

90 MAY 31 PM 1:37

May 30, 1990

Mrs. Barbara B. Hagen
East Bay Municipal Utility District
Source Control Division, #59
Post Office Box 24055
Oakland, California 94623

**RE: Wastewater Monthly Report/Sample Data for the Groundwater
Treatment System at the Carnation Dairy Facility in Oakland**

AGE Project Numbers: 004-88-059, 004-89-093, 004-89-096

Account No. 033-00572

Dear Mrs. Hagen:

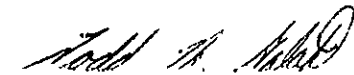
Enclosed are the laboratory analyses for the groundwater treatment system for the period of April 19, 1990 through May 30, 1990. The analyses were performed by Curtis and Tompkins, Ltd., Analytical Laboratories and Chromalab, Incorporated. The sample numbers 12261 and 3936 refer to the influent wastewater stream, sample numbers 12264 and 3934 refer to the effluent stream from carbon column 1, and sample numbers 12265 and 3935 refer to the effluent stream from carbon column 2. The samples were analyzed for aromatic volatile organics (EPA 8020) as per the permit requirements. The samples were also analyzed for volatile organics (EPA 8240).

The total amount discharged to the sewer is 679,330 gallons.
The monthly discharge total is 222,751 gallons.

If you have any questions concerning this information, please feel free to contact Jim Wallace or myself at (916) 631-0154.

Sincerely,

ANANIA GEOLOGIC ENGINEERING



Todd M. Galati
Project Manager



Jim Wallace
Senior Project Manager

cc: Mr. Merle Wood, Carnation
Mr. Jim Person, Carnation
Ms. Katherine Chesick, Alameda County Health Department

LABORATORY NUMBER: 100248-1
 CLIENT: ANANIA GEOLOGIC ENGINEERING
 JOB #: 004-88-059
 SAMPLE ID: 3934

DATE RECEIVED: 04/20/90
 DATE ANALYZED: 04/23/90
 DATE REPORTED: 05/02/90
 PAGE 4 OF 6

EPA 8020: Volatile Aromatic Hydrocarbons in Water

COMPOUND	RESULT ug/L	REPORTING LIMIT ug/L
Benzene.....	ND	1.0
Toluene.....	ND	1.0
Ethyl Benzene.....	ND	1.0
Total Xylenes.....	ND	1.0
Chlorobenzene.....	ND	1.0
1,4-Dichlorobenzene.....	ND	1.0
1,3-Dichlorobenzene.....	ND	1.0
1,2-Dichlorobenzene.....	ND	1.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	92

LABORATORY NUMBER: 100248-2
 CLIENT: ANANIA GEOLOGIC ENGINEERING
 JOB #: 004-88-059
 SAMPLE ID: 3935

DATE RECEIVED: 04/20/90
 DATE ANALYZED: 04/23/90
 DATE REPORTED: 05/02/90
 PAGE 5 OF 6

EPA 8020: Volatile Aromatic Hydrocarbons in Water

COMPOUND	RESULT ug/L	REPORTING LIMIT ug/L
Benzene.....	ND	1.0
Toluene.....	ND	1.0
Ethyl Benzene.....	ND	1.0
Total Xylenes.....	ND	1.0
Chlorobenzene.....	ND	1.0
1,4-Dichlorobenzene.....	ND	1.0
1,3-Dichlorobenzene.....	ND	1.0
1,2-Dichlorobenzene.....	ND	1.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====
 RPD, % 3
 RECOVERY, % 92
 =====

