ENVIRONMENTAL AUDIT, INC.®

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November 3, 1994

Project No. 1233

Ms. Eva Chu
Hazardous Materials Specialist
Alameda County Health Care Services
Department of Environmental Health
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, #200
Oakland, CA 94621

RE: FOURTH QUARTER 1994 GROUND WATER MONITORING REPORT
Montgomery Ward Auto Service Center
7575 Dublin Boulevard, Dublin, California

Dear Ms. Chu:

Enclosed herewith are two copies of our report entitled, "Ground Water Monitoring Report, Fourth Quarter 1994, Montgomery Ward Auto Service Center, 7575 Dublin Boulevard, Dublin, California," dated November 3, 1994.

Please call the undersigned if you have any questions or need additional information.

Sincerely,

ENVIRONMENTAL AUDIT, INC.

Christopher P.R. d'Sa, R.E.A.
Project Geologist

Frank S. Muramoto, R.G.
Senior Geologist

REGISTERED GEOLOGIST
FRANK S. MURAMOTO
No. 4248
STATE OF CALIFORNIA

CPD:FSM:SAB:sss

enclosure

cc: C. West, Montgomery Ward (w/enclosure)
G. Jonas, Montgomery Ward (w/enclosure)
M. Gilmartin, Straw & Gilmartin (w/enclosure)
R. Enea, Enea Properties (w/enclosure)

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QUARTERLY GROUND WATER MONITORING REPORT

Fourth Quarter 1994
Montgomery Ward Auto Service Center
7575 Dublin Boulevard
Dublin, California

November 3, 1994

Project No. 1233

Prepared for:

Montgomery Ward & Co. Incorporated
39201 Fremont Boulevard
Fremont, CA 94538

ENVIRONMENTAL AUDIT, INC.®

Planning, Environmental Analyses and Hazardous
Substances Management and Remediation
1000-A ORTEGA WAY
PLACENTIA, CA 92670-7125
714/632-8521

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GROUND WATER MONITORING REPORT
FOURTH QUARTER 1994
Montgomery Ward Auto Service Center
7575 Dublin Boulevard
Dublin, California

1.0 INTRODUCTION

This document constitutes the fourth quarter 1994 ground water monitoring report for the Montgomery Ward Auto Service Center property located at 7575 Dublin Boulevard, Dublin, California (see Figure 1). The quarterly ground water monitoring activities are conducted during the first month of each calendar quarter, i.e., in January, April, July, and October.

A ground water extraction and treatment system (System) is being operated at the site. Ground water is being extracted from well B-12 (see Figure 2). All other wells associated with the site function as monitoring wells at this time. Wells MW-100, MW-101 and MW-102 were installed in May 1993, pursuant to a request by the Alameda County Department of Environmental Health (County), and were subsequently included in the quarterly ground water monitoring.

As requested by the County, ground water monitoring wells MW-1 through MW-4 at the Enea Properties site (Enea Properties) located immediately south of the intersection of Amador Plaza Road and Dublin Boulevard were also gauged and sampled as part of the quarterly monitoring activities. Wells PZ-1 and EW-1 associated with the Enea Properties were not sampled since these wells are located within ten feet of monitoring well MW-1.

2.0 FIELD INVESTIGATION

2.1 GROUND WATER ELEVATION SURVEY

On September 3, 1994, Environmental Audit, Inc. obtained ground water depth measurements from the wells associated with the site and the Enea Properties using an Oil Recovery Systems' interface probe accurate to 0.01 feet. No free-product was detected in the wells during gauging activities. The measured water levels were converted to mean sea level (MSL) datum by subtracting the measured water level for each well from the ground level datum (see Table 1). Ground water elevation data obtained from the wells were used to construct a ground water elevation map (see Figure 2).

2.2 GROUND WATER AND EFFLUENT SAMPLING

On September 3 and 4, 1994, ground water samples were obtained from the wells for analytical testing. Prior to sampling, all wells except extraction well B-12 were purged using a Whale Supersub 921 submersible pump. Purging activities continued until the temperature, conductivity and pH of the extracted water had stabilized (see Appendix A).

Since the System remained active during this quarter's monitoring event, purging of well B-12 prior to sampling was unnecessary. Well B-12 was sampled first, and all other wells were sampled in the order that purging activities were completed. The water samples were collected

from just below the water surface using Voss Technologies disposable bottom bailers equipped with volatile organic compound samplers. Use of these bailers precludes the potential for cross-contamination. A treated effluent sample was obtained from the sampling port located downstream of the two 180-pound carbon treatment units. The water samples were sealed in two 40-milliliter (ml) VOA vials with Teflon septa lined lids and in one-liter plastic bottles. The containers were completely filled so that no head space existed between the samples and the lids. The samples were labeled with the sample point identification, date, time and EAI project number, and immediately placed into an ice chest chilled using frozen blue ice. The samples were kept chilled until delivered to the laboratory for analytical testing. All samples were logged on a chain of custody record form (see Appendix B).

2.3 SAMPLING EQUIPMENT CLEANING PROTOCOL

The submersible pump and hose (Equipment) used to purge the wells prior to sampling was decontaminated between each purging activity using the following procedure: 1) the Equipment was flushed in a solution of Alconox detergent and tap water; and 2) the Equipment was flushed with tap water.

2.4 EFFLUENT HANDLING

All effluent generated during purging, sampling and equipment decontamination activities was temporarily stored in seven 55-gallon drums which were then emptied into the System for treatment and subsequent discharge into the sanitary sewerage system.

3.0 ANALYTICAL TESTING

All samples were delivered for analytical testing to Sequoia Analytical, a state certified hazardous waste testing laboratory (Certificate No. 1271) located in Concord, California. The samples were tested for total petroleum hydrocarbons as gasoline (TPH-G) using modified EPA Method 8015, benzene, toluene, xylenes and ethylbenzene (BTXE) using EPA Method 8020, and total lead using EPA Method 7420. The results of the testing are shown in Table 2 along with the results from previous period's testing. The laboratory reports are contained in Appendix C.

4.0 SYSTEM OPERATION/MAINTENANCE

During the third quarter 1994, the ground water treatment system was inspected and routine maintenance of the system was undertaken on a frequency of once every two weeks and more often as required. During the period from approximately July 6 through 14, 1994, mechanical problems with aboveground transfer pump resulted in the pump's sporadic operation. This is reflected in the low volume of ground water being discharged during this time period. The problem was rectified on July 14, 1994.

On July 28, 1994, the two 55-gallon carbon adsorption canisters (CAC) used to treat the ground water were replaced with new 55-gallon CAC. The CAC were replaced due to plugging of the carbon beds by iron bacteria.

Table 3 presents the effluent flowmeter reading for the period from April 15, 1994 through October 4, 1994. During the period from July through September 1994, approximately 448,930 gallons of treated ground water were discharged into the Dublin-San Ramon Water Service Districts sanitary sewerage system. This discharge volume computes into an average ground water extraction rate during the third quarter of approximately 3.5 gallons per minute.

5.0 LIMITATION

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities. As directed by Montgomery Ward & Co., Incorporated, EAI's scope of work was limited to generating and summarizing data. No other warranty or representation, expressed or implied, is made as to the professional advice contained in this report.

