

ALTA GEOSCIENCES, Inc.

Environmental & Geotechnical Solutions

September 10, 2001

Mr. Yoshiro Tokiwa
US EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105

Re: Groundwater Monitoring
Westinghouse Emeryville Site, Emeryville, California

Dear Mr. Tokiwa:

Enclosed are two copies of the 2000 Groundwater Sampling and Analysis Report for the Westinghouse Emeryville Site in Emeryville, California. This report is submitted on behalf of Viacom Inc. (successor to Westinghouse Electric Corporation).

If you have any questions, please feel free to contact me at your earliest convenience.

Sincerely,
ALTA Geosciences, Inc.



Alex Tula, R.G.
Principal Consultant

Enclosure: 2000 Groundwater Sampling and Analysis Report

cc: Mr. Richard K. Smith – Viacom, Inc.
Ms. Susan Hugo – Alameda County Health Department

ALTA GEOSCIENCES, Inc.

Environmental & Geotechnical Solutions

SEP 19 2001

2001 GROUNDWATER SAMPLING AND ANALYSIS REPORT

**Westinghouse/Viacom Emeryville Site
Emeryville, California**

June 2001

Prepared for:
Viacom Corporation

TABLE OF CONTENTS

Section	Page
1.0 INTRODUCTION	1-1
1.1 Purpose And Scope	1-1
1.2 Organization Of The Report	1-2
2.0 SITE BACKGROUND AND PHYSICAL SETTING	2-1
2.1 Site Location And Description	2-1
2.2 History Of Site Activities	2-2
2.3 Well Construction	2-3
2.4 Site Inspections	
3.0 MAY 2001 GROUNDWATER SAMPLING AND ANALYSIS	3-1
3.1 Groundwater Monitoring Levels	3-1
3.2 Sampling Procedures	3-1
3.3 Analytical Procedures	3-3
3.4 Analytical Results	3-2
3.5 Quality Assurance/Quality Control	3-3
4.0 CONCLUSIONS	4-1
5.0 REFERENCES	5-1

Appendices

APPENDIX A LABORATORY ANALYSIS CERTIFICATES AND
 CUSTODY FORMS

LIST OF TABLES

Table 3-1	Groundwater Levels (May 2001)
Table 3-2	Groundwater Elevation Data
Table 3-3	Groundwater Field Parameters
Table 3-4	Analytical Results -- Deep Wells
Table 3-5	Analytical Results -- Shallow Wells

LIST OF FIGURES

Figure 2-1	SITE LOCATION MAP
Figure 3-1	GROUNDWATER CONTOURS -- SHALLOW MONITORING WELLS
Figure 3-2	GROUNDWATER CONTOURS -- DEEP MONITORING WELLS

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

This report presents the results of the May 2001 annual groundwater monitoring event for the Westinghouse Emeryville Site (Site), located in Emeryville, California. This report has been prepared by Alta Geosciences, Inc., on behalf of Viacom Corporation (formerly CBS and Westinghouse Electric Corporation). Monitoring is required by the Second Amendment to the Consent Agreement and Final Order between Westinghouse and the U.S. Environmental Protection Agency (USEPA), Region 9, dated August 16, 1985. Groundwater monitoring is required only for Polychlorinated Biphenyls (PCBs), for the purpose of assessing potential PCB impacts to Site Groundwater.

Staff from ALTA Geosciences, Inc. performed field work for this event on May 12, 13, and 14, 2001. Groundwater elevations were determined in eighteen wells and piezometers, and samples were collected from fourteen wells. Analytical testing was performed on these samples for PCBs at a California Certified Testing Laboratory. Data analysis and production of this report were under the direct supervision of an ALTA Geosciences, Inc. Engineering Geologist.

1.2 ORGANIZATION OF REPORT

This report presents Site information and background data in sufficient detail to identify the project and place the monitoring work in perspective. Previous groundwater monitoring work was completed by Engineering Science, Inc. from April 1986 to February 1990, EMCON from March 1991 to May 1996 and ALTA Geosciences, Inc. from April 1997 to the present. Groundwater elevation data and analytical data for PCBs from this prior work has been retained in summary tables in this report, and updated with the July 1999 data developed by ALTA Geosciences, Inc. Groundwater elevations were analyzed to develop groundwater contour maps for both shallow and deep wells. Groundwater contour maps are presented as Figures 3-1 and 3-2. The Appendices present copies of field and analytical data, as well as a quality control analysis of the analytical data.

2.0 SITE BACKGROUND AND PHYSICAL SETTING

2.1 SITE LOCATION AND DESCRIPTION

The project is located at 5899 Peladeau Street in the City of Emeryville, California, on the east side of the San Francisco Bay (Figure 2-1, Site Location Map). The portion of the Westinghouse/Viacom Emeryville property in which groundwater monitoring is completed is about 6 acres, in the NE portion of the property. The subject area is 40 percent covered with high-rise buildings, and 50 percent covered with asphalt concrete (streets and an engineered cap, see below). Remaining portions of the site are landscaped, undeveloped, or under construction and covered with gravel. The site was formerly fenced on all sides with a 6-foot high steel chainlink fence, however, following construction of surrounding features and paving of the TSCA Cell, fencing is only present on the north and west sides of the TSCA landfill.

2.2 HISTORY OF SITE ACTIVITIES

This property was formerly the site of an electrical apparatus service facility, which serviced and manufactured transformers and other electrical equipment in addition to fulfilling administrative and engineering functions for their service district. Westinghouse ceased using the facility for work on electrical apparatus in 1982 and stopped using the facility for all work in 1992. Original buildings on the Site were demolished and for several years only concrete floor slabs and foundations, plus outside pavements remained from the original facility. In approximately 1998 years ago, work started on several new buildings, which now occupy the former Westinghouse facility site.

Some of the manufacturing and service functions at the Westinghouse facility involved handling, storing, and/or using fluids containing or impacted with Polychlorinated Biphenyls (PCBs), volatile organic compounds (VOCs), hydrocarbon products such as gasoline and diesel, and mineral or hydraulic oils. Investigations conducted on the Site identified the above compounds as present in the groundwater and in some soils on the Site.

In 1984, WEC entered into a Consent Agreement and Final Order with the U.S. Environmental Protection Agency (EPA), Region 9 regarding the Site. As part of this Order, a slurry wall was constructed in 1985 in the northwest portion of the property to limit the lateral migration of impacted groundwater beneath the Site. PCB-impacted soil from areas surrounding the containment cell were consolidated into the cell, and an engineered cap of geomembrane and asphalt concrete was placed over the top.

