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June 30, 1992

**DATA SUBMITTAL FOR MAY 1992
FOR HAZARDOUS WASTE AREA
HASSAYAMPA LANDFILL
MARICOPA COUNTY, ARIZONA**

ERROL L. MONTGOMERY & ASSOCIATES, INC.



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June 30, 1992

Thomas J. Dunkelman (H-7-2)
Remedial Project Manager
U. S. ENVIRONMENTAL PROTECTION AGENCY
75 Hawthorne Street
San Francisco, California 94105

RE: DATA SUBMITTAL FOR MAY 1992

Dear Mr. Dunkelman:

In accordance with Section XII.A of the Administrative Consent Order dated February 19, 1988, for the Hassayampa Landfill Remedial Investigation /Feasibility Study (RI/FS), this data submittal has been prepared for pertinent data obtained or received during the period May 1-31, 1992.

This submittal includes the following:

- laboratory chemical results for groundwater samples obtained during the sampling round conducted during the period April 9-10, 1992, for monitor wells at the Landfill;
- laboratory chemical results for soil samples obtained during drilling operations conducted during the period April 8-21, 1992, for soil borings north from the former hazardous waste area at the Landfill;
- results of trace gas analyzer measurements during purging of sample tubing during the soil gas sampling round conducted on May 19, 1992, for vadose zone monitor borings north from the former hazardous waste area at the Landfill; and,
- laboratory chemical results for soil gas samples obtained during the soil gas sampling round conducted on May 19, 1992, for vadose zone monitor borings north from the former hazardous waste area at the Landfill.

The laboratory data are given in **Appendices A through C**, and preliminary tabulations of the data are given in **Tables 1 through 8**.



In accordance with the distribution procedures for this project, one additional copy of this data submittal is enclosed herewith. If you have questions or require further discussion, please contact us.

Very truly yours,

ERROL L. MONTGOMERY & ASSOCIATES, INC.

William R. Victor

SENT VIA FEDERAL EXPRESS

Enclosure

cc: Jeff Kulon (3)
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TABLES

Tables

- 1 SUMMARY OF LABORATORY CHEMICAL RESULTS FOR COMMON CONSTITUENTS AND ROUTINE PARAMETERS IN GROUNDWATER SAMPLES FROM MONITOR WELLS, HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA
- 2 SUMMARY OF LABORATORY CHEMICAL RESULTS FOR COMMON CONSTITUENTS AND ROUTINE PARAMETERS IN QUALITY CONTROL BLANKS FOR WATER SAMPLES, HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA
- 3 SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER SAMPLES FROM MONITOR WELLS, HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA
- 4 SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN QUALITY CONTROL BLANKS FOR WATER SAMPLES FOR HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA
- 5 SUMMARY OF LABORATORY CHEMICAL RESULTS FOR EPA METHOD 8240 FOR VOLATILE ORGANIC COMPOUNDS FOR SOIL SAMPLES OBTAINED FROM SOIL BORINGS, NORTH FROM HAZARDOUS WASTE AREA, HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA
- 6 RESULTS OF TRACE GAS ANALYZER MEASUREMENTS DURING PURGING OF SAMPLE TUBING DURING SAMPLING OF SOLID GAS FROM VADOSE ZONE MONITOR BORINGS, NORTH FROM HAZARDOUS WASTE AREA, HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA
- 7 SUMMARY OF LABORATORY CHEMICAL RESULTS FOR EPA METHOD TO-14 FOR VOLATILE ORGANIC COMPOUNDS FOR SOIL GAS SAMPLES OBTAINED ON MAY 19, 1992, FROM VADOSE ZONE MONITOR BORINGS, NORTH FROM HAZARDOUS WASTE AREA, HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA
- 8 SUMMARY OF LABORATORY CHEMICAL RESULTS FOR EPA METHOD TO-14 FOR VOLATILE ORGANIC COMPOUNDS FOR FIELD BLANKS AND REAGENT BLANKS FOR SOIL GAS SAMPLES OBTAINED ON MAY 19, 1992, FROM VADOSE ZONE MONITOR BORINGS, NORTH FROM HAZARDOUS WASTE AREA, HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA



APPENDICES

Appendix

- A CHEMICAL LABORATORY REPORTS AND QA/QC DOCUMENTATION FOR ANALYSES OF GROUNDWATER SAMPLES, HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA
- B CHEMICAL LABORATORY REPORTS AND QA/QC DOCUMENTATION FOR ANALYSES OF SOIL SAMPLES FROM SOIL BORINGS, NORTH FROM HAZARDOUS WASTE AREA, HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA
- C CHEMICAL LABORATORY REPORTS AND QA/QC DOCUMENTATION FOR ANALYSES OF SOIL GAS SAMPLES FROM VADOSE ZONE MONITOR BORINGS, NORTH FROM HAZARDOUS WASTE AREA, HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

TABLES

PRELIMINARY
SUBJECT TO REVISION

TABLE 1. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR COMMON CONSTITUENTS AND ROUTINE PARAMETERS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

WELL IDENTIFIER ^a	SAMPLE IDENTIFIER		DATE SAMPLED	COMMON CONSTITUENTS ^b (milligrams per liter)																	ELECTRICAL CONDUCTANCE ^c (µmho/cm)		pH	
	FIELD	LAB		Ca	Mg	Na	K	CO ₃	HCO ₃	Cl	SO ₄	NO ₃	NH ₃	F	PO ₄	P	Alk	SiO ₂	TDS	Temp ^c	Field	Lab	Field	Lab
MW-1UA D	014378	16208	04-08-88	3.75	0.36	236.5	10.6	138	ND	109	91	6.9	ND	0.24	0.2	---	235	34	674	27.6	1,000	1,170	10.4	10.4
MW-1UA	014412	806006-01	05-31-88	5.9	2.91	174	4.9	62.4	90	85.2	106	4.8	ND	2.26	---	0.11	178	29.9	526	30.0	800	920	9.67	9.7
MW-1UA	006084	809086-15	09-14-88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28.5	920	---	8.68	---
MW-1UA	006099	809133-15	09-20-88	15	4.1	153	2.3	ND	242	75.7	122	11.2	0.08	2.24	ND	0.12	198	14.9	550	25.9	980	797	7.92	8.2
MW-1UA	006177	812527-14	12-06-88	22	4.6	153	1.6	ND	246	73.0	119	3.61	ND	2.09	ND	ND	202	20.9	520	24.7	860	834	7.82	8.0
MW-1UA dup	006178	812527-15	12-06-88	20	5.0	151	1.6	ND	248	71.6	119	3.94	ND	2.13	ND	ND	203	22.3	512	24.7	860	827	7.82	8.1
MW-1UA	006375	908706-06	08-24-89	18.4	5.64	168	1.4	ND	239	75	82	4.5	0.03	2.11	ND	ND	196	26.4	540	25.0	850	833	---	8.2
MW-1UA dup	006376	908706-07	08-24-89	18.2	5.44	169	1.5	ND	233	74	76	4.2	0.04	2.15	ND	ND	191	26.7	520	25.8	850	822	---	8.3
MW-1UA	006569	003588-02	03-08-90	15.2	5.2	158	1.2	ND	235	74	132	2.7	0.17	2.31	ND	ND	193	25.0	510	25.1	840	805	7.55	7.8
MW-1UA dup	006570	003588-03	03-08-90	15.3	5.2	159	1.3	ND	232	74	132	2.9	0.17	2.27	ND	ND	190	25.2	510	25.1	840	802	7.55	8.2
MW-1UA	006758	006599-11	06-07-90	19.9	6.6	167	ND	ND	254	82	120	4.9	0.04	2.24	ND	ND	208	28.0	560	26.6	870	880	7.61	8.2
MW-1UA dup	006759	006599-12	06-07-90	20.3	6.8	163	ND	ND	260	83	120	4.8	0.04	2.24	ND	ND	213	29.7	560	26.6	870	890	7.61	8.2
MW-1UA	010799	103882-17	03-22-91	16.0	3.9	155	1.1	ND	188	77	110	2.4	0.15	1.93	ND	ND	154	19.9	470	25.0	860	760	7.67	7.7
MW-1UA dup	010800	103882-18	03-22-91	14.4	3.1	147	1.1	ND	171	77	100	2.2	0.24	1.91	ND	ND	140	18.2	430	25.0	860	740	7.67	7.7
MW-1UA	010996	106790-37	06-19-91	19.3	4.7	156	1.3	ND	214	74	100	3.4	0.17	1.99	ND	ND	175	20.5	490	33.0	980	793	7.21	7.9
MW-1UA	002279	109902-36	09-25-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27.2	990	---	7.81	---
MW-1UA	002383	112562-02	12-04-91	19.5	7.0	167	ND	ND	239	77	100	5.0	0.06	2.18	ND	ND	196	29.5	530	27.7	850	845	7.94	8.2
MW-1UA	002656	204659-13	04-10-92	18.6	5.6	156	1.2	ND	233	77	110	4.9	0.04	2.09	ND	ND	191	31.0	550	26.9	900	824	7.34	7.8
MW-1UB D	014383	804087-01	04-27-88	15.3	7.0	100	1.8	ND	212	31.1	50.8	11.1	ND	1.48	ND	ND	174	24.1	360	25.2	600	671	7.79	7.9
MW-1UB	014425	806096-01	06-14-88	14.3	7.28	103	2.1	ND	241	32.5	42	12.7	---	1.64	ND	0.097	197.4	22.1	329	27.0	700	604	7.84	8.1
MW-1UB	006083	809086-14	09-14-88	18	7.6	88.8	1.6	ND	223	25.9	49	15.6	ND	1.36	0.25	0.44	183	24.0	364	25.0	650	554	7.92	8.1
MW-1UB	006171	812527-08	12-06-88	24	7.1	92.5	1.8	ND	235	32.8	47	12.4	ND	1.26	ND	0.05	193	23.5	347	23.8	600	584	7.68	8.1
MW-1UB	006360	908692-01	08-23-89	21.9	6.53	129	1.7	2.4	238	31	47	8.66	ND	1.55	ND	ND	195	27.5	400	25.0	710	614	8.14	8.4
MW-1UB	006552	003557-02	03-06-90	21.3	7.7	95.0	1.7	ND	233	34	54	9.6	ND	1.55	ND	ND	191	25.9	460	23.7	645	599	8.01	8.2
MW-1UB	006739	006576-02	06-06-90	23.5	7.9	114	1.6	ND	238	34	50	11	ND	1.63	ND	ND	195	28.2	420	25.4	720	630	7.83	8.1
MW-1UB	010781	103882-01	03-20-91	27.4	8.5	104	1.8	ND	232	35	48	10	ND	1.53	ND	ND	190	28.2	400	24.4	650	630	8.00	8.0
MW-1UB	010958	106790-02	06-18-91	25.3	8.1	110	2.0	ND	232	34	46	9.7	0.08	1.59	ND	ND	190	29.9	360	26.3	700	616	7.87	8.1
MW-1UB	002245	109902-02	09-24-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.5	650	---	7.93	---
MW-1UB	002385	112562-04	12-04-91	26.9	8.4	96.5	ND	ND	211	33	40	11.5	ND	1.34	ND	ND	173	27.4	370	24.1	580	569	7.90	8.1
MW-1UB	002620	204640-03	04-09-92	25.8	7.9	98.1	1.6	ND	233	34	47	9.6	ND	1.42	ND	ND	191	29.3	380	24.2	700	599	7.82	7.7
MW-2UA D	014382	804069-01	04-25-88	17.6	8.2	197	2.8	6.6	251	106	88.2	16	ND	1.59	0.28	---	217	26.7	660	---	---	1,140	---	8.5
MW-2UA	014421	806047-01	06-09-88	16.2	9.97	181	1.7	ND	281	98.5	98.0	14.8	ND	1.72	---	0.09	230	26.3	650	25.6	1,050	1,090	7.71	7.8
MW-2UA	006071	809086-02	09-13-88	17	9.0	184	1.5	ND	300	81.8	124	11.8	0.05	2.08	ND	ND	246	28.1	578	25.2	1,100	850	7.79	8.1
MW-2UA	006088	809133-17	09-20-88	17	8.8	170	1.7	ND	284	72.8	108	9.7	0.07	2.15	ND	ND	233	15.3	606	25.2	1,050	939	7.82	8.1
MW-2UA	006164	812527-01	12-05-88	15	8.2	169	1.4	ND	317	78.9	121	8.41	0.19	2.08	ND	ND	260	27.5	599	24.4	960	965	7.68	8.0
MW-2UA	006363	908692-03	08-23-89	24.9	8.00	189	1.3	ND	288	81	55	6.90	ND	1.90	ND	ND	236	29.4	590	25.0	1,100	947	---	8.3
MW-2UA	006554	003557-04	03-06-90	21.9	7.6	170	1.1	ND	300	84	116	6.9	ND	2.04	ND	ND	246	30.6	610	24.5	1,000	921	7.78	8.1
MW-2UA	006740	006576-03	06-06-90	26.0	8.3	172	1.3	ND	295	86	130	6.6	ND	1.96	ND	0.07	242	31.3	620	25.0	1,080	970	7.56	7.9
MW-2UA	010788	103882-07	03-21-91	24.0	8.8	181	1.0	ND	342	82	110	6.0	ND	1.97	ND	ND	280	32.7	580	23.8	1,000	950	7.70	7.8
MW-2UA	010904	105704-04	05-13-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24.6	1,000	---	7.54	---
MW-2UA	010962	106790-06	06-18-91	25.4	8.5	179	1.4	ND	290	79	100	5.6	ND	1.96	0.65	ND	238	33.2	540	26.4	1,100	922	7.77	7.9
MW-2UA	002261	109902-18	09-25-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.0	1,000	---	7.55	---
MW-2UA	002394	112587-02	12-05-91	22.2	8.3	176	ND	ND	282	77	100	4.8	ND	2.04	ND	ND	231	32.1	590	24.0	950	926	7.50	8.0
MW-2UA	002622	204640-05	04-09-92	21.8	8.2	158	ND	ND	292	74	110	5.3	ND	1.76	ND	ND	239	32.5	570	25.3	900	868	7.42	8.0
MW-2UB D	014379	804029-01	04-18-88	14.1	7.8	105	2.9	8.0	161	46.3	45	13.9	ND	1.2	0.08	---	145	28.4	460	24.8	625	674	9.4	8.7
MW-2UB	014414	806006-03	06-01-88	15.9	8.01	116	2.9	3.6	215	47.8	40	16.1	ND	1.21	---	0.10	182	22.8	440	25.5	675	730	8.29	8.4
MW-2UB	006070	809086-01	09-13-88	20	10.0	102	1.7	ND	229	38.7	49	17.8	ND	1.15	0.14	0.15	188	26.6	410	26.1	760	643	7.90	8.1
MW-2UB	006087	809133-03	09-20-88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.2	750	---	7.85	---
MW-2UB	006174	812527-11	12-06-88	29	9.3	99.2	1.7	ND	246	49.0	49	15.3	0.11	1.05	ND	ND	202	24.8	400	24.8	760	666	7.76	8.1
MW-2UB	006362	908692-02	08-23-89	30.3	10.2	112	1.8	2.4	228	43	46	12.8	ND	1.08	ND	ND	191	27.2	430	25.0</				

PRELIMINARY
SUBJECT TO REVISION

TABLE 1. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR COMMON CONSTITUENTS AND ROUTINE PARAMETERS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

2

WELL IDENTIFIER ^a	SAMPLE IDENTIFIER FIELD LAB		DATE SAMPLED	COMMON CONSTITUENTS ^b (milligrams per liter)																	Temp ^c	ELECTRICAL CONDUCTANCE ^d (µmho/cm)		pH	
				Ca	Mg	Na	K	CO ₃	HCO ₃	Cl	SO ₄	NO ₃	NH ₃	F	PO ₄	P	Alk	SiO ₂	TDS	Field		Lab	Field	Lab	
				Field	Lab	Field	Lab																		
MW-2UB	010960	106790-04	06-18-91	32.4	11.3	108	1.6	ND	237	46	48	12	ND	1.15	0.64	ND	194	29.9	430	25.5	750	670	7.82	8.0	
MW-2UB	002259	109902-16	09-25-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24.5	720	---	7.82	---	
MW-2UB	002396	112587-04	12-05-91	31.4	11.2	105	1.3	ND	239	42	58	7.8	ND	1.16	ND	ND	196	28.7	420	23.8	670	654	7.76	8.0	
MW-2UB	002624	204640-07	04-09-92	32.3	11.0	97.9	1.5	ND	243	39	53	11.0	ND	1.12	ND	ND	199	29.3	410	25.0	680	648	7.82	8.2	
MW-3UA D	014387	805024-01	05-05-88	35.1	21	234	4.4	3.6	224	257	77	38.2	ND	1.10	---	0.13	190	28.7	1,004	24.1	1,525	2,970	8.28	8.4	
MW-3UA	014413	806006-02	06-01-88	36.3	8.36	222	3.9	3.6	168	202	86	33.5	ND	1.68	---	0.12	144	26.1	858	26.8	1,150	1,410	8.71	8.4	
MW-3UA	006075	809086-06	09-13-88	19	10.0	219	3.5	ND	355	161	122	16.3	ND	1.77	0.32	0.34	291	28.7	732	26.0	1,200	1,100	7.84	8.1	
MW-3UA	006091	809133-07	09-20-88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.9	1,250	---	7.87	---	
MW-3UA	006165	812527-02	12-05-88	22	12.6	205	2.8	ND	307	149	112	21.5	ND	1.71	ND	0.10	252	29.1	757	25.3	1,250	1,230	7.73	8.2	
MW-3UA	006364	908692-04	08-23-89	26.0	11.4	222	1.7	ND	279	130	65	12.0	ND	1.75	ND	ND	229	31.5	710	25.0	1,280	1,120	---	8.4	
MW-3UA	006556	003557-06	03-06-90	28.2	14.0	217	1.2	ND	271	190	112	19.5	ND	1.86	ND	ND	222	31.4	800	25.3	1,350	1,240	7.78	8.0	
MW-3UA	006742	006576-05	06-06-90	28.5	12.5	205	1.4	ND	278	150	120	16	ND	1.81	ND	ND	228	32.1	740	26.0	1,200	1,200	7.64	7.9	
MW-3UA	010789	103882-08	03-21-91	32.4	13.4	220	ND	ND	271	160	110	16	ND	1.79	ND	ND	222	34.2	750	25.1	1,290	1,200	7.70	7.8	
MW-3UA	010906	105704-06	05-13-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.6	1,200	---	7.68	---	
MW-3UA	010966	106790-10	06-18-91	31.4	13.8	216	1.4	ND	279	150	100	15	ND	1.74	0.82	ND	229	34.2	780	25.8	1,220	1,154	7.93	7.9	
MW-3UA	002267	109902-24	09-25-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26.1	1,210	---	7.61	---	
MW-3UA	002398	112587-06	12-05-91	27.0	13.8	210	ND	ND	266	150	99	13.2	ND	1.83	ND	ND	218	32.9	700	24.6	1,150	1,150	7.61	7.9	
MW-3UA	002628	204640-11	04-09-92	44.3	17.2	218	1.0	ND	256	220	100	28	ND	1.46	ND	ND	210	34.6	870	25.6	1,310	1,420	7.36	7.6	
MW-3UB D	014384	805010-01	04-29-88	18.3	8.8	106	3.3	1.2	210	44.7	56.3	12.5	ND	1.23	0.29	---	174	27.2	380	25.5	625	646	8.65	8.4	
MW-3UB	014426	806096-02	06-16-88	21.0	9.99	111	2.2	ND	260	49.2	48	15.4	---	1.28	ND	0.092	213.2	23.3	420	25.2	725	724	7.69	8.0	
MW-3UB	006073	809086-04	09-13-88	23	10.4	104	1.9	ND	250	36.4	60	16.3	ND	1.25	0.06	0.64	205	27.0	434	25.6	760	597	7.74	7.9	
MW-3UB	006175	812527-12	12-06-88	31	9.8	105	2.0	ND	271	49.4	56	12.8	ND	1.12	ND	ND	222	24.9	444	25.0	800	700	7.66	8.0	
MW-3UB	006365	908692-05	08-23-89	31.8	10.6	116	2.2	2.4	242	41	26	12.1	ND	1.21	ND	ND	202	28.2	440	25.0	800	647	---	8.4	
MW-3UB	006555	003557-05	03-06-90	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24.4	725	---	7.85	---	
MW-3UB	006743	006576-06	06-06-90	32.6	11.2	116	1.9	ND	250	50	50	13	ND	1.25	ND	ND	205	28.7	480	24.9	760	720	7.81	8.1	
MW-3UB	010790	103882-09	03-21-91	31.2	10.8	108	2.0	ND	237	45	51	13	ND	1.23	ND	ND	194	29.7	430	24.1	740	700	7.89	7.9	
MW-3UB	010964	106790-08	06-18-91	32.9	11.3	111	2.3	ND	238	45	50	12	ND	1.23	0.69	---	195	30.8	400	25.8	720	690	7.93	8.0	
MW-3UB	002265	109902-22	09-25-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.0	750	---	7.81	---	
MW-3UB	002400	112587-08	12-05-91	33.0	11.3	110	1.3	ND	237	48	54	12.4	ND	1.22	ND	ND	194	30.2	440	24.0	700	703	7.74	8.0	
MW-3UB	002626	204640-09	04-09-92	32.6	10.5	99.5	1.7	ND	241	41	48	15.2	ND	1.21	ND	ND	197	30.8	420	25.4	700	676	7.65	8.2	
MW-4UA D	014391	805060-01	05-13-88	11.2	3.6	165	3.4	10.8	267	61.6	82.9	8.3	ND	2.28	0.1	0.14	237	24.2	532	26.9	850	852	8.74	8.7	
MW-4UA	014427	806130-01	06-22-88	9.9	7.67	185	1.6	---	329	66.8	97	7.1	ND	2.33	0.09	0.092	270	29.3	651	26.7	950	894	7.92	8.2	
MW-4UA	006078	809086-09	09-14-88	16	9.5	183	ND	ND	337	64.8	120	8.8	ND	2.20	0.10	0.23	276	31.9	590	25.0	1,070	884	7.98	8.2	
MW-4UA	006093	809133-09	09-20-88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.1	1,090	---	7.81	---	
MW-4UA	006166	812527-03	12-05-88	22	8.8	178	ND	ND	350	64.9	111	7.88	ND	2.10	ND	ND	287	29.8	598	24.7	1,080	948	7.76	8.1	
MW-4UA	006373	908706-04	08-24-89	21.8	9.86	191	ND	ND	329	73	71	7.5	0.04	2.11	ND	ND	270	33.5	630	25.0	1,090	961	---	8.3	
MW-4UA	006558	003557-08	03-06-90	18.1	9.4	176	ND	ND	326	77	118	8.2	ND	2.33	ND	0.05	267	33.8	600	24.0	1,000	957	8.11	8.3	
MW-4UA	006746	006576-09	06-06-90	22.1	10.1	183	1.0	ND	325	80	120	8.7	ND	2.20	ND	ND	266	34.6	640	24.9	1,040	980	7.94	8.2	
MW-4UA	010792	103882-11	03-21-91	22.2	10.2	191	ND	ND	322	79	98	9.9	ND	2.19	ND	ND	264	35.7	560	24.4	1,060	940	8.01	8.2	
MW-4UA	010909	105704-09	05-13-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.3	1,000	---	7.94	---	
MW-4UA	010980	106790-22	06-19-91	23.4	10.4	195	1.1	ND	320	77	92	9.5	ND	2.14	ND	ND	262	37.2	620	27.4	1,010	977	7.82	8.2	
MW-4UA	002247	109902-04	09-24-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.4	1,070	---	7.98	---	
MW-4UA	002406	112587-14	12-05-91	22.0	10.2	190	ND	ND	310	83	86	9	ND	2.23	ND	ND	254	35.3	610	24.2	990	975	7.87	8.2	
MW-4UA	002630	204640-13	04-09-92	21.4	9.4	163	ND	ND	322	83	92	11.5	ND	1.99	ND	ND	264	34.4	600	25.4	990	975	7.77	8.1	
MW-4UA dup	002631	204640-14	04-09-92	21.2	9.3	162	ND	ND	321	83	90	11.0	ND	2.08	ND	ND	263	34.2	610	25.4	990	958	7.77	8.0	
MW-4UB D	014399	805105-01	05-19-88	10.0	4.7	109	5.1	14.4	168	41.4	49.3	11.5	0.2	1.30	---	0.33	162	25.7	408	26.8	660	602	8.89	9.0	
MW-4UB	014428	806170-01	06-28-88	17.5	8.75	104	2.2	ND	240	36.4	76	9.4	ND	1.36	ND	ND	197	20.7	404	25.7	650	665	7.78	7.8	
MW-4UB	006077	809086-08	09-14-88	21	9.0	102	1.5	ND	244	29.6	49	14.8	ND	1.34	ND	0.22	200	26.4	392	24.8	740	598	7.76	8.2	
MW-4UB	006092	809133-08	09-20-88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.0	740	---	7.65	---	
MW-4UB	006176	812527-13	12-06-88	28	8.0	99.2	1.7	ND	256	42.6	46	12.5	ND	1.29	ND	ND	210	24.5	396	24.8	710	644	7.65	8.1	
MW-4UB	006374	908706-05	08-24-89	29.3	9.21	110	1.9	ND	233	41	35	13.2	0.04	1.25	ND	ND	19								

TABLE 1. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR COMMON CONSTITUENTS AND ROUTINE PARAMETERS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

PRELIMINARY
SUBJECT TO REVISION

WELL IDENTIFIER ^a	SAMPLE IDENTIFIER		DATE SAMPLED	COMMON CONSTITUENTS ^b (milligrams per liter)																	ELECTRICAL CONDUCTANCE ^d (µmho/cm)		pH		
				Ca	Mg	Na	K	CO ₃	HCO ₃	Cl	SO ₄	NO ₃	NH ₃	F	PO ₄	P	Alk	SiO ₂	TDS	Temp ^c					
				Field	Lab	Field	Lab	Field	Lab	Field	Lab	Field	Lab	Field	Lab	Field	Lab	Field	Lab	Field	Lab	Field	Lab		
MW-4UB	010793	103882-12	03-21-91	29.0	9.4	104	1.6	ND	224	43	44	13	ND	1.22	ND	ND	184	28.7	290	24.6	700	640	7.92	8.0	
MW-4UB	010907	105704-07	05-13-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.3	700	---	7.79	---	
MW-4UB	010978	106790-20	06-19-91	31.4	9.9	107	1.9	ND	227	40	40	13	ND	1.19	0.15	ND	186	30.2	410	25.7	700	652	7.61	8.0	
MW-4UB	002249	109902-06	09-24-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26.1	710	---	7.90	---	
MW-4UB	002408	112587-16	12-05-91	29.3	9.6	104	1.3	ND	228	42	45	10	ND	1.30	ND	ND	187	28.2	390	24.1	650	632	7.72	8.1	
MW-4UB	002632	204640-15	04-09-92	29.4	9.1	91.1	1.6	ND	236	39	45	12.6	ND	1.16	ND	ND	193	28.2	400	25.2	620	613	7.65	8.0	
MW-5UA D	014406	805139-01	05-26-88	11.1	4.52	177	5.4	6	240	75.6	80.5	11.4	ND	2.19	---	1.18	207	22.0	514	26.8	850	876	8.66	8.6	
MW-5UA D dup	014407	805139-02	05-26-88	11.3	4.62	175	5.0	6	239	73.2	89.5	8.8	ND	2.20	---	0.38	206	21.0	528	26.8	850	872	8.66	8.6	
MW-5UA	014430	807002-02	06-30-88	20.7	10.86	154	1.6	ND	273	106	126	7.5	ND	2.17	ND	ND	224	26.2	640	26.0	1,000	1,000	7.85	8.0	
MW-5UA dup	014431	807002-03	06-30-88	21.1	11.12	158	2.0	ND	272	107	129	7.8	ND	2.22	ND	ND	223	27.2	638	26.0	1,000	999	7.85	8.0	
MW-5UA	006076	809086-07	09-13-88	91	38.4	291	1.9	ND	253	297	398	17.8	ND	1.96	0.12	0.27	207	26.1	1,270	24.7	2,800	1,730	7.60	8.3	
MW-5UA	006098	809133-14	09-20-88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24.9	2,700	---	7.54	---	
MW-5UA	006167	812527-04	12-05-88	63	25.6	219	1.3	ND	277	235	264	13.9	ND	1.90	ND	ND	227	25.6	1,041	24.7	2,050	1,660	7.51	8.0	
MW-5UA dup	006168	812527-05	12-05-88	69	26.9	225	1.5	ND	287	197	189	13.3	ND	1.98	ND	ND	235	24.6	900	24.7	2,050	1,310	7.51	7.9	
MW-5UA	006367	908692-07	08-23-89	64.6	25.5	253	1.3	2.4	254	230	138	12.1	ND	1.89	ND	ND	212	28.1	980	25.0	2,000	1,570	---	8.4	
MW-5UA dup	006368	908692-08	08-23-89	67.7	26.7	263	1.4	ND	261	235	147	12.1	ND	1.87	ND	ND	214	27.8	1,000	25.0	2,000	1,570	---	8.3	
MW-5UA	006563	003572-04	03-07-90	51.7	22.4	232	1.2	ND	268	220	232	12.9	ND	2.15	ND	ND	220	26.7	950	24.0	1,650	1,460	7.79	8.1	
MW-5UA	006757	006599-10	06-07-90	73.8	27.8	249	ND	ND	261	300	230	14.2	0.03	2.05	ND	ND	214	28.7	1,050	25.1	1,900	1,680	7.57	8.1	
MW-5UA	010796	103882-14	03-22-91	55.4	21.6	224	ND	ND	351	200	170	15	ND	2.25	ND	ND	288	29.7	780	24.5	1,600	1,400	7.63	7.7	
MW-5UA dup	010797	103882-15	03-22-91	55.1	21.5	225	ND	ND	259	200	170	15	ND	2.09	ND	ND	212	29.5	730	24.5	1,600	1,400	7.63	7.8	
MW-5UA	010969	106790-13	06-19-91	70.8	26.5	244	1.4	ND	255	240	200	15	ND	2.05	0.20	ND	209	30.4	1,000	24.6	1,680	1,545	7.03	7.8	
MW-5UA dup	101970	106790-40	06-19-91	71.6	26.5	242	1.3	ND	256	230	200	14	0.15	1.90	ND	ND	210	31.2	980	24.6	1,680	1,517	7.03	7.9	
MW-5UA	002263	109902-20	09-25-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.1	1,450	---	7.58	---	
MW-5UA	002388	112562-07	12-04-91	47.4	17.4	202	ND	ND	264	160	130	11.8	ND	2.13	ND	ND	216	28.7	750	23.5	1,210	1,220	7.48	7.9	
MW-5UA dup	002390	112562-08	12-04-91	47.7	17.5	202	ND	ND	265	160	140	12.2	0.03	2.21	ND	ND	217	28.4	750	23.5	1,210	1,180	7.48	7.9	
MW-5UA	002640	204640-23	04-09-92	37.9	12.8	171	ND	ND	282	120	110	12.6	ND	2.02	ND	ND	231	30.6	670	25.0	1,100	1,030	7.41	8.0	
MW-5UA dup	002641	204640-24	04-09-92	38.2	12.9	172	ND	ND	275	120	110	12.6	ND	2.01	ND	ND	225	31.0	670	25.0	1,100	1,060	7.41	7.9	
MW-6UA	004316	911752-01	11-22-89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24.9	1,100	---	7.54	---	
MW-6UA	004325	911782-05	11-28-89	26	11.9	178	1.1	ND	323	79	126	6.5	ND	1.68	ND	ND	265	36.6	600	23.1	975	933	7.51	8.0	
MW-6UA	HASS-A	18288	11-28-89	30.0	11.9	184	---	---	---	77.5	111	5.8	---	1.74	---	---	271	---	629	---	---	965	---	7.6	---
MW-6UA	004330	912546-02	12-05-89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24.6	940	---	7.70	---	
MW-6UA	006560	003572-01	03-07-90	23.0	10.9	172	1.0	ND	328	75	124	4.6	ND	1.72	ND	0.07	269	34.0	580	23.9	975	867	7.75	8.2	
MW-6UA dup	006561	003572-02	03-07-90	22.8	10.7	175	ND	ND	329	75	122	4.8	ND	1.75	ND	0.05	270	33.6	590	23.9	975	890	7.75	8.2	
MW-6UA	006754	006599-08	06-07-90	28.6	11.4	177	ND	ND	323	82	120	4.6	ND	1.68	ND	ND	265	34.9	600	25.3	1,020	950	7.76	8.2	
MW-6UA dup	006755	006599-13	06-07-90	28.4	11.1	170	ND	ND	322	85	120	4.7	ND	1.70	0.05	ND	264	34.9	610	25.3	1,020	950	7.76	8.2	
MW-6UA	010794	103882-13	03-21-91	27.5	10.5	172	1.0	ND	327	69	110	4.1	ND	1.64	ND	ND	268	35.5	480	24.2	1,000	920	7.77	7.9	
MW-6UA	010976	106790-18	06-19-91	28.4	11.0	172	1.5	ND	322	63	99	3.8	ND	1.62	0.8	ND	264	37.2	580	25.0	995	887	7.62	8.0	
MW-6UA	002253	109902-10	09-24-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.0	1,000	---	7.78	---	
MW-6UA	002402	112587-10	12-05-91	26.5	10.5	165	ND	ND	317	64	93	3.4	0.24	1.70	ND	ND	260	35.5	560	23.8	900	904	7.62	8.0	
MW-6UA	002634	204640-17	04-09-92	26.6	9.9	152	ND	ND	323	59	100	3.6	ND	1.66	ND	ND	265	36.4	550	25.6	880	854	7.52	8.0	
MW-6UB	010876	104730-02	04-17-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24.8	710	---	7.77	---	
MW-6UB	010883	104835-02	04-23-91	33.2	9.8	101	2.3	ND	226	49	38	15	ND	1.04	ND	ND	185	27.8	410	24.9	740	652	7.85	8.2	
MW-6UB	010973	106790-16	06-19-91	34.6	10.1	105	2.2	ND	220	47	37	15	ND	1.08	ND	ND	180	29.3	420	24.9	720	667	7.76	8.0	
MW-6UB	002251	109902-08	09-24-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.5	750	---	7.91	---	
MW-6UB	002404	112587-12	12-05-91	32.5	10.0	101	1.2	ND	218	49	40	14	ND	1.14	ND	ND	179	35.3	420	24.1	680	669	7.73	8.0	
MW-6UB	002636	204640-19	04-09-92	33.6	9.8	93.8	1.8	ND	226	45	41	14	ND	1.09	ND	ND	185	28.4	410	25.8	650	653	7.60	8.0	
MW-7UA	004333	912583-01	12-07-89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24.5	980	---	8.10	---	
MW-7UA	004392	002577-02	02-07-90	20.0	8.9	176	1.1	ND	317	69	109	7.2	0.04	2.56	ND	ND	260	32.9	570	24.6	900	902	8.27	8.2	
MW-7UA	006562	003572-03	03-07-90	16.5	8.0	185	ND	ND	314	66	124	7.5	ND	2.71	ND	0.44	257	32.1	570	24.3	950	897	8.00	8.3	
MW-7UA	006756	006599-09	06-07-90	20.3	8.5	179	ND	ND	320	69	110	7.3	ND	2.64	ND	0.02	262	33.4	590	25.0	1,000	920	7.80	8.3	