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TABLES

TABLE 1
GROUND WATER ELEVATIONS
Montgomery Ward Auto Service Center
Enea Properties
Dublin, California

Date Measured	Elevation of top surface of PVC well casing (feet MSL)	Measured depth to ground water (feet bgs)	Measured depth to Product	Product Thickness	Ground water elevation (feet MSL)
B-5					
	340.05				
04/16/92		10.62	-	0.00	329.43
07/24/92		11.91	-	0.00	328.14
10/22/92		12.97	-	0.00	327.08
01/15/93		12.97	-	0.00	327.08
04/15/93		09.75	-	0.00	330.30
05/14/93		10.07	-	0.00	329.98
07/14/93		10.80	-	0.00	329.25
10/14/93		12.08	-	0.00	327.97
01/13/94		12.23	-	0.00	327.82
04/04/94		11.30	-	0.00	328.75
07/05/94		12.37	-	0.00	327.68
10/03/94		13.04	-	0.00	327.01
B-10					
	339.70				
04/16/92		10.32	-	0.00	329.38
07/24/92		11.69	-	0.00	328.01
10/22/92		12.67	-	0.00	327.03
01/15/93		09.48	-	0.00	330.22
04/15/93		09.49	-	0.00	330.21
05/14/93		09.87	-	0.00	329.83
07/14/93		10.64	-	0.00	329.06
10/14/93		11.80	-	0.00	327.90
01/13/94		11.94	-	0.00	327.76
04/04/94		11.00	-	0.00	328.70
07/05/94		12.08	-	0.00	327.62
10/04/94		12.69	-	0.00	327.01
B-12					
	339.10				
04/16/92		09.95	-	0.00	329.15
07/24/92		11.57	-	0.00	327.53
10/22/92		12.82	-	0.00	326.28
01/15/93		08.66	-	0.00	330.44
04/15/93		08.70	-	0.00	330.40
05/14/93		09.32	-	0.00	329.78
07/14/93		09.95	-	0.00	329.15
10/14/93		10.94	-	0.00	328.16
01/13/94		11.28	-	0.00	327.82

TABLE 1
GROUND WATER ELEVATIONS
Montgomery Ward Auto Service Center
Enea Properties
Dublin, California

Date Measured	Elevation of top surface of PVC well casing (feet MSL)	Measured depth to ground water (feet bgs)	Measured depth to Product	Product Thickness	Ground water elevation (feet MSL)
04/04/94		10.32	-	0.00	328.78
07/05/94		19.25	-	0.00	319.85
10/04/94		19.27	-	0.00	319.83
B-15					
	340.62				
04/16/92		11.09	-	0.00	329.53
07/24/92		12.33	-	0.00	328.29
10/22/92		13.25	-	0.00	327.37
01/15/93		10.22	-	0.00	330.40
04/15/93		10.26	-	0.00	330.36
05/14/93		10.64	-	0.00	329.98
07/14/93		11.35	-	0.00	329.27
10/14/93		12.41	-	0.00	328.21
01/13/94		12.59	-	0.00	328.03
04/04/94		11.74	-	0.00	328.88
07/05/94		12.86	-	0.00	327.76
10/04/94		13.35	-	0.00	327.27
B-16					
	339.82				
04/16/92		10.63	-	0.00	329.19
07/24/92		11.90	-	0.00	327.92
10/22/92		12.88	-	0.00	326.94
01/15/93		09.79	-	0.00	330.03
04/15/93		09.83	-	0.00	329.99
05/14/93		10.20	-	0.00	329.62
07/14/93		10.92	-	0.00	328.90
10/14/93		11.99	-	0.00	327.83
01/13/94		12.16	-	0.00	327.66
04/04/94		11.28	-	0.00	328.54
07/05/94		12.28	-	0.00	327.54
10/04/94		12.89	-	0.00	326.93
MW-100					
	339.61				
05/14/93		10.34	-	0.00	329.27
07/14/93		11.00	-	0.00	328.61
10/14/93		12.12	-	0.00	327.49
01/13/94		12.25	-	0.00	327.36
04/04/94		11.36	-	0.00	328.25

TABLE 1
GROUND WATER ELEVATIONS
Montgomery Ward Auto Service Center
Enea Properties
Dublin, California

Date Measured	Elevation of top surface of PVC well casing (feet MSL)	Measured depth to ground water (feet bgs)	Measured depth to Product	Product Thickness	Ground water elevation (feet MSL)
07/05/94		12.22	-	0.00	327.39
10/04/94		12.88	-	0.00	326.73
MW-101					
	338.54				
05/14/93		09.91	-	0.00	328.63
07/14/93		10.38	-	0.00	328.16
10/14/93		11.30	-	0.00	327.24
01/13/94		11.21	-	0.00	327.33
04/04/94		10.69	-	0.00	327.85
07/05/94		11.39	-	0.00	327.15
10/04/94		11.98	-	0.00	326.56
MW-102					
	339.23				
05/14/93		09.60	-	0.00	329.63
07/14/93		10.31	-	0.00	328.92
10/14/93		11.57	-	0.00	327.66
01/13/94		11.71	-	0.00	327.52
04/04/94		10.83	-	0.00	328.40
07/05/94		11.65	-	0.00	327.96
10/04/94		12.36	-	0.00	326.87
ENEA MW-1					
	335.84				
10/14/93		09.05	-	0.00	326.79
01/13/94		NM	-	0.00	NM
04/04/94		08.36	-	0.00	327.48
07/05/94		09.04	-	0.00	326.80
10/04/94		09.66	-	0.00	326.18
ENEA MW-2					
	335.61				
10/14/93		08.90	-	0.00	326.71
01/13/94		NM	-	0.00	NM
04/04/94		08.05	-	0.00	327.56
07/05/94		08.84	-	0.00	326.77
10/04/94		09.59	-	0.00	326.02

TABLE 1
GROUND WATER ELEVATIONS
Montgomery Ward Auto Service Center
Enea Properties
Dublin, California

Date Measured	Elevation of top surface of PVC well casing (feet MSL)	Measured depth to ground water (feet bgs)	Measured depth to Product	Product Thickness	Ground water elevation (feet MSL)
ENEA MW-3					
	336.93				
10/14/93		09.89	-	0.00	327.84
01/13/94		NM	-	0.00	NM
04/04/94		09.19	-	0.00	327.74
07/05/94		09.92	-	0.00	327.01
10/04/94		10.56	-	0.00	326.37
ENEA MW-4					
	335.76				
10/14/93		NI	-	0.00	NI
01/13/94		NM	-	0.00	NM
04/04/94		08.55	-	0.00	327.21
07/05/94		09.15	-	0.00	326.61
10/04/94		09.77	-	0.00	325.99
ENEA EW-1					
	336.08				
10/14/93		NI	-	0.00	NI
01/13/94		NM	-	0.00	NM
04/04/94		08.62	-	0.00	327.46
07/05/94		09.28	-	0.00	326.80
10/04/94		09.89	-	0.00	326.19
NOTES:					
NI	Not installed, NM - Not measured				
MSL	Mean Sea Level				
bgs	below ground surface				
Depth to water is as measured from the cut notch at the top side of each PVC well casing.					
The elevations of all wells were surveyed in October 1993 to City of Dublin Benchmark No. DUB-680 (elevation=331.60 MSL),					
	located along Dublin Boulevard, 0.60 miles easterly from San Ramon Road.				
All depth to water measurements were converted to MSL elevations using well casing elevation datum surveyed on 10/14/93.					
Wells B-5, B-12, B-15, B-16, MW-100, MW-101 and MW-102 are owned by Montgomery Ward and are associated with 7575 Dublin Blvd.					
Wells MW-1, MW-2, MW-3, MW-4 and EW-1 are owned by Enea Properties and are located at Amador Plaza Road and Dublin Boulevard.					
DTP:1233:ELEV.XLS					

TABLE 2

ANALYTICAL TESTING RESULTS

Montgomery Ward Auto Service Center
ENEA Properties
Dublin, California
Parts per billion (ppb)