At the request of the California Regional Water Quality Control Board, a site specific Baseline Human Health Risk Assessment (HHRA, SOMA, 1996) was performed for the former Westinghouse facility site east of the capped area and west of Peladeau Street. This facility area extends south to Powell Street. Although this assessment focussed on the adjacent portions of the facility, the groundwater fate and transport modeling included the capped area. The groundwater fate and transport modeling showed no significant contaminants of concern to be migrating from the capped area. Based on the results of this HHRA, a soil remediation for PCBs was performed in the former service yard area at the north end of the former facility on the northeast side of the capped area (see Figure 3-1). The results of this soil remediation are summarized in *Completion Report, Site Remediation, Westinghouse Emeryville Site, Emeryville, CA.* (ALTA Geosciences, Inc. (ALTA) 1996). Following approval by the RWQCB, the parcels encompassing the former facility and the service yard were sold to a land developer (the capped area was retained by CBS/Viacom Corp.).

In 1998 through 2001, two multistory office buildings were being built on the former Westinghouse facility site which had been sold (east of the capped area and west of Peladeau Street and south to Powell Street). Parking lot improvements including earthwork and paving were being constructed in the Summer of 1999. This included repaving the TSCA cap with 4-8 inches of asphalt concrete and the extension of Landregen Street northward through the Site. After these paving operations, well boxes had to be raised, and the well piping extended to allow access. In 2000, portions of the Heritage Square Parking Lots, located east and north of the former Westinghouse service yard, received soils remediation.

2.3 WELL CONSTRUCTION

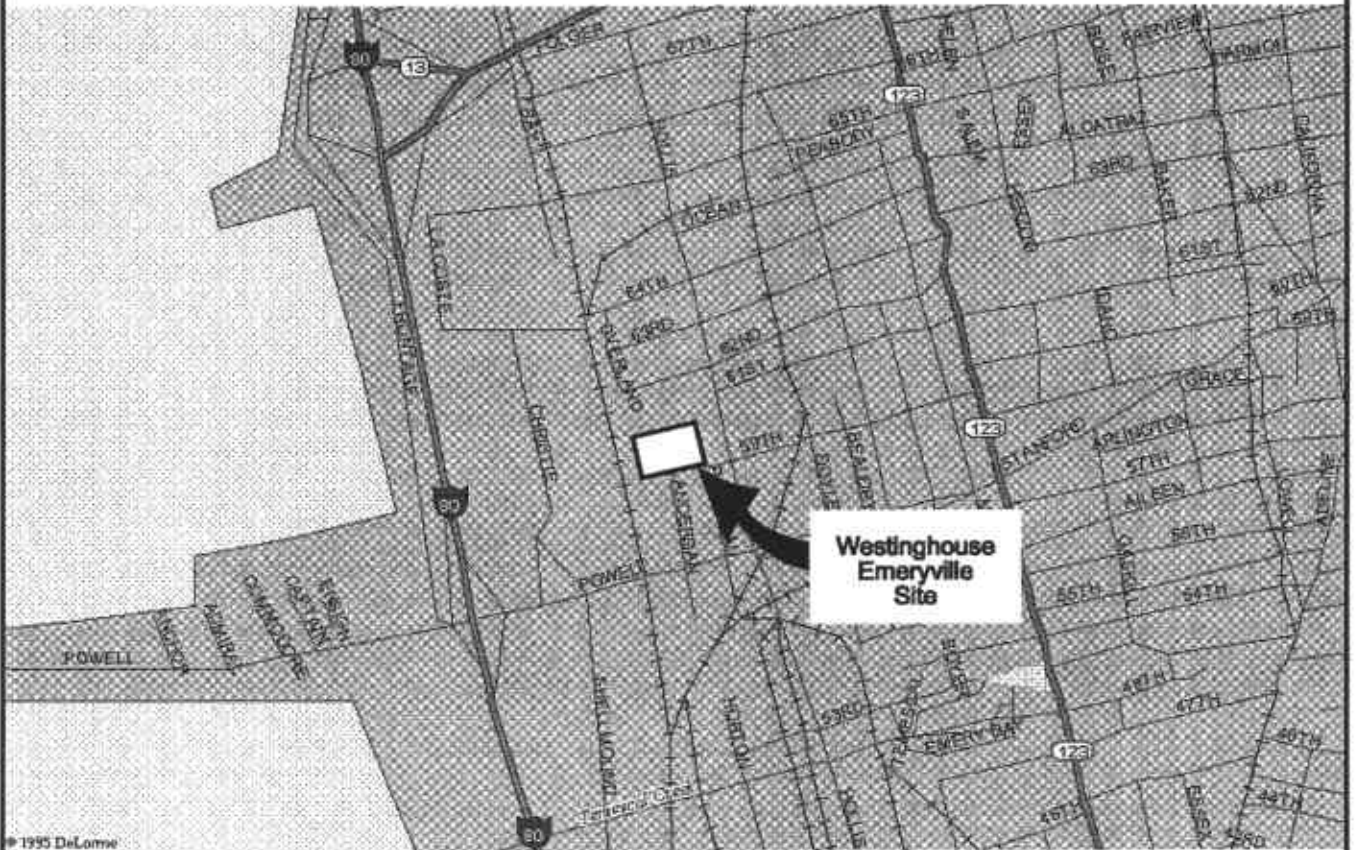
In March 1983 nine wells, which had been constructed as part of an investigation of the Site, were sampled. PCBs were detected in five of these wells and VOCs in eight. These findings, along with related findings regarding PCB impacts to soils on the Site, lead to the construction in September and October 1985 of the slurry wall and engineered cap mentioned above. This construction destroyed all but one of the original monitoring wells, which was subsequently given the designation of D-6, and was in use until 1999 when it was destroyed by building construction. In 1986, as part of the Consent Agreement and Final Order between Westinghouse and the USEPA, a post-construction groundwater monitoring program was initiated with the installation and sampling of thirteen additional wells. The stated purpose of this program was to assess and monitor PCB concentrations in the Site groundwater. Initially monitoring was done by Engineering Science, Inc. every two months. Starting in 1991, monitoring performed by EMCON was done semiannually, and presently, monitoring performed by ALTA Geosciences, Inc. is required annually.

