



March 5, 1991

91 MAR -7 AM 11:39

Mr. Richard E. Dodge
1120 Walker Avenue
Walnut Creek, CA 94596

**Subject: Sample Collection and Analysis
7400 Amador Valley Boulevard
Dublin, California
(Project No. 9115)**

Dear Mr. Dodge:

The following letter report presents results of soil stockpile and monitoring well sampling and analysis for the former Dutch Pride Dairy facility located at 7400 Amador Valley Boulevard in Dublin, California.

Aqua Terra Technologies
Consulting Engineers
& Scientists

SAMPLE COLLECTION

Samples were collected from soil stockpiles at the subject facility on February 11, 1991. Six composite samples (DPDA, DPDB1, DPDB2, DPDC1 DPDC2, and DPDC3), each consisting of four discrete samples, were collected from the stockpiles. One composite sample was collected from stockpile A, and two and three composite samples were collected from stockpiles B and C, respectively.

2950 Buskirk Avenue
Suite 120
Walnut Creek, CA
9 4 5 9 6
415 934-4884

Samples were collected in pre-cleaned, two by six inch brass tubes with a hand driven sampler. Samples were collected in accordance with the Bay Area Air Quality Management District's (BAAQMD) Regulation 8, Rule 40, "Aeration of Contaminated Soil and Removal of Underground Storage Tanks."

A site location map and a facility location map are presented on Plates 1 and 2 (Attachment A). Soil stockpile locations are presented on Plate 3 (Attachment A).

A groundwater sample (MW1) was collected from monitoring well MW13 on February 11, 1991. The sample was collected using a disposable bailer. The location of well MW13 is presented on Plate 3 (Attachment A).

All samples were submitted under chain of custody documentation to a California Department of Health Services certified laboratory for analysis.

ANALYTICAL RESULTS

Soil and groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH/g) and for benzene, toluene, ethylbenzene, and total xylenes (BTEX).

TPH/g concentrations in soil ranged from below method detection limits to 81 milligrams per kilogram (mg/Kg). Benzene concentrations in soil were below method detection limits. Toluene and ethylbenzene concentrations in soil ranged from below method detection limits to 170 micrograms per kilogram ($\mu\text{g/Kg}$) and 670 $\mu\text{g/Kg}$, respectively. Xylene concentrations in soil ranged from 5 $\mu\text{g/Kg}$ to 1800 $\mu\text{g/Kg}$.

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Mr. Richard E. Dodge
March 5, 1991
Page 2

The TPH/g concentration in groundwater was 1.5 milligrams per liter (mg/L). Concentrations of BTEX in groundwater were 290 micrograms per liter ($\mu\text{g/L}$), 98 $\mu\text{g/L}$, 28 $\mu\text{g/L}$, and 120 $\mu\text{g/L}$, respectively.

Handwritten note:
1.5 mg/L TPH
290 $\mu\text{g/L}$ BTEX
98 $\mu\text{g/L}$
28 $\mu\text{g/L}$
120 $\mu\text{g/L}$

A summary of analytical results is presented in Table 1 (Attachment A). Laboratory analytical results, chain of custody documentation, and sample collection records are provided in Attachment B.

Concentrations of TPH/g in soils are sufficiently low (below 100 ppm) to allow disposal at an acceptable Class III landfill.

Please contact us with any questions or comments regarding matters discussed herein.

Sincerely,

AQUA TERRA TECHNOLOGIES, INC.

Handwritten signature of Kimberly S. Lagomarsino

Kimberly S. Lagomarsino
Staff Scientist

Handwritten signature of Terrance E. Carter
Terrance E. Carter
Project Manager

KSL/TEC:mp

attachments

cc: Gil Wistar - Alameda County Health
Mr. Craig Mayfield - ACFCWCD (Zone 7)
Lester Feldman - RWQCB