Compounds	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes	Lead
Well B-5						
04-16-92	4400	670	160	280	320	ND
07-24-92	31000	5400	2600	2200	5800	ND
10-22-92	9100	1100	190	520	740	ND
01-15-93	2300	530	160	300	470	7.9
04-15-93	4900	600	160	470	390	ND
07-14-93	8800	590	210	840	1100	9.9
10-14-93	4500	530	46	490	350	ND
01-13-94	120	15	1.9	12	11	ND
04-04-94	5700	450	39	350	400	ND
07-05-94	2200	69	13	150	95	ND
10-03-94	4700	190	38	510	570	ND
Well B-10						
04-16-92	7300	1400	640	880	1100	ND
07-24-92	27000	3800	1600	2000	4000	ND
10-22-92	16000	2300	340	1100	1200	ND
01-15-93	10000	1400	310	730	1100	13
04-15-93	8100	580	270	810	580	19
07-14-93	6400	840	120	750	800	7.1
10-14-93	100000	720	120	930	1100	ND
01-13-94	18000	990	180	1300	2400	ND
04-04-94	12000	370	96	900	1800	ND
07-05-94	7800	170	50	550	810	ND
10-03-94	6300	120	33	480	630	ND
Well B-12						
04-16-92	12000	1300	1100	510	1200	ND
07-24-92	12000	1000	630	520	1000	ND
10-22-92	11000	370	230	400	940	ND
01-15-93	120	2.8	ND	1.6	3.6	11
04-15-93	7100	730	240	350	570	ND
07-14-93	4500	540	97	380	610	ND
10-14-93	11000	710	170	650	1600	ND
01-13-94	6000	330	100	330	620	24
04-04-94	8700	350	58	350	660	ND
07-05-94	8800	250	340	370	920	ND
10-03-94	1300	63	42	110	140	ND
Well B-15						
04-16-92	65	4.4	2.4	6.1	2.8	ND
07-24-92	ND	3.6	1.5	3.1	1.6	ND
10-22-92	ND	1.7	0.89	0.78	0.88	ND
01-15-93	ND	ND	ND	ND	ND	13
04-15-93	ND	2.8	ND	3.0	1.5	ND
07-14-93	ND	ND	ND	0.57	0.74	7.8

TABLE 2

ANALYTICAL TESTING RESULTS

Montgomery Ward Auto Service Center
ENEA Properties
Dublin, California
Parts per billion (ppb)

Compounds	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes	Lead
10-14-93	ND	0.96	2.6	1.3	3.6	25
01-13-94	ND	ND	0.92	0.70	2	ND
04-04-94	ND	ND	ND	0.56	1	ND
07-05-94	ND	ND	ND	ND	ND	ND
10-03-94	ND	ND	ND	ND	ND	ND
Well B-16						
04-16-92	1300	390	1.7	35	9.3	ND
07-24-92	1600	120	5.7	120	410	ND
10-22-92	1000	76	ND	55	130	ND
01-15-93	160	6.5	0.86	2.3	2.6	5.5
04-15-93	300	65	ND	13	2	ND
07-14-93	170	5.9	ND	4.6	12	ND
10-14-93	390	11	2.4	16	45	21
01-13-94	350	8.7	0.62	25	68	ND
04-04-94	550	8.7	ND	35	81	ND
07-05-94	850	14	5.6	52	130	ND
10-03-94	210	5.3	ND	26	5.8	ND
Well MW-100						
05-13-93	13000	83	ND	960	820	NA
07-14-93	13000	32	ND	1400	790	8
10-14-93	7500	48	16	900	520	22
01-13-94	7000	51	ND	590	330	ND
04-04-94	9800	69	ND	540	410	ND
07-05-94	5900	31	8.7	190	190	ND
10-03-94	3900	ND	ND	220	200	ND
Well MW-101						
05-13-93	ND	ND	ND	ND	ND	NA
07-14-93	ND	ND	ND	ND	ND	11
10-14-93	ND	0.65	0.89	ND	1.1	ND
01-13-94	ND	ND	ND	ND	ND	28
04-04-94	ND	ND	ND	ND	ND	ND
07-05-94	ND	ND	ND	ND	ND	ND
10-03-94	ND	ND	ND	ND	ND	ND
Well MW-102						
05-13-93	3600	17	ND	130	63	NA
07-14-93	1500	13	ND	64	4.9	ND
10-14-93	24000	9.6	5.2	60	60	ND
01-13-94	2000	22	ND	26	55	ND
04-04-94	2100	16	2.5	15	35	ND
07-05-94	1300	7	2.9	10	23	ND
10-03-94	620	5.1	ND	5.2	11	ND

TABLE 2

ANALYTICAL TESTING RESULTS

Montgomery Ward Auto Service Center
ENEA Properties
Dublin, California
Parts per billion (ppb)

Compounds	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes	Lead
EFFLUENT						
04-15-93	ND	ND	ND	ND	ND	ND
07-14-93	ND	ND	ND	ND	ND	ND
10-14-93	ND	ND	ND	ND	0.97	48
01-13-94	ND	ND	ND	ND	ND	ND
04-04-94	ND	ND	ND	ND	ND	33
07-05-94	ND	ND	ND	ND	ND	ND
10-03-94	ND	ND	ND	ND	ND	ND
ENEA MW-1						
10-14-93	5700	76	19	160	460	ND
04-04-94	7000	27	ND	260	49	ND
07-05-94	5100	23	ND	260	50	ND
10-03-94	4400	8.1	ND	170	50	ND
ENEA MW-2						
10-14-93	ND	ND	ND	1.1	0.71	21
04-04-94	ND	ND	ND	ND	ND	21
07-05-94	ND	ND	ND	ND	ND	ND
10-03-94	590	1.1	ND	22	6.5	ND
ENEA MW-3						
10-14-93	2600	26	30	100	130	ND
04-04-94	2600	13	3.4	90	140	ND
07-05-94	3400	15	5	31	48	ND
10-03-94	1400	6.3	ND	31	36	ND
ENEA MW-4						
04-04-94	ND	ND	ND	ND	ND	23
07-05-94	ND	ND	0.5	ND	0.62	ND
10-03-94	ND	ND	ND	ND	ND	ND

NOTE:

ND Not Detected
NA Not Analyzed

DTP:1233 ANALYTIC.DOC

TABLE 3

FLOW METER READINGS

Montgomery Ward Auto Service Center
Dublin, California

DATE	FLOW METER READING (in gallons)	AVERAGE GPM
04/15/94	402,210	
04/22/94	458,320	5.57
04/26/94	488,950	5.32
05/03/94	491,750	0.28
05/20/94	639,200	6.02
06/03/94	759,790	5.98
06/29/94	941,580	4.86
07/06/94	999,750	5.77
07/12/94	999,906	0.02
07/19/94	1,006,600	0.66
07/22/94	1,032,828	6.07
08/02/94	1,102,920	4.43
08/11/94	1,169,050	5.10
08/18/94	1,226,910	5.74
09/02/94	1,284,880	2.68
09/16/94	1,349,350	3.20
09/30/94	1,390,510	2.04
10/04/94	1,419,110	4.97
	AVERAGE	4.11