LABORATORY NUMBER: 100248-3
 CLIENT: ANANIA GEOLOGIC ENGINEERING
 JOB #: 004-88-059
 SAMPLE ID: 3936

DATE RECEIVED: 04/20/90
 DATE ANALYZED: 04/24/90
 DATE REPORTED: 05/02/90
 PAGE 6 OF 6

EPA 8020: Volatile Aromatic Hydrocarbons in Water

COMPOUND	RESULT ug/L	REPORTING LIMIT ug/L
Benzene.....	1,100	5.0
Toluene.....	290	5.0
Ethyl Benzene.....	ND	5.0
Total Xylenes.....	250	5.0
Chlorobenzene.....	ND	5.0
1,4-Dichlorobenzene.....	ND	5.0
1,3-Dichlorobenzene.....	ND	5.0
1,2-Dichlorobenzene.....	ND	5.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====
 RPD, % 1
 RECOVERY, % 90
 =====

ANANIA GEOLOGIC ENGINEERING

AGE No 3166

AGE PROJECT NO.		LAB REPORT NO.		No. of Containers	GRAB	COMPOSITE	ANALYSES										REMARKS	
P.O. NO.		SAMPLERS: (SIGNATURE)					SAMPLE TYPE			8020	TWT	PH						
LAB LOG NO.	DATE	TIME	SAMPLE I.D.				SOL	WATER	OTHER									
1	4/20/90	1250	3934	2			X									Regul		
2	4/20/90	1253	3935	2			X											
3	4/20/90	1312	3936	2			X											
4	4/20/90	1430	3931	1													AIR XX	
5	4/20/90	1445	3932	1													AIR XX	

RELINQUISHED BY: (SIGNATURE) <i>Jimmy Brannen</i>	DATE/TIME 4/20/90 1457	RELINQUISHED BY: (SIGNATURE) <i>Mark Kitten</i>	DATE/TIME 4-20-90 3:00	SEND COPY OF RESULTS TO: ATTN: REMARKS:	ORIGINAL RESULTS AND INVOICE TO: Anania Geologic Engineering P.O. Box 161148 Sacramento, CA 95816 ATTN: Jim Wallace FAX: (916) 631-0528 TEL: (916) 631-0154
COMPANY <i>Jimmy Brannen</i>		COMPANY <i>CAE</i>			
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RELINQUISHED BY: (SIGNATURE)	DATE/TIME		
COMPANY		COMPANY			
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RELINQUISHED BY: (SIGNATURE)	DATE/TIME		
COMPANY		COMPANY			
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RELINQUISHED BY: (SIGNATURE)	DATE/TIME		
COMPANY		COMPANY			

CHAIN OF CUSTODY

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#238)
- Drinking Water (#955)
- Waste Water
- Consultation

May 9, 1990

ChromaLab File # 0590007A

Client: Anania Geologic Eng.
Date Sampled: May 1, 1990
Date of Analysis: May 2, 1990

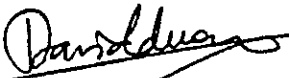
Attn: Jim Wallace
Date Submitted: May 1, 1990

Project No: 004-88-059
Sample I.D.: 12264 (WATER)
Method of Analysis: EPA 8240/624

Detection Limit: 4 µg/L

COMPOUND NAME	µg/L	Spike Recovery	Dup. Sp. Recovery
CHLOROMETHANE	N.D.	----	----
VINYL CHLORIDE	N.D.	118.7%	109.2%
BROMOMETHANE	N.D.	----	----
CHLOROETHANE	N.D.	----	----
TRICHLOROFLUOROMETHANE	N.D.	----	----
1,1-DICHLOROETHENE	N.D.	107.2%	105.3%
METHYLENE CHLORIDE	N.D.	----	----
1,2-DICHLOROETHENE (TOTAL)	N.D.	----	----
1,1-DICHLOROETHANE	N.D.	----	----
CHLOROFORM	N.D.	----	----
1,1,1-TRICHLOROETHANE	N.D.	113.6%	88.9%
CARBON TETRACHLORIDE	N.D.	----	----
BENZENE	N.D.	----	----
1,2-DICHLOROETHANE	N.D.	----	----
TRICHLOROETHENE	N.D.	----	----
1,2-DICHLOROPROPANE	N.D.	----	----
BROMODICHLOROMETHANE	N.D.	----	----
2-CHLOROETHYLVINYLETHER	N.D.	----	----
TRANS-1,3-DICHLOROPROPENE	N.D.	----	----
TOLUENE	N.D.	----	----
CIS-1,3-DICHLOROPROPENE	N.D.	----	----
1,1,2-TRICHLOROETHANE	N.D.	----	----
TETRACHLOROETHENE	N.D.	97.8%	94.8%
DIBROMOCHLOROMETHANE	N.D.	----	----
CHLOROBENZENE	N.D.	----	----
ETHYL BENZENE	N.D.	----	----
BROMOFORM	N.D.	----	----
1,1,2,2-TETRACHLOROETHANE	N.D.	----	----
1,3-DICHLOROBENZENE	N.D.	----	----
1,4-DICHLOROBENZENE	N.D.	----	----
1,2-DICHLOROBENZENE	N.D.	----	----
TOTAL XYLENES	N.D.	102.6%	99.7%

