	BQL	5.0
8001-35-2	Toxaphene	BQL	37

Surrogate % Rec. 84

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE117::D4
Lab. No.: 9010641
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONGWEST (90042-BGS-1)
Date Collected: 6/19/90
Date Analyzed: 6/25/90 14:02

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	12.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	12.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	120.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	58.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	58.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	120.	N	108-88-3	Toluene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	58.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE114::D3
Lab. No.: 9010642
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONGWEST (90042-BGS-2)
Date Collected: 6/19/90
Date Analyzed: 6/25/90 12:27

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	12.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	12.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	120.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	58.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	58.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	120.	N	108-88-3	Toluene	15.	
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	58.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE115::D3
Lab. No.: 9010643
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONGWEST (90042-BGS-3)
Date Collected: 6/19/90
Date Analyzed: 6/25/90 12:55

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	11.	N
74-83-9	Bromomethane	11.	N
75-01-4	Vinyl Chloride	11.	N
75-00-3	Chloroethane	11.	N
75-09-2	Methylene Chloride	6.	N
67-64-1	Acetone	110.	N
75-15-0	Carbon Disulfide	6.	N
75-35-4	1,1-Dichloroethene	6.	N
75-34-3	1,1-Dichloroethane	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N
67-66-3	Chloroform	6.	N
107-06-2	1,2-Dichloroethane	6.	N
78-93-3	2-Butanone	110.	N
71-55-6	1,1,1-Trichloroethane	6.	N
56-23-5	Carbon Tetrachloride	6.	N
108-05-4	Vinyl Acetate	57.	N
75-27-4	Bromodichloromethane	6.	N

CAS #	Compound Name	Conc(ug/Kg)	
78-87-5	1,2-Dichloropropane	6.	N
10061-01-5	cis-1,3-Dichloropropene	6.	N
79-01-6	Trichloroethene	6.	N
124-48-1	Dibromochloromethane	6.	N
79-00-5	1,1,2-Trichloroethane	6.	N
71-43-2	Benzene	6.	N
10061-02-6	trans-1,3-Dichloropropene	6.	N
75-25-2	Bromoform	6.	N
108-10-1	4-Methyl-2-Pentanone	57.	N
591-78-6	2-Hexanone	57.	N
127-18-4	Tetrachloroethene	6.	N
79-34-5	1,1,2,2-Tetrachloroethane	6.	N
108-88-3	Toluene	100.	
108-90-7	Chlorobenzene	6.	N
100-41-4	Ethylbenzene	6.	N
100-42-5	Styrene	6.	N
1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit.
Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE116::D3
Lab. No.: 9010644
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONGWEST (90042-BGS-4)
Date Collected: 6/19/90
Date Analyzed: 6/25/90 13:26

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	11.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	11.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	11.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	11.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	110.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	57.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	57.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	110.	N	108-88-3	Toluene	140.	
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	57.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit.
Number reported is concentration in sample.

SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC080::DB
Lab. No.: 9010641
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: HONG-WEST(90042BGS-1)
Date Collected: 6/19/90
Date Extracted: 6/28/90
Date Analyzed: 7/02/90 14:17

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	390.	N	83-32-9	Acenaphthene	390.	N
108-95-2	Phenol	390.	N	51-28-5	2,4-Dinitrophenol	1900.	N
111-44-4	bis(-2-Chloroethyl)Ether	390.	N	100-02-7	4-Nitrophenol	1900.	N
95-57-8	2-Chlorophenol	390.	N	132-64-9	Dibenzofuran	390.	N
541-73-1	1,3-Dichlorobenzene	390.	N	606-20-2	2,6-Dinitrotoluene	390.	N
106-46-7	1,4-Dichlorobenzene	390	N	121-14-2	2,4-Dinitrotoluene	390.	N
100-51-6	Benzyl Alcohol	390.	N	84-66-2	Diethylphthalate	390.	N
95-50-1	1,2-Dichlorobenzene	390.	N	7005-72-3	4-Chlorophenyl-phenylether	390.	N
95-48-7	2-Methylphenol	390.	N	86-73-7	Fluorene	390.	N
39638-32-9	bis(2-Chloroisopropyl)ether	390.	N	100-01-6	4-Nitroaniline	1900.	N
106-44-5	4-Methylphenol	390.	N	534-52-1	4,6-Dinitro-2-methylphenol	1900.	N
621-64-7	N-Nitroso-Di-n-propylamine	390.	N	86-30-6	N-Nitrosodiphenylamine	390.	N
67-72-1	Hexachloroethane	390.	N	103-33-3	1,2-Diphenylhydrazine	390.	N
98-95-3	Nitrobenzene	390.	N	101-55-3	4-Bromophenyl-phenylether	390.	N
78-59-1	Isophorone	390.	N	87-86-5	Pentachlorophenol	1900.	N
88-75-5	2-Nitrophenol	390.	N	85-01-8	Phenanthrene	390.	N
105-67-9	2,4-Dimethylphenol	390.	N	120-12-7	Anthracene	390.	N
65-85-0	Benzoic Acid	1900.	N	84-74-2	Di-n-Butylphthalate	390.	N
111-91-1	bis(-2-Chloroethoxy)Methane	390.	N	118-74-1	Hexachlorobenzene	390.	N
120-83-2	2,4-Dichlorophenol	390.	N	206-44-0	Fluoranthene	390.	N
120-82-1	1,2,4-Trichlorobenzene	390.	N	92-87-5	Benzidine	1900.	N
91-20-3	Naphthalene	390.	N	129-00-0	Pyrene	390.	N
106-47-8	4-Chloroaniline	390.	N	85-68-7	Butylbenzylphthalate	390.	N
87-68-3	Hexachlorobutadiene	390.	N	91-94-1	3,3'-Dichlorobenzidine	770.	N
59-50-7	4-Chloro-3-methylphenol	390.	N	56-55-3	Benzo(a)Anthracene	390.	N
91-57-6	2-Methylnaphthalene	390.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	390.	N
77-47-4	Hexachlorocyclopentadiene	390.	N	218-01-9	Chrysene	390.	N
88-06-2	2,4,6-Trichlorophenol	390.	N	117-84-0	Di-n-octyl phthalate	390.	N
95-95-4	2,4,5-Trichlorophenol	1900.	N	205-99-2	Benzo(b)fluoranthene	390.	N
91-58-7	2-Chloronaphthalene	390.	N	207-08-9	Benzo(k)Fluoranthene	390.	N
88-74-4	2-Nitroaniline	1900.	N	50-32-8	Benzo(a)Pyrene	390.	N
131-11-3	Dimethyl Phthalate	390.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	390.	N
208-96-8	Acenaphthylene	390.	N	53-70-3	Dibenzo(a,h)Anthracene	390.	N
99-09-2	3-Nitroaniline	1900.	N	191-24-2	Benzo(g,h,i)Perylene	390.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation
limit. Should be considered an approximation.

Results reported on a dry weight basis.

SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC081::DB
Lab. No.: 9010642
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: HONG-WEST(90042BGS-2)
Date Collected: 6/19/90
Date Extracted: 6/28/90
Date Analyzed: 7/02/90 15:06

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	390.	N	83-32-9	Acenaphthene	390.	N
108-95-2	Phenol	390.	N	51-28-5	2,4-Dinitrophenol	1900.	N
111-44-4	bis(-2-Chloroethyl)Ether	390.	N	100-02-7	4-Nitrophenol	1900.	N
95-57-8	2-Chlorophenol	390.	N	132-64-9	Dibenzofuran	390.	N
541-73-1	1,3-Dichlorobenzene	390.	N	606-20-2	2,6-Dinitrotoluene	390.	N
106-46-7	1,4-Dichlorobenzene	390.	N	121-14-2	2,4-Dinitrotoluene	390.	N
100-51-6	Benzyl Alcohol	390.	N	84-66-2	Diethylphthalate	390.	N
95-50-1	1,2-Dichlorobenzene	390.	N	7005-72-3	4-Chlorophenyl-phenylether	390.	N
95-48-7	2-Methylphenol	390.	N	86-73-7	Fluorene	390.	N
39638-32-9	bis(2-Chloroisopropyl)ether	390.	N	100-01-6	4-Nitroaniline	1900.	N
106-44-5	4-Methylphenol	390.	N	534-52-1	4,6-Dinitro-2-methylphenol	1900.	N
621-64-7	N-Nitroso-Di-n-propylamine	390.	N	86-30-6	N-Nitrosodiphenylamine	390.	N
67-72-1	Hexachloroethane	390.	N	103-33-3	1,2-Diphenylhydrazine	390.	N
98-95-3	Nitrobenzene	390.	N	101-55-3	4-Bromophenyl-phenylether	390.	N
78-59-1	Isophorone	390.	N	87-86-5	Pentachlorophenol	1900.	N
88-75-5	2-Nitrophenol	390.	N	85-01-8	Phenanthrene	390.	N
105-67-9	2,4-Dimethylphenol	390.	N	120-12-7	Anthracene	390.	N
65-85-0	Benzoic Acid	1900.	N	84-74-2	Di-n-Butylphthalate	390.	N
111-91-1	bis(-2-Chloroethoxy)Methane	390.	N	118-74-1	Hexachlorobenzene	390.	N
120-83-2	2,4-Dichlorophenol	390.	N	206-44-0	Fluoranthene	390.	N
120-82-1	1,2,4-Trichlorobenzene	390.	N	92-87-5	Benzidine	1900.	N
91-20-3	Naphthalene	390.	N	129-00-0	Pyrene	390.	N
106-47-8	4-Chloroaniline	390.	N	85-68-7	Butylbenzylphthalate	390.	N
87-68-3	Hexachlorobutadiene	390.	N	91-94-1	3,3'-Dichlorobenzidine	770.	N
59-50-7	4-Chloro-3-methylphenol	390.	N	56-55-3	Benzo(a)Anthracene	390.	N
91-57-6	2-Methylnaphthalene	390.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	390.	N
77-47-4	Hexachlorocyclopentadiene	390.	N	218-01-9	Chrysene	390.	N
88-06-2	2,4,6-Trichlorophenol	390.	N	117-84-0	Di-n-octyl phthalate	390.	N
95-95-4	2,4,5-Trichlorophenol	1900.	N	205-99-2	Benzo(b)fluoranthene	390.	N
91-58-7	2-Chloronaphthalene	390.	N	207-08-9	Benzo(k)Fluoranthene	390.	N
88-74-4	2-Nitroaniline	1900.	N	50-32-8	Benzo(a)Pyrene	390.	N
131-11-3	Dimethyl Phthalate	390.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	390.	N
208-96-8	Acenaphthylene	390.	N	53-70-3	Dibenzo(a,h)Anthracene	390.	N
99-09-2	3-Nitroaniline	1900.	N	191-24-2	Benzo(g,h,i)Perylene	390.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation
limit. Should be considered an approximation.

Results reported on a dry weight basis.

SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC082::DB
Lab. No.: 9010643
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: HONG-WEST(90042BGS-3)
Date Collected: 6/19/90
Date Extracted: 6/28/90
Date Analyzed: 7/02/90 15:54

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	380.	N	83-32-9	Acenaphthene	380.	N
108-95-2	Phenol	380.	N	51-28-5	2,4-Dinitrophenol	1900.	N
111-44-4	bis(-2-Chloroethyl)Ether	380.	N	100-02-7	4-Nitrophenol	1900.	N
95-57-8	2-Chlorophenol	380.	N	132-64-9	Dibenzofuran	380.	N
541-73-1	1,3-Dichlorobenzene	380.	N	606-20-2	2,6-Dinitrotoluene	380.	N
106-46-7	1,4-Dichlorobenzene	380.	N	121-14-2	2,4-Dinitrotoluene	380.	N
100-51-6	Benzyl Alcohol	380.	N	84-66-2	Diethylphthalate	380.	N
95-50-1	1,2-Dichlorobenzene	380.	N	7005-72-3	4-Chlorophenyl-phenylether	380.	N
95-48-7	2-Methylphenol	380.	N	86-73-7	Fluorene	380.	N
39638-32-9	bis(2-Chloroisopropyl)ether	380.	N	100-01-6	4-Nitroaniline	1900.	N
106-44-5	4-Methylphenol	380.	N	534-52-1	4,6-Dinitro-2-methylphenol	1900.	N
621-64-7	N-Nitroso-Di-n-propylamine	380.	N	86-30-6	N-Nitrosodiphenylamine	380.	N
67-72-1	Hexachloroethane	380.	N	103-33-3	1,2-Diphenylhydrazine	380.	N
98-95-3	Nitrobenzene	380.	N	101-55-3	4-Bromophenyl-phenylether	380.	N
78-59-1	Isophorone	380.	N	87-86-5	Pentachlorophenol	1900.	N
88-75-5	2-Nitrophenol	380.	N	85-01-8	Phenanthrene	380.	N
105-67-9	2,4-Dimethylphenol	380.	N	120-12-7	Anthracene	380.	N
65-85-0	Benzoic Acid	1900.	N	84-74-2	Di-n-Butylphthalate	380.	N
111-91-1	bis(-2-Chloroethoxy)Methane	380.	N	118-74-1	Hexachlorobenzene	380.	N
120-83-2	2,4-Dichlorophenol	380.	N	206-44-0	Fluoranthene	380.	N
120-82-1	1,2,4-Trichlorobenzene	380.	N	92-87-5	Benzidine	1900.	N
91-20-3	Naphthalene	380.	N	129-00-0	Pyrene	380.	N
106-47-8	4-Chloroaniline	380.	N	85-68-7	Butylbenzylphthalate	380.	N
87-68-3	Hexachlorobutadiene	380.	N	91-94-1	3,3'-Dichlorobenzidine	760.	N
59-50-7	4-Chloro-3-methylphenol	380.	N	56-55-3	Benzo(a)Anthracene	380.	N
91-57-6	2-Methylnaphthalene	380.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	380.	N
77-47-4	Hexachlorocyclopentadiene	380.	N	218-01-9	Chrysene	380.	N
88-06-2	2,4,6-Trichlorophenol	380.	N	117-84-0	Di-n-octyl phthalate	380.	N
95-95-4	2,4,5-Trichlorophenol	1900.	N	205-99-2	Benzo(b)fluoranthene	380.	N
91-58-7	2-Chloronaphthalene	380.	N	207-08-9	Benzo(k)Fluoranthene	380.	N
88-74-4	2-Nitroaniline	1900.	N	50-32-8	Benzo(a)Pyrene	380.	N
131-11-3	Dimethyl Phthalate	380.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	380.	N
208-96-8	Acenaphthylene	380.	N	53-70-3	Dibenzo(a,h)Anthracene	380.	N
99-09-2	3-Nitroaniline	1900.	N	191-24-2	Benzo(g,h,i)Perylene	380.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation
limit. Should be considered an approximation.

Results reported on a dry weight basis.

SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC083::DB
Lab. No.: 9010644
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: HONG-WEST(90042BGS-4)
Date Collected: 6/19/90
Date Extracted: 6/28/90
Date Analyzed: 7/02/90 16:43

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	380.	N	83-32-9	Acenaphthene	380.	N
108-95-2	Phenol	380.	N	51-28-5	2,4-Dinitrophenol	1900.	N
111-44-4	bis(-2-Chloroethyl)Ether	380.	N	100-02-7	4-Nitrophenol	1900.	N
95-57-8	2-Chlorophenol	380.	N	132-64-9	Dibenzofuran	380.	N
541-73-1	1,3-Dichlorobenzene	380.	N	606-20-2	2,6-Dinitrotoluene	380.	N
106-46-7	1,4-Dichlorobenzene	380.	N	121-14-2	2,4-Dinitrotoluene	380.	N
100-51-6	Benzyl Alcohol	380.	N	84-66-2	Diethylphthalate	380.	N
95-50-1	1,2-Dichlorobenzene	380.	N	7005-72-3	4-Chlorophenyl-phenylether	380.	N
95-48-7	2-Methylphenol	380.	N	86-73-7	Fluorene	380.	N
39638-32-9	bis(2-Chloroisopropyl)ether	380.	N	100-01-6	4-Nitroaniline	1900.	N
106-44-5	4-Methylphenol	380.	N	534-52-1	4,6-Dinitro-2-methylphenol	1900.	N
621-64-7	N-Nitroso-Di-n-propylamine	380.	N	86-30-6	N-Nitrosodiphenylamine	380.	N
67-72-1	Hexachloroethane	380.	N	103-33-3	1,2-Diphenylhydrazine	380.	N
98-95-3	Nitrobenzene	380.	N	101-55-3	4-Bromophenyl-phenylether	380.	N
78-59-1	Isophorone	380.	N	87-86-5	Pentachlorophenol	1900.	N
88-75-5	2-Nitrophenol	380.	N	85-01-8	Phenanthrene	380.	N
105-67-9	2,4-Dimethylphenol	380.	N	120-12-7	Anthracene	380.	N
65-85-0	Benzoic Acid	1900.	N	84-74-2	Di-n-Butylphthalate	380.	N
111-91-1	bis(-2-Chloroethoxy)Methane	380.	N	118-74-1	Hexachlorobenzene	380.	N
120-83-2	2,4-Dichlorophenol	380.	N	206-44-0	Fluoranthene	380.	N
120-82-1	1,2,4-Trichlorobenzene	380.	N	92-87-5	Benzidine	1900.	N
91-20-3	Naphthalene	380.	N	129-00-0	Pyrene	380.	N
106-47-8	4-Chloroaniline	380.	N	85-68-7	Butylbenzylphthalate	380.	N
87-68-3	Hexachlorobutadiene	380.	N	91-94-1	3,3'-Dichlorobenzidine	750.	N
59-50-7	4-Chloro-3-methylphenol	380.	N	56-55-3	Benzo(a)Anthracene	380.	N
91-57-6	2-Methylnaphthalene	380.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	380.	N
77-47-4	Hexachlorocyclopentadiene	380.	N	218-01-9	Chrysene	380.	N
88-06-2	2,4,6-Trichlorophenol	380.	N	117-84-0	Di-n-octyl phthalate	380.	N
95-95-4	2,4,5-Trichlorophenol	1900.	N	205-99-2	Benzo(b)fluoranthene	380.	N
91-58-7	2-Chloronaphthalene	380.	N	207-08-9	Benzo(k)Fluoranthene	380.	N
88-74-4	2-Nitroaniline	1900.	N	50-32-8	Benzo(a)Pyrene	380.	N
131-11-3	Dimethyl Phthalate	380.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	380.	N
208-96-8	Acenaphthylene	380.	N	53-70-3	Dibenzo(a,h)Anthracene	380.	N
99-09-2	3-Nitroaniline	1900.	N	191-24-2	Benzo(g,h,i)Perylene	380.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation
limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS® INCORPORATED

12051 Indian Creek Ct.
Beltsville, MD 20705
(301) 369-3900

Chain of Custody Record

TASK 9 BACKGROUND

Project: MRL Site:

Client: Hong West + Assoc Phone: 206 7740106

Address: PO BOX 596
Lynnwood, WA 98046

Sampler's Name/Firm: Steve Greene

Phone: Same Sampler's Signature:

Sample Number	Date	Time	Matrix	No. of Containers	VOA 8240	Semi VOA 8270	PCB/PCB 8080	TCL Metals	CYANIDE	Organophos. Insect. 8140			Remarks or Sample Location
Preservative Used													
90042-BGS-1	6-19	930AM	SOIL	5	✓	✓	✓	✓	✓				~~[illegible]~~ BGS-1,2 Boring
90042-BGS-2		900AM	SOIL	5	✓	✓	✓	✓	✓				~~[illegible]~~
90042-BGS-3		200 PM	SOIL	5	✓	✓	✓	✓	✓				Duplicate
90042-BGS-4		930 AM	SOIL	5	✓	✓	✓	✓	✓				BGS-4 Boring
90042-T9-4		1000AM	SOIL	1						✓			Composite.

Relinquished by: (Signature) [1]	Date/Time	Received by: (Signature)	Relinquished by: (Signature) [4]	Date/Time	Shipping Carrier:
[signature]	6/20 830AM	[signature]	[signature]	6/20 9:30	Fed Express
Relinquished by: (Signature) [2]	**Date/Time**	**Received by: (Signature)**	**Received for Laboratory by: (Signature)**	**Date/Time**	**Shipping Ticket Number:**
			[signature]		
Relinquished by: (Signature) [3]	**Date/Time**	**Received by: (Signature)**	**Chain of Custody Seal: (Circle)**	**Lab Remarks**	
			Intact Broken Absent	RECEIVED NOT 4°C but warmer	

White-Return to Client Yellow-Retain by Lab (Project File) Pink-Retain by Lab (Client Services) Gold-Retain by Sampler

Biospherics Incorporated

MEMO

To: Biogroundwater - Stuart Cohen

From: Laboratory Division - Beltsville Office

Re: CS4 (6/13)

Date: July 30, 1990

Enclosed please find the Task 2 soil results for Hong West's samples collected on June 11, 1990. Samples were submitted by Hong West.

LAB NAME: BIOSPHERICS INCORPORATED

CLIENT: Hong West

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

CASE: CS4(06/13)

Analytical Methodology/Sample Chronicle

Parameter	Method	Date Extracted	Date Analyzed
Metals	EPA 6010	06/13/90	06/18-19/90
	7471	06/14/90	06/14/90
Pesticides	EPA 8080	06/14/90	06/16-20/90
Organophosphorus Pesticides	EPA 8140	06/18/90	06/19-20/90
Volatile Organics	EPA 8240		06/13/90
Semi-volatile Organics	EPA 8270	06/20/90	06/21/90
Cyanide	EPA 9010	06/19/90	06/20/90

QA Summary

*Metals, Cyanide
The process blank, replicate, matrix spike and laboratory control sample results were within acceptable limits.

*Pesticides
The process blank result was within acceptable limits. The surrogate was diluted out for samples 90042-TPS-2, 90042-TPS-4 and 90042-TPS-7.

*Volatile Organics
The process blank, surrogate, matrix spike and matrix spike duplicate results were within acceptable limits.

*Organophosphorus Pesticides
The process blank result was within acceptable limits. The surrogate was diluted out for sample 90042-T9-3.

Semi-volatile Organics
The process blank and surrogate recovery results were within acceptable limits. A matrix spike/matrix spike duplicate was performed on 90042-WPS-2. The percent recovery was within acceptable limits for the base/neutral/acids. The relative percent difference for pentachlorophenol was 128 %, outside the acceptable quality control limits of 17-109%.

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS4(06/13)

Client I.D.:	90042-TPS-1		90042-TPS-2	
Lab I.D.:	9010236	PQL	9010237	PQL
Parameter:				
Aluminum	16000	268	17500	262
Antimony	9.5	7.3	7.5	7.2
Arsenic	17.8	6.0	4.6	1.2
Barium	119	24.4	145	23.8
Beryllium	<0.61	0.61	0.72	0.60
Cadmium	3.1	0.61	3.5	0.60
Calcium	4820	610	9100	596
Chromium	22.0	1.2	24.4	1.2
Cobolt	13.7	6.1	12.9	6.0
Copper	27.6	3.0	28.9	3.0
Iron	25600	805	27500	787
Lead	96.6	3.6	10.4	0.37
Magnesium	5210	610	6310	596
Manganese	610	20.1	549	19.7
Mercury	0.16	0.10	0.060	0.048
Nickel	32.6	4.9	29.5	4.8

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS4(06/13)

Client I.D.:	90042-TPS-1		90042-TPS-2	
Lab I.D.:	9010236	PQL	9010237	PQL
Parameter:				
Potassium	1850	610	2360	596
Selenium	<0.60	0.60	<0.61	0.61
Silver	<1.2	1.2	2.4	1.2
Sodium	808	610	726	596
Thallium	<1.2	1.2	<1.2	1.2
Tin	<12.2	12.2	<11.9	11.9
Vanadium	53.8	6.1	57.5	6.0
Zinc	51.7	2.4	81.0	2.4

PQL = Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS4(06/13)

Client I.D.:	90042-TPS-3		90042-TPS-4	
Lab I.D.:	9010238	PQL	9010239	PQL
Parameter:				
Aluminum	20500	261	19200	264
Antimony	8.5	7.1	9.8	7.2
Arsenic	4.9	1.2	5.1	1.2
Barium	138	23.7	141	24.0
Beryllium	0.83	0.59	0.72	0.60
Cadmium	3.3	0.59	3.4	0.60
Calcium	5850	592	6300	120
Chromium	25.3	1.2	25.4	1.2
Cobolt	15.5	5.9	13.9	6.0
Copper	29.5	3.0	29.4	3.0
Iron	29100	781	29200	793
Lead	26.1	0.36	8.5	0.36
Magnesium	7240	6510	7240	1320
Manganese	460	19.5	264	19.8
Mercury	0.43	0.11	0.13	0.10
Nickel	33.5	4.7	36.0	4.8

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS4(06/13)

Client I.D.:	90042-TPS-3		90042-TPS-4	
Lab I.D.:	9010238	PQL	9010239	PQL
Parameter:				
Potassium	2280	592	2420	601
Selenium	<0.60	0.60	<0.61	0.61
Silver	<1.2	1.2	<1.2	1.2
Sodium	906	592	1040	601
Thallium	<1.2	1.2	<1.2	1.2
Tin	<11.8	11.8	<12.0	12.0
Vanadium	57.2	5.9	55.9	6.0
Zinc	62.9	2.4	61.6	2.4

PQL = Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS4(06/13)

Client I.D.:	90042-TPS-5		90042-TPS-6	
Lab I.D.:	9010240	PQL	9010241	PQL
Parameter:				
Aluminum	15800	262	18200	271
Antimony	<7.1	7.1	8.4	7.4
Arsenic	5.4	1.2	6.7	1.2
Barium	147	23.8	131	24.7
Beryllium	<0.60	0.60	0.74	0.62
Cadmium	3.0	0.60	3.8	0.62
Calcium	13100	6550	6170	616
Chromium	24.8	1.2	26.1	1.2
Cobolt	12.9	6.0	13.8	6.2
Copper	26.1	3.0	29.9	3.1
Iron	26500	785	28600	814
Lead	8.8	0.36	8.9	0.37
Magnesium	7840	6550	7810	6780
Manganese	524	19.6	374	20.4
Mercury	<0.10	0.10	0.25	0.13
Nickel	29.7	4.8	31.5	4.9

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS4(06/13)

Client I.D.:	90042-TPS-5		90042-TPS-6	
Lab I.D.:	9010240	PQL	9010241	PQL
Parameter:				
Potassium	1610	595	2260	616
Selenium	<0.60	0.60	<0.62	0.62
Silver	<1.2	1.2	<1.2	1.2
Sodium	813	595	1090	616
Thallium	<1.2	1.2	<1.2	1.2
Tin	<11.9	11.9	<12.3	12.3
Vanadium	54.0	6.0	59.2	6.2
Zinc	65.6	2.4	88.9	2.5

PQL = Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS4(06/13)

Client I.D.:	90042-TPS-7		90042-TPS-8	
Lab I.D.:	9010242	PQL	9010243	PQL
Parameter:				
Potassium	2200	603	2000	603
Selenium	<0.62	0.62	<0.62	0.62
Silver	<1.2	1.2	<1.2	1.2
Sodium	1080	603	939	603
Thallium	<1.2	1.2	<1.2	1.2
Tin	<12.1	12.1	<12.1	12.1
Vanadium	63.6	6.0	57.4	6.0
Zinc	70.4	2.4	62.8	2.4

PQL = Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS4(06/13)

Client I.D.:	90042-TPS-7		90042-TPS-8	
Lab I.D.:	9010242	PQL	9010243	PQL
Parameter:				
Aluminum	19700	265	18100	265
Antimony	8.9	7.2	7.3	7.2
Arsenic	8.2	4.9	6.2	2.5
Barium	138	24.1	127	24.1
Beryllium	0.72	0.60	<0.60	0.60
Cadmium	3.4	0.60	3.7	0.62
Calcium	6790	121	7920	121
Chromium	27.1	1.2	25.8	1.2
Cobolt	14.4	6.0	13.2	6.0
Copper	28.3	3.0	26.5	3.0
Iron	28900	796	27700	796
Lead	6.6	0.37	6.5	0.37
Magnesium	9040	1330	7800	1330
Manganese	422	19.9	518	19.9
Mercury	0.17	0.10	<0.12	0.12
Nickel	34.0	4.8	36.8	4.8

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-INORGANIC

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS4(06/13)

Client I.D.:	90042-TPS-1		90042-TPS-2	
Lab I.D.:	9010236	PQL	9010237	PQL
Parameter:				
Cyanide	<1.1	1.1	<1.1	1.1

PQL = Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-INORGANIC

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS4(06/13)

Client I.D.:	90042-TPS-3		90042-TPS-4	
Lab I.D.:	9010238	PQL	9010239	PQL
Parameter:				
Cyanide	<1.1	1.1	<1.1	1.1

PQL = Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-INORGANIC

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS4(06/13)

Client I.D.:	90042-TPS-5		90042-TPS-6	
Lab I.D.:	9010240	PQL	9010241	PQL
Parameter:				
Cyanide	<1.1	1.1	<1.1	1.1

PQL = Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-INORGANIC

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS4(06/13)

Client I.D.:	90042-TPS-7		90042-TPS-8	
Lab I.D.:	9010242	PQL	9010243	PQL
Parameter:				
Cyanide	<1.1	1.1	<1.1	1.1

PQL = Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
PESTICIDE/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS4(06/13)	UNITS:	µg/Kg
LAB No.:	9010236	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-TPS-1	DATE EXTRACTED:	06/14/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/17-19/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	2.0
319-87-7	Beta-BHC	BQL	2.0
319-86-8	Delta-BHC	BQL	2.0
58-89-9	Lindane	BQL	2.0
76-44-8	Heptachlor	BQL	2.0
309-00-2	Aldrin	BQL	2.0
1024-57-3	Heptachlor Epoxide	BQL	2.0
959-98-8	Endosulfan I	2300	200
60-57-1	Dieldrin	62	2.0
75-55-9	4,4'-DDE	320	200
72-20-8	Endrin	BQL	2.0
33213-65-9	Endosulfan II	710	200
72-54-8	4,4'-DDD	280	200
1031-07-8	Endosulfan Sulfate	BQL	2.0
50-29-3	4,4'-DDT	820	200
72-43-5	Methoxychlor	4.8	2.0
7421-93-4	Endrin Aldehyde	BQL	2.0
57-74-9	Chlordane	BQL	16
8001-35-2	Toxaphene	BQL	100
12674-11-2	Aroclor-1016	BQL	20
11104-28-2	Aroclor-1221	BQL	20
11141-16-5	Aroclor-1232	BQL	20
53469-21-9	Aroclor-1242	BQL	20
12672-29-6	Aroclor-1248	BQL	20
11097-69-1	Aroclor-1254	BQL	20
11096-82-5	Aroclor-1260	BQL	20

Surrogate % Rec. 90

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDE/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS4(06/13)	UNITS:	µg/Kg
LAB No.:	9010237	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-TPS-2	DATE EXTRACTED:	06/14/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/16-19/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	2.0
319-87-7	Beta-BHC	BQL	2.0
319-86-8	Delta-BHC	24	2.0
58-89-9	Lindane	BQL	2.0
76-44-8	Heptachlor	BQL	2.0
309-00-2	Aldrin	BQL	2.0
1024-57-3	Heptachlor Epoxide	BQL	2.0
959-98-8	Endosulfan I	1100	100
60-57-1	Dieldrin	23	2.0
75-55-9	4,4'-DDE	94	2.0
72-20-8	Endrin	BQL	2.0
33213-65-9	Endosulfan II	630	100
72-54-8	4,4'-DDD	58	2.0
1031-07-8	Endosulfan Sulfate	280	100
50-29-3	4,4'-DDT	210	100
72-43-5	Methoxychlor	38	2.0
7421-93-4	Endrin Aldehyde	BQL	2.0
57-74-9	Chlordane	BQL	16
8001-35-2	Toxaphene	BQL	100
12674-11-2	Aroclor-1016	BQL	20
11104-28-2	Aroclor-1221	BQL	20
11141-16-5	Aroclor-1232	BQL	20
53469-21-9	Aroclor-1242	BQL	20
12672-29-6	Aroclor-1248	BQL	20
11097-69-1	Aroclor-1254	BQL	20
11096-82-5	Aroclor-1260	BQL	20

Surrogate % Rec. *

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column
* - Surrogate diluted out

ORGANIC ANALYSIS DATA SHEET
PESTICIDE/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS4(06/13)	UNITS:	µg/Kg
LAB No.:	9010238	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-TPS-3	DATE EXTRACTED:	06/14/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/16-19/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.2
319-87-7	Beta-BHC	BQL	0.2
319-86-8	Delta-BHC	12	0.2
58-89-9	Lindane	BQL	0.2
76-44-8	Heptachlor	BQL	0.2
309-00-2	Aldrin	BQL	0.2
1024-57-3	Heptachlor Epoxide	BQL	0.2
959-98-8	Endosulfan I	1400	100
60-57-1	Dieldrin	21	0.2
75-55-9	4,4'-DDE	24	0.2
72-20-8	Endrin	BQL	0.2
33213-65-9	Endosulfan II	620	100
72-54-8	4,4'-DDD	14	0.2
1031-07-8	Endosulfan Sulfate	190	100
50-29-3	4,4'-DDT	30	0.2
72-43-5	Methoxychlor	BQL	0.2
7421-93-4	Endrin Aldehyde	BQL	0.2
57-74-9	Chlordane	BQL	16
8001-35-2	Toxaphene	BQL	100
12674-11-2	Aroclor-1016	BQL	20
11104-28-2	Aroclor-1221	BQL	20
11141-16-5	Aroclor-1232	BQL	20
53469-21-9	Aroclor-1242	BQL	20
12672-29-6	Aroclor-1248	BQL	20
11097-69-1	Aroclor-1254	BQL	20
11096-82-5	Aroclor-1260	BQL	20

Surrogate % Rec. 87

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDE/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS4(06/13)	UNITS:	µg/Kg
LAB No.:	9010239	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-TPS-4	DATE EXTRACTED:	06/14/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/16-19/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	2.0
319-87-7	Beta-BHC	BQL	2.0
319-86-8	Delta-BHC	9.7	2.0
58-89-9	Lindane	BQL	2.0
76-44-8	Heptachlor	BQL	2.0
309-00-2	Aldrin	BQL	2.0
1024-57-3	Heptachlor Epoxide	BQL	2.0
959-98-8	Endosulfan I	670	100
60-57-1	Dieldrin	14	2.0
75-55-9	4,4'-DDE	65	2.0
72-20-8	Endrin	BQL	2.0
33213-65-9	Endosulfan II	550	100
72-54-8	4,4'-DDD	BQL	2.0
1031-07-8	Endosulfan Sulfate	310	100
50-29-3	4,4'-DDT	120	2.0
72-43-5	Methoxychlor	35	2.0
7421-93-4	Endrin Aldehyde	BQL	2.0
57-74-9	Chlordane	BQL	16
8001-35-2	Toxaphene	BQL	100
12674-11-2	Aroclor-1016	BQL	20
11104-28-2	Aroclor-1221	BQL	20
11141-16-5	Aroclor-1232	BQL	20
53469-21-9	Aroclor-1242	BQL	20
12672-29-6	Aroclor-1248	BQL	20
11097-69-1	Aroclor-1254	BQL	20
11096-82-5	Aroclor-1260	BQL	20

Surrogate % Rec. *

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column
* - Surrogate diluted out

ORGANIC ANALYSIS DATA SHEET
PESTICIDE/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS4(06/13)	UNITS:	µg/Kg
LAB No.:	9010240	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-TPS-5	DATE EXTRACTED:	06/14/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/16-20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	2.0
319-87-7	Beta-BHC	BQL	2.0
319-86-8	Delta-BHC	BQL	2.0
58-89-9	Lindane	BQL	2.0
76-44-8	Heptachlor	BQL	2.0
309-00-2	Aldrin	BQL	2.0
1024-57-3	Heptachlor Epoxide	BQL	2.0
959-98-8	Endosulfan I	560	100
60-57-1	Dieldrin	25	2.0
75-55-9	4,4'-DDE	120	100
72-20-8	Endrin	BQL	2.0
33213-65-9	Endosulfan II	40	2.0
72-54-8	4,4'-DDD	140	100
1031-07-8	Endosulfan Sulfate	33	2.0
50-29-3	4,4'-DDT	440	100
72-43-5	Methoxychlor	BQL	2.0
7421-93-4	Endrin Aldehyde	BQL	2.0
57-74-9	Chlordane	BQL	16
8001-35-2	Toxaphene	BQL	98
12674-11-2	Aroclor-1016	BQL	20
11104-28-2	Aroclor-1221	BQL	20
11141-16-5	Aroclor-1232	BQL	20
53469-21-9	Aroclor-1242	BQL	20
12672-29-6	Aroclor-1248	BQL	20
11097-69-1	Aroclor-1254	BQL	20
11096-82-5	Aroclor-1260	BQL	20

Surrogate % Rec. 87

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDE/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS4(06/13)	UNITS:	µg/Kg
LAB No.:	9010241	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-TPS-6	DATE EXTRACTED:	06/14/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/16-20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	2.0
319-87-7	Beta-BHC	BQL	2.0
319-86-8	Delta-BHC	BQL	2.0
58-89-9	Lindane	BQL	2.0
76-44-8	Heptachlor	BQL	2.0
309-00-2	Aldrin	BQL	2.0
1024-57-3	Heptachlor Epoxide	BQL	2.0
959-98-8	Endosulfan I	250	110
60-57-1	Dieldrin	12	2.0
75-55-9	4,4'-DDE	18	2.0
72-20-8	Endrin	BQL	2.0
33213-65-9	Endosulfan II	66	2.0
72-54-8	4,4'-DDD	30	2.0
1031-07-8	Endosulfan Sulfate	49	2.0
50-29-3	4,4'-DDT	58	2.0
72-43-5	Methoxychlor	14	2.0
7421-93-4	Endrin Aldehyde	BQL	2.0
57-74-9	Chlordane	BQL	17
8001-35-2	Toxaphene	BQL	100
12674-11-2	Aroclor-1016	BQL	21
11104-28-2	Aroclor-1221	BQL	21
11141-16-5	Aroclor-1232	BQL	21
53469-21-9	Aroclor-1242	BQL	21
12672-29-6	Aroclor-1248	BQL	21
11097-69-1	Aroclor-1254	BQL	21
11096-82-5	Aroclor-1260	BQL	21

Surrogate % Rec. 87

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDE/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS4(06/13)	UNITS:	µg/Kg
LAB No.:	9010242	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-TPS-7	DATE EXTRACTED:	06/14/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/17-20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	2.0
319-87-7	Beta-BHC	BQL	2.0
319-86-8	Delta-BHC	BQL	2.0
58-89-9	Lindane	BQL	2.0
76-44-8	Heptachlor	BQL	2.0
309-00-2	Aldrin	BQL	2.0
1024-57-3	Heptachlor Epoxide	BQL	2.0
959-98-8	Endosulfan I	31	2.0
60-57-1	Dieldrin	5.1	2.0
75-55-9	4,4'-DDE	14	2.0
72-20-8	Endrin	BQL	2.0
33213-65-9	Endosulfan II	14	2.0
72-54-8	4,4'-DDD	BQL	2.0
1031-07-8	Endosulfan Sulfate	BQL	100
50-29-3	4,4'-DDT	160	100
72-43-5	Methoxychlor	BQL	100
7421-93-4	Endrin Aldehyde	BQL	100
57-74-9	Chlordane	BQL	16
8001-35-2	Toxaphene	BQL	100
12674-11-2	Aroclor-1016	BQL	20
11104-28-2	Aroclor-1221	BQL	20
11141-16-5	Aroclor-1232	BQL	20
53469-21-9	Aroclor-1242	BQL	20
12672-29-6	Aroclor-1248	BQL	20
11097-69-1	Aroclor-1254	BQL	20
11096-82-5	Aroclor-1260	BQL	20

Surrogate % Rec. *

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column
* Surrogate diluted out

ORGANIC ANALYSIS DATA SHEET
PESTICIDE/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS4(06/13)	UNITS:	µg/Kg
LAB No.:	9010243	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-TPS-8	DATE EXTRACTED:	06/14/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/17/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	2.0
319-87-7	Beta-BHC	BQL	2.0
319-86-8	Delta-BHC	BQL	2.0
58-89-9	Lindane	BQL	2.0
76-44-8	Heptachlor	BQL	2.0
309-00-2	Aldrin	BQL	2.0
1024-57-3	Heptachlor Epoxide	BQL	2.0
959-98-8	Endosulfan I	23	2.0
60-57-1	Dieldrin	4.9	2.0
75-55-9	4,4'-DDE	BQL	2.0
72-20-8	Endrin	BQL	2.0
33213-65-9	Endosulfan II	6.0	2.0
72-54-8	4,4'-DDD	BQL	2.0
1031-07-8	Endosulfan Sulfate	BQL	2.0
50-29-3	4,4'-DDT	9.8	2.0
72-43-5	Methoxychlor	BQL	2.0
7421-93-4	Endrin Aldehyde	BQL	2.0
57-74-9	Chlordane	BQL	16
8001-35-2	Toxaphene	BQL	100
12674-11-2	Aroclor-1016	BQL	20
11104-28-2	Aroclor-1221	BQL	20
11141-16-5	Aroclor-1232	BQL	20
53469-21-9	Aroclor-1242	BQL	20
12672-29-6	Aroclor-1248	BQL	20
11097-69-1	Aroclor-1254	BQL	20
11096-82-5	Aroclor-1260	BQL	20

Surrogate % Rec. 113

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS4(06/13)	UNITS:	µg/Kg
LAB No.:	9010244	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042T9-3	DATE EXTRACTED:	06/18/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/19-20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	190
2600-69-3	Phorate	44	7.7
298-04-4	Disulfoton	12000	1900
298-00-0	Methyl Parathion	BQL	7.7
121-75-5	Malathion	BQL	7.7
2921-88-2	Dursban	BQL	7.7
56-38-2	Ethyl Parathion	BQL	7.7
333-41-5	Diazinon	BQL	7.7
55-38-9	Fenthion	BQL	7.7
86-50-0	Azinophos-methyl	BQL	31
311-45-5	Paraoxon	BQL	77

Surrogate % Rec. *

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column
* Surrogate diluted out

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC098::M5
Lab. No: 9010236
Matrix: SOIL
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-TPS-1)
Date Collected: 6/11/90
Date Extracted: 6/20/90
Date Analyzed: 6/21/90 17:21

CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	400.	N
108-95-2	Phenol	400.	N
111-44-4	bis(-2-Chloroethyl)Ether	400.	N
95-57-8	2-Chlorophenol	400.	N
541-73-1	1,3-Dichlorobenzene	400.	N
106-46-7	1,4-Dichlorobenzene	400.	N
100-51-6	Benzyl Alcohol	400.	N
95-50-1	1,2-Dichlorobenzene	400.	N
95-48-7	2-Methylphenol	400.	N
39638-32-9	bis(2-Chloroisopropyl)ether	400.	N
106-44-5	4-Methylphenol	400.	N
621-64-7	N-Nitroso-Di-n-propylamine	400.	N
67-72-1	Hexachloroethane	400.	N
98-95-3	Nitrobenzene	400.	N
78-59-1	Isophorone	400.	N
88-75-5	2-Nitrophenol	400.	N
105-67-9	2,4-Dimethylphenol	400.	N
65-85-0	Benzoic Acid	2000.	N
111-91-1	bis(-2-Chloroethoxy)Methane	400.	N
120-83-2	2,4-Dichlorophenol	400.	N
120-82-1	1,2,4-Trichlorobenzene	400.	N
91-20-3	Naphthalene	400.	N
106-47-8	4-Chloroaniline	400.	N
87-68-3	Hexachlorobutadiene	400.	N
59-50-7	4-Chloro-3-methylphenol	400.	N
91-57-6	2-Methylnaphthalene	400.	N
77-47-4	Hexachlorocyclopentadiene	400.	N
88-06-2	2,4,6-Trichlorophenol	400.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N
91-58-7	2-Chloronaphthalene	400.	N
88-74-4	2-Nitroaniline	2000.	N
131-11-3	Dimethyl Phthalate	400.	N
208-96-8	Acenaphthylene	400.	N
99-09-2	3-Nitroaniline	2000.	N
83-32-9	Acenaphthene	400.	N