VOLUME SINCE 04/15/1994 = 1,016,900 Gal

GPM- Gallons per minute

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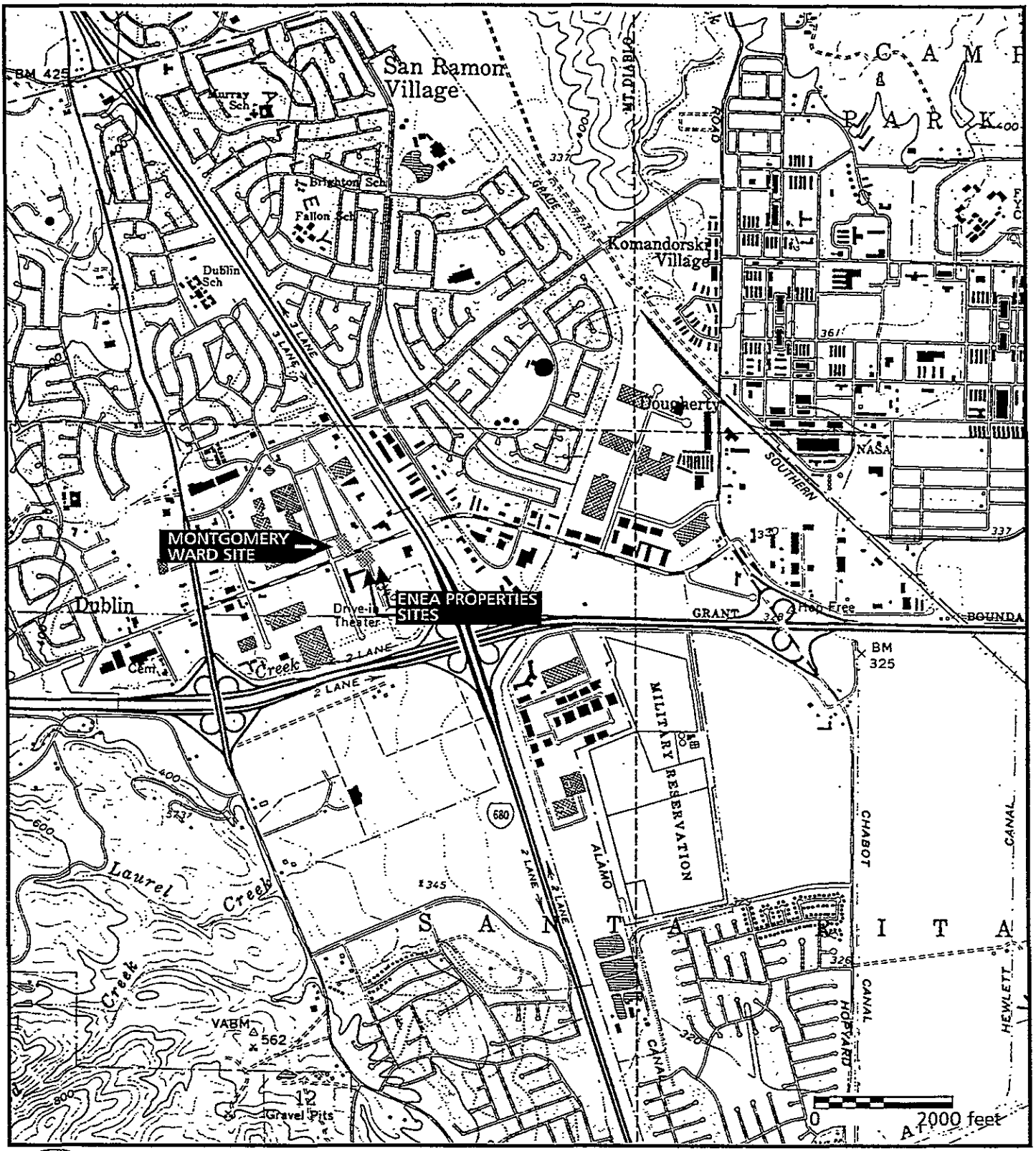
FIGURES



Environmental Audit, Inc.®

LOCATION MAP
Montgomery Ward Auto Service Center
Enea Properties
Dublin, California

SOURCE: USGS TOPOGRAPHIC 7.5 MINUTE SERIES
DUBLIN, CALIFORNIA QUADRANGLE

Figure 1

Project No. 1233
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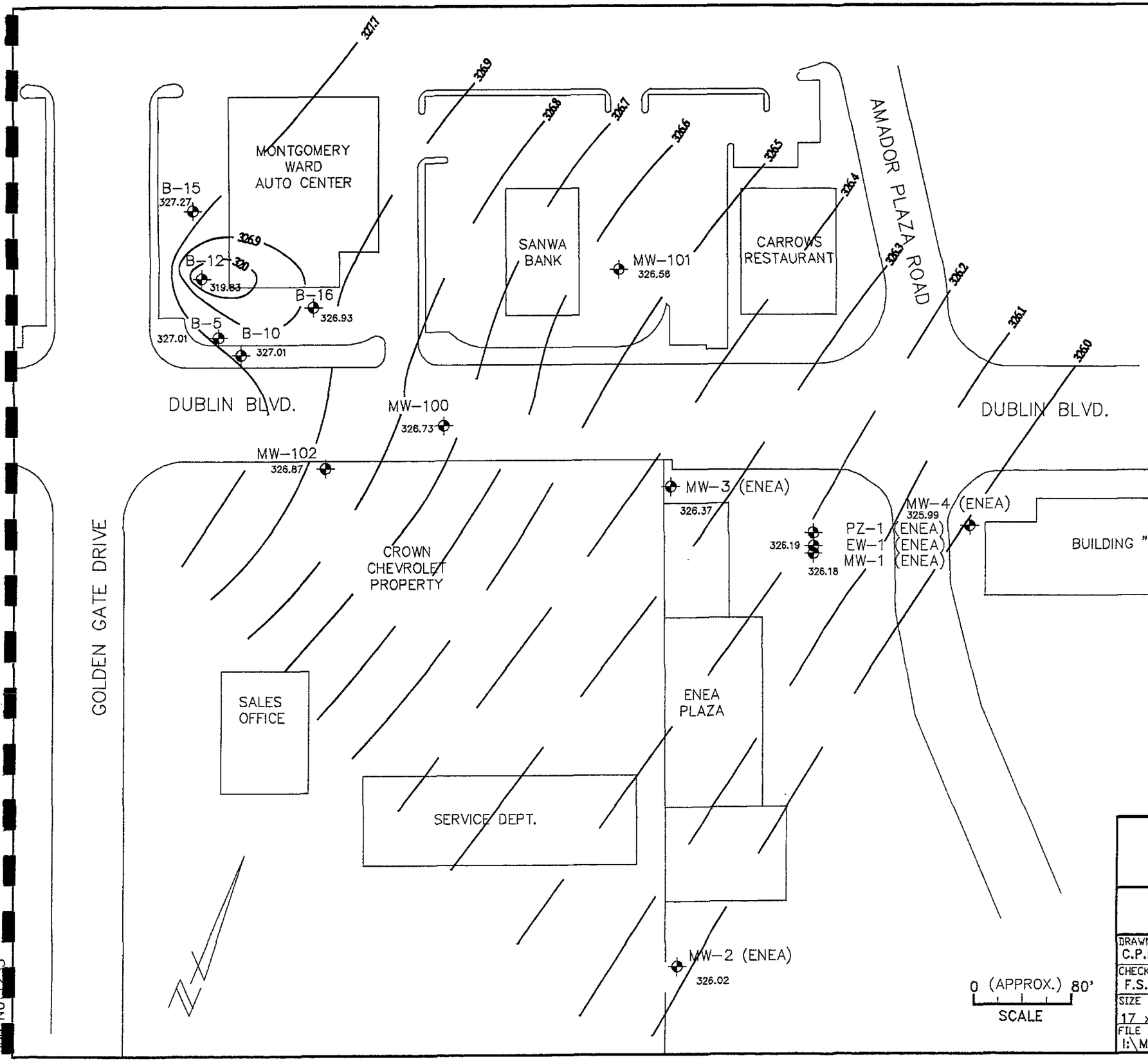

ENVIRONMENTAL AUDIT, INC.
1000-A ORTEGA WAY • PLACENTIA, CA 92670-7125
714/632-8521 • FAX: 714/632-6754

GROUND WATER ELEVATION MAP
OCTOBER 3, 1994

DRAWN BY: C.P.D.	DATE CREATED: 10/29/93
CHECKED: F.S.M.	LAST REV: 10/27/94
SIZE: 17 x 11	FIGURE: 3
FILE NAME: I:\MONTGOM\08\14308001	

MONTGOMERY WARD
AUTO SERVICE CENTER
7575 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

APPENDIX A

Ground Water Sampling
Log Forms

GROUND WATER Sampling Log

Environmental Audit, Inc.®
Planning, Environmental Analyses and Hazardous Substances Management and Remediation
1000 ORTEGA WAY, SUITE A PLACENTIA, CA 92670-7125
☎ (714) 632 - 8521 FAX (714) 632 - 6754

DATE:	10/3/94
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	B-5 2
WELL DIAMETER (INCHES):	
SAMPLED BY:	CPD

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)		DEPTH TO WATER LEVEL (ft. bgs)		DEPTH TO FREE PRODUCT (ft. bgs)				
21.00	—	13.04		—	7.96	0.16	1.27
						X WELL VOLUME VOLUME FACTOR	=	ONE CASING VOLUME OF WATER (GALLONS)

WELL VOLUME FACTORS

WELL CASING ID (inches)	VOLUME FACTOR
2.0	0.16
4.0	0.65
6.0	1.47

PURGE TIME (hrs.): START 15:56 STOP 1603

METHOD: DOWN HOLE PUMP [x] DEDICATED PUMP [ ] BAILER [ ] OTHER [ ]