PRELIMINARY
SUBJECT TO REVISION

TABLE 1. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR COMMON CONSTITUENTS AND ROUTINE PARAMETERS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

WELL IDENTIFIER ^a	SAMPLE IDENTIFIER		DATE SAMPLED	COMMON CONSTITUENTS ^b (milligrams per liter)																	ELECTRICAL CONDUCTANCE ^c (µmho/cm)		pH		
																					Field	Lab	Field	Lab	
	FIELD	LAB		Ca	Mg	Na	K	CO ₃	HCO ₃	Cl	SO ₄	NO ₃	NH ₃	F	PO ₄	P	Alk	SiO ₂	TDS	Temp ^c	Field	Lab	Field	Lab	
MW-7UA	010798	103882-16	03-22-91	19.2	8.9	185	ND	ND	312	63	100	7.3	ND	2.49	ND	ND	256	35.1	360	24.3	990	930	7.99	8.1	
MW-7UA	010989	106790-31	06-19-91	21.4	8.7	184	ND	ND	314	62	97	7.3	ND	2.52	ND	ND	257	36.8	590	25.6	1,000	922	7.14	8.1	
MW-7UA	002255	109902-12	09-24-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.2	1,000	---	8.02	---	
MW-7UA	002410	112587-18	12-05-91	20.4	8.8	181	ND	ND	307	65	92	6.7	ND	2.74	ND	ND	252	35.1	590	23.9	900	899	7.82	8.1	
MW-7UA	002638	204640-21	04-09-92	20.0	8.6	167	ND	ND	315	61	100	6.9	ND	2.32	ND	ND	258	36.1	560	25.9	930	900	7.63	8.2	
MW-8UA	004335	912583-03	12-08-89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24.0	710	---	8.05	---	
MW-8UA	004395	002577-05	02-08-90	17.4	5.7	131	ND	ND	245	55	60	4.6	0.04	2.60	ND	ND	201	31.2	430	24.0	690	687	8.21	8.2	
MW-8UA	dup	004397	002577-06	02-08-90	17.8	5.8	130	ND	ND	244	56	73	4.7	ND	2.61	ND	0.07	200	30.6	410	24.9	700	689	7.90	8.2
MW-8UA	006564	003572-05	03-07-90	13.8	4.8	139	ND	ND	244	57	85	4.1	ND	2.66	ND	ND	200	28.9	360	24.6	750	636	8.05	8.3	
MW-8UA	006752	006599-06	06-07-90	17.5	5.4	140	ND	ND	234	65	83	4.2	ND	2.52	ND	0.50	192	31.0	450	25.9	800	710	7.74	8.2	
MW-8UA	010782	103882-02	03-20-91	16.6	6.0	136	1.0	ND	239	56	64	4.1	ND	2.58	ND	ND	196	31.7	430	24.5	800	690	7.87	8.1	
MW-8UA	010902	105704-02	05-13-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26.1	790	---	7.78	---	
MW-8UA	010983	106790-25	06-19-91	17.4	6.2	138	1.0	ND	243	56	55	4.2	0.06	2.45	ND	ND	199	32.3	460	26.0	780	683	7.74	8.1	
MW-8UA	002269	109902-26	09-25-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26.8	800	---	7.78	---	
MW-8UA	002391	112562-09	12-04-91	17.3	6.4	140	ND	ND	237	62	56	4.3	ND	2.53	ND	ND	194	31.7	430	24.6	710	691	7.78	8.2	
MW-8UA	002644	204659-01	04-10-92	17.7	6.3	127	ND	ND	244	61	60	4.3	ND	2.51	ND	ND	200	32.9	490	25.0	710	687	7.89	8.0	
MW-9UA	014751	104861-01	04-25-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26.7	923	---	8.01	---	
MW-9UA	004457	105644-01	05-07-91	20.8	8.2	149	1.6	6	268	64	78	8.1	0.03	2.32	ND	ND	229	31.2	510	24.0	890	800	7.98	8.5	
MW-9UA	010985	106790-27	06-19-91	20.9	8.1	162	1.1	ND	272	64	77	7.6	ND	2.39	ND	ND	223	32.7	540	25.4	900	829	7.82	8.1	
MW-9UA	002271	109902-28	09-25-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.1	900	---	7.73	---	
MW-9UA	002413	112587-21	12-05-91	21.8	7.8	155	ND	ND	268	64	75	6.0	ND	2.51	ND	ND	220	30.8	500	24.1	800	822	7.57	8.0	
MW-9UA	002648	204659-05	04-10-92	22.3	7.6	141	ND	ND	276	66	81	6.3	ND	2.33	ND	ND	226	32.1	540	24.3	800	781	7.66	7.9	
MW-9UB	014758	105570-01	05-02-91	81.5	23.9	123	3.9	ND	146	210	61	25	0.03	0.83	ND	ND	120	28.0	700	23.8	1,200	1,030	7.62	7.9	
MW-9UB	010987	106790-29	06-19-91	81.6	23.1	130	3.2	ND	143	220	60	25	0.04	0.84	ND	ND	117	28.2	760	25.5	1,280	1,197	7.63	7.8	
MW-9UB	002273	109902-30	09-24-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.5	1,290	---	7.60	---	
MW-9UB	002415	112587-23	12-05-91	79.5	23.4	119	2.3	ND	148	220	61	25	ND	0.86	ND	ND	121	26.3	700	24.5	1,125	1,180	7.52	7.7	
MW-9UB	002650	204659-07	04-10-92	87.5	23.8	108	2.8	ND	148	220	57	25	ND	0.80	ND	ND	121	28.2	730	24.5	1,200	1,130	7.53	7.8	
MW-10UA	014753	104890-01	04-29-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26.4	1,620	---	7.77	---	
MW-10UA	004461	105723-01	05-14-91	60.4	27.5	242	1.2	ND	260	250	87	38	ND	1.52	ND	ND	213	37.4	960	25.1	1,550	1,570	7.89	8.2	
MW-10UA	010991	106790-33	06-19-91	56.4	25.5	260	1.4	ND	254	260	92	36	ND	1.44	ND	ND	208	38.7	1,000	25.0	1,680	1,540	6.94	7.9	
MW-10UA	dup	010992	106790-41	57.2	25.7	262	1.3	ND	254	260	91	36	0.07	1.39	ND	ND	208	39.1	980	25.0	1,680	1,591	6.94	8.1	
MW-10UA	002277	109902-34	09-25-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.5	1,700	---	7.43	---	
MW-10UA	002417	112587-25	12-05-91	58.3	25.8	248	ND	ND	251	290	77	40	ND	1.69	ND	ND	206	35.9	980	24.7	1,600	1,640	7.42	7.8	
MW-10UA	002652	204659-09	04-10-92	59.6	24.5	224	ND	ND	255	290	86	38	ND	1.47	ND	ND	209	37.0	1,000	25.0	1,670	1,570	7.37	7.7	
MW-10UB	014757	105548-03	05-02-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.2	2,200	---	7.42	---	
MW-10UB	004464	105873-02	05-22-91	205	49.6	187	3.6	ND	199	480	190	22	0.04	0.66	ND	ND	163	32.9	1,700	25.0	2,230	2,190	7.28	7.6	
MW-10UB	010994	106790-35	06-19-91	244	60.7	214	4.9	ND	203	550	300	22	ND	0.58	ND	ND	166	35.3	1,800	25.6	2,600	2,441	6.60	7.7	
MW-10UB	002275	109902-32	09-25-91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25.2	2,010	---	7.28	---	
MW-10UB	002419	112587-27	12-05-91	209	55.2	195	3.6	ND	200	530	220	19	ND	0.70	ND	ND	164	31.2	1,600	23.7	2,170	2,260	7.08	7.6	
MW-10UB	dup	002421	112587-29	209	55.1	196	3.4	ND	196	540	220	20	ND	0.69	ND	ND	161	31.2	1,600	23.7	2,170	2,250	7.08	7.5	
MW-10UB	002654	204659-11	04-10-92	236	57.1	185	4.2	ND	208	580	320	22	ND	0.63	ND	ND	170	33.6	1,700	24.8	2,550	2,380	7.07	7.5	
HS-1	39905	05-13-82	05-13-82	40	13	190	ND	0	287	105	113	5.8	---	1.56	---	---	---	---	667	---	---	1,300	---	7.7	---
HS-1	MY8148	05-13-82	05-13-82	---	---	---	---	---	---	---	---	---	0.15	---	---	---	---	---	---	---	---	---	---	---	---
HS-1	08294	09-14-82	09-14-82	36	12	180	2.9	0	234	113	108	6.0	0.18	1.32	---	---	---	---	659	---	---	1,090	---	7.6	---
HS-1	08295	09-14-82	09-14-82	36	12	180	2.99	0	242	111	109	5.0	ND	1.50	---	---	---	---	650	---	---	1,080	---	7.6	---
HS-1	08296	09-14-82	09-14-82	34	14	178	2.7	0	242	104	112	5.3	ND	1.50	---	---	---	---	646	---	---	1,060	---	7.7	---
HS-1	MY0229	05-18-83	05-18-83	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HS-1	---	04-15-87	04-15-87	---	---	---	---	---	---	---	---	2.3	---	---	---	---	---	---	---	---	---	---	---	---	---
HS-1	004017	3043-2	07-15-87	---	---	---	---	---	---	---	---	7.6	ND	---	---	---	---	---	---	29.5	1,100	---	7.69	---	
HS-1	014409	805139-04	05-26-88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29.8	925	---	7.78	---	

PRELIMINARY
SUBJECT TO REVISION

TABLE 1. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR COMMON CONSTITUENTS AND ROUTINE PARAMETERS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

WELL IDENTIFIER ^a	SAMPLE IDENTIFIER		DATE SAMPLED	COMMON CONSTITUENTS ^b (milligrams per liter)																	Temp ^c	ELECTRICAL CONDUCTANCE ^d (μmho/cm)		pH ^e	
				Ca	Mg	Na	K	CO ₃	HCO ₃	Cl	SO ₄	NO ₃	NH ₃	F	PO ₄	P	Alk	SiO ₂	TDS	Field		Lab	Field	Lab	
																				Field		Lab	Field	Lab	
HS-2	39903		05-12-82	25	6	159	---	0	244	59	84	7	---	2.38	---	---	---	---	515	---	---	1,010	---	7.7	
HS-2	08297		09-14-82	26	6	159	1.7	0	232	58	87	6.5	ND	2.41	---	---	---	---	532	---	---	870	---	7.9	
HS-2	MY0227		05-18-83	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---		
HS-2			04-15-87	---	---	---	---	---	---	---	---	7.1	---	---	---	---	---	---	---	---	---	---	---		
HS-2	004018	3043-3	07-15-87	---	---	---	---	---	---	---	---	9.5	ND	---	---	---	---	---	---	25.9	---	800	---	7.70	
HS-2	006081	809086-12	09-14-88	16	8.4	151	ND	ND	287	53.4	94	10.3	ND	2.31	0.30	0.36	235	29.6	474	25.0	925	786	7.88	8.1	
HS-2	006173	812527-10	12-06-88	22	7.7	148	ND	ND	301	61.4	73	7.00	ND	2.36	ND	ND	247	27.6	509	24.4	910	816	7.80	8.1	
HS-2	006372	908706-03	08-24-89	22.5	8.58	160	ND	ND	284	65	45	6.6	0.04	2.14	ND	ND	233	31.5	540	25.0	925	822	---	8.3	
HS-2	006565	003572-06	03-07-90	18.6	8.6	163	ND	ND	284	65	102	6.8	ND	2.44	0.06	ND	233	30.8	550	24.6	875	809	7.98	8.2	
HS-2	006750	006599-04	06-07-90	23.8	9.4	159	ND	ND	283	73	93	6.6	ND	2.33	ND	ND	232	31.0	510	25.0	950	830	7.89	8.3	
HS-2	010784	103882-03	03-21-91	23.2	9.2	159	ND	ND	279	62	86	6.4	ND	2.34	ND	ND	229	34.0	530	24.5	900	820	8.06	8.0	
HS-3	39904		05-12-82	86	20	253	---	0	239	270	80	41	---	1.32	---	---	---	---	1,053	---	---	2,040	---	7.6	
HS-3	MY8147		05-12-82	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---		
HS-3	08298		09-14-82	83	20	249	2.5	0	222	271	90	36	ND	1.23	---	---	---	---	1,052	---	---	1,720	---	7.6	
HS-3	MY0230		05-18-83	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---		
HS-3			04-15-87	---	---	---	---	---	---	---	---	40.6	---	---	---	---	---	---	---	---	---	---	---		
HS-3	004016	3043-1	07-15-87	---	---	---	---	---	---	---	---	31.3	ND	---	---	---	---	---	---	26.3	---	2,100	---	7.38	
HS-3	006082	809086-13	09-14-88	50	32.1	243	1.0	ND	267	297	92	43.3	ND	1.29	0.54	0.54	219	34.5	1,030	25.4	2,005	1,700	7.55	7.9	
HS-3	006097	809133-18	09-20-88	59	32.4	239	1.4	ND	259	285	94	41.9	0.06	1.38	ND	ND	212	19.5	1,070	25.2	2,025	1,620	7.55	7.9	
HS-3	006170	812527-07	12-05-88	48	29.4	228	1.1	ND	293	286	88	42.3	ND	1.19	ND	ND	240	32.7	1,029	24.8	2,000	1,510	7.46	8.0	
HS-3	006370	908706-01	08-24-89	66.5	32.3	260	1.4	ND	261	310	59	36	0.06	1.25	ND	ND	214	36.4	1,080	25.0	2,000	1,720	---	8.1	
HS-3	006568	003588-01	03-08-90	51.6	27.8	253	1.2	ND	261	310	102	39	ND	1.40	ND	ND	214	34.0	920	24.0	1,900	1,630	7.66	7.9	
HS-3	006749	006599-03	06-07-90	67.4	32.0	255	ND	ND	262	260	88	40	ND	1.31	ND	ND	215	37.8	1,040	25.2	1,900	1,670	7.52	8.0	
HS-3	010786	103882-05	03-21-91	61.9	29.5	246	1.2	ND	257	280	84	38	ND	1.31	ND	ND	211	37.6	950	24.7	1,875	1,700	7.72	7.7	

^a D = Sample obtained during well development
dup = Duplicate sample

^b Ca = Calcium
Mg = Magnesium
Na = Sodium
K = Potassium
CO₃ = Carbonate
HCO₃ = Bicarbonate
Cl = Chloride
SO₄ = Sulfate
NO₃ = Nitrate (as N)
NH₃ = Ammonia (as N)
F = Fluoride
PO₄ = Phosphate (ortho) (as P)
P = Phosphorus (total)
Alk = Alkalinity (as CaCO₃)
SiO₂ = Silica
TDS = Total dissolved solids
ND = None detected
--- = Not analyzed

NOTE: Except for highlighted samples, samples analyzed by
Analytical Technologies, Inc., Phoenix, Arizona.

Groundwater sample not obtained by Enrol L. Montgomery & Associates, Inc.
1982 Sample obtained by Arizona Department of Health Services
1983 Sample obtained by Ecology and Environment, Inc.
1987 Sample obtained by Maricopa County
1989 Sample obtained by Arizona Department of Environmental Quality

^c Temp = Temperature (degrees Celsius)

^d μmho/cm = Micromhos per centimeter

^e Electrical conductance initially measured in the laboratory was reported to be 6,900 μmho/cm, which is anomalous. A second laboratory measurement made after a holding time of 73 days was 683 μmho/cm. The second laboratory measurement corroborates the field measurements; the initial laboratory measurement is not considered to be representative.

PRELIMINARY
SUBJECT TO REVISION

TABLE 2. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR COMMON CONSTITUENTS AND ROUTINE PARAMETERS
IN QUALITY CONTROL BLANKS FOR WATER SAMPLES
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

SAMPLE IDENTIFIER		DATE	COMMON CONSTITUENTS ^a (milligrams per liter)																	ELECTRICAL CONDUCTANCE ^b (μmho/cm)		pH.....						
			Ca	Mg	Na	K	CO ₃	HCO ₃	Cl	SO ₄	NO ₃	NH ₃	F	PO ₄	P	Alk	SiO ₂	TDS	Temp	Field	Lab	Field	Lab					
IDENTIFIER	FIELD	LAB	SAMPLED	ND	ND	ND	ND	ND	2.4	ND	1.1	ND	ND	0.07	---	0.18	2	32.1	10	32.7	<50	4.7	5.29	5.2				
FIELD BLANK	014408	805139-03	05-26-88	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	1	35.3	68	37.3	<50	5.4	6.13	5.1				
FIELD BLANK	014429	807002-01	06-30-88	ND	ND	ND	ND	ND	4.9	ND	ND	0.10	0.09	0.08	ND	ND	4	0.87	16	---	---	1.9	---	5.4				
FIELD BLANK	006112	809160-01	09-23-88	ND	ND	ND	ND	ND	2.4	ND	ND	2.2	0.06	0.07	ND	ND	2	0.1	30	---	---	2.6	---	5.4				
FIELD BLANK	006113	809167-01	09-26-88	ND	ND	ND	ND	ND	7.3	ND	ND	0.58	ND	ND	ND	ND	6	ND	ND	---	---	1.40	---	6.1				
FIELD BLANK	006169	812527-06	12-05-88	ND	ND	ND	ND	ND	4.9	ND	ND	0.26	ND	ND	ND	ND	4	ND	ND	---	---	2.21	---	6.1				
FIELD BLANK	006172	812527-09	12-06-88	ND	ND	ND	ND	ND	3.7	ND	1	ND	ND	ND	ND	ND	3	ND	20	---	---	1.39	---	6.2				
FIELD BLANK	006366	908692-06	08-23-89	ND	ND	ND	ND	ND	3.7	ND	3	ND	0.05	ND	ND	ND	3	ND	10	25.0	---	1.65	---	5.9				
FIELD BLANK	006371	908706-02	08-24-89	ND	0.10	ND	ND	ND	3.7	ND	1	ND	ND	ND	ND	ND	3	ND	ND	22.1	10	5.21	6.31	6.3				
FIELD BLANK	004393	002577-03	02-07-90	0.2	ND	0.4	ND	ND	3.7	ND	1	ND	ND	ND	ND	ND	3	ND	ND	10	---	2.95	---	5.8				
FIELD BLANK	006551	003557-01	03-06-90	ND	ND	0.1	ND	ND	3.7	ND	ND	ND	ND	ND	ND	ND	3	ND	10	---	---	4.81	---	5.8				
FIELD BLANK	006566	003572-07	03-07-90	ND	ND	0.1	ND	ND	2.4	ND	ND	ND	ND	ND	ND	ND	2	ND	50	---	---	1.6	---	5.8				
FIELD BLANK	006744	006576-07	06-06-90	0.2	ND	ND	ND	ND	2.4	ND	ND	ND	ND	ND	ND	ND	2	ND	40	---	---	1.69	---	6.2				
FIELD BLANK	006747	006599-01	06-07-90	ND	ND	ND	ND	ND	3.7	ND	ND	ND	ND	ND	ND	ND	3	ND	10	---	---	2.15	---	5.8				
FIELD BLANK	010785	103882-04	03-21-91	ND	ND	ND	ND	ND	2.4	ND	ND	ND	ND	ND	ND	ND	2	ND	ND	---	---	1.97	---	5.7				
FIELD BLANK	010791	103882-10	03-21-91	ND	ND	ND	ND	ND	2.4	ND	ND	ND	ND	ND	ND	ND	2	ND	10	---	---	2.25	---	5.6				
FIELD BLANK	010972	106790-15	06-19-91	ND	ND	ND	ND	ND	1.2	ND	ND	ND	0.04	ND	ND	ND	1	ND	10	---	---	2.22	---	5.6				
FIELD BLANK	010982	106790-24	06-19-91	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	1	ND	20	---	---	2.23	---	5.5				
FIELD BLANK	002257	109902-14	09-24-91	ND	ND	ND	ND	ND	1.22	ND	ND	ND	ND	ND	ND	ND	1	ND	ND	---	---	1.47	---	5.7				
FIELD BLANK	002281	109902-38	09-25-91	ND	ND	ND	ND	ND	1.22	ND	ND	ND	ND	ND	ND	ND	1	ND	ND	---	---	2.36	---	5.6				
FIELD BLANK	002387	112562-06	12-04-91	ND	ND	ND	ND	ND	1.22	ND	ND	ND	ND	ND	ND	ND	1	ND	ND	---	---	2.05	---	5.5				
FIELD BLANK	002412	112587-20	12-05-91	ND	ND	ND	ND	ND	1.22	ND	ND	ND	ND	ND	ND	ND	1	ND	ND	---	---	1.5	10	19.8	13	8.91	7.4	6.3
FIELD BLANK	002619	204640-01	04-09-92	ND	ND	1.6	ND	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND	1.5	10	19.8	13	8.91	7.4	6.3				
FIELD BLANK	002646	204659-03	04-10-92	ND	ND	2.3	ND	ND	ND	2.5	ND	ND	ND	ND	ND	ND	ND	0.8	10	19.5	14	12.7	7.27	6.1				

^a Ca = Calcium
Mg = Magnesium
Na = Sodium
K = Potassium
CO₃ = Carbonate
HCO₃ = Bicarbonate
Cl = Chloride
SO₄ = Sulfate
NO₃ = Nitrate (as N)
NH₃ = Ammonia (as N)
F = Fluoride
PO₄ = Phosphate (ortho) (as P)
P = Phosphorus (total)
Alk = Alkalinity (as CaCO₃)
SiO₂ = Silica
TDS = Total dissolved solids
Temp = Temperature (degrees Celsius)
ND = None detected
--- = Constituent not analyzed
< = Less than

^b μmho/cm = Micromhos per centimeter

NOTE: Samples analyzed by Analytical Technologies, Inc., Phoenix, Arizona

PRELIMINARY
SUBJECT TO REVISION

TABLE 3. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

WELL IDENTIFIER ^a	SAMPLE FIELD	IDENTIFIER LAB	DATE SAMPLED	DATE ANALYZED	EPA METHOD	DILUTION ^b FACTOR	VOLATILE ORGANIC COMPOUNDS ^c (micrograms per liter)										OTHER CONSTITUENTS
							DCM	DMK	1,1-DCE	1,1-DCA	MEK	TCA	MB	TCE			
MW-1UA D	014378	16208	04-08-88	04-21-88	624	1	ND	19 R	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-1UA	014412	806006-01	05-31-88	06-03-88	624	1	14 RT	ND	11	2	ND	3	ND	ND	ND	ND	ND
MW-1UA	006084	809086-15	09-14-88	09-22-88	601	1	ND	---	15.5	1.3	---	0.9	---	ND	ND	ND	ND
MW-1UA	006099	809133-15	09-20-88	09-29-88	624	1	6 RFT	ND	16	ND	ND	ND	3 RFT	ND	ND	ND	ND
MW-1UA	006177	812527-14	12-06-88	12-16-88	624	1	11 RT	ND	111	5	31 FT	9	2 F	ND	DMB=2 T	ND	ND
MW-1UA dup	006178	812527-15	12-06-88	12-15-88	624	1	18 RT	ND	127	8	39 FT	11	3 F	ND	ND	ND	ND
MW-1UA	006375	908706-06	08-24-89	08-30-89	601/602	10	47 F	---	547	30	---	25	ND	ND	ND	ND	ND
MW-1UA dup	006376	908706-07	08-24-89	08-29-89	601/602	1 (10)	3.4 R	---	(380)	19.3	---	22.7	ND	ND	ND	ND	ND
MW-1UA	006569	003588-02	03-08-90	03-15-90	601/602	1 (50)	6.0 RT	---	(110)	7.2	---	6.9	ND	ND	ND	ND	ND
MW-1UA dup	006570	003588-03	03-08-90	03-15-90	601/602	1 (50)	4.9 RT	---	(140)	7.5	---	6.8	ND	ND	1,2-DCE=0.6	ND	ND
MW-1UA	006758	006599-11	06-07-90	06-13-90	601/602	1 (10)	4.8 RT	---	(199)	14.9	---	13.0	ND	0.3	1,2-DCE=1.1	ND	ND
MW-1UA	010799	103882-17	03-22-91	04-04-91	601/602	1 (10)	3.6 RFT	---	(156)	17.9	---	6.7	ND	ND	DCDFM=0.3	ND	ND
MW-1UA dup	010800	103882-18	03-22-91	04-04-91	601/602	1 (50)	3.0 RFT	---	(140)	18.5	---	7.8	8.3 FT	0.2	DCDFM=0.4; 1,2-DCA=0.2	ND	ND
MW-1UA	010996	106790-37	06-19-91	07-02-91	601/602	1	ND	---	57.4	6.8	---	2.4	ND	ND	ND	ND	ND
MW-1UA	002279	109902-36	09-25-91	10-02-91	601/602	1 (5)	ND	---	(105)	15.5	---	2.8	ND	ND	ND	ND	ND
MW-1UA	002383	112562-02	12-04-91	12-05-91	601/602	1	ND	---	23	2.1	---	1.4	ND	ND	ND	ND	ND
MW-1UA dup	002384	112562-03	12-04-91	12-19-91	601/602	1	5.8 R	---	20	1.7	---	1.3	ND	ND	ND	ND	ND
MW-1UA	002656	204659-13	04-10-92	04-18-92	601/602	1	ND	---	29	2.9	---	0.9	ND	ND	ND	ND	ND
MW-1UB D	014383	804087-01	04-27-88	05-02-88	624	1	10 R	ND	ND	ND	ND	ND	ND	ND	MBK=Tr	ND	ND
MW-1UB	014425	806096-01	06-14-88	06-27-88	624	1	ND	ND	ND	ND	ND	ND	1	ND	ND	ND	ND
MW-1UB	006086	809133-02	09-20-88	09-28-88	624	1	ND	ND	ND	ND	22 T	ND	3 RFT	ND	ND	ND	ND
MW-1UB	006171	812527-08	12-06-88	12-14-88	624	1	15 RT	ND	ND	ND	24 FT	ND	1 F	ND	ND	ND	ND
MW-1UB	006360	908692-01	08-23-89	08-28-89	601/602	1	2.2 R	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-1UB	006552	003557-02	03-06-90	03-12-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-1UB	006739	006576-02	06-06-90	06-08-90	601/602	1	2.0 RT	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-1UB	010781	103882-01	03-20-91	04-02-91	601/602	1	2.0 RFT	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-1UB	010958	106790-02	06-18-91	07-01-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-1UB	002245	109902-02	09-24-91	09-28-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-1UB	002385	112562-04	12-04-91	12-05-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-1UB	002620	204640-03	04-09-92	04-16-92	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-2UA D	014382	804069-01	04-25-88	05-02-88	624	1	8 RT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-2UA	014421	806047-01	06-09-88	06-15-88	624	1	5 RT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-2UA	006088	809133-04	09-20-88	09-28-88	624	1	ND	ND	ND	ND	57 T	ND	4 RFT	ND	ND	ND	ND
MW-2UA dup	006089	809133-05	09-20-88	09-28-88	624	1	ND	ND	ND	ND	23 T	ND	ND	ND	ND	ND	ND
MW-2UA	006164	812527-01	12-05-88	12-13-88	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-2UA	006363	908692-03	08-23-89	08-28-89	601/602	1	2.2 R	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-2UA	006554	003557-04	03-06-90	03-13-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-2UA	006740	006576-03	06-06-90	06-08-90	601/602	1	2.2 RT	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-2UA	010788	103882-07	03-21-91	04-03-91	601/602	1	ND	---	ND	ND	---	ND	2.5 FT	ND	ND	ND	ND
MW-2UA	010962	106790-06	06-18-91	07-02-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-2UA	002261	109902-18	09-25-91	09-30-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-2UA	002394	112587-02	12-05-91	12-10-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	ND
MW-2UA	002622	204640-05	04-09-92	04-16-92	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	ND