CAS #	Compound Name	Conc(ug/Kg)	
51-28-5	2,4-Dinitrophenol	2000.	N
100-02-7	4-Nitrophenol	2000.	N
132-64-9	Dibenzofuran	400.	N
606-20-2	2,6-Dinitrotoluene	400.	N
121-14-2	2,4-Dinitrotoluene	400.	N
84-66-2	Diethylphthalate	400.	N
7005-72-3	4-Chlorophenyl-phenylether	400.	N
86-73-7	Fluorene	400.	N
100-01-6	4-Nitroaniline	2000.	N
534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
86-30-6	N-Nitrosodiphenylamine	400.	N
103-33-3	1,2-Diphenylhydrazine	400.	N
101-55-3	4-Bromophenyl-phenylether	400.	N
118-74-1	Hexachlorobenzene	400.	N
87-86-5	Pentachlorophenol	2000.	N
85-01-8	Phenanthrene	400.	N
120-12-7	Anthracene	400.	N
84-74-2	Di-n-Butylphthalate	400.	N
206-44-0	Fluoranthene	400.	N
92-87-5	Benzidine	2000.	N
129-00-0	Pyrene	400.	N
85-68-7	Butylbenzylphthalate	400.	N
91-94-1	3,3'-Dichlorobenzidine	800.	N
56-55-3	Benzo(a)Anthracene	400.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	1400.	
218-01-9	Chrysene	400.	N
117-84-0	Di-n-octyl phthalate	470.	
205-99-2	Benzo(b)fluoranthene	400.	N
207-08-9	Benzo(k)fluoranthene	400.	N
50-32-8	Benzo(a)Pyrene	400.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	400.	N
53-70-3	Dibenzo(a,h)Anthracene	400.	N
191-24-2	Benzo(g,h,i)Perylene	400.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC099::M5
Lab. No: 9010237
Matrix: SOIL
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-TPS-2)
Date Collected: 6/11/90
Date Extracted: 6/20/90
Date Analyzed: 6/21/90 18:10

CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	410.	N
108-95-2	Phenol	410.	N
111-44-4	bis(-2-Chloroethyl)Ether	410.	N
95-57-8	2-Chlorophenol	410.	N
541-73-1	1,3-Dichlorobenzene	410.	N
106-46-7	1,4-Dichlorobenzene	410.	N
100-51-6	Benzyl Alcohol	410.	N
95-50-1	1,2-Dichlorobenzene	410.	N
95-48-7	2-Methylphenol	410.	N
39638-32-9	bis(2-Chloroisopropyl)ether	410.	N
106-44-5	4-Methylphenol	410.	N
621-64-7	N-Nitroso-Di-n-propylamine	410.	N
67-72-1	Hexachloroethane	410.	N
98-95-3	Nitrobenzene	410.	N
78-59-1	Isophorone	410.	N
88-75-5	2-Nitrophenol	410.	N
105-67-9	2,4-Dimethylphenol	410.	N
65-85-0	Benzoic Acid	2100.	N
111-91-1	bis(-2-Chloroethoxy)Methane	410.	N
120-83-2	2,4-Dichlorophenol	410.	N
120-82-1	1,2,4-Trichlorobenzene	410.	N
91-20-3	Naphthalene	410.	N
106-47-8	4-Chloroaniline	410.	N
87-68-3	Hexachlorobutadiene	410.	N
59-50-7	4-Chloro-3-methylphenol	410.	N
91-57-6	2-Methylnaphthalene	410.	N
77-47-4	Hexachlorocyclopentadiene	410.	N
88-06-2	2,4,6-Trichlorophenol	410.	N
95-95-4	2,4,5-Trichlorophenol	2100.	N
91-58-7	2-Chloronaphthalene	410.	N
88-74-4	2-Nitroaniline	2100.	N
131-11-3	Dimethyl Phthalate	410.	N
208-96-8	Acenaphthylene	410.	N
99-09-2	3-Nitroaniline	2100.	N
83-32-9	Acenaphthene	410.	N

CAS #	Compound Name	Conc(ug/Kg)	
51-28-5	2,4-Dinitrophenol	2100.	N
100-02-7	4-Nitrophenol	2100.	N
132-64-9	Dibenzofuran	410.	N
606-20-2	2,6-Dinitrotoluene	410.	N
121-14-2	2,4-Dinitrotoluene	410.	N
84-66-2	Diethylphthalate	410.	N
7005-72-3	4-Chlorophenyl-phenylether	410.	N
86-73-7	Fluorene	410.	N
100-01-6	4-Nitroaniline	2100.	N
534-52-1	4,6-Dinitro-2-methylphenol	2100.	N
86-30-6	N-Nitrosodiphenylamine	410.	N
103-33-3	1,2-Diphenylhydrazine	410.	N
101-55-3	4-Bromophenyl-phenylether	410.	N
118-74-1	Hexachlorobenzene	410.	N
87-86-5	Pentachlorophenol	2100.	N
85-01-8	Phenanthrene	410.	N
120-12-7	Anthracene	410.	N
84-74-2	Di-n-Butylphthalate	410.	N
206-44-0	Fluoranthene	410.	N
92-87-5	Benzidine	2100.	N
129-00-0	Pyrene	410.	N
85-68-7	Butylbenzylphthalate	410.	N
91-94-1	3,3'-Dichlorobenzidine	830.	N
56-55-3	Benzo(a)Anthracene	410.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	410.	N
218-01-9	Chrysene	410.	N
117-84-0	Di-n-octyl phthalate	410.	N
205-99-2	Benzo(b)fluoranthene	410.	N
207-08-9	Benzo(k)fluoranthene	410.	N
50-32-8	Benzo(a)Pyrene	410.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	410.	N
53-70-3	Dibenzo(a,h)Anthracene	410.	N
191-24-2	Benzo(g,h,i)Perylene	410.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE059::D2
Lab. No.: 9010236
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST(90042-TPS-1)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 10:52

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N
74-83-9	Bromomethane	12.	N
75-01-4	Vinyl Chloride	12.	N
75-00-3	Chloroethane	12.	N
75-09-2	Methylene Chloride	6.	N
67-64-1	Acetone	120.	N
75-15-0	Carbon Disulfide	6.	N
75-35-4	1,1-Dichloroethene	6.	N
75-34-3	1,1-Dichloroethane	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N
67-66-3	Chloroform	6.	N
107-06-2	1,2-Dichloroethane	6.	N
78-93-3	2-Butanone	120.	N
71-55-6	1,1,1-Trichloroethane	6.	N
56-23-5	Carbon Tetrachloride	6.	N
108-05-4	Vinyl Acetate	61.	N
75-27-4	Bromodichloromethane	6.	N

CAS #	Compound Name	Conc(ug/Kg)	
78-87-5	1,2-Dichloropropane	6.	N
10061-01-5	cis-1,3-Dichloropropene	6.	N
79-01-6	Trichloroethene	6.	N
124-48-1	Dibromochloromethane	6.	N
79-00-5	1,1,2-Trichloroethane	6.	N
71-43-2	Benzene	6.	N
10061-02-6	trans-1,3-Dichloropropene	6.	N
75-25-2	Bromoform	6.	N
108-10-1	4-Methyl-2-Pentanone	61.	N
591-78-6	2-Hexanone	61.	N
127-18-4	Tetrachloroethene	6.	N
79-34-5	1,1,2,2-Tetrachloroethane	6.	N
108-88-3	Toluene	6.	N
108-90-7	Chlorobenzene	6.	N
100-41-4	Ethylbenzene	6.	N
100-42-5	Styrene	6.	N
1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE060::D2
Lab. No.: 9010237
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST(90042-TPS-2)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 11:20

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	12.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	12.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	120.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	62.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	62.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	120.	N	108-88-3	Toluene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	62.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE061::D2
Lab. No.: 9010238
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST(90042-TPS-3)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 11:46

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N
74-83-9	Bromomethane	12.	N
75-01-4	Vinyl Chloride	12.	N
75-00-3	Chloroethane	12.	N
75-09-2	Methylene Chloride	6.	N
67-64-1	Acetone	120.	N
75-15-0	Carbon Disulfide	6.	N
75-35-4	1,1-Dichloroethene	6.	N
75-34-3	1,1-Dichloroethane	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N
67-66-3	Chloroform	6.	N
107-06-2	1,2-Dichloroethane	6.	N
78-93-3	2-Butanone	120.	N
71-55-6	1,1,1-Trichloroethane	6.	N
56-23-5	Carbon Tetrachloride	6.	N
108-05-4	Vinyl Acetate	61.	N
75-27-4	Bromodichloromethane	6.	N

CAS #	Compound Name	Conc(ug/Kg)	
78-87-5	1,2-Dichloropropane	6.	N
10061-01-5	cis-1,3-Dichloropropene	6.	N
79-01-6	Trichloroethene	6.	N
124-48-1	Dibromochloromethane	6.	N
79-00-5	1,1,2-Trichloroethane	6.	N
71-43-2	Benzene	6.	N
10061-02-6	trans-1,3-Dichloropropene	6.	N
75-25-2	Bromoform	6.	N
108-10-1	4-Methyl-2-Pentanone	61.	N
591-78-6	2-Hexanone	61.	N
127-18-4	Tetrachloroethene	6.	N
79-34-5	1,1,2,2-Tetrachloroethane	6.	N
108-88-3	Toluene	6.	N
108-90-7	Chlorobenzene	6.	N
100-41-4	Ethylbenzene	6.	N
100-42-5	Styrene	6.	N
1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE067::D2
Lab. No.: 9010239
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST(90042-TPS-4)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 15:15

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	13.	M
74-83-9	Bromomethane	13.	M
75-01-4	Vinyl Chloride	13.	M
75-00-3	Chloroethane	13.	M
75-09-2	Methylene Chloride	6.	M
67-64-1	Acetone	130.	M
75-15-0	Carbon Disulfide	6.	M
75-35-4	1,1-Dichloroethene	6.	M
75-34-3	1,1-Dichloroethane	6.	M
540-59-0	trans-1,2-Dichloroethene	6.	M
67-66-3	Chloroform	6.	M
107-06-2	1,2-Dichloroethane	6.	M
78-93-3	2-Butanone	130.	M
71-55-6	1,1,1-Trichloroethane	6.	M
56-23-5	Carbon Tetrachloride	6.	M
108-05-4	Vinyl Acetate	63.	M
75-27-4	Bromodichloromethane	6.	M
78-87-5	1,2-Dichloropropane	6.	M
10061-01-5	cis-1,3-Dichloropropene	6.	M
79-01-6	Trichloroethene	6.	M
124-48-1	Dibromochloromethane	6.	M
79-00-5	1,1,2-Trichloroethane	6.	M
71-43-2	Benzene	6.	M
10061-02-6	trans-1,3-Dichloropropene	6.	M
75-25-2	Bromoform	6.	M
108-10-1	4-Methyl-2-Pentanone	63.	M
591-78-6	2-Hexanone	63.	M
127-18-4	Tetrachloroethene	6.	M
79-34-5	1,1,2,2-Tetrachloroethane	6.	M
108-88-3	Toluene	6.	M
108-90-7	Chlorobenzene	6.	M
100-41-4	Ethylbenzene	6.	M
100-42-5	Styrene	6.	M
1330-20-7	Total Xylenes	6.	M

Qualifier descriptions: M - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
.BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE063::D2
Lab. No.: 9010240
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST(90042-TPS-5)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 12:52

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N
74-83-9	Bromomethane	12.	N
75-01-4	Vinyl Chloride	12.	N
75-00-3	Chloroethane	12.	N
75-09-2	Methylene Chloride	6.	N
67-64-1	Acetone	120.	N
75-15-0	Carbon Disulfide	6.	N
75-35-4	1,1-Dichloroethene	6.	N
75-34-3	1,1-Dichloroethane	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N
67-66-3	Chloroform	6.	N
107-06-2	1,2-Dichloroethane	6.	N
78-93-3	2-Butanone	120.	N
71-55-6	1,1,1-Trichloroethane	6.	N
56-23-5	Carbon Tetrachloride	6.	N
108-05-4	Vinyl Acetate	60.	N
75-27-4	Bromodichloromethane	6.	N

CAS #	Compound Name	Conc(ug/Kg)	
78-87-5	1,2-Dichloropropane	6.	N
10061-01-5	cis-1,3-Dichloropropene	6.	N
79-01-6	Trichloroethene	6.	N
124-48-1	Dibromochloromethane	6.	N
79-00-5	1,1,2-Trichloroethane	6.	N
71-43-2	Benzene	6.	N
10061-02-6	trans-1,3-Dichloropropene	6.	N
75-25-2	Bromoform	6.	N
108-10-1	4-Methyl-2-Pentanone	60.	N
591-78-6	2-Hexanone	60.	N
127-18-4	Tetrachloroethene	6.	N
79-34-5	1,1,2,2-Tetrachloroethane	6.	N
108-88-3	Toluene	6.	N
108-90-7	Chlorobenzene	6.	N
100-41-4	Ethylbenzene	6.	N
100-42-5	Styrene	6.	N
1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE064::D2
Lab. No.: 9010241
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HOMG-WEST(90042-TPS-6)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 13:32

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	13.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	13.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	13.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	13.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	130.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	64.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	64.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	130.	N	108-88-3	Toluene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	64.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE065::D2
Lab. No.: 9010242
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST(90042-TPS-7)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 13:58

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N
74-83-9	Bromomethane	12.	N
75-01-4	Vinyl Chloride	12.	N
75-00-3	Chloroethane	12.	N
75-09-2	Methylene Chloride	6.	N
67-64-1	Acetone	120.	N
75-15-0	Carbon Disulfide	6.	N
75-35-4	1,1-Dichloroethene	6.	N
75-34-3	1,1-Dichloroethane	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N
67-66-3	Chloroform	6.	N
107-06-2	1,2-Dichloroethane	6.	N
78-93-3	2-Butanone	120.	N
71-55-6	1,1,1-Trichloroethane	6.	N
56-23-5	Carbon Tetrachloride	6.	N
108-05-4	Vinyl Acetate	62.	N
75-27-4	Bromodichloromethane	6.	N

CAS #	Compound Name	Conc(ug/Kg)	
78-87-5	1,2-Dichloropropane	6.	N
10061-01-5	cis-1,3-Dichloropropene	6.	N
79-01-6	Trichloroethene	6.	N
124-48-1	Dibromochloromethane	6.	N
79-00-5	1,1,2-Trichloroethane	6.	N
71-43-2	Benzene	6.	N
10061-02-6	trans-1,3-Dichloropropene	6.	N
75-25-2	Bromoform	6.	N
108-10-1	4-Methyl-2-Pentanone	62.	N
591-78-6	2-Hexanone	62.	N
127-18-4	Tetrachloroethene	6.	N
79-34-5	1,1,2,2-Tetrachloroethane	6.	N
108-88-3	Toluene	6.	N
108-90-7	Chlorobenzene	6.	N
100-41-4	Ethylbenzene	6.	N
100-42-5	Styrene	6.	N
1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE066::D2
Lab. No.: 9010243
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST(90042-TPS-8)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 14:43

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	12.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	12.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	120.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	62.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	62.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	120.	N	108-88-3	Toluene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	62.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC100::M5
Lab. No: 9010238
Matrix: SOIL
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-TPS-3)
Date Collected: 6/11/90
Date Extracted: 6/20/90
Date Analyzed: 6/21/90 18:58

CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	410.	N
108-95-2	Phenol	410.	N
111-44-4	bis(-2-Chloroethyl)Ether	410.	N
95-57-8	2-Chlorophenol	410.	N
541-73-1	1,3-Dichlorobenzene	410.	N
106-46-7	1,4-Dichlorobenzene	410.	N
100-51-6	Benzyl Alcohol	410.	N
95-50-1	1,2-Dichlorobenzene	410.	N
95-48-7	2-Methylphenol	410.	N
39638-32-9	bis(2-Chloroisopropyl)ether	410.	N
106-44-5	4-Methylphenol	410.	N
621-64-7	N-Nitroso-Di-n-propylamine	410.	N
67-72-1	Hexachloroethane	410.	N
98-95-3	Nitrobenzene	410.	N
78-59-1	Isophorone	410.	N
88-75-5	2-Nitrophenol	410.	N
105-67-9	2,4-Dimethylphenol	410.	N
65-85-0	Benzoic Acid	2000.	N
111-91-1	bis(-2-Chloroethoxy)Methane	410.	N
120-83-2	2,4-Dichlorophenol	410.	N
120-82-1	1,2,4-Trichlorobenzene	410.	N
91-20-3	Naphthalene	410.	N
106-47-8	4-Chloroaniline	410.	N
87-68-3	Hexachlorobutadiene	410.	N
59-50-7	4-Chloro-3-methylphenol	410.	N
91-57-6	2-Methylnaphthalene	410.	N
77-47-4	Hexachlorocyclopentadiene	410.	N
88-06-2	2,4,6-Trichlorophenol	410.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N
91-58-7	2-Chloronaphthalene	410.	N
88-74-4	2-Nitroaniline	2000.	N
131-11-3	Dimethyl Phthalate	410.	N
208-96-8	Acenaphthylene	410.	N
99-09-2	3-Nitroaniline	2000.	N
83-32-9	Acenaphthene	410.	N

CAS #	Compound Name	Conc(ug/Kg)	
51-28-5	2,4-Dinitrophenol	2000.	N
100-02-7	4-Nitrophenol	2000.	N
132-64-9	Dibenzofuran	410.	N
606-20-2	2,6-Dinitrotoluene	410.	N
121-14-2	2,4-Dinitrotoluene	410.	N
84-66-2	Diethylphthalate	410.	N
7005-72-3	4-Chlorophenyl-phenylether	410.	N
86-73-7	Fluorene	410.	N
100-01-6	4-Nitroaniline	2000.	N
534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
86-30-6	N-Nitrosodiphenylamine	410.	N
103-33-3	1,2-Diphenylhydrazine	410.	N
101-55-3	4-Bromophenyl-phenylether	410.	N
118-74-1	Hexachlorobenzene	410.	N
87-86-5	Pentachlorophenol	2000.	N
85-01-8	Phenanthrene	410.	N
120-12-7	Anthracene	410.	N
84-74-2	Di-n-Butylphthalate	410.	N
206-44-0	Fluoranthene	410.	N
92-87-5	Benzidine	2000.	N
129-00-0	Pyrene	410.	N
85-68-7	Butylbenzylphthalate	410.	N
91-94-1	3,3'-Dichlorobenzidine	810.	N
56-55-3	Benzo(a)Anthracene	410.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	1200.	
218-01-9	Chrysene	410.	N
117-84-0	Di-n-octyl phthalate	410.	N
205-99-2	Benzo(b)fluoranthene	410.	N
207-08-9	Benzo(k)fluoranthene	410.	N
50-32-8	Benzo(a)Pyrene	410.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	410.	N
53-70-3	Dibenzo(a,h)Anthracene	410.	N
191-24-2	Benzo(g,h,i)Perylene	410.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC101::M5
Lab. No: 9010239
Matrix: SOIL
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-TPS-4)
Date Collected: 6/11/90
Date Extracted: 6/20/90
Date Analyzed: 6/21/90 19:47

CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	420.	N
108-95-2	Phenol	420.	N
111-44-4	bis(-2-Chloroethyl)Ether	420.	N
95-57-8	2-Chlorophenol	420.	N
541-73-1	1,3-Dichlorobenzene	420.	N
106-46-7	1,4-Dichlorobenzene	420.	N
100-51-6	Benzyl Alcohol	420.	N
95-50-1	1,2-Dichlorobenzene	420.	N
95-48-7	2-Methylphenol	420.	N
39638-32-9	bis(2-Chloroisopropyl)ether	420.	N
106-44-5	4-Methylphenol	420.	N
621-64-7	N-Nitroso-Di-n-propylamine	420.	N
67-72-1	Hexachloroethane	420.	N
98-95-3	Nitrobenzene	420.	N
78-59-1	Isophorone	420.	N
88-75-5	2-Nitrophenol	420.	N
105-67-9	2,4-Dimethylphenol	420.	N
65-85-0	Benzoic Acid	2100.	N
111-91-1	bis(-2-Chloroethoxy)Methane	420.	N
120-83-2	2,4-Dichlorophenol	420.	N
120-82-1	1,2,4-Trichlorobenzene	420.	N
91-20-3	Naphthalene	420.	N
106-47-8	4-Chloroaniline	420.	N
87-68-3	Hexachlorobutadiene	420.	N
59-50-7	4-Chloro-3-methylphenol	420.	N
91-57-6	2-Methylnaphthalene	420.	N
77-47-4	Hexachlorocyclopentadiene	420.	N
88-06-2	2,4,6-Trichlorophenol	420.	N
95-95-4	2,4,5-Trichlorophenol	2100.	N
91-58-7	2-Chloronaphthalene	420.	N
88-74-4	2-Nitroaniline	2100.	N
131-11-3	Dimethyl Phthalate	420.	N
208-96-8	Acenaphthylene	420.	N
99-09-2	3-Nitroaniline	2100.	N
83-32-9	Acenaphthene	420.	N

CAS #	Compound Name	Conc(ug/Kg)	
51-28-5	2,4-Dinitrophenol	2100.	N
100-02-7	4-Nitrophenol	2100.	N
132-64-9	Dibenzofuran	420.	N
606-20-2	2,6-Dinitrotoluene	420.	N
121-14-2	2,4-Dinitrotoluene	420.	N
84-66-2	Diethylphthalate	420.	N
7005-72-3	4-Chlorophenyl-phenylether	420.	N
86-73-7	Fluorene	420.	N
100-01-6	4-Nitroaniline	2100.	N
534-52-1	4,6-Dinitro-2-methylphenol	2100.	N
86-30-6	N-Nitrosodiphenylamine	420.	N
103-33-3	1,2-Diphenylhydrazine	420.	N
101-55-3	4-Bromophenyl-phenylether	420.	N
118-74-1	Hexachlorobenzene	420.	N
87-86-5	Pentachlorophenol	2100.	N
85-01-8	Phenanthrene	420.	N
120-12-7	Anthracene	420.	N
84-74-2	Di-n-Butylphthalate	420.	N
206-44-0	Fluoranthene	420.	N
92-87-5	Benzidine	2100.	N
129-00-0	Pyrene	420.	N
85-68-7	Butylbenzylphthalate	420.	N
91-94-1	3,3'-Dichlorobenzidine	830.	N
56-55-3	Benzo(a)Anthracene	420.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	580.	
218-01-9	Chrysene	420.	N
117-84-0	Di-n-octyl phthalate	420.	N
205-99-2	Benzo(b)fluoranthene	420.	N
207-08-9	Benzo(k)fluoranthene	420.	N
50-32-8	Benzo(a)Pyrene	420.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	420.	N
53-70-3	Dibenzo(a,h)Anthracene	420.	N
191-24-2	Benzo(g,h,i)Perylene	420.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC102::M5
Lab. No: 9010240
Matrix: SOIL
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-TPS-5)
Date Collected: 6/11/90
Date Extracted: 6/20/90
Date Analyzed: 6/21/90 20:36

CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	400.	N
108-95-2	Phenol	400.	N
111-44-4	bis(-2-Chloroethyl)Ether	400.	N
95-57-8	2-Chlorophenol	400.	N
541-73-1	1,3-Dichlorobenzene	400.	N
106-46-7	1,4-Dichlorobenzene	400.	N
100-51-6	Benzyl Alcohol	400.	N
95-50-1	1,2-Dichlorobenzene	400.	N
95-48-7	2-Methylphenol	400.	N
39638-32-9	bis(2-Chloroisopropyl)ether	400.	N
106-44-5	4-Methylphenol	400.	N
621-64-7	N-Nitroso-Di-n-propylamine	400.	N
67-72-1	Hexachloroethane	400.	N
98-95-3	Nitrobenzene	400.	N
78-59-1	Isophorone	400.	N
88-75-5	2-Nitrophenol	400.	N
105-67-9	2,4-Dimethylphenol	400.	N
65-85-0	Benzoic Acid	2000.	N
111-91-1	bis(-2-Chloroethoxy)Methane	400.	N
120-83-2	2,4-Dichlorophenol	400.	N
120-82-1	1,2,4-Trichlorobenzene	400.	N
91-20-3	Naphthalene	400.	N
106-47-8	4-Chloroaniline	400.	N
87-68-3	Hexachlorobutadiene	400.	N
59-50-7	4-Chloro-3-methylphenol	400.	N
91-57-6	2-Methylnaphthalene	400.	N
77-47-4	Hexachlorocyclopentadiene	400.	N
88-06-2	2,4,6-Trichlorophenol	400.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N
91-58-7	2-Chloronaphthalene	400.	N
88-74-4	2-Nitroaniline	2000.	N
131-11-3	Dimethyl Phthalate	400.	N
208-96-8	Acenaphthylene	400.	N
99-09-2	3-Nitroaniline	2000.	N
83-32-9	Acenaphthene	400.	N

CAS #	Compound Name	Conc(ug/Kg)	
51-28-5	2,4-Dinitrophenol	2000.	N
100-02-7	4-Nitrophenol	2000.	N
132-64-9	Dibenzofuran	400.	N
606-20-2	2,6-Dinitrotoluene	400.	N
121-14-2	2,4-Dinitrotoluene	400.	N
84-66-2	Diethylphthalate	400.	N
7005-72-3	4-Chlorophenyl-phenylether	400.	N
86-73-7	Fluorene	400.	N
100-01-6	4-Nitroaniline	2000.	N
534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
86-30-6	N-Nitrosodiphenylamine	400.	N
103-33-3	1,2-Diphenylhydrazine	400.	N
101-55-3	4-Bromophenyl-phenylether	400.	N
118-74-1	Hexachlorobenzene	400.	N
87-86-5	Pentachlorophenol	2000.	N
85-01-8	Phenanthrene	400.	N
120-12-7	Anthracene	400.	N
84-74-2	Di-n-Butylphthalate	400.	N
206-44-0	Fluoranthene	400.	N
92-87-5	Benzidine	2000.	N
129-00-0	Pyrene	400.	N
85-68-7	Butylbenzylphthalate	400.	N
91-94-1	3,3'-Dichlorobenzidine	790.	N
56-55-3	Benzo(a)Anthracene	400.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	400.	N
218-01-9	Chrysene	400.	N
117-84-0	Di-n-octyl phthalate	400.	N
205-99-2	Benzo(b)fluoranthene	400.	N
207-08-9	Benzo(k)fluoranthene	400.	N
50-32-8	Benzo(a)Pyrene	400.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	400.	N
53-70-3	Dibenzo(a,h)Anthracene	400.	N
191-24-2	Benzo(g,h,i)Perylene	400.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC103::M5
Lab. No: 9010241
Matrix: SOIL
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-TPS-6)
Date Collected: 6/11/90
Date Extracted: 6/20/90
Date Analyzed: 6/21/90 21:23

CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	420.	N
108-95-2	Phenol	420.	N
111-44-4	bis(-2-Chloroethyl)Ether	420.	N
95-57-8	2-Chlorophenol	420.	N
541-73-1	1,3-Dichlorobenzene	420.	N
106-46-7	1,4-Dichlorobenzene	420.	N
100-51-6	Benzyl Alcohol	420.	N
95-50-1	1,2-Dichlorobenzene	420.	N
95-48-7	2-Methylphenol	420.	N
39638-32-9	bis(2-Chloroisopropyl)ether	420.	N
106-44-5	4-Methylphenol	420.	N
621-64-7	N-Nitroso-Di-n-propylamine	420.	N
67-72-1	Hexachloroethane	420.	N
98-95-3	Nitrobenzene	420.	N
78-59-1	Isophorone	420.	N
88-75-5	2-Nitrophenol	420.	N
105-67-9	2,4-Dimethylphenol	420.	N
65-85-0	Benzoic Acid	2100.	N
111-91-1	bis(-2-Chloroethoxy)Methane	420.	N
120-83-2	2,4-Dichlorophenol	420.	N
120-82-1	1,2,4-Trichlorobenzene	420.	N
91-20-3	Naphthalene	420.	N
106-47-8	4-Chloroaniline	420.	N
87-68-3	Hexachlorobutadiene	420.	N
59-50-7	4-Chloro-3-methylphenol	420.	N
91-57-6	2-Methylnaphthalene	420.	N
77-47-4	Hexachlorocyclopentadiene	420.	N
88-06-2	2,4,6-Trichlorophenol	420.	N
95-95-4	2,4,5-Trichlorophenol	2100.	N
91-58-7	2-Chloronaphthalene	420.	N
88-74-4	2-Nitroaniline	2100.	N
131-11-3	Dimethyl Phthalate	420.	N
208-96-8	Acenaphthylene	420.	N
99-09-2	3-Nitroaniline	2100.	N
83-32-9	Acenaphthene	420.	N

CAS #	Compound Name	Conc(ug/Kg)	
51-28-5	2,4-Dinitrophenol	2100.	N
100-02-7	4-Nitrophenol	2100.	N
132-64-9	Dibenzofuran	420.	N
606-20-2	2,6-Dinitrotoluene	420.	N
121-14-2	2,4-Dinitrotoluene	420.	N
84-66-2	Diethylphthalate	420.	N
7005-72-3	4-Chlorophenyl-phenylether	420.	N
86-73-7	Fluorene	420.	N
100-01-6	4-Nitroaniline	2100.	N
534-52-1	4,6-Dinitro-2-methylphenol	2100.	N
86-30-6	N-Nitrosodiphenylamine	420.	N
103-33-3	1,2-Diphenylhydrazine	420.	N
101-55-3	4-Bromophenyl-phenylether	420.	N
118-74-1	Hexachlorobenzene	420.	N
87-86-5	Pentachlorophenol	2100.	N
85-01-8	Phenanthrene	420.	N
120-12-7	Anthracene	420.	N
84-74-2	Di-n-Butylphthalate	420.	N
206-44-0	Fluoranthene	420.	N
92-87-5	Benzidine	2100.	N
129-00-0	Pyrene	420.	N
85-68-7	Butylbenzylphthalate	420.	N
91-94-1	3,3'-Dichlorobenzidine	850.	N
56-55-3	Benzo(a)Anthracene	420.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	2600.	
218-01-9	Chrysene	420.	N
117-84-0	Di-n-octyl phthalate	700.	
205-99-2	Benzo(b)fluoranthene	420.	N
207-08-9	Benzo(k)fluoranthene	420.	N
50-32-8	Benzo(a)Pyrene	420.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	420.	N
53-70-3	Dibenzo(a,h)Anthracene	420.	N
191-24-2	Benzo(g,h,i)Perylene	420.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC104::M5
Lab. No: 9010242
Matrix: SOIL
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-TPS-7)
Date Collected: 6/11/90
Date Extracted: 6/20/90
Date Analyzed: 6/21/90 22:11

CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	410.	N
108-95-2	Phenol	410.	N
111-44-4	bis(-2-Chloroethyl)Ether	410.	N
95-57-8	2-Chlorophenol	410.	N
541-73-1	1,3-Dichlorobenzene	410.	N
106-46-7	1,4-Dichlorobenzene	410.	N
100-51-6	Benzyl Alcohol	410.	N
95-50-1	1,2-Dichlorobenzene	410.	N
95-48-7	2-Methylphenol	410.	N
39638-32-9	bis(2-Chloroisopropyl)ether	410.	N
106-44-5	4-Methylphenol	410.	N
621-64-7	N-Nitroso-Di-n-propylamine	410.	N
67-72-1	Hexachloroethane	410.	N
98-95-3	Nitrobenzene	410.	N
78-59-1	Isophorone	410.	N
88-75-5	2-Nitrophenol	410.	N
105-67-9	2,4-Dimethylphenol	410.	N
65-85-0	Benzoic Acid	2100.	N
111-91-1	bis(-2-Chloroethoxy)Methane	410.	N
120-83-2	2,4-Dichlorophenol	410.	N
120-82-1	1,2,4-Trichlorobenzene	410.	N
91-20-3	Naphthalene	410.	N
106-47-8	4-Chloroaniline	410.	N
87-68-3	Hexachlorobutadiene	410.	N
59-50-7	4-Chloro-3-methylphenol	410.	N
91-57-6	2-Methylnaphthalene	410.	N
77-47-4	Hexachlorocyclopentadiene	410.	N
88-06-2	2,4,6-Trichlorophenol	410.	N
95-95-4	2,4,5-Trichlorophenol	2100.	N
91-58-7	2-Chloronaphthalene	410.	N
88-74-4	2-Nitroaniline	2100.	N
131-11-3	Dimethyl Phthalate	410.	N
208-96-8	Acenaphthylene	410.	N
99-09-2	3-Nitroaniline	2100.	N
83-32-9	Acenaphthene	410.	N

CAS #	Compound Name	Conc(ug/Kg)	
51-28-5	2,4-Dinitrophenol	2100.	N
100-02-7	4-Nitrophenol	2100.	N
132-64-9	Dibenzofuran	410.	N
606-20-2	2,6-Dinitrotoluene	410.	N
121-14-2	2,4-Dinitrotoluene	410.	N
84-66-2	Diethylphthalate	410.	N
7005-72-3	4-Chlorophenyl-phenylether	410.	N
86-73-7	Fluorene	410.	N
100-01-6	4-Nitroaniline	2100.	N
534-52-1	4,6-Dinitro-2-methylphenol	2100.	N
86-30-6	N-Nitrosodiphenylamine	410.	N
103-33-3	1,2-Diphenylhydrazine	410.	N
101-55-3	4-Bromophenyl-phenylether	410.	N
118-74-1	Hexachlorobenzene	410.	N
87-86-5	Pentachlorophenol	2100.	N
85-01-8	Phenanthrene	410.	N
120-12-7	Anthracene	410.	N
84-74-2	Di-n-Butylphthalate	410.	N
206-44-0	Fluoranthene	410.	N
92-87-5	Benzidine	2100.	N
129-00-0	Pyrene	410.	N
85-68-7	Butylbenzylphthalate	410.	N
91-94-1	3,3'-Dichlorobenzidine	820.	N
56-55-3	Benzo(a)Anthracene	410.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	410.	N
218-01-9	Chrysene	410.	N
117-84-0	Di-n-octyl phthalate	410.	N
205-99-2	Benzo(b)fluoranthene	410.	N
207-08-9	Benzo(k)fluoranthene	410.	N
50-32-8	Benzo(a)Pyrene	410.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	410.	N
53-70-3	Dibenzo(a,h)Anthracene	410.	N
191-24-2	Benzo(g,h,i)Perylene	410.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC105::M5
Lab. No: 9010243
Matrix: SOIL
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-TPS-8)
Date Collected: 6/11/90
Date Extracted: 6/20/90
Date Analyzed: 6/21/90 22:59

CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	410.	N
108-95-2	Phenol	410.	N
111-44-4	bis(-2-Chloroethyl)Ether	410.	N
95-57-8	2-Chlorophenol	410.	N
541-73-1	1,3-Dichlorobenzene	410.	N
106-46-7	1,4-Dichlorobenzene	410.	N
100-51-6	Benzyl Alcohol	410.	N
95-50-1	1,2-Dichlorobenzene	410.	N
95-48-7	2-Methylphenol	410.	N
39638-32-9	bis(2-Chloroisopropyl)ether	410.	N
106-44-5	4-Methylphenol	410.	N
621-64-7	N-Nitroso-Di-n-propylamine	410.	N
67-72-1	Hexachloroethane	410.	N
98-95-3	Nitrobenzene	410.	N
78-59-1	Isophorone	410.	N
88-75-5	2-Nitrophenol	410.	N
105-67-9	2,4-Dimethylphenol	410.	N
65-85-0	Benzoic Acid	2100.	N
111-91-1	bis(-2-Chloroethoxy)Methane	410.	N
120-83-2	2,4-Dichlorophenol	410.	N
120-82-1	1,2,4-Trichlorobenzene	410.	N
91-20-3	Naphthalene	410.	N
106-47-8	4-Chloroaniline	410.	N
87-68-3	Hexachlorobutadiene	410.	N
59-50-7	4-Chloro-3-methylphenol	410.	N
91-57-6	2-Methylnaphthalene	410.	N
77-47-4	Hexachlorocyclopentadiene	410.	N
88-06-2	2,4,6-Trichlorophenol	410.	N
95-95-4	2,4,5-Trichlorophenol	2100.	N
91-58-7	2-Chloronaphthalene	410.	N
88-74-4	2-Nitroaniline	2100.	N
131-11-3	Dimethyl Phthalate	410.	N
208-96-8	Acenaphthylene	410.	N
99-09-2	3-Nitroaniline	2100.	N
83-32-9	Acenaphthene	410.	N

CAS #	Compound Name	Conc(ug/Kg)	
51-28-5	2,4-Dinitrophenol	2100.	N
100-02-7	4-Nitrophenol	2100.	N
132-64-9	Dibenzofuran	410.	N
606-20-2	2,6-Dinitrotoluene	410.	N
121-14-2	2,4-Dinitrotoluene	410.	N
84-66-2	Diethylphthalate	410.	N
7005-72-3	4-Chlorophenyl-phenylether	410.	N
86-73-7	Fluorene	410.	N
100-01-6	4-Nitroaniline	2100.	N
534-52-1	4,6-Dinitro-2-methylphenol	2100.	N
86-30-6	N-Nitrosodiphenylamine	410.	N
103-33-3	1,2-Diphenylhydrazine	410.	N
101-55-3	4-Bromophenyl-phenylether	410.	N
118-74-1	Hexachlorobenzene	410.	N
87-86-5	Pentachlorophenol	2100.	N
85-01-8	Phenanthrene	410.	N
120-12-7	Anthracene	410.	N
84-74-2	Di-n-Butylphthalate	410.	N
206-44-0	Fluoranthene	410.	N
92-87-5	Benzidine	2100.	N
129-00-0	Pyrene	410.	N
85-68-7	Butylbenzylphthalate	410.	N
91-94-1	3,3'-Dichlorobenzidine	830.	N
56-55-3	Benzo(a)Anthracene	410.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	2400.	
218-01-9	Chrysene	410.	N
117-84-0	Di-n-octyl phthalate	410.	N
205-99-2	Benzo(b)fluoranthene	410.	N
207-08-9	Benzo(k)fluoranthene	410.	N
50-32-8	Benzo(a)Pyrene	410.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	410.	N
53-70-3	Dibenzo(a,h)Anthracene	410.	N
191-24-2	Benzo(g,h,i)Perylene	410.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS® INCORPORATED

12051 Indian Creek Ct.
Beltsville, MD 20705
(301) 369-3900

Chain of Custody Record

TASK 9

5 - DAY TA

Project: YARL Site: Tank Removal

Client: HARG NEST + ASSOC Phone: 206 7740106

Address: PO Box 596 Lynnwood, WA

Sampler's Name/Firm: Doug Geller / HWA

Phone: Same Sampler's Signature: Doug Geller

Sample Number	Date	Time	Matrix	No. of Containers	VOA 8240	Semi-VOA 8270	PEST/PCB 8080	TCL METALS 6010	CYANIDE 9010	Organophos. Insecticide 8140			Remarks or Sample Location
Preservative Used													
90042-TPS-1			SOIL	5	✓	✓	✓	✓	✓				Tank Pit Sample
90042-TPS-2			↓	↓	↓	↓	↓	↓	↓				↓
90042-TPS-3			↓	↓	↓	↓	↓	↓	↓				↓
90042-TPS-4			↓	↓	↓	↓	↓	↓	↓				↓
90042-TPS-5			↓	↓	↓	↓	↓	↓	↓				↓
90042-TPS-6			↓	↓	↓	↓	↓	↓	↓				↓
90042-TPS-7			↓	↓	↓	↓	↓	↓	↓				↓
90042-TPS-8			↓	↓	↓	↓	↓	↓	↓				↓
90042-T9-3			SOIL	1					✓				COMPOSITE SAMPLE

Relinquished by: (Signature) [1]	Date/Time	Received by: (Signature)	Relinquished by: (Signature) [4]	Date/Time	Shipping Carrier:
Doug Geller	6/11 4 PM				
Relinquished by: (Signature) [2]	**Date/Time**	**Received by: (Signature)**	**Received for Laboratory by: (Signature)**	**Date/Time**	**Shipping Ticket Number:**
			[signature]	06/13/9:00	
Relinquished by: (Signature) [3]	**Date/Time**	**Received by: (Signature)**	**Chain of Custody Seal: (Circle)**	**Lab Remarks**	
			Intact Broken Absent	Cool / Good	

White-Return to Client Yellow-Retain by Lab (Project File) Pink-Retain by Lab (Client Services) Gold-Retain by Sampler

Biospherics Incorporated

MEMO

To: Biogroundwater - Stuart Cohen

From: Laboratory Division - Beltsville Office

Re: CS3 (6/13)

Date: July 24, 1990

Enclosed please find the Task 9 water results for Hong West's samples collected on June 11, 1990. Samples were submitted by Hong West.

LAB NAME: BIOSPHERICS INCORPORATED

CLIENT: Hong West

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Water

CASE: CS3(06/13)

Analytical Methodology/Sample Chronicle

Parameter	Method	Date Extracted	Date Analyzed
Metals	EPA 6010	06/18/90	06/18-07/06/90
	7470	06/14/90	06/14/90
Pesticides	EPA 8080	06/13/90	06/16/90
Organophosphorus Pesticides	EPA 8140	06/18/90	06/19-20/90
Volatile Organics	EPA 8240		06/13-14/90
Semi-volatile Organics	EPA 8270	06/15/90	06/19/90
Cyanide	EPA 9010	06/19/90	06/20/90

QA Summary

Metals, Cyanide
The process blank, replicate, matrix spike and laboratory control sample results were within acceptable limits.

Pesticides and Organophosphorus Pesticides
The process blank and surrogate recovery results were within acceptable limits.

Volatile Organics
The process blank, surrogate, matrix spike and matrix spike duplicate results were within acceptable limits.

Semi-volatile Organics
The process blank and surrogate recovery results were within acceptable limits. No matrix spike/matrix spike duplicate results are available due to insufficient sample volume.

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Water

UNITS: ug/L

CASE: CS3(06/13)

Client I.D.:	90042-T9-1	90042-T9-2	
Lab I.D.:	9010220	9010221	PQL
Parameter:			
Aluminum	2560	37800[1]	200
Antimony	<60	<60	60
Arsenic	<10	32.0	10
Barium	<200	323	200
Beryllium	<5	<5	5
Cadmium	<5	6.0	5
Calcium	15800	32400	5000
Chromium	13	57.0	10
Cobolt	<50	<50	50
Copper	32.0	125	25
Iron	3560	53500[2]	100
Lead	18.1	250[3]	3
Magnesium	6220	17700	5000
Manganese	69.0	1000	15

[1]PQL is 1000 ug/L.
[2]PQL is 500 ug/L.
[3]PQL is 30 ug/L.
PQL = Practical Quantitation Limit.