ATTACHMENT A

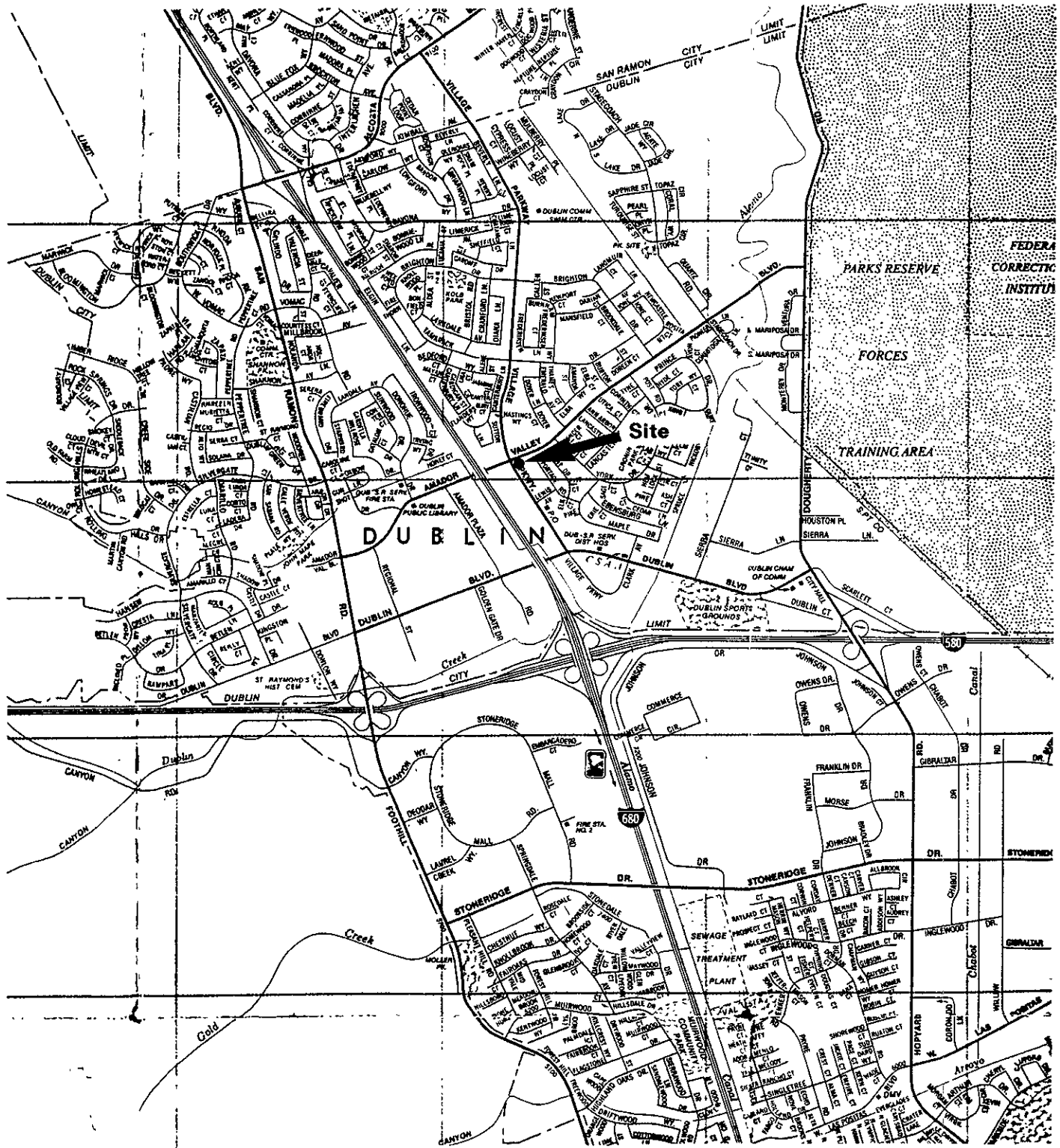
Tables and Plates

Table 1. Summary of Analytical Results
7400 Amador Valley Boulevard
Dublin, California

Feb 1991

Sample No.	Sample Matrix	TPH/g ^a (mg/Kg) ^b	B ^c (µg/Kg) ^d	T ^c (µg/Kg)	E ^c (µg/Kg)	X ^c (µg/Kg)
DPDA	Soil	<1.0	<3	<3	<3	7
DPDB1	Soil	2	<3	5	6	25
DPDB2	Soil	<1.0	<3	<3	5	23
DPDC1	Soil	71	<8	170	290	1800
DPDC2	Soil	81	<8	150	670	700
DPDC3	Soil	<1.0	<3	<3	<3	5
MW1	Water	1.5 mg/L ^e	290 µg/L ^f	98 µg/L	28 µg/L	120 µg/L