PRELIMINARY
SUBJECT TO REVISION

TABLE 3. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

2

WELL IDENTIFIER ^a	SAMPLE FIELD	IDENTIFIER LAB	DATE SAMPLED	DATE ANALYZED	EPA METHOD	DILUTION ^b FACTOR	VOLATILE ORGANIC COMPOUNDS ^c (micrograms per liter)									
							DCM	DMK	1,1-DCE	1,1-DCA	MEK	TCA	MB	TCE	OTHER CONSTITUENTS	
MW-2UB D	014379	804029-01	04-18-88	04-23-88	624	1	14	R	18 R	ND	ND	ND	ND	ND	ND	ND
MW-2UB	014414	806006-03	06-01-88	06-03-88	624	1	10	RT	ND	ND	ND	ND	ND	ND	ND	ND
MW-2UB	006087	809133-03	09-20-88	09-28-88	624	1	5	RFT	ND	ND	ND	ND	2	RFT	ND	ND
MW-2UB	006174	812527-11	12-06-88	12-15-88	624	1	ND	ND	ND	ND	ND	34 FT	3	F	ND	ND
MW-2UB	006362	908692-02	08-23-89	08-29-89	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-2UB	006553	003557-03	03-06-90	03-13-90	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-2UB	006741	006576-04	06-06-90	06-08-90	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-2UB	010787	103882-06	03-21-91	04-03-91	601/602	1	ND	---	ND	ND	ND	---	ND	1.1 FT	ND	ND
MW-2UB	010960	106790-04	06-18-91	07-01-91	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-2UB	002259	109902-16	09-25-91	09-30-91	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-2UB	002396	112587-04	12-05-91	12-10-91	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-2UB	002624	204640-07	04-09-92	04-16-92	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-3UA D	014387	805024-01	05-05-88	05-16-88	624	1	14	R	ND	ND	ND	ND	ND	ND	ND	ND
MW-3UA	014413	806006-02	06-01-88	06-03-88	624	1	9	RT	ND	ND	ND	ND	ND	ND	ND	ND
MW-3UA	006091	809133-07	09-20-88	09-28-88	624	1	ND	ND	ND	ND	ND	ND	2	RFT	ND	ND
MW-3UA	006165	812527-02	12-05-88	12-13-88	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-3UA	006364	908692-04	08-23-89	08-28-89	601/602	1	2.1	R	---	ND	ND	---	ND	ND	ND	ND
MW-3UA	006556	003557-06	03-06-90	03-13-90	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-3UA	006742	006576-05	06-06-90	06-08-90	601/602	1	2.1	RT	---	ND	ND	---	ND	ND	ND	ND
MW-3UA	010789	103882-08	03-21-91	04-03-91	601/602	1	ND	---	ND	ND	ND	---	ND	1.1 FT	ND	ND
MW-3UA	010966	106790-10	06-18-91	07-02-91	601/602	1	ND	---	ND	ND	ND	---	ND	0.3	ND	ND
MW-3UA	002267	109902-24	09-25-91	10-01-91	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-3UA	002398	112587-06	12-05-91	12-10-91	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-3UA	002628	204640-11	04-09-92	04-16-92	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-3UB D	014384	805010-01	04-29-88	05-02-88	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-3UB	014426	806096-02	06-16-88	06-27-88	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-3UB	006090	809133-06	09-20-88	09-28-88	624	1	ND	ND	ND	ND	ND	ND	2	RFT	ND	ND
MW-3UB	006175	812527-12	12-06-88	12-15-88	624	1	6	RT	ND	ND	ND	32 FT	2	F	ND	ND
MW-3UB	006365	908692-05	08-23-89	08-28-89	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-3UB	006555	003557-05	03-06-90	03-13-90	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-3UB	006743	006576-06	06-06-90	06-08-90	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-3UB	010790	103882-09	03-21-91	04-03-91	601/602	1	2.5	RFT	---	ND	ND	---	ND	6.1 FT	ND	ND
MW-3UB	010964	106790-08	06-18-91	07-02-91	601/602	1	ND	---	ND	ND	ND	---	ND	1.0	ND	ND
MW-3UB	002265	109902-22	09-25-91	10-01-91	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-3UB	002400	112587-08	12-05-91	12-11-91	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-3UB	002626	204640-09	04-09-92	04-16-92	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND
MW-4UA D	014391	805060-01	05-13-88	05-17-88	624	1	9	R	ND	ND	ND	ND	ND	ND	ND	ND
MW-4UA	014427	806130-01	06-22-88	06-29-88	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4UA	006093	809133-09	09-20-88	09-28-88	624	1	ND	ND	ND	ND	ND	ND	2	RFT	ND	ND
MW-4UA dup	006094	809133-10	09-20-88	09-29-88	624	1	ND	ND	ND	ND	ND	ND	2	RFT	ND	ND
MW-4UA	006166	812527-03	12-05-88	12-13-88	624	1	7	RT	ND	ND	ND	36 FT	ND	ND	ND	ND
MW-4UA	006373	908706-04	08-24-89	08-30-89	601/602	1	ND	---	ND	ND	ND	---	ND	ND	ND	ND

PRELIMINARY
SUBJECT TO REVISION

TABLE 3. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

3

WELL IDENTIFIER ^a	SAMPLE IDENTIFIER		DATE SAMPLED	DATE ANALYZED	EPA METHOD	DILUTION ^b FACTOR	VOLATILE ORGANIC COMPOUNDS ^c (micrograms per liter)										OTHER CONSTITUENTS
	FIELD	LAB					DCM	DMK	1,1-DCE	1,1-DCA	MEK	TCA	MB	TCE			
MW-4UA	006558	003557-08	03-06-90	03-14-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	TCTFA=0.6 T	
MW-4UA	006746	006576-09	06-06-90	06-09-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-4UA	010792	103882-11	03-21-91	04-03-91	601/602	1	ND	---	ND	ND	---	ND	0.9 FT	ND	ND	TCTFA=15.9	
MW-4UA	010909	105704-09	05-13-91	05-22-91	601/602	1	ND	---	0.3	ND	---	ND	0.7 F	ND	ND	TCTFA=28; CM=0.9	
MW-4UA dup	010910	105704-10	05-13-91	05-22-91	601/602	1	ND	---	0.4	ND	---	ND	0.6 F	ND	ND	TCTFA=27	
MW-4UA	010980	106790-22	06-19-91	07-01-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	TCTFA=21.9	
MW-4UA	002247	109902-04	09-24-91	09-28-91	601/602	1	ND	---	0.5	ND	---	ND	ND	ND	ND	TCTFA=30	
MW-4UA dup	002248	109902-05	09-24-91	09-28-91	601/602	1	ND	---	0.5	ND	---	ND	ND	ND	ND	TCTFA=35	
MW-4UA	002406	112587-14	12-05-91	12-11-91	601/602	1	ND	---	3.5	ND	---	0.5	ND	0.3		PCE=0.2; TCFM=0.4 TCTFA=46	
MW-4UA dup	002407	112587-15	12-05-91	12-11-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	TCFM=0.7; TCTFA=65	
MW-4UA	002630	204640-13	04-09-92	04-16-92	601/602	1	ND	---	1.5	ND	---	ND	ND	ND	ND	TCTFA=59	
MW-4UA dup	002631	204640-14	04-09-92	04-16-92	601/602	1	ND	---	1.4	ND	---	ND	ND	ND	ND	TCFM=0.5; TCTFA=60	
MW-4UB D	014399	805105-01	05-19-88	05-27-88	624	1	11 RT	10 R	ND	ND	ND	ND	ND	ND	ND	ND	
MW-4UB	014428	806170-01	06-28-88	07-02-88	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MW-4UB	006092	809133-08	09-20-88	09-28-88	624	1	ND	ND	ND	ND	ND	ND	2	RFT	ND	ND	
MW-4UB	006176	812527-13	12-06-88	12-15-88	624	1	8 RT	ND	ND	ND	24 FT	ND	2	F	ND	ND	
MW-4UB	006374	908706-05	08-24-89	08-29-89	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-4UB	006557	003557-07	03-06-90	03-13-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-4UB	006745	006576-08	06-06-90	06-11-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-4UB	010793	103882-12	03-21-91	04-03-91	601/602	1	3.5 RFT	---	ND	ND	---	ND	14.8 FT	0.3	ND		
MW-4UB	010907	105704-07	05-13-91	05-22-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	BENZENE=0.5 F	
MW-4UB dup	010908	105704-08	05-13-91	05-22-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-4UB	010978	106790-20	06-19-91	07-01-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-4UB dup	010979	106790-21	06-19-91	07-01-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-4UB	002249	109902-06	09-24-91	09-28-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-4UB dup	002250	109902-07	09-24-91	09-28-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-4UB	002408	112587-16	12-05-91	12-12-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-4UB	002632	204640-15	04-09-92	04-17-92	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-5UA D	014406	805139-01	05-26-88	05-27-88	624	1	10 RT	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MW-5UA D, dup	014407	805139-02	05-26-88	05-27-88	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MW-5UA	014430	807002-02	06-30-88	07-13-88	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,2-DCE=10	
MW-5UA dup	014431	807002-03	06-30-88	07-13-88	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MW-5UA	006076	809086-07	09-13-88	10-12-88	601	1	ND	---	0.3	ND	---	ND	---	ND	ND	ND	
MW-5UA	006098	809133-14	09-20-88	09-29-88	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MW-5UA	006167	812527-04	12-05-88	12-13-88	624	1	ND	ND	ND	ND	12 FT	ND	ND	ND	ND	ND	
MW-5UA dup	006168	812527-05	12-05-88	12-13-88	624	1	10 RT	ND	ND	ND	22 FT	ND	ND	ND	ND	ND	
MW-5UA	006367	908692-07	08-23-89	08-28-89	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	TCTFA=1.4	
MW-5UA dup	006368	908692-08	08-23-89	08-29-89	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	TCTFA=1.7	
MW-5UA	006563	003572-04	03-07-90	03-13-90	601/602	1	ND	---	0.9	ND	---	ND	ND	ND	ND	TCTFA=2.1 T	
MW-5UA	006757	006599-10	06-07-90	06-13-90	601/602	1	ND	---	1.8	ND	---	ND	ND	0.2	ND	ND	
MW-5UA	010796	103882-14	03-22-91	04-04-91	601/602	1	ND	---	0.7	ND	---	ND	18.2 FT	0.2	1,2-DCA=0.2; TCTFA=2.0		

PRELIMINARY
SUBJECT TO REVISION

TABLE 3. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

4

WELL IDENTIFIER ^a	SAMPLE IDENTIFIER		DATE SAMPLED	DATE ANALYZED	EPA METHOD	DILUTION ^b FACTOR	VOLATILE ORGANIC COMPOUNDS ^c (micrograms per liter)										OTHER CONSTITUENTS
	FIELD	LAB					DCM	DMK	1,1-DCE	1,1-DCA	MEK	TCA	MB	TCE			
MW-5UA dup	010797	103882-15	03-22-91	04-04-91	601/602	1	ND	---	0.9	ND	---	ND	ND	ND	ND	TCTFA=5.0	
MW-5UA	010969	106790-13	06-19-91	07-01-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-5UA	002263	109902-20	09-25-91	09-30-91	601/602	1	ND	---	0.6	ND	---	ND	ND	ND	ND	ND	
MW-5UA	002388	112562-07	12-04-91	12-06-91	601/602	1	ND	---	0.3	ND	---	ND	ND	ND	ND	CM=0.8	
MW-5UA	002640	204640-23	04-09-92	04-17-92	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-5UA dup	002641	204640-24	04-09-92	04-17-92	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-6UA D	004316	911752-01	11-22-89	12-01-89	601/602	1	2.4 R	---	ND	ND	---	ND	4.5 T	0.4	ND	ND	
MW-6UA	HASS-A	911768-01	11-28-89	12-01-89	601/602	1	ND	---	0.3	ND	---	ND	ND	ND	ND	ND	
MW-6UA	004323	911782-03	11-28-89	12-01-89	601/602	1	ND	---	0.5	ND	---	ND	0.6	0.3	PCE=0.2; TCTFA=5.9 T	ND	
MW-6UA	004325	911782-05	11-28-89	11-29-89	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-6UA	004330	912546-01	12-05-89	12-06-89	624	1	ND	ND	3	ND	ND	ND	ND	ND	TCTFA=6	ND	
MW-6UA dup	004331	912546-02	12-05-89	12-06-89	624	1	ND	ND	3	ND	ND	ND	ND	ND	TCTFA=7	ND	
MW-6UA	006560	003572-01	03-07-90	03-13-90	601/602	1 (100)	5.3 RT	---	(140)	2.4	---	7.4 T	ND	2.5	TCTFA=(180) T; TCFM=4.4; PCE=1.0; 1,2-DCP=0.2	ND	
MW-6UA dup	006561	003572-02	03-07-90	03-13-90	601/602	1 (100)	5.7 RT	---	(140)	1.9	---	7.9 T	ND	2.5	TCTFA=(130) T; TCFM=3.9; PCE=1.2	ND	
MW-6UA	006754	006599-08	06-07-90	06-13-90	601/602	1 (10)	4.4 RT	---	(266)	5.0	---	15.4	ND	5.0	1,2-DCE=1.2; PCE=2.1; TCFM=6.5; TCTFA=(359)	ND	
MW-6UA	010794	103882-13	03-21-91	04-03-91	601/602	1 (20)	2.5 RFT	---	(212)	12.6	---	20.7	2.6 FT	11.1	TCFM=4.8; TCTFA=(133); 1,2-DCP=1.0; PCE=4.1	ND	
MW-6UA	010976	106790-18	06-19-91	07-02-91	601/602	1 (100)	ND	---	(210)	34.7	---	46.2	ND	30.3	1,2-DCP=2.6; PCE=11.4 TCFM=10.3; TCTFA=(320)	ND	
MW-6UA	002253	109902-10	09-24-91	09-30-91	601/602	1 (10)	ND	---	(235)	15.5	---	23.2	ND	18.1	BENZENE=0.6; 1,2-DCP=1.7; PCE=7.4/6	ND	
MW-6UA	002402	112587-10	12-05-91	12-10-91	601/602	1 (50)	ND	---	(170)	27	---	44	ND	30	TCFM=3.8; TCTFA=(176) 1,2-DCP=3.9; PCE=13	ND	
MW-6UA	002634	204640-17	04-09-92	04-17-92	601/602	5	ND	---	47	1.9	---	3.9	ND	2.1	TCFM=9.1; TCTFA=(170) PCE=1.1; TCFM=0.9; TCTFA=59	ND	
MW-6UB D	010876	104730-02	04-17-91	04-18-91	601/602	1	ND	---	ND	ND	---	ND	6.6	ND	1,2-DCA=0.2; TCTFA=2.1 RT	ND	
MW-6UB	010883	104835-02	04-23-91	05-03-91	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MW-6UB	010973	106790-16	06-19-91	07-01-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-6UB	002251	109902-08	09-24-91	09-30-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-6UB	002404	112587-12	12-05-91	12-11-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-6UB	002636	204640-19	04-09-92	04-17-92	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-7UA D	004333	912583-01	12-07-89	12-20-89	601/602	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MW-7UA	004391	002577-01	02-07-90	02-16-90	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MW-7UA dup	004392	002577-02	02-07-90	02-16-90	624	1	ND	ND	ND	ND	ND	ND	1	RFT	ND	ND	
MW-7UA	MW-7UA	19186	02-07-90	02-16-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-7UA	006562	003572-03	03-07-90	03-13-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	
MW-7UA	006756	006599-09	06-07-90	06-13-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND	

PRELIMINARY
SUBJECT TO REVISION

TABLE 3. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

5

WELL IDENTIFIER ^a	SAMPLE IDENTIFIER		DATE SAMPLED	DATE ANALYZED	EPA METHOD	DILUTION ^b FACTOR	VOLATILE ORGANIC COMPOUNDS ^c (micrograms per liter)										OTHER CONSTITUENTS
	FIELD	LAB					DCM	DMK	1,1-DCE	1,1-DCA	MEK	TCA	MB	TCE			
MW-7JA	010798	103882-16	03-22-91	04-04-91	601/602	1	ND	---	ND	ND	---	ND	2.8 FT	ND	ND		
MW-7JA	010989	106790-31	06-19-91	07-02-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-7JA	002255	109902-12	09-24-91	09-30-91	601/602	1	ND	---	ND	ND	---	ND	ND	0.2	ND		
MW-7JA	002410	112587-18	12-05-91	12-12-91	601/602	1	ND	---	0.4	ND	---	ND	ND	0.4	TCM=0.3		
MW-7JA dup	002411	112587-19	12-05-91	12-12-91	601/602	1	ND	---	0.5	ND	---	ND	ND	0.4	ND		
MW-7JA	002638	204640-21	04-09-92	04-17-92	601/602	1	ND	---	0.6	ND	---	ND	ND	0.4	ND		
MW-8JA D	004335	912583-03	12-08-89	12-20-89	601/602	1	ND	ND	ND	ND	ND	ND	0.7 T	ND	ND		
MW-8JA	004395	002577-05	02-08-90	02-16-90	624	1	ND	ND	ND	ND	ND	ND	2 RFT	ND	ICTFA=1 T		
MW-8JA dup	004397	002577-06	02-08-90	02-17-90	624	1	ND	ND	ND	ND	ND	ND	1 RFT	ND	ND		
MW-8JA	006564	003572-05	03-07-90	03-14-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-8JA	006752	006599-06	06-07-90	06-13-90	601/602	1	ND	---	ND	ND	---	0.7	ND	ND	ND		
MW-8JA dup	006753	006599-07	06-07-90	06-13-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-8JA	010782	103882-02	03-20-91	04-02-91	601/602	1	2.4 RFT	---	ND	ND	---	ND	ND	1.7	ND		
MW-8JA	101902	105704-02	05-13-91	05-22-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-8JA dup	010903	105704-03	05-13-91	05-23-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-8JA	010983	106790-25	06-19-91	07-02-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-8JA dup	010984	106790-26	06-19-91	07-02-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-8JA	002269	109902-26	09-25-91	10-02-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	CM=0.3		
MW-8JA	002391	112562-09	12-04-91	12-06-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-8JA	002644	204659-01	04-10-92	04-17-92	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-9JA D	014751	104861-01	04-25-91	05-07-91	601/602	1	ND	---	ND	ND	---	ND	0.5	ND	1,2-DCA=0.5		
MW-9JA	004457	105644-01	05-07-91	05-20-91	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND		
MW-9JA	010985	106790-27	06-19-91	07-02-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-9JA	002271	109902-28	09-25-91	10-02-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	CM=0.5		
MW-9JA	002413	112587-21	12-05-91	12-13-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-9JA	002648	204659-05	04-10-92	04-17-92	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-9UB D	014749	104737-01	04-17-91	04-26-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	1,2-DCA=0.4		
MW-9UB	014758	105570-01	05-02-91	05-15-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-9UB	010987	106790-29	06-19-91	05-09-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-9UB	002273	109902-30	09-25-91	10-02-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	CM=0.3		
MW-9UB	002415	112587-23	12-05-91	12-13-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-9UB	002650	204659-07	04-10-92	04-17-92	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-10UA D	014753	104890-01	04-29-91	05-09-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	1,2-DCA=0.6 T		
MW-10UA	004461	105723-01	05-14-91	05-25-91	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND		
MW-10UA	010991	106790-33	06-19-91	07-02-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-10UA	002277	109902-34	09-25-91	10-02-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	CM=0.8		
MW-10UA	002417	112587-25	12-05-91	12-13-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-10UA	002652	204659-09	04-10-92	04-17-92	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-10UB D	014757	105548-03	05-02-91	05-12-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	1,2-DCA=0.8		
MW-10UB	004464	105873-02	05-22-91	06-02-91	624	1	ND	ND	ND	ND	ND	ND	ND	ND	ND		
MW-10UB	010994	106790-35	06-19-91	07-02-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-10UB	002275	109902-32	09-25-91	10-02-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	CM=0.3		
MW-10UB	002419	112587-27	12-05-91	12-13-91	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		
MW-10UB	002654	204659-11	04-10-92	04-17-92	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND		

PRELIMINARY
SUBJECT TO REVISION

TABLE 3. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

6

WELL IDENTIFIER ^a	SAMPLE FIELD	IDENTIFIER LAB	DATE SAMPLED	DATE ANALYZED	EPA METHOD	DILUTION ^b FACTOR	VOLATILE ORGANIC COMPOUNDS ^c (micrograms per liter)										OTHER CONSTITUENTS
							DCM	DMK	1,1-DCE	1,1-DCA	MEK	TCA	MB	TCE			
HS-1	Y1408		05-13-82				Tr F	ND	111	15.5	ND	37.1	Tr F	Tr	TCFM Tr; DCTFA**;		
HS-1	Y1711		09-14-82				16*	ND	640	Tr	ND	200	ND	ND	TCTFA**		
HS-1 dup	Y1711 dup		09-14-82				26*	ND	810	13	ND	250	ND	ND	TCFM 75; TCTFA** F;		
HS-1	Y1712		09-14-82				17*	ND	1,300	10	ND	490	ND	ND	DCTFA**		
HS-1	Y1713		09-14-82				21*	ND	400	ND	ND	110	ND	ND	TCFM 95		
HS-1	Y2334		05-18-83				ND	ND	1,100	Tr	ND	290	ND	7.9	TCFM 190; TCTFA** F;		
HS-1	Y4169		09-05-84				7.7 F	ND	257	14	ND	108	ND	6.2	DCTFA**		
HS-1	Y4171		09-05-84				7.7 F	ND	435	14	ND	166	ND	8.8	TCFM 32; TCTFA 610**;		
HS-1		1	04-15-87		601/602		2	---	2,000	ND	---	1,500	ND	115	STY Tr F; PCE Tr;		
HS-1	004017	3043-2	07-15-87	07-16-87	601/602	1	ND	---	140	8.1	---	32.2	ND	8.4	1,3-DMB Tr		
HS-1	014409	805139-04	05-26-88	05-27-88	624	1 (10)	ND	ND	(910)	20	ND	150	ND	46	PCE 25		
HS-1 dup	014410	805139-05	05-26-88	05-27-88	624	1	ND	ND	830	21	ND	170	ND	52	PCE 25		
HS-2	Y1406		05-12-82				Tr F	ND	ND	ND	ND	ND	Tr F	ND	PCE 22; 1,2-DCA 800;		
HS-2	Y1714		09-14-82				ND	ND	ND	ND	ND	ND	ND	ND	1,2-DCE 160; DBCM 44;		
HS-2	Y2331		05-18-83				14*	ND	ND	ND	ND	ND	ND	ND	CB 13; TBM 6		
HS-2	Y4168		09-05-84				Tr F	ND	ND	ND	ND	ND	Tr**	ND	PCE 21; TCFM 10;		
HS-2		2	04-15-87		601/602		2	---	ND	ND	---	ND	ND	ND	TCTFA 500		
HS-2	004018	3043-3	07-15-87	07-16-87	601/602	1	ND	---	0.6	ND	---	ND	ND	ND	PCE 23; TCFM 20;		
HS-2 dup	004018	8770790-01	07-15-87	07-20-87	601/602		ND	---	ND	ND	---	ND	ND	ND	TCTFA 600		
HS-2	006095	809133-11	09-20-88	09-29-88	624	1	ND	ND	ND	ND	ND	2	RFT	ND			
HS-2	006173	812527-10	12-06-88	12-15-88	624	1	ND	ND	ND	ND	26 FT	ND	ND	ND			
HS-2	006372	908706-03	08-24-89	08-29-89	601/602	1	ND	---	ND	ND	---	ND	ND	ND			
HS-2	006565	003572-06	03-07-90	03-14-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND			
HS-2	006750	006599-04	06-07-90	06-13-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND			
HS-2 dup	006751	006599-05	06-07-90	06-12-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND			
HS-2	010784	103882-03	03-21-91	04-03-91	601/602	1	2.4 RFT	---	ND	ND	---	ND	1.0 FT	ND			
HS-3	Y1407		05-12-82				Tr F	ND	ND	ND	ND	ND	ND	ND			
HS-3	Y1715		09-14-82				18*	ND	ND	ND	ND	ND	ND	ND			
HS-3	Y2333		05-18-83				ND	ND	ND	ND	ND	ND	ND	ND			
HS-3	Y4167		09-05-84				Tr F	ND	ND	ND	ND	ND	ND	ND			
HS-3		3	04-15-87		601/602		ND	---	2	ND	---	ND	ND	ND			

PRELIMINARY
SUBJECT TO REVISION

TABLE 3. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

7

WELL IDENTIFIER ^a	SAMPLE IDENTIFIER		DATE SAMPLED	DATE ANALYZED	EPA METHOD	DILUTION ^b FACTOR	VOLATILE ORGANIC COMPOUNDS ^c (micrograms per liter)									
	FIELD	LAB					DCM	DMK	1,1-DCE	1,1-DCA	MEK	TCA	MB	TCE	OTHER CONSTITUENTS	
HS-3	004016	3043-1	07-15-87	07-16-87	601/602	1			---	ND	ND	---	ND	ND	ND	ND
HS-3	006097	809133-13	09-20-88	09-29-88	624	1	5	RFT	ND	ND	ND	ND	2	RFT	ND	ND
HS-3	006170	812527-07	12-05-88	12-14-88	624	1	15	RT	ND	ND	ND	ND	ND	ND	ND	ND
HS-3	006370	908706-01	08-24-89	08-29-89	601/602	1	2.7	R	---	ND	ND	---	ND	ND	ND	ND
HS-3	006568	003588-01	03-08-90	03-15-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND
HS-3	006749	006599-03	06-07-90	06-12-90	601/602	1	ND	---	ND	ND	---	ND	ND	ND	ND	ND
HS-3	010786	103882-05	03-21-91	04-03-91	601/602	1	5.1	RFT	---	ND	ND	---	ND	0.6	FT	ND

PRELIMINARY
SUBJECT TO REVISION

TABLE 3. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN GROUNDWATER SAMPLES FROM MONITOR WELLS
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

8

^a D = Sample obtained during well development
dup = duplicate sample

^b A dilution factor greater than one indicates that sample was diluted with water prior to analysis. A dilution factor of 50 indicates that one volume of sample was diluted with 49 volumes of water prior to analysis. Parentheses indicate dilution factor used for constituents with results given in parentheses.

^c

CB = Chlorobenzene	STY = Styrene (Ethenylbenzene)
CM = Chloromethane	TBM = Tribromomethane
DBCM = Dibromochloromethane	TCA = 1,1,1-Trichloroethane
1,1-DCA = 1,1-Dichloroethane	TCE = Trichloroethene
1,2-DCA = 1,2-Dichloroethane	CTCFA = Trichlorotrifluoroethane (Freon 113)
DCDFM = Dichlorodifluoromethane	TCFM = Trichlorofluoromethane (Freon 11)
1,1-DCE = 1,1-Dichloroethene	ND = Not detected
1,2-DCE = 1,2-Dichloroethene	R = Detected in reagent blank
DCM = Dichloromethane (Methylene Chloride)	F = Detected in field blank
1,2-DCP = 1,2-Dichloropropane	T = Detected in trip blank
DCTFA = Dichlorotrifluoroethane	--- = Constituent not included in method
DMB = Dimethylbenzene (Total Xylenes)	Tr = Trace concentration; positively identified using mass spectrometer, but detected below limit of quantitation for EPA method 624
1,3-DMB = 1,3-Dimethyl benzene	** = Tentatively identified; number is tentative concentration (Arizona Department of Health Services, 1985)
DMK = Dimethylketone (Acetone)	* = May be invalid or partially invalid due to introduction of contamination during field sampling or laboratory analysis (Arizona Department of Health Services, 1985)
MB = Methylbenzene (Toluene)	
MBK = Methyl butyl ketone (2-Hexanone)	
MEK = Methyl ethyl ketone (2-Butanone)	
PCE = Tetrachloroethene	

NOTE: Except for sample identifier 8770790-01 and highlighted samples, all samples were analyzed by Analytical Technologies, Inc., Phoenix, Arizona. Sample identifier 8770790-01 was analyzed by Clayton Environmental Consultants, Inc., Pleasanton, California.