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Water

UNITS: ug/L

CASE: CS3(06/13)

Client I.D.:	90042-T9-1	90042-T9-2	
Lab I.D.:	9010220	9010221	PQL
Parameter:			
Mercury	<0.2	0.61	0.2
Nickel	<40	120	40
Potassium	5100	10200	5000
Selenium	<5	<5	5
Silver	<10	13	10
Sodium	14500	15200	5000
Thallium	<10	<10	10
Tin	<100	<100	100
Vanadium	<50	117	50
Zinc	1270	339	20

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-INORGANIC

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Water

UNITS: ug/L

CASE: CS3(06/13)

Client I.D.:	90042-T9-1	90042-T9-2	
Lab I.D.:	9010220	9010221	PQL
Parameter:			
Cyanide	<10	<10	10

PQL = Practical Quantitation Limit

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE074::D3
Lab. No.: 9010220
Matrix: WATER
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST (90042T91)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 18:36

CAS #	Compound Name	Conc(ug/L)		CAS #	Compound Name	Conc(ug/L)	
74-87-3	Chloromethane	10.	N	78-87-5	1,2-Dichloropropane	5.	N
74-83-9	Bromomethane	10.	N	10061-01-5	cis-1,3-Dichloropropene	5.	N
75-01-4	Vinyl Chloride	10.	N	79-01-6	Trichloroethene	5.	N
75-00-3	Chloroethane	10.	N	124-48-1	Dibromochloromethane	5.	N
75-09-2	Methylene Chloride	5.	N	79-00-5	1,1,2-Trichloroethane	5.	N
67-64-1	Acetone	100.	N	71-43-2	Benzene	5.	N
75-15-0	Carbon Disulfide	5.	N	10061-02-6	trans-1,3-Dichloropropene	5.	N
75-35-4	1,1-Dichloroethene	5.	N	75-25-2	Bromoform	5.	N
75-34-3	1,1-Dichloroethane	5.	N	108-10-1	4-Methyl-2-Pentanone	50.	N
540-59-0	trans-1,2-Dichloroethene	5.	N	591-78-6	2-Hexanone	50.	N
67-66-3	Chloroform	5.	N	127-18-4	Tetrachloroethene	5.	N
107-06-2	1,2-Dichloroethane	5.	N	79-34-5	1,1,2,2-Tetrachloroethane	5.	N
78-93-3	2-Butanone	100.	N	108-88-3	Toluene	5.	N
71-55-6	1,1,1-Trichloroethane	5.	N	108-90-7	Chlorobenzene	5.	N
56-23-5	Carbon Tetrachloride	5.	N	100-41-4	Ethylbenzene	5.	N
108-05-4	Vinyl Acetate	50.	N	100-42-5	Styrene	5.	N
75-27-4	Bromodichloromethane	5.	N	1330-20-7	Total Xylenes	5.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit.
Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE084::04
Lab. No.: 9010221
Matrix: WATER
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST (90042T92)
Date Collected: 6/11/90
Date Analyzed: 6/14/90 14:17

CAS #	Compound Name	Conc(ug/L)	
74-87-3	Chloromethane	50.	N
74-83-9	Bromomethane	50.	N
75-01-4	Vinyl Chloride	50.	N
75-00-3	Chloroethane	50.	N
75-09-2	Methylene Chloride	25.	N
67-64-1	Acetone	500.	N
75-15-0	Carbon Disulfide	25.	N
75-35-4	1,1-Dichloroethene	25.	N
75-34-3	1,1-Dichloroethane	25.	N
540-59-0	trans-1,2-Dichloroethene	25.	N
67-66-3	Chloroform	25.	N
107-06-2	1,2-Dichloroethane	25.	N
78-93-3	2-Butanone	500.	N
71-55-6	1,1,1-Trichloroethane	25.	N
56-23-5	Carbon Tetrachloride	25.	N
108-05-4	Vinyl Acetate	250.	N
75-27-4	Bromodichloromethane	25.	N

CAS #	Compound Name	Conc(ug/L)	
78-87-5	1,2-Dichloropropane	25.	N
10061-01-5	cis-1,3-Dichloropropene	25.	N
79-01-6	Trichloroethene	25.	N
124-48-1	Dibromochloromethane	25.	N
79-00-5	1,1,2-Trichloroethane	25.	N
71-43-2	Benzene	25.	N
10061-02-6	trans-1,3-Dichloropropene	25.	N
75-25-2	Bromoform	25.	N
108-10-1	4-Methyl-2-Pentanone	250.	N
591-78-6	2-Hexanone	250.	N
127-18-4	Tetrachloroethene	25.	N
79-34-5	1,1,2,2-Tetrachloroethane	25.	N
108-88-3	Toluene	25.	N
108-90-7	Chlorobenzene	25.	N
100-41-4	Ethylbenzene	25.	N
100-42-5	Styrene	25.	N
1330-20-7	Total Xylenes	25.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE080::D3
Lab. No.: 9010222
Matrix: WATER
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST (90042T95)
Date Collected: 6/11/90
Date Analyzed: 6/14/90 12:04

CAS #	Compound Name	Conc(ug/L)	
74-87-3	Chloromethane	10.	N
74-83-9	Bromomethane	10.	N
75-01-4	Vinyl Chloride	10.	N
75-00-3	Chloroethane	10.	N
75-09-2	Methylene Chloride	5.	N
67-64-1	Acetone	100.	N
75-15-0	Carbon Disulfide	5.	N
75-35-4	1,1-Dichloroethene	5.	N
75-34-3	1,1-Dichloroethane	5.	N
540-59-0	trans-1,2-Dichloroethene	5.	N
67-66-3	Chloroform	5.	N
107-06-2	1,2-Dichloroethane	5.	N
78-93-3	2-Butanone	100.	N
71-55-6	1,1,1-Trichloroethane	5.	N
56-23-5	Carbon Tetrachloride	5.	N
108-05-4	Vinyl Acetate	50.	N
75-27-4	Bromodichloromethane	5.	N

CAS #	Compound Name	Conc(ug/L)	
78-87-5	1,2-Dichloropropane	5.	N
10061-01-5	cis-1,3-Dichloropropene	5.	N
79-01-6	Trichloroethene	5.	N
124-48-1	Dibromochloromethane	5.	N
79-00-5	1,1,2-Trichloroethane	5.	N
71-43-2	Benzene	5.	N
10061-02-6	trans-1,3-Dichloropropene	5.	N
75-25-2	Bromoform	5.	N
108-10-1	4-Methyl-2-Pentanone	50.	N
591-78-6	2-Hexanone	50.	N
127-18-4	Tetrachloroethene	5.	N
79-34-5	1,1,2,2-Tetrachloroethane	5.	N
108-88-3	Toluene	5.	N
108-90-7	Chlorobenzene	5.	N
100-41-4	Ethylbenzene	5.	N
100-42-5	Styrene	5.	N
1330-20-7	Total Xylenes	5.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >CC091::M9
Lab. No: 9010220
Matrix: WATER
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-T9-1)
Date Collected: 6/11/90
Date Extracted: 6/15/90
Date Analyzed: 6/19/90 18:47

CAS #	Compound Name	Conc(ug/L)	
62-75-9	N-Nitrosodimethylamine	10.	N
108-95-2	Phenol	10.	N
111-44-4	bis(-2-Chloroethyl)Ether	10.	N
95-57-8	2-Chlorophenol	10.	N
541-73-1	1,3-Dichlorobenzene	10.	N
106-46-7	1,4-Dichlorobenzene	10.	N
100-51-6	Benzyl Alcohol	10.	N
95-50-1	1,2-Dichlorobenzene	10.	N
95-48-7	2-Methylphenol	10.	N
39638-32-9	bis(2-Chloroisopropyl)ether	10.	N
106-44-5	4-Methylphenol	10.	N
621-64-7	N-Nitroso-Di-n-propylamine	10.	N
67-72-1	Hexachloroethane	10.	N
98-95-3	Nitrobenzene	10.	N
78-59-1	Isophorone	10.	N
88-75-5	2-Nitrophenol	10.	N
105-67-9	2,4-Dimethylphenol	10.	N
65-85-0	Benzoic Acid	50.	N
111-91-1	bis(-2-Chloroethoxy)Methane	10.	N
120-83-2	2,4-Dichlorophenol	10.	N
120-82-1	1,2,4-Trichlorobenzene	10.	N
91-20-3	Naphthalene	10.	N
106-47-8	4-Chloroaniline	10.	N
87-68-3	Hexachlorobutadiene	10.	N
59-50-7	4-Chloro-3-methylphenol	10.	N
91-57-6	2-Methylnaphthalene	10.	N
77-47-4	Hexachlorocyclopentadiene	10.	N
88-06-2	2,4,6-Trichlorophenol	10.	N
95-95-4	2,4,5-Trichlorophenol	50.	N
91-58-7	2-Chloronaphthalene	10.	N
88-74-4	2-Nitroaniline	50.	N
131-11-3	Dimethyl Phthalate	10.	N
208-96-8	Acenaphthylene	10.	N
99-09-2	3-Nitroaniline	50.	N
83-32-9	Acenaphthene	10.	N

CAS #	Compound Name	Conc(ug/L)	
51-28-5	2,4-Dinitrophenol	50.	N
100-02-7	4-Nitrophenol	50.	N
132-64-9	Dibenzofuran	10.	N
606-20-2	2,6-Dinitrotoluene	10.	N
121-14-2	2,4-Dinitrotoluene	10.	N
84-66-2	Diethylphthalate	10.	N
7005-72-3	4-Chlorophenyl-phenylether	10.	N
86-73-7	Fluorene	10.	N
100-01-6	4-Nitroaniline	50.	N
534-52-1	4,6-Dinitro-2-methylphenol	50.	N
86-30-6	N-Nitrosodiphenylamine	10.	N
103-33-3	1,2-Diphenylhydrazine	10.	N
101-55-3	4-Bromophenyl-phenylether	10.	N
118-74-1	Hexachlorobenzene	10.	N
87-86-5	Pentachlorophenol	50.	N
85-01-8	Phenanthrene	10.	N
120-12-7	Anthracene	10.	N
84-74-2	Di-n-Butylphthalate	10.	N
206-44-0	Fluoranthene	10.	N
92-87-9	Benzidine	50.	N
129-00-0	Pyrene	10.	N
85-68-7	Butylbenzylphthalate	10.	N
91-94-1	3,3'-Dichlorobenzidine	20.	N
56-55-3	Benzo(a)Anthracene	10.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	N
218-01-9	Chrysene	10.	N
117-84-0	Di-n-octyl phthalate	10.	N
205-99-2	Benzo(b)fluoranthene	10.	N
207-08-9	Benzo(k)fluoranthene	10.	N
50-32-8	Benzo(a)Pyrene	10.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	10.	N
53-70-3	Dibenzo(a,h)Anthracene	10.	N
191-24-2	Benzo(g,h,i)Perylene	10.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >CC092::M9
Lab. No: 9010221
Matrix: WATER
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-T9-2)
Date Collected: 6/11/90
Date Extracted: 6/15/90
Date Analyzed: 6/19/90 19:33

CAS #	Compound Name	Conc(ug/L)	
62-75-9	N-Nitrosodimethylamine	10.	N
108-95-2	Phenol	10.	N
111-44-4	bis(-2-Chloroethyl)Ether	10.	N
95-57-8	2-Chlorophenol	10.	N
541-73-1	1,3-Dichlorobenzene	10.	N
106-46-7	1,4-Dichlorobenzene	10.	N
100-51-6	Benzyl Alcohol	10.	N
95-50-1	1,2-Dichlorobenzene	10.	N
95-48-7	2-Methylphenol	10.	N
39638-32-9	bis(2-Chloroisopropyl)ether	10.	N
106-44-5	4-Methylphenol	10.	N
621-64-7	N-Nitroso-Di-n-propylamine	10.	N
67-72-1	Hexachloroethane	10.	N
98-95-3	Nitrobenzene	10.	N
78-59-1	Isophorone	10.	N
88-75-5	2-Nitrophenol	10.	N
105-67-9	2,4-Dimethylphenol	10.	N
65-85-0	Benzoic Acid	10.	N
111-91-1	bis(-2-Chloroethoxy)Methane	10.	N
120-83-2	2,4-Dichlorophenol	10.	N
120-82-1	1,2,4-Trichlorobenzene	10.	N
91-20-3	Naphthalene	10.	N
106-47-8	4-Chloroaniline	10.	N
87-68-3	Hexachlorobutadiene	10.	N
59-50-7	4-Chloro-3-methylphenol	10.	N
91-57-6	2-Methylnaphthalene	10.	N
77-47-4	Hexachlorocyclopentadiene	10.	N
88-06-2	2,4,6-Trichlorophenol	10.	N
95-95-4	2,4,5-Trichlorophenol	50.	N
91-58-7	2-Chloronaphthalene	10.	N
88-74-4	2-Nitroaniline	50.	N
131-11-3	Dimethyl Phthalate	10.	N
208-96-8	Acenaphthylene	10.	N
99-09-2	3-Nitroaniline	50.	N
83-32-9	Acenaphthene	10.	N

CAS #	Compound Name	Conc(ug/L)	
51-28-5	2,4-Dinitrophenol	50.	N
100-02-7	4-Nitrophenol	50.	N
132-64-9	Dibenzofuran	10.	N
606-20-2	2,6-Dinitrotoluene	10.	N
121-14-2	2,4-Dinitrotoluene	10.	N
84-66-2	Diethylphthalate	10.	N
7005-72-3	4-Chlorophenyl-phenylether	10.	N
86-73-7	Fluorene	10.	N
100-01-6	4-Nitroaniline	50.	N
534-52-1	4,6-Dinitro-2-methylphenol	50.	N
86-30-6	N-Nitrosodiphenylamine	10.	N
103-33-3	1,2-Diphenylhydrazine	10.	N
101-55-3	4-Bromophenyl-phenylether	10.	N
118-74-1	Hexachlorobenzene	10.	N
87-86-5	Pentachlorophenol	50.	N
85-01-8	Phenanthrene	10.	N
120-12-7	Anthracene	10.	N
84-74-2	Di-n-Butylphthalate	10.	N
206-44-0	Fluoranthene	10.	N
92-87-9	Benzidine	50.	N
129-00-0	Pyrene	10.	N
85-68-7	Butylbenzylphthalate	10.	N
91-94-1	3,3'-Dichlorobenzidine	20.	N
56-55-3	Benzo(a)Anthracene	10.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	N
218-01-9	Chrysene	10.	N
117-84-0	Di-n-octyl phthalate	10.	N
205-99-2	Benzo(b)fluoranthene	10.	N
207-08-9	Benzo(k)fluoranthene	10.	N
50-32-8	Benzo(a)Pyrene	10.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	10.	N
53-70-3	Dibenzo(a,h)Anthracene	10.	N
191-24-2	Benzo(g,h,i)Perylene	10.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection
limit. Should be considered an approximation.

ORGANIC ANALYSIS DATA SHEET
PESTICIDE/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS3(06/13)	UNITS:	µg/L
LAB No.:	9010220	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042T9-1	DATE EXTRACTED:	06/13/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/16/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.02
319-87-7	Beta-BHC	BQL	0.02
319-86-8	Delta-BHC	BQL	0.02
58-89-9	Lindane	BQL	0.02
76-44-8	Heptachlor	BQL	0.02
309-00-2	Aldrin	BQL	0.02
1024-57-3	Heptachlor Epoxide	BQL	0.02
959-98-8	Endosulfan I	0.04	0.02
60-57-1	Dieldrin	0.02	0.02
75-55-9	4,4'-DDE	0.04	0.02
72-20-8	Endrin	BQL	0.02
33213-65-9	Endosulfan II	BQL	0.02
72-54-8	4,4'-DDD	0.03	0.02
1031-07-8	Endosulfan Sulfate	BQL	0.02
50-29-3	4,4'-DDT	0.07	0.02
72-43-5	Methoxychlor	BQL	0.02
7421-93-4	Endrin Aldehyde	BQL	0.02
57-74-9	Chlordane	BQL	0.12
8001-35-2	Toxaphene	BQL	1.0
12674-11-2	Aroclor-1016	BQL	0.2
11104-28-2	Aroclor-1221	BQL	0.2
11141-16-5	Aroclor-1232	BQL	0.2
53469-21-9	Aroclor-1242	BQL	0.2
12672-29-6	Aroclor-1248	BQL	0.2
11097-69-1	Aroclor-1254	BQL	0.2
11096-82-5	Aroclor-1260	BQL	0.2

Surrogate % Rec. 72

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDE/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS3(06/13)	UNITS:	µg/L
LAB No.:	9010221	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042T9-2	DATE EXTRACTED:	06/13/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/16/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.02
319-87-7	Beta-BHC	BQL	0.02
319-86-8	Delta-BHC	BQL	0.02
58-89-9	Lindane	BQL	0.02
76-44-8	Heptachlor	BQL	0.02
309-00-2	Aldrin	BQL	0.02
1024-57-3	Heptachlor Epoxide	BQL	0.02
959-98-8	Endosulfan I	0.75	0.02
60-57-1	Dieldrin	0.19	0.02
75-55-9	4,4'-DDE	0.43	0.02
72-20-8	Endrin	BQL	0.02
33213-65-9	Endosulfan II	BQL	0.02
72-54-8	4,4'-DDD	BQL	0.02
1031-07-8	Endosulfan Sulfate	BQL	0.02
50-29-3	4,4'-DDT	0.30	0.02
72-43-5	Methoxychlor	BQL	0.02
7421-93-4	Endrin Aldehyde	BQL	0.02
57-74-9	Chlordane	BQL	0.16
8001-35-2	Toxaphene	BQL	1.0
12674-11-2	Aroclor-1016	BQL	0.2
11104-28-2	Aroclor-1221	BQL	0.2
11141-16-5	Aroclor-1232	BQL	0.2
53469-21-9	Aroclor-1242	BQL	0.2
12672-29-6	Aroclor-1248	BQL	0.2
11097-69-1	Aroclor-1254	BQL	0.2
11096-82-5	Aroclor-1260	BQL	0.2

Surrogate % Rec. 50

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS3(06/13)	UNITS:	µg/L
LAB No.:	9010223	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042T9-1	DATE EXTRACTED:	06/18/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/19-20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	5.0
2600-69-3	Phorate	BQL	0.2
298-04-4	Disulfoton	0.5	0.2
298-00-0	Methyl Parathion	BQL	0.2
121-75-5	Malathion	BQL	0.2
2921-88-2	Dursban	BQL	0.2
56-38-2	Ethyl Parathion	BQL	0.2
333-41-5	Diazinon	BQL	0.2
55-38-9	Fenthion	BQL	0.2
86-50-0	Azinophos-methyl	BQL	0.8
311-45-5	Paraoxon	BQL	2.0

Surrogate % Rec. 48

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS3(06/13)	UNITS:	µg/L
LAB No.:	9010224	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042T9-2	DATE EXTRACTED:	06/18/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/19-20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	5.0
2600-69-3	Phorate	BQL	0.2
298-04-4	Disulfoton	1.8	0.2
298-00-0	Methyl Parathion	BQL	0.2
121-75-5	Malathion	BQL	0.2
2921-88-2	Dursban	BQL	0.2
56-38-2	Ethyl Parathion	BQL	0.2
333-41-5	Diazinon	BQL	0.2
55-38-9	Fenthion	BQL	0.2
86-50-0	Azinophos-methyl	BQL	0.8
311-45-5	Paraoxon	BQL	2.0

Surrogate % Rec. 109

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

BIOSPHERICS® INCORPORATED

12051 Indian Creek Ct.
Beltsville, MD 20705
(301) 369-3900

Chain of Custody Record

TASK 9

Project: YARL Site: Tank Removal
Client: Hong West + Assoc Phone: 206774-0106
Address: PO Box 596
Lynnwood, WA 98046
Sampler's Name/Firm:
Phone: Sampler's Signature:

Preservative Used: HNO_3, Na_2O_4

Sample Number	Date	Time	Matrix	No. of Containers	VOA 8240	Semi-VOA 8270	PCB/PCB 8080	RCL Metals	Cyanide				Remarks or Sample Location
90042-T9-1			H_2O		✓	✓	✓	✓	✓				Wash water
90042-T9-2			H_2O		✓	✓	✓	✓	✓				Decon Rinsate
90042-T9-5			H_2O		✓								

*NOTE!!
1 EXTRA BOTTLE OF Sample #'s 90042-T9-1 & 90042-T9-2 WERE RECEIVED - FOR ORGANO PHOS INSECTICIDES. THESE WERE LOGGED AS SEPERATE SAMPLES.
104 6/13/90
11:59:30

Relinquished by: (Signature) 1	Date/Time	Received by: (Signature)	Relinquished by: (Signature) 4	Date/Time	Shipping Carrier:
Doug Cell	6/11 4PM				
Relinquished by: (Signature) 2	**Date/Time**	**Received by: (Signature)**	**Received for Laboratory by: (Signature)**	**Date/Time**	**Shipping Ticket Number:**
			[illegible]	6/13 9:00	
Relinquished by: (Signature) 3	**Date/Time**	**Received by: (Signature)**	**Chain of Custody Seal: (Circle)**	**Lab Remarks**	
			Intact Broken Absent	Good / Cool	

White-Return to Client Yellow-Retain by Lab (Project File) Pink-Retain by Lab (Client Services) Gold-Retain by Sampler

Biospherics Incorporated

MEMO

To: Biogroundwater - Stuart Cohen

From: Laboratory Division - Beltsville Office

Re: CS5 (6/13)

Date: July 27, 1990

Enclosed please find the Task 11 results for Hong West's samples collected on June 11, 1990. Samples were submitted by Hong West.

LAB NAME: BIOSPHERICS INCORPORATED

CLIENT: HONG WEST

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS5(06/13)

Analytical Methodology/Sample Chronicle

Parameter	Method	Date Extracted	Date Analyzed
Metals	EPA 3050/6010	06/15/90	06/18-19/90
Mercury	EPA 7470	O6/14/90	06/14/90
Pesticides	EPA 8080	06/14/90	06/17,20/90
Organophosphorus Pesticides	EPA 8140	06/18/90	06/19-20/90
Volatile Organics	EPA 8240		06/13/90
Semi-volatile Organics	EPA 8270	06/20/90	06/21-22/90

QA Summary

*Metals, Mercury
The process blank, replicate and laboratory control sample results were within acceptable limits. Sample 90042-WPS-1 was spiked prior to digestion. For selenium the digestion spike recovery was 347%. A post digestion spike on the original sample yielded a 42% recovery. This would indicate a negative interferant. The digestion spike for antimony yielded a 63% recovery. All other spike recoveries were within acceptable limits.

*Pesticides and Organophosphorus Pesticides, Volatile Organics
The process blank and surrogate recovery results were within acceptable limits.

*Semi-volatile Organics
The process blank, surrogate and matrix spike recovery results were within acceptable limits.
The relative percent difference for the matrix spike/matrix spike duplicate on 90042-WPS-2 was within acceptable limits, except for pentachlorophenol where the RPD was 128%.

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS5(06/13)

Client I.D.:	90042-WPS-1		90042-WPS-2	
Lab I.D.:	9010245	PQL	9010246	PQL
Parameter:				
Aluminum	15200	248	18900	251
Antimony	89.0	6.8	107	6.9
Arsenic	16.4	2.3	42.9	4.7
Barium	132	22.5	148	22.9
Beryllium	0.79	0.56	0.80	0.57
Cadmium	1.8	0.56	1.3	0.57
Calcium	9040	112	6520	114
Chromium	24.1	1.1	26.4	1.1
Cobolt	11.4	5.6	15.4	5.7
Copper	25.1	2.8	24.9	2.9
Iron	25200	742	27800	754
Lead	114	11.4	166	11.6
Magnesium	5800	112	9000	1260
Manganese	495	18.6	568	18.8
Mercury	<0.11	0.11	<0.41	0.10
Nickel	24.8	4.5	56.8	4.6

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: C95(06/13)

Client I.D.:	90042-WPS-1		90042-WPS-2	
Lab I.D.:	9010245	PQL	9010246	PQL
Parameter:				
Potassium	2760	112	2540	114
Selenium	<0.57	0.57	<0.58	0.58
Silver	<1.1	1.1	<1.1	1.1
Sodium	603	112	684	114
Thallium	<1.1	1.1	<1.2	1.2
Tin	<11.2	11.2	<11.4	11.4
Vanadium	47.1	5.6	50.1	5.7
Zinc	110	2.2	80.6	2.3

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS5(06/13)

Client I.D.:	90042-WPS-3		90042-WPS-4	
Lab I.D.:	9010247	PQL	9010248	PQL
Parameter:				
Aluminum	17500	256	17300	252
Antimony	106	7.0	102	6.9
Arsenic	27.6	4.8	60.6	4.7
Barium	149	23.3	141	22.9
Beryllium	0.93	0.58	0.80	0.57
Cadmium	2.0	0.58	2.5	0.57
Calcium	7180	116	7270	115
Chromium	23.5	1.2	26.9	1.2
Cobolt	14.2	5.8	12.4	5.7
Copper	26.0	2.9	25.2	2.9
Iron	27900	769	26200	756
Lead	126	12	349	11.8
Magnesium	6480	1280	5700	115
Manganese	576	19.2	502	18.9
Mercury	0.13	0.10	0.070	0.060
Nickel	26.6	4.7	24.4	4.6

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 11, 1990

DATE RECEIVED: June 13, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CSS(06/13)

Client I.D.:	90042-WPS-3		90042-WPS-4	
Lab I.D.:	9010247	PQL	9010248	PQL
Parameter:				
Potassium	2480	116	2910	115
Selenium	<0.60	0.60	<0.59	0.59
Silver	<1.2	1.2	<1.2	1.2
Sodium	695	116	728	115
Thallium	<1.2	1.2	<1.2	1.2
Tin	<11.6	11.6	<11.5	11.5
Vanadium	50.7	5.8	51.0	5.7
Zinc	96.8	2.3	110	2.3

PQL - Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS5(06/13)	UNITS:	µg/Kg
LAB No.:	9010245	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-WPS-1	DATE EXTRACTED:	06/14/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/17,20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	19
319-87-7	Beta-BHC	BQL	19
319-86-8	Delta-BHC	BQL	19
58-89-9	Lindane	BQL	19
76-44-8	Heptachlor	BQL	19
309-00-2	Aldrin	BQL	19
1024-57-3	Heptachlor Epoxide	BQL	19
959-98-8	Endosulfan I	BQL	19
60-57-1	Dieldrin	240	19
75-55-9	4,4'-DDE	170	98
72-20-8	Endrin	BQL	19
33213-65-9	Endosulfan II	BQL	19
72-54-8	4,4'-DDD	BQL	98
1031-07-8	Endosulfan Sulfate	BQL	19
50-29-3	4,4'-DDT	710	98
72-43-5	Methoxychlor	BQL	19
7421-93-4	Endrin Aldehyde	BQL	19
57-74-9	Chlordane	BQL	150
8001-35-2	Toxaphene	BQL	970

Surrogate % Rec. 79

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS5(06/13)	UNITS:	µg/Kg
LAB No.:	9010246	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-WPS-2	DATE EXTRACTED:	06/14/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/17,20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	2.0
319-87-7	Beta-BHC	BQL	2.0
319-86-8	Delta-BHC	BQL	2.0
58-89-9	Lindane	BQL	2.0
76-44-8	Heptachlor	BQL	2.0
309-00-2	Aldrin	BQL	2.0
1024-57-3	Heptachlor Epoxide	BQL	2.0
959-98-8	Endosulfan I	BQL	2.0
60-57-1	Dieldrin	BQL	400
75-55-9	4,4'-DDE	2600	400
72-20-8	Endrin	BQL	2.0
33213-65-9	Endosulfan II	BQL	2.0
72-54-8	4,4'-DDD	BQL	400
1031-07-8	Endosulfan Sulfate	BQL	2.0
50-29-3	4,4'-DDT	4100	400
72-43-5	Methoxychlor	BQL	2.0
7421-93-4	Endrin Aldehyde	BQL	2.0
57-74-9	Chlordane	BQL	16
8001-35-2	Toxaphene	BQL	99

Surrogate % Rec. 77

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS5(06/13)	UNITS:	µg/Kg
LAB No.:	9010247	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-WPS-3	DATE EXTRACTED:	06/14/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/17,20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	2.0
319-87-7	Beta-BHC	BQL	2.0
319-86-8	Delta-BHC	BQL	2.0
58-89-9	Lindane	BQL	2.0
76-44-8	Heptachlor	BQL	2.0
309-00-2	Aldrin	BQL	2.0
1024-57-3	Heptachlor Epoxide	BQL	2.0
959-98-8	Endosulfan I	BQL	2.0
60-57-1	Dieldrin	390	390
75-55-9	4,4'-DDE	3200	390
72-20-8	Endrin	BQL	2.0
33213-65-9	Endosulfan II	BQL	2.0
72-54-8	4,4'-DDD	BQL	390
1031-07-8	Endosulfan Sulfate	BQL	2.0
50-29-3	4,4'-DDT	5300	390
72-43-5	Methoxychlor	BQL	2.0
7421-93-4	Endrin Aldehyde	BQL	2.0
57-74-9	Chlordane	BQL	16
8001-35-2	Toxaphene	BQL	98

Surrogate % Rec. 91

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS5(06/13)	UNITS:	µg/Kg
LAB No.:	9010248	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	90042-WPS-4	DATE EXTRACTED:	06/14/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/17,20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	19
319-87-7	Beta-BHC	BQL	19
319-86-8	Delta-BHC	BQL	19
58-89-9	Lindane	BQL	19
76-44-8	Heptachlor	BQL	19
309-00-2	Aldrin	BQL	19
1024-57-3	Heptachlor Epoxide	BQL	19
959-98-8	Endosulfan I	BQL	19
60-57-1	Dieldrin	560	19
75-55-9	4,4'-DDE	310	100
72-20-8	Endrin	BQL	19
33213-65-9	Endosulfan II	BQL	19
72-54-8	4,4'-DDD	BQL	19
1031-07-8	Endosulfan Sulfate	BQL	19
50-29-3	4,4'-DDT	530	100
72-43-5	Methoxychlor	BQL	19
7421-93-4	Endrin Aldehyde	BQL	19
57-74-9	Chlordane	BQL	160
8001-35-2	Toxaphene	BQL	990

Surrogate % Rec. 89

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS5(06/13)	UNITS:	µg/Kg
LAB No.:	9010245	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	9042-WPS-1	DATE EXTRACTED:	06/18/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/19-20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	190
2600-69-3	Phorate	BQL	7.0
298-04-4	Disulfoton	BQL	7.0
298-00-0	Methyl Parathion	BQL	7.0
121-75-5	Malathion	BQL	7.0
2921-88-2	Dursban	BQL	7.0
56-38-2	Ethyl Parathion	BQL	7.0
333-41-5	Diazinon	BQL	7.0
55-38-9	Fenthion	BQL	7.0
86-50-0	Azinophos-methyl	BQL	31
311-45-5	Paraoxon	BQL	77

Surrogate % Rec. 108

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS5(06/13)	UNITS:	µg/Kg
LAB No.:	9010246	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	9042-WPS-2	DATE EXTRACTED:	06/18/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/19-20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	200
2600-69-3	Phorate	BQL	8.0
298-04-4	Disulfoton	BQL	8.0
298-00-0	Methyl Parathion	BQL	8.0
121-75-5	Malathion	BQL	8.0
2921-88-2	Dursban	BQL	8.0
56-38-2	Ethyl Parathion	BQL	8.0
333-41-5	Diazinon	BQL	8.0
55-38-9	Fenthion	BQL	8.0
86-50-0	Azinophos-methyl	BQL	32
311-45-5	Paraoxon	BQL	99
	Surrogate % Rec.	102	

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS5(06/13)	UNITS:	µg/Kg
LAB No.:	9010247	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	9042-WPS-3	DATE EXTRACTED:	06/18/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/19-20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	200
2600-69-3	Phorate	BQL	8.0
298-04-4	Disulfoton	BQL	8.0
298-00-0	Methyl Parathion	BQL	8.0
121-75-5	Malathion	BQL	8.0
2921-88-2	Dursban	BQL	8.0
56-38-2	Ethyl Parathion	BQL	8.0
333-41-5	Diazinon	BQL	8.0
55-38-9	Fenthion	BQL	8.0
86-50-0	Azinophos-methyl	BQL	32
311-45-5	Paraoxon	BQL	80

Surrogate % Rec. 98

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS5(06/13)	UNITS:	µg/Kg
LAB No.:	9010248	DATE COLLECTED:	06/11/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/13/90
CLIENT I.D.:	9042-WPS-4	DATE EXTRACTED:	06/18/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/19-20/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	200
2600-69-3	Phorate	BQL	8.0
298-04-4	Disulfoton	BQL	8.0
298-00-0	Methyl Parathion	BQL	8.0
121-75-5	Malathion	BQL	8.0
2921-88-2	Dursban	BQL	8.0
56-38-2	Ethyl Parathion	BQL	8.0
333-41-5	Diazinon	BQL	8.0
55-38-9	Fenthion	BQL	8.0
86-50-0	Azinophos-methyl	BQL	31
311-45-5	Paraoxon	BQL	79

Surrogate % Rec. 104

BQL - Below Practical Quantitation Limit

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE068::D2
Lab. No.: 9010245
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST(90042-WPS-1)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 15:43

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	12.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	12.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	120.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	59.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	59.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	120.	N	108-88-3	Toluene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	59.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE069::D2
Lab. No.: 9010246
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST(90042-WPS-2)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 16:09

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	12.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	12.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	120.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	60.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	60.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	120.	N	108-88-3	Toluene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	60.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit.
Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE070::D2
Lab. No.: 9010247
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST(90042-WPS-3)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 16:38

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	12.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	12.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	120.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	62.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	62.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	120.	N	108-88-3	Toluene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	62.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE071::D2
Lab. No.: 9010248
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST(90042-WPS-4)
Date Collected: 6/11/90
Date Analyzed: 6/13/90 17:03

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	12.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	12.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	120.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	59.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	59.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	120.	N	108-88-3	Toluene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	59.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC106::M5
Lab. No: 9010245
Matrix: SOIL
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (900-WPS-1)
Date Collected: 6/11/90
Date Extracted: 6/20/90
Date Analyzed: 6/21/90 23:47

CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	390.	N
108-95-2	Phenol	390.	N
111-44-4	bis(-2-Chloroethyl)Ether	390.	N
95-57-8	2-Chlorophenol	390.	N
541-73-1	1,3-Dichlorobenzene	390.	N
106-46-7	1,4-Dichlorobenzene	390.	N
100-51-6	Benzyl Alcohol	390.	N
95-50-1	1,2-Dichlorobenzene	390.	N
95-48-7	2-Methylphenol	390.	N
39638-32-9	bis(2-Chloroisopropyl)ether	390.	N
106-44-5	4-Methylphenol	390.	N
621-64-7	N-Nitroso-Di-n-propylamine	390.	N
67-72-1	Hexachloroethane	390.	N
98-95-3	Nitrobenzene	390.	N
78-59-1	Isophorone	390.	N
88-75-5	2-Nitrophenol	390.	N
105-67-9	2,4-Dimethylphenol	390.	N
65-85-0	Benzoic Acid	2000.	N
111-91-1	bis(-2-Chloroethoxy)Methane	390.	N
120-83-2	2,4-Dichlorophenol	390.	N
120-82-1	1,2,4-Trichlorobenzene	390.	N
91-20-3	Naphthalene	390.	N
106-47-8	4-Chloroaniline	390.	N
87-68-3	Hexachlorobutadiene	390.	N
59-50-7	4-Chloro-3-methylphenol	390.	N
91-57-6	2-Methylnaphthalene	390.	N
77-47-4	Hexachlorocyclopentadiene	390.	N
88-06-2	2,4,6-Trichlorophenol	390.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N
91-58-7	2-Chloronaphthalene	390.	N
88-74-4	2-Nitroaniline	2000.	N
131-11-3	Dimethyl Phthalate	390.	N
208-96-8	Acenaphthylene	390.	N
99-09-2	3-Nitroaniline	2000.	N
83-32-9	Acenaphthene	390.	N
51-28-5	2,4-Dinitrophenol	2000.	N
100-02-7	4-Nitrophenol	2000.	N
132-64-9	Dibenzofuran	390.	N
606-20-2	2,6-Dinitrotoluene	390.	N
121-14-2	2,4-Dinitrotoluene	390.	N
84-66-2	Diethylphthalate	390.	N
7005-72-3	4-Chlorophenyl-phenylether	390.	N
86-73-7	Fluorene	390.	N
100-01-6	4-Nitroaniline	2000.	N
534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
86-30-6	N-Nitrosodiphenylamine	390.	N
103-33-3	1,2-Diphenylhydrazine	390.	N
101-55-3	4-Bromophenyl-phenylether	390.	N
118-74-1	Hexachlorobenzene	390.	N
87-86-5	Pentachlorophenol	2000.	N
85-01-8	Phenanthrene	390.	N
120-12-7	Anthracene	390.	N
84-74-2	Di-n-Butylphthalate	410.	
206-44-0	Fluoranthene	390.	N
92-87-9	Benzidine	2000.	N
129-00-0	Pyrene	390.	N
85-68-7	Butylbenzylphthalate	390.	N
91-94-1	3,3'-Dichlorobenzidine	780.	N
56-55-3	Benzo(a)Anthracene	390.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	390.	N
218-01-9	Chrysene	390.	N
117-84-0	Di-n-octyl phthalate	390.	N
205-99-2	Benzo(b)fluoranthene	390.	N
207-08-9	Benzo(k)fluoranthene	390.	N
50-32-8	Benzo(a)Pyrene	390.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	390.	N
53-70-3	Dibenzo(a,h)Anthracene	390.	N
191-24-2	Benzo(g,h,i)Perylene	390.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC107::L1
Lab. No: 9010246
Matrix: SOIL
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-WPS-2)
Date Collected: 6/11/90
Date Extracted: 6/20/90
Date Analyzed: 6/22/90 0:34

CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	400.	N
108-95-2	Phenol	400.	N
111-44-4	bis(-2-Chloroethyl)Ether	400.	N
95-57-8	2-Chlorophenol	400.	N
541-73-1	1,3-Dichlorobenzene	400.	N
106-46-7	1,4-Dichlorobenzene	400.	N
100-51-6	Benzyl Alcohol	400.	N
95-50-1	1,2-Dichlorobenzene	400.	N
95-48-7	2-Methylphenol	400.	N
39638-32-9	bis(2-Chloroisopropyl)ether	400.	N
106-44-5	4-Methylphenol	400.	N
621-64-7	N-Nitroso-Di-n-propylamine	400.	N
67-72-1	Hexachloroethane	400.	N
98-95-3	Nitrobenzene	400.	N
78-59-1	Isophorone	400.	N
88-75-5	2-Nitrophenol	400.	N
105-67-9	2,4-Dimethylphenol	400.	N
65-85-0	Benzoic Acid	2000.	N
111-91-1	bis(-2-Chloroethoxy)Methane	400.	N
120-83-2	2,4-Dichlorophenol	400.	N
120-82-1	1,2,4-Trichlorobenzene	400.	N
91-20-3	Naphthalene	400.	N
106-47-8	4-Chloroaniline	400.	N
87-68-3	Hexachlorobutadiene	400.	N
59-50-7	4-Chloro-3-methylphenol	400.	N
91-57-6	2-Methylnaphthalene	400.	N
77-47-4	Hexachlorocyclopentadiene	400.	N
88-06-2	2,4,6-Trichlorophenol	400.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N
91-58-7	2-Chloronaphthalene	400.	N
88-74-4	2-Nitroaniline	2000.	N
131-11-3	Dimethyl Phthalate	400.	N
208-96-8	Acenaphthylene	400.	N
99-09-2	3-Nitroaniline	2000.	N
83-32-9	Acenaphthene	400.	N

CAS #	Compound Name	Conc(ug/Kg)	
51-28-5	2,4-Dinitrophenol	2000.	N
100-02-7	4-Nitrophenol	2000.	N
132-64-9	Dibenzofuran	400.	N
606-20-2	2,6-Dinitrotoluene	400.	N
121-14-2	2,4-Dinitrotoluene	400.	N
84-66-2	Diethylphthalate	400.	N
7005-72-3	4-Chlorophenyl-phenylether	400.	N
86-73-7	Fluorene	400.	N
100-01-6	4-Nitroaniline	2000.	N
534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
86-30-6	N-Nitrosodiphenylamine	400.	N
103-33-3	1,2-Diphenylhydrazine	400.	N
101-55-3	4-Bromophenyl-phenylether	400.	N
118-74-1	Hexachlorobenzene	400.	N
87-86-5	Pentachlorophenol	2000.	N
85-01-8	Phenanthrene	400.	N
120-12-7	Anthracene	400.	N
84-74-2	Di-n-Butylphthalate	400.	N
206-44-0	Fluoranthene	400.	N
92-87-5	Benzidine	2000.	N
129-00-0	Pyrene	400.	N
85-68-7	Butylbenzylphthalate	400.	N
91-94-1	3,3'-Dichlorobenzidine	800.	N
56-55-3	Benzo(a)Anthracene	400.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	400.	N
218-01-9	Chrysene	400.	N
117-84-0	Di-n-octyl phthalate	400.	N
205-99-2	Benzo(b)fluoranthene	400.	N
207-08-9	Benzo(k)fluoranthene	400.	N
50-32-8	Benzo(a)Pyrene	400.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	400.	N
53-70-3	Dibenzo(a,h)Anthracene	400.	N
191-24-2	Benzo(g,h,i)Perylene	400.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC108::L1
Lab. No: 9010247
Matrix: SOIL
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-WPS-3)
Date Collected: 6/11/90
Date Extracted: 6/20/90
Date Analyzed: 6/22/90 1:22

CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	400.	N
108-95-2	Phenol	400.	N
111-44-4	bis(-2-Chloroethyl)Ether	400.	N
95-57-8	2-Chlorophenol	400.	N
541-73-1	1,3-Dichlorobenzene	400.	N
106-46-7	1,4-Dichlorobenzene	400.	N
100-51-6	Benzyl Alcohol	400.	N
95-50-1	1,2-Dichlorobenzene	400.	N
95-48-7	2-Methylphenol	400.	N
39638-32-9	bis(2-Chloroisopropyl)ether	400.	N
106-44-5	4-Methylphenol	400.	N
621-64-7	N-Nitroso-Di-n-propylamine	400.	N
67-72-1	Hexachloroethane	400.	N
98-95-3	Nitrobenzene	400.	N
78-59-1	Isophorone	400.	N
88-75-5	2-Nitrophenol	400.	N
105-67-9	2,4-Dimethylphenol	400.	N
65-85-0	Benzoic Acid	2000.	N
111-91-1	bis(-2-Chloroethoxy)Methane	400.	N
120-83-2	2,4-Dichlorophenol	400.	N
120-82-1	1,2,4-Trichlorobenzene	400.	N
91-20-3	Naphthalene	400.	N
106-47-8	4-Chloroaniline	400.	N
87-68-3	Hexachlorobutadiene	400.	N
59-50-7	4-Chloro-3-methylphenol	400.	N
91-57-6	2-Methylnaphthalene	400.	N
77-47-4	Hexachlorocyclopentadiene	400.	N
88-06-2	2,4,6-Trichlorophenol	400.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N
91-58-7	2-Chloronaphthalene	400.	N
88-74-4	2-Nitroaniline	2000.	N
131-11-3	Dimethyl Phthalate	400.	N
208-96-8	Acenaphthylene	400.	N
99-09-2	3-Nitroaniline	2000.	N
83-32-9	Acenaphthene	400.	N

CAS #	Compound Name	Conc(ug/Kg)	
51-28-5	2,4-Dinitrophenol	2000.	N
100-02-7	4-Nitrophenol	2000.	N
132-64-9	Dibenzofuran	400.	N
606-20-2	2,6-Dinitrotoluene	400.	N
121-14-2	2,4-Dinitrotoluene	400.	N
84-66-2	Diethylphthalate	400.	N
7005-72-3	4-Chlorophenyl-phenylether	400.	N
86-73-7	Fluorene	400.	N
100-01-6	4-Nitroaniline	2000.	N
534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
86-30-6	N-Nitrosodiphenylamine	400.	N
103-33-3	1,2-Diphenylhydrazine	400.	N
101-55-3	4-Bromophenyl-phenylether	400.	N
118-74-1	Hexachlorobenzene	400.	N
87-86-5	Pentachlorophenol	2000.	N
85-01-8	Phenanthrene	400.	N
120-12-7	Anthracene	400.	N
84-74-2	Di-n-Butylphthalate	400.	N
206-44-0	Fluoranthene	400.	N
92-87-5	Benzidine	2000.	N
129-00-0	Pyrene	400.	N
85-68-7	Butylbenzylphthalate	400.	N
91-94-1	3,3'-Dichlorobenzidine	800.	N
56-55-3	Benzo(a)Anthracene	400.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	400.	N
218-01-9	Chrysene	400.	N
117-84-0	Di-n-octyl phthalate	400.	N
205-99-2	Benzo(b)fluoranthene	400.	N
207-08-9	Benzo(k)fluoranthene	400.	N
50-32-8	Benzo(a)Pyrene	400.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	400.	N
53-70-3	Dibenzo(a,h)Anthracene	400.	N
191-24-2	Benzo(g,h,i)Perylene	400.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC109::L1
Lab. No: 9010248
Matrix: SOIL
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042-WPS-4)
Date Collected: 6/11/90
Date Extracted: 6/20/90
Date Analyzed: 6/22/90 2:09

CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	390.	N
108-95-2	Phenol	390.	N
111-44-4	bis(-2-Chloroethyl)Ether	390.	N
95-57-8	2-Chlorophenol	390.	N
541-73-1	1,3-Dichlorobenzene	390.	N
106-46-7	1,4-Dichlorobenzene	390.	N
100-51-6	Benzyl Alcohol	390.	N
95-50-1	1,2-Dichlorobenzene	390.	N
95-48-7	2-Methylphenol	390.	N
39638-32-9	bis(2-Chloroisopropyl)ether	390.	N
106-44-5	4-Methylphenol	390.	N
621-64-7	N-Nitroso-Di-n-propylamine	390.	N
67-72-1	Hexachloroethane	390.	N
98-95-3	Nitrobenzene	390.	N
78-59-1	Isophorone	390.	N
88-75-5	2-Nitrophenol	390.	N
105-67-9	2,4-Dimethylphenol	390.	N
65-85-0	Benzoic Acid	2000.	N
111-91-1	bis(-2-Chloroethoxy)Methane	390.	N
120-83-2	2,4-Dichlorophenol	390.	N
120-82-1	1,2,4-Trichlorobenzene	390.	N
91-20-3	Naphthalene	390.	N
106-47-8	4-Chloroaniline	390.	N
87-68-3	Hexachlorobutadiene	390.	N
59-50-7	4-Chloro-3-methylphenol	390.	N
91-57-6	2-Methylnaphthalene	390.	N
77-47-4	Hexachlorocyclopentadiene	390.	N
88-06-2	2,4,6-Trichlorophenol	390.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N
91-58-7	2-Chloronaphthalene	390.	N
88-74-4	2-Nitroaniline	2000.	N
131-11-3	Dimethyl Phthalate	390.	N
208-96-8	Acenaphthylene	390.	N
99-09-2	3-Nitroaniline	2000.	N
83-32-9	Acenaphthene	390.	N

CAS #	Compound Name	Conc(ug/Kg)	
51-28-5	2,4-Dinitrophenol	2000.	N
100-02-7	4-Nitrophenol	2000.	N
132-64-9	Dibenzofuran	390.	N
606-20-2	2,6-Dinitrotoluene	390.	N
121-14-2	2,4-Dinitrotoluene	390.	N
84-66-2	Diethylphthalate	390.	N
7005-72-3	4-Chlorophenyl-phenylether	390.	N
86-73-7	Fluorene	390.	N
100-01-6	4-Nitroaniline	2000.	N
534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
86-30-6	N-Nitrosodiphenylamine	390.	N
103-33-3	1,2-Diphenylhydrazine	390.	N
101-55-3	4-Bromophenyl-phenylether	390.	N
118-74-1	Hexachlorobenzene	390.	N
87-86-5	Pentachlorophenol	2000.	N
85-01-8	Phenanthrene	390.	N
120-12-7	Anthracene	390.	N
84-74-2	Di-n-Butylphthalate	390.	N
206-44-0	Fluoranthene	390.	N
92-87-5	Benzidine	2000.	N
129-00-0	Pyrene	390.	N
85-68-7	Butylbenzylphthalate	390.	N
91-94-1	3,3'-Dichlorobenzidine	790.	N
56-55-3	Benzo(a)Anthracene	390.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	390.	N
218-01-9	Chrysene	390.	N
117-84-0	Di-n-octyl phthalate	390.	N
205-99-2	Benzo(b)fluoranthene	390.	N
207-08-9	Benzo(k)fluoranthene	390.	N
50-32-8	Benzo(a)Pyrene	390.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	390.	N
53-70-3	Dibenzo(a,h)Anthracene	390.	N
191-24-2	Benzo(g,h,i)Perylene	390.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS® INCORPORATED

TASK 11

12051 Indian Creek Ct.
Beltsville, MD 20705
(301) 369-3900

Chain of Custody Record

2 WKTA

Project: PARL Site: Washdown Pad
Client: Hong West + Assoc Phone: 206 774 0106
Address: PO Box 596
Lynnwood, WA 98046
Sampler's Name/Firm:
Phone: Sampler's Signature:

Sample Number	Date	Time	Matrix	No. of Containers	VOA 8240	Semi-VOA 8270	Pesticides 8080	Total Metals (8)	TCL (sealed)	8140 Organophos Pest.				Remarks or Sample Location
Preservative Used														
90042-WPS-1			Soil	1	✓	✓	✓	✓	✓					Please separate for different parameters in lab!
90042-WPS-2			Soil	1	✓	✓	✓	✓	✓					
90042-WPS-3			Soil	1	✓	✓	✓	✓	✓					
90042-WPS-4			Soil	1	✓	✓	✓	✓	✓					
90042-T11-1			H_2O		ELIMINATED									Did Not Sample Used same Rinsate wash water as in Task 9
90042-T11-2			H_2O											
90042-T11-3			H_2O											

Relinquished by: (Signature) 1	Date/Time	Received by: (Signature)	Relinquished by: (Signature) 4	Date/Time	Shipping Carrier:
Doug Heller	6/11 4pm				
Relinquished by: (Signature) 2	Date/Time	Received by: (Signature)	Received for Laboratory by: (Signature)	Date/Time	Shipping Ticket Number:
			Jendra Chambers	06/13/00	
Relinquished by: (Signature) 3	Date/Time	Received by: (Signature)	Chain of Custody Seal: (Circle) Intact Broken Absent	Lab Remarks Good / Cool	

White-Return to Client Yellow-Retain by Lab (Project File) Pink-Retain by Lab (Client Services) Gold-Retain by Sampler

Biospherics Incorporated

MEMO

To: Biogroundwater - Stuart Cohen

From: Laboratory Division - Beltsville Office MGR

Re: CS8 (6/27)

Date: July 30, 1990

Enclosed please find the Task 12 soil results for Hong West's samples collected on June 19, 1990. Samples were submitted by Hong West.