- a. TPH/g = total petroleum hydrocarbons as gasoline
b. mg/Kg = milligrams per kilogram, equal to parts per million (ppm)
c. B = benzene; T = toluene; E = ethylbenzene; X = total xylenes
d. µg/Kg = micrograms per kilogram, equal to parts per billion (ppb)
e. mg/L = milligrams per liter, equal to ppm
f. µg/L = micrograms per liter, equal to ppb



Site Location

ATT Aqua Terra Technologies
 Consulting Engineers
 & Scientists

Dutch Pride Dairy

PLATE

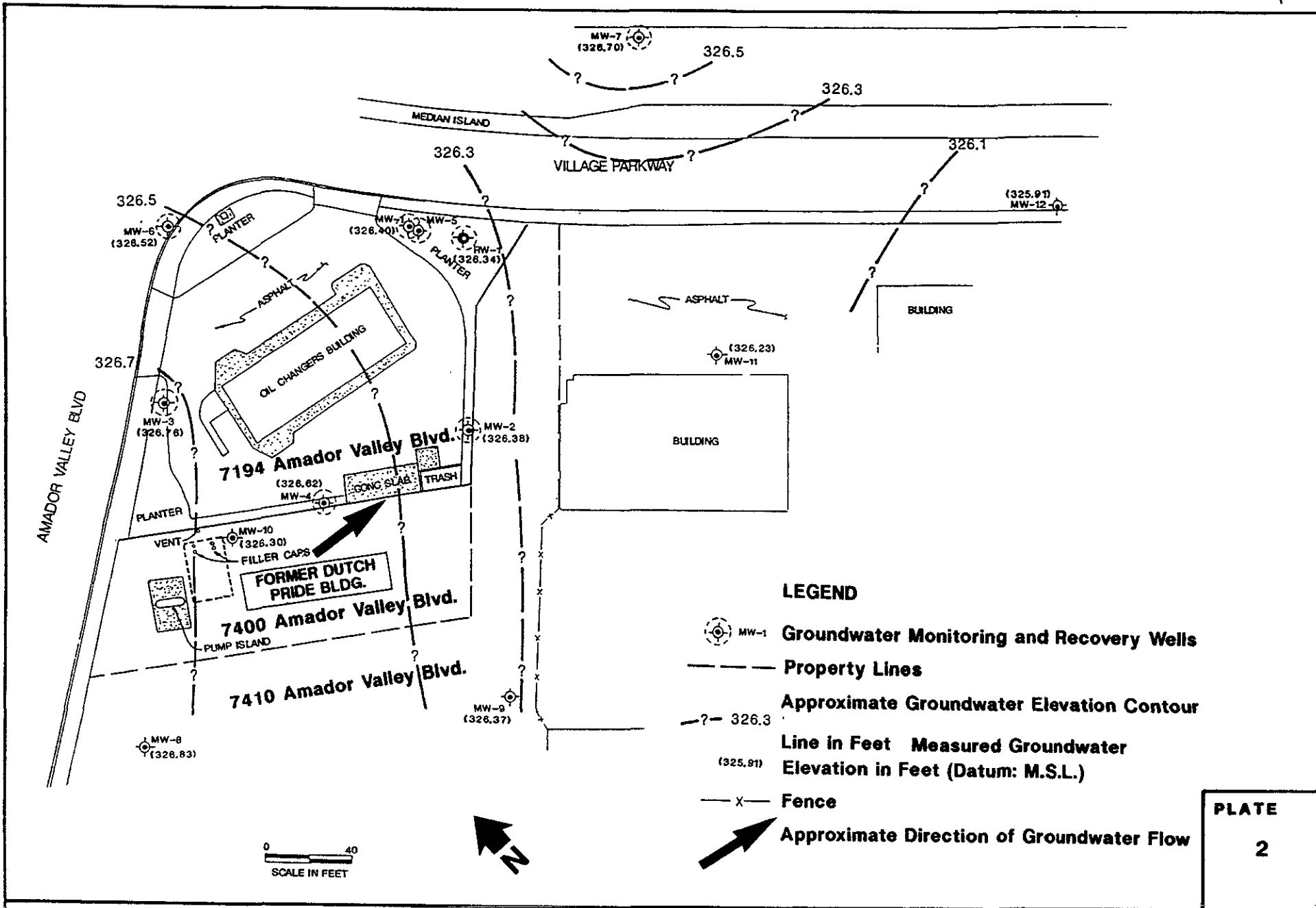
JOB NUMBER

DATE

1

9115

3/91



ATT

Aqua Terra Technologies
Consulting Engineers
& Scientists

Facility Location Map

Dutch Pride Dairy

JOB NUMBER

9115

DATE

3/91

Shell

OIL CHANGERS

MW13

Soil Stockpile C

Amador Valley Blvd.