Samples not collected by Errol L. Montgomery & Associates, Inc.
1982 and 1984 sample obtained by Arizona Department of Health Services
1983 sample obtained by Ecology and Environment, Inc.
1987 sample obtained by Maricopa County
1989 sample obtained by Arizona Department of Environmental Quality. Duplicate of Errol L. Montgomery & Associates sample no. 004323
(laboratory accession no. 911782-03)
1990 sample obtained by Arizona Department of Environmental Quality; sample no. 19186 is a duplicate of Errol L. Montgomery & Associates sample no. 004391
(laboratory accession no. 002577-01)

PRELIMINARY
SUBJECT TO REVISION

TABLE 4. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN QUALITY CONTROL BLANKS FOR WATER SAMPLES FOR
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

VOLATILE ORGANIC COMPOUNDS ^a(micrograms per liter).....										
LAB SAMPLE IDENTIFIER	SAMPLE TYPE	DATE ANALYZED	EPA METHOD	DCM	DMK	MB	TCM	BDCM	DBCM	OTHER CONSTITUENTS
3043-04	FIELD BLANK	07-16-87	601/602	ND	---	ND	ND	ND	ND	ND
3043	TRIP BLANK	07-16-87	601/602	ND	---	ND	ND	ND	ND	ND
16208	REAGENT BLANK	04-21-88	624	Tr	Tr	ND	ND	ND	ND	EB=1; DMB=1
804029	REAGENT BLANK	04-23-88	624	14	Tr	ND	ND	ND	ND	ND
804069	TRIP BLANK	05-02-88	624	13 R	ND	ND	ND	ND	ND	ND
804069	REAGENT BLANK	05-02-88	624	Tr T	ND	ND	ND	ND	ND	ND
804087	REAGENT BLANK	05-02-88	624	Tr	ND	ND	ND	ND	ND	ND
805010	REAGENT BLANK	05-02-88	624	Tr	ND	ND	ND	ND	ND	ND
805024	REAGENT BLANK	05-16-88	624	Tr	Tr	ND	ND	ND	ND	ND
805060	TRIP BLANK	05-17-88	624	ND	20 R	ND	7	5	3	ND
805060	REAGENT BLANK	05-17-88	624	Tr	Tr T	ND	ND	ND	ND	ND
805105-02	TRIP BLANK	05-27-88	624	20 R	ND	ND	ND	ND	ND	ND
805105	REAGENT BLANK	05-27-88	624	15 T	Tr	ND	ND	ND	ND	ND
805139-03	FIELD BLANK	05-27-88	624	ND	ND	ND	9	7	4	TBM=Tr
805139-06	FIELD BLANK	05-27-88	624	ND	ND	ND	7	6	3	ND
805139-07	TRIP BLANK	05-27-88	624	25 R	ND	ND	ND	ND	ND	ND
805139	REAGENT BLANK	05-27-88	624	15 T	Tr	ND	ND	ND	ND	ND
806006-04	TRIP BLANK	06-03-88	624	24 R	ND	ND	ND	ND	ND	ND
806006	REAGENT BLANK	06-03-88	624	7 T	Tr	ND	ND	ND	ND	ND
806047-03	TRIP BLANK	06-15-88	624	13 R	ND	ND	ND	ND	ND	ND
806047	REAGENT BLANK	06-15-88	624	5 T	15	ND	ND	ND	ND	ND
806096-03	TRIP BLANK	06-27-88	624	13 R	ND	ND	ND	ND	ND	ND
806096	REAGENT BLANK	06-27-88	624	5 T	Tr	ND	Tr	ND	ND	ND
806130-02	TRIP BLANK	06-29-88	624	12 R	ND	ND	ND	ND	ND	ND
806130	REAGENT BLANK	06-29-88	624	Tr T	Tr	ND	ND	ND	ND	ND
806170-02	TRIP BLANK	07-02-88	624	5 R	11 R	ND	ND	ND	ND	ND
806170	REAGENT BLANK	07-02-88	624	Tr T	15 T	ND	ND	ND	ND	ND
807002-01	FIELD BLANK	07-13-88	624	ND	ND	9	1	ND	ND	ND
807002-04	TRIP BLANK	07-13-88	624	ND	ND	ND	ND	ND	ND	ND
807002	REAGENT BLANK	07-13-88	624	Tr	ND	ND	ND	ND	ND	ND
809086-16	TRIP BLANK	09-22-88	601	10 R	---	ND	ND	ND	ND	ND
809086	REAGENT BLANK	09-22-88	601	4.5 T	---	ND	ND	ND	ND	ND
809086	REAGENT BLANK	10-11-88	601	3.2 T	---	ND	ND	ND	ND	ND
809133-01	FIELD BLANK	09-28-88	624	ND	ND	2 RT	10	8	4	ND
809133-12	FIELD BLANK	09-29-88	624	7 RT	ND	2 RT	11	8	4	ND
809133-16	TRIP BLANK	09-28-88	624	6 RF	ND	2 RF	ND	ND	ND	ND
809133	REAGENT BLANK	09-28-88	624	7 FT	Tr	2 FT	ND	ND	ND	ND
809133	REAGENT BLANK	09-29-88	624	10 FT	Tr	3 FT	ND	ND	ND	DMB=1
812527-06	FIELD BLANK	12-14-88	624	ND	21 R	2	ND	ND	ND	MEK=20 T
812527-09	FIELD BLANK	12-15-88	624	ND	ND	2	ND	ND	ND	MEK=25 T
812527-16	TRIP BLANK	12-13-88	624	8 R	ND	ND	ND	ND	ND	MEK=18 F; DMB=2 R
812527-17	TRIP BLANK	12-14-88	624	43 R	ND	ND	ND	ND	ND	MEK=10 F
812527	REAGENT BLANK	12-13-88	624	Tr T	Tr F	ND	ND	ND	ND	1,1,2,2-PCA=1; DMB=3 T
812527	REAGENT BLANK	12-14-88	624	8 T	Tr F	ND	ND	ND	ND	ND
812527	REAGENT BLANK	12-15-88	624	7 T	ND	ND	ND	ND	ND	ND

PRELIMINARY
SUBJECT TO REVISION

2

TABLE 4. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN QUALITY CONTROL BLANKS FOR WATER SAMPLES FOR
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

VOLATILE ORGANIC COMPOUNDS ^a(micrograms per liter).....										
LAB SAMPLE IDENTIFIER	SAMPLE TYPE	DATE ANALYZED	EPA METHOD	DCM	DMK	MB	TCM	BDCM	DBCM	OTHER CONSTITUENTS
908692-06	FIELD BLANK	08-28-89	601/602	2.7 R	---	ND	0.9	ND	ND	ND
908692-09	TRIP BLANK	08-28-89	601/602	7.5 R	---	ND	ND	ND	ND	ND
908692	REAGENT BLANK	08-28-89	601/602	8.1 FT	---	ND	ND	ND	ND	ND
908692	REAGENT BLANK	08-29-89	601/602	8.5 FT	---	ND	ND	ND	ND	ND
908706-02	FIELD BLANK	08-29-89	601/602	2.8 R	---	ND	0.9	ND	0.9	ND
908706-08	TRIP BLANK	08-29-89	601/602	ND	---	ND	1.0	ND	ND	ND
908706	REAGENT BLANK	08-29-89	601/602	8.5 F	---	ND	ND	ND	ND	ND
908706	REAGENT BLANK	08-30-89	601/602	ND	---	ND	ND	ND	ND	ND
911752-04	TRIP BLANK	11-30-89	601/602	ND	---	2.9	ND	ND	ND	ND
911752	REAGENT BLANK	11-30-89	601/602	8.5	---	ND	0.2	ND	ND	ND
911752	REAGENT BLANK	12-01-89	601/602	10.8	---	ND	0.3	ND	ND	ND
911768-02	TRIP BLANK	12-01-89	601/602	ND	---	ND	ND	ND	ND	ND
911782-06	TRIP BLANK	12-01-89	601/602	ND	---	ND	ND	ND	ND	TCTFA=3.9
911782	REAGENT BLANK	11-29-89	601/602	9.5	---	ND	ND	ND	ND	ND
911782	REAGENT BLANK	11-30-89	601/602	8.5	---	ND	0.2	ND	ND	ND
912546-03	TRIP BLANK	12-06-89	624	10 R	ND	ND	ND	ND	ND	ND
912546	REAGENT BLANK	12-06-89	624	8 T	ND	ND	ND	ND	ND	ND
912583-04	TRIP BLANK	12-20-89	601/602	13.1 R	---	2.2	0.4	ND	ND	ND
912583	REAGENT BLANK	12-19-89	601/602	5.7 T	---	ND	ND	ND	ND	ND
912583	REAGENT BLANK	12-20-89	601/602	2.6 T	---	ND	ND	ND	ND	ND
912583-04	TRIP BLANK	12-20-89	624	19 R	ND	Tr	ND	ND	ND	ND
912583	REAGENT BLANK	12-19-89	624	6 T	ND	ND	ND	ND	ND	ND
002577-03	FIELD BLANK	02-16-90	624	ND	12 R	2 RT	ND	ND	ND	ND
002577-04	TRIP BLANK	02-17-90	624	28 RF	ND	1 RF	ND	ND	ND	TCTFA=1
002577	REAGENT BLANK	02-16-90	624	Tr FT	Tr F	2 FT	ND	ND	ND	ND
19187	TRIP BLANK	02-14-90	601/602	ND	---	ND	ND	ND	ND	ND
003557-01	FIELD BLANK	03-13-90	601/602	ND	---	ND	ND	ND	ND	ND
003557-09	TRIP BLANK	03-12-90	601/602	5.8 R	---	ND	ND	ND	ND	TCTFA=1.2
003557	REAGENT BLANK	03-12-90	601/602	4.2 T	---	ND	ND	ND	ND	ND
003557	REAGENT BLANK	03-13-90	601/602	2.0 T	---	ND	ND	ND	ND	ND
003557	REAGENT BLANK	03-14-90	601/602	ND	---	ND	ND	ND	ND	ND
003572-07	FIELD BLANK	03-14-90	601/602	ND	---	ND	ND	ND	ND	ND
003572-08	TRIP BLANK	03-13-90	601/602	6.7 R	---	ND	ND	ND	ND	TCTFA=0.9; 1,1,1-TCA=0.4
003572	REAGENT BLANK	03-13-90	601/602	2.0 T	---	ND	ND	ND	ND	ND
003572	REAGENT BLANK	03-14-90	601/602	ND	---	ND	ND	ND	ND	ND
003588-04	TRIP BLANK	03-15-90	601/602	6.9 R	---	ND	ND	ND	ND	1,1,1-TCA=0.7
003588	REAGENT BLANK	03-15-90	601/602	2.3 T	---	ND	ND	ND	ND	ND
006576-07	FIELD BLANK	06-09-90	601/602	ND	---	ND	ND	ND	ND	ND
006576-01	TRIP BLANK	06-11-90	601/602	9.2 R	---	ND	ND	ND	ND	ND
006576	REAGENT BLANK	06-08-90	601/602	7.5 T	---	ND	ND	ND	ND	ND
006576	REAGENT BLANK	06-11-90	601/602	9.1 T	---	ND	ND	ND	ND	ND
006599-01	FIELD BLANK	06-12-90	601/602	ND	---	ND	ND	ND	ND	ND
006599-02	TRIP BLANK	06-12-90	601/602	7.9 R	---	ND	ND	ND	ND	ND
006599	REAGENT BLANK	06-11-90	601/602	9.1 T	---	ND	ND	ND	ND	ND
006599	REAGENT BLANK	06-12-90	601/602	7.6 T	---	ND	ND	ND	ND	ND
006599	REAGENT BLANK	06-13-90	601/602	7.1 T	---	ND	ND	ND	ND	ND

TABLE 4. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN QUALITY CONTROL BLANKS FOR WATER SAMPLES FOR
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

PRELIMINARY
SUBJECT TO REVISION

3

VOLATILE ORGANIC COMPOUNDS ^a(micrograms per liter).....										
LAB SAMPLE IDENTIFIER	SAMPLE TYPE	DATE ANALYZED	EPA METHOD	DCM	DMK	MB	TCM	BDCM	DBCM	OTHER CONSTITUENTS
103882-04	FIELD BLANK	04-03-91	601/602	2.6 RT	---	1.5 T	ND	ND	ND	ND
103882-10	FIELD BLANK	04-03-91	601/602	15.4 RT	---	13.6 T	ND	ND	ND	ND
103882-19	TRIP BLANK	04-09-91	601/602	2.6 RF	---	0.8 F	ND	ND	ND	ND
103882-20	TRIP BLANK	04-09-91	601/602	5.7 RF	---	1.6 F	ND	ND	ND	ND
103882-21	TRIP BLANK	04-10-91	601/602	2.7 RF	---	1.2 F	ND	ND	ND	ND
103882	REAGENT BLANK	04-02-91	601/602	2.3 FT	---	ND	ND	ND	ND	ND
103882	REAGENT BLANK	04-03-91	601/602	4.0 FT	---	ND	ND	ND	ND	ND
103882	REAGENT BLANK	04-04-91	601/602	10.0 FT	---	ND	ND	ND	ND	ND
103882	REAGENT BLANK	04-09-91	601/602	5.8 FT	---	ND	ND	ND	ND	ND
103882	REAGENT BLANK	04-10-91	601/602	7.5 FT	---	ND	ND	ND	ND	ND
104696-01	TRIP BLANK	04-24-91	601/602	ND	---	ND	4.0	3.7	2.3	1,2-DCA=0.6
104696	REAGENT BLANK	04-24-91	601/602	ND	---	ND	ND	ND	ND	DMB=1.5; T-1,3-DCPE=0.2
104730-01	TRIP BLANK	04-18-91	601/602	7.3 R	---	ND	ND	ND	ND	TCTFA=2.4 R
104730	REAGENT BLANK	04-18-91	601/602	2.6 T	---	ND	ND	ND	ND	TCTFA=1.6 T
104737-02	TRIP BLANK	04-26-91	601/602	3.0	---	ND	0.7	ND	ND	ND
104737	REAGENT BLANK	04-25-91	601/602	ND	---	ND	ND	ND	ND	ND
104835-01	TRIP BLANK	05-03-91	624	6 R	ND	ND	ND	ND	ND	MBK=12; STY=2; DMB=2
104835	REAGENT BLANK	05-03-91	624	8 T	ND	ND	ND	ND	ND	ND
104861-02	TRIP BLANK	05-07-91	601/602	2.7	---	3.2	ND	ND	ND	ND
104861	REAGENT BLANK	05-07-91	601/602	ND	---	ND	ND	ND	ND	ND
104890-02	TRIP BLANK	05-10-91	601/602	ND	---	1.9	3.7	3.3	2.0	1,2-DCA=0.6
104890	REAGENT BLANK	05-09-91	601/602	ND	---	ND	ND	ND	ND	ND
105548-02	TRIP BLANK	05-12-91	601/602	ND	---	0.8	ND	ND	ND	ND
105548	REAGENT BLANK	05-11-91	601/602	17.7	---	ND	ND	ND	ND	ND
105570-02	TRIP BLANK	05-16-91	601/602	ND	---	ND	ND	ND	ND	ND
105570	REAGENT BLANK	05-15-91	601/602	2.8	---	ND	ND	ND	ND	ND
105570	REAGENT BLANK	05-16-91	601/602	2.0	---	ND	ND	ND	ND	ND
105644-03	TRIP BLANK	05-17-91	624	ND	ND	ND	ND	ND	ND	ND
105644	REAGENT BLANK	05-17-91	624	ND	ND	ND	ND	ND	ND	ND
105644	REAGENT BLANK	05-20-91	624	ND	ND	ND	ND	ND	ND	ND
105704-01	TRIP BLANK	05-22-91	601/602	2.4 R	---	ND	ND	ND	ND	ND
105704-11	FIELD BLANK	05-23-91	601/602	ND	---	2.5	ND	ND	ND	DMB=1.9; BENZENE=0.6; EB=0.6
105704	REAGENT BLANK	05-22-91	601/602	ND	---	ND	ND	ND	ND	ND
105723-02	TRIP BLANK	05-24-91	624	ND	ND	ND	ND	ND	ND	ND
105723	REAGENT BLANK	05-24-91	624	ND	ND	ND	ND	ND	ND	ND
105873-01	TRIP BLANK	06-02-91	624	ND	ND	ND	ND	ND	ND	ND
105873	REAGENT BLANK	06-02-91	624	ND	ND	ND	ND	ND	ND	ND
105972-01	TRIP BLANK	06-05-91	601/602	ND	---	ND	ND	ND	ND	ND
105972	REAGENT BLANK	06-05-91	601/602	ND	---	ND	ND	ND	ND	ND
106790-01	TRIP BLANK	07-01-91	601/602	ND	---	ND	ND	ND	ND	ND
106790-12	TRIP BLANK	07-01-91	601/602	ND	---	ND	ND	ND	ND	ND
106790-15	FIELD BLANK	07-01-91	601/602	ND	---	ND	ND	ND	ND	ND
106790-24	FIELD BLANK	07-02-91	601/602	ND	---	ND	ND	ND	ND	ND

TABLE 4. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN QUALITY CONTROL BLANKS FOR WATER SAMPLES FOR
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA

PRELIMINARY
SUBJECT TO REVISION

VOLATILE ORGANIC COMPOUNDS ^a(micrograms per liter).....										
LAB SAMPLE IDENTIFIER	SAMPLE TYPE	DATE ANALYZED	EPA METHOD	DCM	DMK	MB	TCM	BDCM	DBCM	OTHER CONSTITUENTS
109902-14	FIELD BLANK	09-30-91	601/602	ND	---	ND	0.3	ND	ND	ND
109902-38	FIELD BLANK	10-02-91	601/602	ND	---	ND	0.2	ND	ND	ND
109902-01	TRIP BLANK	09-27-91	601/602	ND	---	ND	ND	ND	ND	ND
109902-15	TRIP BLANK	09-30-91	601/602	ND	---	ND	ND	ND	ND	ND
109902	REAGENT BLANK	09-27-91	601/602	ND	---	ND	ND	ND	ND	ND
109902	REAGENT BLANK	09-30-91	601/602	ND	---	ND	ND	ND	ND	ND
109902	REAGENT BLANK	10-01-91	601/602	ND	---	ND	ND	ND	ND	ND
109902	REAGENT BLANK	10-02-91	601/602	ND	---	ND	ND	ND	ND	ND
112562-06	FIELD BLANK	12-05-91	601/602	ND	---	ND	ND	ND	ND	ND
112562-01	TRIP BLANK	12-05-91	601/602	ND	---	ND	ND	ND	ND	ND
112562	REAGENT BLANK	12-05-91	601/602	ND	---	ND	ND	ND	ND	ND
112562	REAGENT BLANK	12-06-91	601/602	ND	---	ND	ND	ND	ND	ND
112562	REAGENT BLANK	12-18-91	601/602	15	---	ND	ND	ND	ND	ND
112587-20	FIELD BLANK	12-13-91	601/602	ND	---	ND	ND	ND	ND	ND
112587-01	TRIP BLANK	12-10-91	601/602	ND	---	ND	ND	ND	ND	ND
112587-30	TRIP BLANK	12-13-91	601/602	ND	---	ND	ND	ND	ND	ND
112587	REAGENT BLANK	12-10-91	601/602	ND	---	ND	ND	ND	ND	ND
112587	REAGENT BLANK	12-11-91	601/602	ND	---	ND	ND	ND	ND	ND
112587	REAGENT BLANK	12-12-91	601/602	ND	---	ND	ND	ND	ND	ND
112587	REAGENT BLANK	12-13-91	601/602	ND	---	ND	ND	ND	ND	ND
204640-01	FIELD BLANK	04-16-92	601/602	ND	---	ND	9.0	6.1	2.2	ND
204640-02	TRIP BLANK	04-16-92	601/602	ND	---	ND	ND	ND	ND	ND
204640-25	TRIP BLANK	04-17-92	601/602	ND	---	ND	ND	ND	ND	ND
204640	REAGENT BLANK	04-16-92	601/602	ND	---	ND	ND	ND	ND	ND
204640	REAGENT BLANK	04-17-92	601/602	ND	---	ND	ND	ND	ND	ND
204659-03	FIELD BLANK	04-17-92	601/602	ND	---	ND	9.2	6.1	2.6	ND
204659-04	TRIP BLANK	04-17-92	601/602	ND	---	ND	ND	ND	ND	ND
204659-15	TRIP BLANK	04-18-92	601/602	ND	---	ND	ND	ND	ND	ND
204659	REAGENT BLANK	04-17-92	601/602	ND	---	ND	ND	ND	ND	ND

a
BDCM = Bromodichloromethane
DBCM = Dibromochloromethane
DCM = Dichloromethane (Methylene Chloride)
T-1,3-DCPE = Trans-1,3-Dichloropropene
DMB = Dimethylbenzenes (Total Xylenes)
DMK = Dimethylketone (Acetone)
EB = Ethenylbenzene (Styrene)
MB = Methylbenzene (Toluene)
MEK = Methyl ethyl ketone (2-Butanone)
1,1,2,2-PCA = 1,1,2,2-Tetrachloroethane
TBM = Tribromomethane (Bromoform)

1,1,1-TCA = 1,1,1-Trichloroethane
TCM = Trichloromethane (Chloroform)
TCTFA = Trichlorotrifluoroethane (Freon 113)
--- = Constituent not included in method

ND = None detected
Tr = Trace concentration; positively identified using mass spectrometer,
but detected below limit of quantitation for EPA method 624
R = Detected in reagent blank
T = Detected in trip blank
F = Detected in field blank

NOTE: Sample obtained by Arizona Department of Environmental Quality

Except for lab sample identifier 19187, samples analyzed by Analytical Technologies, Inc., Tempe, Arizona.
Lab sample identifier 19187 analyzed at Arizona Department of Health Services State Laboratory, Phoenix, Arizona.

TABLE 5. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR EPA METHOD 8240 FOR VOLATILE ORGANIC COMPOUNDS
FOR SOIL SAMPLES OBTAINED FROM SOIL BORINGS
NORTH FROM HAZARDOUS WASTE AREA, HASSAYAMPA LANDFILL
MARICOPA COUNTY, ARIZONA

PRELIMINARY
SUBJECT TO REVISION

BORING IDENTIFIER:	N-1	N-2	N-3	NE-1	NE-2	NE-3
DATE SAMPLED:	04-13-92	04-14-92	04-15-92	04-08-92	04-17-92	04-21-92
DATE ANALYZED:	04-16-92	04-16-92	04-23-92	04-15-92	04-23-92	05-03-92
FIELD SAMPLE IDENTIFIER:	14827	14828	14829/14830 ^a	14826	14832/14833 ^a	14835/14836 ^a
LABORATORY SAMPLE IDENTIFIER:	204712-01	204712-02	204766-01	204639-01	204788-01	204857-01

CONSTITUENTS (milligrams per kilogram)	Detection Limit						
CHLOROMETHANE	0.5	ND	ND	ND	ND	ND	ND
BROMOMETHANE	0.5	ND	ND	ND	ND	ND	ND
CHLOROETHENE (VINYL CHLORIDE)	0.05	ND	ND	ND	ND	ND	ND
CHLOROETHANE	0.05	ND	ND	ND	ND	ND	ND
DICHLOROMETHANE (METHYLENE CHLORIDE)	0.3	ND	ND	ND	0.4	ND	ND
DIMETHYLKETONE (ACETONE)	0.5	ND	ND	ND	ND	ND	ND
CARBON DISULFIDE	0.05	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE (1,1-DCE)	0.05	ND	ND	ND	0.7	ND	ND
1,1-DICHLOROETHANE (1,1-DCA)	0.05	ND	ND	ND	ND	ND	ND
TRANS- 1,2-DICHLOROETHENE (t-1,2-DCE)	0.05	ND	ND	ND	ND	ND	ND
TRICHLOROMETHANE (CHLOROFORM)	0.05	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE (1,2-DCE)	0.05	ND	ND	ND	ND	ND	ND
2-BUTANONE	0.5	ND	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE (1,1,1-TCA)	0.05	ND	ND	ND	0.2	ND	ND
TETRACHLOROMETHANE (CARBON TETRACHLORIDE)	0.05	ND	ND	ND	ND	ND	ND
VINYL ACETATE	0.5	ND	ND	ND	ND	ND	ND
BROMODICHLOROMETHANE	0.05	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	0.05	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	0.05	ND	ND	ND	ND	ND	ND
TRANS-1,3-DICHLOROPROPENE	0.05	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE (TCE)	0.05	ND	ND	ND	0.1	ND	ND
DIBROMOCHLOROMETHANE	0.05	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	0.05	ND	ND	ND	ND	ND	ND
BENZENE	0.05	ND	ND	ND	ND	ND	ND
CIS-1,3-DICHLOROPROPENE	0.05	ND	ND	ND	ND	ND	ND
2-CHLOROETHYL VINYLETHER	0.5	ND	ND	ND	ND	ND	ND
TRIBROMOMETHANE (BROMOFORM)	0.3	ND	ND	ND	ND	ND	ND
2-HEXANONE	0.5	ND	ND	ND	ND	ND	ND
4-METHYL-2-PENTANONE	0.5	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE (PCE)	0.05	ND	ND	ND	0.1	ND	ND
METHYLBENZENE (TOLUENE)	0.05	ND	ND	ND	0.1	ND	ND
CHLOROBENZENE	0.05	ND	ND	ND	0.06	ND	ND
ETHYLBENZENE	0.05	ND	ND	ND	ND	ND	ND
STYRENE	0.05	ND	ND	ND	ND	ND	ND
DIMETHYLBENZENES (TOTAL XYLENES)	0.05	ND	ND	ND	0.1	ND	ND

^a Soil samples from two adjacent brass sleeves in the split-spoon sampler were submitted to the laboratory and composited by the laboratory.

NOTE: ND = NOT DETECTED

Volatile organic compounds were not detected in reagent blanks for all samples. The detection limits for volatile organic compounds in the reagent blanks were the same as the detection limits listed above.

Samples analyzed by Analytical Technologies, Inc., Phoenix, Arizona

TABLE 6. RESULTS OF TRACE GAS ANALYZER MEASUREMENTS DURING PURGING OF SAMPLE TUBING
DURING SAMPLING OF SOIL GAS FROM VADOSE ZONE MONITOR BORINGS
NORTH FROM HAZARDOUS WASTE AREA, HASSAYAMPA LANDFILL
MARICOPA COUNTY, ARIZONA

BORING IDENTIFIER	DATE	TIME	BACKGROUND ^b	BREATHING ZONE ^c	CONCENTRATION OF TRACE GASES ^a(parts per million).....	
					DISCHARGE AIRSTREAM ^d	
					COARSE-GRAINED ZONE	FINE-GRAINED ZONE
N-1	05-19-92	10:36(3) ^e	---	---	5-7(30) ^f	---
		10:36	---	---	15(30)	---
		11:13(4.5) ^e	---	---	---	1(20) ^f
		11:13	---	---	---	1(20) ^f
		11:15	---	---	---	30-50
		11:15	---	---	---	30-50
N-2	05-19-92	11:54(3) ^e	0.2	0.2	36	---
		11:54	---	---	32	---
		12:35(4) ^e	0.2	0.2	---	24-25
		12:35	---	---	---	24-25
N-3	05-19-92	06:12(3) ^e	0.2	---	13	---
		06:12	---	---	40 ^g	---
		06:50(4) ^e	0.2	---	---	7-9
		06:50	---	---	---	8-5
NE-1	05-19-92	09:12(2.5) ^e	0.3	0.3	28-30	---
		09:12	---	---	30	---
		09:55(5) ^e	0.2	0.2	---	0-50 ^h
		09:55	---	---	---	0-50 ^h
NE-3	05-19-92	07:34(3) ^e	0.2-0.3	---	11-13	---
		07:34	---	---	12	---
		08:06(3.5) ^e	0.2	---	---	2-3(20) ^f
		08:06	---	---	---	6(20) ^f

NOTE: [Pattern] = Measurement obtained by ADEQ personnel using ADEQ's HNU Model PI 101 portable trace gas analyzer with 10.2 eV probe.

--- = Measurement not obtained, not recorded, or not applicable.

^a Concentration of trace gases measured using HNU Model PI 101 portable trace gas analyzer with 10.2 eV probe; in general, concentrations are maximum concentrations observed during field measurement.

^b Measurement obtained upwind from work zone.

^c Measurement obtained about three feet from sampling pump in work zone.

^d The sample tubing for the coarse-grained zone and fine-grained zone were purged individually and HNU measurements were obtained directly in the airstream at the up-hole end of the sample tubing.

^e Number in parentheses indicates duration, in minutes, of purging.

^f Number in parentheses indicates an HNU measurement resulting from a non-sustained peak on the HNU meter; this effect may have been due to water vapor.

^g Measurement is a peak value; the average or range of HNU measurements was not recorded.

^h Measurement was erratic; this effect may have been due to water vapor.

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TABLE 7. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR EPA METHOD TO-14 FOR VOLATILE ORGANIC COMPOUNDS
FOR SOIL GAS SAMPLES OBTAINED ON MAY 19, 1992, FROM VADOSE ZONE MONITOR BORINGS
NORTH FROM HAZARDOUS WASTE AREA, HASSAYAMPA LANDFILL
MARICOPA COUNTY, ARIZONA

	N-1 COARSE	N-1 FINE	N-2 COARSE	N-2 FINE	N-3 COARSE	N-3 FINE	N-3 DUP ^a FINE	NE-1 COARSE	NE-1 FINE	NE-3 COARSE	NE-3 FINE
BORING IDENTIFIER:	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92
DATE SAMPLED:	05-21-92	05-21-92	05-21-92	05-21-92	05-21-92	05-21-92	05-21-92	05-21-92	05-21-92	05-21-92	05-21-92
DATE ANALYZED:											
FIELD SAMPLE IDENTIFIER:	2705	2706	2707	2708	2699	2700	2700	2703	2704	2701	2702
LABORATORY SAMPLE IDENTIFIER:	9202104	9202105	9202106	9202107	9202098	9202099	9202099	9202102	9202103	9202100	9202101
DILUTION FACTOR ^b :	1,000 (40,000)	1,000 (40,000)	1,000 (20,000)	1,000 (20,000)	1,000	1,000	1,000	1,000 (20,000)	1,000 (40,000)	1,000	1,000 (20,000)
CONSTITUENTS (milligrams per cubic meter)	Detection Limit										
CHLOROMETHANE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BROMOMETHANE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROETHENE (VINYL CHLORIDE)	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROETHANE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DICHLOROMETHANE (METHYLENE CHLORIDE)	5.0	(4,500)	1,000	210	64	ND	ND	(1,400)	(1,500)	ND	29
DIMETHYLKETONE (ACETONE)	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CARBON DISULFIDE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE (1,1-DCE)	5.0	(12,000)	(28,000)	(3,100)	(3,700)	(300)	250	230	(6,900)	(48,000)	310
1,1-DICHLOROETHANE (1,1-DCA)	5.0	330	240	47	21	ND	ND	ND	130	430	ND
TRANS-1,2-DICHLOROETHENE (t-1,2-DCE)	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROMETHANE (CHLOROFORM)	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE (1,2-DCA)	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-BUTANONE	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-TRICHLOROETHANE (1,1,1-TCA)	5.0	(8,700)	(3,000)	360	84	ND	ND	ND	(3,000)	(6,600)	190
TETRACHLOROMETHANE (CARBON TETRACHLORIDE)	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VINYL ACETATE	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BROMODICHLOROMETHANE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROPROPANE	5.0	340	86	26	ND	ND	ND	ND	82	58	ND
TRANS-1,3-DICHLOROPROPENE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE (TCE)	5.0	770	970	160	110	9.4	ND	370	1,100	TR	41
DIBROMOCHLOROMETHANE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BENZENE	5.0	17 F	13 F	ND	ND	ND	ND	9.1 F	14 F	ND	ND
CIS-1,3-DICHLOROPROPENE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRIBROMOMETHANE (BROMOFORM)	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-HEXANONE	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-METHYL-2-PENTANONE	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE (PCE)	5.0	420	590	93	82	5.2	ND	210	730	ND	62
METHYLBENZENE (TOLUENE)	5.0	16 F	19 F	ND	ND	ND	ND	ND	49 F	ND	ND
CHLOROBENZENE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLBENZENE	5.0	5.9	ND	ND	ND	ND	ND	ND	12	ND	ND
STYRENE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DIBROMOETHANE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROFLUOROMETHANE (FREON 11)	5.0	280	1,200	130	230	16	20	21	230	(3,300)	39

PRELIMINARY
SUBJECT TO REVISION

TABLE 7. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR EPA METHOD TO-14 FOR VOLATILE ORGANIC COMPOUNDS
FOR SOIL GAS SAMPLES OBTAINED ON MAY 19, 1992, FROM VADOSE ZONE MONITOR BORINGS
NORTH FROM HAZARDOUS WASTE AREA, HASSAYAMPA LANDFILL
MARICOPA COUNTY, ARIZONA

	N-1 COARSE	N-1 FINE	N-2 COARSE	N-2 FINE	N-3 COARSE	N-3 FINE	N-3 DUP ^a FINE	NE-1 COARSE	NE-1 FINE	NE-3 COARSE	NE-3 FINE
BORING IDENTIFIER:											
DATE SAMPLED:	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92	05-19-92
DATE ANALYZED:	05-21-92	05-21-92	05-21-92	05-21-92	05-21-92	05-20-92	05-20-92	05-20-92 & 05-21-92	05-21-92	05-20-92	05-20-92 & 05-21-92
FIELD SAMPLE IDENTIFIER:	2705	2706	2707	2708	2699	2700	2700	2703	2704	2701	2702
LABORATORY SAMPLE IDENTIFIER:	9202104	9202105	9202106	9202107	9202098	9202099	9202099	9202102	9202103	9202100	9202101
DILUTION FACTOR ^b :	1,000 (40,000)	1,000 (40,000)	1,000 (20,000)	1,000 (20,000)	1,000	1,000	1,000	1,000 (20,000)	1,000 (40,000)	1,000	1,000 (20,000)
CONSTITUENTS (milligrams per cubic meter)	Detection Limit										
CIS-1,2-DICHLOROETHENE (C-1,2-DCE)	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-& 1,4-DIMETHYLBENZENE(M-& P-XYLENE)	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DIMETHYLBENZENE(O-XYLENE)	5.0	20 F	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROTRIFLUOROETHANE (FREON 113)	5.0	(63,000) F	(180,000) F	(23,000) F	(36,000) F	(2,700) F	(2,900) F	3,000 F	(37,000) F	(240,000) F	4,000 F
TOTAL CONCENTRATIONS	90,398.9	215,118	27,126	40,291	3,030.6	3,170	3,251	49,331.1	301,793	4,349	88,722

^a DUP = Duplicate sample prepared by laboratory

^b A dilution factor greater than one indicates that an aliquot of the sample was used that was smaller than the standard 1-liter aliquot. Parentheses indicate dilution factor used for concentrations given in parentheses. For concentrations given in parentheses, detection limit is equal to the detection limit listed times the ratio of the dilution factor in parentheses to the dilution factor not in parentheses.