Because of damage during construction on the adjacent AMTRAK station, several wells have had to be repaired, and two wells, S-2 and D-2 had to be abandoned and replaced with S-2R and D-2R. At present the monitoring well network contains eight

shallow wells (S-1, S-2R, and S-3 through S-8) which are screened approximately 9.5 to 24.5 feet below the ground surface. Also included in the monitoring network are six deep wells (D-1, D-2R, and D-3 through D-6), which are screened approximately between 25 and 40 feet below the surface. Two shallow and two deep piezometers are located within the slurry wall/capped area and are monitored for water depth only. All wells and piezometers are constructed with 2-inch diameter PVC casings. The surface completions vary because of construction at different times and because of differing local site conditions. Some wells have rectangular steel boxes approximately 2-1/2 feet tall, and some wells have flush completions and metal lids (especially in paved areas). The original D-6 and S-6 wells were destroyed by construction activities, probably sometime in 1998 or 1999. These were replaced in May 2001.

2.4 SITE INSPECTIONS

A site inspection was performed in May 2001, in conjunction with the groundwater monitoring activities. Site fencing on the north, south, and west sides of the Site was in place and in good condition. However, access to the capped area is no longer restricted to the public. The TSCA cell pavement is in excellent condition. The area is heavily used for vehicle parking. Work on the new office building located on the old Westinghouse building site southeast of the TSCA cell was finished in 2000. The portion of the old Westinghouse building (slab) located between 59th Street and the north service yard was under construction as another office structure, and was nearly finished outside in May 2001.



© 1995 DeLorme

Westinghouse Emeryville Site

LOCATION MAP

FIGURE 2-1

ALTA Geosciences, Inc.

3.0

MAY 2001 GROUNDWATER SAMPLING AND ANALYSIS

3.1 GROUNDWATER MONITORING LEVELS – MAY 2001

The depth to groundwater in each well was measured to the nearest 0.01 foot using an electronic well sounder. The May 2001 water depths and elevations (MSL) are shown in Table 3-1 (located at end of section). Figures 3-1 and 3-2 contain geologically interpreted groundwater contours in those portions of the Site where sufficient information is available to allow interpretation. Contours are intended to be a qualitative expression of the general head potential and direction of groundwater flow beneath the Site. The depth to water in the wells is also shown on these two figures (in parentheses, next to the well numbers).

Table 3-2 (located at end of section) contains historical groundwater elevation data back to April 1986. The latest data was placed near the bottom of the table. Groundwater levels are generally within the range of values previously seen on this site.

3.2 SAMPLING PROCEDURES

Groundwater samples were collected from 14 Site monitoring wells on 11-14 May 2001 for analytical laboratory testing. To obtain a sample representative of the surrounding formation, each well was purged using a low-flow technique to reduce interference associated with turbidity.

Measurement

Fluid level measurements in each monitoring well were completed with a flat tape water level meter to indicate depth to groundwater relative to the top of the well casings. Inspection of the tape after use at each well did not reveal the presence of floating oil.

Sampling

Sampling equipment consisted of a portable 12 Volt submersible pump (ES-40), discharging through Teflon-lined Tygon tubing to the surface. The tubing at the surface was connected to a flow meter to regulate flow at 1.2 L/min. Water analyses during sampling were made using an Oakton pH5, pH meter, Orbeco-Hellige Model 966 Turbidimeter, and Oakton WD-35607 conductivity and temperature meter. All meters were calibrated the days of use.

Wells were purged at a rate of 1/2 liter per minute to 2 liters per minute with the submersible pump set above the screened interval. The rate selected for a given well depended on the amount of screened depth and past records of well performance, with the aim of maintaining submergence of the pump throughout the purging/sampling process. The parameters pH, temperature, conductivity, dissolved

oxygen, and turbidity were monitored and recorded at intervals throughout the purging process.

Prior to groundwater sampling, each well was purged until pH, conductivity and temperature readings stabilized within 10 percent, with a low turbidity, where possible (see Table 3-1). The samples were dispensed directly into laboratory provided containers. Each sample was appropriately labeled and stored on ice at approximately 4°C from the time of collection through the time of delivery to the laboratory, and chain of custody procedures were followed to ensure sample integrity.

Decontamination Procedures

All sampling equipment was decontaminated between each monitoring well location to avoid cross-contamination. The entire pump and hose assembly was immersed in an alconox detergent solution and allowed to circulate for at least 2 minutes. The assembly was then immersed in fresh tap water and run for another 2 minutes.

Purge Water Storage

All purge water was stored in 55 gallon open-top drums at the site. The drums were closed with sealed lids, bolted, and appropriately labeled.

Documentation

Record keeping documentation for the samples included the use of the following:

- Fluid level measurement form; to record depth to fluid in each well.
- Groundwater sampling form; to record method of collection, purge volume, parameters pH, cond, temp., turbidity and general observations.
- Labels to identify individual samples; with well #, project name, date, time, samplers name and type of preservation (if any).
- Chain-of-custody record sheets; to document possession and transfer of samples and specify analysis requested.
- Field report form; Describing general site conditions, well integrity and condition of the asphalt cap.

Field records are included in Table 3-3 and the Chain of Custody forms are filed following the analytical data sheets in Appendix A.

3.3 ANALYTICAL PROCEDURES

Eighteen samples were analyzed by Columbia Analytical Services, Redding, California. These included samples from fourteen wells, an environmental duplicate (identified as D-9), a matrix spike and matrix spike duplicate, and field rinsate blank. All samples were analyzed by EPA Method 8082 for PCBs. Results were reported for seven Aroclors, with a reporting limit of one microgram per liter (ug/L, 1 part per billion) for all Aroclors except 1221, which had a reporting limit of 2 micrograms per liter (EPA, 1986). The method detection limits ranged from 0.03 to 0.2 ug/L. Compound

detections between the method detection limit and the reporting limit were to be 'J' flagged and given an estimated value. No such values were identified.

3.4 ANALYTICAL RESULTS

Testing results indicate no detectable PCBs in all 14 wells. Historical analytical results are shown, along with the latest results on Table 3-4 for the deep wells and Table 3-5 (located at end of section) for the shallow wells. Laboratory analysis certificates are contained in Appendix A

3.5 QUALITY ASSURANCE/QUALITY CONTROL

Laboratory analyses were reviewed for compliance with project Quality Assurance requirements. This review may be summarized as follows:

Holding Times -- all acceptable
Method Blanks -- two analyzed, no PCBs detected
Matrix Spike Recovery -- %R is acceptable
Blank Spike Recovery -- %R is acceptable
Precision -- RPD is acceptable
Completeness -- completeness is acceptable
Surrogate Recovery -- %R acceptable,

The requested detection limits for all aroclors was 0.1µg/L. The laboratory reporting limits for all Aroclors except A1221 was 1.0 µg/L. Aroclor 1221 had a reporting limit of 2.0 µg/L. Detected values between the reporting limits and the method detection limit (0.03 to 0.2 ug/L) were to be reported as 'J' flagged, indicating an estimated value. No such values were identified in the testing.