TYPE/MODEL: Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10^3	pH	TURBIDITY (NTU)	REMARKS
1	79.8	1.07	5.55	4.98	
2	73.8	0.94	5.37	4.12	
3	72.2	0.90	5.39	3.10	
4	72.5	0.90	5.30	0.98	
5	72.1	0.89	5.29	0.96	

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.): 1610

METHOD: DOWN HOLE PUMP [ ] DEDICATED PUMP [ ] BAILER [x] OTHER [ ]

TYPE/MODEL: Voss Technologies Disposable

COMMENTS: _____

GROUND WATER Sampling Log

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FAX (714) 632 - 6754

DATE:	10/3/94
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	B-10
WELL DIAMETER (INCHES):	2
SAMPLED BY:	CPD

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)		DEPTH TO WATER LEVEL (ft. bgs)		DEPTH TO FREE PRODUCT (ft. bgs)				
20.00	—	12.69		—	→	7.31	0.16	1.17
							X WELL VOLUME VOLUME FACTOR	= ONE CASING VOLUME OF WATER (GALLONS)

WELL VOLUME FACTORS

WELL CASING ID (inches)	VOLUME FACTOR
2.0	0.16
4.0	0.65
6.0	1.47

PURGE TIME (hrs.): START 16:12 STOP 16:17

METHOD: DOWN HOLE PUMP [x] DEDICATED PUMP [ ] BAILER [ ] OTHER [ ]

TYPE/MODEL: Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10^3	pH	TURBIDITY (NTU)	REMARKS
1	71.8	0.84	5.59	3.1	
2	71.8	0.85	5.62	3.2	
3	70.5	0.86	5.60	3.9	
4	69.9	0.84	5.58	3.1	
5	69.5	0.84	5.60	3.1	
6					

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.): 1620

METHOD: DOWN HOLE PUMP [ ] DEDICATED PUMP [ ] BAILER [x] OTHER [ ]

TYPE/MODEL: Voss Technologies Disposable

COMMENTS: _____

GROUND WATER Sampling Log

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DATE:	10/4/94
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	B-15
WELL DIAMETER (INCHES):	4
SAMPLED BY:	CPD

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)		DEPTH TO WATER LEVEL (ft. bgs)		DEPTH TO FREE PRODUCT (ft. bgs)
20.64	—	13.35		—

WELL VOLUME FACTORS	
WELL CASING ID (inches)	VOLUME FACTOR
2.0	0.16
4.0	0.65
6.0	1.47

7.29 X 0.65 (WELL VOLUME VOLUME FACTOR) = 4.7 (ONE CASING VOLUME OF WATER (GALLONS))

PURGE TIME (hrs.): START 1406 STOP 1420

METHOD: DOWN HOLE PUMP [x] DEDICATED PUMP [ ] BAILER [ ] OTHER [ ]

TYPE/MODEL: Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10^3	pH	TURBIDITY (NTU)	REMARKS
4	68.2	1.03	4.72	32	
6	68.4	1.05	4.65	12.2	
8	68.4	1.06	4.66	10.3	
12	68.3	1.05	4.65	8.34	
16	68.1	1.02	4.64	7.86	
20	68.1	1.05	4.63	2.10	

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.): 1430

METHOD: DOWN HOLE PUMP [ ] DEDICATED PUMP [ ] BAILER [x] OTHER [ ]

TYPE/MODEL: Voss Technologies Disposable

COMMENTS: _____

GROUND WATER Sampling Log

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DATE:	10/4/94
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	B-16
WELL DIAMETER (INCHES):	4
SAMPLED BY:	CPD

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)		DEPTH TO WATER LEVEL (ft. bgs)		DEPTH TO FREE PRODUCT (ft. bgs)				
23.35	—	12.89	=	—	=	10.48	X 0.65	= 6.8

WELL VOLUME FACTORS

WELL CASING ID (inches)	VOLUME FACTOR
2.0	0.16
4.0	0.65
6.0	1.47

X WELL VOLUME VOLUME FACTOR = ONE CASING VOLUME OF WATER (GALLONS)

PURGE TIME (hrs.): START 1138 STOP 1155

METHOD: DOWN HOLE PUMP [X] DEDICATED PUMP [ ] BAILER [ ] OTHER [ ]

TYPE/MODEL: Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10^3	pH	TURBIDITY (NTU)	REMARKS
5	70.4	1.10	4.85	23.1	
10	70.6	1.11	4.87	7.18	
15	69.8	1.10	4.83	6.21	
20	69.7	1.10	4.85	6.10	
25	69.6	1.10	4.86	0.21	
30	69.5	1.10	4.84	0.19	

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.): 1200

METHOD: DOWN HOLE PUMP [ ] DEDICATED PUMP [ ] BAILER [X] OTHER [ ]

TYPE/MODEL: Voss Technologies Disposable

COMMENTS: _____

GROUND WATER Sampling Log

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FAX (714) 632 - 6754

DATE:	10/4/94
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	MW-100
WELL DIAMETER (INCHES):	4
SAMPLED BY:	CPD

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)		DEPTH TO WATER LEVEL (ft. bgs)		DEPTH TO FREE PRODUCT (ft. bgs)				
28	—	12.88	→	15.12	X	0.65	=	9.82
						WELL VOLUME VOLUME FACTOR		ONE CASING VOLUME OF WATER (GALLONS)

WELL VOLUME FACTORS

WELL CASING ID (inches)	VOLUME FACTOR
2.0	0.16
4.0	0.65
6.0	1.47

PURGE TIME (hrs.): START 1020 STOP

METHOD: DOWN HOLE PUMP [x] DEDICATED PUMP [ ] BAILER [ ] OTHER [ ]

TYPE/MODEL: Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10^3	pH	TURBIDITY (NTU)	REMARKS
5	64.7	0.74	5.02	78.1	
10	66.4	0.84	4.99	20.21	
15	66.4	0.80	4.90	10.14	
20	67.1	0.85	4.92	5.43	
25	66.7	0.86	4.91	2.12	
30	66.5	0.86	4.86	0.71	
35	66.7	0.87	5.02	0.68	
40	66.8	0.87	4.98	0.25	

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.): 1050

METHOD: DOWN HOLE PUMP [ ] DEDICATED PUMP [ ] BAILER [x] OTHER [ ]

TYPE/MODEL: Voss Technologies Disposable

COMMENTS:

GROUND WATER Sampling Log

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FAX (714) 632 - 6754

DATE:	10/4/94
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	MW-101
WELL DIAMETER (INCHES):	4
SAMPLED BY:	CPD

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)		DEPTH TO WATER LEVEL (ft. bgs)		DEPTH TO FREE PRODUCT (ft. bgs)				
28	—	11.98		—	=	16.02	X 0.65	= 10.41

WELL VOLUME FACTORS

WELL CASING ID (inches)	VOLUME FACTOR
2.0	0.16
4.0	0.65
6.0	1.47

WELL VOLUME VOLUME FACTOR

ONE CASING VOLUME OF WATER (GALLONS)

PURGE TIME (hrs.): START 1101 STOP

METHOD: DOWN HOLE PUMP [x] DEDICATED PUMP [ ] BAILER [ ] OTHER [ ]

TYPE/MODEL: Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10^3	pH	TURBIDITY (NTU)	REMARKS
5	66.0	0.89	5.57	101.2	
10	67.0	0.93	5.20	77.37	
15	67.9	0.93	4.97	46.32	
20	67.6	1.10	4.92	13.24	
25	67.5	0.96	4.89	7.27	
30	67.5	1.12	4.86	7.25	
35	67.5	1.10	4.87	0.27	
40	67.5	1.07	4.87	0.22	

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.): 1125

METHOD: DOWN HOLE PUMP [ ] DEDICATED PUMP [ ] BAILER [x] OTHER [ ]