NOTE: ND = Not detected

F = Detected in field blank

TR = Trace concentration; positively identified using mass spectrometer, but detected below limit of quantification for EPA method TO-14

Samples analyzed by Performance Analytical, Inc., Canoga Park, California

TABLE 8. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR EPA METHOD TO-14 FOR VOLATILE ORGANIC COMPOUNDS
FOR FIELD BLANK AND REAGENT BLANKS FOR SOIL GAS SAMPLES OBTAINED ON
MAY 19, 1992, FROM VADOSE ZONE MONITOR BORINGS
NORTH FROM HAZARDOUS WASTE AREA, HASSAYAMPA LANDFILL
MARICOPA COUNTY, ARIZONA

PRELIMINARY
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SAMPLE IDENTIFIER:	FIELD BLANK ^a	REAGENT BLANK	REAGENT BLANK
DATE SAMPLED:	05-19-92	---	---
DATE ANALYZED:	05-20-92	05-20-92	05-21-92
FIELD SAMPLE IDENTIFIER:	2709	---	---
LABORATORY SAMPLE IDENTIFIER:	9202108	---	---
DILUTION FACTOR:	1	1	1

CONSTITUENTS (milligrams per cubic meter)	Detection Limit			
CHLOROMETHANE	0.005	ND	ND	ND
BROMOMETHANE	0.005	ND	ND	ND
CHLOROETHENE (VINYL CHLORIDE)	0.005	ND	ND	ND
CHLOROETHANE	0.005	ND	ND	ND
DICHLOROMETHANE (METHYLENE CHLORIDE)	0.005	ND	ND	ND
DIMETHYLKETONE (ACETONE)	0.010	0.095	ND	ND
CARBON DISULFIDE	0.005	ND	ND	ND
1,1-DICHLOROETHENE (1,1-DCE)	0.005	ND	ND	ND
1,1-DICHLOROETHANE (1,1-DCA)	0.005	ND	ND	ND
TRANS-1,2-DICHLOROETHENE (t-1,2-DCE)	0.005	ND	ND	ND
TRICHLOROMETHANE (CHLOROFORM)	0.005	ND	ND	ND
1,2-DICHLOROETHANE (1,2-DCA)	0.005	ND	ND	ND
2-BUTANONE	0.010	0.023	ND	ND
1,1,1-TRICHLOROETHANE (1,1,1-TCA)	0.005	ND	ND	ND
TETRACHLOROMETHANE (CARBON TETRACHLORIDE)	0.005	ND	ND	ND
VINYL ACETATE	0.005	ND	ND	ND
BROMODICHLOROMETHANE	0.005	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	0.005	ND	ND	ND
1,2-DICHLOROPROPANE	0.005	ND	ND	ND
TRANS-1,3-DICHLOROPROPENE	0.005	ND	ND	ND
TRICHLOROETHENE (TCE)	0.005	ND	ND	ND
DIBROMOCHLOROMETHANE	0.005	ND	ND	ND
1,1,2-TRICHLOROETHANE	0.005	ND	ND	ND
BENZENE	0.005	0.007	ND	ND
CIS-1,3-DICHLOROPROPENE	0.005	ND	ND	ND
TRIBROMOMETHANE (BROMOFORM)	0.005	ND	ND	ND
2-HEXANONE	0.005	ND	ND	ND
4-METHYL-2-PENTANONE	0.005	ND	ND	ND
TETRACHLOROETHENE (PCE)	0.005	ND	ND	ND
METHYLBENZENE (TOLUENE)	0.005	0.034	ND	ND
CHLOROBENZENE	0.005	ND	ND	ND
ETHYLBENZENE	0.005	ND	ND	ND
STYRENE	0.005	ND	ND	ND
1,2-DIBROMOETHANE	0.005	ND	ND	ND
TRICHLOROFLUOROMETHANE (FREON 11)	0.005	ND	ND	ND

TABLE 8. SUMMARY OF LABORATORY CHEMICAL RESULTS FOR EPA METHOD TO-14 FOR VOLATILE ORGANIC COMPOUNDS FOR FIELD BLANK AND REAGENT BLANKS FOR SOIL GAS SAMPLES OBTAINED ON MAY 19, 1992, FROM VADOSE ZONE MONITOR BORINGS NORTH FROM HAZARDOUS WASTE AREA, HASSAYAMPA LANDFILL MARICOPA COUNTY, ARIZONA

PRELIMINARY
SUBJECT TO REVISION

2

SAMPLE IDENTIFIER:		FIELD BLANK ^a	REAGENT BLANK	REAGENT BLANK
DATE SAMPLED:		05-19-92	---	---
DATE ANALYZED:		05-20-92	05-20-92	05-21-92
FIELD SAMPLE IDENTIFIER:		2709	---	---
LABORATORY SAMPLE IDENTIFIER:		9202108	---	---
DILUTION FACTOR:		<u>1</u>	<u>1</u>	<u>1</u>
CONSTITUENTS (milligrams per cubic meter)	Detection Limit			
CIS-1,2-DICHLOROETHENE (C-1,2-DCE)	0.005	ND	ND	ND
1,2-DICHLOROBENZENE	0.005	ND	ND	ND
1,3-DICHLOROBENZENE	0.005	ND	ND	ND
1,4-DICHLOROBENZENE	0.005	0.0079	ND	ND
TRICHLOROTRIFLUOROETHANE (FREON 113)	0.005	0.0061	ND	ND
1,3-& 1,4-DIMETHYLBENZENE (M-& P-XYLENES)	0.005	0.011	ND	ND
1,2-DIMETHYLBENZENE (O-XYLENE)	0.005	<u>0.0063</u>	<u>ND</u>	<u>ND</u>
TOTAL CONCENTRATIONS		0.1903	ND	ND

^a FIELD BLANK = Air sample obtained above land surface between vadose zone monitor borings N-2 and NE-1.

NOTE: ND = Not detected

Samples analyzed by Performance Analytical, Inc., Canoga Park, California



ERROL L. MONTGOMERY & ASSOCIATES, INC.

APPENDIX A

CHEMICAL LABORATORY REPORTS AND QA/QC DOCUMENTATION
FOR ANALYSES OF GROUNDWATER SAMPLES
HASSAYAMPA LANDFILL
MARICOPA COUNTY, ARIZONA



Analytical**Technologies**, Inc.

9830 S. 51st Street Suite B-113 Phoenix, AZ 85044 (602) 496-4400

ATI I.D. 204640

May 8, 1992

Errol L. Montgomery & Associates
1075 E. Fort Lowell Road
Suite B
Tucson, AZ 85719

Project Name/Number: HASSAYAMPA/662-C

Attention: Bill Victor

MAY 12 1992

On 04/09/92, Analytical Technologies, Inc. received a request to analyze aqueous sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

Michael G. Barry
Project Manager

Robert V. Woods
Laboratory Manager

Lorraine Davis
QA Coordinator

RVW:ktd
Enclosure



Analytical Technologies, Inc.

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA

DATE RECEIVED : 04/09/92

REPORT DATE : 05/07/92

ATI I.D. : 204640

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	002619	AQUEOUS	04/09/92
02	002642 TRIP BLANK	AQUEOUS	04/07/92
03	002620	AQUEOUS	04/09/92
04	002621	AQUEOUS	04/09/92
05	002622	AQUEOUS	04/09/92
06	002623	AQUEOUS	04/09/92
07	002624	AQUEOUS	04/09/92
08	002625	AQUEOUS	04/09/92
09	002626	AQUEOUS	04/09/92
10	002627	AQUEOUS	04/09/92
11	002628	AQUEOUS	04/09/92
12	002629	AQUEOUS	04/09/92
13	002630	AQUEOUS	04/09/92
14	002631	AQUEOUS	04/09/92
15	002632	AQUEOUS	04/09/92
16	002633	AQUEOUS	04/09/92
17	002634	AQUEOUS	04/09/92
18	002635	AQUEOUS	04/09/92
19	002636	AQUEOUS	04/09/92
20	002637	AQUEOUS	04/09/92
21	002638	AQUEOUS	04/09/92
22	002639	AQUEOUS	04/09/92
23	002640	AQUEOUS	04/09/92
24	002641	AQUEOUS	04/09/92
25	002643 TRIP BLANK	AQUEOUS	04/07/92

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	25

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

01 F.B.
03 MW-1uB
05 MW-2uA
07 MW-2uB
09 MW-3uB

GENERAL CHEMISTRY RESULTS

ATI I.D. : 204640

CLIENT : MONTGOMERY & ASSOCIATES

DATE RECEIVED : 04/09/92

PROJECT # : 662-C

PROJECT NAME : HASSAYAMPA

REPORT DATE : 05/07/92

PARAMETER	UNITS	01	03	05	07	09
CARBONATE (CACO3)	MG/L	<1	<1	<1	<1	<1
BICARBONATE (CACO3)	MG/L	<1	191	239	199	197
HYDROXIDE (CACO3)	MG/L	<1	<1	<1	<1	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	<1	191	239	199	197
CHLORIDE	MG/L	1.5	34	74	39	41
CONDUCTIVITY, (UMHOS/CM)		8.91	599	868	648	676
FLUORIDE	MG/L	<0.05	1.42	1.76	1.12	1.21
AMMONIA AS NITROGEN	MG/L	<0.03	<0.03	<0.03	<0.03	<0.03
NITRATE AS NITROGEN	MG/L	<0.06	9.6	5.3	11.0	15.2
PH	UNITS	6.3	7.7	8.0	8.2	8.2
PHOSPHATE, ORTHO (AS P)	MG/L	<0.05	<0.05	<0.05	<0.05	<0.05
SULFATE	MG/L	<0.3	47	110	53	48
TOTAL DISSOLVED SOLIDS	MG/L	10	380	570	410	420
PHOSPHORUS, TOTAL	MG/L	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Technologies, Inc.

11 MW-3 uA
13 MW-4 uA
14 " " D-P.
15 MW-4 uB
17 MW-6 uA

GENERAL CHEMISTRY RESULTS

ATI I.D. : 204640

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA

DATE RECEIVED : 04/09/92

REPORT DATE : 05/07/92

PARAMETER	UNITS	11	13	14	15	17
CARBONATE (CACO3)	MG/L	<1	<1	<1	<1	<1
BICARBONATE (CACO3)	MG/L	210	264	263	193	265
HYDROXIDE (CACO3)	MG/L	<1	<1	<1	<1	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	210	264	263	193	265
CHLORIDE	MG/L	220	83	83	39	59
CONDUCTIVITY, (UMHOS/CM)		1420	975	958	613	854
FLUORIDE	MG/L	1.46	1.99	2.08	1.16	1.66
AMMONIA AS NITROGEN	MG/L	<0.03	<0.03	<0.03	<0.03	<0.03
NITRATE AS NITROGEN	MG/L	28	11.5	11.0	12.6	3.6
PH	UNITS	7.6	8.1	8.0	8.0	8.0
PHOSPHATE, ORTHO (AS P)	MG/L	<0.05	<0.05	<0.05	<0.05	<0.05
SULFATE	MG/L	100	92	90	45	100
TOTAL DISSOLVED SOLIDS	MG/L	870	600	610	400	550
PHOSPHORUS, TOTAL	MG/L	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Technologies, Inc

19 MW-64B
21 MW-74A
23 MW-54A
24 " " dup

GENERAL CHEMISTRY RESULTS

ATI I.D. : 204640

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA

DATE RECEIVED : 04/09/92

REPORT DATE : 05/07/92

PARAMETER	UNITS	19	21	23	24
CARBONATE (CACO3)	MG/L	<1	<1	<1	<1
BICARBONATE (CACO3)	MG/L	185	258	231	225
HYDROXIDE (CACO3)	MG/L	<1	<1	<1	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	185	258	231	225
CHLORIDE	MG/L	45	61	120	120
CONDUCTIVITY, (UMHOS/CM)		653	900	1030	1060
FLUORIDE	MG/L	1.09	2.32	2.02	2.01
AMMONIA AS NITROGEN	MG/L	<0.03	<0.03	<0.03	<0.03
NITRATE AS NITROGEN	MG/L	14	6.9	12.6	12.6
PH	UNITS	8.0	8.2	8.0	7.9
PHOSPHATE, ORTHO (AS P)	MG/L	<0.05	<0.05	<0.05	<0.05
SULFATE	MG/L	41	100	110	110
TOTAL DISSOLVED SOLIDS	MG/L	410	560	670	670
PHOSPHORUS, TOTAL	MG/L	<0.05	<0.05	<0.05	<0.05



Analytical Technologies, Inc.

QC for MW-1uB, -
 -2uA, -2uB, -3uB, -3uA,
 -4uA, -4uB, -6uA,
 -6uB, -7uA, -5uA

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : MONTGOMERY & ASSOCIATES
 PROJECT # : 662-C
 PROJECT NAME : HASSAYAMPA

ATI I.D. : 204640

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
CARBONATE	MG/L	20464009	<1	<1	NA	NA	NA	NA
BICARBONATE	MG/L		197	198	0.5	NA	NA	NA
HYDROXIDE	MG/L		<1	<1	NA	NA	NA	NA
TOTAL ALKALINITY	MG/L		197	198	0.5	NA	NA	NA
CARBONATE	MG/L	20464011	<1	<1	NA	NA	NA	NA
BICARBONATE	MG/L		210	211	0.5	NA	NA	NA
HYDROXIDE	MG/L		<1	<1	NA	NA	NA	NA
TOTAL ALKALINITY	MG/L		210	211	0.5	NA	NA	NA
CARBONATE	MG/L	20464024	<1	<1	NA	NA	NA	NA
BICARBONATE	MG/L		225	229	2	NA	NA	NA
HYDROXIDE	MG/L		<1	<1	NA	NA	NA	NA
TOTAL ALKALINITY	MG/L		225	229	2	NA	NA	NA
CHLORIDE	MG/L	20464001	1.5	1.5	0	12.0	10.0	105
CHLORIDE	MG/L	20464019	45	45	0	87	40	105
CONDUCTIVITY (UMHOS/CM)		20464003	599	604	0.8	NA	NA	NA
CONDUCTIVITY (UMHOS/CM)		20464017	854	856	0.2	NA	NA	NA
FLUORIDE	MG/L	20464001	<0.05	<0.05	NA	0.26	0.25	104
FLUORIDE	MG/L	20464009	1.21	1.22	0.8	2.40	1.20	99
FLUORIDE	MG/L	20464024	2.01	2.02	0.5	4.03	2.00	101
AMMONIA AS NITROGEN	MG/L	20464001	<0.03	<0.03	NA	0.50	0.50	100
AMMONIA AS NITROGEN	MG/L	20464019	<0.03	<0.03	NA	0.50	0.50	100
NITRATE AS NITROGEN	MG/L	20464011	28	27	4	74	50	92
NITRATE AS NITROGEN	MG/L	20464017	3.6	3.6	0	8.6	5.0	100
NITRATE AS NITROGEN	MG/L	20465401	6.8	6.8	0	17.4	10.0	106
PH	UNITS	20464009	8.2	8.2	0	NA	NA	NA
PH	UNITS	20464011	7.6	7.8	3	NA	NA	NA
PH	UNITS	20464024	7.9	8.0	1	NA	NA	NA
PHOSPHATE, ORTHO	MG/L	20464001	<0.05	<0.05	NA	0.52	0.50	104
PHOSPHATE, ORTHO	MG/L	20464019	<0.05	<0.05	NA	0.51	0.50	102
SULFATE	MG/L	20464003	47	47	0	93	47	98
SULFATE	MG/L	20464011	100	100	0	200	100	100
TOTAL DISSOLVED SOLIDS	MG/L	20464001	10	20	67	NA	NA	NA
TOTAL DISSOLVED SOLIDS	MG/L	20465901	490	470	4	NA	NA	NA
PHOSPHOROUS, TOTAL	MG/L	20464001	<0.05	<0.05	NA	0.51	0.50	102
PHOSPHORUS, TOTAL	MG/L	20464019	<0.05	<0.05	NA	0.51	0.50	102

$$\% \text{ Recovery} = (\text{Spike Sample Result} - \text{Sample Result})$$

$$\text{-----} \times 100$$

Spike Concentration

$$\text{RPD (Relative Percent Difference)} = (\text{Sample Result} - \text{Duplicate Result})$$

$$\text{-----} \times 100$$

Average Result



Analytical Technologies, Inc

01 F.B.
03 MW-14B
05 MW-24A
07 MW-24B
09 MW-34B

METALS RESULTS

ATI I.D. : 204640

CLIENT : MONTGOMERY & ASSOCIATES

DATE RECEIVED : 04/09/92

PROJECT # : 662-C

PROJECT NAME : HASSAYAMPA

REPORT DATE : 05/07/92

PARAMETER	UNITS	01	03	05	07	09
CALCIUM	MG/L	<0.1	25.8	21.8	32.3	32.6
POTASSIUM	MG/L	<1.0	1.6	<1.0	1.5	1.7
MAGNESIUM	MG/L	<0.1	7.9	8.2	11.0	10.5
SODIUM	MG/L	1.6	98.1	158	97.9	99.5
SILICA	MG/L	1.5	29.3	32.5	29.3	30.8



Analytical Technologies, Inc.

11 MW-34A
13 MW-44A
14 " " (dup)
15 MW-44B
17 MW-64A

METALS RESULTS

ATI I.D. : 204640

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA

DATE RECEIVED : 04/09/92

REPORT DATE : 05/07/92

PARAMETER	UNITS	11	13	14	15	17
CALCIUM	MG/L	44.3	21.4	21.2	29.4	26.6
POTASSIUM	MG/L	1.0	<1.0	<1.0	1.6	<1.0
MAGNESIUM	MG/L	17.2	9.4	9.3	9.1	9.9
SODIUM	MG/L	218	163	162	91.1	152
SILICA	MG/L	34.6	34.4	34.2	28.2	36.4



Analytical Technologies, Inc.

19 MW-6uB
21 MW-7uA
23 MW-54A
24 " " (dup)

METALS RESULTS

ATI I.D. : 204640

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA

DATE RECEIVED : 04/09/92

REPORT DATE : 05/07/92

PARAMETER	UNITS	19	21	23	24
CALCIUM	MG/L	33.6	20.0	37.9	38.2
POTASSIUM	MG/L	1.8	<1.0	<1.0	<1.0
MAGNESIUM	MG/L	9.8	8.6	12.8	12.9
SODIUM	MG/L	93.8	167	171	172
SILICA	MG/L	28.4	36.1	30.6	31.0



Analytical Technologies, Inc.

QC for MW-1uB, -2uA,
-2uB, -3uB, -3uA, -4uA,
-4uB, -6uA, -6uB, -7uA,
-5uA

METALS - QUALITY CONTROL

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA

ATI I.D. : 204640

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
CALCIUM	MG/L	20464001	<0.1	<0.1	NA	55.2	50.0	110
CALCIUM	MG/L	20464015	29.4	28.7	2	82.9	50.0	107
POTASSIUM	MG/L	20464001	<1.0	<1.0	NA	50.0	50.0	100
POTASSIUM	MG/L	20464015	1.6	1.5	6	50.0	50.0	97
MAGNESIUM	MG/L	20464001	<0.1	<0.1	NA	26.4	25.0	106
MAGNESIUM	MG/L	20464015	9.1	8.8	3	33.9	25.0	99
SODIUM	MG/L	20464001	1.6	1.7	6	49.3	50.0	95
SODIUM	MG/L	20464015	91.1	88.6	3	139	50.0	96
SILICA	MG/L	20464001	1.5	1.5	0	25.0	21.4	110
SILICA	MG/L	20464015	28.2	27.4	3	50.0	21.4	102

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



QC for MW-1UB, -2UA,
-2UB, -3UB, -3UA, -4UA,
-4UB, -6UA, -6UB,
-7UA, -5UA

Page No. 1
04/08/92

QUALITY CONTROL REPORT

ANALYTE	INIT	DATE OF ANALYSIS	CORR. COEFF.	QC NAME	VALUE FOUND	TRUE VALUE	LOWER CONTROL LIMIT	UPPER CONTROL LIMIT	UNIT
** ACCESSION NUMBER: 204640									
Method 310.1 Alkalinity	MR	04/17/92	NA	2538	56	53.8	51	59	mg/l
Alkalinity	MB	04/20/92	NA	2538	57	53.8	51	59	mg/l
Method 325.2 Chloride	PW	04/17/92	0.999	IC QC	10.1	10.0	8.2	11.8	mg/l
Method 120.1 Conductivity	JK	04/10/92	NA	0.01MK	1330	1413	1323	1423	umhos
Method 340.2 Fluoride	TW	04/20/92	0.995	7921	0.57	0.60	0.54	0.62	mg/l
Fluoride	TW	04/20/92	0.999	7922	2.93	3.01	2.89	3.13	mg/l
Method 350.3 Ammonia	TLK	04/16/92	0.998	9936	0.38	0.39	0.33	0.43	mg/l
Method 353.2 Nitrate	PW	04/27/92	0.999	ERA378	2.18	2.20	2.03	2.34	mg/l
Nitrate	NM	04/20/92	0.999	QC378	2.27	2.20	2.03	2.34	mg/l
Method 150.1 pH	MR	04/17/92	NA	Fisher	6.86	6.86	6.84	6.88	pH
pH	MB	04/20/92	NA	Fisher	6.88	6.86	6.84	6.88	pH
Method 300.0 Ortho Phosphate	CW	04/10/92	1.000	2184	0.32	0.299	0.26	0.33	mg/l
Sulfate	CW	04/20/92	0.999	Stock2	10.0	10.0	9.4	10.5	mg/l
Method 160.1 TDS	MB	04/13/92	NA	InHous	282	293	250	327	mg/l
TDS	MB	04/10/92	NA	InHous	262	293	250	327	mg/l
Method 365.3 Total Phosphorus	CW	04/16/92	1.000	9929	4.9	5.0	4.1	5.9	mg/l
Method 200.7 Calcium	MZ	04/20/92	NA	ICAP4	10.2	10.3	9.3	11.3	mg/l
Potassium	MZ	04/20/92	NA	ICAP4	9.9	9.8	8.5	11.1	mg/l
Magnesium	MZ	04/20/92	NA	ICAP4	9.8	10.3	9.3	11.3	mg/l
Sodium	MZ	04/20/92	NA	ICAP4	9.4	10.0	9.0	11.0	mg/l
Silica	MZ	04/20/92	NA	ICAP4	10.7	10.0	8.5	11.5	mg/l

2046



Analytical Technologies, Inc.

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464001
 SAMPLE IDENTIFICATION: 002619
 CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY			
(AS CaCO ₃)	<1	0.02000	0.00000
CHLORIDE	1.500	0.02821	0.04231
FLUORIDE	<0.05	0.05264	0.00000
NITRATE AS N	<0.06	0.01613	0.00000
SULFATE	<0.3	0.02082	0.00000
TOTAL ANIONS			0.04231

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	<0.1	0.04990	0.00000
POTASSIUM	<1.0	0.02558	0.00000
MAGNESIUM	<0.1	0.08229	0.00000
SODIUM	1.600	0.04350	0.06960
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			0.06960

%RPD (<10%)	-48.76
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TOTAL ANIONS/CATIONS	3	
TOTAL DISSOLVED SOLIDS	10	%RPD (<15%) -105.34
ELECTRICAL COND.	NA	TDS/EC RATIO (0.65+/-0.1) ERR



Analytical Technologies, Inc.

MW-148

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464003
SAMPLE IDENTIFICATION: 002620
CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY (AS CaCO ₃)	191.000	0.02000	3.82000
CHLORIDE	34.000	0.02821	0.95914
FLUORIDE	1.420	0.05264	0.07475
NITRATE AS N	9.600	0.01613	0.68598
SULFATE	47.000	0.02082	0.97854
TOTAL ANIONS			6.51841

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	25.800	0.04990	1.28742
POTASSIUM	1.600	0.02558	0.04093
MAGNESIUM	7.900	0.08229	0.65009
SODIUM	98.100	0.04350	4.26735
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			6.24579

%RPD (<10%) 4.27

TOTAL ANIONS/CATIONS	340		
TOTAL DISSOLVED SOLIDS	380	%RPD (<15%)	-11.11
ELECTRICAL COND.	NA	TDS/EC RATIO (0.65+/-0.1)	ERR



Analytical Technologies, Inc.

MW-24B

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464007
SAMPLE IDENTIFICATION: 002624
CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY (AS CaCO ₃)	199.000	0.02000	3.98000
CHLORIDE	39.000	0.02821	1.10019
FLUORIDE	1.120	0.05264	0.05896
NITRATE AS N	11.000	0.01613	0.78601
SULFATE	53.000	0.02082	1.10346
TOTAL ANIONS			7.02862

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	32.300	0.04990	1.61177
POTASSIUM	1.500	0.02558	0.03837
MAGNESIUM	11.000	0.08229	0.90519
SODIUM	97.900	0.04350	4.25865
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			6.81398

%RPD (<10%) 3.10

TOTAL ANIONS/CATIONS 366
TOTAL DISSOLVED SOLIDS 410 %RPD (<15%) -11.28
ELECTRICAL COND. NA TDS/EC RATIO
(0.65+/-0.1) ERR



Analytical Technologies, Inc.

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464005
 SAMPLE IDENTIFICATION: 002622
 CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY			
(AS CaCO ₃)	239.000	0.02000	4.78000
CHLORIDE	74.000	0.02821	2.08754
FLUORIDE	1.760	0.05264	0.09265
NITRATE AS N	5.300	0.01613	0.37872
SULFATE	110.000	0.02082	2.29020
TOTAL ANIONS			9.62910

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	21.800	0.04990	1.08782
POTASSIUM	<1.0	0.02558	0.00000
MAGNESIUM	8.200	0.08229	0.67478
SODIUM	158.000	0.04350	6.87300
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			8.63560

%RPD (<10%)	10.88
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TOTAL ANIONS/CATIONS	522	
TOTAL DISSOLVED SOLIDS	570	%RPD (<15%)
ELECTRICAL COND.	NA	TDS/EC RATIO
		(0.65+/-0.1)
		ERR



Analytical Technologies, Inc.

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464009
 SAMPLE IDENTIFICATION: 002626
 CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY			
(AS CaCO ₃)	197.000	0.02000	3.94000
CHLORIDE	41.000	0.02821	1.15661
FLUORIDE	1.210	0.05264	0.06369
NITRATE AS N	15.200	0.01613	1.08613
SULFATE	48.000	0.02082	0.99936
TOTAL ANIONS			7.24579

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	32.600	0.04990	1.62674
POTASSIUM	1.700	0.02558	0.04349
MAGNESIUM	10.500	0.08229	0.86405
SODIUM	99.500	0.04350	4.32825
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			6.86252

%RPD (<10%)	5.43
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TOTAL ANIONS/CATIONS	368	
TOTAL DISSOLVED SOLIDS	420	%RPD (<15%) -13.22
ELECTRICAL COND.	NA	TDS/EC RATIO (0.65+/-0.1) ERR



Analytical Technologies, Inc.

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464011
 SAMPLE IDENTIFICATION: 002628
 CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY			
(AS CaCO ₃)	210.000	0.02000	4.20000
CHLORIDE	220.000	0.02821	6.20620
FLUORIDE	1.460	0.05264	0.07685
NITRATE AS N	28.000	0.01613	2.00077
SULFATE	100.000	0.02082	2.08200
TOTAL ANIONS			14.56582

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	44.300	0.04990	2.21057
POTASSIUM	1.000	0.02558	0.02558
MAGNESIUM	17.200	0.08229	1.41539
SODIUM	218.000	0.04350	9.48300
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			13.13454

%RPD (<10%)	10.33
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TOTAL ANIONS/CATIONS	756		
TOTAL DISSOLVED SOLIDS	870	%RPD (<15%)	-14.03
ELECTRICAL COND.	NA	TDS/EC RATIO (0.65+/-0.1)	ERR



DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464013
 SAMPLE IDENTIFICATION: 002630
 CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY (AS CaCO ₃)	264.000	0.02000	5.28000
CHLORIDE	83.000	0.02821	2.34143
FLUORIDE	1.990	0.05264	0.10475
NITRATE AS N	11.500	0.01613	0.82174
SULFATE	92.000	0.02082	1.91544
TOTAL ANIONS			10.46337

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	21.400	0.04990	1.06786
POTASSIUM	<1.0	0.02558	0.00000
MAGNESIUM	9.400	0.08229	0.77353
SODIUM	163.000	0.04350	7.09050
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			8.93189

%RPD (<10%) 15.79

TOTAL ANIONS/CATIONS 541
 TOTAL DISSOLVED SOLIDS 600 %RPD (<15%) -10.40
 ELECTRICAL COND. NA TDS/EC RATIO
 (0.65+/-0.1) ERR



Analytical Technologies, Inc.

MW-4UA (dup)

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464014
SAMPLE IDENTIFICATION: 002631
CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY			
(AS CaCO ₃)	263.000	0.02000	5.26000
CHLORIDE	83.000	0.02821	2.34143
FLUORIDE	2.080	0.05264	0.10949
NITRATE AS N	11.000	0.01613	0.78601
SULFATE	90.000	0.02082	1.87380
TOTAL ANIONS			10.37074

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	21.200	0.04990	1.05788
POTASSIUM	<1.0	0.02558	0.00000
MAGNESIUM	9.300	0.08229	0.76530
SODIUM	162.000	0.04350	7.04700
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			8.87018

%RPD (<10%) 15.60

TOTAL ANIONS/CATIONS 536
TOTAL DISSOLVED SOLIDS 610 %RPD (<15%) -12.84
ELECTRICAL COND. NA TDS/EC RATIO
(0.65+/-0.1) ERR



Analytical Technologies, Inc.

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464015
 SAMPLE IDENTIFICATION: 002632
 CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY			
(AS CaCO ₃)	193.000	0.02000	3.86000
CHLORIDE	39.000	0.02821	1.10019
FLUORIDE	1.160	0.05264	0.06106
NITRATE AS N	12.600	0.01613	0.90034
SULFATE	45.000	0.02082	0.93690
TOTAL ANIONS			6.85850

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	29.400	0.04990	1.46706
POTASSIUM	1.600	0.02558	0.04093
MAGNESIUM	9.100	0.08229	0.74884
SODIUM	91.100	0.04350	3.96285
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			6.21968

%RPD (<10%)	9.77
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TOTAL ANIONS/CATIONS	345	
TOTAL DISSOLVED SOLIDS	400	%RPD (<15%) -14.83
ELECTRICAL COND.	NA	TDS/EC RATIO (0.65+/-0.1) ERR



Analytical Technologies, Inc

MW-64A

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464017
SAMPLE IDENTIFICATION: 002634
CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY			
(AS CaCO ₃)	265.000	0.02000	5.30000
CHLORIDE	59.000	0.02821	1.66439
FLUORIDE	1.660	0.05264	0.08738
NITRATE AS N	3.600	0.01613	0.25724
SULFATE	100.000	0.02082	2.08200
TOTAL ANIONS			9.39101

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	26.600	0.04990	1.32734
POTASSIUM	<1.0	0.02558	0.00000
MAGNESIUM	9.900	0.08229	0.81467
SODIUM	152.000	0.04350	6.61200
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			8.75401

%RPD (<10%) 7.02

TOTAL ANIONS/CATIONS 512
TOTAL DISSOLVED SOLIDS 550 %RPD (<15%) -7.20
ELECTRICAL COND. NA TDS/EC RATIO
(0.65+/-0.1) ERR



Analytical Technologies, Inc.