**Table 3-1
Groundwater Levels In May 2001**

WELL NUMBER	TOC ELEVATION (Feet, MSL)	DEPTH TO WATER (Feet)	WATER ELEVATION (Feet, MSL)
D-1	16.17	5.9	10.27
D-2R	14.45	5.65	8.8
D-3	14.13	6.35	7.78
D-4	15.00	5.46	9.54
D-5	13.32	3.82	9.5
D-6	(*1)	4.29	(*1)
S-1	15.99	7.49	8.5
S-2R	14.46	7.25	7.21
S-3	14.04	6.32	7.72
S-4	15.04	5.44	9.6
S-5	13.36	4.6	8.76
S-6	(*1)	4.48	(*1)
S-7	12.28	5.69	6.59
S-8	15.57	7.15	8.42
P-1	16.59	6.52	10.07
P-2	16.53	6.4	10.13
P-3	15.48	5.27	10.21
P-4	15.30	5.18	10.12

Notes: *1 New well, TOC not yet surveyed; water elevation cannot be calculated.

**Table 3-2
Groundwater Elevation Data (Ft, MSL)¹**

Date	MONITORING WELLS						
	D-1	D-2	D-2R	D-3	D-4	D-5	D-6
04/86	9.19	9.01	-	8.29	10.51	9.72	11.16
06/86	8.98	7.99	-	7.75	9.84	9.37	10.56
08/86	8.75	7.95	-	7.35	9.30	9.25	10.24
10/86	8.82	8.16	-	7.62	9.63	9.30	10.42
12/86	8.47	7.60	-	7.29	9.10	8.94	9.74
02/87	9.09	9.04	-	8.35	10.64	9.61	10.77
04/87	9.20	8.33	-	8.17	10.49	9.62	10.98
06/87	8.73	7.75	-	7.73	9.55	9.19	10.60
08/87	8.59	7.55	-	7.15	9.19	9.12	10.77
10/87	8.47	7.37	-	6.92	9.06	8.99	10.64
12/87	9.10	8.72	-	7.87	10.56	9.57	10.92
02/88	9.38	8.76	-	8.61	10.69	9.71	11.36
04/88	8.64	7.85	-	7.55	9.84	9.13	10.45
06/88	8.69	8.00	-	7.70	9.96	9.26	10.53
08/88	8.57	7.71	-	7.45	9.58	9.05	10.67
10/88	8.36	7.31	-	6.71	8.97	8.91	10.32
12/88	7.50	8.03	-	7.72	10.03	9.17	10.48
02/89	8.82	8.13	-	7.78	10.19	9.21	10.66
04/89	9.08	8.31	-	8.44	10.39	9.60	10.93
06/89	8.64	7.67	-	7.56	9.37	9.11	10.67
08/89	8.42	7.51	-	7.04	8.94	9.17	10.58
10/89	8.57	7.74	-	7.25	9.05	9.12	10.59
12/89	8.01	8.23	-	7.88	10.04	9.56	10.85
02/90	9.15	8.75	-	8.10	10.47	9.72	11.19
03/20/91	9.20	9.33	-	8.03	FW ²	9.67	11.13
04/04/91	9.26	8.32	-	8.16	10.58	9.67	11.21
09/11/91	8.57	7.36	-	6.90	9.13	9.07	10.72
03/16/92	9.42	8.82	-	8.33	10.47	9.91	11.95
09/21/92	8.47	7.28	-	6.66	8.15	8.87	9.83
03/22/93	9.22	8.33	-	8.24	10.00	9.41	11.20
09/21/93	NS ³	NA ⁸	-	7.23	NS	8.98	10.23
05/17/94	4.31	NA	-	7.89	8.07	9.62	11.73
11/15/94	4.41	NA	-	8.25	8.55	9.79	11.93
05/23/95	9.08	NA	8.52	8.18	11.41	9.56	11.62
11/28/95	8.31	NA	8.25	7.07	8.79	8.42	10.10
05/16/96	9.05	NA	9.03	8.03	12.07	9.65	11.07
04/21/97	8.91	NA	8.87	7.88	10.87	9.53	12.02
05/13/98	9.45	NA	9.43	8.53	11.04	10.10	12.26
7/30/99	9.87	NA	8.62	7.58	9.00	9.27	NA ⁸
5/12/01	10.27	NA	8.80	7.78	9.54	9.5	NA ¹⁰
TOC ⁴ Elev.	16.17 ⁵	11.20	14.45 ⁶	14.13 ^{5,9}	15.00 ⁹	13.32 ⁹	13.75