LAB NAME: BIOSPHERICS INCORPORATED

CLIENT: Hong West

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

CASE: CS8(06/22)

Analytical Methodology/Sample Chronicle

Parameter	Method	Date Extracted	Date Analyzed
Metals	EPA 6010 7470	07/03/90 06/26/90	07/11-17/90 06/26/90
Pesticides	EPA 8080	06/27/90	06/28-29/90
Organophosphorus Pesticides	EPA 8140	06/25/90	06/26/90
Volatile Organics	EPA 8240		06/25-26/90
Semi-volatile Organics	EPA 8270	06/28,7/17/90	07/02,18/90
Cyanide	EPA 9010	06/25/90	06/28/90

QA Summary

*Metals, Cyanide
The process blank, replicate and laboratory control sample results were within acceptable limits.

*Pesticides and Organophosphorus Pesticides, Volatile Organics
The process blank and surrogate recovery results were within acceptable limits.

*Semi-volatile Organics
The process blank, surrogate, matrix spike and matrix spike duplicate results were within acceptable limits.

BIOSPHERICS® INCORPORATED

12051 Indian Creek Ct.
Beltsville, MD 20705
(301) 369-3900

Chain of Custody Record

TASK 12

Project: YARL Site: Drainfield
Client: Hong West + Assoc Phone: 206 774 0106
Address: PO Box 596
Lynnwood, WA. 98046
Sampler's Name/Firm: Stephen Greene
Phone: Same Sampler's Signature: [signature]

Preservative Used

Analyses Required: VOA 8240; Semi-Voa 8270; Pesticides 8080; Organophos. pesticides; Metals TCL

Sample Number	Date	Time	Matrix	No. of Containers	VOA 8240	Semi-Voa 8270	Pesticides 8080	Organophos. pesticides	Metals TCL				Remarks or Sample Location
DF-90-1	6/19/90	10 AM	SOIL	5	X	X	X	X	X				Drainfield
DF-90-2	↓	1030 AM	↓	↓									↓
DF-90-3		1100 AM											
DF-90-4		1200 PM											
DF-90-5		1230 PM											
DF-90-6		1230 PM											
DF-90-7	↓	100 PM	↓	↓									Duplicate

Relinquished by: (Signature) [1]	Date/Time	Received by: (Signature)	Relinquished by: (Signature) [4]	Date/Time	Shipping Carrier:
[signature]	6/20 8:30 AM	[signature]	[signature]	6/20 9:30	Fed Express
Relinquished by: (Signature) [2]	Date/Time	Received by: (Signature)	Received for Laboratory by: (Signature)	Date/Time	Shipping Ticket Number:
			[signature]	6/22 9AM	
Relinquished by: (Signature) [3]	Date/Time	Received by: (Signature)	Chain of Custody Seal (Circle) Intact Broken Absent	Lab Remarks: Received almost room Temp	

White-Return to Client Yellow-Retain by Lab (Project File) Pink-Retain by Lab (Client Services) Gold-Retain by Sampler

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS8(06/27)

Client I.D.:	DF-90-1		DF-90-2	
Lab I.D.:	9010648	PQL	9010649	PQL
Parameter:				
Aluminum	15100	194	14000	205
Antimony	<11.6	11.6	15.4	12.3
Arsenic	3.2	1.8	<2.2	2.2
Barium	97.2	38.7	93.3	41.0
Beryllium	<0.97	0.97	<1.0	1.0
Cadmium	2.8	0.97	2.3	1.0
Calcium	4440	968	2880	1030
Chromium	17.4	1.9	69.6	2.0
Cobalt	<9.7	9.7	12.4	10.3
Copper	23.3	4.8	22.2	5.1
Iron	19000	194	19400	205
Lead	8.0	0.54	4.8	0.65
Magnesium	5480	968	3940	1030
Manganese	415	14.5	389	15.4
Mercury	0.18	0.12	<0.10	0.10
Nickel	31.2	7.7	226	8.2

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: C90(06/22)

Client I.D.:	DF-90-1		DF-90-2	
Lab I.D.:	9010648	PQL	9010649	PQL
Parameter:				
Potassium	2070	242	2090	257
Selenium	<0.90	0.90	<1.1	1.1
Silver	<1.9	1.9	<2.0	2.0
Sodium	<968	968	<1030	1030
Thallium	<1.8	1.8	<2.2	2.2
Tin	<19.4	19.4	<20.5	20.5
Vanadium	27.8	9.7	28.5	10.3
Zinc	35.5	3.9	35.4	4.1

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS8(06/22)

Client I.D.:	DF-90-3		DF-90-4	
Lab I.D.:	9010650	PQL	9010651	PQL
Parameter:				
Aluminum	19200	369	17200	223
Antimony	<12.3	12.3	<13.4	13.4
Arsenic	5.7	2.0	2.6	2.2
Barium	168	41.0	91.1	44.5
Beryllium	<1.0	1.0	<1.1	1.1
Cadmium	3.3	1.0	3.4	1.1
Calcium	18300	1030	4700	223
Chromium	19.3	2.0	15.8	2.2
Cobalt	10.7	10.3	<11.1	11.1
Copper	26.7	5.1	19.7	5.6
Iron	19200	205	20900	223
Lead	15.3	0.60	6.2	0.67
Magnesium	6320	1030	4500	223
Manganese	713	15.4	386	16.7
Mercury	0.20	0.11	<0.060	0.060
Nickel	30.8	8.2	21.4	8.9

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: C58(06/22)

Client I.D.:	DF-90-3		DF-90-4	
Lab I.D.:	9010650	PQL	9010651	PQL
Parameter:				
Potassium	2340	257	2300	278
Selenium	<1.0	1.0	<1.1	1.1
Silver	<2.0	2.0	<2.2	2.2
Sodium	<1030	1030	<1110	1110
Thallium	<2.0	2.0	<2.2	2.2
Tin	<20.5	20.5	<22.3	22.3
Vanadium	38.4	10.3	39.6	11.1
Zinc	51.5	4.1	35.5	4.4

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS8(06/22)

Client I.D.:	DF-90-5		DF-90-6	
Lab I.D.:	9010652	PQL	9010653	PQL
Parameter:				
Aluminum	18100	340	14400	310
Antimony	<11.3	11.3	<10.3	10.3
Arsenic	6.1	1.8	4.0	1.8
Barium	135	37.8	126	34.5
Beryllium	<0.94	0.94	<0.86	0.86
Cadmium	3.9	0.94	3.6	0.86
Calcium	12700	189	4680	172
Chromium	18.4	1.9	28.9	1.7
Cobalt	39.1	9.4	12.5	8.6
Copper	27.7	4.7	23.0	4.3
Iron	25800	170	24600	155
Lead	11.9	0.54	5.7	0.54
Magnesium	7360	189	5810	172
Manganese	515	14.2	534	12.9
Mercury	0.12	0.08	0.38	0.09
Nickel	32.5	7.6	35.7	6.9

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: C90(06/22)

Client I.D.:	DF-90-5		DF-90-6	
Lab I.D.:	9010652	PQL	9010653	PQL
Parameter:				
Potassium	2440	236	2120	216
Selenium	<0.90	0.90	<0.89	0.89
Silver	<1.9	1.9	<1.7	1.7
Sodium	<945	945	<862	862
Thallium	<1.8	1.8	<1.8	1.8
Tin	<18.9	18.9	<17.2	17.2
Vanadium	39.1	9.4	45.7	8.6
Zinc	49.6	3.8	48.4	3.4

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS8(06/22)

Client I.D.:	DF-90-7	
Lab I.D.:	9010654	PQL
Parameter:		
Aluminum	14100	300
Antimony	<10.0	10.0
Arsenic	5.0	1.6
Barium	90.1	33.5
Beryllium	<0.84	0.84
Cadmium	2.9	0.84
Calcium	4850	167
Chromium	14.0	1.7
Cobalt	9.0	8.4
Copper	19.8	4.2
Iron	19000	151
Lead	9.0	0.48
Magnesium	4940	167
Manganese	391	12.6
Mercury	0.096	0.080
Nickel	22.6	6.7

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 20, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS8(06/22)

Client I.D.:	DF-90-7	
Lab I.D.:	9010654	PQL
Parameter:		
Potassium	213	209
Selenium	<0.79	0.79
Silver	<1.7	1.7
Sodium	<837	837
Thallium	<1.6	1.6
Tin	<16.7	16.7
Vanadium	32.8	8.4
Zinc	34.7	3.4

PQL - Practical Quantitation Limit

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE118::03
Lab. No.: 9010648
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONGWEST (DF-90-1)
Date Collected: 6/19/90
Date Analyzed: 6/25/90 14:32

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N
74-83-9	Bromomethane	12.	N
75-01-4	Vinyl Chloride	12.	N
75-00-3	Chloroethane	12.	N
75-09-2	Methylene Chloride	6.	N
67-64-1	Acetone	120.	N
75-15-0	Carbon Disulfide	6.	N
75-35-4	1,1-Dichloroethene	6.	N
75-34-3	1,1-Dichloroethane	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N
67-66-3	Chloroform	6.	N
107-06-2	1,2-Dichloroethane	6.	N
78-93-3	2-Butanone	120.	N
71-55-6	1,1,1-Trichloroethane	6.	N
56-23-5	Carbon Tetrachloride	6.	N
108-05-4	Vinyl Acetate	61.	N
75-27-4	Bromodichloromethane	6.	N
78-87-5	1,2-Dichloropropane	6.	N
10061-01-5	cis-1,3-Dichloropropene	6.	N
79-01-6	Trichloroethene	6.	N
124-48-1	Dibromochloromethane	6.	N
79-00-5	1,1,2-Trichloroethane	6.	N
71-43-2	Benzene	6.	N
10061-02-6	trans-1,3-Dichloropropene	6.	N
75-25-2	Bromoform	6.	N
108-10-1	4-Methyl-2-Pentanone	61.	N
591-78-6	2-Hexanone	61.	N
127-18-4	Tetrachloroethene	6.	N
79-34-5	1,1,2,2-Tetrachloroethane	6.	N
108-88-3	Toluene	250.	
108-90-7	Chlorobenzene	6.	N
100-41-4	Ethylbenzene	6.	N
100-42-5	Styrene	6.	N
1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE119::D3
Lab. No.: 9010649
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONGWEST (DF-90-2)
Date Collected: 6/19/90
Date Analyzed: 6/25/90 15:06

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N
74-83-9	Bromomethane	12.	N
75-01-4	Vinyl Chloride	12.	N
75-00-3	Chloroethane	12.	N
75-09-2	Methylene Chloride	6.	N
67-64-1	Acetone	120.	N
75-15-0	Carbon Disulfide	6.	N
75-35-4	1,1-Dichloroethene	6.	N
75-34-3	1,1-Dichloroethane	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N
67-66-3	Chloroform	6.	N
107-06-2	1,2-Dichloroethane	6.	N
78-93-3	2-Butanone	120.	N
71-55-6	1,1,1-Trichloroethane	6.	N
56-23-5	Carbon Tetrachloride	6.	N
108-05-4	Vinyl Acetate	59.	N
75-27-4	Bromodichloromethane	6.	N
78-87-5	1,2-Dichloropropane	6.	N
10061-01-5	cis-1,3-Dichloropropene	6.	N
79-01-6	Trichloroethene	6.	N
124-48-1	Dibromochloromethane	6.	N
79-00-5	1,1,2-Trichloroethane	6.	N
71-43-2	Benzene	6.	N
10061-02-6	trans-1,3-Dichloropropene	6.	N
75-25-2	Bromoform	6.	N
108-10-1	4-Methyl-2-Pentanone	59.	N
591-78-6	2-Hexanone	59.	N
127-18-4	Tetrachloroethene	6.	N
79-34-5	1,1,2,2-Tetrachloroethane	6.	N
108-88-3	Toluene	61.	
108-90-7	Chlorobenzene	6.	N
100-41-4	Ethylbenzene	6.	N
100-42-5	Styrene	6.	N
1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE120::D3
Lab. No.: 9010650
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONGWEST (DF-90-3)
Date Collected: 6/19/90
Date Analyzed: 6/25/90 15:35

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	12.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	12.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	120.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	59.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	59.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	120.	N	108-88-3	Toluene	130.	
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	59.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit.
Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE121::D3
Lab. No.: 9010651
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONGWEST (DF-90-4)
Date Collected: 6/19/90
Date Analyzed: 6/25/90 16:05

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	12.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	12.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	120.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	59.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	59.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	120.	N	108-88-3	Toluene	68.	
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	59.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit.
Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE122::D3
Lab. No.: 9010652
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONGWEST (DF-90-5)
Date Collected: 6/19/90
Date Analyzed: 6/25/90 16:37

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	12.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	12.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	120.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	60.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	60.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	120.	N	108-88-3	Toluene	230.	
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	60.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE124::DB
Lab. No.: 9010653
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONGWEST (DF-90-6)
Date Collected: 6/19/90
Date Analyzed: 6/25/90 17:34

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	13.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	13.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	13.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	13.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	130.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	63.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	63.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	130.	N	108-88-3	Toluene	170.	
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	63.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit.
Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE137::D4
Lab. No.: 9010654
Matrix: WATER
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONGWEST (DF-90-7)
Date Collected: 6/19/90
Date Analyzed: 6/26/90 11:23

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/L)		CAS #	Compound Name	Conc(ug/L)	
74-87-3	Chloromethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
74-83-9	Bromomethane	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-01-4	Vinyl Chloride	12.	N	79-01-6	Trichloroethene	6.	N
75-00-3	Chloroethane	12.	N	124-48-1	Dibromochloromethane	6.	N
75-09-2	Methylene Chloride	6.	N	79-00-5	1,1,2-Trichloroethane	6.	N
67-64-1	Acetone	120.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
75-35-4	1,1-Dichloroethene	6.	N	75-25-2	Bromoform	6.	N
75-34-3	1,1-Dichloroethane	6.	N	108-10-1	4-Methyl-2-Pentanone	59.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	591-78-6	2-Hexanone	59.	N
67-66-3	Chloroform	6.	N	127-18-4	Tetrachloroethene	6.	N
107-06-2	1,2-Dichloroethane	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
78-93-3	2-Butanone	120.	N	108-88-3	Toluene	120.	
71-55-6	1,1,1-Trichloroethane	6.	N	108-90-7	Chlorobenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-41-4	Ethylbenzene	6.	N
108-05-4	Vinyl Acetate	59.	N	100-42-5	Styrene	6.	N
75-27-4	Bromodichloromethane	6.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quanitation limit. Number reported is concentration in sample.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC100::DB
Lab. No.: 9010648
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: HONG-WEST(DF-90-1)
Date Collected: 6/19/90
Date Extracted: 6/28/90
Date Analyzed: 7/12/90 15:52

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	400.	N	83-32-9	Acenaphthene	400.	N
108-95-2	Phenol	400.	N	51-28-5	2,4-Dinitrophenol	2000.	N
111-44-4	bis(-2-Chloroethyl)Ether	400.	N	100-02-7	4-Nitrophenol	2000.	N
95-57-8	2-Chlorophenol	400.	N	132-64-9	Dibenzofuran	400.	N
[illegible]	1,3-Dichlorobenzene	400.	N	[illegible]	2,4-Dinitrotoluene	400.	N
106-46-7	1,4-Dichlorobenzene	400.	N	121-14-2	2,4-Dinitrotoluene	400.	N
100-51-6	Benzyl Alcohol	400.	N	84-66-2	Diethylphthalate	400.	N
95-50-1	1,2-Dichlorobenzene	400.	N	7005-72-3	4-Chlorophenyl-phenylether	400.	N
95-48-7	2-Methylphenol	400.	N	86-73-7	Fluorene	400.	N
39638-32-9	bis(2-Chloroisopropyl)ether	400.	N	100-01-6	4-Nitroaniline	2000.	N
106-44-5	4-Methylphenol	400.	N	534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
621-64-7	N-Nitroso-Di-n-propylamine	400.	N	86-30-6	N-Nitrosodiphenylamine	400.	N
67-72-1	Hexachloroethane	400.	N	103-33-3	1,2-Diphenylhydrazine	400.	N
98-95-3	Nitrobenzene	400.	N	101-55-3	4-Bromophenyl-phenylether	400.	N
78-59-1	Isophorone	400.	N	87-86-5	Pentachlorophenol	2000.	N
88-75-5	2-Nitrophenol	400.	N	85-01-8	Phenanthrene	400.	N
105-67-9	2,4-Dimethylphenol	400.	N	120-12-7	Anthracene	400.	N
65-85-0	Benzoic Acid	2000.	N	84-74-2	Di-n-Butylphthalate	400.	N
111-91-1	bis(-2-Chloroethoxy)Methane	400.	N	118-74-1	Hexachlorobenzene	400.	N
120-83-2	2,4-Dichlorophenol	400.	N	206-44-0	Fluoranthene	400.	N
120-82-1	1,2,4-Trichlorobenzene	400.	N	92-87-5	Benzidine	2000.	N
91-20-3	Naphthalene	400.	N	129-00-0	Pyrene	400.	N
106-47-8	4-Chloroaniline	400.	N	85-68-7	Butylbenzylphthalate	400.	N
87-68-3	Hexachlorobutadiene	400.	N	91-94-1	3,3'-Dichlorobenzidine	810.	N
59-50-7	4-Chloro-3-methylphenol	400.	N	56-55-3	Benzo(a)Anthracene	400.	N
91-57-6	2-Methylnaphthalene	400.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	400.	N
77-47-4	Hexachlorocyclopentadiene	400.	N	218-01-9	Chrysene	400.	N
88-06-2	2,4,6-Trichlorophenol	400.	N	117-84-0	Di-n-octyl phthalate	400.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N	205-99-2	Benzo(b)fluoranthene	400.	N
91-58-7	2-Chloronaphthalene	400.	N	207-08-9	Benzo(k)Fluoranthene	400.	N
88-74-4	2-Nitroaniline	2000.	N	50-32-8	Benzo(a)Pyrene	400.	N
131-11-3	Dimethyl Phthalate	400.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	400.	N
208-96-8	Acenaphthylene	400.	N	53-70-3	Dibenzo(a,h)Anthracene	400.	N
99-09-2	3-Nitroaniline	2000.	N	191-24-2	Benzo(g,h,i)Perylene	400.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC101::DB
Lab. No.: 9010649
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: HONG-WEST(DF-90-2)
Date Collected: 6/19/90
Date Extracted: 6/28/90
Date Analyzed: 7/12/90 16:38

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	390.	N	83-32-9	Acenaphthene	390.	N
108-95-2	Phenol	390.	N	51-28-5	2,4-Dinitrophenol	2000.	N
111-44-4	bis(-2-Chloroethyl)Ether	390.	N	100-02-7	4-Nitrophenol	2000.	N
95-57-8	2-Chlorophenol	390.	N	132-64-9	Dibenzofuran	390.	N
541-73-1	1,3-Dichlorobenzene	390.	N	606-20-2	2,6-Dinitrotoluene	390.	N
106-46-7	1,4-Dichlorobenzene	390.	N	121-14-2	2,4-Dinitrotoluene	390.	N
100-51-6	Benzyl Alcohol	390.	N	84-66-2	Diethylphthalate	390.	N
95-50-1	1,2-Dichlorobenzene	390.	N	7005-72-3	4-Chlorophenyl-phenylether	390.	N
95-48-7	2-Methylphenol	390.	N	86-73-7	Fluorene	390.	N
39638-32-9	bis(2-Chloroisopropyl)ether	390.	N	100-01-6	4-Nitroaniline	2000.	N
106-44-5	4-Methylphenol	390.	N	534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
621-64-7	N-Nitroso-Di-n-propylamine	390.	N	86-30-6	N-Nitrosodiphenylamine	390.	N
67-72-1	Hexachloroethane	390.	N	103-33-3	1,2-Diphenylhydrazine	390.	N
98-95-3	Nitrobenzene	390.	N	101-55-3	4-Bromophenyl-phenylether	390.	N
78-59-1	Isophorone	390.	N	87-86-5	Pentachlorophenol	2000.	N
88-75-5	2-Nitrophenol	390.	N	85-01-8	Phenanthrene	390.	N
105-67-9	2,4-Dimethylphenol	390.	N	120-12-7	Anthracene	390.	N
65-85-0	Benzoic Acid	2000.	N	84-74-2	Di-n-Butylphthalate	390.	N
111-91-1	bis(-2-Chloroethoxy)Methane	390.	N	118-74-1	Hexachlorobenzene	390.	N
120-83-2	2,4-Dichlorophenol	390.	N	206-44-0	Fluoranthene	390.	N
120-82-1	1,2,4-Trichlorobenzene	390.	N	92-87-5	Benzidine	2000.	N
91-20-3	Naphthalene	390.	N	129-00-0	Pyrene	390.	N
106-47-8	4-Chloroaniline	390.	N	85-68-7	Butylbenzylphthalate	390.	N
87-68-3	Hexachlorobutadiene	390.	N	91-94-1	3,3'-Dichlorobenzidine	780.	N
59-50-7	4-Chloro-3-methylphenol	390.	N	56-55-3	Benzo(a)Anthracene	390.	N
91-57-6	2-Methylnaphthalene	390.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	390.	N
77-47-4	Hexachlorocyclopentadiene	390.	N	218-01-9	Chrysene	390.	N
88-06-2	2,4,6-Trichlorophenol	390.	N	117-84-0	Di-n-octyl phthalate	390.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N	205-99-2	Benzo(b)fluoranthene	390.	N
91-58-7	2-Chloronaphthalene	390.	N	207-08-9	Benzo(k)Fluoranthene	390.	N
88-74-4	2-Nitroaniline	2000.	N	50-32-8	Benzo(a)Pyrene	390.	N
131-11-3	Dimethyl Phthalate	390.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	390.	N
208-96-8	Acenaphthylene	390.	N	53-70-3	Dibenzo(a,h)Anthracene	390.	N
99-09-2	3-Nitroaniline	2000.	N	191-24-2	Benzo(g,h,i)Perylene	390.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation
limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC102::DB
Lab. No.: 9010650
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: HONG-WEST(DF-90-3)
Date Collected: 6/19/90
Date Extracted: 6/28/90
Date Analyzed: 7/12/90 17:21

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	390.	N	83-32-9	Acenaphthene	390.	N
108-95-2	Phenol	390.	N	51-28-5	2,4-Dinitrophenol	2000.	N
111-44-4	bis(-2-Chloroethyl)Ether	390.	N	100-02-7	4-Nitrophenol	2000.	N
95-57-8	2-Chlorophenol	390.	N	132-64-9	Dibenzofuran	390.	N
541-73-1	1,3-Dichlorobenzene	390.	N	121-14-2	2,4-Dinitrotoluene	390.	N
106-46-7	1,4-Dichlorobenzene	390.	N	121-14-2	2,4-Dinitrotoluene	390.	N
100-51-6	Benzyl Alcohol	390.	N	84-66-2	Diethylphthalate	390.	N
95-50-1	1,2-Dichlorobenzene	390.	N	7005-72-3	4-Chlorophenyl-phenylether	390.	N
95-48-7	2-Methylphenol	390.	N	86-73-7	Fluorene	390.	N
39638-32-9	bis(2-Chloroisopropyl)ether	390.	N	100-01-6	4-Nitroaniline	2000.	N
106-44-5	4-Methylphenol	390.	N	534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
621-64-7	N-Nitroso-Di-n-propylamine	390.	N	86-30-6	N-Nitrosodiphenylamine	390.	N
67-72-1	Hexachloroethane	390.	N	103-33-3	1,2-Diphenylhydrazine	390.	N
98-95-3	Nitrobenzene	390.	N	101-55-3	4-Bromophenyl-phenylether	390.	N
78-59-1	Isophorone	390.	N	87-86-5	Pentachlorophenol	2000.	N
88-75-5	2-Nitrophenol	390.	N	85-01-8	Phenanthrene	390.	N
105-67-9	2,4-Dimethylphenol	390.	N	120-12-7	Anthracene	390.	N
65-85-0	Benzoic Acid	2000.	N	84-74-2	Di-n-Butylphthalate	390.	N
111-91-1	bis(-2-Chloroethoxy)Methane	390.	N	118-74-1	Hexachlorobenzene	390.	N
120-83-2	2,4-Dichlorophenol	390.	N	206-44-0	Fluoranthene	390.	N
120-82-1	1,2,4-Trichlorobenzene	390.	N	92-87-5	Benzidine	2000.	N
91-20-3	Naphthalene	390.	N	129-00-0	Pyrene	390.	N
106-47-8	4-Chloroaniline	390.	N	85-68-7	Butylbenzylphthalate	390.	N
87-68-3	Hexachlorobutadiene	390.	N	91-94-1	3,3'-Dichlorobenzidine	780.	N
59-50-7	4-Chloro-3-methylphenol	390.	N	56-55-3	Benzo(a)Anthracene	390.	N
91-57-6	2-Methylnaphthalene	390.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	390.	N
77-47-4	Hexachlorocyclopentadiene	390.	N	218-01-9	Chrysene	390.	N
88-06-2	2,4,6-Trichlorophenol	390.	N	117-84-0	Di-n-octyl phthalate	390.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N	205-99-2	Benzo(b)fluoranthene	390.	N
91-58-7	2-Chloronaphthalene	390.	N	207-08-9	Benzo(k)Fluoranthene	390.	N
88-74-4	2-Nitroaniline	2000.	N	50-32-8	Benzo(a)Pyrene	390.	N
131-11-3	Dimethyl Phthalate	390.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	390.	N
208-96-8	Acenaphthylene	390.	N	53-70-3	Dibenzo(a,h)Anthracene	390.	N
99-09-2	3-Nitroaniline	2000.	N	191-24-2	Benzo(g,h,i)Perylene	390.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC103::DB
Lab. No.: 9010651
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: HONG-WEST(DF-90-4)
Date Collected: 6/19/90
Date Extracted: 6/28/90
Date Analyzed: 7/12/90 18:03

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	390.	N	83-32-9	Acenaphthene	390.	N
108-95-2	Phenol	390.	N	51-28-5	2,4-Dinitrophenol	2000.	N
111-44-4	bis(-2-Chloroethyl)Ether	390.	N	100-02-7	4-Nitrophenol	2000.	N
95-57-8	2-Chlorophenol	390.	N	132-64-9	Dibenzofuran	390.	N
[illegible]	1,3-Dichlorobenzene	390.	N	[illegible]	2,6-Dinitrotoluene	390.	N
106-46-7	1,4-Dichlorobenzene	390.	N	121-14-2	2,4-Dinitrotoluene	390.	N
100-51-6	Benzyl Alcohol	390.	N	84-66-2	Diethylphthalate	390.	N
95-50-1	1,2-Dichlorobenzene	390.	N	7005-72-3	4-Chlorophenyl-phenylether	390.	N
95-48-7	2-Methylphenol	390.	N	86-73-7	Fluorene	390.	N
39638-32-9	bis(2-Chloroisopropyl)ether	390.	N	100-01-6	4-Nitroaniline	2000.	N
106-44-5	4-Methylphenol	390.	N	534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
621-64-7	N-Nitroso-Di-n-propylamine	390.	N	86-30-6	N-Nitrosodiphenylamine	390.	N
67-72-1	Hexachloroethane	390.	N	103-33-3	1,2-Diphenylhydrazine	390.	N
98-95-3	Nitrobenzene	390.	N	101-55-3	4-Bromophenyl-phenylether	390.	N
78-59-1	Isophorone	390.	N	87-86-5	Pentachlorophenol	2000.	N
88-75-5	2-Nitrophenol	390.	N	85-01-8	Phenanthrene	390.	N
105-67-9	2,4-Dimethylphenol	390.	N	120-12-7	Anthracene	390.	N
65-85-0	Benzoic Acid	2000.	N	84-74-2	Di-n-Butylphthalate	390.	N
111-91-1	bis(-2-Chloroethoxy)Methane	390.	N	118-74-1	Hexachlorobenzene	390.	N
120-83-2	2,4-Dichlorophenol	390.	N	206-44-0	Fluoranthene	390.	N
120-82-1	1,2,4-Trichlorobenzene	390.	N	92-87-5	Benzidine	2000.	N
91-20-3	Naphthalene	390.	N	129-00-0	Pyrene	390.	N
106-47-8	4-Chloroaniline	390.	N	85-68-7	Butylbenzylphthalate	390.	N
87-68-3	Hexachlorobutadiene	390.	N	91-94-1	3,3'-Dichlorobenzidine	790.	N
59-50-7	4-Chloro-3-methylphenol	390.	N	56-55-3	Benzo(a)Anthracene	390.	N
91-57-6	2-Methylnaphthalene	390.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	390.	N
77-47-4	Hexachlorocyclopentadiene	390.	N	218-01-9	Chrysene	390.	N
88-06-2	2,4,6-Trichlorophenol	390.	N	117-84-0	Di-n-octyl phthalate	390.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N	205-99-2	Benzo(b)fluoranthene	390.	N
91-58-7	2-Chloronaphthalene	390.	N	207-08-9	Benzo(k)Fluoranthene	390.	N
88-74-4	2-Nitroaniline	2000.	N	50-32-8	Benzo(a)Pyrene	390.	N
131-11-3	Dimethyl Phthalate	390.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	390.	N
208-96-8	Acenaphthylene	390.	N	53-70-3	Dibenzo(a,h)Anthracene	390.	N
99-09-2	3-Nitroaniline	2000.	N	191-24-2	Benzo(g,h,i)Perylene	390.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation
limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC104::DB
Lab. No.: 9010652
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: HONG-WEST(DF-90-5)
Date Collected: 6/19/90
Date Extracted: 6/28/90
Date Analyzed: 7/12/90 20:01

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	400.	N	83-32-9	Acenaphthene	400.	N
108-95-2	Phenol	400.	N	51-28-5	2,4-Dinitrophenol	2000.	N
111-44-4	bis(-2-Chloroethyl)Ether	400.	N	100-02-7	4-Nitrophenol	2000.	N
95-57-8	2-Chlorophenol	400.	N	132-64-9	Dibenzofuran	400.	N
541-73-1	1,3-Dichlorobenzene	400.	N	606-20-2	2,6-Dinitrotoluene	400.	N
106-46-7	1,4-Dichlorobenzene	400.	N	121-14-2	2,4-Dinitrotoluene	400.	N
100-51-6	Benzyl Alcohol	400.	N	84-66-2	Diethylphthalate	400.	N
95-50-1	1,2-Dichlorobenzene	400.	N	7005-72-3	4-Chlorophenyl-phenylether	400.	N
95-48-7	2-Methylphenol	400.	N	86-73-7	Fluorene	400.	N
39638-32-9	bis(2-Chloroisopropyl)ether	400.	N	100-01-6	4-Nitroaniline	2000.	N
106-44-5	4-Methylphenol	400.	N	534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
621-64-7	N-Nitroso-Di-n-propylamine	400.	N	86-30-6	N-Nitrosodiphenylamine	400.	N
67-72-1	Hexachloroethane	400.	N	103-33-3	1,2-Diphenylhydrazine	400.	N
98-95-3	Nitrobenzene	400.	N	101-55-3	4-Bromophenyl-phenylether	400.	N
78-59-1	Isophorone	400.	N	87-86-5	Pentachlorophenol	2000.	N
88-75-5	2-Nitrophenol	400.	N	85-01-8	Phenanthrene	400.	N
105-67-9	2,4-Dimethylphenol	400.	N	120-12-7	Anthracene	400.	N
65-85-0	Benzoic Acid	2000.	N	84-74-2	Di-n-Butylphthalate	400.	N
111-91-1	bis(-2-Chloroethoxy)Methane	400.	N	118-74-1	Hexachlorobenzene	400.	N
120-83-2	2,4-Dichlorophenol	400.	N	206-44-0	Fluoranthene	400.	N
120-82-1	1,2,4-Trichlorobenzene	400.	N	92-87-5	Benzidine	2000.	N
91-20-3	Naphthalene	400.	N	129-00-0	Pyrene	400.	N
106-47-8	4-Chloroaniline	400.	N	85-68-7	Butylbenzylphthalate	400.	N
87-68-3	Hexachlorobutadiene	400.	N	91-94-1	3,3'-Dichlorobenzidine	800.	N
59-50-7	4-Chloro-3-methylphenol	400.	N	56-55-3	Benzo(a)Anthracene	400.	N
91-57-6	2-Methylnaphthalene	400.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	400.	N
77-47-4	Hexachlorocyclopentadiene	400.	N	218-01-9	Chrysene	400.	N
88-06-2	2,4,6-Trichlorophenol	400.	N	117-84-0	Di-n-octyl phthalate	400.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N	205-99-2	Benzo(b)fluoranthene	400.	N
91-58-7	2-Chloronaphthalene	400.	N	207-08-9	Benzo(k)Fluoranthene	400.	N
88-74-4	2-Nitroaniline	2000.	N	50-32-8	Benzo(a)Pyrene	400.	N
131-11-3	Dimethyl Phthalate	400.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	400.	N
208-96-8	Acenaphthylene	400.	N	53-70-3	Dibenzo(a,h)Anthracene	400.	N
99-09-2	3-Nitroaniline	2000.	N	191-24-2	Benzo(g,h,i)Perylene	400.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation
limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC158::DB
Lab. No.: 9010653
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: HONG-WEST(DF-90-6)
Date Collected: 6/19/90
Date Extracted: 7/17/90
Date Analyzed: 7/18/90 16:16

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	420.	N	83-32-9	Acenaphthene	420.	N
108-95-2	Phenol	420.	N	51-28-5	2,4-Dinitrophenol	2100.	N
111-44-4	bis(-2-Chloroethyl)Ether	420.	N	100-02-7	4-Nitrophenol	2100.	N
95-57-8	2-Chlorophenol	420.	N	132-64-9	Dibenzofuran	420.	N
541-73-1	1,3-Dichlorobenzene	420.	N	606-20-2	2,6-Dinitrotoluene	420.	N
106-46-7	1,4-Dichlorobenzene	420.	N	121-14-2	2,4-Dinitrotoluene	420.	N
100-51-6	Benzyl Alcohol	420.	N	84-66-2	Diethylphthalate	420.	N
95-50-1	1,2-Dichlorobenzene	420.	N	7005-72-3	4-Chlorophenyl-phenylether	420.	N
95-48-7	2-Methylphenol	420.	N	86-73-7	Fluorene	420.	N
39638-32-9	bis(2-Chloroisopropyl)ether	420.	N	100-01-6	4-Nitroaniline	2100.	N
106-44-5	4-Methylphenol	420.	N	534-52-1	4,6-Dinitro-2-methylphenol	2100.	N
621-64-7	N-Nitroso-Di-n-propylamine	420.	N	86-30-6	N-Nitrosodiphenylamine	420.	N
67-72-1	Hexachloroethane	420.	N	103-33-3	1,2-Diphenylhydrazine	420.	N
98-95-3	Nitrobenzene	420.	N	101-55-3	4-Bromophenyl-phenylether	420.	N
78-59-1	Isophorone	420.	N	87-86-5	Pentachlorophenol	2100.	N
88-75-5	2-Nitrophenol	420.	N	85-01-8	Phenanthrene	420.	N
105-67-9	2,4-Dimethylphenol	420.	N	120-12-7	Anthracene	420.	N
65-85-0	Benzoic Acid	2100.	N	84-74-2	Di-n-Butylphthalate	420.	N
111-91-1	bis(-2-Chloroethoxy)Methane	420.	N	118-74-1	Hexachlorobenzene	420.	N
120-83-2	2,4-Dichlorophenol	420.	N	206-44-0	Fluoranthene	420.	N
120-82-1	1,2,4-Trichlorobenzene	420.	N	92-87-5	Benzidine	2100.	N
91-20-3	Naphthalene	420.	N	129-00-0	Pyrene	420.	N
106-47-8	4-Chloroaniline	420.	N	85-68-7	Butylbenzylphthalate	420.	N
87-68-3	Hexachlorobutadiene	420.	N	91-94-1	3,3'-Dichlorobenzidine	830.	N
59-50-7	4-Chloro-3-methylphenol	420.	N	56-55-3	Benzo(a)Anthracene	420.	N
91-57-6	2-Methylnaphthalene	420.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	420.	N
77-47-4	Hexachlorocyclopentadiene	420.	N	218-01-9	Chrysene	420.	N
88-06-2	2,4,6-Trichlorophenol	420.	N	117-84-0	Di-n-octyl phthalate	420.	N
95-95-4	2,4,5-Trichlorophenol	2100.	N	205-99-2	Benzo(b)fluoranthene	420.	N
91-58-7	2-Chloronaphthalene	420.	N	207-08-9	Benzo(k)Fluoranthene	420.	N
88-74-4	2-Nitroaniline	2100.	N	50-32-8	Benzo(a)Pyrene	420.	N
131-11-3	Dimethyl Phthalate	420.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	420.	N
208-96-8	Acenaphthylene	420.	N	53-70-3	Dibenzo(a,h)Anthracene	420.	N
99-09-2	3-Nitroaniline	2100.	N	191-24-2	Benzo(g,h,i)Perylene	420.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >DC106::DB
Lab. No.: 9010654
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: HONG-WEST(DF-90-7)
Date Collected: 6/19/90
Date Extracted: 6/28/90
Date Analyzed: 7/12/90 21:26

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	390.	N	83-32-9	Acenaphthene	390.	N
108-95-2	Phenol	390.	N	51-28-5	2,4-Dinitrophenol	2000.	N
111-44-4	bis(-2-Chloroethyl)Ether	390.	N	100-02-7	4-Nitrophenol	2000.	N
95-57-8	2-Chlorophenol	390.	N	132-64-9	Dibenzofuran	390.	N
541-73-1	1,3-Dichlorobenzene	390.	N	606-20-2	2,6-Dinitrotoluene	390.	N
106-46-7	1,4-Dichlorobenzene	390.	N	121-14-2	2,4-Dinitrotoluene	390.	N
100-51-6	Benzyl Alcohol	390.	N	84-66-2	Diethylphthalate	390.	N
95-50-1	1,2-Dichlorobenzene	390.	N	7005-72-3	4-Chlorophenyl-phenylether	390.	N
95-48-7	2-Methylphenol	390.	N	86-73-7	Fluorene	390.	N
39638-32-9	bis(2-Chloroisopropyl)ether	390.	N	100-01-6	4-Nitroaniline	2000.	N
106-44-5	4-Methylphenol	390.	N	534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
621-64-7	N-Nitroso-Di-n-propylamine	390.	N	86-30-6	N-Nitrosodiphenylamine	390.	N
67-72-1	Hexachloroethane	390.	N	103-33-3	1,2-Diphenylhydrazine	390.	N
98-95-3	Nitrobenzene	390.	N	101-55-3	4-Bromophenyl-phenylether	390.	N
78-59-1	Isophorone	390.	N	87-86-5	Pentachlorophenol	2000.	N
88-75-5	2-Nitrophenol	390.	N	85-01-8	Phenanthrene	390.	N
105-67-9	2,4-Dimethylphenol	390.	N	120-12-7	Anthracene	390.	N
65-85-0	Benzoic Acid	2000.	N	84-74-2	Di-n-Butylphthalate	390.	N
111-91-1	bis(-2-Chloroethoxy)Methane	390.	N	118-74-1	Hexachlorobenzene	390.	N
120-83-2	2,4-Dichlorophenol	390.	N	206-44-0	Fluoranthene	390.	N
120-82-1	1,2,4-Trichlorobenzene	390.	N	92-87-5	Benzidine	2000.	N
91-20-3	Naphthalene	390.	N	129-00-0	Pyrene	390.	N
106-47-8	4-Chloroaniline	390.	N	85-68-7	Butylbenzylphthalate	390.	N
87-68-3	Hexachlorobutadiene	390.	N	91-94-1	3,3'-Dichlorobenzidine	790.	N
59-50-7	4-Chloro-3-methylphenol	390.	N	56-55-3	Benzo(a)Anthracene	390.	N
91-57-6	2-Methylnaphthalene	390.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	390.	N
77-47-4	Hexachlorocyclopentadiene	390.	N	218-01-9	Chrysene	390.	N
88-06-2	2,4,6-Trichlorophenol	390.	N	117-84-0	Di-n-octyl phthalate	390.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N	205-99-2	Benzo(b)fluoranthene	390.	N
91-58-7	2-Chloronaphthalene	390.	N	207-08-9	Benzo(k)Fluoranthene	390.	N
88-74-4	2-Nitroaniline	2000.	N	50-32-8	Benzo(a)Pyrene	390.	N
131-11-3	Dimethyl Phthalate	390.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	390.	N
208-96-8	Acenaphthylene	390.	N	53-70-3	Dibenzo(a,h)Anthracene	390.	N
99-09-2	3-Nitroaniline	2000.	N	191-24-2	Benzo(g,h,i)Perylene	390.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation
limit. Should be considered an approximation.