Former Pump Island

Former Tank

Former Tank

FORMER DUTCH PRIDE DAIRY BLDG.

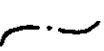
Soil Stockpile A

Soil Stockpile B

LEGEND



Groundwater Monitoring Well



Excavation Boundary

Planter Island



Not To Scale

PLATE

3

ATT

Aqua Terra Technologies Consulting Engineers & Scientists

Soil Stockpile and Monitoring Well Locations

Dutch Pride Dairy

JOB NUMBER

DATE

9115

3/91

ATTACHMENT B

**Laboratory Analytical Results,
Chain of Custody Documents,
Sample Collection Records**

SUPERIOR ANALYTICAL LABORATORIES, INC.

825 ARNOLD, STE. 114 • MARTINEZ, CALIFORNIA 94553 • (415) 229-1512

DOHS #319
DOHS #220

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 82452
CLIENT: Aqua Terra Technologies
CLIENT JOB NO.: 9115

DATE RECEIVED: 02/12/91
DATE REPORTED: 02/19/91

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
by Modified EPA SW-846 Method 5030 and 8015

LAB #	Sample Identification	Concentration (mg/kg) Gasoline Range
1	DPDA-1,2,3,4	ND<1.0
2	DPDB1-1,2,3,4	2
3	DPDB2-1,2,3,4	ND<1.0
4	DPDC1-1,2,3,4	71
5	DPDC2-1,2,3,4	81
6	DPDC3-1,2,3,4	ND<1.0
7	MW1	1.5 *
8	FB	ND<0.05 *

* mg/L parts per million (ppm)

mg/kg - parts per million (ppm)

Method Detection Limit for Gasoline in Soil: 1 mg/Kg
Method Detection Limit for Gasoline in Water: 0.05 mg/L

QAQC Summary:

Daily Standard run at 2mg/L: RPD Gasoline = <15
MS/MSD Average Recovery = 93%: Duplicate RPD = 10

Richard Srna, Ph.D.


Laboratory Manager

OUTSTANDING QUALITY AND SERVICE

SUPERIOR ANALYTICAL LABORATORIES, INC.

825 ARNOLD, STE. 114 • MARTINEZ, CALIFORNIA 94553 • (415) 229-1512

DOHS #319
DOHS #220

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 82452
CLIENT: Aqua Terra Technologies
CLIENT JOB NO.: 9115

DATE RECEIVED: 02/12/91
DATE REPORTED: 02/19/91

ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE & XYLENES
by EPA SW-846 Methods 5030 and 8020

LAB #	Sample Identification	Concentration(ug/kg)			
		Benzene	Toluene	Ethyl Benzene	Xylenes
1	DPDA-1,2,3,4	ND<3	ND<3	ND<3	7
2	DPDB1-1,2,3,4	ND<3	5	6	25
3	DPDB2-1,2,3,4	ND<3	ND<3	5	23
4	DPDC1-1,2,3,4	ND<8	170	290	1800
5	DPDC2-1,2,3,4	ND<8	150	670	700
6	DPDC3-1,2,3,4	ND<3	ND<3	ND<3	5
* 7	MW1	290	98	28	120
* 8	FB	0.3	1.6	0.4	2.0

* - ug/L parts per billion (ppb)

ug/Kg - parts per billion (ppb)

Method Detection Limit in Soil: 3 ug/Kg
Method Detection Limit in Water: 0.3 ug/L

QAQC Summary:

Daily Standard run at 20ug/L: RPD = <15%
MS/MSD Average Recovery =95%: Duplicate RPD = 7%

Richard Srna, Ph.D.