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464019
 SAMPLE IDENTIFICATION: 002636
 CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY			
(AS CaCO ₃)	185.000	0.02000	3.70000
CHLORIDE	45.000	0.02821	1.26945
FLUORIDE	1.090	0.05264	0.05738
NITRATE AS N	14.000	0.01613	1.00038
SULFATE	41.000	0.02082	0.85362
TOTAL ANIONS			6.88083

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	33.600	0.04990	1.67664
POTASSIUM	1.800	0.02558	0.04604
MAGNESIUM	9.800	0.08229	0.80644
SODIUM	93.800	0.04350	4.08030
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			6.60943

%RPD (<10%)	4.02
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TOTAL ANIONS/CATIONS	351	
TOTAL DISSOLVED SOLIDS	410	%RPD (<15%)
ELECTRICAL COND.	NA	TDS/EC RATIO
		(0.65+/-0.1)
		ERR



Analytical Technologies, Inc.

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464021
 SAMPLE IDENTIFICATION: 002638
 CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY			
(AS CaCO ₃)	258.000	0.02000	5.16000
CHLORIDE	61.000	0.02821	1.72081
FLUORIDE	2.320	0.05264	0.12212
NITRATE AS N	6.900	0.01613	0.49305
SULFATE	100.000	0.02082	2.08200
TOTAL ANIONS			9.57798

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	20.000	0.04990	0.99800
POTASSIUM	<1.0	0.02558	0.00000
MAGNESIUM	8.600	0.08229	0.70769
SODIUM	167.000	0.04350	7.26450
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			8.97019

%RPD (<10%)	6.55
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TOTAL ANIONS/CATIONS	521	
TOTAL DISSOLVED SOLIDS	560	%RPD (<15%) -7.29
ELECTRICAL COND.	NA	TDS/EC RATIO (0.65+/-0.1) ERR



Analytical Technologies, Inc.

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464023
 SAMPLE IDENTIFICATION: 002640
 CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY			
(AS CaCO ₃)	231.000	0.02000	4.62000
CHLORIDE	120.000	0.02821	3.38520
FLUORIDE	2.020	0.05264	0.10633
NITRATE AS N	12.600	0.01613	0.90034
SULFATE	110.000	0.02082	2.29020
TOTAL ANIONS			11.30208

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	37.900	0.04990	1.89121
POTASSIUM	<1.0	0.02558	0.00000
MAGNESIUM	12.800	0.08229	1.05331
SODIUM	171.000	0.04350	7.43850
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			10.38302

%RPD (<10%)	8.48
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TOTAL ANIONS/CATIONS	605	
TOTAL DISSOLVED SOLIDS	670	%RPD (<15%) -10.21
ELECTRICAL COND.	NA	TDS/EC RATIO (0.65+/-0.1) ERR



Analytical Technologies, Inc.

MW-5UA (dup.)

DATE: 05-07-92

ION BALANCE

ATI ACCESSION NUMBER: 20464024
SAMPLE IDENTIFICATION: 002641
CLIENT: MONTGOMERY & ASSOCIATES

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL

ALKALINITY			
(AS CaCO ₃)	225.000	0.02000	4.50000
CHLORIDE	120.000	0.02821	3.38520
FLUORIDE	2.010	0.05264	0.10581
NITRATE AS N	12.600	0.01613	0.90034
SULFATE	110.000	0.02082	2.29020
TOTAL ANIONS			11.18155

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	38.200	0.04990	1.90618
POTASSIUM	<1.0	0.02558	0.00000
MAGNESIUM	12.900	0.08229	1.06154
SODIUM	172.000	0.04350	7.48200
COPPER	NA	0.03147	0.00000
IRON	NA	0.05372	0.00000
MANGANESE	NA	0.03640	0.00000
ZINC	NA	0.03059	0.00000
TOTAL CATIONS			10.44972

%RPD (<10%) 6.77

TOTAL ANIONS/CATIONS	603		
TOTAL DISSOLVED SOLIDS	670	%RPD (<15%)	-10.57
ELECTRICAL COND.	NA	TDS/EC RATIO (0.65+/-0.1)	ERR



F.B. for MW-1UB, -2UA
-2UB, -3UA/B, -4UA/B, -6UA/B
-7UA, -5UA

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464001

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA
CLIENT I.D. : 002619
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/09/92
DATE RECEIVED : 04/09/92
DATE EXTRACTED : N/A
DATE ANALYZED : 04/16/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
BENZENE	<0.5
BROMODICHLOROMETHANE	6.1
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	9.0
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	2.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
ETHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	107
BROMOFLUOROBENZENE (%)	111



Analytical Technologies, Inc.

T.B. for MW-1A8, -2A4, 3
-3A4, -4A4, 4B,
-6A4, 43, -7A4, -5A4

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464002

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA
CLIENT I.D. : 002642 TRIP BLANK
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/07/92
DATE RECEIVED : 04/09/92
DATE EXTRACTED : N/A
DATE ANALYZED : 04/16/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	109
BROMOFLUOROBENZENE (%)	99

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464003

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	DATE SAMPLED	: 04/09/92
PROJECT #	: 662-C	DATE RECEIVED	: 04/09/92
PROJECT NAME	: HASSAYAMPA	DATE EXTRACTED	: N/A
CLIENT I.D.	: 002620	DATE ANALYZED	: 04/16/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	103
BROMOFLUOROBENZENE (%)	99



Analytical Technologies, Inc.

MW-24A

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464005

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	DATE SAMPLED	: 04/09/92
PROJECT #	: 662-C	DATE RECEIVED	: 04/09/92
PROJECT NAME	: HASSAYAMPA	DATE EXTRACTED	: N/A
CLIENT I.D.	: 002622	DATE ANALYZED	: 04/16/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
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BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	99
BROMOFLUOROBENZENE (%)	100

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464007

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA
CLIENT I.D. : 002624
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/09/92
DATE RECEIVED : 04/09/92
DATE EXTRACTED : N/A
DATE ANALYZED : 04/16/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
ETHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	100
BROMOFLUOROBENZENE (%)	99



Analytical Technologies, Inc.

MW-308

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464009

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA
CLIENT I.D. : 002626
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/09/92
DATE RECEIVED : 04/09/92
DATE EXTRACTED : N/A
DATE ANALYZED : 04/16/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	99
BROMOFLUOROBENZENE (%)	98



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464011

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	DATE SAMPLED	: 04/09/92
PROJECT #	: 662-C	DATE RECEIVED	: 04/09/92
PROJECT NAME	: HASSAYAMPA	DATE EXTRACTED	: N/A
CLIENT I.D.	: 002628	DATE ANALYZED	: 04/16/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
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BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	95
BROMOFLUOROBENZENE (%)	99



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464013

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	DATE SAMPLED	: 04/09/92
PROJECT #	: 662-C	DATE RECEIVED	: 04/09/92
PROJECT NAME	: HASSAYAMPA	DATE EXTRACTED	: N/A
CLIENT I.D.	: 002630	DATE ANALYZED	: 04/16/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
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BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	1.5
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	59

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	95
BROMOFLUOROBENZENE (%)	101



Analytical Technologies, Inc.

R.B. for MW-14B,
- 2uA, -2uB, -3uA, -3uB,
- 4uA

GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 204640
DATE EXTRACTED : 04/16/92
DATE ANALYZED : 04/16/92
UNITS : UG/L
DILUTION FACTOR : N/A

COMPOUNDS	RESULTS
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BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
1,1-DICHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
ETHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	100
BROMOFLUOROBENZENE (%)	97



Analytical Technologies, Inc.

MW-411A (dup)

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464014

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA
CLIENT I.D. : 002631
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/09/92
DATE RECEIVED : 04/09/92
DATE EXTRACTED : N/A
DATE ANALYZED : 04/16/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	1.4
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	60

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	95
BROMOFLUOROBENZENE (%)	103



Analytical Technologies, Inc.

MW-448

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464015

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA
CLIENT I.D. : 002632
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/09/92
DATE RECEIVED : 04/09/92
DATE EXTRACTED : N/A
DATE ANALYZED : 04/17/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	93
BROMOFLUOROBENZENE (%)	99



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464017

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	DATE SAMPLED	: 04/09/92
PROJECT #	: 662-C	DATE RECEIVED	: 04/09/92
PROJECT NAME	: HASSAYAMPA	DATE EXTRACTED	: N/A
CLIENT I.D.	: 002634	DATE ANALYZED	: 04/17/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 5

COMPOUNDS

RESULTS

BENZENE	<2.5
BROMODICHLOROMETHANE	<1.0
BROMOFORM	<1.0
BROMOMETHANE	<1.0
CARBON TETRACHLORIDE	<1.0
CHLOROBENZENE	<2.5
CHLOROETHANE	<1.0
CHLOROFORM	<1.0
CHLOROMETHANE	<1.0
DIBROMOCHLOROMETHANE	<1.0
2-CHLOROETHYL VINYL ETHER	<2.5
1,3-DICHLOROBENZENE	<2.5
1,2 & 1,4-DICHLOROBENZENE	<2.5
DICHLORODIFLUOROMETHANE	<1.0
1,1-DICHLOROETHANE	1.9
1,2-DICHLOROETHANE	<1.0
1,1-DICHLOROETHENE	47
1,2-DICHLOROETHENE (TOTAL)	<1.0
1,2-DICHLOROPROPANE	<1.0
CIS-1,3-DICHLOROPROPENE	<1.0
TRANS-1,3-DICHLOROPROPENE	<1.0
ETHYLBENZENE	<2.5
METHYLENE CHLORIDE	<10.0
1,1,2,2-TETRACHLOROETHANE	<1.0
TETRACHLOROETHENE	1.1
TOLUENE	<2.5
1,1,1-TRICHLOROETHANE	3.9
1,1,2-TRICHLOROETHANE	<1.0
TRICHLOROETHENE	2.1
TRICHLOROFLUOROMETHANE	0.9
VINYL CHLORIDE	<1.0
TOTAL XYLENES	<2.5
TRICHLOROTRIFLUOROETHANE	59

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	101
BROMOFLUOROBENZENE (%)	103



Analytical Technologies, Inc.

MW-648

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464019

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	DATE SAMPLED	: 04/09/92
PROJECT #	: 662-C	DATE RECEIVED	: 04/09/92
PROJECT NAME	: HASSAYAMPA	DATE EXTRACTED	: N/A
CLIENT I.D.	: 002636	DATE ANALYZED	: 04/17/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
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BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	91
BROMOFLUOROBENZENE (%)	110



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464021

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA
CLIENT I.D. : 002638
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/09/92
DATE RECEIVED : 04/09/92
DATE EXTRACTED : N/A
DATE ANALYZED : 04/17/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	0.6
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	0.4
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	91
BROMOFLUOROBENZENE (%)	102



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464023

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
 PROJECT # : 662-C
 PROJECT NAME : HASSAYAMPA
 CLIENT I.D. : 002640
 SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/09/92
 DATE RECEIVED : 04/09/92
 DATE EXTRACTED : N/A
 DATE ANALYZED : 04/17/92
 UNITS : UG/L
 DILUTION FACTOR : 1

COMPOUNDS

RESULTS

COMPOUNDS	RESULTS
BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	91
BROMOFLUOROBENZENE (%)	100



Analytical Technologies, Inc.

MW-5uA (dup)

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464024

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	DATE SAMPLED	: 04/09/92
PROJECT #	: 662-C	DATE RECEIVED	: 04/09/92
PROJECT NAME	: HASSAYAMPA	DATE EXTRACTED	: N/A
CLIENT I.D.	: 002641	DATE ANALYZED	: 04/17/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	94
BROMOFLUOROBENZENE (%)	103



Analytical Technologies, Inc.

TB. for MW-14B, -24A+B
-34A+B, -44A+B, -64A+B,
-74A, -54A

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20464025

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	DATE SAMPLED	: 04/07/92
PROJECT #	: 662-C	DATE RECEIVED	: 04/09/92
PROJECT NAME	: HASSAYAMPA	DATE EXTRACTED	: N/A
CLIENT I.D.	: 002643 TRIP BLANK	DATE ANALYZED	: 04/17/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
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BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	107
BROMOFLUOROBENZENE (%)	102



Analytical Technologies, Inc.

R.B. for MW-4UB,
-6UA, -6UB, -7UA,
-5UA, TB

GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	ATI I.D.	: 204640
PROJECT #	: 662-C	DATE EXTRACTED	: 04/17/92
PROJECT NAME	: HASSAYAMPA	DATE ANALYZED	: 04/17/92
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
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BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
1-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
ETHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	91
BROMOFLUOROBENZENE (%)	101



Analytical Technologies, Inc.

QC for MW-1UB, -
-2UAAB, -3UAAB,
-4UAAB, 6UAAB, -7UA,
-5UA

QUALITY CONTROL DATA

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602) ATI I.D. : 204640

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA
REF I.D. : 20499936

DATE ANALYZED : 04/15/92
SAMPLE MATRIX :
UNITS : UG/L

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP.	DUP.	RPD
	RESULT	SPIKED			SPIKED SAMPLE	% REC.	
1,1-DICHLOROETHENE	<0.2	20	17	85	17	85	0
TRICHLOROETHENE	<0.2	20	19	95	20	100	5
TETRACHLOROETHENE	<0.2	20	19	95	20	100	5
BENZENE	<0.5	20	19	95	18	90	5
BROMODICHLOROMETHANE	<0.2	20	19	95	18	90	5
CHLOROFORM	<0.2	20	20	100	21	105	5
1,1,1-TRICHLOROETHANE	<0.2	20	20	100	20	100	0
TOLUENE	<0.5	20	18	90	18	90	0
CHLOROBENZENE	<0.5	20	17	85	18	90	6
p-XYLENE	<0.5	20	17	85	17	85	0

% Recovery = (Spike Sample Result - Sample Result)
----- X 100
Spike Concentration

RPD (Relative % Difference) = (Spiked Sample - Duplicate Spike)
Result Sample Result
----- X 100
Average of Spiked Sample



Analytical Technologies, Inc.

QC for MW-148, -24498
-34498, -44498, -64498,
-744, -544

QUALITY CONTROL DATA

ATI I.D. : 204640

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA
REF I.D. : 20499937

DATE ANALYZED : 04/16/92
SAMPLE MATRIX :
UNITS : UG/L

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP.	DUP.	RPD
	RESULT	SPIKED			SPIKED SAMPLE	% REC.	
1,1-DICHLOROETHENE	<0.2	20	18	90	18	90	0
TRICHLOROETHENE	<0.2	20	21	105	21	105	0
TETRACHLOROETHENE	<0.2	20	21	105	21	105	0
BENZENE	<0.5	20	19	95	20	100	5
BROMODICHLOROMETHANE	<0.2	20	21	105	21	105	0
CHLOROFORM	<0.2	20	21	105	22	110	5
1,1,1-TRICHLOROETHANE	<0.2	20	21	105	21	105	0
TOLUENE	<0.5	20	19	95	19	95	0
CHLOROBENZENE	<0.5	20	19	95	20	100	5
4-XYLENE	<0.5	20	18	90	19	95	5

% Recovery = (Spike Sample Result - Sample Result)
----- X 100
Spike Concentration

RPD (Relative % Difference) = (Spiked Sample - Duplicate Spike)
Result Sample Result
----- X 100
Average of Spiked Sample



Analytical Technologies, Inc.

QC for MW-1UB, -2UAQB,
-3UAQB, -4UAQB, -6UAQB
-7UA, -5UA

ACCESSION: 204640

QUALITY CONTROL DATA: 589
METHOD 601/602

CLIENT: MONTGOMERY & ASSOCIATES
UNITS: UG/L
ANALYSIS DATE: 04/16/92

	<u>TRUE VALUE</u>	<u>FOUND</u>	<u>% RECOVERY</u>
1,1-DICHLOROETHENE	20.0	18	90
TRICHLOROMETHANE	20.0	21	105
1,1,1-TRICHLOROETHANE	20.0	20	100
BROMODICHLOROMETHANE	20.0	19	95
TRICHLOROETHENE	20.0	20	100
TETRACHLOROETHENE	20.0	21	105
CHLOROBENZENE	20.0	19	95
BENZENE	20.0	20	100
METHYLBENZENE	20.0	19	95
1,2-DICHLOROBENZENE	20.0	20	100
1,3-DIMETHYLBENZENE	20.0	19	95

% SURROGATE RECOVERY

104% BROMOCHLOROMETHANE (BCM)

98% BROMOFLUOROBENZENE (BFB)

204640



Analytical Technologies, Inc.

QC for MW-148, -244B,
-344B, -444B, -644B
-544, -744

ACCESSION: 204640

QUALITY CONTROL DATA: 589
METHOD 601/602

CLIENT: MONTGOMERY & ASSOCIATES
UNITS: UG/L
ANALYSIS DATE: 04/17/92

	<u>TRUE VALUE</u>	<u>FOUND</u>	<u>% RECOVERY</u>
1,1-DICHLOROETHENE	20.0	19	95
TRICHLOROMETHANE	20.0	20	100
1,1,1-TRICHLOROETHANE	20.0	20	100
BROMODICHLOROMETHANE	20.0	19	95
TRICHLOROETHENE	20.0	20	100
TETRACHLOROETHENE	20.0	23	115
CHLOROBENZENE	20.0	19	95
BENZENE	20.0	20	100
METHYLBENZENE	20.0	19	95
1,2-DICHLOROBENZENE	20.0	18	90
1,3-DIMETHYLBENZENE	20.0	19	95

% SURROGATE RECOVERY
104% BROMOCHLOROMETHANE (BCM)
102% BROMOFLUOROBENZENE (BFB)

11/18



Analytical Technologies, Inc.

9830 S. 51st Street Suite B-113 Phoenix, AZ 85044 (602) 496-4400

ATI I.D. 204659

May 15, 1992

Errol L. Montgomery & Associates
1075 E. Fort Lowell Road
Suite B
Tucson, AZ 85719

Project Name/Number: HASSAYAMPA/662-C

Attention: Bill Victor

On 04/10/92, Analytical Technologies, Inc. received a request to analyze aqueous sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

Michael G. Barry
Project Manager

Robert V. Woods
Laboratory Manager

RECEIVED

MAY 18 1992

RVW:ktd
Enclosure



Analytical Technologies, Inc.

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA

DATE RECEIVED : 04/10/92

REPORT DATE : 05/11/92

ATI I.D. : 204659

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	002644	AQUEOUS	04/10/92
02	002645	AQUEOUS	04/10/92
03	002646 FIELD BLANK	AQUEOUS	04/10/92
04	002647 TRIP BLANK	AQUEOUS	04/07/92
05	002648	AQUEOUS	04/10/92
06	002649	AQUEOUS	04/10/92
07	002650	AQUEOUS	04/10/92
08	002651	AQUEOUS	04/10/92
09	002652	AQUEOUS	04/10/92
10	002653	AQUEOUS	04/10/92
11	002654	AQUEOUS	04/10/92
12	002655	AQUEOUS	04/10/92
13	002656	AQUEOUS	04/10/92
14	002657	AQUEOUS	04/10/92
15	002658 TRIP BLANK	AQUEOUS	04/07/92

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	15

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

01 MW-9UA
03 F.B.
05 MW-9UA
07 MW-9UB
09 MW-10UA

ATI I.D. : 204659

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA

DATE RECEIVED : 04/10/92

REPORT DATE : 05/11/92

PARAMETER	UNITS	01	03	05	07	09
CARBONATE (CACO3)	MG/L	<1	<1	<1	<1	<1
BICARBONATE (CACO3)	MG/L	200	<1	226	121	209
HYDROXIDE (CACO3)	MG/L	<1	<1	<1	<1	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	200	<1	226	121	209
CHLORIDE	MG/L	61	2.5	66	220	290
CONDUCTIVITY, (UMHOS/CM)		687	12.7	781	1130	1570
FLUORIDE	MG/L	2.51	<0.05	2.33	0.80	1.47
AMMONIA AS NITROGEN	MG/L	<0.03	<0.03	<0.03	<0.03	<0.03
NITRATE AS NITROGEN	MG/L	4.3	<0.06	6.3	25	38
PH	UNITS	8.0	6.1	7.9	7.8	7.7
PHOSPHATE, ORTHO (AS P)	MG/L	<0.05	<0.05	<0.05	<0.05	<0.05
SULFATE	MG/L	60	<0.3	81	57	86
TOTAL DISSOLVED SOLIDS	MG/L	490	10	540	730	1000
PHOSPHORUS, TOTAL	MG/L	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Technologies, Inc.

11 MW-104B

13 MW-1 UA

GENERAL CHEMISTRY RESULTS

ATI I.D. : 204659

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA

DATE RECEIVED : 04/10/92

REPORT DATE : 05/11/92

PARAMETER	UNITS	11	13
CARBONATE (CACO3)	MG/L	<1	<1
BICARBONATE (CACO3)	MG/L	170	191
HYDROXIDE (CACO3)	MG/L	<1	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	170	191
CHLORIDE	MG/L	580	77
CONDUCTIVITY, (UMHOS/CM)		2380	824
FLUORIDE	MG/L	0.63	2.09
AMMONIA AS NITROGEN	MG/L	<0.03	0.04
NITRATE AS NITROGEN	MG/L	22	4.9
PH	UNITS	7.5	7.8
PHOSPHATE, ORTHO (AS P)	MG/L	<0.05	<0.05
SULFATE	MG/L	320	110
TOTAL DISSOLVED SOLIDS	MG/L	1700	550
PHOSPHORUS, TOTAL	MG/L	<0.05	<0.05



Analytical Technologies, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA

ATI I.D. : 204659

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
CARBONATE	MG/L	20465901	<1	<1	NA	NA	NA	NA
BICARBONATE	MG/L		200	201	0.5	NA	NA	NA
HYDROXIDE	MG/L		<1	<1	NA	NA	NA	NA
TOTAL ALKALINITY	MG/L		200	201	0.5	NA	NA	NA
CARBONATE	MG/L	20471101	<1	<1	NA	NA	NA	NA
BICARBONATE	MG/L		356	352	1	NA	NA	NA
HYDROXIDE	MG/L		<1	<1	NA	NA	NA	NA
TOTAL ALKALINITY	MG/L		356	352	1	NA	NA	NA
CHLORIDE	MG/L	20465913	77	78	1	184	100	107
CONDUCTIVITY (UMHOS/CM)		20465909	1570	1610	3	NA	NA	NA
FLUORIDE	MG/L	20465501	1.31	1.34	2	3.20	2.00	94
FLUORIDE	MG/L	20465903	<0.05	<0.05	NA	0.47	0.50	94
AMMONIA AS NITROGEN	MG/L	20465901	<0.03	<0.03	NA	0.50	0.50	100
NITRATE AS NITROGEN	MG/L	20465913	4.9	4.9	0	9.8	5.0	98
PH	UNITS	20465901	8.0	8.1	1	NA	NA	NA
PH	UNITS	20471101	8.0	8.1	1	NA	NA	NA
PHOSPHATE, ORTHO	MG/L	20465911	<0.05	<0.05	NA	0.53	0.50	106
SULFATE	MG/L	20465907	57	58	2	115	57	102
TOTAL DISSOLVED SOLIDS	MG/L	20465901	490	470	4	NA	NA	NA
TOTAL DISSOLVED SOLIDS	MG/L	20471501	2300	2200	4	NA	NA	NA
TOTAL DISSOLVED SOLIDS	MG/L	20499905	760	770	1	NA	NA	NA
PHOSPHORUS, TOTAL	MG/L	20465901	<0.05	<0.05	NA	0.52	0.50	104

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



Analytical Technologies, Inc.

METALS RESULTS

01 MW-8uA
03 F.B.
05 MW-4uA
07 MW-9uB
09 MW-10uA

ATI I.D. : 204659

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA

DATE RECEIVED : 04/10/92

REPORT DATE : 05/11/92

PARAMETER	UNITS	01	03	05	07	09
CALCIUM	MG/L	17.7	<0.1	22.3	87.5	59.6
POTASSIUM	MG/L	<1.0	<1.0	<1.0	2.8	<1.0
MAGNESIUM	MG/L	6.3	<0.1	7.6	23.8	24.5
SODIUM	MG/L	127	2.3	141	108	224
SILICA	MG/L	32.9	0.8	32.1	28.2	37.0



Analytical Technologies, Inc.

11 MW-10uB

13 MW-1uA

METALS RESULTS

ATI I.D. : 204659

CLIENT : MONTGOMERY & ASSOCIATES

DATE RECEIVED : 04/10/92

PROJECT # : 662-C

PROJECT NAME : HASSAYAMPA

REPORT DATE : 05/11/92

PARAMETER	UNITS	11	13
CALCIUM	MG/L	236	18.6
POTASSIUM	MG/L	4.2	1.2
MAGNESIUM	MG/L	57.1	5.6
SODIUM	MG/L	185	156
SILICA	MG/L	33.6	31.0



Analytical Technologies, Inc.

METALS - QUALITY CONTROL

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA

ATI I.D. : 204659

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
CALCIUM	MG/L	20465901	17.7	18.0	2	72.8	50.0	110
POTASSIUM	MG/L	20465901	<1.0	<1.0	NA	50.8	50.0	102
MAGNESIUM	MG/L	20465901	6.3	6.4	2	32.1	25.0	103
SODIUM	MG/L	20465901	127	129	2	175	50.0	96
SILICA	MG/L	20465901	32.9	33.4	2	56.0	21.4	108

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



Analytical Technologies, Inc.

QC for MW-1UA, -8UA,
-9UA, -9UB, -10UA, 10UB

Page No. 1

05/12/92

QUALITY CONTROL REPORT

ANALYTE	INIT	DATE OF ANALYSIS	CORR. COEFF.	QC NAME	VALUE FOUND	TRUE VALUE	LOWER CONTROL LIMIT	UPPER CONTROL LIMIT	UNIT
** ACCESSION NUMBER: 204659									
Method 310.1 Alkalinity	MB	04/21/92	NA	2538	57	53.8	51	59	mg/l
Alkalinity	MB	04/20/92	NA	2538	57	53.8	51	59	mg/l
Method 325.2 Chloride	NM	04/21/92	0.9993	QC 10	10.5	10.0	8.2	11.8	mg/l
Method 120.1 Conductivity	JK	04/10/92	NA	0.01MK	1330	1413	1323	1423	umhos/cm
Method 340.2 Fluoride	TW/MB	04/24/92	0.999	7922	2.96	3.01	2.89	3.13	mg/l
Fluoride	TW/MB	04/24/92	0.995	7921	0.60	0.60	0.54	0.62	mg/l
Method 350.3 Ammonia	TLK	04/16/92	0.998	9936	0.38	0.39	0.33	0.43	mg/l
Method 353.2 Nitrate	NM	04/23/92	0.999	QC378	2.19	2.20	2.03	2.34	mg/l
Method 150.1 pH	MB	04/21/92	NA	Fisher	6.86	6.86	6.84	6.88	units
pH	MB	04/20/92	NA	Fisher	6.88	6.86	6.84	6.88	units
Method 300.0 Sulfate	CW	04/20/92	0.999	Stock2	10.0	10.0	9.4	10.5	mg/l
Method 160.1 TDS	MB	04/10/92	NA	InHous	262	293	250	327	mg/l
TDS	MB	04/15/92	NA	InHous	258	293	250	327	mg/l
Method 365.3 Ortho Phosphate	CW	04/10/92	1.000	2184	0.32	0.299	0.26	0.33	mg/l
Total Phosphorus	CW	04/16/92	1.000	9929	4.9	5.0	4.1	5.9	mg/l
Method 200.7 Calcium	ZMQ	04/20/92	NA	ICAP4	10.2	10.3	9.3	11.3	mg/l
Potassium	ZMQ	04/20/92	NA	ICAP4	9.9	9.8	8.5	11.1	mg/l
Magnesium	ZMQ	04/20/92	NA	ICAP4	9.8	10.3	9.3	11.3	mg/l
Sodium	ZMQ	04/20/92	NA	ICAP4	9.4	10.0	9.0	11.0	mg/l
Silica	ZMQ	04/20/92	NA	ICAP4	10.7	10.0	8.5	11.5	mg/l

2116



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20465901

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
 PROJECT # : 662-C
 PROJECT NAME : HASSAYAMPA
 CLIENT I.D. : 002644
 SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/10/92
 DATE RECEIVED : 04/10/92
 DATE EXTRACTED : N/A
 DATE ANALYZED : 04/17/92
 UNITS : UG/L
 DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	108
BROMOFLUOROBENZENE (%)	100

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20465903

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	DATE SAMPLED	: 04/10/92
PROJECT #	: 662-C	DATE RECEIVED	: 04/10/92
PROJECT NAME	: HASSAYAMPA	DATE EXTRACTED	: N/A
CLIENT I.D.	: 002646 FIELD BLANK	DATE ANALYZED	: 04/17/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
-----------	---------

BENZENE	<0.5
BROMODICHLOROMETHANE	6.1
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	9.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	2.6
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	111
BROMOFLUOROBENZENE (%)	99



Analytical Technologies, Inc.

TB. for MW-10A,
-80A, -90A, -90B, 100A
-100B

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20465904

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : (NONE)
CLIENT I.D. : 002647 TRIP BLANK
SAMPLE MATRIX : AQUEOUSDATE SAMPLED : 04/07/92
DATE RECEIVED : 04/10/92
DATE EXTRACTED : N/A
DATE ANALYZED : 04/17/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	101
BROMOFLUOROBENZENE (%)	103



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20465905

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
 PROJECT # : 662-C
 PROJECT NAME : (NONE)
 CLIENT I.D. : 002648
 SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/10/92
 DATE RECEIVED : 04/10/92
 DATE EXTRACTED : N/A
 DATE ANALYZED : 04/17/92
 UNITS : UG/L
 DILUTION FACTOR : 1

COMPOUNDS	RESULTS
BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	104
BROMOFLUOROBENZENE (%)	108

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20465907

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : (NONE)
CLIENT I.D. : 002650
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/10/92
DATE RECEIVED : 04/10/92
DATE EXTRACTED : N/A
DATE ANALYZED : 04/17/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
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BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
1-BROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
1,1-DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
ETHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	102
BROMOFLUOROBENZENE (%)	103

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20465909

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	DATE SAMPLED	: 04/10/92
PROJECT #	: 662-C	DATE RECEIVED	: 04/10/92
PROJECT NAME	: (NONE)	DATE EXTRACTED	: N/A
CLIENT I.D.	: 002652	DATE ANALYZED	: 04/17/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	107
BROMOFLUOROBENZENE (%)	97



Analytical Technologies, Inc.

MW-104B

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20465911

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : (NONE)
CLIENT I.D. : 002654
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/10/92
DATE RECEIVED : 04/10/92
DATE EXTRACTED : N/A
DATE ANALYZED : 04/17/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	104
BROMOFLUOROBENZENE (%)	106

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20465913

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-C
PROJECT NAME : HASSAYAMPA
CLIENT I.D. : 002656
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 04/10/92
DATE RECEIVED : 04/10/92
DATE EXTRACTED : N/A
DATE ANALYZED : 04/18/92
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	2.9
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	29
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	0.9
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	111
BROMOFLUOROBENZENE (%)	99

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 20465915

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	DATE SAMPLED	: 04/07/92
PROJECT #	: 662-C	DATE RECEIVED	: 04/10/92
PROJECT NAME	: HASSAYAMPA	DATE EXTRACTED	: N/A
CLIENT I.D.	: 002658 TRIP BLANK	DATE ANALYZED	: 04/18/92
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
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BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	99
BROMOFLUOROBENZENE (%)	101



Analytical Technologies, Inc.