**Table 3-2
Groundwater Elevation Data
(Ft, MSL)¹(Continued)**

Date	Monitoring Wells								
	S-1	S-2	S-2R	S-3	S-4	S-5	S-6	S-7	S-8
04/86	8.88	9.66	-	7.96	10.65	10.28	11.41	9.94	9.70
06/86	7.16	7.54	-	7.52	9.92	9.45	10.58	8.69	9.20
08/86	6.59	6.98	-	7.02	9.36	8.83	10.16	7.54	8.30
10/86	7.23	7.62	-	7.23	9.77	9.56	10.40	8.92	8.66
12/86	6.55	6.38	-	6.89	9.08	8.84	9.83	9.70	8.24
02/87	9.56	9.85	-	7.69	10.78	10.38	11.45	9.73	9.89
04/87	8.08	7.77	-	8.09	10.57	9.90	11.13	9.22	9.98
06/87	6.72	6.78	-	5.17	9.66	9.32	10.89	8.01	8.59
08/87	6.25	6.22	-	6.77	9.32	9.35	11.10	6.77	7.85
10/87	5.84	5.88	-	6.48	9.11	9.25	11.13	6.23	7.52
12/87	8.92	9.17	-	7.94	10.94	10.67	11.69	9.25	9.64
02/88	8.81	8.65	-	8.27	10.73	10.05	11.40	9.60	10.06
04/88	7.07	7.06	-	7.30	9.85	9.33	10.72	8.09	9.19
06/88	7.22	7.19	-	7.64	10.03	9.15	10.74	8.36	9.46
08/88	6.51	6.53	-	7.02	9.48	9.07	10.89	7.03	8.19
10/88	5.98	5.92	-	6.44	8.86	8.67	10.57	6.45	7.67
12/88	7.81	7.35	-	7.51	10.17	9.66	10.73	8.76	9.15
02/89	8.09	7.60	-	7.87	10.31	9.74	10.91	9.21	9.73
04/89	8.30	7.90	-	7.96	10.49	9.93	11.05	9.32	10.12
06/89	6.99	6.97	-	6.23	9.83	9.31	11.04	7.73	8.69
08/89	6.49	6.45	-	6.83	9.30	8.91	10.91	6.81	7.92
10/89	6.80	6.72	-	7.13	9.81	9.61	10.85	8.24	8.63
12/89	8.03	7.53	-	7.60	10.20	9.71	10.96	8.96	9.19
02/90	9.06	8.86	-	7.86	10.77	10.08	11.38	10.05	9.79
03/20/91	9.52	9.78	-	8.17	FW	10.74	12.11	10.11	9.99
04/04/91	8.54	7.83	-	8.00	10.61	10.15	11.27	9.46	9.84
09/11/91	6.12	6.06	-	6.62	9.30	8.90	10.82	7.23	9.02
03/16/92	9.00	8.66	-	8.17	11.06	10.62	12.35	10.08	6.54
09/21/92	5.82	5.68	-	6.30	8.23	8.90	9.77	6.08	4.96
03/22/93	8.68	7.78	-	8.10	10.82	9.22	11.25	9.62	9.61
09/21/93	NS	NA	-	7.01	NS	8.03	10.13	6.28	NS
05/17/94	3.23	NA	-	7.78	8.60	10.13	11.70	7.96	4.69
11/15/94	3.63	NA	-	7.99	9.26	10.77	12.47	8.35	4.83
05/23/95	7.11	NA	7.28	7.78	11.39	9.87	11.60	8.04	9.34
11/28/95	6.18	NA	6.10	7.01	8.93	9.07	10.19	6.04	8.17
05/16/96	8.28	NA	8.54	7.79	12.99	10.80	12.82	8.09	9.96
04/21/97	7.15	NA	7.16	7.72	11.07	10.40	12.25	7.65	9.67
05/13/98	7.79	NA	7.95	8.38	11.2	10.37	12.49	8.07	9.47
7/30/99	8.39	NA	7.33	6.66	9.09	8.66	NA ^B	7.50	8.27
5/12/01	8.50	NA	7.21	7.72	9.60	8.76	NA ¹⁰	6.59	8.42
TOC ⁴ Elev.	15.99 ⁵	10.46	14.46 ⁶	14.04 ⁹	15.04 ⁹	13.36 ⁹	13.77	12.28	15.57

**Table 3-2
Groundwater Elevation Data
(Ft, MSL)¹
(Continued)**

Date	Piezometers			
	P-1	P-2	P-3	P-4
04/86	NR ⁷	NR	NR	NR
06/86	NR	NR	NR	NR
08/86	6.19	6.31	4.86	4.80
10/86	6.48	6.67	5.27	5.23
12/86	7.16	7.15	5.81	5.72
02/87	7.29	7.13	5.94	5.83
04/87	7.35	6.95	6.06	5.57
06/87	8.74	6.79	5.39	5.34
08/87	6.57	6.67	5.21	5.18
10/87	6.84	6.90	5.55	5.45
12/87	7.09	6.94	5.64	5.60
02/88	7.34	7.33	6.26	5.99
04/88	7.13	7.17	5.92	5.86
06/88	6.84	6.87	5.63	5.43
08/88	8.34	6.59	5.27	5.13
10/88	9.19	6.95	5.55	5.49
12/88	7.20	7.21	5.91	5.72
02/89	7.46	7.38	FW	5.67
04/89	7.29	7.14	5.87	5.72
06/89	6.75	6.84	5.46	5.03
08/89	6.51	6.64	5.19	5.16
10/89	6.75	6.94	5.48	5.30
12/89	6.72	6.77	5.49	5.21
02/90	7.15	7.00	5.81	5.82
03/20/91	8.75	8.95	8.95	8.93
04/04/91	8.94	8.97	8.90	9.00
09/11/91	9.53	9.53	9.58	9.54
03/16/92	9.23	9.28	9.23	9.27
09/21/92	9.51	9.46	9.43	9.57
03/22/93	9.47	9.45	9.43	9.47
09/21/93	9.71	9.74	9.77	9.79

**Table 3-2
Groundwater Elevation Data
(Ft, MSL)¹
(Continued)**

Date	Piezometers			
	P-1	P-2	P-3	P-4
05/17/94	10.96	9.99	9.97	10.01
11/15/95	9.47	9.53	9.49	9.62
05/23/95	10.54	10.57	10.55	10.62
11/28/95	9.19	9.18	9.23	9.20
05/16/96	10.76	10.72	10.80	10.82
04/21/97	10.25	10.12	10.28	10.21
05/13/98	11.10	11.10	11.19	11.22
7/30/99	10.54	10.63	10.68	10.62
5/12/01	10.07	10.13	10.21	10.12
TOC ⁴ Elevations	16.59 ⁹	16.53 ⁹	15.48 ⁹	15.30 ⁹
1	ft, MSL = feet relative to mean sea level. All data from April 1986 to February 1990 were taken from the ESI report of February 23, 1990, and were calculated from ESI monitoring well elevations (top of steel casing). Groundwater elevation data beginning with March 1991 were calculated from April 2, 1991, well elevation survey data.			
2	FW = flooded well; water was detected at or above the top of the well casing.			
3	NS = not surveyed.			
4	TOC = top of casing; TOC elevations were surveyed by EMCON on April 2, 1991.			
5	Elevation resurveyed by EMCON on June 14, 1995.			
6	Elevation surveyed by EMCON on June 14, 1995.			
7	NR = not recorded.			
8	NA = not accessible; well covered with concrete.			
9	Area paved in June 1999, well casing extended to allow access; elevation shown is new TOC			
10	New well installed 5/11/01. Casing survey not completed; elevations not available.			