Laboratory Manager

OUTSTANDING QUALITY AND SERVICE

CHAIN OF SAMPLE CUSTODY RECORD

(original document, please return)

Page 1 of 3

Sampled By: Layne Williams

Date Sampled: 2/11/91

Signature: Layne Williams

ATT Job #: 9115

Lab Name: Superior Analytical

Results To Be Sent To: Terry Carter

Contact: _____

Results Needed By: _____

Phone #: 229-1512

Fax Results ASAP

Lab Job #: _____

Sample Collection				Sample Preservation			Sample Containers			Analysis/EPA Method No.					Remarks	
Sample I.D.	Time (24 hr)	Matrix (e.g. Water, Soil)	Number of Containers	Ice	HCL	Dry Ice	2x6" brass tube									
DPDA-1	1228	Soil	1			X	-					X	X			Composite
DPDA-2	1240	"	1			X	-					X	X			See Notes
DPDA-3	1245	"	1			X	-					X	X			
DPDA-4	1250	"	1			X	-					X	X			
DPDB1-1	1325	"	1			X	-					X	X			
DPDB1-2	1330	"	1			X	-					X	X			
DPDB1-3	1340	"	1			X	-					X	X			
DPDB1-4	1345	"	1			X	-					X	X			
DPDB2-1	1300	"	1			X	-					X	X			
DPDB2-2	1305	"	1			X	-					X	X			
DPDB2-3	1310	"	1			X	-					X	X			
DPDB2-4	1315	"	1			X	-					X	X			

Notes: Normal Turnaround. Composite all four "A" samples into one sample. Do the same for all four "B1" & "B2", etc.

Relinquished by/ Company Affiliation	Date	Time	Received by: Company Affiliation	Date	Time
<u>Layne Williams</u>	<u>2/12/91</u>	<u>1023</u>	<u>EXPRESS LT</u>	<u>2/12/91</u>	<u>1023</u>
<u>EXPRESS LT</u>	<u>2/12/91</u>	<u>1050</u>			
			<u>David Salinger</u>	<u>2/12/91</u>	<u>5:30</u>

Aqua Terra Technologies, Inc.

2950 Buskirk Avenue, Ste. 120
Walnut Creek, CA 94596
Tel. (415) 934-4884
Fax. (415) 934-0418

CHAIN OF SAMPLE CUSTODY RECORD

(original document, please return)

ATT

Page 2 of 3

Sampled By: Layne Williams

Date Sampled: 2/12/91

Signature: Layne Williams

ATT Job #: 9115

Lab Name: Superior Analytical

Results To Be Sent To: Terry Carter

Contact: _____

Results Needed By: _____

Phone #: _____

Fax Results ASAP

Lab Job #: _____

Sample Collection				Sample Preservation			Sample Containers			Analysis/EPA Method No.				Remarks
Sample I.D.	Time (24 hr)	Matrix (e.g. Water, Soil)	Number of Containers	Ice	HCL	Dry Ice	2x6" brown Tubs			TAP	Geo	BTEX		
DPDC1-1	1355	Soil	1			X	-			X	X			Composite
DPDC1-2	1400	"	1			X	-			X	X			See Notes
DPDC1-3	1405	"	1			X	-			X	X			
DPDC1-4	1410	"	1			X	-			X	X			
DPDC2-1	1425	"	1			X	-			X	X			
DPDC2-2	1430	"	1			X	-			X	X			
DPDC2-3	1435	"	1			X	-			X	X			
DPDC2-4	1440	"	1			X	-			X	X			
DPDC3-1	1500	"	1			X	-			X	X			
DPDC3-2	1505	"	1			X	-			X	X			
DPDC3-3	1510	"	1			X	-			X	X			
DPDC3-4	1512	"	1			X	-			X	X			

Notes: Normal Turnaround. Composite all four "C1" samples into one sample. Do the same for "C2" and "C3"

Relinquished by/ Company Affiliation	Date	Time	Received by: Company Affiliation	Date	Time
<u>Layne Williams</u> EXPRESS IT	<u>2/12/91</u>	<u>1023</u>	<u>Express-IT</u>	<u>2/12/91</u>	<u>1023</u>
<u>Ken Brown</u>	<u>2/12/91</u>	<u>1250</u>			
			<u>Frank Sal...</u>	<u>2/12/91</u>	<u>5:30</u>

Aqua Terra Technologies, Inc.