Results reported on a dry weight basis.

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010648	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-1	DATE EXTRACTED:	06/27/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/27/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.8
319-87-7	Beta-BHC	BQL	0.8
319-86-8	Delta-BHC	BQL	0.8
58-89-9	Lindane	BQL	0.8
76-44-8	Heptachlor	BQL	0.8
309-00-2	Aldrin	BQL	0.8
1024-57-3	Heptachlor Epoxide	BQL	0.8
959-98-8	Endosulfan I	130	8.0
60-57-1	Dieldrin	2.5	0.8
75-55-9	4,4'-DDE	BQL	0.8
72-20-8	Endrin	BQL	0.8
33213-65-9	Endosulfan II	9.7	0.8
72-54-8	4,4'-DDD	BQL	0.8
1031-07-8	Endosulfan Sulfate	3.1	0.8
50-29-3	4,4'-DDT	BQL	0.8
72-43-5	Methoxychlor	0.5	0.8
7421-93-4	Endrin Aldehyde	BQL	0.8
57-74-9	Chlordane	BQL	6.2
8001-35-2	Toxaphene	BQL	39

Surrogate % Rec. 79

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010649	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-2	DATE EXTRACTED:	06/27/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.8
319-87-7	Beta-BHC	BQL	0.8
319-86-8	Delta-BHC	BQL	0.8
58-89-9	Lindane	BQL	0.8
76-44-8	Heptachlor	BQL	0.8
309-00-2	Aldrin	BQL	0.8
1024-57-3	Heptachlor Epoxide	BQL	0.8
959-98-8	Endosulfan I	400	8.0
60-57-1	Dieldrin	12	0.8
75-55-9	4,4'-DDE	15	0.8
72-20-8	Endrin	BQL	0.8
33213-65-9	Endosulfan II	5.8	0.8
72-54-8	4,4'-DDD	6.6	0.8
1031-07-8	Endosulfan Sulfate	BQL	0.8
50-29-3	4,4'-DDT	19	0.8
72-43-5	Methoxychlor	0.8	0.8
7421-93-4	Endrin Aldehyde	BQL	0.8
57-74-9	Chlordane	BQL	6.2
8001-35-2	Toxaphene	BQL	39
	Surrogate % Rec.	82	

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010650	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-3	DATE EXTRACTED:	06/27/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.8
319-87-7	Beta-BHC	BQL	0.8
319-86-8	Delta-BHC	BQL	0.8
58-89-9	Lindane	BQL	0.8
76-44-8	Heptachlor	1.5	0.8
309-00-2	Aldrin	0.9	0.8
1024-57-3	Heptachlor Epoxide	BQL	0.8
959-98-8	Endosulfan I	1000	78
60-57-1	Dieldrin	30	0.8
75-55-9	4,4'-DDE	61	0.8
72-20-8	Endrin	BQL	0.8
33213-65-9	Endosulfan II	100	7.8
72-54-8	4,4'-DDD	32	0.8
1031-07-8	Endosulfan Sulfate	3.1	0.8
50-29-3	4,4'-DDT	82	78
72-43-5	Methoxychlor	22	0.8
7421-93-4	Endrin Aldehyde	BQL	0.8
57-74-9	Chlordane	BQL	6.2
8001-35-2	Toxaphene	BQL	39

Surrogate % Rec. 76

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010651	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-4	DATE EXTRACTED:	06/27/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	79
319-87-7	Beta-BHC	BQL	79
319-86-8	Delta-BHC	BQL	79
58-89-9	Lindane	BQL	79
76-44-8	Heptachlor	BQL	79
309-00-2	Aldrin	BQL	79
1024-57-3	Heptachlor Epoxide	BQL	79
959-98-8	Endosulfan I	BQL	79
60-57-1	Dieldrin	BQL	79
75-55-9	4,4'-DDE	BQL	79
72-20-8	Endrin	BQL	79
33213-65-9	Endosulfan II	BQL	79
72-54-8	4,4'-DDD	BQL	79
1031-07-8	Endosulfan Sulfate	BQL	79
50-29-3	4,4'-DDT	BQL	79
72-43-5	Methoxychlor	BQL	79
7421-93-4	Endrin Aldehyde	BQL	79
57-74-9	Chlordane	BQL	630
8001-35-2	Toxaphene	BQL	3900

Surrogate % Rec. 66

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010652	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-5	DATE EXTRACTED:	06/27/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.8
319-87-7	Beta-BHC	BQL	0.8
319-86-8	Delta-BHC	BQL	0.8
58-89-9	Lindane	BQL	0.8
76-44-8	Heptachlor	BQL	0.8
309-00-2	Aldrin	BQL	0.8
1024-57-3	Heptachlor Epoxide	BQL	0.8
959-98-8	Endosulfan I	BQL	0.8
60-57-1	Dieldrin	BQL	0.8
75-55-9	4,4'-DDE	5.2	4.0
72-20-8	Endrin	BQL	0.8
33213-65-9	Endosulfan II	BQL	0.8
72-54-8	4,4'-DDD	BQL	0.8
1031-07-8	Endosulfan Sulfate	BQL	0.8
50-29-3	4,4'-DDT	11	4.0
72-43-5	Methoxychlor	BQL	0.8
7421-93-4	Endrin Aldehyde	BQL	0.8
57-74-9	Chlordane	BQL	6.4
8001-35-2	Toxaphene	BQL	40

Surrogate % Rec. 81

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS2(06/13)	UNITS:	µg/Kg
LAB No.:	9010653	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-6	DATE EXTRACTED:	06/27/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.8
319-87-7	Beta-BHC	BQL	0.8
319-86-8	Delta-BHC	BQL	0.8
58-89-9	Lindane	BQL	0.8
76-44-8	Heptachlor	BQL	0.8
309-00-2	Aldrin	BQL	0.8
1024-57-3	Heptachlor Epoxide	BQL	0.8
959-98-8	Endosulfan I	370	8.0
60-57-1	Dieldrin	BQL	8.0
75-55-9	4,4'-DDE	BQL	8.0
72-20-8	Endrin	BQL	8.0
33213-65-9	Endosulfan II	110	8.0
72-54-8	4,4'-DDD	BQL	8.0
1031-07-8	Endosulfan Sulfate	BQL	8.0
50-29-3	4,4'-DDT	BQL	8.0
72-43-5	Methoxychlor	BQL	8.0
7421-93-4	Endrin Aldehyde	BQL	8.0
57-74-9	Chlordane	BQL	6.7
8001-35-2	Toxaphene	BQL	42

Surrogate % Rec. 75

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010654	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-7	DATE EXTRACTED:	06/27/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.8
319-87-7	Beta-BHC	BQL	0.8
319-86-8	Delta-BHC	BQL	0.8
58-89-9	Lindane	BQL	0.8
76-44-8	Heptachlor	BQL	0.8
309-00-2	Aldrin	BQL	0.8
1024-57-3	Heptachlor Epoxide	BQL	0.8
959-98-8	Endosulfan I	BQL	0.8
60-57-1	Dieldrin	BQL	0.8
75-55-9	4,4'-DDE	1.8	0.8
72-20-8	Endrin	BQL	0.8
33213-65-9	Endosulfan II	BQL	0.8
72-54-8	4,4'-DDD	BQL	0.8
1031-07-8	Endosulfan Sulfate	BQL	0.8
50-29-3	4,4'-DDT	1.9	0.8
72-43-5	Methoxychlor	BQL	0.8
7421-93-4	Endrin Aldehyde	BQL	0.8
57-74-9	Chlordane	BQL	6.3
8001-35-2	Toxaphene	BQL	39

Surrogate % Rec. 75

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	Method Blank	DATE COLLECTED:	
CLIENT NAME:	Hong West	DATE RECEIVED:	
CLIENT I.D.:		DATE EXTRACTED:	06/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/26/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	170
2600-69-3	Phorate	BQL	6.7
298-04-4	Disulfoton	BQL	6.7
298-00-0	Methyl Parathion	BQL	6.7
121-75-5	Malathion	BQL	6.7
2921-88-2	Dursban	BQL	6.7
56-38-2	Ethyl Parathion	BQL	6.7
333-41-5	Diazinon	BQL	6.7
55-38-9	Fenthion	BQL	6.7
86-50-0	Azinophos-methyl	BQL	27
311-45-5	Paraoxon	BQL	67
	Surrogate % Rec.	26	

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010648	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-1	DATE EXTRACTED:	06/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/26/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	200
2600-69-3	Phorate	BQL	8.0
298-04-4	Disulfoton	BQL	8.0
298-00-0	Methyl Parathion	BQL	8.0
121-75-5	Malathion	BQL	8.0
2921-88-2	Dursban	BQL	8.0
56-38-2	Ethyl Parathion	BQL	8.0
333-41-5	Diazinon	BQL	8.0
55-38-9	Fenthion	BQL	8.0
86-50-0	Azinophos-methyl	BQL	32
311-45-5	Paraoxon	BQL	8.0
	Surrogate % Rec.	87	

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010649	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-2	DATE EXTRACTED:	06/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/26/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	190
2600-69-3	Phorate	BQL	7.6
298-04-4	Disulfoton	BQL	7.6
298-00-0	Methyl Parathion	BQL	7.6
121-75-5	Malathion	BQL	7.6
2921-88-2	Dursban	BQL	7.6
56-38-2	Ethyl Parathion	BQL	7.6
333-41-5	Diazinon	BQL	7.6
55-38-9	Fenthion	BQL	7.6
86-50-0	Azinophos-methyl	BQL	31
311-45-5	Paraoxon	BQL	76
	Surrogate % Rec.	124	

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010650	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-3	DATE EXTRACTED:	06/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/26/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	190
2600-69-3	Phorate	BQL	7.4
298-04-4	Disulfoton	BQL	7.4
298-00-0	Methyl Parathion	BQL	7.4
121-75-5	Malathion	BQL	7.4
2921-88-2	Dursban	BQL	7.4
56-38-2	Ethyl Parathion	BQL	7.4
333-41-5	Diazinon	BQL	7.4
55-38-9	Fenthion	BQL	7.4
86-50-0	Azinophos-methyl	BQL	30
311-45-5	Paraoxon	BQL	74
	Surrogate % Rec.	126	

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010651	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-4	DATE EXTRACTED:	06/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/26/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	200
2600-69-3	Phorate	BQL	7.9
298-04-4	Disulfoton	BQL	7.9
298-00-0	Methyl Parathion	BQL	7.9
121-75-5	Malathion	BQL	7.9
2921-88-2	Dursban	BQL	7.9
56-38-2	Ethyl Parathion	BQL	7.9
333-41-5	Diazinon	BQL	7.9
55-38-9	Fenthion	BQL	7.9
86-50-0	Azinophos-methyl	BQL	31
311-45-5	Paraoxon	BQL	79
	Surrogate % Rec.	105	

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010652	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-5	DATE EXTRACTED:	06/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/26/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	200
2600-69-3	Phorate	BQL	8.0
298-04-4	Disulfoton	BQL	8.0
298-00-0	Methyl Parathion	BQL	8.0
121-75-5	Malathion	BQL	8.0
2921-88-2	Dursban	BQL	8.0
56-38-2	Ethyl Parathion	BQL	8.0
333-41-5	Diazinon	BQL	8.0
55-38-9	Fenthion	BQL	8.0
86-50-0	Azinophos-methyl	BQL	32
311-45-5	Paraoxon	BQL	80
	Surrogate % Rec.	94	

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010653	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-6	DATE EXTRACTED:	06/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/26/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	210
2600-69-3	Phorate	BQL	8.3
298-04-4	Disulfoton	BQL	8.3
298-00-0	Methyl Parathion	BQL	8.3
121-75-5	Malathion	BQL	8.3
2921-88-2	Dursban	BQL	8.3
56-38-2	Ethyl Parathion	BQL	8.3
333-41-5	Diazinon	BQL	8.3
55-38-9	Fenthion	BQL	8.3
86-50-0	Azinophos-methyl	BQL	33
311-45-5	Paraoxon	BQL	83
	Surrogate % Rec.	83	

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS8(06/22)	UNITS:	µg/Kg
LAB No.:	9010654	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	DF-90-7	DATE EXTRACTED:	06/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/26/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	200
2600-69-3	Phorate	BQL	7.9
298-04-4	Disulfoton	BQL	7.9
298-00-0	Methyl Parathion	BQL	7.9
121-75-5	Malathion	BQL	7.9
2921-88-2	Dursban	BQL	7.9
56-38-2	Ethyl Parathion	BQL	7.9
333-41-5	Diazinon	BQL	7.9
55-38-9	Fenthion	BQL	7.9
86-50-0	Azinophos-methyl	BQL	31
311-45-5	Paraoxon	BQL	79
	Surrogate % Rec.	83	

BQL - Below Practical Quantitation Limit

Biospherics Incorporated

MEMO

To: Biogroundwater - Stuart Cohen

From: Laboratory Division - Beltsville Office

Re: CS7 (6/22)

Date: July 27, 1990

Enclosed please find the Task 12 water results for Hong West's samples collected on June 19, 1990. Samples were submitted by Hong West.

LAB NAME: BIOSPHERICS INCORPORATED

CLIENT: Hong West

DATE COLLECTED: June 11, 1990 incorrect

DATE RECEIVED: June 13, 1990

MATRIX: Water

CASE: CS3(06/13)

Analytical Methodology/Sample Chronicle

Parameter	Method	Date Extracted	Date Analyzed
Metals	EPA 6010	07/09/90	07/10-18/90
	EPA 7470	06/26/90	06/26/90
Pesticides	EPA 8080	06/26/90	06/28-29/90
Organophosphorus Pesticides	EPA 8140	06/25/90	06/27-28/90
Volatile Organics	EPA 8240		06/25/90
Semi-volatile Organics	EPA 8270	06/26/90	06/27/90

QA Summary

*Metals, Mercury
The process blank and laboratory control sample results were within acceptable limits.

*Pesticides and Organophosphorus Pesticides
The process blank and surrogate recovery results were within acceptable limits.

*Volatile Organics
The process blank and surrogate recovery results were within acceptable limits. Due to excessive foaming of the sample 90042-T12-1 was not analyzed.

*Semi-volatile Organics
The process blank and surrogate recovery results were within acceptable limits. A matrix spike/matrix spike duplicate (MS/MSD) were performed on 90042-T12-2. The surrogate recovery for the MS/MSD was within acceptable limits except for 2-fluorobiphenyl where the recovery was 26 and 33%, respectively. For the sample spiked with base/neutrals the relative percent difference for 3 out of 6 compounds were outside of the recommended QC limits and the percent recovery for 4 out of 12 were outside of the recommended QC limits.

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 22, 1990

MATRIX: Water

UNITS: ug/L

CASE: CS7(06/22)

Client I.D.:	90042-T12-1	90042-T12-2	
Lab I.D.:	9010646	9010647	PQL
Parameter:			
Aluminum	91200	8980	200
Antimony	<60	<60	60
Arsenic	29	<10	10
Barium	1160	<200	200
Beryllium	5	<5	5
Cadmium	35	8.0	5
Calcium	129000	24200	5000
Chromium	169	33	10
Cobolt	87	<50	50
Copper	302	79	25
Iron	152000	20000	100
Lead	273	75	3
Magnesium	55500	9780	5000
Manganese	4210	437	15
Mercury	<0.2	<0.2	0.2
Nickel	242	<40	40

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: June 19, 1990

DATE RECEIVED: June 22, 1990

MATRIX: Water

UNITS: ug/L

CASE: CS7(06/22)

Client I.D.:	90042-T12-1	90042-T12-2	
Lab I.D.:	9010646	9010647	PQL
Parameter:			
Potassium	22750	12100	1000
Selenium	<5	<5	5
Silver	<10	<10	10
Sodium	26100	42400	5000
Thallium	<10	<10	10
Tin	<100	<100	100
Vanadium	258	55	50
Zinc	1320	549	20

PQL - Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS7(06/22)	UNITS:	µg/L
LAB No.:	9010646	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	90042T12-1	DATE EXTRACTED:	06/26/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/28/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.02
319-87-7	Beta-BHC	BQL	0.02
319-86-8	Delta-BHC	BQL	0.02
58-89-9	Lindane	BQL	0.02
76-44-8	Heptachlor	BQL	0.02
309-00-2	Aldrin	BQL	0.02
1024-57-3	Heptachlor Epoxide	BQL	0.02
959-98-8	Endosulfan I	1.6	0.2
60-57-1	Dieldrin	0.31	0.02
75-55-9	4,4'-DDE	0.95	0.2
72-20-8	Endrin	BQL	0.02
33213-65-9	Endosulfan II	0.21	0.02
72-54-8	4,4'-DDD	BQL	0.02
1031-07-8	Endosulfan Sulfate	BQL	0.02
50-29-3	4,4'-DDT	0.47	0.02
72-43-5	Methoxychlor	BQL	0.02
7421-93-4	Endrin Aldehyde	BQL	0.02
57-74-9	Chlordane	BQL	1.6
8001-35-2	Toxaphene	BQL	10

Surrogate % Rec. 26

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS7(06/22)	UNITS:	µg/L
LAB No.:	9010647	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	90042T12-2	DATE EXTRACTED:	06/26/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	06/28-29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.02
319-87-7	Beta-BHC	BQL	0.02
319-86-8	Delta-BHC	BQL	0.02
58-89-9	Lindane	0.03	0.02
76-44-8	Heptachlor	0.42	0.02
309-00-2	Aldrin	0.39	0.02
1024-57-3	Heptachlor Epoxide	0.09	0.02
959-98-8	Endosulfan I	2.0	0.2
60-57-1	Dieldrin	1.8	0.2
75-55-9	4,4'-DDE	2.5	0.2
72-20-8	Endrin	1.4	0.2
33213-65-9	Endosulfan II	1.3	0.2
72-54-8	4,4'-DDD	0.18	0.02
1031-07-8	Endosulfan Sulfate	0.67	0.02
50-29-3	4,4'-DDT	0.69	0.02
72-43-5	Methoxychlor	BQL	0.02
7421-93-4	Endrin Aldehyde	0.20	0.02
57-74-9	Chlordane	BQL	1.6
8001-35-2	Toxaphene	BQL	10

Surrogate % Rec. 25

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS7(06/22)	UNITS:	µg/L
LAB No.:	9010646	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	T12-1	DATE EXTRACTED:	06/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/27/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	5.0
2600-69-3	Phorate	BQL	0.2
298-04-4	Disulfoton	1.8	0.2
298-00-0	Methyl Parathion	BQL	0.2
121-75-5	Malathion	BQL	0.2
2921-88-2	Dursban	BQL	0.2
56-38-2	Ethyl Parathion	BQL	0.2
333-41-5	Diazinon	BQL	0.2
55-38-9	Fenthion	BQL	0.2
86-50-0	Azinophos-methyl	BQL	0.8
311-45-5	Paraoxon	BQL	2.0
	Surrogate % Rec	30	

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS7(06/22)	UNITS:	µg/L
LAB No.:	9010647	DATE COLLECTED:	06/19/90
CLIENT NAME:	Hong West	DATE RECEIVED:	06/22/90
CLIENT I.D.:	T12-2	DATE EXTRACTED:	06/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	06/28/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	5.0
2600-69-3	Phorate	BQL	0.2
298-04-4	Disulfoton	BQL	0.2
298-00-0	Methyl Parathion	BQL	0.2
121-75-5	Malathion	BQL	0.2
2921-88-2	Dursban	BQL	0.2
56-38-2	Ethyl Parathion	BQL	0.2
333-41-5	Diazinon	BQL	0.2
55-38-9	Fenthion	BQL	0.2
86-50-0	Azinophos-methyl	BQL	0.8
311-45-5	Paraoxon	BQL	2.0

Surrogate % Rec 64

BQL - Below Practical Quantitation Limit

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BE112::D3
Lab. No.: 9010647
Matrix: WATER
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG - WEST (T12-2)
Date Collected: 6/19/90
Date Analyzed: 6/25/90 11:24

CAS #	Compound Name	Conc(ug/L)		CAS #	Compound Name	Conc(ug/L)	
74-87-3	Chloromethane	250.	N	75-27-4	Bromodichloromethane	25.	N
74-83-9	Bromomethane	250.	N	78-87-5	1,2-Dichloropropane	25.	N
75-01-4	Vinyl Chloride	250.	N	10061-01-5	cis-1,3-Dichloropropene	25.	N
75-00-3	Chloroethane	250.	N	79-01-6	Trichloroethene	25.	N
75-09-2	Methylene Chloride	25.	N	124-48-1	Dibromochloromethane	25.	N
67-64-1	Acetone	500.	N	79-00-5	1,1,2-Trichloroethane	25.	N
75-69-4	Trichlorofluoromethane	25.	N	71-43-2	Benzene	25.	N
75-15-0	Carbon Disulfide	25.	N	10061-02-6	trans-1,3-Dichloropropene	25.	N
107-02-8	Acrolein	25.	N	110-75-8	2-Chloroethylvinylether	250.	N
107-13-1	Acrylonitrile	25.	N	108-10-1	4-Methyl-2-Pentanone	25.	N
75-35-4	1,1-Dichloroethene	25.	N	591-78-6	2-Hexanone	25.	N
75-34-3	1,1-Dichloroethane	25.	N	75-25-2	Bromoform	25.	N
540-59-0	trans-1,2-Dichloroethene	25.	N	127-18-4	Tetrachloroethene	25.	N
67-66-3	Chloroform	25.	N	79-34-5	1,1,2,2-Tetrachloroethane	25.	N
107-06-2	1,2-Dichloroethane	25.	N	108-88-3	Toluene	25.	N
78-93-3	2-Butanone	500.	N	108-90-7	Chlorobenzene	25.	N
71-55-6	1,1,1-Trichloroethane	25.	N	100-41-4	Ethylbenzene	25.	N
56-23-5	Carbon Tetrachloride	25.	N	100-42-5	Styrene	25.	N
108-05-4	Vinyl Acetate	25.	N	1330-20-7	Total Xylenes	25.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >CC126::M5
Lab. No: 9010646
Matrix: WATER
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042T12-1)
Date Collected: 6/19/90
Date Extracted: 6/26/90
Date Analyzed: 6/27/90 13:04

CAS #	Compound Name	Conc(ug/L)	
62-75-9	N-Nitrosodimethylamine	10.	N
108-95-2	Phenol	10.	N
111-44-4	bis(-2-Chloroethyl)Ether	10.	N
95-57-8	2-Chlorophenol	10.	N
541-73-1	1,3-Dichlorobenzene	10.	N
106-46-7	1,4-Dichlorobenzene	10.	N
100-51-6	Benzyl Alcohol	10.	N
95-50-1	1,2-Dichlorobenzene	10.	N
95-48-7	2-Methylphenol	10.	N
39638-32-9	bis(2-Chloroisopropyl)ether	10.	N
106-44-5	4-Methylphenol	10.	N
621-64-7	N-Nitroso-Di-n-propylamine	10.	N
67-72-1	Hexachloroethane	10.	N
98-95-3	Nitrobenzene	10.	N
78-59-1	Isophorone	10.	N
88-75-5	2-Nitrophenol	10.	N
105-67-9	2,4-Dimethylphenol	10.	N
65-85-0	Benzoic Acid	50.	N
111-91-1	bis(-2-Chloroethoxy)Methane	10.	N
120-83-2	2,4-Dichlorophenol	10.	N
120-82-1	1,2,4-Trichlorobenzene	10.	N
91-20-3	Naphthalene	10.	N
106-47-8	4-Chloroaniline	10.	N
87-68-3	Hexachlorobutadiene	10.	N
59-50-7	4-Chloro-3-methylphenol	10.	N
91-57-6	2-Methylnaphthalene	10.	N
77-47-4	Hexachlorocyclopentadiene	10.	N
88-06-2	2,4,6-Trichlorophenol	10.	N
95-95-4	2,4,5-Trichlorophenol	50.	N
91-58-7	2-Chloronaphthalene	10.	N
88-74-4	2-Nitroaniline	50.	N
131-11-3	Dimethyl Phthalate	10.	N
208-96-8	Acenaphthylene	10.	N
99-09-2	3-Nitroaniline	50.	N
83-32-9	Acenaphthene	10.	N
51-28-5	2,4-Dinitrophenol	50.	N
100-02-7	4-Nitrophenol	50.	N
132-64-9	Dibenzofuran	10.	N
606-20-2	2,6-Dinitrotoluene	10.	N
121-14-2	2,4-Dinitrotoluene	10.	N
84-66-2	Diethylphthalate	10.	N
7005-72-3	4-Chlorophenyl-phenylether	10.	N
86-73-7	Fluorene	10.	N
100-01-6	4-Nitroaniline	50.	N
534-52-1	4,6-Dinitro-2-methylphenol	50.	N
86-30-6	N-Nitrosodiphenylamine	10.	N
103-33-3	1,2-Diphenylhydrazine	10.	N
101-55-3	4-Bromophenyl-phenylether	10.	N
118-74-1	Hexachlorobenzene	10.	N
87-86-5	Pentachlorophenol	50.	N
85-01-8	Phenanthrene	10.	N
120-12-7	Anthracene	10.	N
84-74-2	Di-n-Butylphthalate	10.	N
206-44-0	Fluoranthene	10.	N
92-87-9	Benzidine	50.	N
129-00-0	Pyrene	10.	N
85-68-7	Butylbenzylphthalate	10.	N
91-94-1	3,3'-Dichlorobenzidine	20.	N
56-55-3	Benzo(a)Anthracene	10.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	11.	
218-01-9	Chrysene	10.	N
117-84-0	Di-n-octyl phthalate	10.	N
205-99-2	Benzo(b)fluoranthene	10.	N
207-08-9	Benzo(k)fluoranthene	10.	N
50-32-8	Benzo(a)Pyrene	10.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	10.	N
53-70-3	Dibenzo(a,h)Anthracene	10.	N
191-24-2	Benzo(g,h,i)Perylene	10.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: >CC127::M5
Lab. No: 9010647
Matrix: WATER
Instrument ID: GC/MS:C(HP5970)

Client ID: HONG-WEST (90042T12-2)
Date Collected: 6/19/90
Date Extracted: 6/26/90
Date Analyzed: 6/27/90 13:53

CAS #	Compound Name	Conc(ug/L)	
62-75-9	N-Nitrosodimethylamine	10.	N
108-95-2	Phenol	10.	N
111-44-4	bis(-2-Chloroethyl)Ether	10.	N
95-57-8	2-Chlorophenol	10.	N
541-73-1	1,3-Dichlorobenzene	10.	N
106-46-7	1,4-Dichlorobenzene	10.	N
100-51-6	Benzyl Alcohol	10.	N
95-50-1	1,2-Dichlorobenzene	10.	N
95-48-7	2-Methylphenol	10.	N
39638-32-9	bis(2-Chloroisopropyl)ether	10.	N
106-44-5	4-Methylphenol	10.	N
621-64-7	N-Nitroso-Di-n-propylamine	10.	N
67-72-1	Hexachloroethane	10.	N
98-95-3	Nitrobenzene	10.	N
78-59-1	Isophorone	10.	N
88-75-5	2-Nitrophenol	10.	N
105-67-9	2,4-Dimethylphenol	10.	N
65-85-0	Benzoic Acid	50.	N
111-91-1	bis(-2-Chloroethoxy)Methane	10.	N
120-83-2	2,4-Dichlorophenol	10.	N
120-82-1	1,2,4-Trichlorobenzene	10.	N
91-20-3	Naphthalene	10.	N
106-47-8	4-Chloroaniline	10.	N
87-68-3	Hexachlorobutadiene	10.	N
59-50-7	4-Chloro-3-methylphenol	10.	N
91-57-6	2-Methylnaphthalene	10.	N
77-47-4	Hexachlorocyclopentadiene	10.	N
88-06-2	2,4,6-Trichlorophenol	10.	N
95-95-4	2,4,5-Trichlorophenol	50.	N
91-58-7	2-Chloronaphthalene	10.	N
88-74-4	2-Nitroaniline	50.	N
131-11-3	Dimethyl Phthalate	10.	N
208-96-8	Acenaphthylene	10.	N
99-09-2	3-Nitroaniline	50.	N
83-32-9	Acenaphthene	10.	N
51-28-5	2,4-Dinitrophenol	50.	N
100-02-7	4-Nitrophenol	50.	N
132-64-9	Dibenzofuran	10.	N
606-20-2	2,6-Dinitrotoluene	10.	N
121-14-2	2,4-Dinitrotoluene	10.	N
84-66-2	Diethylphthalate	10.	N
7005-72-3	4-Chlorophenyl-phenylether	10.	N
86-73-7	Fluorene	10.	N
100-01-6	4-Nitroaniline	50.	N
534-52-1	4,6-Dinitro-2-methylphenol	50.	N
86-30-6	N-Nitrosodiphenylamine	10.	N
103-33-3	1,2-Diphenylhydrazine	10.	N
101-55-3	4-Bromophenyl-phenylether	10.	N
118-74-1	Hexachlorobenzene	10.	N
87-86-5	Pentachlorophenol	50.	N
85-01-8	Phenanthrene	10.	N
120-12-7	Anthracene	10.	N
84-74-2	Di-n-Butylphthalate	10.	N
206-44-0	Fluoranthene	10.	N
92-87-9	Benzidine	50.	N
129-00-0	Pyrene	10.	N
85-68-7	Butylbenzylphthalate	10.	N
91-94-1	3,3'-Dichlorobenzidine	20.	N
56-55-3	Benzo(a)Anthracene	10.	N
117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	N
218-01-9	Chrysene	10.	N
117-84-0	Di-n-octyl phthalate	10.	N
205-99-2	Benzo(b)fluoranthene	10.	N
207-08-9	Benzo(k)fluoranthene	10.	N
50-32-8	Benzo(a)Pyrene	10.	N
193-39-5	Indeno(1,2,3-cd)Pyrene	10.	N
53-70-3	Dibenzo(a,h)Anthracene	10.	N
191-24-2	Benzo(g,h,i)Perylene	10.	N

Qualifier descriptions: N - Compound analyzed for but not detected.
Number reported is the detection limit.
* - Compound is present but less than detection limit. Should be considered an approximation.

BIOSPHERICS INCORPORATED

12051 Indian Creek Ct.
Beltsville, MD 20705
(301) 369-3900

Chain of Custody Record

Task 12

Project: Yarl Site: Drainfield / Rinse
Client: Hong West Phone: 774 0106
Address: P.O. Box 596
Lynnwood, WA 98046
Sampler's Name/Firm: Steven Greene
Phone: Same Sampler's Signature: [signature]

Sample Number	Date	Time	Matrix	No. of Containers	VOA 8240	Semi VOA 8270	Pesticides 8080	organo phos pesticides	Metals, TCL			Remarks or Sample Location
Preservative Used												
90042T12-1	6/19/90		H_2O	5	V	V	V	V	V			Rinsate
90042T12-2	"		"	5	V	V	V	V	V			"

Relinquished by: (Signature) [1]	Date/Time	Received by: (Signature)	Relinquished by: (Signature) [4]	Date/Time	Shipping Carrier:
[signature]	6/20 9:30			6/20 9:30	Fed Express
Relinquished by: (Signature) [2]	**Date/Time**	**Received by: (Signature)**	**Received for Laboratory by: (Signature)**	**Date/Time**	**Shipping Ticket Number:**
			[signature]	6/22 9:AM	
Relinquished by: (Signature) [3]	**Date/Time**	**Received by: (Signature)**	**Chain of Custody Seal: (Circle)**	**Lab Remarks**	
			Intact Broken Absent	Received Room Temp 22°C	

White-Return to Client Yellow-Retain by Lab (Project File) Pink-Retain by Lab (Client Services) Gold-Retain by Sampler

Phase Two
October, 1990

BIOSPHERICS® INCORPORATED

November 2, 1990

Mr. Doug Geller
Hong West & Associates
18908 Highway 99
Lynnwood, WA 98046

Re: Case No. CS1(10/24)

Dear Mr. Geller:

Enclosed please find the initial results for Task 19. A final report will follow shortly.

If you have any questions concerning these results please do not hesitate to call.

Sincerely,

H. Markus Gudnason
Director
Laboratory Division

HMG:jlj
enclosure

Corporate Headquarters
12051 Indian Creek Court
Beltsville, Maryland 20705
(301) 369-3900
Telefax (301) 725-4908/09
Telex 898 072

New Jersey Regional Office
525 Fellowship Road
Suite 310
Mt. Laurel, New Jersey 08054
(609) 722-0100
Telefax (609) 866-2048

Cumberland Regional Office
Crossroads Venture Center
Three Commerce Drive
Cumberland, Maryland 21502
(301) 722-9100

Distribution Center
8241B Sandy Court
Jessup, Maryland 20794
(301) 470-2553

BIOSPHERICS INCORPORATED

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Water

CASE: CS1(10/24)

Analytical Methodology/Sample Chronicle

Parameter	Method	Date Extracted	Date Analyzed
Metals	EPA 6010/7000's	10/25,31/90	10/26-11/2/90
Mercury	EPA 7470	10/31/90	11/1/90
Pesticides/PCB's	EPA 8080	10/26/90	10/30/90
Organophosphorus Pesticides	EPA 8140	10/26/90	10/28/90
Volatile Organics	EPA 8240		10/26/90
Semivolatile Org.	EPA 8270	10/24-29/90	10/30/90
Cyanide	EPA 9010	10/24/90	10/29/90

Non-conformance Summary

Volatile Organics, Mercury, Pesticides/PCB's
There are no nonconformances to report.

Metals
The matrix spike for selenium for sample 90042-T19-3 had a recovery of 30%.

Organophosphorus Pesticides
The surrogate recovery results for both waters were outside of acceptable limits.

Semivolatile Organics
Due to insufficient sample volume for the waters, a blank spike was done instead of a matrix spike/matrix spike duplicate. Samples and blank extracts were concentrated on two different dates, October 24 & 29, 1990.

Cyanide
The matrix spike was done at 200 µg/L rather than 100 µg/L.

LAB NAME: BIOSPHERICS INCORPORATED

CLIENT: Hong West

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Soil

CASE: CS1(10/24)

Analytical Methodology/Sample Chronicle

Parameter	Method	Date Extracted	Date Analyzed
Metals	EPA 6010	10/25,31/90	10/26-11/2/90
	7471	10/31/90	10/31/90
Pesticides/PCB's	EPA 8080	10/25/90	10/30/90
Organophosphorus Pesticides	EPA 8140	10/25/90	10/26,29/90
Volatile Organics	EPA 8240		10/26,29/90
Semi-volatile Organics	EPA 8270	10/29/90	10/30-31/90
Cyanide	EPA 9010	10/26/90	10/29/90

Non-Conformance Summary

Metals
The matrix spike for lead for sample 90042-WP102 had a recovery of 692%.

Cyanide, Mercury, Volatile Organics, Pesticide, PCB's
There are no non-conformances to report.

Semi-volatile Organics
The surrogate recoveries on the matrix spike were outside of acceptable limits. Low recovery was obtained for the matrix spike/matrix spike duplicate.

Organophosphorus Pesticides
The surrogate recovery for all soils were outside of acceptable limits.

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Water

UNITS: $\mu g/L$

CASE: CS1(10/24)

Client I.D.:	90042-T19-3	90042-T19-4	
Lab I.D.:	9019548	9019549	Quantitation Limit
Parameter:			
Aluminum	12900	5960	200
Antimony	<60	<60	60
Arsenic	<10	<10	10
Barium	<200	<200	200
Beryllium	<5.0	<5.0	5.0
Cadmium	<5.0	<5.0	5.0
Calcium	16800	<5000	5000
Chromium	15.1	<10	10
Cobalt	<50	<50	50
Copper	63.0	30.7	25
Iron	13300	6020	100
Lead	22.0	20.6	3.0
Magnesium	8890	<5000	5000
Manganese	273	118	15
Mercury	<0.2	<0.2	0.2
Nickel	<40	<40	40

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Water

UNITS: $\mu g/L$

CASE: CS1(10/24)

Client I.D.:	90042-T19-3	90042-T19-4	
Lab I.D.:	9019548	9019549	Quantitation Limit
Parameter:			
Potassium	5600	14100	5000
Selenium	<5.0	<5.0	5.0
Silver	<10	<10	10
Sodium	12500	<5000	5000
Thallium	<10	<10	10
Tin	<30	<30	30
Vanadium	56.3	<50	50
Zinc	144	175	25

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-INORGANIC

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Water

UNITS: $\mu g/L$

CASE: CS1(10/24)

Client I.D.:	90042-T19-3	90042-T19-4	
Lab I.D.:	9019548	9019549	Quantitation Limit
Parameter:			
Cyanide	<10	<10	10

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS1(10/24)

Client I.D.:	90042 TP101		90042 TP102	
Lab I.D.:	9019540	PQL	9019541	PQL
Parameter:				
Aluminum	19900	452	22800	421
Antimony	<13.6	13.6	197	12.6
Arsenic	<4.5	4.5	<4.2	4.2
Barium	139	34.2	146	33.0
Beryllium	<1.1	1.1	<1.0	1.0
Cadmium	<1.1	1.1	<1.0	1.0
Calcium	6260	226	5910	211
Chromium	25.6	2.3	28.6	2.1
Cobalt	13.9	11.3	14.7	10.5
Copper	26.5	5.6	27.7	5.3
Iron	29,500	226	31900	211
Lead	7.5	0.67	5.7	0.63
Magnesium	7100	226	6410	211
Manganese	482	33.9	400	31.6
Mercury	<0.26	0.26	<0.30	0.30
Nickel	30.0	9.0	26.7	8.4

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CST(10/24)

Client I.D.:	90042 TP101		90042 TP102	
Lab I.D.:	9019540	PQL	9019541	PQL
Parameter:				
Potassium	2620	226	2610	211
Selenium	<1.1	1.1	<1.0	1.0
Silver	<2.3	2.3	<2.1	2.1
Sodium	898	226	1040	211
Thallium	<2.2	2.2	<2.1	2.1
Tin	<22.6	22.6	<21.1	21.1
Vanadium	63.8	11.3	69.9	10.5
Zinc	62.7	4.5	74.8	4.2

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS1(10/24)

Client I.D.:	90042 TP103		90042 TP104	
Lab I.D.:	9019542	PQL	9019543	PQL
Parameter:				
Aluminum	20400	446	22900	449
Antimony	<13.4	13.4	<13.5	13.5
Arsenic	4.1	2.2	10.4	2.2
Barium	141	34.4	167	34.4
Beryllium	<1.1	1.1	<1.1	1.1
Cadmium	<1.1	1.1	<1.1	1.1
Calcium	7770	223	6980	225
Chromium	32.0	2.2	33.3	2.2
Cobalt	14.0	11.2	15.1	11.2
Copper	27.4	5.6	27.4	5.6
Iron	31300	223	33700	225
Lead	5.7	0.67	6.4	0.66
Magnesium	9960	223	8620	225
Manganese	584	33.4	63.4	3.4
Mercury	<0.23	0.23	<0.29	0.29
Nickel	47.1	8.9	42.2	9.0

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CST(10/24)

Client I.D.:	90042 TP103		90042 TP104	
Lab I.D.:	9019542	PQL	9019543	PQL
Parameter:				
Potassium	2250	223	2600	225
Selenium	<1.1	1.1	<1.1	1.1
Silver	<2.2	2.2	<2.2	2.2
Sodium	1060	223	1170	225
Thallium	<2.2	2.2	<2.2	2.2
Tin	<22.3	22.3	<22.5	22.5
Vanadium	65.8	11.2	73.1	11.2
Zinc	63.8	4.5	67.2	4.5

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS1(10/24)

Client I.D.:	90042 TP105		90042 TP106	
Lab I.D.:	9019544	PQL	9019545	PQL
Parameter:				
Aluminum	20700	430	22700	441
Antimony	<12.9	12.9	<13.2	13.2
Arsenic	8.8	2.2	<4.4	4.4
Barium	140	33.7	144	33.7
Beryllium	<1.1	1.1	<1.1	1.1
Cadmium	<1.1	1.1	<1.1	1.1
Calcium	8910	215	6710	221
Chromium	26.0	2.2	26.9	2.2
Cobalt	14.2	10.8	14.4	11.0
Copper	26.2	5.4	28.4	5.5
Iron	30400	215	32000	221
Lead	7.0	0.66	6.5	0.65
Magnesium	8420	215	8700	221
Manganese	637	32.3	834	33.1
Mercury	<0.28	0.28	<0.26	0.26
Nickel	33.1	8.6	40.0	8.8

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS1(10/24)

Client I.D.:	90042 TP105		90042 TP106	
Lab I.D.:	9019544	PQL	9019545	PQL
Parameter:				
Potassium	2350	215	2740	221
Selenium	<1.1	1.1	<1.1	1.1
Silver	<2.2	2.2	<2.2	2.2
Sodium	961	215	1060	221
Thallium	<2.2	2.2	<2.2	2.2
Tin	<21.5	21.5	<22.1	22.1
Vanadium	65.7	10.8	67.4	11.0
Zinc	61.0	4.3	62.6	4.4

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS1(10/24)

Client I.D.:	90042 WP101		90042 WP102	
Lab I.D.:	9019546	PQL	9019547	PQL
Parameter:				
Aluminum	21800	432	23600	420
Antimony	<13.0	13.0	<12.6	12.6
Arsenic	20.8	8.6	15.6	8.5
Barium	168	33.3	169	32.8
Beryllium	<1.1	1.1	<1.0	1.0
Cadmium	<1.1	1.1	<1.0	1.0
Calcium	6860	216	6130	210
Chromium	21.6	2.2	25.7	2.1
Cobalt	12.7	10.8	14.2	10.5
Copper	26.7	5.4	26.9	5.3
Iron	30600	216	32300	210
Lead	29.6	1.3	27.4	1.3
Magnesium	5810	216	6020	210
Manganese	587	32.4	602	31.5
Mercury	<0.22	0.22	<0.28	0.28
Nickel	23.2	8.6	24.8	8.4

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-METALS

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS1(10/24)

Client I.D.:	90042 WP101		90042 WP102	
Lab I.D.:	9019546	PQL	9019547	PQL
Parameter:				
Potassium	2810	216	2750	210
Selenium	<1.1	1.1	<1.1	1.1
Silver	<2.2	2.2	<2.1	2.1
Sodium	738	216	797	210
Thallium	<2.2	2.2	<2.1	2.1
Tin	<21.6	21.6	21.0	21.0
Vanadium	63.2	10.8	66.3	10.5
Zinc	72.4	4.3	75.2	4.2

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-INORGANIC

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: [illegible]

Client I.D.:	90042 TP101		90042 TP102	
Lab I.D.:	9019540	PQL	9019541	PQL
Parameter:				
Cyanide	<1.1	1.1	<1.2	1.2

Client I.D.:	90042 TP103		90042 TP104	
Lab I.D.:	9019542	PQL	9019543	PQL
Parameter:				
Cyanide	<1.2	1.2	<1.1	1.1

PQL - Practical Quantitation Limit

BIOSPHERICS INCORPORATED

HONG-WEST TCL RESULTS-INORGANIC

DATE COLLECTED: October 23, 1990

DATE RECEIVED: October 24, 1990

MATRIX: Soil

UNITS: mg/kg dry weight

CASE: CS1(10/24)

Client I.D.:	90042 TP105		90042 TP106	
Lab I.D.:	9019544	PQL	9019545	PQL
Parameter:				
Cyanide	<1.2	1.2	<1.2	1.2

Client I.D.:	90042 WP101		90042 WP102	
Lab I.D.:	9019546	PQL	9019547	PQL
Parameter:				
Cyanide	<1.2	1.2	<1.1	1.1

PQL - Practical Quantitation Limit

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8.10

Data File: 6Feb15:08
Lab. No.: METHOD BLANK
Matrix: WATER
Instrument ID: GC/MS #2 (HP5970)