TYPE/MODEL: Voss Technologies Disposable

COMMENTS: _____

GROUND WATER Sampling Log

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FAX (714) 632 - 6754

DATE:	10/4/94
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	MW-102
WELL DIAMETER (INCHES):	4
SAMPLED BY:	CPD

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)		DEPTH TO WATER LEVEL (ft. bgs)		DEPTH TO FREE PRODUCT (ft. bgs)				
28	—	12.36	→	15.64	X	0.65	=	10.17
						WELL VOLUME VOLUME FACTOR		ONE CASING VOLUME OF WATER (GALLONS)

WELL VOLUME FACTORS

WELL CASING ID (inches)	VOLUME FACTOR
2.0	0.16
4.0	0.65
6.0	1.47

PURGE TIME (hrs.): START 0954 STOP 1010

METHOD: DOWN HOLE PUMP [X] DEDICATED PUMP [ ] BAILER [ ] OTHER [ ]

TYPE/MODEL: Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10^3	pH	TURBIDITY (NTU)	REMARKS
5	63.4	0.76	5.15	37.23	
10	65.8	0.78	5.13	25.11	
15	66.3	0.79	5.14	14.21	
20	66.5	0.79	5.13	10.27	
25	66.3	0.78	5.13	7.69	
30	66.2	0.74	5.11	2.11	
35	66.0	0.73	5.11	1.21	
40	66.0	0.74	5.11	0.21	

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.): 1025

METHOD: DOWN HOLE PUMP [ ] DEDICATED PUMP [ ] BAILER [X] OTHER [ ]

TYPE/MODEL: Voss Technologies Disposable

COMMENTS: _____

GROUND WATER Sampling Log

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DATE:	10/3/94
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	MW-1
WELL DIAMETER (INCHES):	4
SAMPLED BY:	CPD

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)		DEPTH TO WATER LEVEL (ft. bgs)		DEPTH TO FREE PRODUCT (ft. bgs)				
15.10	—	9.66		—	→	5.44	X	0.65	=	3.54
								WELL VOLUME VOLUME FACTOR		ONE CASING VOLUME OF WATER (GALLONS)

WELL VOLUME FACTORS

WELL CASING ID (inches)	VOLUME FACTOR
2.0	0.16
4.0	0.65
6.0	1.47

PURGE TIME (hrs.): START 17:13 STOP 17:23

METHOD: DOWN HOLE PUMP [x] DEDICATED PUMP [ ] BAILER [ ] OTHER [ ]

TYPE/MODEL: Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10^3	pH	TURBIDITY (NTU)	REMARKS
3	67.4	0.88	5.55	22.1	
6	68.0	0.90	5.56	18.7	
9	68.2	0.91	5.55	17.3	
12	68.1	0.91	5.55	5.2	
15	68.2	0.92	5.57	0.89	

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.): 1735

METHOD: DOWN HOLE PUMP [ ] DEDICATED PUMP [ ] BAILER [x] OTHER [ ]

TYPE/MODEL: Voss Technologies Disposable

COMMENTS: ENEA - PLAZA well

GROUND WATER Sampling Log

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DATE:	10/ 4 /94
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	MW-2
WELL DIAMETER (INCHES):	4
SAMPLED BY:	CPD

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)		DEPTH TO WATER LEVEL (ft. bgs)		DEPTH TO FREE PRODUCT (ft. bgs)					
14.71	—	9.59		—		5.12	X	0.65	3.33

WELL VOLUME FACTORS

WELL CASING ID (inches)	VOLUME FACTOR
2.0	0.16
4.0	0.65
6.0	1.47

WELL VOLUME VOLUME FACTOR = ONE CASING VOLUME OF WATER (GALLONS)

PURGE TIME (hrs.): START 0926 STOP 0935

METHOD: DOWN HOLE PUMP [X] DEDICATED PUMP [ ] BAILER [ ] OTHER [ ]

TYPE/MODEL: Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10^3	pH	TURBIDITY (NTU)	REMARKS
3	65.1	0.94	5.01	37.23	
6	66.2	0.89	5.03	21.46	
9	66.0	0.88	6.32	10.31	
12	66.0	0.88	6.31	0.29	
15	66.0	0.87	6.35	0.22	

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.): 0940

METHOD: DOWN HOLE PUMP [ ] DEDICATED PUMP [ ] BAILER [X] OTHER [ ]

TYPE/MODEL: Voss Technologies Disposable

COMMENTS: ENEA PLAZA WELL

GROUND WATER Sampling Log

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DATE:	10/4/94
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	MW-3
WELL DIAMETER (INCHES):	4
SAMPLED BY:	CPD

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)		DEPTH TO WATER LEVEL (ft. bgs)		DEPTH TO FREE PRODUCT (ft. bgs)				
15.10	—	10.56	→	4.54	X	0.65	=	3
						WELL VOLUME VOLUME FACTOR		ONE CASING VOLUME OF WATER (GALLONS)

WELL VOLUME FACTORS

WELL CASING ID (inches)	VOLUME FACTOR
2.0	0.16
4.0	0.65
6.0	1.47

PURGE TIME (hrs.): START 0901 STOP 0908

METHOD: DOWN HOLE PUMP [X] DEDICATED PUMP [ ] BAILER [ ] OTHER [ ]

TYPE/MODEL: Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10^3	pH	TURBIDITY (NTU)	REMARKS
3	65.0	0.88	6.85	98.1	
6	66.1	0.84	6.35	56.1	
9	66.0	0.83	6.27	23	
12	65.9	0.83	6.20	20	

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.): 0915

METHOD: DOWN HOLE PUMP [ ] DEDICATED PUMP [ ] BAILER [X] OTHER [ ]

TYPE/MODEL: Voss Technologies Disposable

COMMENTS: ENEA PLAZA WELL

GROUND WATER Sampling Log

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DATE:	10/4/94
PROJECT NO.:	1233
CLIENT:	Montgomery Ward, Dublin
WELL NO.:	MW-4
WELL DIAMETER (INCHES):	2
SAMPLED BY:	CPD

WELL PURGING INFORMATION

ONE CASING VOLUME OF WATER CALCULATED USING THE FOLLOWING:

TOTAL DEPTH OF WELL (ft.)		DEPTH TO WATER LEVEL (ft. bgs)		DEPTH TO FREE PRODUCT (ft. bgs)				
22.30	—	9.77	→	—	12.53	X 0.16 (WELL VOLUME VOLUME FACTOR)	=	2 (ONE CASING VOLUME OF WATER (GALLONS))

WELL VOLUME FACTORS

WELL CASING ID (inches)	VOLUME FACTOR
2.0	0.16
4.0	0.65
6.0	1.47

PURGE TIME (hrs.): START 1656 STOP 1702

METHOD: DOWN HOLE PUMP [X] DEDICATED PUMP [ ] BAILER [ ] OTHER [ ]

TYPE/MODEL: Whale Supersub 921

GALLONS PURGED	TEMP (°F)	CONDUCTIVITY (Micro-ohms/cm) x 10^3	pH	TURBIDITY (NTU)	REMARKS
2	69.2	0.91	5.55	80	
4	69.2	0.92	5.53	78	
6	68.9	0.93	5.53	73	
8	69.1	0.93	5.52	68	

WELL SAMPLING INFORMATION

TIME SAMPLED (hrs.): 1710

METHOD: DOWN HOLE PUMP [ ] DEDICATED PUMP [ ] BAILER [X] OTHER [ ]