R.B. for MW-10A,
-80A, -90A, -90B,
-100A, -100B

GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602)

CLIENT	: MONTGOMERY & ASSOCIATES	ATI I.D.	: 204659
PROJECT #	: 662-C	DATE EXTRACTED	: 04/17/92
PROJECT NAME	: (NONE)	DATE ANALYZED	: 04/17/92
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
-----------	---------

BENZENE	<0.5
BROMODICHLOROMETHANE	<0.2
BROMOFORM	<0.2
BROMOMETHANE	<0.2
CARBON TETRACHLORIDE	<0.2
CHLOROBENZENE	<0.5
CHLOROETHANE	<0.2
CHLOROFORM	<0.2
CHLOROMETHANE	<0.2
DIBROMOCHLOROMETHANE	<0.2
2-CHLOROETHYL VINYL ETHER	<0.5
1,3-DICHLOROBENZENE	<0.5
1,2 & 1,4-DICHLOROBENZENE	<0.5
DICHLORODIFLUOROMETHANE	<0.2
1,1-DICHLOROETHANE	<0.2
1,2-DICHLOROETHANE	<0.2
1,1-DICHLOROETHENE	<0.2
1,2-DICHLOROETHENE (TOTAL)	<0.2
1,2-DICHLOROPROPANE	<0.2
CIS-1,3-DICHLOROPROPENE	<0.2
TRANS-1,3-DICHLOROPROPENE	<0.2
ETHYLBENZENE	<0.5
METHYLENE CHLORIDE	<2.0
1,1,2,2-TETRACHLOROETHANE	<0.2
TETRACHLOROETHENE	<0.2
TOLUENE	<0.5
1,1,1-TRICHLOROETHANE	<0.2
1,1,2-TRICHLOROETHANE	<0.2
TRICHLOROETHENE	<0.2
TRICHLOROFLUOROMETHANE	<0.5
VINYL CHLORIDE	<0.2
TOTAL XYLENES	<0.5
TRICHLOROTRIFLUOROETHANE	<2.0

SURROGATE PERCENT RECOVERIES

BROMOCHLOROMETHANE (%)	91
BROMOFLUOROBENZENE (%)	101



Analytical Technologies, Inc.

QC for MW-1UA, -8UA
-9UA, -9UB, -10UA, 10UB

QUALITY CONTROL DATA

TEST : VOLATILE HALOCARBONS/AROMATICS (EPA 601/602) ATI I.D. : 204659

CLIENT : MONTGOMERY & ASSOCIATES

PROJECT # : 662-C

PROJECT NAME : (NONE)

REF I.D. : 20499911

DATE ANALYZED : 04/17/92

SAMPLE MATRIX : AQUEOUS

UNITS : UG/L

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP. SPIKED		RPD
	RESULT	SPIKED			SAMPLE	REC.	
1,1-DICHLOROETHENE	<0.2	20	20	100	19	95	5
TRICHLOROETHENE	<0.2	20	21	105	20	100	5
TETRACHLOROETHENE	<0.2	20	23	115	23	115	0
BENZENE	<0.5	20	19	95	18	90	5
BROMODICHLOROMETHANE	<0.2	20	20	100	20	100	0
CHLOROFORM	<0.2	20	22	110	21	105	5
1,1,1-TRICHLOROETHANE	<0.2	20	21	105	21	105	0
TOLUENE	<0.5	20	18	90	18	90	0
CHLOROBENZENE	<0.5	20	19	95	19	95	0
M-XYLENE	<0.5	20	17	85	17	85	0

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

ACCESSION: 204659

QUALITY CONTROL DATA: 589
METHOD 601/602CLIENT: MONTGOMERY & ASSOCIATES
UNITS: UG/L
ANALYSIS DATE: 04/17/92

	<u>TRUE VALUE</u>	<u>FOUND</u>	<u>% RECOVERY</u>
1,1-DICHLOROETHENE	20.0	19	95
TRICHLOROMETHANE	20.0	20	100
1,1,1-TRICHLOROETHANE	20.0	20	100
BROMODICHLOROMETHANE	20.0	19	95
TRICHLOROETHENE	20.0	20	100
TETRACHLOROETHENE	20.0	23	115
CHLOROBENZENE	20.0	19	95
BENZENE	20.0	20	100
METHYLBENZENE	20.0	19	95
1,2-DICHLOROBENZENE	20.0	18	90
1,3-DIMETHYLBENZENE	20.0	18	90

% SURROGATE RECOVERY

104 % BROMOCHLOROMETHANE (BCM)

102 % BROMOFLUOROBENZENE (BFB)

mub



ERROL L. MONTGOMERY & ASSOCIATES, INC.

APPENDIX B

CHEMICAL LABORATORY REPORTS AND QA/QC DOCUMENTATION
FOR ANALYSES OF SOIL SAMPLES FROM SOIL BORINGS
NORTH FROM HAZARDOUS WASTE AREA
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA



Analytical **Technologies, Inc.**

9830 S. 51st Street Suite B-113 Phoenix, AZ 85044 (602) 496-4400

ATI I.D. 204766

May 7, 1992

Errol L. Montgomery & Associates
1075 E. Fort Lowell Road
Suite B
Tucson, AZ 85719

Project Name/Number: 662-F

Attention: Bill Victor

On 04/16/92, Analytical Technologies, Inc. received a request to analyze non-aqueous sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

Michael G. Barry
Project Manager

Robert V. Woods
Laboratory Manager

Lorraine Davis
QA Coordinator

RVW:clf
Enclosure

MAY 22 1992

10:00

01 N-3 comp. 72.8'-73.8'

02 N-3 71.5'-72' (HOLD)



Analytical Technologies, Inc.

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-F
PROJECT NAME : (NONE)

DATE RECEIVED : 04/16/92

REPORT DATE : 05/07/92

ATI I.D. : 204766

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	014829/014830	NON-AQUEOUS	04/15/92
02	014831	NON-AQUEOUS	04/15/92

----- TOTALS -----

MATRIX	# SAMPLES
NON-AQUEOUS	2

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

N-3 composite
73.3'-73.8' &
72.8'-73.3'

GCMS - RESULTS

ATI I.D. : 20476601

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-F
PROJECT NAME : (NONE)
CLIENT I.D. : 014829/014830
SAMPLE MATRIX : NON-AQUEOUS

DATE SAMPLED : 04/15/92
DATE RECEIVED : 04/16/92
DATE EXTRACTED : 04/21/92
DATE ANALYZED : 04/23/92
UNITS : MG/KG
DILUTION FACTOR : 1

COMPOUNDS RESULTS

CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.50
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYL VINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	114
BROMOFLUOROBENZENE (%)	104
TOLUENE-D8 (%)	105



Analytical Technologies, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

N-3 Composite
72.8'-73.3' #
73.3'-73.8'

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 20476601

COMPOUNDS

RESULTS

NO ADDITIONAL COMPOUNDS

<0.3



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: MONTGOMERY & ASSOCIATES	ATI I.D.	: 204766
PROJECT #	: 662-F	DATE EXTRACTED	: 04/21/92
PROJECT NAME	: (NONE)	DATE ANALYZED	: 04/23/92
CLIENT I.D.	: REAGENT BLANK	UNITS	: MG/KG
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
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CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.50
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYL VINYLETHYL ETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	96
BROMOFLUOROBENZENE (%)	101
TOLUENE-D8 (%)	99

R.B. for N-3
Composite 72.8'-73.8'



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 204766

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES

PROJECT # : 662-F

PROJECT NAME : (NONE)

REF I.D. : 20476305

DATE ANALYZED : 04/22/92

SAMPLE MATRIX : SOIL

UNITS : MG/KG

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP. SPIKED		RPD
	RESULT	SPIKED			SAMPLE	% REC.	
1,1-DICHLOROETHENE	<0.05	2.5	2.0	80	2.1	84	5
TRICHLOROETHENE	<0.05	2.5	2.1	84	2.1	84	0
CHLOROBENZENE	<0.05	2.5	2.4	96	2.5	100	4
TOLUENE	<0.05	2.5	2.4	96	2.5	100	4
BENZENE	<0.05	2.5	2.4	96	2.5	100	4

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

ACCESSION: 204766

QUALITY CONTROL DATA: 589
METHOD 8240CLIENT: MONTGOMERY & ASSOCIATES
UNITS: UG/L
ANALYSIS DATE: 04/23/92

	TRUE VALUE	FOUND	% REC
1,1-DICHLOROETHENE	50	46	92
CHLOROFORM	50	48	96
1,1,1-TRICHLOROETHANE	50	49	98
BROMODICHLOROMETHANE	50	44	88
TRICHLOROETHENE	50	42	84
TETRACHLOROETHENE	50	49	98
CHLOROBENZENE	50	49	98
BENZENE	50	42	84
TOLUENE	50	50	100

% SURROGATE RECOVERY
95% 1,2-DICHLOROETHANE-D4
95% BROMOFLUOROBENZENE (BFB)
102% TOLUENE-D8



Analytical **Technologies**, Inc.

9830 S. 51st Street Suite B-113 Phoenix, AZ 85044 (602) 496-4400

ATI I.D. 204712

May 8, 1992

Errol L. Montgomery & Associates
1075 E. Fort Lowell Road
Suite B
Tucson, AZ 85719

Project Name/Number: 662-F

Attention: Bill Victor

On 04/14/92, Analytical Technologies, Inc. received a request to analyze soil sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

Michael G. Barry
Project Manager

Robert V. Woods
Laboratory Manager

Lorraine Davis
QA Coordinator

RVW:jat
Enclosure

RECEIVED

MAY 12 1992



Analytical Technologies, Inc.

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-F
PROJECT NAME : (NONE)

DATE RECEIVED : 04/14/92

REPORT DATE : 05/07/92

ATI I.D. : 204712

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	014827	SOIL	04/13/92
02	014828	SOIL	04/14/92
03	BACK-UP	SOIL	04/14/92

----- TOTALS -----

MATRIX	# SAMPLES
-----	-----
SOIL	3

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

N-1 68.5'-69'

GCMS - RESULTS

ATI I.D. : 20471201

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-F
PROJECT NAME : (NONE)
CLIENT I.D. : 014827
SAMPLE MATRIX : SOIL

DATE SAMPLED : 04/13/92
DATE RECEIVED : 04/14/92
DATE EXTRACTED : 04/15/92
DATE ANALYZED : 04/16/92
UNITS : MG/KG
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
-----------	---------

CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.50
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYL VINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	98
BROMOFLUOROBENZENE (%)	93
TOLUENE-D8 (%)	95



Analytical Technologies, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 20471201

COMPOUNDSRESULTS

NO ADDITIONAL COMPOUNDS

<0.3



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 20471202

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-F
PROJECT NAME : (NONE)
CLIENT I.D. : 014828
SAMPLE MATRIX : SOIL

DATE SAMPLED : 04/14/92
DATE RECEIVED : 04/14/92
DATE EXTRACTED : 04/15/92
DATE ANALYZED : 04/16/92
UNITS : MG/KG
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.50
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYL VINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	99
BROMOFLUOROBENZENE (%)	90
TOLUENE-D8 (%)	102

N-2 64'-65'



Analytical Technologies, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 20471202

COMPOUNDS

RESULTS

NO ADDITIONAL COMPOUNDS

<0.3



Analytical Technologies, Inc.

R.B. for N-1 &
N-2

GCMS - RESULTS

REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-F
PROJECT NAME : (NONE)
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 204712
DATE EXTRACTED : 04/15/92
DATE ANALYZED : 04/16/92
UNITS : MG/KG
DILUTION FACTOR : N/A

COMPOUNDS RESULTS

CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.50
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYLVINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	98
BROMOFLUOROBENZENE (%)	98
TOLUENE-D8 (%)	101



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 204712

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES
 PROJECT # : 662-F
 PROJECT NAME : (NONE)
 REF I.D. : 20465010

DATE ANALYZED : 04/16/92
 SAMPLE MATRIX : SOIL
 UNITS : MG/KG

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP.	DUP.	RPD
	RESULT	SPIKED			SPIKED SAMPLE	% REC.	
1,1-DICHLOROETHENE	<0.05	2.5	2.1	84	2.2	88	5
TRICHLOROETHENE	<0.05	2.5	2.4	96	2.4	96	0
CHLOROBENZENE	<0.05	2.5	2.6	104	2.6	104	0
TOLUENE	<0.05	2.5	2.5	100	2.5	100	0
BENZENE	<0.05	2.5	2.2	88	2.2	88	0

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

ACCESSION: 204712

QUALITY CONTROL DATA: 589
METHOD 8240CLIENT: MONTGOMERY & ASSOCIATES
UNITS: UG/L
ANALYSIS DATE: 04/09/92

	TRUE VALUE	FOUND	% REC
1,1-DICHLOROETHENE	50	53	106
CHLOROFORM	50	52	104
1,1,1-TRICHLOROETHANE	50	54	108
BROMODICHLOROMETHANE	50	52	104
TRICHLOROETHENE	50	49	98
TETRACHLOROETHENE	50	57	114
CHLOROBENZENE	50	55	110
BENZENE	50	45	90
TOLUENE	50	54	108

% SURROGATE RECOVERY
100% 1,2-DICHLOROETHANE-D4
99% BROMOFLUOROBENZENE (BFB)
104% TOLUENE - D8

mb



Analytical Technologies, Inc.

9830 S. 51st Street Suite B-113 Phoenix, AZ 85044 (602) 496-4400

ATI I.D. 204639

May 4, 1992

Errol L. Montgomery & Associates
1075 E. Fort Lowell Road
Suite B
Tucson, AZ 85719

Project Name/Number: 662-F

Attention: Bill Victor

On 04/09/92, Analytical Technologies, Inc. received a request to analyze non-aqueous sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

Michael G. Barry
Project Manager

Robert V. Woods
Laboratory Manager

Lorraine Davis
QA Coordinator

RVW:ktd
Enclosure

RECEIVED

MAY 5 1992

MONTGOMERY & ASSOC., INC.



Analytical**Technologies**, Inc.

9830 S. 51st Street Suite B-113 Phoenix, AZ 85044 (602) 496-4400

JUN 23 1992

ATI I.D. 204639

June 22, 1992

Errol L. Montgomery & Associates
1075 E. Fort Lowell Road
Suite B
Tucson, AZ 85719

Project Name/Number: 662-F

Attention: Bill Victor

On 04/09/92, Analytical Technologies, Inc. received a request to analyze non-aqueous sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

Enclosed is an amended report for Method 8240 sample I.D. 014826. Methylene chloride has been changed. We apologize for any inconvenience this may have caused.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

Michael G. Barry
Project Manager

Robert V. Woods
Laboratory Manager

Lorraine Davis
QA Coordinator

RVW:ktd
Enclosure



Analytical Technologies, Inc.

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-F
PROJECT NAME : (NONE)

DATE RECEIVED : 04/09/92

REPORT DATE : 05/04/92

ATI I.D. : 204639

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	014826	NON-AQUEOUS	04/08/92

----- TOTALS -----

MATRIX	# SAMPLES
NON-AQUEOUS	1

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 20463901

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES
 PROJECT # : 662-F
 PROJECT NAME : (NONE)
 CLIENT I.D. : 014826
 SAMPLE MATRIX : NON-AQUEOUS

DATE SAMPLED : 04/08/92
 DATE RECEIVED : 04/09/92
 DATE EXTRACTED : 04/10/92
 DATE ANALYZED : 04/15/92
 UNITS : MG/KG
 DILUTION FACTOR : 1

COMPOUNDS	RESULTS
-----------	---------

CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
ETHYLENE CHLORIDE	0.4
ACETONE	<0.50
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	0.7
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	0.2
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	0.1
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYL VINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	0.1
TOLUENE	0.1
CHLOROBENZENE	0.06
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	0.1

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	102
BROMOFLUOROBENZENE (%)	94
TOLUENE-D8 (%)	107

NE-1



Analytical Technologies, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 20463901

COMPOUNDS

RESULTS

NO ADDITIONAL COMPOUNDS

<0.3



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES
 PROJECT # : 662-F
 PROJECT NAME : (NONE)
 CLIENT I.D. : REAGENT BLANK

ATI I.D. : 204639
 DATE EXTRACTED : 04/10/92
 DATE ANALYZED : 04/15/92
 UNITS : MG/KG
 DILUTION FACTOR : N/A

COMPOUNDS	RESULTS
CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.50
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYL VINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	98
BROMOFLUOROBENZENE (%)	98
TOLUENE-D8 (%)	101



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 204639

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES

PROJECT # : 662-F

DATE ANALYZED : 04/15/92

PROJECT NAME : (NONE)

SAMPLE MATRIX : NON-AQUEOUS

REF I.D. : 20463901

UNITS : MG/KG

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP.	DUP.	RPD
	RESULT	SPIKED			SPIKED SAMPLE	% REC.	
1,1-DICHLOROETHENE	0.7	2.5	3.0	92	2.9	88	3
TRICHLOROETHENE	0.1	2.5	2.3	88	2.2	84	4
CHLOROBENZENE	0.06	2.5	2.7	106	2.7	106	0
TOLUENE	0.1	2.5	2.7	104	2.6	100	4
BENZENE	<0.05	2.5	2.1	84	2.0	80	5

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

QC for NE-1



Analytical Technologies, Inc.

ACCESSION: 204639

LABORATORY CONTROL STANDARD: 589
METHOD 8240

CLIENT: Montgomery & Associates
UNITS: mg/kg
ANALYSIS DATE: 04/15/92

Compound	True Value	Found	% Recovery
Methylene Chloride	50	36	72
1,1-Dichloroethene	50	45	90
Chloroform	50	48	96
1,1,1-Trichloroethane	50	49	98
Bromodichloromethane	50	47	94
Trichloroethene	50	47	94
Benzene	50	42	84
Bromoform	50	44	88
Tetrachloroethene	50	52	104
Toluene	50	49	98
Chlorobenzene	50	50	100
Meta-Xylene	50	50	100
Dichlorobenzene	50	57	114

Surrogate Recovery

Dichloroethane D-4	98%
Toluene D-8	100%
Bromofluorobenzene	97%



Analytical **Technologies**, Inc.

9830 S. 51st Street Suite B-113 Phoenix, AZ 85044 (602) 496-4400

ATI I.D. 204857

May 15, 1992

Errol L. Montgomery & Associates
1075 E. Fort Lowell Road
Suite B
Tucson, AZ 85719

Project Name/Number: 662-F

Attention: Bill Victor

On 04/22/92, Analytical Technologies, Inc. received a request to analyze soil sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

Michael G. Barry
Project Manager

Robert V. Woods
Laboratory Manager

RVW:ktd
Enclosure

RECEIVED

MAY 18 1992

ANALYTICAL TECHNOLOGIES, INC.



Analytical Technologies, Inc.

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-F
PROJECT NAME : (NONE)

DATE RECEIVED : 04/22/92

REPORT DATE : 05/15/92

ATI I.D. : 204857

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	COMPOSITE OF 014835/014836	SOIL	04/21/92

----- TOTALS -----

MATRIX	# SAMPLES
SOIL	1

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

NE-3
Composite
59.6'-60' & 60'-60.5'

GCMS - RESULTS

ATI I.D. : 20485701

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-F
PROJECT NAME : (NONE)
CLIENT I.D. : COMPOSITE OF 014835/014836
SAMPLE MATRIX : SOIL

DATE SAMPLED : 04/21/92
DATE RECEIVED : 04/22/92
DATE EXTRACTED : 04/23/92
DATE ANALYZED : 05/03/92
UNITS : MG/KG
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.5
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYL VINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	111
BROMOFLUOROBENZENE (%)	93
TOLUENE-D8 (%)	99



Analytical Technologies, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 20485701

COMPOUNDSRESULTS

NO ADDITIONAL COMPOUNDS

<0.3



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-F
PROJECT NAME : (NONE)
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 204857
DATE EXTRACTED : 04/23/92
DATE ANALYZED : 05/03/92
UNITS : MG/KG
DILUTION FACTOR : N/A

COMPOUNDS	RESULTS
CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.5
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYL VINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	112
BROMOFLUOROBENZENE (%)	99
TOLUENE-D8 (%)	102



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 204857

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES

PROJECT # : 662-F

DATE ANALYZED : 05/01/92

PROJECT NAME : (NONE)

SAMPLE MATRIX : NON-AQUEOUS

REF I.D. : 20599915

UNITS : MG/KG

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP.	DUP.	RPD
	RESULT	SPIKED			SPIKED SAMPLE	% REC.	
1,1-DICHLOROETHENE	<0.05	2.5	2.2	88	2.2	88	0
TRICHLOROETHENE	<0.05	2.5	2.4	96	2.4	96	0
CHLOROBENZENE	<0.05	2.5	2.2	88	2.2	88	0
TOLUENE	<0.05	2.5	2.5	100	2.5	100	0
BENZENE	<0.05	2.5	2.5	100	2.5	100	0

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

ACCESSION: 204857

QUALITY CONTROL DATA: 589
METHOD 8240CLIENT: Montgomery & Associates
UNITS: MG/KG
ANALYSIS DATE: 05/03/92

	<u>TRUE VALUE</u>	<u>FOUND</u>	<u>% RECOVERY</u>
1,1-DICHLOROETHENE	50.0	49	98
CHLOROFORM	50.0	54	108
1,1,1-TRICHLOROETHANE	50.0	52	104
BROMODICHLOROMETHANE	50.0	51	102
TRICHLOROETHENE	50.0	49	98
TETRACHLOROETHENE	50.0	46	92
CHLOROBENZENE	50.0	44	88
BENZENE	50.0	51	102
TOLUENE	50.0	50	100

% SURROGATE RECOVERY

112 % 1,2-DICHLOROETHANE-D4
93 % BROMOFLUOROBENZENE (BFB)
99 % TOLUENE - D8



Analytical Technologies, Inc.

9830 S. 51st Street Suite B-113 Phoenix, AZ 85044 (602) 496-4400

ATI I.D. 204788

May 11, 1992

Errol L. Montgomery & Associates
1075 E. Fort Lowell Road
Suite B
Tucson, AZ 85719

Project Name/Number: 662-F

Attention: Bill Victor

On 04/17/92, Analytical Technologies, Inc. received a request to analyze soil sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

Michael G. Barry
Project Manager

Robert V. Woods
Laboratory Manager

Lorraine Davis
QA Coordinator

RVW:clf
Enclosure

MAY 12 1992



Analytical Technologies, Inc.

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-F
PROJECT NAME : (NONE)

DATE RECEIVED : 04/17/92

REPORT DATE : 05/11/92

ATI I.D. : 204788

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	14832/14833	SOIL	04/17/92
02	14834	SOIL	04/17/92

----- TOTALS -----

MATRIX	# SAMPLES
SOIL	2

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

GCMS - RESULTS

ATI I.D. : 20478801

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES
PROJECT # : 662-F
PROJECT NAME : (NONE)
CLIENT I.D. : 14832/14833
SAMPLE MATRIX : SOIL

DATE SAMPLED : 04/17/92
DATE RECEIVED : 04/17/92
DATE EXTRACTED : 04/21/92
DATE ANALYZED : 04/23/92
UNITS : MG/KG
DILUTION FACTOR : 1

COMPOUNDS RESULTS

CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.50
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYL VINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	105
BROMOFLUOROBENZENE (%)	106
TOLUENE-D8 (%)	112



Analytical Technologies, Inc.

NE-2 Composite
73-73.5' & 73.5'-74'

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 20478801

COMPOUNDS

RESULTS

NO ADDITIONAL COMPOUNDS

<0.3



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES
 PROJECT # : 662-F
 PROJECT NAME : (NONE)
 CLIENT I.D. : REAGENT BLANK

ATI I.D. : 204788
 DATE EXTRACTED : 04/21/92
 DATE ANALYZED : 04/23/92
 UNITS : MG/KG
 DILUTION FACTOR : N/A

COMPOUNDS	RESULTS
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CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.50
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYL VINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	96
BROMOFLUOROBENZENE (%)	101
TOLUENE-D8 (%)	99



Analytical Technologies, Inc.

QC for NE-2

QUALITY CONTROL DATA

ATI I.D. : 204788

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : MONTGOMERY & ASSOCIATES

PROJECT # : 662-F

DATE ANALYZED : 04/22/92

PROJECT NAME : (NONE)

SAMPLE MATRIX : SOIL

REF I.D. : 20476305

UNITS : MG/KG

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP.	DUP.	RPD
	RESULT	SPIKED			SPIKED SAMPLE	% REC.	
1,1-DICHLOROETHENE	<0.05	2.5	2.0	80	2.1	84	5
TRICHLOROETHENE	<0.05	2.5	2.1	84	2.1	84	0
CHLOROBENZENE	<0.05	2.5	2.4	96	2.5	100	4
TOLUENE	<0.05	2.5	2.4	96	2.5	100	4
BENZENE	<0.05	2.5	2.4	96	2.5	100	4

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

ACCESSION: 204788

QUALITY CONTROL DATA: 589
METHOD 8240

CLIENT: MONTGOMERY & ASSOCIATES
UNITS: UG/L
ANALYSIS DATE: 04/23/92

	<u>TRUE VALUE</u>	<u>FOUND</u>	<u>% REC</u>	<u>CONTROL LIMITS</u>
1,1-DICHLOROETHENE	50	46	92	80-120
CHLOROFORM	50	48	96	80-120
1,1,1-TRICHLOROETHANE	50	49	98	80-120
BROMODICHLOROMETHANE	50	44	88	80-120
TRICHLOROETHENE	50	42	84	80-120
TETRACHLOROETHENE	50	49	98	80-120
CHLOROBENZENE	50	49	98	80-120
BENZENE	50	42	84	76-120
TOLUENE	50	50	100	80-120

% SURROGATE RECOVERY

95 % 1,2-DICHLOROETHANE-D4
95 % BROMOFLUOROBENZENE (BFB)
102 % TOLUENE - D8



ERROL L. MONTGOMERY & ASSOCIATES, INC.

APPENDIX C

CHEMICAL LABORATORY REPORTS AND QA/QC DOCUMENTATION
FOR ANALYSES OF SOIL GAS SAMPLES FROM VADOSE ZONE MONITOR BORINGS
NORTH FROM HAZARDOUS WASTE AREA
HASSAYAMPA LANDFILL, MARICOPA COUNTY, ARIZONA



Performance Analytical Inc.
Environmental Testing and Consulting

LABORATORY REPORT

Client: ERROL L. MONTGOMERY &
ASSOCIATES, INC.

Date of Report: 05/27/92

Address: 1075 East Fort Lowell Road, Suite B
Tucson, AZ 85719

Date Received: 05/20/92

PAI Project No: 4178

Contact: Mr. William R. Victor

Purchase Order: Verbal

Project ID: 662-F

Eleven (11) Tedlar Bags sampled in duplicate labeled:

"03 002699"	"03 002700"	"03 002701"
"03 002702"	"03 002703"	"03 002704"
"03 002705"	"03 002706"	"03 002707"
"03 002708"	"03 002709"	

The samples were received at the laboratory under chain of custody on May 20, 1992. The samples were received intact. The dates of analyses are indicated on the attached data sheets.

Volatile Organic Compound Analysis

The samples were analyzed for Volatile Organic Compounds by gas chromatography/mass spectrometry (GC/MS). The analyses were performed according to the methodology outlined in EPA Method TO-14 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April, 1984 and May, 1988. The Method was modified for using Tedlar Bags. The analyses were performed by gas chromatography/mass spectrometry utilizing thermal desorption/cryogenic concentration. The instrumentation used for sample analysis was comprised of a Finnigan Model 4500 GC/MS/DS interfaced to a Tekmar 5010 Automatic Desorber. A thick film (5 micron) crossbonded 100% Dimethylpolysiloxane megabore column (RT_x-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

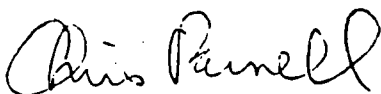
All internal standards, surrogate spike, calibration and QCCS results are well within acceptable QC limits.

The results of analyses are given in the attached data package.

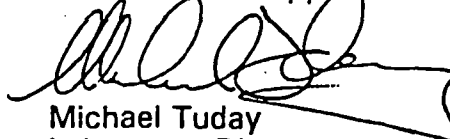
Data Release Authorization:

RECEIVED

Reviewed and Approved:



MAY 28 1992
29



Chris Parnell
Senior Chemist

Michael Tuday
Laboratory Director



Performance Analytical Inc.

Environmental Testing and Consulting

PERFORMANCE ANALYTICAL INC.

N-3

Coarse zone

RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002699 (05/19/92) (06:19-06:41)

PAI Sample ID: 9202098

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Tuday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20/92
Time Analyzed: 13:50
Volume Analyzed: 0.0010 Liter

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	16	5.0	2.9	0.90
75-35-4	1,1-DICHLOROETHENE	300	5.0	76	1.3
75-09-2	METHYLENE CHLORIDE	ND	5.0	ND	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	2700	5.0	350	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	ND	5.0	ND	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	ND	5.0	ND	0.93
71-43-2	BENZENE	ND	5.0	ND	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	ND	5.0	ND	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	9.4	5.0	1.8	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



Performance Analytical Inc.
Environmental Testing and Consulting

N-3

Coarse Zone

PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002699 (05/19/92) (06:19-06:41)

PAI Sample ID: 9202098

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Tuday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20/92
Time Analyzed: 13:50
Volume Analyzed: 0.0010 Liter

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	ND	5.0	ND	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	5.2	5.0	0.77	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	ND	5.0	ND	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	ND	5.0	ND	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



Performance Analytical Inc.

Environmental Testing and Consulting

PERFORMANCE ANALYTICAL INC.