ChromaLab, Inc.


David Duong
Senior Chemist

Data Entry/File	
Entr'd _____	
Date _____	
Distribution:	
<u>JBW</u>	<u>RM</u>
<u>MLS</u>	_____
<u>KJA</u>	_____
<u>TG</u>	_____
<u>GB</u>	_____


Eric Tam
Lab Director

CHROMALAB, INC.Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#238)
- Drinking Water (#955)
- Waste Water
- Consultation

May 9, 1990

ChromaLab File # 0590007B

Client: Anania Geologic Eng.Attn: Jim WallaceDate Sampled: May 1, 1990Date Submitted: May 1, 1990Date of Analysis: May 2, 1990Project No: 004-88-059Sample I.D.: 12265 (WATER)Method of Analysis: EPA 8240/624Detection Limit: 4 µg/L

COMPOUND NAME	µg/L	Spike Recovery	Dup. Sp. Recovery
CHLOROMETHANE	N.D.	----	----
VINYL CHLORIDE	N.D.	118.7%	109.2%
BROMOMETHANE	N.D.	----	----
CHLOROETHANE	N.D.	----	----
TRICHLOROFLUOROMETHANE	N.D.	----	----
1,1-DICHLOROETHENE	N.D.	107.2%	105.3%
METHYLENE CHLORIDE	N.D.	----	----
1,2-DICHLOROETHENE (TOTAL)	N.D.	----	----
1,1-DICHLOROETHANE	N.D.	----	----
CHLOROFORM	N.D.	----	----
1,1,1-TRICHLOROETHANE	N.D.	113.6%	88.9%
CARBON TETRACHLORIDE	N.D.	----	----
BENZENE	N.D.	----	----
1,2-DICHLOROETHANE	N.D.	----	----
TRICHLOROETHENE	N.D.	----	----
1,2-DICHLOROPROPANE	N.D.	----	----
BROMODICHLOROMETHANE	N.D.	----	----
2-CHLOROETHYL VINYLETHER	N.D.	----	----
TRANS-1,3-DICHLOROPROPENE	N.D.	----	----
TOLUENE	N.D.	----	----
CIS-1,3-DICHLOROPROPENE	N.D.	----	----
1,1,2-TRICHLOROETHANE	N.D.	----	----
TETRACHLOROETHENE	N.D.	97.8%	94.8%
DIBROMOCHLOROMETHANE	N.D.	----	----
CHLOROBENZENE	N.D.	----	----
ETHYL BENZENE	N.D.	----	----
BROMOFORM	N.D.	----	----
1,1,2,2-TETRACHLOROETHANE	N.D.	----	----
1,3-DICHLOROBENZENE	N.D.	----	----
1,4-DICHLOROBENZENE	N.D.	----	----
1,2-DICHLOROBENZENE	N.D.	----	----
TOTAL XYLENES	N.D.	102.6%	99.7%

ChromaLab, Inc.