**Table 3-3
Groundwater Field Parameters**

Field Parameters	SAMPLING LOCATION													
	D-1	D-2R	D-3	D-4	D-5	D-6	S-1 (*2)	S-2R	S-3	S-4	S-5	S-6 (*1)	S-7	S-8
pH	7.56	7.12	7.35	7.06	7.30	7.39	7.18	7.13	7.3	6.97	7.04	7.95	6.99	6.91
Temperature (°C)	18.7	18.4	17.8	18.1	17.7	21.5	18.8	17.1	17.8	17.3	15.7	19.5	17.5	17.2
Conductivity (uS)	734	724	990	1009	650	712	9.84	789	1056	907	847	1255	818	830
Turbidity (NTU)	0.95	1.1	3.6	0.4	0.7	5.0	3.8	0.5	0.9	4.5	0.8	12.0	1.1	1.4

***Notes:**

1. New well, because of recent installation and development, plus minimal water, well was difficult to bring to a clear condition.
2. Environmental Sample S-1 enlarged for use as MS/MSD sample.

**Table 3-4
Analytical Results¹
Deep Wells (µg/l)²**

Polychlorinated Biphenyls (PCBs) As Total Aroclors							
Monitoring Wells							
Date	D-1	D-2	D-2R	D-3	D-4	D-5	D-6
04/86	ND ³	ND	-	ND	ND	ND	14.3
06/86	ND	ND	-	ND	ND	ND	1.8
08/86	0.1	ND	-	ND	ND	0.2	6.7
10/86	ND	ND	-	ND	ND	ND	3.2
12/86	ND	ND	-	ND	ND	0.8	8.4
02/87	ND	ND	-	ND	ND	0.5	5.5
04/87	ND	ND	-	ND	0.3	ND	1.9
06/87	ND	ND	-	ND	ND	0.2	6.0
08/87	0.4	ND	-	ND	ND	ND	3.1
10/87	0.1	ND	-	ND	0.2	0.3	4.4
12/87	ND	ND	-	0.1	ND	0.5	1.8
02/88	ND	0.1	-	ND	ND	0.4	0.6
04/88	ND	ND	-	ND	ND	1.9	1.6
06/88	ND	0.1	-	ND	ND	1.5	3.2
08/88	ND	1.5	-	ND	ND	0.7	4.9
10/88	ND	1.8	-	0.3	0.2	31.0	1.4
12/88	ND	0.3	-	0.4	ND	5.2	21.9
02/89	ND	0.3	-	0.3	ND	2.8	8.0
04/89	ND	0.2	-	ND	ND	2.1	8.8
06/89	ND	0.7	-	ND	ND	0.5	3.9
08/89	ND	ND	-	ND	0.2	5.3	4.2
10/89	ND	0.1	-	0.4	ND	2.7	8.4
12/89	ND	0.3	-	ND	ND	3.0	6.7
02/90	ND	0.2	-	0.2	ND	5.0	4.5
03/91	<0.1 ⁴	0.2	-	0.1	<0.1	0.2	1.0
09/91	<0.1	<0.1	-	<0.1	<0.1	<0.2	0.4
03/92	<0.1	<0.1	-	<0.1	<0.1	<0.1	0.2
09/92	<0.1	<0.1	-	<0.1	<0.1	0.2	0.3
03/93	0.1	<0.1	-	<0.1	<0.1	<0.1	0.5
09/93	NS ⁵	NS ⁵	-	<0.1	NS	0.1	0.3
05/94	NA ⁶	NS ⁵	-	<0.1	<0.1	<0.1	0.4
11/94	NA ⁶	NS ⁵	-	<0.1	<0.1	<0.1	0.8
05/95	<0.1	NS ⁵	<0.1	<0.1	0.1	<0.1	<0.1
11/95	<1	NS ⁵	<1	<1	<1	<1	<1
05/96	<0.1	NS ⁵	<0.1	<0.1	<0.1	0.5	<0.1
04/97	<0.1	AB ⁷	<0.1	<0.1	<0.1	<0.1	<0.1
05/98	<0.1	AB ⁷	<0.1	<0.1	<0.1	<0.1	<0.1
07/99	<0.5	AB ⁷	<0.5	<0.5	<0.5	<0.5	NA
05/01 ⁸	<0.5	AB ⁷	<0.5	<0.5	<0.5	<0.5	<0.5

1. All data from April 1986 to February 1990 were taken from the ESI report of February 23, 1990
2. µg/l = micrograms per liter
3. ND = not detected at or above the method reporting limit
4. < = not detected at or above the specified method reporting limit
5. NS = not sampled
6. NA = not accessible.
7. AB = Well abandoned during Amtrak Station construction
8. Laboratory reporting limit was 1.0 ug/l with J flagged values between 0.1 ug/l and 1.0 ug/l