TYPE/MODEL: Voss Technologies Disposable

COMMENTS: LINDA PLAZA WELL

APPENDIX B

CHAIN OF CUSTODY RECORD FORMS

Environmental Audit, Inc.®

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Chain of Custody Record

SAMPLING REQUIREMENTS: RCRA ☐ NPDES ☐ SDWA ☒ _____ ☐

WRITTEN QC REPORT
ROUTINE QC ☒
RWQCB QC ☐

TURNAROUND TIME:
SAME DAY ☐ 24hr ☐ 48hr ☐ NORMAL ☒

PROJECT NO.: 1233

PROJECT NAME: Montgomery Ward, Dublin

SAMPLER (Signature with Printed Name): CHRIS DSA

PROJECT MANAGER: Frank Muramoto

REMARKS: Call Chris d'Sa @ ext. 248 at EAI if any questions

SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION	CONTR TYPE	ANALYSES REQUESTED	NUMBER OF CONTAINERS	REMARKS
B-5	10/3/94	1610		☒	Water	GLASS, PLASTIC, BRASS/SS TUBE	TPH-D 8015M, TPH-G 8015M, TRPH 418.1, BTEX 8020, VOC 8240, EOC 8270, OIL & GREASE, CAM METALS TOT WET, LEAD, HVOC 8010	4100097 3	1. C One 1-Liter Plastic Bottle (lead) Two 40-ml VOA Vials (BTEX/TPH)
B-10		1620		☒				4100098 3	
MW-4		1710		☒				4100099 3	
MW-1		1735		☒				4100100 3	
EFFLUENT	↓	1800		☒	↓			4100101 3	↓
				☒					
				☒					

TOTAL NUMBER OF CONTAINERS: 15

RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)	RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)
CHRIS DSA	10/4/94 1500	P.E. Sonny Haus 10/5/94 0820			
RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)	RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)

SAMPLES SHIPPED VIA:
FEDEX ☐ UPS ☐ AIRBORNE ☐
HAND ☒ AIRFREIGHT ☐ _____ ☐

SHIPPED BY: (Signature/Name)

AIRBILL #:

COURIER (Signature/Name)

RECEIVED FOR BY: (Signature/Name)

LAB: Sequoia Analytical

DATE/TIME: 10/5/94 0915

Environmental Audit, Inc.®

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1000 ORTEGA WAY, SUITE A
PLACENTIA, CA 92670-7125

☎ (714) 632 - 8521
FAX (714) 632 - 6754

Chain of Custody Record

SAMPLING REQUIREMENTS: RCRA ☐ NPDES ☐ SDWA ☒ _____ ☐

WRITTEN QC REPORT
ROUTINE QC ☒
RWQCB QC ☐

TURNAROUND TIME:
SAME DAY ☐ 24hr ☐ 48hr ☐ NORMAL ☒

PROJECT NO.: 1233

PROJECT NAME: Montgomery Ward, Dublin

SAMPLER (Signature with Printed Name): CHRIS DSA

PROJECT MANAGER: Frank Muramoto

SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION	CONTR TYPE: GLASS	PLASTIC	BRASS/ SS TUBE	ANALYSES REQUESTED: TPH-D 8015M	TPH-G 8015M	TRPH 418.1	BTEX 8020	VOC 8240	EDC 8270	OIL & GREASE	CAM METALS TOT WET	LEAD	HVOC 8010		NUMBER OF CONTAINERS	REMARKS
MW-3	10/4/94	0915		☒	Water	☒	☒			☒		☒					☒		4100089	3	AC One 1-Liter Plastic Bottle (lead) Two 40-ml VOA Vials (BTEX/TPH)
MW-2		0940		☒		☒	☒			☒		☒					☒		4100090	3	
MW-102		1025		☒		☒	☒			☒		☒					☒		4100091	3	
MW-100		1050		☒		☒	☒			☒		☒					☒		4100092	3	
MW-101		1125		☒		☒	☒			☒		☒					☒		4100093	3	
B-16		1200		☒		☒	☒			☒		☒					☒		4100094	3	
B-15		1430		☒		☒	☒			☒		☒					☒		4100095	3	
																			TOTAL NUMBER OF CONTAINERS	21	

RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)	RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)
CHRIS DSA	10/4/94 1500	Sonny Hsu	Sonny Hsu	10/5/94 0915	
RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)	RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)

SAMPLES SHIPPED VIA:
FEDEX ☐ UPS ☐ AIRBORNE ☐
HAND ☒ AIRFREIGHT ☐ _____ ☐

SHIPPED BY: (Signature/Name)

AIRBILL #.

COURIER: (Signature/Name)

RECEIVED FOR BY: (Signature/Name)

LAB: Sequoia Analytical

DATE/TIME: 10/5/94 0915

Environmental Audit, Inc.®

Planning, Environmental Analyses and Hazardous Substances Management and Remediation

1000 ORTEGA WAY, SUITE A
PLACENTIA, CA 92670-7125
☎ (714) 632 - 8521
FAX (714) 632 - 6754

Chain of Custody Record

SAMPLING REQUIREMENTS: RCRA ☐ NPDES ☐ SDWA ☒ _____ ☐

WRITTEN QC REPORT
ROUTINE QC ☒
RWQCB QC ☐

TURNAROUND TIME:
SAME DAY ☐ 24hr ☐ 48hr ☐ NORMAL ☒

PROJECT NO.: 1233

PROJECT NAME: Montgomery Ward, Dublin

SAMPLER (Signature with Printed Name): CHRIS DSA

PROJECT MANAGER: Frank Muramoto

SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION	CONTR TYPE: GLASS	PLASTIC	BRASS/SS TUBE	ANALYSES REQUESTED: TPH-D 8015M	TPH-G 8015M	TRPH 418.1	BTEX 8020	VOC 8240	EOC 8270	OIL & GREASE	CAM METALS TOT WET	LEAD	HVOC 8010	NUMBER OF CONTAINERS	REMARKS
B-12	10/4/94	1500		/	Water	/	/		/			/					/	4100096	3	One 1-Liter Plastic Bottle (lead) Two 40-ml VOA Vials (BTEX/TPH)
				/																
				/																
				/																
				/																
				/																
				/																

TOTAL NUMBER OF CONTAINERS: 3

REMARKS: Call Chris d'Sa @ ext. 248 at EAI if any questions

RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)	RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)
CHRIS DSA	10/4/94 1500	P.E. Sonny Hans 10/5/94 0800 *			
RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)	RELINQUISHED BY: (Signature/Name)	DATE/TIME	RECEIVED BY: (Signature/Name)

SAMPLES SHIPPED VIA:
FEDEX ☐ UPS ☐ AIRBORNE ☐
HAND ☒ AIRFREIGHT ☐ _____ ☐

SHIPPED BY: (Signature/Name)

AIRBILL #:

COURIER: (Signature/Name)

RECEIVED FOR BY: (Signature/Name)

LAB: Sequoia Analytical

DATE/TIME: 10/5/94 0915

* Signature on page 1

APPENDIX C

LABORATORY REPORTS

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Audit	Client Project ID:	#1233, Montgomery Ward, Dublin	Sampled: Oct 3, 1994
1000-A Ortega Way	Sample Matrix:	Water	Received: Oct 5, 1994
Placentia, CA 92670	Analysis Method:	EPA 5030/8015/8020	Reported: Oct 19, 1994
Attention: Frank Muramoto	First Sample #:	410-0097	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 410-0097 B-5	Sample I.D. 410-0098 B-10	Sample I.D. 410-0099 MW-4	Sample I.D. 410-0100 MW-1	Sample I.D. 410-0101 Effluent
Purgeable Hydrocarbons	50	4,700	6,300	N.D.	4,400	N.D.
Benzene	0.50	190	120	N.D.	8.1	N.D.
Toluene	0.50	38	33	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	510	480	N.D.	170	N.D.
Total Xylenes	0.50	570	630	N.D.	50	N.D.
Chromatogram Pattern:		Gasoline	Gasoline	--	Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	40	20	1.0	5.0	1.0
Date Analyzed:	10/16/94	10/14/94	10/14/94	10/14/94	10/14/94
Instrument Identification:	HP-2	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	104	71	90	72	90

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Karen L. Enstrom
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Environmental Audit
1000-A Ortega Way
Placentia, CA 92670
Attention: Frank Muramoto

Client Project ID: 1233, Montgomery Ward, Dublin
Sample Matrix: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 410-0089