Client ID: HOMB-WE31
Date Collected:
Date Analyzed: 10/26/90 10:14

CAS #	Compound Name	Conc(ug/L)		CAS #	Compound Name	Conc(ug/L)	
74-87-3	Chloromethane	10.	N	75-27-4	Bromodichloromethane	5.	N
74-83-9	Bromomethane	10.	N	78-87-5	1,2-Dichloropropane	5.	N
75-01-4	Vinyl Chloride	10.	N	10061-01-5	cis-1,3-Dichloropropene	5.	N
75-00-3	Chloroethane	10.	N	79-01-6	Trichloroethene	5.	N
75-09-2	Methylene Chloride	5.	N	124-48-1	Dibromochloromethane	5.	N
67-64-1	Acetone	100.	N	79-00-5	1,1,2-Trichloroethane	5.	N
75-69-4	Trichlorofluoromethane	5.	N	71-43-2	Benzene	5.	N
75-15-0	Carbon Disulfide	5.	N	10061-02-6	trans-1,3-Dichloropropene	5.	N
107-02-8	Acrolein	50.	N	110-75-8	2-Chloroethylvinylether	10.	N
107-13-1	Acrylonitrile	50.	N	108-10-1	4-Methyl-2-Pentanone	50.	N
75-35-4	1,1-Dichloroethene	5.	N	591-78-6	2-Hexanone	50.	N
75-34-3	1,1-Dichloroethane	5.	N	75-25-2	Bromoform	5.	N
540-59-0	trans-1,2-Dichloroethene	5.	N	127-18-4	Tetrachloroethene	5.	N
67-66-3	Chloroform	5.	N	79-34-5	1,1,2,2-Tetrachloroethane	5.	N
107-06-2	1,2-Dichloroethane	5.	N	108-88-3	Toluene	5.	N
78-93-3	2-Butanone	100.	N	108-90-7	Chlorobenzene	5.	N
71-55-6	1,1,1-Trichloroethane	5.	N	100-41-4	Ethylbenzene	5.	N
56-23-5	Carbon Tetrachloride	5.	N	100-42-5	Styrene	5.	N
108-05-4	Vinyl Acetate	50.	N	1330-20-7	Total Xylenes	5.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: EF040::L6
Lab No : 9019548
Matrix: WATER
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG WEST (90042 [illegible])
Date Collected: 10/23/90
Date Analyzed: 10/26/90 18:28

CAS #	Compound Name	Conc(ug/L)		CAS #	Compound Name	Conc(ug/L)	
74-87-3	Chloromethane	10.	N	78-87-5	1,2-Dichloropropane	5.	N
74-83-9	Bromomethane	10.	N	10061-01-5	cis-1,3-Dichloropropene	5.	N
75-01-4	Vinyl Chloride	10.	N	79-01-6	Trichloroethene	5.	N
75-00-3	Chloroethane	10.	N	124-48-1	Dibromochloromethane	5.	N
75-09-2	Methylene Chloride	5.	N	79-00-5	1,1,2-Trichloroethane	5.	N
67-64-1	Acetone	100.	N	71-43-2	Benzene	5.	N
75-15-0	Carbon Disulfide	5.	N	10061-02-6	trans-1,3-Dichloropropene	5.	N
75-35-4	1,1-Dichloroethene	5.	N	75-25-2	Bromoform	5.	N
75-34-3	1,1-Dichloroethane	5.	N	108-10-1	4-Methyl-2-Pentanone	50.	N
540-59-0	trans-1,2-Dichloroethene	5.	N	591-78-6	2-Hexanone	50.	N
67-66-3	Chloroform	5.	N	127-18-4	Tetrachloroethene	5.	N
107-06-2	1,2-Dichloroethane	5.	N	79-34-5	1,1,2,2-Tetrachloroethane	5.	N
78-93-3	2-Butanone	100.	N	108-88-3	Toluene	5.	N
71-55-6	1,1,1-Trichloroethane	5.	N	108-90-7	Chlorobenzene	5.	N
56-23-5	Carbon Tetrachloride	5.	N	100-41-4	Ethylbenzene	5.	N
108-05-4	Vinyl Acetate	50.	N	100-42-5	Styrene	5.	N
75-27-4	Bromodichloromethane	5.	N	1330-20-7	Total Xylenes	5	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

ATMOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: [illegible]
Lab. No.: 9019549
Matrix: WATER
Instrument ID: GC/MS #2 (HP5970)

Client ID: ADNR WEST ([illegible])
Date Collected: 10/25/90
Date Analyzed: 10/26/90 18:55

CAS #	Compound Name	Conc(ug/L)		CAS #	Compound Name	Conc(ug/L)	
74-87-3	Chloromethane	10.	N	78-87-5	1,2-Dichloropropane	5.	N
74-83-9	Bromomethane	10.	N	10061-01-5	cis-1,3-Dichloropropene	5.	N
75-01-4	Vinyl Chloride	10.	N	79-01-6	Trichloroethene	5.	N
75-00-3	Chloroethane	10.	N	124-48-1	Dibromochloromethane	5.	N
75-09-2	Methylene Chloride	5.	N	79-00-5	1,1,2-Trichloroethane	5.	N
67-64-1	Acetone	100.	N	71-43-2	Benzene	5.	N
75-15-0	Carbon Disulfide	5.	N	10061-02-6	trans-1,3-Dichloropropene	5.	N
75-35-4	1,1-Dichloroethene	5.	N	75-25-2	Bromoform	5.	N
75-34-3	1,1-Dichloroethane	5.	N	108-10-1	4-Methyl-2-Pentanone	50.	N
540-59-0	trans-1,2-Dichloroethene	5.	N	591-78-6	2-Hexanone	50.	N
67-66-3	Chloroform	5.	N	127-18-4	Tetrachloroethene	5.	N
107-06-2	1,2-Dichloroethane	5.	N	79-34-5	1,1,2,2-Tetrachloroethane	5.	N
78-93-3	2-Butanone	100.	N	108-88-3	Toluene	5.	N
71-55-6	1,1,1-Trichloroethane	5.	N	108-90-7	Chlorobenzene	5.	N
56-23-5	Carbon Tetrachloride	5.	N	100-41-4	Ethylbenzene	5.	N
108-05-4	Vinyl Acetate	50.	N	100-42-5	Styrene	5.	N
75-27-4	Bromodichloromethane	5.	N	1330-20-7	Total Xylenes	5.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD[illegible]

Data File: [illegible]F042[illegible]DB
Lab. No.: 9019550
Matrix: WATER
Instrument ID: GC/MS #2 (HP5970)

Client ID: [illegible]
Date Collected: 10/25/90
Date Analyzed: 10/26/90 19:22

CAS #	Compound Name	Conc(ug/L	)	CAS #	Compound Name	Conc(ug/L	)
74-87-3	Chloromethane	10.	N	78-87-5	1,2-Dichloropropane	5.	N
74-83-9	Bromomethane	10.	N	10061-01-5	cis-1,3-Dichloropropene	5.	N
75-01-4	Vinyl Chloride	10.	N	79-01-6	Trichloroethene	5.	N
75-00-3	Chloroethane	10.	N	124-48-1	Dibromochloromethane	5.	N
75-09-2	Methylene Chloride	5.	N	79-00-5	1,1,2-Trichloroethane	5.	N
67-64-1	Acetone	100.	N	71-43-2	Benzene	5.	N
75-15-0	Carbon Disulfide	5.	N	10061-02-6	trans-1,3-Dichloropropene	5.	N
75-35-4	1,1-Dichloroethene	5.	N	75-25-2	Bromoform	5.	N
75-34-3	1,1-Dichloroethane	5.	N	108-10-1	4-Methyl-2-Pentanone	50.	N
540-59-0	trans-1,2-Dichloroethene	5.	N	591-78-6	2-Hexanone	50.	N
67-66-3	Chloroform	5.	N	127-18-4	Tetrachloroethene	5.	N
107-06-2	1,2-Dichloroethane	5.	N	79-34-5	1,1,2,2-Tetrachloroethane	5.	N
78-93-3	2-Butanone	100.	N	108-88-3	Toluene	5.	N
71-55-6	1,1,1-Trichloroethane	5.	N	108-90-7	Chlorobenzene	5.	N
56-23-5	Carbon Tetrachloride	5.	N	100-41-4	Ethylbenzene	5.	N
108-05-4	Vinyl Acetate	50.	N	100-42-5	Styrene	5.	N
75-27-4	Bromodichloromethane	5.	N	1330-20-7	Total Xylenes	5.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

WATER VOLATILE SURROGATE RECOVERY

Lab Name: BIOSPHERICS INC. Client: HONG-WEST & ASSOCIATES

CLIENT SAMPLE ID.	1,2-DICHLORO-ETHANE-d4	TOLUENE-d8	BROMOFLUORO-BENZENE	OTHER	TOT OUT
Blank(10/12)	101	105	109		0
90042 T19-3	111	101	105		0
90042 T19-4	109	104	109		0
90042 T19-5	98	110	113		0
90042 T19-5 MS	113	106	111		0
90042 T19-5 MSD	96	106	108		0

	QC LIMITS
1,2-Dichloroethane-d4	(76-114)
Toluene-d8	(88-110)
4-Bromofluorobenzene	(86-115)

* Values outside of contract required QC limits
D Surrogates diluted out

VOLATILES ANALYSIS
WATER MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

LAB NAME: BIOSPHERICS INC.

CLIENT: HONG-WEST & ASSOCIATES

SAMPLE SPIKED: 90042 T19-5 (Bio# 9019550)

FRACTION	COMPOUND	CONC. SPIKE ADDED(ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
VOA	1,1-Dichloroethene	50	<5	51	102	50	100	2.0	14	61-145
Spiked	Trichloroethene	50	<5	45	90	44	88	2.2	14	71-120
Sample	Chlorobenzene	50	<5	55	110	52	104	5.6	13	75-130
ID:	Toluene	50	<5	55	110	60	120	8.7	13	76-125
90042 T19-5	Benzene	50	<5	53	106	52	104	1.9	11	76-127

* - ASTERISKED VALUES ARE OUTSIDE QC LIMITS

RPD: VOAs 0 out of 5 ; outside QC limits

RECOVERY: VOAs 0 out of 10 ; outside QC limits

Comments:

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD: 8240

Data File: [illegible]
Lab. No.: METHOD BLANK
Matrix: SOIL
Instrument ID: GC/MS #2 16F59701

Client ID: ROME-WEST
Date Collected: ....
Date Analyzed: 10/26/90 10:14

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	10.	N	75-27-4	Bromodichloromethane	5.	N
74-83-9	Bromomethane	10.	N	78-87-5	1,2-Dichloropropane	5.	N
75-01-4	Vinyl Chloride	10.	N	10061-01-5	cis-1,3-Dichloropropene	5.	N
75-00-3	Chloroethane	10.	N	79-01-6	Trichloroethene	5.	N
75-09-2	Methylene Chloride	5.	N	124-48-1	Dibromochloromethane	5.	N
67-64-1	Acetone	100.	N	79-00-5	1,1,2-Trichloroethane	5.	N
75-69-4	Trichlorofluoromethane	5.	N	71-43-2	Benzene	5.	N
75-15-0	Carbon Disulfide	5.	N	10061-02-6	trans-1,3-Dichloropropene	5.	N
107-02-8	Acrolein	50.	N	110-75-8	2-Chloroethylvinylether	10.	N
107-13-1	Acrylonitrile	50.	N	108-10-1	4-Methyl-2-Pentanone	50.	N
75-35-4	1,1-Dichloroethene	5.	N	591-78-6	2-Hexanone	50.	N
75-34-3	1,1-Dichloroethane	5.	N	75-25-2	Bromoform	5.	N
540-59-0	trans-1,2-Dichloroethene	5.	N	127-18-4	Tetrachloroethene	5.	N
67-66-3	Chloroform	5.	N	79-34-5	1,1,2,2-Tetrachloroethane	5.	N
107-06-2	1,2-Dichloroethane	5.	N	108-88-3	Toluene	5.	N
78-93-3	2-Butanone	100.	N	108-90-7	Chlorobenzene	5.	N
71-55-6	1,1,1-Trichloroethane	5.	N	100-41-4	Ethylbenzene	5.	N
56-23-5	Carbon Tetrachloride	5.	N	100-42-5	Styrene	5.	N
108-05-4	Vinyl Acetate	50.	N	1330-20-7	Total Xylenes	5.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: :8F052::08
Lab. No.: METHOD BLANK
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HOMS-WEST
Date Collected: ....
Date Analyzed: 10/29/90 11:4*

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	10.	N	75-27-4	Bromodichloromethane	5.	N
74-83-9	Bromomethane	10.	N	78-87-5	1,2-Dichloropropane	5.	N
75-01-4	Vinyl Chloride	10.	N	10061-01-5	cis-1,3-Dichloropropene	5.	N
75-00-3	Chloroethane	10.	N	79-01-6	Trichloroethene	5.	N
75-09-2	Methylene Chloride	5.	N	124-48-1	Dibromochloromethane	5.	N
67-64-1	Acetone	100.	N	79-00-5	1,1,2-Trichloroethane	5.	N
75-69-4	Trichlorofluoromethane	5.	N	71-43-2	Benzene	5.	N
75-15-0	Carbon Disulfide	5.	N	10061-02-6	trans-1,3-Dichloropropene	5.	N
107-02-8	Acrolein	50.	N	110-75-8	2-Chloroethylvinylether	10.	N
107-13-1	Acrylonitrile	50.	N	108-10-1	4-Methyl-2-Pentanone	50.	N
75-35-4	1,1-Dichloroethene	5.	N	591-78-6	2-Hexanone	50.	N
75-34-3	1,1-Dichloroethane	5.	N	75-25-2	Bromoform	5.	N
540-59-0	trans-1,2-Dichloroethene	5.	N	127-18-4	Tetrachloroethene	5.	N
67-66-3	Chloroform	5.	N	79-34-5	1,1,2,2-Tetrachloroethane	5.	N
107-06-2	1,2-Dichloroethane	5.	N	108-88-3	Toluene	5.	N
78-93-3	2-Butanone	100.	N	108-90-7	Chlorobenzene	5.	N
71-55-6	1,1,1-Trichloroethane	5.	N	100-41-4	Ethylbenzene	5.	N
56-23-5	Carbon Tetrachloride	5.	N	100-42-5	Styrene	5.	N
108-05-4	Vinyl Acetate	50.	N	1330-20-7	Total Xylenes	5.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit.
Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >8F055::08
Lab. No.: 9019540
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HOHG-WEST (90042 [illegible]
Date Collected: 10/23/90
Date Analyzed: 10/29/90 13:27

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	13.	N	75-27-4	Bromodichloromethane	6.	N
74-83-9	Bromomethane	13	N	78-87-5	1,2-Dichloropropane	6.	N
75-01-4	Vinyl Chloride	13.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-00-3	Chloroethane	13.	N	79-01-6	Trichloroethene	6.	N
75-09-2	Methylene Chloride	6.	N	124-48-1	Dibromochloromethane	6.	N
67-64-1	Acetone	130.	N	79-00-5	1,1,2-Trichloroethane	6.	N
75-69-4	Trichlorofluoromethane	6.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
107-02-8	Acrolein	64.	N	110-75-8	2-Chloroethylvinylether	13.	N
107-13-1	Acrylonitrile	64.	N	108-10-1	4-Methyl-2-Pentanone	64.	N
75-35-4	1,1-Dichloroethene	6.	N	591-78-6	2-Hexanone	64.	N
75-34-3	1,1-Dichloroethane	6.	N	75-25-2	Bromoform	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	127-18-4	Tetrachloroethene	6.	N
67-66-3	Chloroform	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
107-06-2	1,2-Dichloroethane	6.	N	108-88-3	Toluene	6.	N
78-93-3	2-Butanone	130.	N	108-90-7	Chlorobenzene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	100-41-4	Ethylbenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-42-5	Styrene	6.	N
108-05-4	Vinyl Acetate	64.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: ABF027::GC
Lab. No.: 9019541
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST (90042 TP102)
Date Collected: 10/25/90
Date Analyzed: 10/26/90 11:58

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	75-27-4	Bromodichloromethane	6.	N
74-83-9	Bromomethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
75-01-4	Vinyl Chloride	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-00-3	Chloroethane	12.	N	79-01-6	Trichloroethene	6.	N
75-09-2	Methylene Chloride	6.	N	124-48-1	Dibromochloromethane	6.	N
67-64-1	Acetone	120.	N	79-00-5	1,1,2-Trichloroethane	6.	N
75-69-4	Trichlorofluoromethane	6.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
107-02-8	Acrolein	60.	N	110-75-8	2-Chloroethylvinylether	12.	N
107-13-1	Acrylonitrile	60.	N	108-10-1	4-Methyl-2-Pentanone	60.	N
75-35-4	1,1-Dichloroethene	6.	N	591-78-6	2-Hexanone	60.	N
75-34-3	1,1-Dichloroethane	6.	N	75-25-2	Bromoform	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	127-18-4	Tetrachloroethene	6.	N
67-66-3	Chloroform	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
107-06-2	1,2-Dichloroethane	6.	N	108-88-3	Toluene	6.	N
78-93-3	2-Butanone	120.	N	108-90-7	Chlorobenzene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	100-41-4	Ethylbenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-42-5	Styrene	6.	N
108-05-4	Vinyl Acetate	60.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: [illegible]
Lab. No.: 9019542
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: [illegible]
Date Collected: 10/25/90
Date Analyzed: 10/26/90 15:57

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	13.	N	75-27-4	Bromodichloromethane	6.	N
74-83-9	Bromomethane	13.	N	78-87-5	1,2-Dichloropropane	6.	N
75-01-4	Vinyl Chloride	13.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-00-3	Chloroethane	13.	N	79-01-6	Trichloroethene	6.	N
75-09-2	Methylene Chloride	6.	N	124-48-1	Dibromochloromethane	6.	N
67-64-1	Acetone	130.	N	79-00-5	1,1,2-Trichloroethane	6.	N
75-69-4	Trichlorofluoromethane	6.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
107-02-8	Acrolein	64.	N	110-75-8	2-Chloroethylvinylether	13.	N
107-13-1	Acrylonitrile	64.	N	108-10-1	4-Methyl-2-Pentanone	64.	N
75-35-4	1,1-Dichloroethene	6.	N	591-78-6	2-Hexanone	64.	N
75-34-3	1,1-Dichloroethane	6.	N	75-25-2	Bromoform	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	127-18-4	Tetrachloroethene	6.	N
67-66-3	Chloroform	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
107-06-2	1,2-Dichloroethane	6.	N	108-88-3	Toluene	6.	N
78-93-3	2-Butanone	130.	N	108-90-7	Chlorobenzene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	100-41-4	Ethylbenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-42-5	Styrene	6.	N
108-05-4	Vinyl Acetate	64.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BF029::GC
Lab. No.: 9019543
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST (90042 TP104)
Date Collected: 10/23/90
Date Analyzed: 10/26/90 12:30

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	13.	N	75-27-4	Bromodichloromethane	6.	N
74-83-9	Bromomethane	13.	N	78-87-5	1,2-Dichloropropane	6.	N
75-01-4	Vinyl Chloride	13.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-00-3	Chloroethane	13.	N	79-01-6	Trichloroethene	6.	N
75-09-2	Methylene Chloride	6.	N	124-48-1	Dibromochloromethane	6.	N
67-64-1	Acetone	130.	N	79-00-5	1,1,2-Trichloroethane	6.	N
75-69-4	Trichlorofluoromethane	6.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
107-02-8	Acrolein	64.	N	110-75-8	2-Chloroethylvinylether	13.	N
107-13-1	Acrylonitrile	64.	N	108-10-1	4-Methyl-2-Pentanone	64.	N
75-35-4	1,1-Dichloroethene	6.	N	591-78-6	2-Hexanone	64.	N
75-34-3	1,1-Dichloroethane	6.	N	75-25-2	Bromoform	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	127-18-4	Tetrachloroethene	6.	N
67-66-3	Chloroform	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
107-06-2	1,2-Dichloroethane	6.	N	108-88-3	Toluene	6.	N
78-93-3	2-Butanone	130.	N	108-90-7	Chlorobenzene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	100-41-4	Ethylbenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-42-5	Styrene	6.	N
108-05-4	Vinyl Acetate	64.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: BF030::EC
Lab. No.: 9919544
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST (90042 TP105)
Date Collected: 10/23/90
Date Analyzed: 10/26/90 13:07

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N
74-83-9	Bromomethane	12.	N
75-01-4	Vinyl Chloride	12.	N
75-00-3	Chloroethane	12.	N
75-09-2	Methylene Chloride	6.	N
67-64-1	Acetone	120.	N
75-69-4	Trichlorofluoromethane	6.	N
75-15-0	Carbon Disulfide	6.	N
107-02-8	Acrolein	62.	N
107-13-1	Acrylonitrile	62.	N
75-35-4	1,1-Dichloroethene	6.	N
75-34-3	1,1-Dichloroethane	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N
67-66-3	Chloroform	6.	N
107-06-2	1,2-Dichloroethane	6.	N
78-93-3	2-Butanone	120.	N
71-55-6	1,1,1-Trichloroethane	6.	N
56-23-5	Carbon Tetrachloride	6.	N
108-05-4	Vinyl Acetate	62.	N

CAS #	Compound Name	Conc(ug/Kg)	
75-27-4	Bromodichloromethane	6.	N
78-87-5	1,2-Dichloropropane	6.	N
10061-01-5	cis-1,3-Dichloropropene	6.	N
79-01-6	Trichloroethene	6.	N
124-48-1	Dibromochloromethane	6.	N
79-00-5	1,1,2-Trichloroethane	6.	N
71-43-2	Benzene	6.	N
10061-02-6	trans-1,3-Dichloropropene	6.	N
110-75-8	2-Chloroethylvinylether	12.	N
108-10-1	4-Methyl-2-Pentanone	62.	N
591-78-6	2-Hexanone	62.	N
75-25-2	Bromoform	6.	N
127-18-4	Tetrachloroethene	6.	N
79-34-5	1,1,2,2-Tetrachloroethane	6.	N
108-88-3	Toluene	6.	N
108-90-7	Chlorobenzene	6.	N
100-41-4	Ethylbenzene	6.	N
100-42-5	Styrene	6.	N
1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit.
Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BF031::GC
Lab. No.: 9019545
Matrix: SOIL
Instrument ID: GC/MS #2 1MP59701

Client ID: HONG-WEST (90042 TP2:5)
Date Collected: 10/23/90
Date Analyzed: 10/26/90 13:34

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	13.	N
74-83-9	Bromomethane	13.	N
75-01-4	Vinyl Chloride	13.	N
75-00-3	Chloroethane	13.	N
75-09-2	Methylene Chloride	6.	N
67-64-1	Acetone	130.	N
75-69-4	Trichlorofluoromethane	6.	N
75-15-0	Carbon Disulfide	6.	N
107-02-8	Acrolein	63.	N
107-13-1	Acrylonitrile	63.	N
75-35-4	1,1-Dichloroethene	6.	N
75-34-3	1,1-Dichloroethane	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N
67-66-3	Chloroform	6.	N
107-06-2	1,2-Dichloroethane	6.	N
78-93-3	2-Butanone	130.	N
71-55-6	1,1,1-Trichloroethane	6.	N
56-23-5	Carbon Tetrachloride	6.	N
108-05-4	Vinyl Acetate	63.	N

CAS #	Compound Name	Conc(ug/Kg)	
75-27-4	Bromodichloromethane	6.	N
78-87-5	1,2-Dichloropropane	6.	N
10061-01-5	cis-1,3-Dichloropropene	6.	N
79-01-6	Trichloroethene	6.	N
124-48-1	Dibromochloromethane	6.	N
79-00-5	1,1,2-Trichloroethane	6.	N
71-43-2	Benzene	6.	N
10061-02-6	trans-1,3-Dichloropropene	6.	N
110-75-8	2-Chloroethylvinylether	13.	N
108-10-1	4-Methyl-2-Pentanone	63.	N
591-78-6	2-Hexanone	63.	N
75-25-2	Bromoform	6.	N
127-18-4	Tetrachloroethene	6.	N
79-34-5	1,1,2,2-Tetrachloroethane	6.	N
108-88-3	Toluene	6.	N
108-90-7	Chlorobenzene	6.	N
100-41-4	Ethylbenzene	6.	N
100-42-5	Styrene	6.	N
1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: [illegible]
Lab. No.: 9019546
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST ([illegible])
Date Collected: 10/23/90
Date Analyzed: 10/26/90 14:01

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	[illegible]	Bromodichloromethane	6.	N
74-83-9	Bromomethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
75-01-4	Vinyl Chloride	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-00-3	Chloroethane	12.	N	79-01-6	Trichloroethene	6.	N
75-09-2	Methylene Chloride	6.	N	124-48-1	Dibromochloromethane	6.	N
67-64-1	Acetone	120.	N	79-00-5	1,1,2-Trichloroethane	6.	N
75-69-4	Trichlorofluoromethane	6.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
107-02-8	Acrolein	62.	N	110-75-8	2-Chloroethylvinylether	12.	N
107-13-1	Acrylonitrile	62.	N	108-10-1	4-Methyl-2-Pentanone	62.	N
75-35-4	1,1-Dichloroethene	6.	N	591-78-6	2-Hexanone	62.	N
75-34-3	1,1-Dichloroethane	6.	N	75-25-2	Bromoform	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	127-18-4	Tetrachloroethene	6.	N
67-66-3	Chloroform	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
107-06-2	1,2-Dichloroethane	6.	N	108-88-3	Toluene	6.	N
78-93-3	2-Butanone	120.	N	108-90-7	Chlorobenzene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	100-41-4	Ethylbenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-42-5	Styrene	6.	N
108-05-4	Vinyl Acetate	62.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

BIOSPHERICS
VOLATILE ANALYSIS REPORT
REFERENCED METHOD:8240

Data File: >BF033::GC
Lab. No.: 9019947
Matrix: SOIL
Instrument ID: GC/MS #2 (HP5970)

Client ID: HONG-WEST (90042 WP102)
Date Collected: 10/23/90
Date Analyzed: 10/26/90 14:28

Results reported on a dry weight basis.

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
74-87-3	Chloromethane	12.	N	75-27-4	Bromodichloromethane	6.	N
74-83-9	Bromomethane	12.	N	78-87-5	1,2-Dichloropropane	6.	N
75-01-4	Vinyl Chloride	12.	N	10061-01-5	cis-1,3-Dichloropropene	6.	N
75-00-3	Chloroethane	12.	N	79-01-6	Trichloroethene	6.	N
75-09-2	Methylene Chloride	6.	N	124-48-1	Dibromochloromethane	6.	N
67-64-1	Acetone	120.	N	79-00-5	1,1,2-Trichloroethane	6.	N
75-69-4	Trichlorofluoromethane	6.	N	71-43-2	Benzene	6.	N
75-15-0	Carbon Disulfide	6.	N	10061-02-6	trans-1,3-Dichloropropene	6.	N
107-02-8	Acrolein	61.	N	110-75-8	2-Chloroethylvinylether	12.	N
107-13-1	Acrylonitrile	61.	N	108-10-1	4-Methyl-2-Pentanone	61.	N
75-35-4	1,1-Dichloroethene	6.	N	591-78-6	2-Hexanone	61.	N
75-34-3	1,1-Dichloroethane	6.	N	75-25-2	Bromoform	6.	N
540-59-0	trans-1,2-Dichloroethene	6.	N	127-18-4	Tetrachloroethene	6.	N
67-66-3	Chloroform	6.	N	79-34-5	1,1,2,2-Tetrachloroethane	6.	N
107-06-2	1,2-Dichloroethane	6.	N	108-88-3	Toluene	6.	N
78-93-3	2-Butanone	120.	N	108-90-7	Chlorobenzene	6.	N
71-55-6	1,1,1-Trichloroethane	6.	N	100-41-4	Ethylbenzene	6.	N
56-23-5	Carbon Tetrachloride	6.	N	100-42-5	Styrene	6.	N
108-05-4	Vinyl Acetate	61.	N	1330-20-7	Total Xylenes	6.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.
\# - Common laboratory solvent. EPA-CLP acceptable limits are 25 and 50 ppb for methylene chloride and acetone respectively.
BLANK - Compound present above quantitation limit. Number reported is concentration in sample.

SOIL VOLATILE SURROGATE RECOVERY

Lab Name:BIOSPHERICS INC. Client:HONG-WEST

CLIENT SAMPLE ID.	1,2-DICHLORO-ETHANE-d4	TOLUENE-d8	BROMOFLUORO-BENZENE	OTHER	TOT OUT
Blank 10/26	101	105	109		0
Blank 10/29	101	98	103		0
90042 TP101	111	97	104		0
90042 TP102	109	100	103		0
90042 TP103	119	113	110		0
90042 TP104	113	102	108		0
90042 TP105	114	104	104		0
90042 TP106	115	104	106		0
90042 WP101	116	108	107		0
90042 WP102	104	103	105		0
90042 WP102 MS	109	104	103		0
90042 WP102 MSD	113	100	103		0

	QC LIMITS
1,2-Dichloroethane-d4	(70-121)
Toluene-d8	(81-117)
4-Bromofluorobenzene	(74-121)

* Values outside of contract required QC limits
D Surrogates diluted out

VOLATILES ANALYSIS
SOIL MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

LAB NAME: BIOSPHERICS INC.

CLIENT: HONG WEST & ASSOCIATES

SAMPLE SPIKED: 90042-WP102 (BIO #:9019547)

FRACTION	COMPOUND	CONC. SPIKE ADDED(ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
VOA	1,1-Dichloroethene	50	<5	50	100	51	102	2.0	22	59-172
Spiked	Trichloroethene	50	<5	48	96	53	106	9.9	24	62-137
Sample	Chlorobenzene	50	<5	60	120	55	110	8.7	21	60-133
ID:	Toluene	50	<5	59	118	57	114	3.4	21	59-139
90042 WP102	Benzene	50	<5	57	114	55	110	3.6	21	66-142

* - ASTERISKED VALUES ARE OUTSIDE QC LIMITS

RPD: VOAs 0 out of 5 ; outside QC limits

RECOVERY: VOAs 0 out of 10 ; outside QC limits

Comments:

[illegible]

[illegible]

Date [illegible]: [illegible]
Lab. No.: [illegible] 10/29/90
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5973)

Client Job Number: [illegible]
Date Collected: [illegible]
Date Extracted: 10/29/90
Date Analyzed: 10/30/90 15:31

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
[illegible]	N-Nitrosodimethylamine	330.	N	[illegible]	[illegible]	330.	N
108-95-2	Phenol	330.	N	51-28-5	2,4-Dinitrophenol	1700.	N
111-44-4	bis(-2-Chloroethyl)Ether	330.	N	100-02-7	4-Nitrophenol	1700.	N
95-57-8	2-Chlorophenol	330.	N	132-64-9	Dibenzofuran	330.	N
541-73-1	1,3-Dichlorobenzene	330.	N	606-20-2	2,6-Dinitrotoluene	330.	N
106-46-7	1,4-Dichlorobenzene	330.	N	121-14-2	2,4-Dinitrotoluene	330.	N
100-51-6	Benzyl Alcohol	330.	N	84-66-2	Diethylphthalate	330.	N
95-50-1	1,2-Dichlorobenzene	330.	N	7005-72-3	4-Chlorophenyl-phenylether	330.	N
95-48-7	2-Methylphenol	330.	N	86-73-7	Fluorene	330.	N
39638-32-9	bis(2-Chloroisopropyl)ether	330.	N	100-01-6	4-Nitroaniline	1700.	N
106-44-5	4-Methylphenol	330.	N	534-52-1	4,6-Dinitro-2-methylphenol	1700.	N
621-64-7	N-Nitroso-Di-n-propylamine	330.	N	86-30-6	N-Nitrosodiphenylamine	330.	N
67-72-1	Hexachloroethane	330.	N	103-33-3	1,2-Diphenylhydrazine	330.	N
98-95-3	Nitrobenzene	330.	N	101-55-3	4-Bromophenyl-phenylether	330.	N
78-59-1	Isophorone	330.	N	87-86-5	Pentachlorophenol	1700.	N
88-75-5	2-Nitrophenol	330.	N	85-01-8	Phenanthrene	330.	N
105-67-9	2,4-Dimethylphenol	330.	N	120-12-7	Anthracene	330.	N
65-85-0	Benzoic Acid	1700.	N	84-74-2	Di-n-Butylphthalate	330.	N
111-91-1	bis(-2-Chloroethoxy)Methane	330.	N	118-74-1	Hexachlorobenzene	330.	N
120-83-2	2,4-Dichlorophenol	330.	N	206-44-0	Fluoranthene	330.	N
120-82-1	1,2,4-Trichlorobenzene	330.	N	92-87-5	Benzidine	1700.	N
91-20-3	Naphthalene	330.	N	129-00-0	Pyrene	330.	N
106-47-8	4-Chloroaniline	330.	N	85-68-7	Butylbenzylphthalate	330.	N
87-68-3	Hexachlorobutadiene	330.	N	91-94-1	3,3'-Dichlorobenzidine	670.	N
59-50-7	4-Chloro-3-methylphenol	330.	N	56-55-3	Benzo(a)Anthracene	330.	N
91-57-6	2-Methylnaphthalene	330.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	330.	N
77-47-4	Hexachlorocyclopentadiene	330.	N	218-01-9	Chrysene	330.	N
88-06-2	2,4,6-Trichlorophenol	330.	N	117-84-0	Di-n-octyl phthalate	330.	N
95-95-4	2,4,5-Trichlorophenol	1700.	N	205-99-2	Benzo(b)fluoranthene	330.	N
91-58-7	2-Chloronaphthalene	330.	N	207-08-9	Benzo(k)Fluoranthene	330.	N
88-74-4	2-Nitroaniline	1700.	N	50-32-8	Benzo(a)Pyrene	330.	N
131-11-3	Dimethyl Phthalate	330.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	330.	N
208-96-8	Acenaphthylene	330.	N	53-70-3	Dibenzo(a,h)Anthracene	330.	N
99-09-2	3-Nitroaniline	1700.	N	191-24-2	Benzo(g,h,i)Perylene	330.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS

SEMI-VOLATILES ANALYSIS REPORT

REFERENCED METHOD-8270

Sample Type: [illegible]
Lab. No.: [illegible]
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: [illegible]
Date Collected: 10/23/90
Date Extracted: 10/29/90
Date Analyzed: 10/30/90 10:15

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	430.	N	83-32-9	Acenaphthene	430	N
108-95-2	Phenol	430.	N	51-28-5	2,4-Dinitrophenol	2100.	N
111-44-4	bis(-2-Chloroethyl)Ether	430.	N	100-02-7	4-Nitrophenol	2100.	N
95-57-8	2-Chlorophenol	430.	N	132-64-9	Dibenzofuran	430.	N
541-73-1	1,3-Dichlorobenzene	430.	N	606-20-2	2,6-Dinitrotoluene	430.	N
106-46-7	1,4-Dichlorobenzene	430.	N	121-14-2	2,4-Dinitrotoluene	430.	N
100-51-6	Benzyl Alcohol	430.	N	84-66-2	Diethylphthalate	430.	N
95-50-1	1,2-Dichlorobenzene	430.	N	7005-72-3	4-Chlorophenyl-phenylether	430.	N
95-48-7	2-Methylphenol	430.	N	86-73-7	Fluorene	430.	N
39638-32-9	bis(2-Chloroisopropyl)ether	430.	N	100-01-6	4-Nitroaniline	2100.	N
106-44-5	4-Methylphenol	430.	N	534-52-1	4,6-Dinitro-2-methylphenol	2100.	N
621-64-7	N-Nitroso-Di-n-propylamine	430.	N	86-30-6	N-Nitrosodiphenylamine	430.	N
67-72-1	Hexachloroethane	430.	N	103-33-3	1,2-Diphenylhydrazine	430.	N
98-95-3	Nitrobenzene	430.	N	101-55-3	4-Bromophenyl-phenylether	430.	N
78-59-1	Isophorone	430.	N	87-86-5	Pentachlorophenol	2100.	N
88-75-5	2-Nitrophenol	430.	N	85-01-8	Phenanthrene	430.	N
105-67-9	2,4-Dimethylphenol	430.	N	120-12-7	Anthracene	430.	N
65-85-0	Benzoic Acid	2100.	N	84-74-2	Di-n-butylphthalate	430.	N
111-91-1	bis(-2-Chloroethoxy)Methane	430.	N	118-74-1	Hexachlorobenzene	430.	N
120-83-2	2,4-Dichlorophenol	430.	N	206-44-0	Fluoranthene	430.	N
120-82-1	1,2,4- Trichlorobenzene	430.	N	92-87-5	Benzidine	2100.	N
91-20-3	Naphthalene	430.	N	129-00-0	Pyrene	430.	N
106-47-8	4-Chloroaniline	430.	N	85-68-7	Butylbenzylphthalate	430.	N
87-68-3	Hexachlorobutadiene	430.	N	91-94-1	3,3'-Dichlorobenzidine	860.	N
59-50-7	4-Chloro-3-methylphenol	430.	N	56-55-3	Benzo(a)Anthracene	430.	N
91-57-6	2-Methylnaphthalene	430.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	430.	N
77-47-4	hexachlorocyclopentadiene	430.	N	218-01-9	Chrysene	430.	N
88-06-2	2,4,6-Trichlorophenol	430.	N	117-84-0	Di-n-octyl phthalate	430.	N
95-95-4	2,4,5-Trichlorophenol	2100.	N	205-99-2	Benzo(b)fluoranthene	430.	N
91-58-7	2-Chloronaphthalene	430.	N	207-08-9	benzo(k)fluoranthene	430.	N
88-74-4	2-Nitroaniline	2100.	N	50-32-8	Benzo(a)Pyrene	430.	N
131-11-3	Dimethyl Phthalate	430.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	430.	N
208-96-8	Acenaphthylene	430.	N	53-70-3	Dibenzo(a,h)Anthracene	430.	N
99-09-2	3-Nitroaniline	2100.	N	191-24-2	Benzo(g,h,i)Perylene	430.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.

Results reported on a dry weight basis.

[illegible]

[illegible]

REFERENCED TO 8270

Data File: [illegible]
Lab. No.: 9019541
Matrix: SOIL
Instrument ID: GC/MS#4 [illegible]

Client ID: [illegible]
Date Collected: 10/25/90
Date Extracted: 10/29/90
Date Analyzed: 10/30/90 [illegible]

CAS #	Compound Name	Conc(ug/kg)	I	CAS #	Compound Name	Conc(ug/kg)	I
62-75-9	N-Nitrosodimethylamine	400.	N	83-32-9	Acenaphthene	400.	N
108-95-2	Phenol	400.	N	51-28-5	2,4-Dinitrophenol	2000.	N
111-44-4	bis(-2-Chloroethyl)Ether	400.	N	100-02-7	4-Nitrophenol	2000.	N
95-57-8	2-Chlorophenol	400.	N	132-64-9	Dibenzofuran	400.	N
541-73-1	1,3-Dichlorobenzene	400.	N	606-20-2	2,6-Dinitrotoluene	400.	N
106-46-7	1,4-Dichlorobenzene	400.	N	121-14-2	2,4-Dinitrotoluene	400.	N
100-51-6	Benzyl Alcohol	400.	N	84-66-2	Diethylphthalate	400.	N
95-50-1	1,2-Dichlorobenzene	400.	N	7005-72-3	4-Chlorophenyl-phenylether	400.	N
95-48-7	2-Methylphenol	400.	N	86-73-7	Fluorene	400.	N
39638-32-9	bis(2-Chloroisopropyl)ether	400.	N	100-01-6	4-Nitroaniline	2000.	N
106-44-5	4-Methylphenol	400.	N	534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
621-64-7	N-Nitroso-Di-n-propylamine	400.	N	86-30-6	N-Nitrosodiphenylamine	400.	N
67-72-1	Hexachloroethane	400.	N	103-33-3	1,2-Diphenylhydrazine	400.	N
98-95-3	Nitrobenzene	400.	N	101-55-3	4-Bromophenyl-phenylether	400.	N
78-59-1	Isophorone	400.	N	87-86-5	Pentachlorophenol	2000.	N
88-75-5	2-Nitrophenol	400.	N	85-01-8	Phenanthrene	400.	N
105-67-9	2,4-Dimethylphenol	400.	N	120-12-7	Anthracene	400.	N
65-85-0	Benzoic Acid	2000.	N	84-74-2	Di-n-Butylphthalate	400.	N
111-91-1	bis(-2-Chloroethoxy)Methane	400.	N	118-74-1	Hexachlorobenzene	400.	N
120-83-2	2,4-Dichlorophenol	400.	N	206-44-0	Fluoranthene	400.	N
120-82-1	1,2,4-Trichlorobenzene	400.	N	92-87-5	Benzidine	2000.	N
91-20-3	Naphthalene	400.	N	129-00-0	Pyrene	400.	N
106-47-8	4-Chloroaniline	400.	N	85-68-7	Butylbenzylphthalate	400.	N
87-68-3	Hexachlorobutadiene	400.	N	91-94-1	3,3'-Dichlorobenzidine	800.	N
59-50-7	4-Chloro-3-methylphenol	400.	N	56-55-3	Benzo(a)Anthracene	400.	N
91-57-6	2-Methylnaphthalene	400.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	400.	N
77-47-4	Hexachlorocyclopentadiene	400.	N	218-01-9	Chrysene	400.	N
88-06-2	2,4,6-Trichlorophenol	400.	N	117-84-0	Di-n-octyl phthalate	400.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N	205-99-2	Benzo(b)fluoranthene	400.	N
91-58-7	2-Chloronaphthalene	400.	N	207-08-9	Benzo(k)Fluoranthene	400.	N
88-74-4	2-Nitroaniline	2000.	N	50-32-8	Benzo(a)Pyrene	400.	N
131-11-3	Dimethyl Phthalate	400.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	400.	N
208-96-8	Acenaphthylene	400.	N	53-70-3	Dibenzo(a,h)Anthracene	400.	N
99-09-2	3-Nitroaniline	2000.	N	191-24-2	Benzo(g,h,i)Perylene	400.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.

Results reported on a dry weight basis.