2950 Buskirk Avenue, Ste. 120
Walnut Creek, CA 94596
Tel. (415) 934-4884
Fax. (415) 934-0418

32452

ATT

CHAIN OF SAMPLE CUSTODY RECORD

(original document, please return)

Sampled By: Layne Williams

Date Sampled: 2/11/91

Signature: Layne Williams

ATT Job #: 9115

Lab Name: Superior Analytical

Results To Be Sent To: Terry Carter

Contact: _____

Results Needed By: _____

Phone #: 229-1572

Fax Results ASAP

Lab Job #: _____

Sample Collection				Sample Preservation			Sample Containers			Analysis/EPA Method No.					Remarks
Sample I.D.	Time (24 hr)	Matrix (e.g. Water, Soil)	Number of Containers	Ice	HCL	Dry Ice	40 ml Vol			TPH Gas	BTEX				
MW1	1622	Water	3		X	X	3			X	X				
FB	1545	"	3		X	X	3			X	X				

Notes: Normal Turnaround

Relinquished by/ Company Affiliation	Date	Time	Received by: Company Affiliation	Date	Time
<u>Layne Williams</u>	<u>2/12/91</u>	<u>1023</u>	<u>EXPRESS IT</u>	<u>2/12/91</u>	<u>1023</u>
<u>EXPRESS IT</u>	<u>2/12/91</u>	<u>1050</u>			
			<u>Harold Salas</u>	<u>2/12/91</u>	<u>5:30</u>

SAMPLE COLLECTION RECORD - SOIL

ATT

Date: 2-11-91, Job No.: 9115 Page 1 of 3

Site Location: Dutch Pride Dairy

Sample Location Sketch/Site Plan Attached?: Y / N

Samples from (check one): Stockpile, Excavation Pit,
 Other (explain)/_____

Sampling Equipment: Hammer, Spade-Shovel, Hand Sampler,
 Other (indicate)/_____

Equipment Cleaning: Triple Rinsed, Steam Cleaned,
 Other (indicate)/_____

Sample Cont. Cleaning: Pre-Cleaned, Steam Cleaned,
 Triple Rinsed, Other (indicate)/_____

Sample I.D.	No. of Cont.	No. of Dupli.	Lithology	Texture/Pliabil.	Moisture Content	Type of Contain	Coll. Time
DPDA-1	1	Ø	Rocky Dk. Brown	Soft, clay	Med.	2x6" brass tube	1228
DPDA-2	1	Ø	"	"	"	"	1240
DPDA-3	1	Ø	"	"	"	"	1245
DPDA-4	1	Ø	"	"	"	"	1250
DPDB1-1	1	Ø	Rocky, Brown	"	Low-med	"	1325
DPDB1-2	1	Ø	"	"	"	"	1330
DPDB1-3	1	Ø	"	"	"	"	1340
DPDB1-4	1	Ø	"	"	"	"	1345
DPDB2-1	1	Ø	"	"	"	"	1360
DPDB2-2	1	Ø	"	"	"	"	1305

Sample Preservation: Iced Cooler, Other/_____

Notes: _____

Sampled By (signature): *John Williams*

SAMPLE COLLECTION RECORD - SOIL

ATT

Date: 2-11-91, Job No.: 9115 Page 2 of 3

Site Location: Dutch Pride Dairy

Sample Location Sketch/Site Plan Attached?: (Y) / N

Samples from (check one): Stockpile, Excavation Pit,
 Other (explain)/ _____

Sampling Equipment: Hammer, Spade-Shovel, Hand Sampler,
 Other (indicate)/ _____

Equipment Cleaning: Triple Rinsed, Steam Cleaned,
 Other (indicate)/ _____

Sample Cont. Cleaning: Pre-Cleaned, Steam Cleaned,
 Triple Rinsed, Other (indicate)/ _____

Sample I.D.	No. of Cont.	No. of Dupli.	Lithology	Texture/Pliabil.	Moisture Content	Type of Contain	Coll. Time
DPDB2-3	1	Ø	Rocky Brown	Soft, clay	Low-med	2x6" brass tube	1310
DPDB2-4	1	Ø	"	"	"	"	1315
DPDC1-1	1	Ø	"	"	med.	"	1355
DPDC1-2	1	Ø	"	"	med.	"	1400
DPDC1-3	1	Ø	"	"	"	"	1405
DPDC1-4	1	Ø	"	"	"	"	1410
DPDC2-1	1	Ø	"	"	"	"	1425
DPDC2-2	1	Ø	"	"	"	"	1430
DPDC2-3	1	Ø	"	"	"	"	1435
DPDC2-4	1	Ø	"	"	"	"	1440