**Table 3-5
Analytical Results¹
Shallow Wells (µg/l)²**

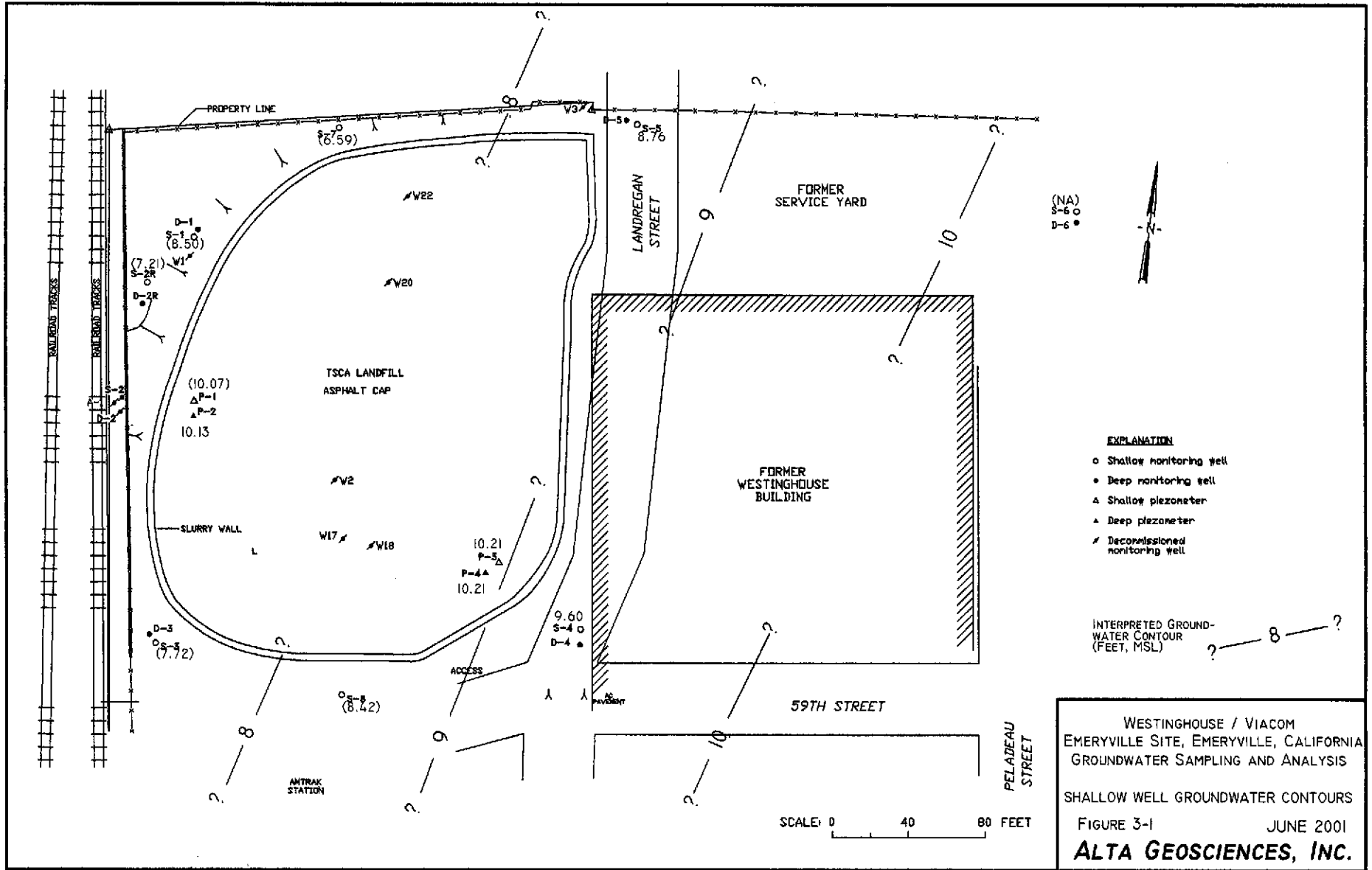
Polychlorinated Biphenyls (PCBs) as Total Aroclors									
Date	Monitoring Wells								
	S-1	S-2	S-2R	S-3	S-4	S-5	S-6	S-7	S-8
04/86	ND ³	ND	-	4.0	ND	ND	ND	ND	ND
06/86	0.8	0.8	-	1.4	0.8	1.9	1.4	1.5	0.7
08/86	0.7	0.2	-	0.1	0.3	0.5	2.7	2.4	0.9
10/86	0.9	0.7	-	0.3	0.3	1.6	2.2	0.5	0.8
12/86	0.8	0.5	-	0.5	0.5	0.7	2.6	2.4	2.3
02/87	0.8	0.3	-	0.3	0.2	0.2	0.1	1.1	0.4
04/87	0.6	0.2	-	0.9	0.3	0.4	1.8	0.4	0.1
06/87	0.3	0.3	-	ND	ND	0.4	1.3	0.3	0.2
08/87	ND	ND	-	ND	ND	0.7	1.2	0.7	ND
10/87	0.2	0.1	-	ND	0.1	0.3	2.4	0.4	ND
12/87	0.3	ND	-	ND	ND	0.5	1.3	0.8	0.3
02/88	0.8	ND	-	ND	0.2	0.5	1.8	6.9	0.5
04/88	0.2	0.2	-	0.2	ND	0.9	2.1	1.6	0.2
06/88	0.2	0.1	-	0.1	ND	5.7	2.1	1.3	0.1
08/88	0.3	ND	-	ND	1.2	1.9	1.2	1.3	ND
10/88	0.4	ND	-	0.3	ND	4.4	0.7	4.0	0.2
12/88	0.3	0.2	-	ND	ND	1.5	6.0	0.4	ND
02/89	0.3	0.2	-	ND	ND	1.7	5.0	1.2	1.1
04/89	0.5	ND	-	0.1	ND	0.8	1.0	1.2	0.2
06/89	0.6	0.2	-	ND	ND	0.3	1.1	0.5	ND
08/89	19.0	0.2	-	0.1	0.2	2.9	4.3	0.6	ND
10/89	0.2	0.2	-	1.5	ND	4.0	1.8	2.7	0.4
12/89	0.3	ND	-	0.6	ND	4.0	2.8	1.9	0.9
02/90	0.6	ND	-	0.5	ND	2.2	1.0	0.9	0.1
03/91	0.6	0.3	-	0.5	0.1	1.0	0.2	3.0	<0.1 ⁴
09/91	1.4	0.3	-	0.6	0.2	1.0	0.2	1.6	<0.1
03/92	0.4	<0.1	-	0.2	<0.1	0.2	0.2	0.4	<1 ⁵
09/92	0.5	0.2	-	<0.1	0.2	0.7	0.4	0.4	<0.1
03/93	<0.1	0.4	-	<0.1	<0.1	0.4	<0.1	0.8	<0.1
09/93	NS ⁶	NS ⁶	-	<0.1	NS	0.3	0.2	0.6	NS
05/94	0.2	NS ⁶	-	<0.1	<0.1	0.2	0.2	0.2	<0.1
11/94	0.1	NS ⁶	-	<0.1	<0.1	0.2	0.2	0.2	<0.1