[illegible]

[illegible] ANALYSIS [illegible]

[illegible]

Date [illegible]: [illegible]
Lab. No.: 7019542
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: [illegible]
Date Collected: 10/25/90
Date Extracted: 10/29/90
Date Analyzed: 10/30/90 17:42

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	420.	N	[illegible]	[illegible]	420	N
108-95-2	Phenol	420.	N	51-28-5	2,4-Dinitrophenol	2100.	N
111-44-4	bis(2-Chloroethyl)ether	420.	N	100-02-7	4-Nitrophenol	2100.	N
95-57-8	2-Chlorophenol	420.	N	132-64-9	Dibenzofuran	420.	N
541-73-1	1,3-Dichlorobenzene	420.	N	606-20-2	2,6-Dinitrotoluene	420.	N
106-46-7	1,4-Dichlorobenzene	420.	N	121-14-2	2,4-Dinitrotoluene	420.	N
100-51-6	Benzyl Alcohol	420.	N	84-66-2	Diethylphthalate	420.	N
95-50-1	1,2-Dichlorobenzene	420.	N	7005-72-3	4-Chlorophenyl-phenyl ether	420.	N
95-48-7	2-Methylphenol	420.	N	86-73-7	Fluorene	420.	N
39638-32-9	bis(2-Chloroisopropyl)ether	420.	N	100-01-6	4-Nitroaniline	2100.	N
106-44-5	4-Methylphenol	420.	N	534-52-1	4,6-Dinitro-2-methylphenol	2100.	N
621-64-7	N-Nitroso-Di-n-propylamine	420.	N	86-30-6	N-Nitrosodiphenylamine	420.	N
67-72-1	Hexachloroethane	420.	N	103-33-3	1,2-Diphenylhydrazine	420.	N
98-95-3	Nitrobenzene	420.	N	101-55-3	4-Bromophenyl-phenylether	420.	N
78-59-1	Isophorone	420.	N	87-86-5	Pentachlorophenol	2100.	N
88-75-5	2-Nitrophenol	420.	N	85-01-8	Phenanthrene	420.	N
105-67-9	2,4-Dimethylphenol	420.	N	120-12-7	Anthracene	420.	N
65-85-0	Benzoic Acid	2100.	N	84-74-2	Di-n-Butylphthalate	420.	N
111-91-1	bis(2-Chloroethoxy)Methane	420.	N	118-74-1	Hexachlorobenzene	420.	N
120-83-2	2,4-Dichlorophenol	420.	N	206-44-0	Fluoranthene	420.	N
120-82-1	1,2,4-Trichlorobenzene	420.	N	92-87-5	Benzidine	2100.	N
91-20-3	Naphthalene	420.	N	129-00-0	Pyrene	420.	N
106-47-8	4-Chloroaniline	420.	N	85-68-7	Butylbenzylphthalate	420.	N
87-68-3	Hexachlorobutadiene	420.	N	91-94-1	3,3'-Dichlorobenzidine	850.	N
59-50-7	4-Chloro-3-methylphenol	420.	N	56-55-3	Benzo(a)Anthracene	420.	N
91-57-6	2-Methylnaphthalene	420.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	420.	N
77-47-4	Hexachlorocyclopentadiene	420.	N	218-01-9	Chrysene	420.	N
88-06-2	2,4,6-Trichlorophenol	420.	N	117-84-0	Di-n-octyl phthalate	420.	N
95-95-4	2,4,5-Trichlorophenol	2100.	N	205-99-2	Benzo(b)fluoranthene	420.	N
91-58-7	2-Chloronaphthalene	420.	N	207-08-9	Benzo(k)Fluoranthene	420.	N
88-74-4	2-Nitroaniline	2100.	N	50-32-8	Benzo(a)Pyrene	420.	N
131-11-3	Dimethyl Phthalate	420.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	420.	N
208-96-8	Acenaphthylene	420.	N	53-70-3	Dibenzo(a,h)Anthracene	420.	N
99-09-2	3-Nitroaniline	2100.	N	191-24-2	Benzo(g,h,i)Perylene	420.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: [illegible]
Lab. No.: 9019543
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: [illegible]
Date Collected: 10/23/90
Date Extracted: 10/29/90
Date Analyzed: 10/31/90 14:42

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	420.	N	83-32-9	Acenaphthene	420.	N
108-95-2	Phenol	420.	N	51-28-5	2,4-Dinitrophenol	2100.	N
111-44-4	bis(-2-Chloroethyl)Ether	420.	N	100-02-7	4-Nitrophenol	2100.	N
95-57-8	2-Chlorophenol	420.	N	132-64-9	Dibenzofuran	420.	N
541-73-1	1,3-Dichlorobenzene	420.	N	606-20-2	2,6-Dinitrotoluene	420.	N
106-46-7	1,4-Dichlorobenzene	420.	N	121-14-2	2,4-Dinitrotoluene	420.	N
100-51-6	Benzyl Alcohol	420.	N	84-66-2	Diethylphthalate	420.	N
95-50-1	1,2-Dichlorobenzene	420.	N	7005-72-3	4-Chlorophenyl-phenylether	420.	N
95-48-7	2-Methylphenol	420.	N	86-73-7	Fluorene	420.	N
39638-32-9	bis(2-Chloroisopropyl)ether	420.	N	100-01-6	4-Nitroaniline	2100.	N
106-44-5	4-Methylphenol	420.	N	534-52-1	4,6-Dinitro-2-methylphenol	2100.	N
621-64-7	N-Nitroso-Di-n-propylamine	420.	N	86-30-6	N-Nitrosodiphenylamine	420.	N
67-72-1	Hexachloroethane	420.	N	103-33-3	1,2-Diphenylhydrazine	420.	N
98-95-3	Nitrobenzene	420.	N	101-55-3	4-Bromophenyl-phenylether	420.	N
78-59-1	Isophorone	420.	N	87-86-5	Pentachlorophenol	2100.	N
88-75-5	2-Nitrophenol	420.	N	85-01-8	Phenanthrene	420.	N
105-67-9	2,4-Dimethylphenol	420.	N	120-12-7	Anthracene	420.	N
65-85-0	Benzoic Acid	2100.	N	84-74-2	Di-n-Butylphthalate	420.	N
111-91-1	bis(-2-Chloroethoxy)Methane	420.	N	118-74-1	Hexachlorobenzene	420.	N
120-83-2	2,4-Dichlorophenol	420.	N	206-44-0	Fluoranthene	420.	N
120-82-1	1,2,4-Trichlorobenzene	420.	N	92-87-5	Benzidine	2100.	N
91-20-3	Naphthalene	420.	N	129-00-0	Pyrene	420.	N
106-47-8	4-Chloroaniline	420.	N	85-68-7	Butylbenzylphthalate	420.	N
87-68-3	Hexachlorobutadiene	420.	N	91-94-1	3,3'-Dichlorobenzidine	850.	N
59-50-7	4-Chloro-3-methylphenol	420.	N	56-55-3	Benzo(a)Anthracene	420.	N
91-57-6	2-Methylnaphthalene	420.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	420.	N
77-47-4	Hexachlorocyclopentadiene	420.	N	218-01-9	Chrysene	420.	N
88-06-2	2,4,6-Trichlorophenol	420.	N	117-84-0	Di-n-octyl phthalate	420.	N
95-95-4	2,4,5-Trichlorophenol	2100.	N	205-99-2	Benzo(b)fluoranthene	420.	N
91-58-7	2-Chloronaphthalene	420.	N	207-08-9	Benzo(k)Fluoranthene	420.	N
88-74-4	2-Nitroaniline	2100.	N	50-32-8	Benzo(a)Pyrene	420.	N
131-11-3	Dimethyl Phthalate	420.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	420.	N
208-96-8	Acenaphthylene	420.	N	53-70-3	Dibenzo(a,h)Anthracene	420.	N
99-09-2	3-Nitroaniline	2100.	N	191-24-2	Benzo(g,h,i)Perylene	420.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.

Results reported on a dry weight basis.

BIOSPHERICS
SEMI-VOLATILES ANALYSIS REPORT
REFERENCED METHOD:8270

Data File: [illegible]
Lab. No.: 9019544
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: HONG-WEST & ASSOCIATES;90042-TP10-5
Date Collected: 10/23/90
Date Extracted: 10/29/90
Date Analyzed: 10/30/90 19:09

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	410.	N	83-32-9	Acenaphthene	410.	N
108-95-2	Phenol	410.	N	51-28-5	2,4-Dinitrophenol	2100.	N
111-44-4	bis(-2-Chloroethyl)Ether	410.	N	100-02-7	4-Nitrophenol	2100.	N
95-57-8	2-Chlorophenol	410.	N	132-64-9	Dibenzofuran	410.	N
541-73-1	1,3-Dichlorobenzene	410.	N	606-20-2	2,6-Dinitrotoluene	410.	N
106-46-7	1,4-Dichlorobenzene	410.	N	121-14-2	2,4-Dinitrotoluene	410.	N
100-51-6	Benzyl Alcohol	410.	N	84-66-2	Diethylphthalate	410.	N
95-50-1	1,2-Dichlorobenzene	410.	N	7005-72-3	4-Chlorophenyl-phenylether	410.	N
95-48-7	2-Methylphenol	410.	N	86-73-7	Fluorene	410.	N
39638-32-9	bis(2-Chloroisopropyl)ether	410.	N	100-01-6	4-Nitroaniline	2100.	N
106-44-5	4-Methylphenol	410.	N	534-52-1	4,6-Dinitro-2-methylphenol	2100.	N
621-64-7	N-Nitroso-Di-n-propylamine	410.	N	86-30-6	N-Nitrosodiphenylamine	410.	N
67-72-1	Hexachloroethane	410.	N	103-33-3	1,2-Diphenylhydrazine	410.	N
98-95-3	Nitrobenzene	410.	N	101-55-3	4-Bromophenyl-phenylether	410.	N
78-59-1	Isophorone	410.	N	87-86-5	Pentachlorophenol	2100.	N
88-75-5	2-Nitrophenol	410.	N	85-01-8	Phenanthrene	410.	N
105-67-9	2,4-Dimethylphenol	410.	N	120-12-7	Anthracene	410.	N
65-85-0	Benzoic Acid	2100.	N	84-74-2	Di-n-Butylphthalate	410.	N
111-91-1	bis(-2-Chloroethoxy)Methane	410.	N	118-74-1	Hexachlorobenzene	410.	N
120-83-2	2,4-Dichlorophenol	410.	N	206-44-0	Fluoranthene	410.	N
120-82-1	1,2,4-Trichlorobenzene	410.	N	92-87-5	Benzidine	2100.	N
91-20-3	Naphthalene	410.	N	129-00-0	Pyrene	410.	N
106-47-8	4-Chloroaniline	410.	N	85-68-7	Butylbenzylphthalate	410.	N
87-68-3	Hexachlorobutadiene	410.	N	91-94-1	3,3'-Dichlorobenzidine	830.	N
59-50-7	4-Chloro-3-methylphenol	410.	N	56-55-3	Benzo(a)Anthracene	410.	N
91-57-6	2-Methylnaphthalene	410.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	410.	N
77-47-4	Hexachlorocyclopentadiene	410.	N	218-01-9	Chrysene	410.	N
88-06-2	2,4,6-Trichlorophenol	410.	N	117-84-0	Di-n-octyl phthalate	410.	N
95-95-4	2,4,5-Trichlorophenol	2100.	N	205-99-2	Benzo(b)fluoranthene	410.	N
91-58-7	2-Chloronaphthalene	410.	N	207-08-9	Benzo(k)Fluoranthene	410.	N
88-74-4	2-Nitroaniline	2100.	N	50-32-8	Benzo(a)Pyrene	410.	N
131-11-3	Dimethyl Phthalate	410.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	410.	N
208-96-8	Acenaphthylene	410.	N	53-70-3	Dibenzo(a,h)Anthracene	410.	N
99-09-2	3-Nitroaniline	2100.	N	191-24-2	Benzo(g,h,i)Perylene	410.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.

Results reported on a dry weight basis.

[illegible]

[illegible]

Data [illegible] 08
Lab. No.: [illegible]
Matrix: Soil
Instrument ID: GC/MS# [illegible]

Client ID: [illegible]
Date Collected: [illegible]
Date extracted: [illegible]
Date Analyzed: 10/30/90 17:53

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
[illegible]	N-Nitrosodimethylamine	420.	N	[illegible]	[illegible]	420	N
108-95-2	Phenol	420.	N	51-28-5	2,4-Dinitrophenol	2100.	N
111-44-4	bis(-2-Chloroethyl)Ether	420.	N	100-02-7	4-Nitrophenol	2100.	N
95-57-8	2-Chlorophenol	420.	N	132-64-9	Dibenzofuran	420.	N
541-73-1	1,3-Dichlorobenzene	420.	N	606-20-2	2,6-Dinitrotoluene	420.	N
106-46-7	1,4-Dichlorobenzene	420.	N	121-14-2	2,4-Dinitrotoluene	420.	N
100-51-6	Benzyl Alcohol	420.	N	84-66-2	Diethylphthalate	420.	N
95-50-1	1,2-Dichlorobenzene	420.	N	7005-72-3	4-Chlorophenyl-phenylether	420.	N
95-48-7	2-Methylphenol	420.	N	86-73-7	Fluorene	420.	N
39638-32-9	bis(2-Chloroisopropyl)ether	420.	N	100-01-6	4-Nitroaniline	2100.	N
106-44-5	4-Methylphenol	420.	N	534-52-1	4,6-Dinitro-2-methylphenol	2100.	N
621-64-7	N-Nitroso-Di-n-propylamine	420.	N	86-30-6	N-Nitrosodiphenylamine	420.	N
67-72-1	Hexachloroethane	420.	N	103-33-3	1,2-Diphenylhydrazine	420.	N
98-95-3	Nitrobenzene	420.	N	101-55-3	4-Bromophenyl-phenylether	420.	N
78-59-1	Isophorone	420.	N	87-86-5	Pentachlorophenol	2100.	N
88-75-5	2-Nitrophenol	420.	N	85-01-8	Phenanthrene	420.	N
105-67-9	2,4-Dimethylphenol	420.	N	120-12-7	Anthracene	420.	N
65-85-0	Benzoic Acid	2100.	N	84-74-2	Di-n-butylphthalate	420.	N
111-91-1	bis(-2-Chloroethoxy)Methane	420.	N	118-74-1	Hexachlorobenzene	420.	N
120-83-2	2,4-Dichlorophenol	420.	N	206-44-0	Fluoranthene	420.	N
120-82-1	1,2,4-Trichlorobenzene	420.	N	92-87-5	Benzidine	2100.	N
91-20-3	Naphthalene	420.	N	129-00-0	Pyrene	420.	N
106-47-8	4-Chloroaniline	420.	N	85-68-7	Butylbenzylphthalate	420.	N
87-68-3	Hexachlorobutadiene	420.	N	91-94-1	3,3'-Dichlorobenzidine	850.	N
59-50-7	4-Chloro-3-methylphenol	420.	N	56-55-3	Benzo(a)Anthracene	420.	N
91-57-6	2-Methylnaphthalene	420.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	420.	N
77-47-4	Hexachlorocyclopentadiene	420.	N	218-01-9	Chrysene	420.	N
88-06-2	2,4,6-Trichlorophenol	420.	N	117-84-0	Di-n-octyl phthalate	[illegible]	N
95-95-4	2,4,5-Trichlorophenol	2100.	N	205-99-2	Benzo(b)fluoranthene	420.	N
91-58-7	2-Chloronaphthalene	420	N	207-08-9	Benzo(k)fluoranthene	420	N
88-74-4	2-Nitroaniline	2100.	N	50-32-8	Benzo(a)Pyrene	420.	N
131-11-3	Dimethyl Phthalate	420.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	420.	N
208-96-8	Acenaphthylene	420.	N	53-70-3	Dibenzo(a,h)Anthracene	420.	N
99-09-2	3-Nitroaniline	2100.	N	191-24-2	Benzo(g,h,i)Perylene	420.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.

Results reported on a dry weight basis.

SIMSPECTRUM

SEMI-VOLATILES ANALYSIS REPORT

REFERENCED METHOD:8270

Data File: [illegible]
Lab. No.: 7014546
Matrix: SOIL
Instrument ID: GC/MS#4 (HP5970)

Client ID: [illegible]
Date Collected: 10/23/90
Date Extracted: 10/29/90
Date Analyzed: 10/30/90 20:36

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	410.	N	83-32-9	Acenaphthene	410.	N
108-95-2	Phenol	410.	N	51-28-5	2,4-Dinitrophenol	2000.	N
111-44-4	bis(-2-Chloroethyl)Ether	410.	N	100-02-7	4-Nitrophenol	2000.	N
95-57-8	2-Chlorophenol	410.	N	132-64-9	Dibenzofuran	410.	N
541-73-1	1,3-Dichlorobenzene	410.	N	606-20-2	2,6-Dinitrotoluene	410.	N
106-46-7	1,4-Dichlorobenzene	410.	N	121-14-2	2,4-Dinitrotoluene	410.	N
100-51-6	Benzyl Alcohol	410.	N	84-66-2	Diethylphthalate	410.	N
95-50-1	1,2-Dichlorobenzene	410.	N	7005-72-3	4-Chlorophenyl-phenylether	410.	N
95-48-7	2-Methylphenol	410.	N	86-73-7	Fluorene	410.	N
39638-32-9	bis(2-Chloroisopropyl)ether	410.	N	100-01-6	4-Nitroaniline	2000.	N
106-44-5	4-Methylphenol	410.	N	534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
621-64-7	N-Nitroso-Di-n-propylamine	410.	N	86-30-6	N-Nitrosodiphenylamine	410.	N
67-72-1	Hexachloroethane	410.	N	103-33-3	1,2-Diphenylhydrazine	410.	N
98-95-3	Nitrobenzene	410.	N	101-55-3	4-Bromophenyl-phenylether	410.	N
78-59-1	Isophorone	410.	N	87-86-5	Pentachlorophenol	2000.	N
88-75-5	2-Nitrophenol	410.	N	85-01-8	Phenanthrene	410.	N
105-67-9	2,4-Dimethylphenol	410.	N	120-12-7	Anthracene	410.	N
65-85-0	Benzoic Acid	2000.	N	84-74-2	Di-n-Butylphthalate	410.	N
111-91-1	bis(-2-Chloroethoxy)Methane	410.	N	118-74-1	Hexachlorobenzene	410.	N
120-83-2	2,4-Dichlorophenol	410.	N	206-44-0	Fluoranthene	410.	N
120-82-1	1,2,4-Trichlorobenzene	410.	N	92-87-5	Benzidine	2000.	N
91-20-3	Naphthalene	410.	N	129-00-0	Pyrene	410.	N
106-47-8	4-Chloroaniline	410.	N	85-68-7	Butylbenzylphthalate	410.	N
87-68-3	Hexachlorobutadiene	410.	N	91-94-1	3,3'-Dichlorobenzidine	820.	N
59-50-7	4-Chloro-3-methylphenol	410.	N	56-55-3	Benzo(a)Anthracene	410.	N
91-57-6	2-Methylnaphthalene	410.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	410.	N
77-47-4	Hexachlorocyclopentadiene	410.	N	218-01-9	Chrysene	410.	N
88-06-2	2,4,6-Trichlorophenol	410.	N	117-84-0	Di-n-octyl phthalate	410.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N	205-99-2	Benzo(b)fluoranthene	410.	N
91-58-7	2-Chloronaphthalene	410.	N	207-08-9	Benzo(k)Fluoranthene	410.	N
88-74-4	2-Nitroaniline	2000.	N	50-32-8	Benzo(a)Pyrene	410.	N
131-11-3	Dimethyl Phthalate	410.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	410.	N
208-96-8	Acenaphthylene	410.	N	53-70-3	Dibenzo(a,h)Anthracene	410.	N
99-09-2	3-Nitroaniline	2000.	N	191-24-2	Benzo(g,h,i)Perylene	410.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
* - Compound is present but less than quanitation limit. Should be considered an approximation.

Results reported on a dry weight basis.

[illegible]

[illegible]

Lab. No.: 90:9547
Matrix: Soil
Instrument ID: GC/MS#4 (HP5970)

Client ID: [illegible]
Date Collected: 10/23/90
Date extracted: 10/29/90
Date Analyzed: 10/30/90 21:20

CAS #	Compound Name	Conc(ug/Kg)		CAS #	Compound Name	Conc(ug/Kg)	
62-75-9	N-Nitrosodimethylamine	400.	N	83-32-9	Acenaphthene	400.	N
108-95-2	Phenol	400.	N	51-28-5	2,4-Dinitrophenol	2000.	N
111-44-4	bis(2-Chloroethyl)Ether	400.	N	100-02-7	4-Nitrophenol	2000.	N
95-57-8	2-Chlorophenol	400.	N	132-64-9	Dibenzofuran	400.	N
541-73-1	1,3-Dichlorobenzene	400.	N	606-20-2	2,6-Dinitrotoluene	400.	N
106-46-7	1,4-Dichlorobenzene	400.	N	121-14-2	2,4-Dinitrotoluene	400.	N
100-51-6	Benzyl Alcohol	400.	N	84-66-2	Diethylphthalate	400.	N
95-50-1	1,2-Dichlorobenzene	400.	N	7005-72-3	4-Chlorophenyl-phenylether	400.	N
95-48-7	2-Methylphenol	400.	N	86-73-7	Fluorene	400.	N
39638-32-9	bis(2-Chloroisopropyl)ether	400.	N	100-01-6	4-Nitroaniline	2000.	N
106-44-5	4-Methylphenol	400.	N	534-52-1	4,6-Dinitro-2-methylphenol	2000.	N
621-64-7	N-Nitroso-Di-n-propylamine	400.	N	86-30-6	N-Nitrosodiphenylamine	400.	N
67-72-1	Hexachloroethane	400.	N	103-33-3	1,2-Diphenylhydrazine	400.	N
98-95-3	Nitrobenzene	400.	N	101-55-3	4-Bromophenyl-phenylether	400.	N
78-59-1	Isophorone	400.	N	87-86-5	Pentachlorophenol	2000.	N
88-75-5	2-Nitrophenol	400.	N	85-01-8	Phenanthrene	400.	N
105-67-9	2,4-Dimethylphenol	400	N	120-12-7	Anthracene	400.	N
65-85-0	Benzoic Acid	2000.	N	84-74-2	Di-n-Butylphthalate	400.	N
111-91-1	bis(2-Chloroethoxy)Methane	400.	N	118-74-1	Hexachlorobenzene	400.	N
120-83-2	2,4-Dichlorophenol	400.	N	206-44-0	Fluoranthene	400.	N
120-82-1	1,2,4-Trichlorobenzene	400.	N	92-87-5	Benzidine	2000.	N
91-20-3	Naphthalene	400.	N	129-00-0	Pyrene	400.	N
106-47-8	4-Chloroaniline	400.	N	85-68-7	Butylbenzylphthalate	400	N
87-68-3	Hexachlorobutadiene	400.	N	91-94-1	3,3'-Dichlorobenzidine	810.	N
59-50-7	4-Chloro-3-methylphenol	400.	N	56-55-3	Benzo(a)Anthracene	400.	N
91-57-6	2-Methylnaphthalene	400.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	2000.	
77-47-4	Hexachlorocyclopentadiene	400.	N	218-01-9	Chrysene	400.	N
88-06-2	2,4,6-Trichlorophenol	400.	N	117-84-0	Di-n-octyl phthalate	400.	N
95-95-4	2,4,5-Trichlorophenol	2000.	N	205-99-2	Benzo(b)fluoranthene	400.	N
91-58-7	2-Chloronaphthalene	400.	N	207-08-9	Benzo(k)Fluoranthene	400.	N
88-74-4	2-Nitroaniline	2000.	N	50-32-8	Benzo(a)Pyrene	400.	N
131-11-3	Dimethyl Phthalate	400.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	400.	N
208-96-8	Acenaphthylene	400.	N	53-70-3	Dibenzo(a,h)Anthracene	400.	N
99-09-2	3-Nitroaniline	2000.	N	191-24-2	Benzo(g,h,i)Perylene	400.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.

Results reported on a dry weight basis.

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name:BIOSPHERICS INC. Client: HONG-WEST & ASSOCIATES

CLIENT SAMPLE ID.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
BLANK 10/29	34	38	125	41	33	71		0
90042-TP10-1	40	44	96	58	47	66		0
90042-TP10-1 MS	5*	9*	103	21*	6*	51		4
90042-TP10-1 MSD	37	39	108	52	42	55		0
90042-TP10-2	40	41	108	65	52	76		0
90042-TP10-3	42	40	104	53	45	58		0
90042-TP10-4	31	34	71	48	35	40		0
90042-TP10-5	45	46	105	62	46	41		0
90042-TP10-6	41	38	102	64	43	38		0
90042-WP10-1	40	34	96	69	49	53		0
90042-WP10-2	59	69	126	69	56	64		0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl-d14	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

SEMIVOLATILES ANALYSIS
SOIL MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Client: HONG-WEST & ASSOCIATES

Lab: Biospherics Inc.

Sample Spiked: 90042-TP10-1
(Bio #9019540)

FRACTION	COMPOUND	CONC. SPIKE ADDED(ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
B/N	1,2,4-Trichlorobenzene	1660	<330	10	1*	150	10*	175*	23	38-107
Spiked	Acenaphthene	1660	<330	320	19*	720	43	78*	19	31-137
Sample	2,4-Dinitrotoluene	1660	<330	960	58	1240	75	25	47	28-89
ID:	Pyrene	1660	<330	1340	81	1480	89	10	36	35-142
90042-TP10-1	N-Nitroso Di-n-Propylamine	1660	<330	230	14*	760	46	107*	38	41-126
	1,4-Dichlorobenzene	1660	<330	2	0*	54	3*	189*	27	28-104
ACID	Pentachlorophenol	3330	<1700	1600	48	1423	43	12	47	17-109
Spiked	Phenol	3330	<330	730	22*	1430	43	65*	35	26-90
Sample	2-Chlorophenol	3330	<330	310	9*	1250	38	121*	50	25-102
ID:	4-Chloro-3-Methylphenol	3330	<330	1200	36	1820	55	41*	33	26-103
90042-TP10-1	4-Nitrophenol	3330	<1700	1150	35	1170	35	2	50	11-114

* - ASTERISKED VALUES ARE OUTSIDE QC LIMITS

RPD: B/N 4 out of 6 ; outside QC limits
ACID 3 out of 5 ; outside QC limits

RECOVERY: B/N 6 out of 12 ; outside QC limits
ACID 2 out of 10 ; outside QC limits

Comments:

[illegible]

[illegible]

[illegible]

Data File: [illegible]
Lab. No.: BLANK 10/27/90
Matrix: WATER
Instrument ID: GC/MS#4 (HP5970)

[illegible]
Date Collected: [illegible]
Date Extracted: 10/29/90
Date Analyzed: 10/30/90 12:[illegible]

CAS #	Compound Name	Conc(ug/L)		CAS #	Compound Name	Conc(ug/L)	
[illegible]	N-Nitrosodimethylamine	10.	[illegible]	[illegible]	Hexachlorobenzene	10.	N
108-95-2	Phenol	10.	N	51-28-5	2,4-Dinitrophenol	50.	N
111-44-4	bis(2-Chloroethyl)Ether	10.	N	100-02-7	4-Nitrophenol	50.	N
95-57-8	2-Chlorophenol	10.	N	132-64-9	Dibenzofuran	10.	N
541-73-1	1,3-Dichlorobenzene	10.	N	606-20-2	2,6-Dinitrotoluene	10.	N
106-46-7	1,4-Dichlorobenzene	10.	N	121-14-2	2,4-Dinitrotoluene	10	N
100-51-6	Benzyl Alcohol	10.	N	84-66-2	Diethylphthalate	10.	N
95-50-1	1,2-Dichlorobenzene	10.	N	7005-72-3	4-Chlorophenyl-phenylether	10.	N
95-48-7	2-Methylphenol	10.	N	86-73-7	Fluorene	10.	N
39638-32-9	bis(2-Chloroisopropyl)ether	10.	N	100-01-6	4-Nitroaniline	50.	N
106-44-5	4-Methylphenol	10.	N	534-52-1	4,6-Dinitro-2-methylphenol	50.	N
621-64-7	N-Nitroso-Di-n-propylamine	10.	N	86-30-6	N-Nitrosodiphenylamine	10.	N
67-72-1	Hexachloroethane	10.	N	103-33-3	1,2-Diphenylhydrazine	10.	N
98-95-3	Nitrobenzene	10.	N	101-55-3	4-Bromophenyl-phenylether	10.	N
78-59-1	Isophorone	10.	N	87-86-5	Pentachlorophenol	50.	N
88-75-5	2-Nitrophenol	10.	N	85-01-8	Phenanthrene	10.	N
105-67-9	2,4-Dimethylphenol	10.	N	120-12-7	Anthracene	10.	N
65-85-0	Benzoic Acid	50.	N	84-74-2	Di-n-Butylphthalate	10.	N
111-91-1	bis(2-Chloroethoxy)Methane	10.	N	118-74-1	Hexachlorobenzene	10.	N
120-83-2	2,4-Dichlorophenol	10.	N	206-44-0	Fluoranthene	10.	N
120-82-1	1,2,4-Trichlorobenzene	10.	N	92-87-5	Benzidine	50.	N
91-20-3	Naphthalene	10.	N	129-00-0	Pyrene	10.	N
106-47-8	4-Chloroaniline	10.	N	85-68-7	Butylbenzylphthalate	10.	N
87-68-3	Hexachlorobutadiene	10.	N	91-94-1	3,3'-Dichlorobenzidine	20	N
59-50-7	4-Chloro-3-methylphenol	10.	N	56-55-3	Benzo(a)Anthracene	10.	N
91-57-6	2-Methylnaphthalene	10.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	N
77-47-4	Hexachlorocyclopentadiene	10.	N	218-01-9	Chrysene	10.	N
88-06-2	2,4,6-Trichlorophenol	10.	N	117-84-0	Di-n-octyl phthalate	10.	N
95-95-4	2,4,5-Trichlorophenol	50.	N	205-99-2	Benzo(b)fluoranthene	10.	N
91-58-7	2-Chloronaphthalene	10.	N	207-08-9	Benzo(k)fluoranthene	10.	N
88-74-4	2-Nitroaniline	50.	N	50-32-8	Benzo(a)Pyrene	10.	N
131-11-3	Dimethyl Phthalate	10.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	10.	N
208-96-8	Acenaphthylene	10.	N	53-70-3	Dibenzo(a,h)Anthracene	10.	N
99-09-2	3-Nitroaniline	50.	N	191-24-2	Benzo(g,h,i)Perylene	10	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.

[illegible]

SEMI-VOLATILES ANALYSIS REPORT

EXTENDED ANALYSIS

Data File: [illegible]
Lab. No.: 90-7948
Matrix: Water
Instrument ID: GC/MS#4 (HP5970)

Client ID: ROMO-WES. & ASSOCIATES ([illegible])
Date Collected: 10/23/90
Date Extracted: 10/29/90
Date Analyzed: 10/30/90 13:20

CAS #	Compound Name	Conc(ug/L)		CAS #	Compound Name	Conc(ug/L)	
[illegible]	N-Nitrosodimethylamine	10.	N	[illegible]	Acenaphthene	10.	N
108-95-2	Phenol	10.	N	51-28-5	2,4-Dinitrophenol	50.	N
111-44-4	bis(-2-Chloroethyl)Ether	10.	N	100-02-7	4-Nitrophenol	50.	N
95-57-8	2-Chlorophenol	10.	N	132-64-9	Dibenzofuran	10.	N
541-73-1	1,3-Dichlorobenzene	10.	N	606-20-2	2,6-Dinitrotoluene	10.	N
106-46-7	1,4-Dichlorobenzene	10.	N	121-14-2	2,4-Dinitrotoluene	10.	N
100-51-6	Benzyl Alcohol	10.	N	84-66-2	Diethylphthalate	10.	N
95-50-1	1,2-Dichlorobenzene	10.	N	7005-72-3	4-Chlorophenyl-phenylether	10.	N
95-48-7	2-Methylphenol	10.	N	86-73-7	Fluorene	10.	N
39638-32-9	bis(2-Chloroisopropyl)ether	10.	N	100-01-6	4-Nitroaniline	50.	N
106-44-5	4-Methylphenol	10.	N	534-52-1	4,6-Dinitro-2-methylphenol	50.	N
621-64-7	N-Nitroso-Di-n-propylamine	10.	N	86-30-6	N-Nitrosodiphenylamine	10.	N
67-72-1	Hexachloroethane	10.	N	103-33-3	1,2-Diphenylhydrazine	10.	N
98-95-3	Nitrobenzene	10.	N	101-55-3	4-Bromophenyl-phenylether	10.	N
78-59-1	Isophorone	10.	N	87-86-5	Pentachlorophenol	50.	N
88-75-5	2-Nitrophenol	10.	N	85-01-8	Phenanthrene	10.	N
105-67-9	2,4-Dimethylphenol	10.	N	120-12-7	Anthracene	10.	N
65-85-0	Benzoic Acid	50.	N	84-74-2	Di-n-Butylphthalate	10.	N
111-91-1	bis(-2-Chloroethoxy)Methane	10.	N	118-74-1	Hexachlorobenzene	10.	N
120-83-2	2,4-Dichlorophenol	10.	N	206-44-0	Fluoranthene	10.	N
120-82-1	1,2,4-Trichlorobenzene	10.	N	92-87-5	Benzidine	50.	N
91-20-3	Naphthalene	10.	N	129-00-0	Pyrene	10.	N
106-47-8	4-Chloroaniline	10.	N	85-68-7	Butylbenzylphthalate	10.	N
87-68-3	Hexachlorobutadiene	10.	N	91-94-1	3,3'-Dichlorobenzidine	20.	N
59-50-7	4-Chloro-3-methylphenol	10.	N	56-55-3	Benzo(a)Anthracene	10.	N
91-57-6	2-Methylnaphthalene	10.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	10.	N
77-47-4	Hexachlorocyclopentadiene	10.	N	218-01-9	Chrysene	10.	N
88-06-2	2,4,6-Trichlorophenol	10.	N	117-84-0	Di-n-octyl phthalate	34.	
95-95-4	2,4,5-Trichlorophenol	50.	N	205-99-2	Benzo(b)fluoranthene	10.	N
91-58-7	2-Chloronaphthalene	10.	N	207-08-9	Benzo(k)Fluoranthene	10	N
88-74-4	2-Nitroaniline	50.	N	50-32-8	Benzo(a)Pyrene	10.	N
131-11-3	Dimethyl Phthalate	10.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	10.	N
208-96-8	Acenaphthylene	10.	N	53-70-3	Dibenzo(a,h)Anthracene	10.	N
99-09-2	3-Nitroaniline	50.	N	191-24-2	Benzo(g,h,i)Perylene	10.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quantitation limit.
* - Compound is present but less than quantitation limit. Should be considered an approximation.

[illegible]

[illegible]

REFERENCED METHOD:8270

Data File: [illegible]
Lab. No.: 9019549
Matrix: WATER
Instrument ID: GC/MS## (#5970)

Client ID: [illegible]
Date Collected: 10/23/90
Date Extracted: 10/29/90
Date Analyzed: 10/30/90 14:04

CAS #	Compound Name	Conc(ug/L)		CAS #	Compound Name	Conc(ug/L)	
62-75-9	N-Nitrosodimethylamine	18.	N	83-32-9	Acenaphthene	18.	N
108-95-2	Phenol	18.	N	51-28-5	2,4-Dinitrophenol	89.	N
111-44-4	bis(2-Chloroethyl)Ether	18.	N	100-02-7	4-Nitrophenol	89.	N
95-57-8	2-Chlorophenol	18.	N	132-64-9	Dibenzofuran	18.	N
541-73-1	1,3-Dichlorobenzene	18.	N	606-20-2	2,6-Dinitrotoluene	18.	N
106-46-7	1,4-Dichlorobenzene	18.	N	121-14-2	2,4-Dinitrotoluene	18.	N
100-51-6	Benzyl Alcohol	18.	N	84-66-2	Diethylphthalate	18.	N
95-50-1	1,2-Dichlorobenzene	18.	N	7005-72-3	4-Chlorophenyl-phenylether	18.	N
95-48-7	2-Methylphenol	18.	N	86-73-7	Fluorene	18.	N
39638-32-9	bis(2-Chloroisopropyl)ether	18.	N	100-01-6	4-Nitroaniline	89.	N
106-44-5	4-Methylphenol	18.	N	534-52-1	4,6-Dinitro-2-methylphenol	89.	N
621-64-7	N-Nitroso-Di-n-propylamine	18.	N	86-30-6	N-Nitrosodiphenylamine	18.	N
67-72-1	Hexachloroethane	18.	N	103-33-3	1,2-Diphenylhydrazine	18.	N
98-95-3	Nitrobenzene	18.	N	101-55-3	4-Bromophenyl-phenylether	18.	N
78-59-1	Isophorone	18.	N	87-86-5	Pentachlorophenol	89.	N
88-75-5	2-Nitrophenol	18.	N	85-01-8	Phenanthrene	18.	N
105-67-9	2,4-Dimethylphenol	18.	N	120-12-7	Anthracene	18.	N
65-85-0	Benzoic Acid	89.	N	84-74-2	Di-n-Butylphthalate	18.	N
111-91-1	bis(2-Chloroethoxy)Methane	18.	N	118-74-1	Hexachlorobenzene	18.	N
120-83-2	2,4-Dichlorophenol	18.	N	206-44-0	Fluoranthene	18.	N
120-82-1	1,2,4-Trichlorobenzene	18.	N	92-87-5	Benzidine	89.	N
91-20-3	Naphthalene	18.	N	129-00-0	Pyrene	18.	N
106-47-8	4-Chloroaniline	18.	N	85-68-7	Butylbenzylphthalate	18.	N
87-68-3	Hexachlorobutadiene	18.	N	91-94-1	3,3'-Dichlorobenzidine	36.	N
59-50-7	4-Chloro-3-methylphenol	18.	N	56-55-3	Benzo(a)Anthracene	18.	N
91-57-6	2-Methylnaphthalene	18.	N	117-81-7	Bis(2-Ethylhexyl)Phthalate	18.	N
77-47-4	Hexachlorocyclopentadiene	18.	N	218-01-9	Chrysene	18.	N
88-06-2	2,4,6-Trichlorophenol	18.	N	117-84-0	Di-n-octyl phthalate	18.	N
95-95-4	2,4,5-Trichlorophenol	89.	N	205-99-2	Benzo(b)fluoranthene	18.	N
91-58-7	2-Chloronaphthalene	18.	N	207-08-9	Benzo(k)Fluoranthene	18.	N
88-74-4	2-Nitroaniline	89.	N	50-32-8	Benzo(a)Pyrene	18.	N
131-11-3	Dimethyl Phthalate	18.	N	193-39-5	Indeno(1,2,3-cd)Pyrene	18.	N
208-96-8	Acenaphthylene	18.	N	53-70-3	Dibenzo(a,h)Anthracene	18.	N
99-09-2	3-Nitroaniline	89.	N	191-24-2	Benzo(g,h,i)Perylene	18.	N

Qualifier descriptions: N - Compound analyzed for but not detected
Number reported is the quanitation limit.
+ - Compound is present but less than quanitation limit. Should be considered an approximation.

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name:BIOSPHERICS INC. Client: HONG-WEST & ASSOCIATES

CLIENT SAMPLE ID.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
BLANK(10/29)	70	73	105	46	53	69		0
90042-T19-3	67	69	48	21	23	13		0
90042-T19-4	71	78	116	45	48	63		0
SPIKE BLANK	58	67	105	35	44	60		0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl-d14	(33-141)
S4 (PHL)	= Phenol-d5	(10-94)
S5 (2FP)	= 2-Fluorophenol	(21-100)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

WATER MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Client: HONG-WEST & ASSOCIATES Lab: Biospherics Inc. Sample Spiked: REAGENT WATER

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
B/N	1,2,4-Trichlorobenzene	100	<10	59	59				28	39-98
Spiked	Acenaphthene	100	<10	62	62				31	46-118
Sample	2,4-Dinitrotoluene	100	<10	48	48				38	24-96
ID:	Pyrene	100	<10	90	90				31	26-127
SPIKE BLANK	N-Nitroso Di-n-Propylamine	100	<10	49	49				38	41-116
	1,4-Dichlorobenzene	100	<10	56	56				28	36-97
ACID	Pentachlorophenol	200	<50	57	28				50	9-103
Spiked	Phenol	200	<10	62	31				42	12-89
Sample	2-Chlorophenol	200	<10	110	55				40	27-123
ID:	4-Chloro-3-Methylphenol	200	<10	83	42				42	23-97
	4-Nitrophenol	200	<50	39	20				50	10-80

* - ASTERISKED VALUES ARE OUTSIDE QC LIMITS

RPD: B/N_____out of_____; outside QC limits
ACID_____out of_____; outside QC limits

RECOVERY: B/N 0 out of 6; outside QC limits
ACID 0 out of 5; outside QC limits

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME: Biospherics Inc.

CASE No.: CS1(10/24)

LAB No.: 9019554

CLIENT NAME: Hong West

CLIENT I.D.: [illegible]

REFERENCED METHOD: EPA 8080

MATRIX: Water

UNITS: µg/L

DATE COLLECTED: 10/23/90

DATE RECEIVED: 10/24/90

DATE EXTRACTED: 10/26/90

DATE ANALYZED: 10/29-30/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.20
319-87-7	Beta-BHC	BQL	0.20
319-86-8	Delta-BHC	BQL	0.20
58-89-9	Lindane	BQL	0.20
76-44-8	Heptachlor	BQL	0.20
309-00-2	Aldrin	BQL	0.20
1024-57-3	Heptachlor Epoxide	BQL	0.20
959-98-8	Endosulfan I	0.33	0.20
60-57-1	Dieldrin	0.16	0.20
75-55-9	4,4'-DDE	0.51	0.20
72-20-8	Endrin	BQL	0.20
33213-65-9	Endosulfan II	0.23	0.20
72-54-8	4,4'-DDD	BQL	0.20
1031-07-8	Endosulfan Sulfate	BQL	0.20
50-29-3	4,4'-DDT	BQL	0.20
72-43-5	Methoxychlor	BQL	0.20
7421-93-4	Endrin Aldehyde	BQL	0.20
57-74-9	Chlordane	BQL	1.6
8001-35-2	Toxaphene	BQL	10
12674-11-2	Aroclor-1016	BQL	0.2
11104-28-2	Aroclor-1221	BQL	0.2
11141-16-5	Aroclor-1232	BQL	0.2
53469-21-9	Aroclor-1248	BQL	0.2
11097-6901	Aroclor-1254	BQL	0.2
11096-82-5	Aroclor-1260	BQL	0.2

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS1(10/24)	UNITS:	µg/L
LAB No.:	9019555	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042T19-2	DATE EXTRACTED:	10/26/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	10/29-30/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.20
319-87-7	Beta-BHC	BQL	0.20
319-86-8	Delta-BHC	BQL	0.20
58-89-9	Lindane	BQL	0.20
76-44-8	Heptachlor	BQL	0.20
309-00-2	Aldrin	BQL	0.20
1024-57-3	Heptachlor Epoxide	BQL	0.20
959-98-8	Endosulfan I	BQL	0.20
60-57-1	Dieldrin	BQL	0.20
75-55-9	4,4'-DDE	BQL	0.20
72-20-8	Endrin	BQL	0.20
33213-65-9	Endosulfan II	BQL	0.20
72-54-8	4,4'-DDD	BQL	0.20
1031-07-8	Endosulfan Sulfate	BQL	0.20
50-29-3	4,4'-DDT	BQL	0.20
72-43-5	Methoxychlor	BQL	0.20
7421-93-4	Endrin Aldehyde	BQL	0.20
57-74-9	Chlordane	BQL	1.6
8001-35-2	Toxaphene	BQL	10
12674-11-2	Aroclor-1016	BQL	0.2
11104-28-2	Aroclor-1221	BQL	0.2
11141-16-5	Aroclor-1232	BQL	0.2
53469-21-9	Aroclor-1248	BQL	0.2
11097-6901	Aroclor-1254	BQL	0.2
11096-82-5	Aroclor-1260	BQL	0.2

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS1(10/24)	UNITS:	μg/L
LAB No.:	9019548	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042119-3	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	10/29-30/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.20
319-87-7	Beta-BHC	BQL	0.20
319-86-8	Delta-BHC	BQL	0.20
58-89-9	Lindane	BQL	0.20
76-44-8	Heptachlor	BQL	0.20
309-00-2	Aldrin	BQL	0.20
1024-57-3	Heptachlor Epoxide	BQL	0.20
959-98-8	Endosulfan I	0.86	0.20
60-57-1	Dieldrin	BQL	0.20
75-55-9	4,4'-DDE	0.32	0.20
72-20-8	Endrin	BQL	0.20
33213-65-9	Endosulfan II	0.58	0.20
72-54-8	4,4'-DDD	BQL	0.20
1031-07-8	Endosulfan Sulfate	BQL	0.20
50-29-3	4,4'-DDT	BQL	0.20
72-43-5	Methoxychlor	BQL	0.20
7421-93-4	Endrin Aldehyde	BQL	0.20
57-74-9	Chlordane	BQL	1.6
8001-35-2	Toxaphene	BQL	10
12674-11-2	Aroclor-1016	BQL	0.2
11104-28-2	Aroclor-1221	BQL	0.2
11141-16-5	Aroclor-1232	BQL	0.2
53469-21-9	Aroclor-1248	BQL	0.2
11097-6901	Aroclor-1254	BQL	0.2
11096-82-5	Aroclor-1260	BQL	0.2

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS1(10/24)	UNITS:	µg/L
LAB No.:	9019549	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT ID:	90027119-4	DATE EXTRACTED:	10/26/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	10/29-30/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.20
319-87-7	Beta-BHC	BQL	0.20
319-86-8	Delta-BHC	BQL	0.20
58-89-9	Lindane	BQL	0.20
76-44-8	Heptachlor	BQL	0.20
309-00-2	Aldrin	BQL	0.20
1024-57-3	Heptachlor Epoxide	BQL	0.20
959-98-8	Endosulfan I	0.044	0.20
60-57-1	Dieldrin	0.04	0.20
75-55-9	4,4'-DDE	0.24	0.20
72-20-8	Endrin	BQL	0.20
33213-65-9	Endosulfan II	0.057	0.20
72-54-8	4,4'-DDD	0.056	0.20
1031-07-8	Endosulfan Sulfate	BQL	0.20
50-29-3	4,4'-DDT	BQL	0.20
72-43-5	Methoxychlor	BQL	0.20
7421-93-4	Endrin Aldehyde	BQL	0.20
57-74-9	Chlordane	BQL	1.6
8001-35-2	Toxaphene	BQL	10
12674-11-2	Aroclor-1016	BQL	0.2
11104-28-2	Aroclor-1221	BQL	0.2
11141-16-5	Aroclor-1232	BQL	0.2
53469-21-9	Aroclor-1248	BQL	0.2
11097-6901	Aroclor-1254	BQL	0.2
11096-82-5	Aroclor-1260	BQL	0.2

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	µg/g
LAB No.:	9019551	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042L2-1	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	10/29-30/90

C.A.S. Number		Sample Quantitation		Practical Quantitation Limit	
319-84-6	Alpha-BHC	BQL		0.02	0.001 *
319-87-7	Beta-BHC	BQL		0.02	0.001
319-86-8	Delta-BHC	BQL		0.02	0.001
58-89-9	Lindane	BQL		0.02	0.001
76-44-8	Heptachlor	BQL		0.02	0.001
309-00-2	Aldrin	BQL		0.02	0.001
1024-57-3	Heptachlor Epoxide	BQL		0.02	0.001
959-98-8	Endosulfan I	0.040	40 ppb	0.02	0.001
60-57-1	Dieldrin	0.79	790 ppb	0.02	0.001
75-55-9	4,4'-DDE	2.6	2600 ppb	0.02	0.001
72-20-8	Endrin	BQL		0.02	0.001
33213-65-9	Endosulfan II	BQL		0.02	0.001
72-54-8	4,4'-DDD	BQL		0.02	0.001
1031-07-8	Endosulfan Sulfate	BQL		0.02	0.001
50-29-3	4,4'-DDT	12.9	12,900	0.02	0.001
72-43-5	Methoxychlor	BQL		0.02	0.001
7421-93-4	Endrin Aldehyde	BQL		0.02	0.001
57-74-9	Chlordane	BQL		0.16	0.01
8001-35-2	Toxaphene	BQL		1.0	0.04
12674-11-2	Aroclor-1016	BQL		0.8	800 ppb
11104-28-2	Aroclor-1221	BQL		0.8	
11141-16-5	Aroclor-1232	BQL		0.8	
53469-21-9	Aroclor-1248	BQL		0.8	
11097-6901	Aroclor-1254	BQL		0.8	
11096-82-5	Aroclor-1260	BQL		0.8	

Surrogate % Rec. 111

All results reported on a dry weight basis.
BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

* DH 11/2/90 wrong entry

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME: Biospherics Inc.