Sample Preservation: Iced Cooler, Other/ _____

Notes: _____

Sampled By (signature): *Rayne Williams*

SAMPLE COLLECTION RECORD - 'SOIL

ATT

Date: 2-11-91, Job No.: 9115 Page 3 of 3

Site Location: Dutch Pride Dairy

Sample Location Sketch/Site Plan Attached?: Y / N

Samples from (check one): Stockpile, Excavation Pit,
 Other (explain)/_____

Sampling Equipment: Hammer, Spade-Shovel, Hand Sampler,
 Other (indicate)/_____

Equipment Cleaning: Triple Rinsed, Steam Cleaned,
 Other (indicate)/_____

Sample Cont. Cleaning: Pre-Cleaned, Steam Cleaned,
 Triple Rinsed, Other (indicate)/_____

Sample I.D.	No. of Cont.	No. of Dupli.	Lithology	Texture/Pliabil.	Moisture Content	Type of Contain	Coll. Time
DPDC3-1	1	Ø	Rocky, Brown	Soft, clay	Med.	2x6" bag tube	1500
DPDC3-2	1	Ø	"	"	"	"	1505
DPDC3-3	1	Ø	"	"	"	"	1510
DPDC3-4	1	Ø	"	"	"	"	1512

Sample Preservation: Iced Cooler, Other/_____

Notes: _____

Sampled By (signature): *Rayne Williams*

Date: 2-11-91 Sample I.D.: MW1 Job No.: 9115

Site Location: Dutch Pride Dairy

No. of Containers: 3 / (check one): Well Samples;

Duplicates from well _____; Travel Blanks;

Field Blanks; Other (explain) / _____

W.L. (1/100'): 9.83' Time: 1530 B.O.W. (1/2'): 17'

Method: Electric Well Sounder; Other / _____

Con./pH meter calibrated: Y / N Well Loc. Map: Y / N

Calculated Purge Volume (4 casing volumes): 18 gallons

Purging Method: Disposable Bailer; Teflon Bailer;

Other / _____

Time Start Purging (24 hr): 1554, Product: Y / N
 Sheen: Y / N, Odor: Y / N, Vapor: _____ ppm / %LEL

Turbidity: Very light, Color: pale brown

Time Stop Purging (24 hr): 1617, Product: Y / N
 Sheen: Y / N, Odor: Y / N, Vapor: _____ ppm / %LEL

Turbidity: light, Color: brown

	Temp.	pH	Cond.	Purge Vol.	Time
First :	<u>17.5°C</u>	<u>6.67</u>	<u>3490μs</u>	<u>6</u>	<u>1602</u>
Second:	<u>17.5°</u>	<u>6.87</u>	<u>3530</u>	<u>12</u>	<u>1610</u>
Final :	<u>17.5°</u>	<u>6.87</u>	<u>3540</u>	<u>18</u>	<u>1617</u>

Sample Collection Time (24 hr): 1622

Notes: _____

Collected By (signature): [Signature]

Date: 2-11-91 Sample I.D.: FB Job No.: 9115

Site Location: Dutch Pride Dairy

No. of Containers : 3 / (check one): Well Samples;

Duplicates from well _____; Travel Blanks;

Field Blanks; Other (explain) / _____

W.L. (1/100'): _____ Time : _____ B.O.W. (1/2'): _____

Method: Electric Well Sounder; Other / _____

Con./pH meter calibrated: Y / N Well Loc. Map: Y / N

Calculated Purge Volume (4 casing volumes): _____ gallons

Purging Method: Disposable Bailer; Teflon Bailer;

Other / _____

Time Start Purging (24 hr): _____, Product: Y / N
 Sheen: Y / N , Odor: Y / N , Vapor: _____ ppm / %LEL

Turbidity: _____, Color: _____

Time Stop Purging (24 hr): _____, Product: Y / N
 Sheen: Y / N , Odor: Y / N , Vapor: _____ ppm / %LEL