 David Duong
 Senior Chemist


 Eric Tam
 Lab Director

RECEIVED MAY 14 1990

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#238)
- Drinking Water (#955)
- Waste Water
- Consultation

May 9, 1990

ChromaLab File # 0590007C

Client: Anania Geologic Eng.
Date Sampled: May 1, 1990
Date of Analysis: May 2, 1990

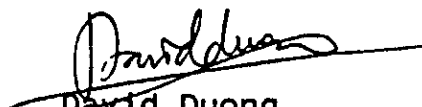
Attn: Jim Wallace
Date Submitted: May 1, 1990

Project No: 004-88-059
Sample I.D.: 12261 (WATER)
Method of Analysis: EPA 8240/624

Detection Limit: 4 ug/L

COMPOUND NAME	ug/L	Spike Recovery	Dup. Sp. Recovery
CHLOROMETHANE	N.D.	----	----
VINYL CHLORIDE	N.D.	118.7%	109.2%
BROMOMETHANE	N.D.	----	----
CHLOROETHANE	N.D.	----	----
TRICHLOROFLUOROMETHANE	N.D.	----	----
1,1-DICHLOROETHENE	13	107.2%	105.3%
METHYLENE CHLORIDE	N.D.	----	----
1,2-DICHLOROETHENE (TOTAL)	N.D.	----	----
1,1-DICHLOROETHANE	110	----	----
CHLOROFORM	N.D.	----	----
1,1,1-TRICHLOROETHANE	N.D.	113.6%	88.9%
CARBON TETRACHLORIDE	N.D.	----	----
BENZENE	N.D.	----	----
1,2-DICHLOROETHANE	46	----	----
TRICHLOROETHENE	N.D.	----	----
1,2-DICHLOROPROPANE	N.D.	----	----
BROMODICHLOROMETHANE	N.D.	----	----
2-CHLOROETHYL VINYLETHER	N.D.	----	----
TRANS-1,3-DICHLOROPROPENE	N.D.	----	----
TOLUENE	N.D.	----	----
CIS-1,3-DICHLOROPROPENE	N.D.	----	----
1,1,2-TRICHLOROETHANE	N.D.	----	----
TETRACHLOROETHENE	N.D.	97.8%	94.8%
DIBROMOCHLOROMETHANE	N.D.	----	----
CHLOROBENZENE	N.D.	----	----
ETHYL BENZENE	420	----	----
BROMOFORM	N.D.	----	----
1,1,2,2-TETRACHLOROETHANE	N.D.	----	----
1,3-DICHLOROBENZENE	N.D.	----	----
1,4-DICHLOROBENZENE	N.D.	----	----
1,2-DICHLOROBENZENE	N.D.	----	----
TOTAL XYLENES	550	102.6%	99.7%

ChromaLab, Inc.


David Duong
Senior Chemist


Eric Tam
Lab Director

AGE PROJECT NO.		LAB REPORT NO.		ANALYSES										REMARKS								
P.O. NO.		SAMPLERS: (SIGNATURE)		INITIALS		of Containers	GRAE	COMPOS	SAMPLE TYPE			7240										
LAB LOG NO.	DATE	TIME	SAMPLE I.D.	SOIL	WATER				OTHER													
	5/1/90	1406	12264	2					X													
	5/1/90	1407	12265	2					X													
	5/1/90	1440	12261	2					X													

RELINQUISHED BY: (SIGNATURE) <i>Jamy Buenavista</i> COMPANY AGE	DATE/TIME 5/1/90	RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i> COMPANY	DATE/TIME 5-1-90 15:00	SEND COPY OF RESULTS TO:	ORIGINAL RESULTS AND INVOICE TO: Anania Geologic Engineering P.O. Box 161148 Sacramento, CA 95816 ATTN: Jim Wallace FAX: (916) 631-0528 TEL: (916) 631-0154
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	ATTN:	
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	REMARKS: Reg. TAT	
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RELINQUISHED BY: (SIGNATURE)	DATE/TIME		

CHAIN OF CUSTODY

WHITE - AGE

YELLOW - LAB COPY

PINK - FILE