MATRIX: Soil

CASE No.: CS1(10/24)

UNITS: µg/g

LAB No.: 9019553

DATE COLLECTED: 10/23/90

CLIENT NAME: Hong West

DATE RECEIVED: 10/24/90

CLIENT I.D.: 90042L2-2

DATE EXTRACTED: 10/25/90

REFERENCED METHOD: EPA 8080

DATE ANALYZED: 10/29-30/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.02 0.001 *
319-87-7	Beta-BHC	BQL	0.02 0.001
319-86-8	Delta-BHC	BQL	0.02 0.001
58-89-9	Lindane	BQL	0.02 0.001
76-44-8	Heptachlor	BQL	0.02 0.001
309-00-2	Aldrin	BQL	0.02 0.001
1024-57-3	Heptachlor Epoxide	BQL	0.02 0.001
959-98-8	Endosulfan I	1.3 1300	0.02 0.001
60-57-1	Dieldrin	0.038 38	0.02 0.001
75-55-9	4,4'-DDE	0.14 140	0.02 0.001
72-20-8	Endrin	BQL	0.02 0.001
33213-65-9	Endosulfan II	0.018 18	0.02 0.001
72-54-8	4,4'-DDD	0.11	0.02 0.001
1031-07-8	Endosulfan Sulfate	BQL	0.02 0.001
50-29-3	4,4'-DDT	0.41 410	0.02 0.001
72-43-5	Methoxychlor	BQL	0.02 0.001
7421-93-4	Endrin Aldehyde	BQL	0.02 0.001
57-74-9	Chlordane	BQL	0.16 0.01
8001-35-2	Toxaphene	BQL	1.0 0.04
12674-11-2	Aroclor-1016	BQL	0.8
11104-28-2	Aroclor-1221	BQL	0.8
11141-16-5	Aroclor-1232	BQL	0.8
53469-21-9	Aroclor-1248	BQL	0.8
11097-6901	Aroclor-1254	BQL	0.8
11096-82-5	Aroclor-1260	BQL	0.8

Surrogate % Rec. 72

All results reported on a dry weight basis.
BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

* CN 11-2-90
WRONG ENTRY

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME: Biospherics Inc.

CASE No.: CS1(10/24)

LAB No.: 9019540

CLIENT NAME: Hong West

CLIENT I.D.: 90042 TP 101

REFERENCED METHOD: EPA 8080

MATRIX: Soil

UNITS: µg/g

DATE COLLECTED: 10/23/90

DATE RECEIVED: 10/24/90

DATE EXTRACTED: 10/25/90

DATE ANALYZED: 10/29-30/90

C.A.S. Number		Sample Quantitation		Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL		0.02 0.001
319-87-7	Beta-BHC	BQL		0.02 0.001
319-86-8	Delta-BHC	BQL		0.02 0.001
58-89-9	Lindane	BQL		0.02 0.001
76-44-8	Heptachlor	BQL		0.02 0.001
309-00-2	Aldrin	BQL		0.02 0.001
1024-57-3	Heptachlor Epoxide	BQL		0.02 0.001
959-98-8	Endosulfan I	0.47	470	0.02 0.001
60-57-1	Dieldrin	0.011	11	0.02 0.001
75-55-9	4,4'-DDE	0.011	11	0.02 0.001
72-20-8	Endrin	BQL		0.02 0.001
33213-65-9	Endosulfan II	0.0015	1.5	0.02 0.001
72-54-8	4,4'-DDD	BQL		0.02 0.001
1031-07-8	Endosulfan Sulfate	BQL		0.02 0.001
50-29-3	4,4'-DDT	BQL		0.02 0.001
72-43-5	Methoxychlor	0.0071	7.1	0.02 0.001
7421-93-4	Endrin Aldehyde	BQL		0.02 0.001
57-74-9	Chlordane	BQL		0.16 0.01
8001-35-2	Toxaphene	BQL		1.0 0.04
12674-11-2	Aroclor-1016	BQL		0.1 0.1
11104-28-2	Aroclor-1221	BQL		0.1 0.1
11141-16-5	Aroclor-1232	BQL		0.1 0.1
53469-21-9	Aroclor-1248	BQL		0.1 0.1
11097-6901	Aroclor-1254	BQL		0.1 0.1
11096-82-5	Aroclor-1260	BQL		0.1 0.1

Surrogate % Rec. 71

All results reported on a dry weight basis.
BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

* gg 11/2/90
wrong entry

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	μg/g
LAB No.:	9019541	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 TP 102	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	10/29-30/90

C.A.S. Number		Sample Quantitation		Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL		0.02 0.001 *
319-87-7	Beta-BHC	BQL		0.02 0.001
319-86-8	Delta-BHC	BQL		0.02 0.001
58-89-9	Lindane	BQL		0.02 0.001
76-44-8	Heptachlor	BQL		0.02 0.001
309-00-2	Aldrin	BQL		0.02 0.001
1024-57-3	Heptachlor Epoxide	BQL		0.02 0.001
959-98-8	Endosulfan I	0.77	770	0.02 0.001
60-57-1	Dieldrin	0.032	32	0.02 0.001
75-55-9	4,4'-DDE	0.016	16	0.02 0.001
72-20-8	Endrin	BQL		0.02 0.001
33213-65-9	Endosulfan II	0.12	120	0.02 0.001
72-54-8	4,4'-DDD	0.017	17	0.02 0.001
1031-07-8	Endosulfan Sulfate	BQL		0.02 0.001
50-29-3	4,4'-DDT	BQL		0.02 0.001
72-43-5	Methoxychlor	BQL		0.02 0.001
7421-93-4	Endrin Aldehyde	BQL		0.02 0.001
57-74-9	Chlordane	BQL		0.16 0.01
8001-35-2	Toxaphene	BQL		1.0 0.04
12674-11-2	Aroclor-1016	BQL		0.1 0.1
11104-28-2	Aroclor-1221	BQL		0.1 0.1
11141-16-5	Aroclor-1232	BQL		0.1 0.1
53469-21-9	Aroclor-1248	BQL		0.1 0.1
11097-6901	Aroclor-1254	BQL		0.1 0.1
11096-82-5	Aroclor-1260	BQL		0.1 0.1

Surrogate % Rec. 75

All results reported on a dry weight basis.
BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

* CN 11-2-90
WRONG ENTRY

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	µg/g
LAB No.:	9019542	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 TP 103	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	10/29-30/90

C.A.S. Number		Sample Quantitation		Practical Quantitation Limit	
319-84-6	Alpha-BHC	BQL		0.02 0.001	*
319-87-7	Beta-BHC	BQL		0.02 0.001	
319-86-8	Delta-BHC	BQL		0.02 0.001	
58-89-9	Lindane	BQL		0.02 0.001	
76-44-8	Heptachlor	BQL		0.02 0.001	
309-00-2	Aldrin	BQL		0.02 0.001	
1024-57-3	Heptachlor Epoxide	BQL		0.02 0.001	
959-98-8	Endosulfan I	0.076	76	0.02 0.001	
60-57-1	Dieldrin	0.0042	4.2	0.02 0.001	
75-55-9	4,4'-DDE	0.0042	4.2	0.02 0.001	
72-20-8	Endrin	BQL	1.6	0.02 0.001	
33213-65-9	Endosulfan II	0.0016	3.4	0.02 0.001	
72-54-8	4,4'-DDD	0.0034		0.02 0.001	
1031-07-8	Endosulfan Sulfate	BQL		0.02 0.001	
50-29-3	4,4'-DDT	BQL		0.02 0.001	
72-43-5	Methoxychlor	BQL		0.02 0.001	
7421-93-4	Endrin Aldehyde	BQL		0.02 0.001	
57-74-9	Chlordane	BQL		0.16 0.01	
8001-35-2	Toxaphene	BQL		1.0 0.04	
12674-11-2	Aroclor-1016	BQL		0.01	
11104-28-2	Aroclor-1221	BQL		0.01	
11141-16-5	Aroclor-1232	BQL		0.01	
53469-21-9	Aroclor-1248	BQL		0.01	
11097-6901	Aroclor-1254	BQL		0.01	
11096-82-5	Aroclor-1260	BQL		0.01	

Surrogate % Rec. 77

All results reported on a dry weight basis.
BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

* CN 11-2-90
WRONG ENTRY

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	$\mu g/g$
LAB No.:	9019543	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 TP 104	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	0.2
2600-69-3	Phorate	BQL	0.01
298-04-4	Disulfoton	BQL	0.01
298-00-0	Methyl Parathion	BQL	0.01
121-75-5	Malathion	BQL	0.01
2921-88-2	Dursban	BQL	0.01
56-38-2	Ethyl Parathion	BQL	0.01
333-41-5	Diazinon	BQL	0.1
55-38-9	Fenthion	BQL	0.04
86-50-0	Azinophos-methyl	BQL	0.3
311-45-5	Paraoxon	BQL	0.1

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All results reported on a dry weight basis.

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	μg/g
LAB No.:	9019543	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 TP 104	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	10/29-30/90

C.A.S. Number		Sample Quantitation		Practical Quantitation Limit	
319-84-6	Alpha-BHC	BQL		0.02	0.001 *
319-87-7	Beta-BHC	BQL		0.02	0.001
319-86-8	Delta-BHC	BQL		0.02	0.001
58-89-9	Lindane	BQL		0.02	0.001
76-44-8	Heptachlor	BQL		0.02	0.001
309-00-2	Aldrin	BQL		0.02	0.001
1024-57-3	Heptachlor Epoxide	BQL		0.02	0.001
959-98-8	Endosulfan I	0.24	240	0.02	0.001
60-57-1	Dieldrin	0.0049	4.9	0.02	0.001
75-55-9	4,4'-DDE	0.0092	9.2	0.02	0.001
72-20-8	Endrin	BQL		0.02	0.001
33213-65-9	Endosulfan II	BQL		0.02	0.001
72-54-8	4,4'-DDD	0.0050	5.0	0.02	0.001
1031-07-8	Endosulfan Sulfate	BQL		0.02	0.001
50-29-3	4,4'-DDT	BQL		0.02	0.001
72-43-5	Methoxychlor	BQL		0.02	0.001
7421-93-4	Endrin Aldehyde	BQL		0.02	0.001
57-74-9	Chlordane	BQL		0.16	0.01
8001-35-2	Toxaphene	BQL		1.0	0.04
12674-11-2	Aroclor-1016	BQL		0.1	
11104-28-2	Aroclor-1221	BQL		0.1	
11141-16-5	Aroclor-1232	BQL		0.1	
53469-21-9	Aroclor-1248	BQL		0.1	
11097-6901	Aroclor-1254	BQL		0.1	
11096-82-5	Aroclor-1260	BQL		0.1	

Surrogate % Rec. 69

All results reported on a dry weight basis.
BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

* DL 11/2/90 wrong entry

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	μg/g
LAB No.:	9019544	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 TP 105	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	10/29-30/90

C.A.S. Number		Sample Quantitation		Practical Quantitation Limit	
319-84-6	Alpha-BHC	BQL		0.02	0.001
319-87-7	Beta-BHC	BQL		0.02	0.001
319-86-8	Delta-BHC	BQL		0.02	0.001
58-89-9	Lindane	BQL		0.02	0.001
76-44-8	Heptachlor	BQL		0.02	0.001
309-00-2	Aldrin	BQL		0.02	0.001
1024-57-3	Heptachlor Epoxide	BQL		0.02	0.001
959-98-8	Endosulfan I	0.128	128	0.02	0.001
60-57-1	Dieldrin	0.0057	5.7	0.02	0.001
75-55-9	4,4'-DDE	0.019	19	0.02	0.001
72-20-8	Endrin	BQL	25	0.02	0.001
33213-65-9	Endosulfan II	0.025	13	0.02	0.001
72-54-8	4,4'-DDD	0.013		0.02	0.001
1031-07-8	Endosulfan Sulfate	BQL	67	0.02	0.001
50-29-3	4,4'-DDT	0.067		0.02	0.001
72-43-5	Methoxychlor	BQL		0.02	0.001
7421-93-4	Endrin Aldehyde	BQL		0.02	0.001
57-74-9	Chlordane	BQL		0.16	0.01
8001-35-2	Toxaphene	BQL		1.0	0.04
12674-11-2	Aroclor-1016	BQL		0.01	
11104-28-2	Aroclor-1221	BQL		0.01	
11141-16-5	Aroclor-1232	BQL		0.01	
53469-21-9	Aroclor-1248	BQL		0.01	
11097-6901	Aroclor-1254	BQL		0.01	
11096-82-5	Aroclor-1260	BQL		0.01	

Surrogate % Rec. 71

All results reported on a dry weight basis.
BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

* BA 11/2/90 wrong entry

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME: Biospherics Inc.

CASE No.: CS1(10/24)

LAB No.: 9019545

CLIENT NAME: Hong West

CLIENT I.D.: 90042 TP 106

REFERENCED METHOD: EPA 8080

MATRIX: Soil

UNITS: µg/g

DATE COLLECTED: 10/23/90

DATE RECEIVED: 10/24/90

DATE EXTRACTED: 10/25/90

DATE ANALYZED: 10/29-30/90

C.A.S. Number		Sample Quantitation		Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL		0.02 0.001 *
319-87-7	Beta-BHC	BQL		0.02 0.001
319-86-8	Delta-BHC	BQL		0.02 0.001
58-89-9	Lindane	BQL		0.02 0.001
76-44-8	Heptachlor	BQL		0.02 0.001
309-00-2	Aldrin	BQL		0.02 0.001
1024-57-3	Heptachlor Epoxide	BQL		0.02 0.001
959-98-8	Endosulfan I	0.344	344	0.02 0.001
60-57-1	Dieldrin	BQL		0.02 0.001
75-55-9	4,4'-DDE	BQL		0.02 0.001
72-20-8	Endrin	BQL		0.02 0.001
33213-65-9	Endosulfan II	0.0055	5.5	0.02 0.001
72-54-8	4,4'-DDD	BQL		0.02 0.001
1031-07-8	Endosulfan Sulfate	BQL		0.02 0.001
50-29-3	4,4'-DDT	BQL		0.02 0.001
72-43-5	Methoxychlor	BQL		0.02 0.001
7421-93-4	Endrin Aldehyde	BQL		0.02 0.001
57-74-9	Chlordane	BQL		0.16 ~~0.001~~ * 0.01
8001-35-2	Toxaphene	BQL		1.0 0.04
12674-11-2	Aroclor-1016	BQL		0.1
11104-28-2	Aroclor-1221	BQL		0.1
11141-16-5	Aroclor-1232	BQL		0.1
53469-21-9	Aroclor-1248	BQL		0.1
11097-6901	Aroclor-1254	BQL		0.1
11096-82-5	Aroclor-1260	BQL		0.1

Surrogate % Rec. 62

All results reported on a dry weight basis.
BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

* CN 11-2-90
WRONG ENTRY

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	µg/g
LAB No.:	9019546	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 WP 101	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	10/29-30/90

C.A.S. Number		Sample Quantitation		Practical Quantitation Limit	
319-84-6	Alpha-BHC	BQL		0.02	0.001 *
319-87-7	Beta-BHC	BQL		0.02	0.001
319-86-8	Delta-BHC	BQL		0.02	0.001
58-89-9	Lindane	BQL		0.02	0.001
76-44-8	Heptachlor	BQL		0.02	0.001
309-00-2	Aldrin	BQL		0.02	0.001
1024-57-3	Heptachlor Epoxide	BQL		0.02	0.001
959-98-8	Endosulfan I	0.010	10	0.02	0.001
60-57-1	Dieldrin	0.275	275	0.02	0.001
75-55-9	4,4'-DDE	1.24	1240	0.02	0.001
72-20-8	Endrin	0.006	6	0.02	0.001
33213-65-9	Endosulfan II	0.0025	2.5	0.02	0.001
72-54-8	4,4'-DDD	0.49	490	0.02	0.001
1031-07-8	Endosulfan Sulfate	BQL		0.02	0.001
50-29-3	4,4'-DDT	2.9	2900	0.02	0.001
72-43-5	Methoxychlor	BQL		0.02	0.001
7421-93-4	Endrin Aldehyde	BQL		0.02	0.001
57-74-9	Chlordane	BQL		0.16	0.01
8001-35-2	Toxaphene	BQL		1.0	0.04
12674-11-2	Aroclor-1016	BQL		0.1	
11104-28-2	Aroclor-1221	BQL		0.1	
11141-16-5	Aroclor-1232	BQL		0.1	
53469-21-9	Aroclor-1248	BQL		0.1	
11097-6901	Aroclor-1254	BQL		0.1	
11096-82-5	Aroclor-1260	BQL		0.1	

Surrogate % Rec. 130

All results reported on a dry weight basis.
BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

* BU 11/2/90 wrong entry

ORGANIC ANALYSIS DATA SHEET
PESTICIDES/PCBs

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	μg/g
LAB No.:	9019547	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 WP 102	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	10/29-30/90

C.A.S. Number		Sample Quantitation		Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL		0.02 0.001 *
319-87-7	Beta-BHC	BQL		0.02 0.001
319-86-8	Delta-BHC	BQL		0.02 0.001
58-89-9	Lindane	BQL		0.02 0.001
76-44-8	Heptachlor	BQL		0.02 0.001
309-00-2	Aldrin	BQL		0.02 0.001
1024-57-3	Heptachlor Epoxide	BQL		0.02 0.001
959-98-8	Endosulfan I	BQL		0.02 0.001
60-57-1	Dieldrin	0.0038	3.8	0.02 0.001
75-55-9	4,4'-DDE	0.016	16	0.02 0.001
72-20-8	Endrin	BQL		0.02 0.001
33213-65-9	Endosulfan II	BQL	.1	0.02 0.001
72-54-8	4,4'-DDD	0.0001		0.02 0.001
1031-07-8	Endosulfan Sulfate	BQL		0.02 0.001
50-29-3	4,4'-DDT	BQL		0.02 0.001
72-43-5	Methoxychlor	BQL		0.02 0.001
7421-93-4	Endrin Aldehyde	BQL		0.02 0.001
57-74-9	Chlordane	BQL		0.16 0.01
8001-35-2	Toxaphene	BQL		1.0 0.04
12674-11-2	Aroclor-1016	BQL		0.01
11104-28-2	Aroclor-1221	BQL		0.01
11141-16-5	Aroclor-1232	BQL		0.01
53469-21-9	Aroclor-1248	BQL		0.01
11097-6901	Aroclor-1254	BQL		0.01
11096-82-5	Aroclor-1260	BQL		0.01

Surrogate % Rec. 74

All results reported on a dry weight basis.
BQL - Below Practical Quantitation Limit
All positive results qualitatively confirmed by second column analysis.

* CN 11-2-90
WRONG ENTRY

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	$\mu g/g$
LAB No.:	9019540	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 TP 101	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	0.2
2600-69-3	Phorate	BQL	0.01
298-04-4	Disulfoton	BQL	0.01
298-00-0	Methyl Parathion	BQL	0.01
121-75-5	Malathion	BQL	0.01
2921-88-2	Dursban	BQL	0.01
56-38-2	Ethyl Parathion	BQL	0.01
333-41-5	Diazinon	BQL	0.1
55-38-9	Fenthion	BQL	0.04
86-50-0	Azinophos-methyl	BQL	0.3
311-45-5	Paraoxon	BQL	0.1

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All results reported on a dry weight basis.

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	μg/g
LAB No.:	9019541	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 TP 102	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/26/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	0.2
2600-69-3	Phorate	BQL	0.01
298-04-4	Disulfoton	BQL	0.01
298-00-0	Methyl Parathion	BQL	0.01
121-75-5	Malathion	BQL	0.01
2921-88-2	Dursban	BQL	0.01
56-38-2	Ethyl Parathion	BQL	0.01
333-41-5	Diazinon	BQL	0.1
55-38-9	Fenthion	BQL	0.04
86-50-0	Azinophos-methyl	BQL	0.3
311-45-5	Paraoxon	BQL	0.1

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All results reported on a dry weight basis.

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	μg/g
LAB No.:	9019542	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 TP 103	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	0.2
2600-69-3	Phorate	BQL	0.01
298-04-4	Disulfoton	BQL	0.01
298-00-0	Methyl Parathion	BQL	0.01
121-75-5	Malathion	BQL	0.01
2921-88-2	Dursban	BQL	0.01
56-38-2	Ethyl Parathion	BQL	0.01
333-41-5	Diazinon	BQL	0.1
55-38-9	Fenthion	BQL	0.04
86-50-0	Azinophos-methyl	BQL	0.3
311-45-5	Paraoxon	BQL	0.1

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All results reported on a dry weight basis.

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	μg/g
LAB No.:	9019544	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 TP 105	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	0.2
2600-69-3	Phorate	BQL	0.01
298-04-4	Disulfoton	BQL	0.01
298-00-0	Methyl Parathion	BQL	0.01
121-75-5	Malathion	BQL	0.01
2921-88-2	Dursban	BQL	0.01
56-38-2	Ethyl Parathion	BQL	0.01
333-41-5	Diazinon	BQL	0.1
55-38-9	Fenthion	BQL	0.04
86-50-0	Azinophos-methyl	BQL	0.3
311-45-5	Paraoxon	BQL	0.1

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All results reported on a dry weight basis.

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	μg/g
LAB No.:	9019545	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 TP 106	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	0.2
2600-69-3	Phorate	BQL	0.01
298-04-4	Disulfoton	BQL	0.01
298-00-0	Methyl Parathion	BQL	0.01
121-75-5	Malathion	BQL	0.01
2921-88-2	Dursban	BQL	0.01
56-38-2	Ethyl Parathion	BQL	0.01
333-41-5	Diazinon	BQL	0.1
55-38-9	Fenthion	BQL	0.04
86-50-0	Azinophos-methyl	BQL	0.3
311-45-5	Paraoxon	BQL	0.1

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All results reported on a dry weight basis.

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	$\mu g/g$
LAB No.:	9019546	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 WP 101	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	0.2
2600-69-3	Phorate	BQL	0.01
298-04-4	Disulfoton	BQL	0.01
298-00-0	Methyl Parathion	BQL	0.01
121-75-5	Malathion	BQL	0.01
2921-88-2	Dursban	BQL	0.01
56-38-2	Ethyl Parathion	BQL	0.01
333-41-5	Diazinon	BQL	0.1
55-38-9	Fenthion	BQL	0.04
86-50-0	Azinophos-methyl	BQL	0.3
311-45-5	Paraoxon	BQL	0.1

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All results reported on a dry weight basis.

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	µg/g
LAB No.:	9019547	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042 WP 102	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	0.2
2600-69-3	Phorate	BQL	0.01
298-04-4	Disulfoton	BQL	0.01
298-00-0	Methyl Parathion	BQL	0.01
121-75-5	Malathion	BQL	0.01
2921-88-2	Dursban	BQL	0.01
56-38-2	Ethyl Parathion	BQL	0.01
333-41-5	Diazinon	BQL	0.1
55-38-9	Fenthion	BQL	0.04
86-50-0	Azinophos-methyl	BQL	0.3
311-45-5	Paraoxon	BQL	0.1

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All results reported on a dry weight basis.

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS1(10/24)	UNITS:	μg/L
LAB No.:	9019548	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042T19-3	DATE EXTRACTED:	10/26/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/28/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	50.0
2600-69-3	Phorate	BQL	2.0
298-04-4	Disulfoton	BQL	2.0
298-00-0	Methyl Parathion	BQL	2.0
121-75-5	Malathion	BQL	2.0
2921-88-2	Dursban	BQL	2.0
56-38-2	Ethyl Parathion	BQL	10.0
333-41-5	Diazinon	BQL	2.0
55-38-9	Fenthion	BQL	10.0
86-50-0	Azinophos-methyl	BQL	40.0
311-45-5	Paraoxon	BQL	20.0

Surrogate % Rec.

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS1(10/24)	UNITS:	μg/L
LAB No.:	9019549	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042T19-4	DATE EXTRACTED:	10/26/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/28/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	5.0
2600-69-3	Phorate	BQL	0.2
298-04-4	Disulfoton	BQL	0.2
298-00-0	Methyl Parathion	BQL	0.2
121-75-5	Malathion	BQL	0.2
2921-88-2	Dursban	BQL	0.2
56-38-2	Ethyl Parathion	BQL	1.0
333-41-5	Diazinon	BQL	0.2
55-38-9	Fenthion	BQL	1.0
86-50-0	Azinophos-methyl	BQL	4.0
311-45-5	Paraoxon	BQL	2.0

Surrogate % Rec.

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	CS1(10/24)	UNITS:	µg/g
LAB No.:	9019551	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042L2-1	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	0.2
2600-69-3	Phorate	BQL	0.01
298-04-4	Disulfoton	BQL	0.01
298-00-0	Methyl Parathion	BQL	0.01
121-75-5	Malathion	BQL	0.01
2921-88-2	Dursban	BQL	0.01
56-38-2	Ethyl Parathion	BQL	0.01
333-41-5	Diazinon	BQL	0.1
55-38-9	Fenthion	BQL	0.04
86-50-0	Azinophos-methyl	BQL	0.3
311-45-5	Paraoxon	BQL	0.1

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All results reported on a dry weight basis.

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soli
CASE No.:	CS1(10/24)	UNITS:	µg/g
LAB No.:	9019553	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042L2-2	DATE EXTRACTED:	10/25/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/29/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	0.2
2600-69-3	Phorate	BQL	0.01
298-04-4	Disulfoton	BQL	0.01
298-00-0	Methyl Parathion	BQL	0.01
121-75-5	Malathion	BQL	0.01
2921-88-2	Dursban	BQL	0.01
56-38-2	Ethyl Parathion	BQL	0.01
333-41-5	Diazinon	BQL	0.1
55-38-9	Fenthion	BQL	0.04
86-50-0	Azinophos-methyl	BQL	0.3
311-45-5	Paraoxon	BQL	0.1

Surrogate % Rec.

BQL - Below Practical Quantitation Limit
All results reported on a dry weight basis.

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS1(10/24)	UNITS:	µg/L
LAB No.:	9019554	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042T19-1	DATE EXTRACTED:	10/26/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/28/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	5.0
2600-69-3	Phorate	BQL	0.2
298-04-4	Disulfoton	BQL	0.2
298-00-0	Methyl Parathion	BQL	0.2
121-75-5	Malathion	BQL	0.2
2921-88-2	Dursban	BQL	0.2
56-38-2	Ethyl Parathion	BQL	1.0
333-41-5	Diazinon	BQL	0.2
55-38-9	Fenthion	BQL	1.0
86-50-0	Azinophos-methyl	BQL	4.0
311-45-5	Paraoxon	BQL	2.0

Surrogate % Rec.

BQL - Below Practical Quantitation Limit

ORGANIC ANALYSIS DATA SHEET
ORGANOPHOSPHORUS PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	CS1(10/24)	UNITS:	µg/L
LAB No.:	9019555	DATE COLLECTED:	10/23/90
CLIENT NAME:	Hong West	DATE RECEIVED:	10/24/90
CLIENT I.D.:	90042T19-2	DATE EXTRACTED:	10/26/90
REFERENCED METHOD:	EPA 8140	DATE ANALYZED:	10/28/90

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
107-49-3	TEPP	BQL	5.0
2600-69-3	Phorate	BQL	0.2
298-04-4	Disulfoton	BQL	0.2
298-00-0	Methyl Parathion	BQL	0.2
121-75-5	Malathion	BQL	0.2
2921-88-2	Dursban	BQL	0.2
56-38-2	Ethyl Parathion	BQL	1.0
333-41-5	Diazinon	BQL	0.2
55-38-9	Fenthion	BQL	1.0
86-50-0	Azinophos-methyl	BQL	4.0
311-45-5	Paraoxon	BQL	2.0

Surrogate % Rec.

BQL - Below Practical Quantitation Limit

BIOSPHERICS® INCORPORATED

12051 Indian Creek Ct.
Beltsville, MD 20705
(301) 369-3900

IN-SITU SOIL SAMPLING

Chain of Custody Record

7 DAY TA

Project: YARL Site: YAKIMA

Client: HONG WEST + ASSOC Phone: 206 774 0106

Address: P.O. BOX 596
LYNNWOOD, WA. 98046

Sampler's Name/Firm: Doug Geller

Phone: 7740106 Sampler's Signature: Doug Geller

Sample Number	Date	Time	Matrix	No. of Containers	VOA 8240	SEMIVOH 8270	TCL METALS	PEST/PCB 8080	ORGANOPHOS. 8140	CYANIDE			Remarks or Sample Location
Preservative Used													
90042 TP101			SOIL	6	✓	✓	✓	✓	✓	✓			TANK PIT BOTTOM (N)
" " 102			↓	↓	✓	✓	✓	✓	✓	✓			" " " (S)
" " 103					✓	✓	✓	✓	✓	✓			TANK PIT SIDEWALL (N)
" " 104					✓	✓	✓	✓	✓	✓			" (E)
" " 105					✓	✓	✓	✓	✓	✓			" (S)
" " 106					✓	✓	✓	✓	✓	✓			" (W)
90042 WP 101			SOIL	6	✓	✓	✓	✓	✓	✓			WASHPAD (W)
90042 WP 102			"	"	✓	✓	✓	✓	✓	✓			" (E)
90042 T19-3			WATER		✓	✓	✓	✓	✓	✓			DECON
90042 T19-4			↓		✓	✓	✓	✓	✓	✓			WASH WATER
90042 T19-5				1	✓								TRIP BLANK

Relinquished by: (Signature) [1]	Date/Time	Received by: (Signature)	Relinquished by: (Signature) [4]	Date/Time	Shipping Carrier:
Doug Geller	10/23 1pm				
Relinquished by: (Signature) [2]	**Date/Time**	**Received by: (Signature)**	**Received for Laboratory by: (Signature)**	**Date/Time**	**Shipping Ticket Number:**
			[signature]	10/24 0800	
Relinquished by: (Signature) [3]	**Date/Time**	**Received by: (Signature)**	**Chain of Custody Seal (Circle)**	**Lab Remarks**	
			(Intact) Broken Absent	Received Good/Cool	

White-Return to Client Yellow-Retain by Lab (Project File) Pink-Retain by Lab (Client Services) Gold-Retain by Sampler

BIOSPHERICS® INCORPORATED

12051 Indian Creek Ct.
Beltsville, MD 20705
(301) 369-3900

EXCAVATED SOIL SAMPLING

Chain of Custody Record

7DAY TA

Project: YALL Site: YAKIMA
Client: HONG WEST + ASSOC Phone: 206 7740106
Address: PO Box 596
Lynnwood, WA. 98046
Sampler's Name/Firm: Doug Geller
Phone: 7740106 Sampler's Signature: Doug Geller

Sample Number	Date	Time	Matrix	No. of Containers	PEST. 8080	ORGANOPHOS. 8140							Remarks or Sample Location
Preservative Used					X	X							
90042 L2-1			SOIL	2	✓	✓							2nd LIFT - WASHDOWN PAD
90042 L2-2			SOIL	2	✓	✓							2nd LIFT - TANK PIT
90042 T19-1			WATER	2	✓	✓							FIELD DECON.
90042 T19-2			WATER	2	✓	✓							FINAL WASH WATER.

Relinquished by: (Signature) [1]	Date/Time	Received by: (Signature)	Relinquished by: (Signature) [4]	Date/Time	Shipping Carrier:
Doug Geller	10/23 1 PM				
Relinquished by: (Signature) [2]	**Date/Time**	**Received by: (Signature)**	**Received for Laboratory by: (Signature)**	**Date/Time**	**Shipping Ticket Number:**
			[signature]	10/24 10:00 AM	
Relinquished by: (Signature) [3]	**Date/Time**	**Received by: (Signature)**	**Chain of Custody Seal: (Circle)**	**Lab Remarks**	
			Intact Broken Absent	Received Good/Cool	

White-Return to Client Yellow-Retain by Lab (Project File) Pink-Retain by Lab (Client Services) Gold-Retain by Sampler

Phase Three
June, 1991

BIOSPHERICS® INCORPORATED

Technologies for Environment and Health

July 11, 1991

RE: Lab # 91-06-1302

Mr. Doug Geller
Hong West & Associates
157 Yesler Way
Suite 505
Seattle, Washington 98104

Dear Mr. Geller:

Enclosed please find the results from analyses performed on recently received samples.

If you have any questions concerning the results, please do not hesitate to call me.

Sincerely,

Lee R. Zehner, Ph.D. (for)
Director
Laboratory Division

LZ:rg
enclosure

☐ **Corporate Headquarters**
12051 Indian Creek Court
Beltsville, Maryland 20705
(301) 369-3900
Telefax (301) 725-4908/09

☐ **Cumberland Regional Office**
Crossroads Venture Center
Three Commerce Drive
Cumberland, Maryland 21502
(301) 722-9100
Telefax (301) 722-9103

BIOSPHERICS INCORPORATED

CLIENT: Hong West

DATE COLLECTED: June 12, 1991

DATE RECEIVED: June 13, 1991

MATRIX: Soil/Water

LAB I.D.: 91-06-1302

Analytical Methodology/Sample Chronicle

Parameter	Method	Date Extracted	Date Analyzed
Pesticides	EPA 8080	6/13/91	6/22,26/91

Non-conformance Summary

Due to an apparent interference, spike results for the matrix spike and matrix spike duplicate were above acceptable limits for dieldrin, endrin, and 4,4'-DDT. The spike blank results, however, were acceptable: dieldrin (110%), endrin (130%), and 4,4'-DDT (120%). The data was released with confidence.

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	91061302	UNITS:	µg/g ppm
LAB No.:	1	DATE COLLECTED:	6/12/91 ✓
CLIENT NAME:	Hong West	DATE RECEIVED:	6/13/91 ✓
CLIENT I.D.:	A	DATE EXTRACTED:	6/13/91 ✓
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	6/26/91 ✓

OK

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.0002
319-87-7	Beta-BHC	BQL	0.0002
319-86-8	Delta-BHC	BQL	0.0002
58-89-9	Lindane	BQL	0.0002
76-44-8	Heptachlor	BQL	0.0002
309-00-2	Aldrin	BQL	0.0002
1024-57-3	Heptachlor Epoxide	BQL	0.0002
959-98-8	Endosulfan I	BQL	0.0002
60-57-1	Dieldrin	BQL	0.0002
75-55-9	4,4'-DDE	BQL	0.0002
72-20-8	Endrin	BQL	0.0002
33213-65-9	Endosulfan II	BQL	0.0002
72-54-8	4,4'-DDD	0.0004	0.0002
1031-07-8	Endosulfan Sulfate	BQL	0.0002
50-29-3	4,4'-DDT	0.0011	0.0002
72-43-5	Methoxychlor	BQL	0.0002
7421-93-4	Endrin Aldehyde	BQL	0.0002
57-74-9	Chlordane	BQL	0.0013
8001-35-2	Toxaphene	BQL	0.0083

Surrogate % Rec. 110

DDTr = .0015 x 1000

1.5 ppb

BQL - Below Practical Quantitation Limit
All results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	91061302	UNITS:	µg/g
LAB No.:	2	DATE COLLECTED:	6/12/91
CLIENT NAME:	Hong West	DATE RECEIVED:	6/13/91
CLIENT I.D.:	B	DATE EXTRACTED:	6/13/91
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	6/26/91

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.0002
319-87-7	Beta-BHC	BQL	0.0002
319-86-8	Delta-BHC	BQL	0.0002
58-89-9	Lindane	BQL	0.0002
76-44-8	Heptachlor	BQL	0.0002
309-00-2	Aldrin	BQL	0.0002
1024-57-3	Heptachlor Epoxide	BQL	0.0002
959-98-8	Endosulfan I	BQL	0.0002
60-57-1	Dieldrin	BQL	0.0002
75-55-9	4,4'-DDE	BQL	0.0002
72-20-8	Endrin	BQL	0.0002
33213-65-9	Endosulfan II	BQL	0.0002
72-54-8	4,4'-DDD	BQL	0.0002
1031-07-8	Endosulfan Sulfate	BQL	0.0002
50-29-3	4,4'-DDT	BQL	0.0002
72-43-5	Methoxychlor	BQL	0.0002
7421-93-4	Endrin Aldehyde	BQL	0.0002
57-74-9	Chlordane	BQL	0.0013
8001-35-2	Toxaphene	BQL	0.0083

Surrogate % Rec. 110

BQL - Below Practical Quantitation Limit
All results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	91061302	UNITS:	µg/g
LAB No.:	3	DATE COLLECTED:	6/12/91
CLIENT NAME:	Hong West	DATE RECEIVED:	6/13/91
CLIENT I.D.:	C	DATE EXTRACTED:	6/13/91
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	6/26/91

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.0002
319-87-7	Beta-BHC	BQL	0.0002
319-86-8	Delta-BHC	BQL	0.0002
58-89-9	Lindane	BQL	0.0002
76-44-8	Heptachlor	BQL	0.0002
309-00-2	Aldrin	BQL	0.0002
1024-57-3	Heptachlor Epoxide	BQL	0.0002
959-98-8	Endosulfan I	BQL	0.0002
60-57-1	Dieldrin	BQL	0.0002
75-55-9	4,4'-DDE	0.0005	0.0002
72-20-8	Endrin	BQL	0.0002
33213-65-9	Endosulfan II	BQL	0.0002
72-54-8	4,4'-DDD	BQL	0.0002
1031-07-8	Endosulfan Sulfate	BQL	0.0002
50-29-3	4,4'-DDT	0.0008	0.0002
72-43-5	Methoxychlor	BQL	0.0002
7421-93-4	Endrin Aldehyde	BQL	0.0002
57-74-9	Chlordane	BQL	0.0013
8001-35-2	Toxaphene	BQL	0.0083

Surrogate % Rec. 79

DDTc = .0013 = 1.3 ppb

BQL - Below Practical Quantitation Limit
All results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Soil
CASE No.:	91061302	UNITS:	µg/g
LAB No.:	4	DATE COLLECTED:	6/12/91
CLIENT NAME:	Hong West	DATE RECEIVED:	6/13/91
CLIENT I.D.:	D	DATE EXTRACTED:	6/13/91
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	6/26/91

C.A.S. Number		Sample Quantitation	Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL	0.0002
319-87-7	Beta-BHC	BQL	0.0002
319-86-8	Delta-BHC	BQL	0.0002
58-89-9	Lindane	BQL	0.0002
76-44-8	Heptachlor	BQL	0.0002
309-00-2	Aldrin	BQL	0.0002
1024-57-3	Heptachlor Epoxide	BQL	0.0002
959-98-8	Endosulfan I	BQL	0.0002
60-57-1	Dieldrin	0.042 = 42 ppb	0.0002
75-55-9	4,4'-DDE	BQL	0.0002
72-20-8	Endrin	BQL	0.0002
33213-65-9	Endosulfan II	BQL	0.0002
72-54-8	4,4'-DDD	0.0009	0.0002
1031-07-8	Endosulfan Sulfate	0.0004 .0065	0.0002
50-29-3	4,4'-DDT	0.0052 = 6.5 ppb	0.0002
72-43-5	Methoxychlor	BQL	0.0002
7421-93-4	Endrin Aldehyde	0.002	0.0002
57-74-9	Chlordane	BQL	0.0013
8001-35-2	Toxaphene	BQL	0.0083

Surrogate % Rec. 98

BQL - Below Practical Quantitation Limit
All results qualitatively confirmed by second column

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	91061302	UNITS:	µg/L
LAB No.:	5	DATE COLLECTED:	6/12/91
CLIENT NAME:	Hong West	DATE RECEIVED:	6/13/91
CLIENT I.D.:	RINSATE	DATE EXTRACTED:	6/13/91
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	6/22/91

C.A.S. Number		Sample Quantitation		Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL		0.02
319-87-7	Beta-BHC	BQL		0.02
319-86-8	Delta-BHC	BQL		0.02
58-89-9	Lindane	BQL		0.02
76-44-8	Heptachlor	BQL		0.02
309-00-2	Aldrin	BQL		0.02
1024-57-3	Heptachlor Epoxide	BQL		0.02
959-98-8	Endosulfan I	0.02	20 ppb	0.02
60-57-1	Dieldrin	BQL	60	0.02
75-55-9	4,4'-DDE	BQL		0.02
72-20-8	Endrin	BQL	40 ppb	0.02
33213-65-9	Endosulfan II	0.04		0.02
72-54-8	4,4'-DDD	BQL		0.02
1031-07-8	Endosulfan Sulfate	BQL	20 ppb	0.02
50-29-3	4,4'-DDT	0.02		0.02
72-43-5	Methoxychlor	BQL		0.02
7421-93-4	Endrin Aldehyde	BQL		0.02
57-74-9	Chlordane	BQL		0.16
8001-35-2	Toxaphene	BQL		1.0

Surrogate % Rec. 36

BQL - Below Practical Quantitation Limit
All results qualitatively confirmed by second column

WATER

ORGANIC ANALYSIS DATA SHEET
PESTICIDES

LAB NAME:	Biospherics Inc.	MATRIX:	Water
CASE No.:	91061302	UNITS:	µg/L
LAB No.:	6	DATE COLLECTED:	6/12/91
CLIENT NAME:	Hong West	DATE RECEIVED:	6/13/91
CLIENT I.D.:	WASHWATER	DATE EXTRACTED:	6/13/91
REFERENCED METHOD:	EPA 8080	DATE ANALYZED:	6/22/91

C.A.S. Number		Sample Quantitation		Practical Quantitation Limit
319-84-6	Alpha-BHC	BQL		0.02
319-87-7	Beta-BHC	BQL		0.02
319-86-8	Delta-BHC	BQL		0.02
58-89-9	Lindane	BQL		0.02
76-44-8	Heptachlor	BQL		0.02
309-00-2	Aldrin	BQL		0.02
1024-57-3	Heptachlor Epoxide	BQL		0.02
959-98-8	Endosulfan I	BQL		0.02
60-57-1	Dieldrin	BQL		0.02
75-55-9	4,4'-DDE	BQL		0.02
72-20-8	Endrin	BQL		0.02
33213-65-9	Endosulfan II	BQL		0.02
72-54-8	4,4'-DDD	BQL		0.02
1031-07-8	Endosulfan Sulfate	BQL		0.02
50-29-3	4,4'-DDT	0.06	60 ppb	0.02
72-43-5	Methoxychlor	BQL		0.02
7421-93-4	Endrin Aldehyde	BQL		0.02
57-74-9	Chlordane	BQL		0.16
8001-35-2	Toxaphene	BQL		1.0

Surrogate % Rec. 55

BQL - Below Practical Quantitation Limit
All results qualitatively confirmed by second column

WATER

ATMOSPHERICS INCORPORATED

12051 Indian Creek Ct.
Beltsville, MD 20705
(301) 369-3900

Chain of Custody Record

Project: YARL Site:
Client: USDA/Hong West Phone:
Address: PO Box 196
Lynnwood, WA 98046
Sampler's Name Firm: Dag Geller
Phone: 206 622 7695 Sampler's Signature: [signature]

Preservative Used

Analyses Required: Pesticide 8080

Sample Number	Date	Time	Matrix	No. of Containers	Pesticide 8080	Remarks or Sample Location
A	6/12/91	1115 A	SOIL	1	✓	washdown Pad 2nd overexp
B	↓	1120 A	"	1	✓	↓
C		1128 A	↓	1	✓	
D		1135 A	↓	1	✓	
Rinsate		1145	H_2O	1	✓	Decon.
Washwater		1145	"	1	✓	"

Relinquished by: (Signature) 1	Date Time	Received by: (Signature)	Relinquished by: (Signature) 4	Date Time	Shipping Carrier:
[signature]	6/14/91				
Relinquished by: (Signature) 2	Date Time	Received by: (Signature)	Received for Laboratory by: (Signature)	Date Time	Shipping Ticket Number:
Relinquished by: (Signature) 3	Date Time	Received by: (Signature)	Chain of Custody Seal: (Circle) Intact Broken Absent	Lab Remarks	

White-Return to Client Yellow-Retain by Lab (Project File) Pink-Retain by Lab (Client Services) Gold-Retain by Sampler