Sampled: Oct 4, 1994
Received: Oct 5, 1994
Reported: Oct 20, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 410-0089 MW-3	Sample I.D. 410-0090 MW-2	Sample I.D. 410-0091 MW-102	Sample I.D. 410-0092 MW-100	Sample I.D. 410-0093 MW-101	Sample I.D. 410-0094 B-16
Purgeable Hydrocarbons	50	1,400	590	620	3,900	N.D.	210
Benzene	0.50	6.3	1.1	5.1	N.D.	N.D.	5.3
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	31	22	5.2	220	N.D.	26
Total Xylenes	0.50	36	6.5	11	200	N.D.	5.8
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	Gasoline	--	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	5.0	1.0	5.0	20	1.0	1.0
Date Analyzed:	10/16/94	10/14/94	10/16/94	10/16/94	10/14/94	10/14/94
Instrument Identification:	HP-2	HP-4	HP-2	HP-2	HP-2	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	106	76	100	107	105	95

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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OCT 29 1994
ENVIRONMENTAL AUDIT

SEQUOIA ANALYTICAL, #1271

Karen L. Enstrom
Project Manager

4100089.ENI <1>

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Audit	Client Project ID:	1233, Montgomery Ward, Dublin	Sampled: Oct 4, 1994
1000-A Ortega Way	Sample Matrix:	Water	Received: Oct 5, 1994
Placentia, CA 92670	Analysis Method:	EPA 5030/8015/8020	Reported: Oct 20, 1994
Attention: Frank Muramoto	First Sample #:	410-0095	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 410-0095 B-15	Sample I.D. 410-0096 B-12
Purgeable Hydrocarbons	50	N.D.	1,300
Benzene	0.50	N.D.	63
Toluene	0.50	N.D.	42
Ethyl Benzene	0.50	N.D.	110
Total Xylenes	0.50	N.D.	140
Chromatogram Pattern:		--	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	10
Date Analyzed:	10/14/94	10/16/94
Instrument Identification:	HP-5	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	96	102

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Karen L. Enstrom
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Audit	Client Project ID:	#1233, Montgomery Ward, Dublin	Sampled: Oct 3, 1994
1000-A Ortega Way	Sample Descript:	Water	Received: Oct 5, 1994
Placentia, CA 92670	Analysis for:	Lead	Extracted: Oct 12, 1994
Attention: Frank Muramoto	First Sample #:	410-0097	Analyzed: Oct 14, 1994
			Reported: Oct 19, 1994

LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
410-0097	B-5	0.050	N.D.
410-0098	B-10	0.050	N.D.
410-0099	MW-4	0.050	N.D.
410-0100	MW-1	0.050	N.D.
410-0101	Effluent	0.050	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

Karen L. Enstrom
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Audit
1000-A Ortega Way
Placentia, CA 92670
Attention: Frank Muramoto

Client Project ID: 1233, Montgomery Ward, Dublin
Sample Descript: Water
Analysis for: Lead
First Sample #: 410-0089

Sampled: Oct 4, 1994
Received: Oct 5, 1994
Extracted: Oct 12, 1994
Analyzed: Oct 14, 1994
Reported: Oct 20, 1994

LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
410-0089	MW-3	0.050	N.D.
410-0090	MW-2	0.050	N.D.
410-0091	MW-102	0.050	N.D.
410-0092	MW-100	0.050	N.D.
410-0093	MW-101	0.050	N.D.
410-0094	B-16	0.050	N.D.
410-0095	B-15	0.050	N.D.
410-0096	B-12	0.050	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

Karen L. Enstrom
Project Manager

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Environmental Audit
1000-A Ortega Way
Placentia, CA 92670
Attention: Frank Muramoto

Client Project ID: #1233, Montgomery Ward, Dublin
Matrix: Liquid
QC Sample Group: 4100097-101

Reported: Oct 19, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Lead
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 239.1
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon	K. Wimer
MS/MSD Batch#:	4100162	4100162	4100162	4100162	4100628
Date Prepared:	10/14/94	10/14/94	10/14/94	10/14/94	10/12/94
Date Analyzed:	10/14/94	10/14/94	10/14/94	10/14/94	10/14/94
Instrument I.D.#:	HP -2	HP -2	HP -2	HP -2	SpectrAA-20
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	1.0 mg/L
Matrix Spike % Recovery:	105	105	120	110	90
Matrix Spike Duplicate % Recovery:	105	105	120	113	92
Relative % Difference:	0.0	0.0	0.0	2.7	2.2
LCS Batch#:	1LCS101494	1LCS101494	1LCS101494	1LCS101494	BLK101294
Date Prepared:	10/14/94	10/14/94	10/14/94	10/14/94	10/12/94
Date Analyzed:	10/14/94	10/14/94	10/14/94	10/14/94	10/14/94
Instrument I.D.#:	HP -2	HP -2	HP -2	HP -2	SpectrAA-20
LCS % Recovery:	120	120	125	118	87
% Recovery Control Limits:	71-133	72-128	72-130	71-120	75-125

SEQUOIA ANALYTICAL, #1271

Karen L. Enstrom
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample *fortified with known quantities of specific compounds and subjected to the entire analytical procedure.* If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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Environmental Audit
1000-A Ortega Way
Placentia, CA 92670
Attention: Frank Muramoto

Client Project ID: 1233, Montgomery Ward, Dublin
Matrix: Liquid
QC Sample Group: 4100089-96
Reported: Oct 20, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon
MS/MSD Batch#:	4100366	4100366	4100366	4100366
Date Prepared:	10/16/94	10/16/94	10/16/94	10/16/94
Date Analyzed:	10/16/94	10/16/94	10/16/94	10/16/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	105	105	110	110
Matrix Spike Duplicate % Recovery:	100	105	110	110
Relative % Difference:	4.9	0.0	0.0	0.0
LCS Batch#:	1LCS101694	1LCS101694	1LCS101694	1LCS101694
Date Prepared:	10/16/94	10/16/94	10/16/94	10/16/94
Date Analyzed:	10/16/94	10/16/94	10/16/94	10/16/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	100	105	110	112
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Karen L. Enstrom
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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Environmental Audit
1000-A Ortega Way
Placentia, CA 92670
Attention: Frank Muramoto

Client Project ID: 1233, Montgomery Ward, Dublin
Matrix: Liquid

QC Sample Group: 4100089-096

Reported: Oct 20, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon
MS/MSD Batch#:	4100267	4100267	4100267	4100267
Date Prepared:	10/14/94	10/14/94	10/14/94	10/14/94
Date Analyzed:	10/14/94	10/14/94	10/14/94	10/14/94
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	120	125	120	120
Matrix Spike Duplicate % Recovery:	110	110	105	105
Relative % Difference:	8.6	13	13	13
LCS Batch#:	3LCS101494	3LCS101494	3LCS101494	3LCS101494
Date Prepared:	10/14/94	10/14/94	10/14/94	10/14/94
Date Analyzed:	10/14/94	10/14/94	10/14/94	10/14/94
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	108	109	110	108
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

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Project Manager

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Environmental Audit
1000-A Ortega Way
Placentia, CA 92670
Attention: Frank Muramoto

Client Project ID: 1233, Montgomery Ward, Dublin
Matrix: Liquid
QC Sample Group: 4100089-096

Reported: Oct 20, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Lead
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 239.1
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon	K. Wimer
MS/MSD Batch#:	4100162	4100162	4100162	4100162	4100628
Date Prepared:	10/14/94	10/14/94	10/14/94	10/14/94	10/12/94
Date Analyzed:	10/14/94	10/14/94	10/14/94	10/14/94	10/14/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	SpectrAA-20
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	1.0 mg/L
Matrix Spike % Recovery:	105	105	120	110	90
Matrix Spike Duplicate % Recovery:	105	105	120	113	92
Relative % Difference:	0.0	0.0	0.0	2.7	2.2
LCS Batch#:	1LCS101494	1LCS101494	1LCS101494	1LCS101494	BLK101294
Date Prepared:	10/14/94	10/14/94	10/14/94	10/14/94	10/12/94
Date Analyzed:	10/14/94	10/14/94	10/14/94	10/14/94	10/14/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	SpectrAA-20
LCS % Recovery:	120	120	125	118	87
% Recovery Control Limits:	71-133	72-128	72-130	71-120	75-125

SEQUOIA ANALYTICAL, #1271

Karen L. Enstrom
Project Manager

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