N-3
fine zone

RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002700 (05/19/92) (06:56-07:18)

PAI Sample ID: 9202099

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Tuday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20/92
Time Analyzed: 14:20
Volume Analyzed: 0.0010 Liter

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	20	5.0	3.6	0.90
75-35-4	1,1-DICHLOROETHENE	250	5.0	63	1.3
75-09-2	METHYLENE CHLORIDE	ND	5.0	ND	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	2900	5.0	390	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	ND	5.0	ND	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	ND	5.0	ND	0.93
71-43-2	BENZENE	ND	5.0	ND	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	ND	5.0	ND	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	ND	5.0	ND	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002700 (05/19/92) (06:56-07:18)

PAI Sample ID: 9202099

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20/92
Time Analyzed: 14:20
Volume Analyzed: 0.0010 Liter

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	ND	5.0	ND	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	ND	5.0	ND	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	ND	5.0	ND	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	ND	5.0	ND	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit

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PERFORMANCE ANALYTICAL INC.N-3
fine zone
(lab duplicate)**RESULTS OF ANALYSIS**

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002700 (05/19/92) (06:56-07:18)

PAI Sample ID: 9202099 (Laboratory Duplicate)

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael TudayMatrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20/92
Time Analyzed: 14:53
Volume Analyzed: 0.0010 Liter

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	21	5.0	3.8	0.90
75-35-4	1,1-DICHLOROETHENE	230	5.0	60	1.3
75-09-2	METHYLENE CHLORIDE	ND	5.0	ND	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	3000	5.0	390	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	ND	5.0	ND	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	ND	5.0	ND	0.93
71-43-2	BENZENE	ND	5.0	ND	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	ND	5.0	ND	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	ND	5.0	ND	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002700 (05/19/92) (06:56-07:18)

PAI Sample ID: 9202099 (Laboratory Duplicate)

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Tuday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20/92
Time Analyzed: 14:53
Volume Analyzed: 0.0010 Liter

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	ND	5.0	ND	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	ND	5.0	ND	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	ND	5.0	ND	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	ND	5.0	ND	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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NE-3

COARSE TONE

RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002701 (05/19/92) (07:40-07:58)

PAI Sample ID: 9202100

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20/92
Time Analyzed: 15:27
Volume Analyzed: 0.0010 Liter

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	39	5.0	7.0	0.90
75-35-4	1,1-DICHLOROETHENE	310	5.0	78	1.3
75-09-2	METHYLENE CHLORIDE	ND	5.0	ND	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	4000	5.0	530	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	ND	5.0	ND	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	ND	5.0	ND	0.93
71-43-2	BENZENE	ND	5.0	ND	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	ND	5.0	ND	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	2.7 TR	5.0	0.51 TR	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002701 (05/19/92) (07:40-07:58)

PAI Sample ID: 9202100

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Tудay

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20/92
Time Analyzed: 15:27
Volume Analyzed: 0.0010 Liter

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	ND	5.0	ND	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	ND	5.0	ND	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	ND	5.0	ND	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	ND	5.0	ND	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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NE-3

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RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002702 (05/19/92) (08:14-08:32)

PAI Sample ID: 9202101

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Tuday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20-21/92
Time Analyzed: 16:01 & 13:20
Volume Analyzed: 0.0010 Liter &
0.050 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	1000	5.0	190	0.90
75-35-4	1,1-DICHLOROETHENE	6400	5.0	1600	1.3
75-09-2	METHYLENE CHLORIDE	29	5.0	8.3	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	81000	5.0	11000	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	ND	5.0	ND	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	190	5.0	36	0.93
71-43-2	BENZENE	ND	5.0	ND	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	ND	5.0	ND	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	41	5.0	7.7	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002702 (05/19/92) (08:14-08:32)

PAI Sample ID: 9202101

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Tuday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20-21/92
Time Analyzed: 16:01 & 13:20
Volume Analyzed: 0.0010 Liter &
0.050 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	ND	5.0	ND	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	62	5.0	9.2	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	ND	5.0	ND	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	ND	5.0	ND	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit

NE-1

Coarse Zone

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Environmental Testing and Consulting

PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002703 (05/19/92) (09:17-09:35)

PAI Sample ID: 9202102

Test Code: GC/MS Mod. EPA TO-14
 Analyst: Chris Parnell
 Instrument ID: Finnigan 4500C/Tekmar 5010
 Verified by: Michael Taday

Matrix: Tedlar Bag
 Date Received: 05/20/92
 Date Analyzed: 05/20-21/92
 Time Analyzed: 16:38 & 14:21
 Volume Analyzed: 0.0010 Liter &
 0.050 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	230	5.0	41	0.90
75-35-4	1,1-DICHLOROETHENE	6900	5.0	1700	1.3
75-09-2	METHYLENE CHLORIDE	1400	5.0	420	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	37000	5.0	4900	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	130	5.0	32	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	3000	5.0	560	0.93
71-43-2	BENZENE	9.1	5.0	2.9	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	82	5.0	18	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	370	5.0	70	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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NE-1

Course Zone

PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002703 (05/19/92) (09:17-09:35)

PAI Sample ID: 9202102

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20-21/92
Time Analyzed: 16:38 & 14:21
Volume Analyzed: 0.0010 Liter &
0.050 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	ND	5.0	ND	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	210	5.0	31	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	ND	5.0	ND	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	ND	5.0	ND	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit

NE-1
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PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002704 (05/19/92) (10:04-10:22)

PAI Sample ID: 9202103

Test Code: GC/MS Mod. EPA TO-14
Analyst: C. Parnell/C. Casteel
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/21/92
Time Analyzed: 8:27 & 14:50
Volume Analyzed: 0.0010 Liter &
0.025 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	3300	5.0	600	0.90
75-35-4	1,1-DICHLOROETHENE	48000	5.0	12000	1.3
75-09-2	METHYLENE CHLORIDE	1500	5.0	430	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	240000	5.0	31000	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	430	5.0	110	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	6600	5.0	1200	0.93
71-43-2	BENZENE	14	5.0	4.4	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	58	5.0	13	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	1100	5.0	220	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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NE-1
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PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002704 (05/19/92) (10:04-10:22)

PAI Sample ID: 9202103

Test Code: GC/MS Mod. EPA TO-14
Analyst: C. Parnell/C. Casteel
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/21/92
Time Analyzed: 8:27 & 14:50
Volume Analyzed: 0.0010 Liter &
0.025 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	49	5.0	13	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	730	5.0	110	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	12	5.0	2.8	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	ND	5.0	ND	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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N-1

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RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002705 (05/19/92) (10:42-11:03)

PAI Sample ID: 9202104

Test Code: GC/MS Mod. EPA TO-14
Analyst: C. Parnell/C. Casteel
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/21/92
Time Analyzed: 9:00 & 15:19
Volume Analyzed: 0.0010 Liter &
0.025 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	280	5.0	51	0.90
75-35-4	1,1-DICHLOROETHENE	12000	5.0	3000	1.3
75-09-2	METHYLENE CHLORIDE	4500	5.0	1300	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	63000	5.0	8300	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	330	5.0	81	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	8700	5.0	1600	0.93
71-43-2	BENZENE	17	5.0	5.5	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	340	5.0	75	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	770	5.0	150	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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N-1
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RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002705 (05/19/92) (10:42-11:03)

PAI Sample ID: 9202104

Test Code: GC/MS Mod. EPA TO-14
Analyst: C. Parnell/C. Casteel
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/21/92
Time Analyzed: 9:00 & 15:19
Volume Analyzed: 0.0010 Liter &
0.025 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	16	5.0	4.3	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	420	5.0	62	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	5.9	5.0	1.4	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	20	5.0	4.7	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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N-1

fine zone

RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002706 (05/19/92) (11:21-11:40)

PAI Sample ID: 9202105

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Tuday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/21/92
Time Analyzed: 11:31 & 15:48
Volume Analyzed: 0.0010 Liter &
0.025 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	1200	5.0	220	0.90
75-35-4	1,1-DICHLOROETHENE	28000	5.0	7200	1.3
75-09-2	METHYLENE CHLORIDE	1000	5.0	300	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	180000	5.0	24000	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	240	5.0	60	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	3000	5.0	560	0.93
71-43-2	BENZENE	13	5.0	4.0	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	86	5.0	19	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	970	5.0	180	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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N-1
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PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002706 (05/19/92) (11:21-11:40)

PAI Sample ID: 9202105

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Tuday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/21/92
Time Analyzed: 11:31 & 15:48
Volume Analyzed: 0.0010 Liter &
0.025 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	19	5.0	5.2	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	590	5.0	88	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	ND	5.0	ND	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	ND	5.0	ND	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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N-2

course zone

RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002707 (05/19/92) (12:00-12:20)

PAI Sample ID: 9202106

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/21/92
Time Analyzed: 12:05 & 16:18
Volume Analyzed: 0.0010 Liter &
0.050 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	130	5.0	23	0.90
75-35-4	1,1-DICHLOROETHENE	3100	5.0	790	1.3
75-09-2	METHYLENE CHLORIDE	210	5.0	62	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	23000	5.0	3000	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	47	5.0	12	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	360	5.0	66	0.93
71-43-2	BENZENE	ND	5.0	ND	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	26	5.0	5.7	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	160	5.0	30	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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N-2
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PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002707 (05/19/92) (12:00-12:20)

PAI Sample ID: 9202106

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/21/92
Time Analyzed: 12:05 & 16:18
Volume Analyzed: 0.0010 Liter &
0.050 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	ND	5.0	ND	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	93	5.0	14	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	ND	5.0	ND	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	ND	5.0	ND	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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N-2

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RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002708 (05/19/92) (12:41-13:02)

PAI Sample ID: 9202107

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/21/92
Time Analyzed: 12:39 & 16:48
Volume Analyzed: 0.0010 Liter &
0.050 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	230	5.0	41	0.90
75-35-4	1,1-DICHLOROETHENE	3700	5.0	950	1.3
75-09-2	METHYLENE CHLORIDE	64	5.0	19	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	36000	5.0	4700	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	21	5.0	5.4	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	84	5.0	16	0.93
71-43-2	BENZENE	ND	5.0	ND	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	ND	5.0	ND	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	110	5.0	20	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit

PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002708 (05/19/92) (12:41-13:02)

PAI Sample ID: 9202107

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Tудay

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/21/92
Time Analyzed: 12:39 & 16:48
Volume Analyzed: 0.0010 Liter &
0.050 ml

CAS #	COMPOUND	RESULT (MG/M ³)	DETECTION LIMIT (MG/M ³)	RESULT (PPM)	DETECTION LIMIT (PPM)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	ND	5.0	ND	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	82	5.0	12	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	ND	5.0	ND	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	ND	5.0	ND	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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PERFORMANCE ANALYTICAL INC.

Field
Blank

RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002709 (05/19/92) (13:20-13:34)

PAI Sample ID: 9202108

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20/92
Time Analyzed: 12:45
Volume Analyzed: 1.00 Liter

CAS #	COMPOUND	RESULT (UG/M ³)	DETECTION LIMIT (UG/M ³)	RESULT (PPB)	DETECTION LIMIT (PPB)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	95	10	40	4.2
75-69-4	TRICHLOROFLUOROMETHANE	ND	5.0	ND	0.90
75-35-4	1,1-DICHLOROETHENE	ND	5.0	ND	1.3
75-09-2	METHYLENE CHLORIDE	ND	5.0	ND	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	6.1	5.0	0.81	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	ND	5.0	ND	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	23	10	8.0	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	ND	5.0	ND	0.93
71-43-2	BENZENE	7.0	5.0	2.2	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	ND	5.0	ND	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	ND	5.0	ND	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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Field
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PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: 03 002709 (05/19/92) (13:20-13:34)

PAI Sample ID: 9202108

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: 05/20/92
Date Analyzed: 05/20/92
Time Analyzed: 12:45
Volume Analyzed: 1.00 Liter

CAS #	COMPOUND	RESULT (UG/M ³)	DETECTION LIMIT (UG/M ³)	RESULT (PPB)	DETECTION LIMIT (PPB)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	34	5.0	9.0	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	ND	5.0	ND	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	ND	5.0	ND	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	11	5.0	2.6	1.2
95-47-6	o-XYLENE	6.3	5.0	1.4	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	7.9	5.0	1.3	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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PERFORMANCE ANALYTICAL INC.

Method
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for 5-20-92

RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: N/A

PAI Sample ID: PAI Method Blank

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: N/A
Date Analyzed: 05/20/92
Time Analyzed: 10:33
Volume Analyzed: 1.00 Liter

CAS #	COMPOUND	RESULT (UG/M ³)	DETECTION LIMIT (UG/M ³)	RESULT (PPB)	DETECTION LIMIT (PPB)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	ND	5.0	ND	0.90
75-35-4	1,1-DICHLOROETHENE	ND	5.0	ND	1.3
75-09-2	METHYLENE CHLORIDE	ND	5.0	ND	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	ND	5.0	ND	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	ND	5.0	ND	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	ND	5.0	ND	0.93
71-43-2	BENZENE	ND	5.0	ND	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	ND	5.0	ND	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	ND	5.0	ND	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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Method
Blank
for 5-20-92

PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: N/A

PAI Sample ID: PAI Method Blank

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Tuday

Matrix: Tedlar Bag
Date Received: N/A
Date Analyzed: 05/20/92
Time Analyzed: 10:33
Volume Analyzed: 1.00 Liter

CAS #	COMPOUND	RESULT (UG/M ³)	DETECTION LIMIT (UG/M ³)	RESULT (PPB)	DETECTION LIMIT (PPB)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	ND	5.0	ND	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	ND	5.0	ND	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	ND	5.0	ND	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	ND	5.0	ND	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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PERFORMANCE ANALYTICAL INC.

Method
Blank

for 5-21-92

RESULTS OF ANALYSIS

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: N/A

PAI Sample ID: PAI Method Blank

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: N/A
Date Analyzed: 05/21/92
Time Analyzed: 7:54
Volume Analyzed: 1.00 Liter

CAS #	COMPOUND	RESULT (UG/M ³)	DETECTION LIMIT (UG/M ³)	RESULT (PPB)	DETECTION LIMIT (PPB)
74-87-3	CHLOROMETHANE	ND	5.0	ND	2.4
75-01-4	VINYL CHLORIDE	ND	5.0	ND	2.0
75-00-3	CHLOROETHANE	ND	5.0	ND	1.9
74-83-9	BROMOMETHANE	ND	5.0	ND	1.3
67-64-1	ACETONE	ND	10	ND	4.2
75-69-4	TRICHLOROFLUOROMETHANE	ND	5.0	ND	0.90
75-35-4	1,1-DICHLOROETHENE	ND	5.0	ND	1.3
75-09-2	METHYLENE CHLORIDE	ND	5.0	ND	1.5
75-15-0	CARBON DISULFIDE	ND	5.0	ND	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	ND	5.0	ND	0.66
156-60-5	TRANS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
156-59-2	CIS-1,2-DICHLOROETHENE	ND	5.0	ND	1.3
75-34-3	1,1-DICHLOROETHANE	ND	5.0	ND	1.2
108-05-4	VINYL ACETATE	ND	10	ND	2.8
78-93-3	2-BUTANONE	ND	10	ND	3.4
67-66-3	CHLOROFORM	ND	5.0	ND	1.0
107-06-2	1,2-DICHLOROETHANE	ND	5.0	ND	1.2
71-55-6	1,1,1-TRICHLOROETHANE	ND	5.0	ND	0.93
71-43-2	BENZENE	ND	5.0	ND	1.6
56-23-5	CARBON TETRACHLORIDE	ND	5.0	ND	0.80
78-87-5	1,2-DICHLOROPROPANE	ND	5.0	ND	1.1
75-27-4	BROMODICHLOROMETHANE	ND	5.0	ND	0.75
79-01-6	TRICHLOROETHENE	ND	5.0	ND	0.94
10061-01-5	CIS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



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Method
Blank
for 5-21-92

PERFORMANCE ANALYTICAL INC.

RESULTS OF ANALYSIS (Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Sample ID: N/A

PAI Sample ID: PAI Method Blank

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: N/A
Date Analyzed: 05/21/92
Time Analyzed: 7:54
Volume Analyzed: 1.00 Liter

CAS #	COMPOUND	RESULT (UG/M ³)	DETECTION LIMIT (UG/M ³)	RESULT (PPB)	DETECTION LIMIT (PPB)
108-10-1	4-METHYL-2-PENTANONE	ND	10	ND	2.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ND	5.0	ND	1.1
79-00-5	1,1,2-TRICHLOROETHANE	ND	5.0	ND	0.93
108-88-3	TOLUENE	ND	5.0	ND	1.3
124-48-1	DIBROMOCHLOROMETHANE	ND	5.0	ND	0.59
119-78-6	2-HEXANONE	ND	10	ND	2.4
106-93-4	1,2-DIBROMOETHANE	ND	5.0	ND	0.65
127-18-4	TETRACHLOROETHENE	ND	5.0	ND	0.75
108-90-7	CHLOROBENZENE	ND	5.0	ND	1.1
100-41-4	ETHYLBENZENE	ND	5.0	ND	1.2
75-25-2	BROMOFORM	ND	5.0	ND	0.49
100-42-5	STYRENE	ND	5.0	ND	1.2
1330-20-7	m- & p-XYLENES	ND	5.0	ND	1.2
95-47-6	o-XYLENE	ND	5.0	ND	1.2
79-34-5	1,1,2,2-TETRACHLOROETHANE	ND	5.0	ND	0.74
541-73-1	1,3-DICHLOROBENZENE	ND	5.0	ND	0.84
106-46-7	1,4-DICHLOROBENZENE	ND	5.0	ND	0.84
95-50-1	1,2-DICHLOROBENZENE	ND	5.0	ND	0.84

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



Performance Analytical Inc.
Environmental Testing and Consulting

PERFORMANCE ANALYTICAL INC.

SURROGATE SPIKE RECOVERY RESULTS

Client: Errol L. Montgomery & Associates, Inc.

Client Job ID: 662-F

PAI Job ID: 4178

Test Code: GC/MS Mod. EPA TO-14
Instrument ID: Finnigan 4500C/Tekmar 5010
Analyst: C. Parnell/C. Casteel
Verified by: Michael Tuday

Matrix: Tedlar Bags
Date Received: 05/20/92
Date Analyzed: 05/20-21/92
Volume Analyzed: 1.00 & 0.0010 Liter

CLIENT SAMPLE ID	PAI SAMPLE ID	PERCENT RECOVERY		
		1,2-DICHLORO-ETHANE-d4	TOLUENE-d8	BROMOFLUORO-BENZENE
N/A (05/20/92)	METHOD BLANK	95.8	99.2	101
N/A (05/21/92)	METHOD BLANK	98.7	97.7	111
03 002699 (05/19/92)	9202098	99.6	102	98.9
03 002700 (05/19/92)	9202099	101	100	103
03 002700 (05/19/92)	LAB DUPLICATE	100	100	101
03 002701 (05/19/92)	9202100	101	102	100
03 002702 (05/19/92)	9202101	101	101	98.9
03 002703 (05/19/92)	9202102	100	102	98.6
03 002704 (05/19/92)	9202103	102	98.6	111
03 002705 (05/19/92)	9202104	99.3	96.8	114
03 002706 (05/19/92)	9202105	99.3	96.5	110
03 002707 (05/19/92)	9202106	97.4	97.5	111
03 002708 (05/19/92)	9202107	98.1	99.2	108
03 002709 (05/19/92)	9202108	99.1	99.1	103



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PERFORMANCE ANALYTICAL INC.

RESULTS OF QCCS

Client: Errol L. Montgomery & Associates, Inc.

Client Project ID: 662-F

PAI Project ID: 4178

Test Code: GC/MS Mod. EPA TO-14
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010
Verified by: Michael Taday

Matrix: Tedlar Bag
Date Received: N/A
Date Analyzed: 05/20/92
Volume Analyzed: 0.0010 Liter

CAS #	COMPOUND	AMT. SPIKED	AMT. RECOVERED	% DIF.
71-43-2	BENZENE	156	142	9.0
108-88-3	TOLUENE	189	179	5.3
100-41-4	ETHYLBENZENE	224	218	2.7
1330-20-7	m- & p-XYLENES	452	427	5.5
95-47-6	o-XYLENE	224	223	0.45



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PERFORMANCE ANALYTICAL INC.

RESULTS OF INITIAL CALIBRATION

Client: Errol L. Montgomery & Associates, Inc.

Client Project ID: 662-F

Test Code: GC/MS Mod. EPA TO-14
Instrument ID: Finnigan 4500C/Tekmar 5010
Analyst: Chris Parnell
Verified By: Michael Tuday

Matrix: Tedlar Bags
Date Received: N/A
Date Analyzed: 05/15/92
Volume Analyzed: N/A

CAS #	COMPOUND	RRF 1	RRF 2	RRF 3	AVE RRF	% RSD
74-87-3	CHLOROMETHANE	0.324	0.387	0.467	0.392	18.2
75-01-4	VINYL CHLORIDE	1.782	1.733	1.807	1.774	2.1
75-00-3	CHLOROETHANE	1.214	1.222	1.210	1.215	0.5
74-83-9	BROMOMETHANE	1.418	1.332	1.072	1.274	14.1
67-64-1	ACETONE	0.998	0.961	0.944	0.967	2.9
75-69-4	TRICHLOROFLUOROMETHANE	1.922	1.867	1.797	1.862	3.4
75-09-2	METHYLENE CHLORIDE	1.706	1.618	1.550	1.624	4.8
75-15-0	CARBON DISULFIDE	5.398	5.168	4.718	5.094	6.8
156-60-5	TRANS-1,2-DICHLOROETHENE	2.584	2.448	2.395	2.475	3.9
156-59-2	CIS-1,2-DICHLOROETHENE	2.266	2.116	1.987	2.123	6.6
75-34-3	1,1-DICHLOROETHANE	3.224	3.000	2.935	3.053	5.0
108-05-4	VINYL ACETATE	5.568	5.552	5.069	5.396	5.3
78-93-3	2-BUTANONE	5.936	5.485	5.123	5.514	7.4
67-66-3	CHLOROFORM	2.730	2.484	2.340	2.518	7.8
107-06-3	1,2-DICHLOROETHANE	1.588	1.485	1.335	1.469	8.7
71-55-6	1,1,1-TRICHLOROETHANE	0.390	0.377	0.355	0.374	4.7
71-43-2	BENZENE	1.080	1.024	0.974	1.026	5.2
56-23-5	CARBON TETRACHLORIDE	0.312	0.306	0.275	0.297	6.7
78-87-5	1,2-DICHLOROPROPANE	0.418	0.389	0.359	0.388	7.5
75-27-4	BROMODICHLOROMETHANE	0.528	0.469	0.426	0.474	10.8
10061-01-5	CIS-1,3-DICHLOROPROPENE	0.470	0.432	0.389	0.430	9.4

RRF # - Relative Response Factor
AVE RRF - Average Relative Response Factor
% RSD - Percent Relative Standard Deviation



Performance Analytical Inc.
Environmental Testing and Consulting

PERFORMANCE ANALYTICAL INC.

RESULTS OF INITIAL CALIBRATION
(Continued)

Client: Errol L. Montgomery & Associates, Inc.

Client Project ID: 662-F

Test Code: GC/MS Mod. EPA TO-14
Instrument ID: Finnigan 4500C/Tekmar 5010
Analyst: Chris Parnell
Verified By: Michael Tuday

Matrix: Tedlar Bags
Date Received: N/A
Date Analyzed: 05/15/92
Volume Analyzed: N/A

CAS #	COMPOUND	RRF 1	RRF 2	RRF 3	AVE RRF	% RSD
108-10-1	4-METHYL-2-PENTANONE	1.100	0.927	0.850	0.959	13.3
10061-02-6	TRANS-1,3-DICHLOROPROPENE	0.612	0.549	0.497	0.552	10.4
79-00-5	1,1,2-TRICHLOROETHANE	0.362	0.298	0.259	0.306	17.0
108-88-3	TOLUENE	1.448	1.289	1.407	1.381	6.0
124-48-1	CHLORODIBROMOMETHANE	0.400	0.349	0.358	0.369	7.4
119-78-6	2-HEXANONE	1.204	0.988	1.108	1.100	9.8
106-93-4	1,2-DIBROMOETHANE	0.564	0.483	0.516	0.521	7.8
127-18-4	TETRACHLOROETHENE	0.422	0.378	0.413	0.404	5.8
108-90-7	CHLOROBENZENE	0.982	0.835	0.854	0.890	9.0
100-41-4	ETHYLBENZENE	0.496	0.416	0.416	0.442	10.4
75-25-2	BROMOFORM	0.378	0.312	0.305	0.331	12.1
100-42-5	STYRENE	0.902	0.730	0.725	0.785	12.8
1330-20-7	M- & P-XYLENES	1.202	0.997	1.002	1.067	11.0
95-47-6	O-XYLENE	1.092	0.895	0.847	0.944	13.7
79-34-5	1,1,2,2-TETRACHLOROETHANE	0.404	0.303	0.298	0.335	17.9
541-34-5	1,3-DICHLOROBENZENE	0.424	0.297	0.269	0.330	25.0
106-73-1	1,4-DICHLOROBENZENE	0.380	0.298	0.265	0.314	18.8
95-50-1	1,2-DICHLOROBENZENE	0.332	0.235	0.191	0.252	28.5

RRF # - Relative Response Factor
AVE RRF - Average Relative Response Factor
% RSD - Percent Relative Standard Deviation



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Analyst: Chris Parnell
Verified By: Michael Taday

Matrix: Tedlar Bags
Date Received: N/A
Date Analyzed: 05/15/92 & 05/21/92*
Volume Analyzed: N/A

CAS #	COMPOUND	RRF 1	RRF 2	RRF 3	RRF 4*	AVE RRF	% RSD
75-35-4	1,1-Dichloroethene	1.634	1.528	1.531	1.387	1.520	6.7
76-13-1	Trichlorotrifluoroethane	1.840	1.754	1.634	1.455	1.671	10.0
79-01-6	Trichloroethene	0.370	0.339	0.330	0.345	0.346	5.0

RRF # - Relative Response Factor
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PERFORMANCE ANALYTICAL INC.

RESULTS OF CONTINUING CALIBRATION

Client: Errol L. Montgomery & Associates, Inc.

Client Project ID: 662-F

Test Code: GC/MS Mod. EPA TO-14
Instrument ID: Finnigan 4500C/Tekmar 5010
Analyst: Chris Parnell
Verified By: Michael Taday

Matrix: Tedlar Bags
Date Received: N/A
Date Analyzed: 05/20/92
Volume Analyzed: N/A

CAS #	COMPOUND	AVE RRF	RRF	% D
74-87-3	CHLOROMETHANE	0.392	0.428	9.2
75-01-4	VINYL CHLORIDE	1.774	1.686	5.0
75-00-3	CHLOROETHANE	1.215	1.182	2.7
74-83-9	BROMOMETHANE	1.274	1.188	6.8
67-64-1	ACETONE	0.967	0.911	5.8
75-69-4	TRICHLOROFLUOROMETHANE	1.862	1.796	3.5
75-35-4	1,1-DICHLOROETHENE	1.520	1.467	3.5
75-09-2	METHYLENE CHLORIDE	1.624	1.541	5.1
75-15-0	CARBON DISULFIDE	5.094	5.011	1.6
76-13-1	TRICHLOROTRIFLUOROETHANE	1.671	1.670	0.1
156-60-5	TRANS-1,2-DICHLOROETHENE	2.475	2.366	4.4
156-59-2	CIS-1,2-DICHLOROETHENE	2.123	2.049	3.5
75-34-3	1,1-DICHLOROETHANE	3.053	2.830	7.3
108-05-4	VINYL ACETATE	5.396	4.921	8.8
78-93-3	2-BUTANONE	5.514	5.170	6.2
67-66-3	CHLOROFORM	2.518	2.405	4.5
107-06-3	1,2-DICHLOROETHANE	1.469	1.425	3.0
71-55-6	1,1,1-TRICHLOROETHANE	0.374	0.357	4.5
71-43-2	BENZENE	1.026	1.004	2.1
56-23-5	CARBON TETRACHLORIDE	0.297	0.297	0.0
78-87-5	1,2-DICHLOROPROPANE	0.388	0.381	1.8
75-27-4	BROMODICHLOROMETHANE	0.474	0.459	3.2
79-01-6	TRICHLOROETHENE	0.346	0.338	2.3
10061-01-5	CIS-1,3-DICHLOROPROPENE	0.430	0.426	0.9

RRF - Relative Response Factor
AVE RRF - Average Relative Response Factor from Initial Calibration of 05/15/92
% D - Percent Difference



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RESULTS OF CONTINUING CALIBRATION
(Continued)

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Client Project ID: 662-F

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Instrument ID: Finnigan 4500C/Tekmar 5010
Analyst: Chris Parnell
Verified By: Michael Tuday

Matrix: Tedlar Bags
Date Received: N/A
Date Analyzed: 05/20/92
Volume Analyzed: N/A

CAS #	COMPOUND	AVE RRF	RRF	% D
108-10-1	4-METHYL-2-PENTANONE	0.959	0.930	3.0
10061-02-6	TRANS-1,3-DICHLOROPROPENE	0.552	0.545	1.3
79-00-5	1,1,2-TRICHLOROETHANE	0.306	0.304	0.7
108-88-3	TOLUENE	1.381	1.299	5.9
124-48-1	CHLORODIBROMOMETHANE	0.369	0.362	1.9
119-78-6	2-HEXANONE	1.100	0.992	9.8
106-93-4	1,2-DIBROMOETHANE	0.521	0.498	4.4
127-18-4	TETRACHLOROETHENE	0.404	0.390	3.5
108-90-7	CHLOROBENZENE	0.890	0.890	0.0
100-41-4	ETHYLBENZENE	0.442	0.443	0.2
75-25-2	BROMOFORM	0.331	0.357	7.9
100-42-5	STYRENE	0.785	0.828	5.5
1330-20-7	M- & P-XYLENES	1.067	1.076	0.8
95-47-6	O-XYLENE	0.944	0.987	4.6
79-34-5	1,1,2,2-TETRACHLOROETHANE	0.335	0.374	11.6
541-34-5	1,3-DICHLOROBENZENE	0.330	0.380	15.2
106-73-1	1,4-DICHLOROBENZENE	0.314	0.373	18.8
95-50-1	1,2-DICHLOROBENZENE	0.252	0.269	6.7

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RESULTS OF CONTINUING CALIBRATION

Client: Errol L. Montgomery & Associates, Inc.

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Instrument ID: Finnigan 4500C/Tekmar 5010
Analyst: Chris Parnell
Verified By: Michael Taday

Matrix: Tedlar Bags
Date Received: N/A
Date Analyzed: 05/21/92
Volume Analyzed: N/A

CAS #	COMPOUND	AVE RRF	RRF	% D
74-87-3	CHLOROMETHANE	0.392	0.406	3.6
75-01-4	VINYL CHLORIDE	1.774	1.700	4.2
75-00-3	CHLOROETHANE	1.215	1.197	1.5
74-83-9	BROMOMETHANE	1.274	1.275	0.1
67-64-1	ACETONE	0.967	0.907	6.2
75-69-4	TRICHLOROFLUOROMETHANE	1.862	1.785	4.1
75-35-4	1,1-DICHLOROETHENE	1.520	1.492	1.8
75-09-2	METHYLENE CHLORIDE	1.624	1.567	3.5
75-15-0	CARBON DISULFIDE	5.094	5.071	0.5
76-13-1	TRICHLOROTRIFLUOROETHANE	1.671	1.686	0.9
156-60-5	TRANS-1,2-DICHLOROETHENE	2.475	2.386	3.6
156-59-2	CIS-1,2-DICHLOROETHENE	2.123	2.059	3.0
75-34-3	1,1-DICHLOROETHANE	3.053	2.897	5.1
108-05-4	VINYL ACETATE	5.396	5.262	2.5
78-93-3	2-BUTANONE	5.514	5.226	5.2
67-66-3	CHLOROFORM	2.518	2.391	5.0
107-06-3	1,2-DICHLOROETHANE	1.469	1.349	8.2
71-55-6	1,1,1-TRICHLOROETHANE	0.374	0.352	5.9
71-43-2	BENZENE	1.026	1.006	1.9
56-23-5	CARBON TETRACHLORIDE	0.297	0.297	0.0
78-87-5	1,2-DICHLOROPROPANE	0.388	0.377	2.8
75-27-4	BROMODICHLOROMETHANE	0.474	0.449	5.3
79-01-6	TRICHLOROETHENE	0.346	0.334	3.5
10061-01-5	CIS-1,3-DICHLOROPROPENE	0.430	0.417	3.0

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Volume Analyzed: N/A

CAS #	COMPOUND	AVE RRF	RRF	% D
108-10-1	4-METHYL-2-PENTANONE	0.959	0.898	6.4
10061-02-6	TRANS-1,3-DICHLOROPROPENE	0.552	0.513	7.1
79-00-5	1,1,2-TRICHLOROETHANE	0.306	0.291	4.9
108-88-3	TOLUENE	1.381	1.310	5.1
124-48-1	CHLORODIBROMOMETHANE	0.369	0.355	3.8
119-78-6	2-HEXANONE	1.100	0.948	13.8
106-93-4	1,2-DIBROMOETHANE	0.521	0.488	6.3
127-18-4	TETRACHLOROETHENE	0.404	0.389	3.7
108-90-7	CHLOROBENZENE	0.890	0.870	2.2
100-41-4	ETHYLBENZENE	0.442	0.430	2.7
75-25-2	BROMOFORM	0.331	0.326	1.5
100-42-5	STYRENE	0.785	0.759	3.3
1330-20-7	M- & P-XYLENES	1.067	1.029	3.6
95-47-6	O-XYLENE	0.944	0.931	1.4
79-34-5	1,1,2,2-TETRACHLOROETHANE	0.335	0.332	0.9
541-34-5	1,3-DICHLOROBENZENE	0.330	0.290	12.1
106-73-1	1,4-DICHLOROBENZENE	0.314	0.284	10.0
95-50-1	1,2-DICHLOROBENZENE	0.252	0.216	14.3

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