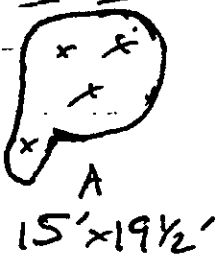
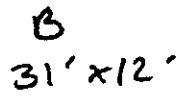
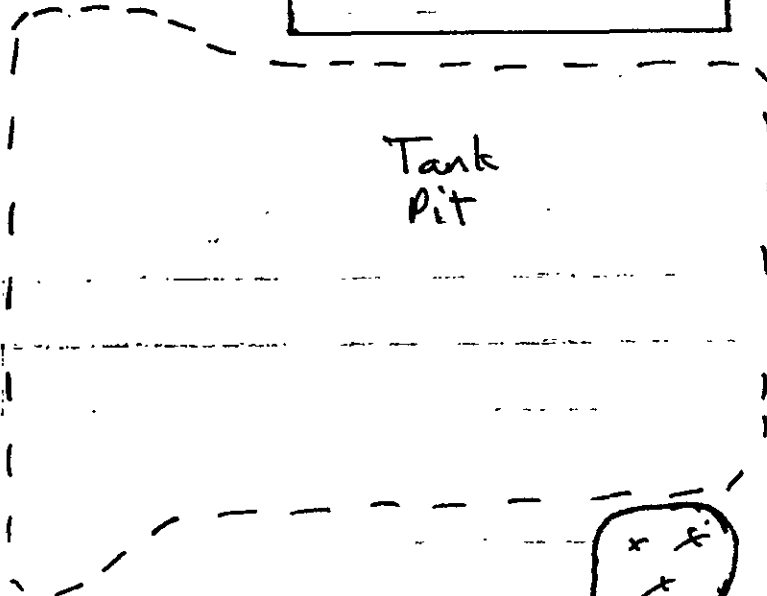
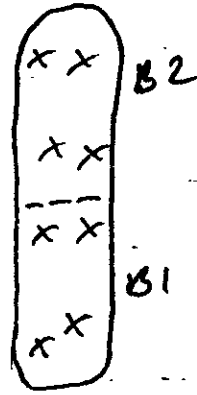
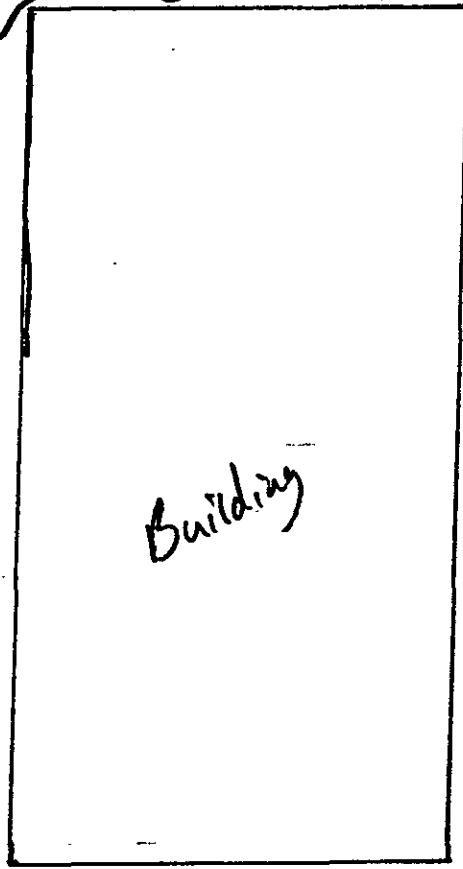
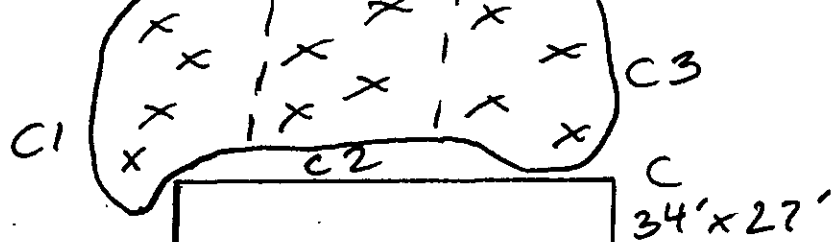
Turbidity: _____, Color: _____

	<u>Temp.</u>	<u>pH</u>	<u>Cond.</u>	<u>Purge Vol.</u>	<u>Time</u>
First :	_____	_____	_____	_____	_____
Second:	_____	_____	_____	_____	_____
Final :	_____	_____	_____	_____	_____

Sample Collection Time (24 hr): 1545

Notes: _____

Collected By (signature): *Roger Williams*



Amador Valley Blvd