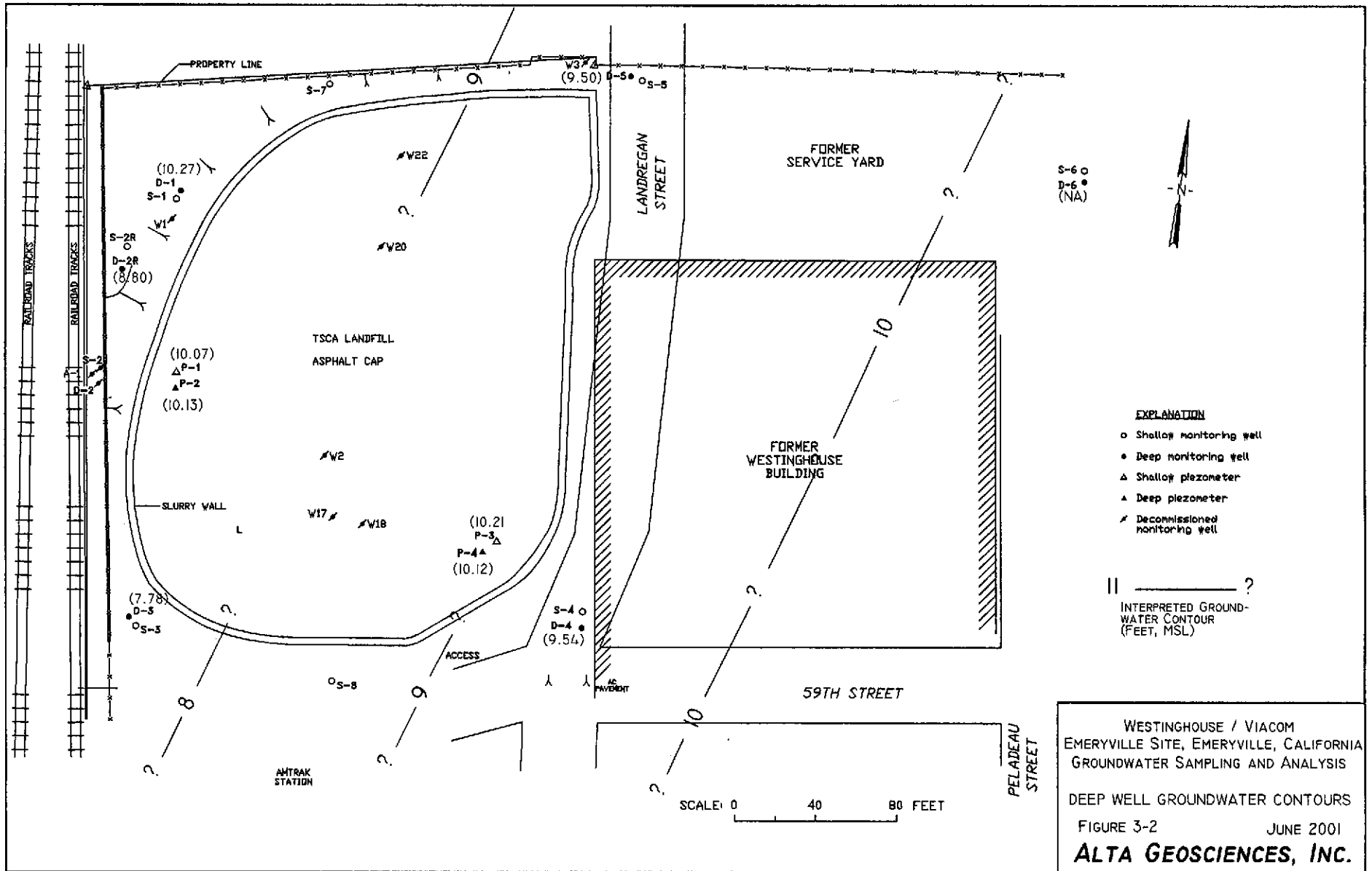
1. All data from April 1986 to February 1990 were taken from the ESI report of February 23, 1990
2. µg/l= micrograms per liter
3. ND = not detected at or above the method reporting limit
4. < = not detected at or above the specified method reporting limit
5. Elevated method reporting limit due to matrix interference
6. NS = not sampled
7. AB = Well abandoned during Amtrak Station construction

**Table 3-5
Analytical Results¹
Shallow Wells (µg/l)²
(Continued)**

Polychlorinated Biphenyls (PCBs) as Total Aroclors									
Date	Monitoring Wells								
	S-1	S-2	S-2R	S-3	S-4	S-5	S-6	S-7	S-8
05/95	0.6	NS ⁶	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	<0.1
11/95	<1	NS ⁶	<1	<1	<1	<1	<1	<1	<1
05/96	<0.1	NS ⁶	<0.1	<0.1	<0.1	0.8	<0.1	<0.1	<0.1
04/97	<0.1	AB ⁷	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
05/98	<0.1	AB ⁷	<0.1	0.13	<0.1	0.13	<0.1	<0.1	<0.1
7/99	<0.5	AB ⁷	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5
5/01 ⁸	<0.5	AB ⁷	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

1. All data from April 1986 to February 1990 were taken from the ESI report of February 23, 1990
2. µg/l= micrograms per liter
3. ND = not detected at or above the method reporting limit
4. < = not detected at or above the specified method reporting limit
5. Elevated method reporting limit due to matrix interference
6. NS = not sampled
7. AB = Well abandoned during Amtrak Station construction
8. Laboratory reporting limit was 1.0 ug/l with J flagged values between 0.1 ug/l and 1.0 ug/l





EXPLANATION

- Shallow monitoring well
- Deep monitoring well
- △ Shallow piezometer
- ▲ Deep piezometer
- ✕ Decommissioned monitoring well
- || ———— ?
INTERPRETED GROUND-WATER CONTOUR (FEET, MSL)

WESTINGHOUSE / VIACOM
EMERYVILLE SITE, EMERYVILLE, CALIFORNIA
GROUNDWATER SAMPLING AND ANALYSIS
DEEP WELL GROUNDWATER CONTOURS
FIGURE 3-2 JUNE 2001
ALTA GEOSCIENCES, INC.

**4.0
CONCLUSION**

Sampling and testing for annual groundwater monitoring at the Westinghouse Emeryville Site were completed in May and June 2001. All samples were non-detect for PCBs. Groundwater levels were determined to be within the historic range of levels for this Site.

Sampling employed low-flow sampling techniques with a submersible pump that greatly reduces the turbidity of the samples collected, compared to bailing or use of higher flow pumps. This approach has been adopted as an approved technique by the USEPA for PCB sampling, and has proven useful for properly characterizing the PCB impacts to groundwater at this and other similar sites.

Two upgradient monitoring wells, D-6 and S-6 which were destroyed by construction in 1998 or 1999, were reinstalled on May 11, 2001 and sampled during the current monitoring event.

5.0

REFERENCES

ALTA Geosciences, Inc. (ALTA) 1996. Completion Report, Site Remediation, Westinghouse Emeryville Site, Emeryville, CA.

EMCON, 1996. May 1996 Semiannual Monitoring For PCBs, former Westinghouse Electric Corporation facility, Emeryville, CA.

Engineering Science, 1986. Groundwater Sampling and Analytical Protocol For Polychlorinated Biphenyls (PCBs) at the Westinghouse Emeryville, CA Site.

SOMA Environmental Engineering, Inc., 1996. Baseline Human Health Risk Assessment For The Former Westinghouse Electric Corporation Facility, 5899 Peladeau Street, Emeryville, California, March 15, 1996.

U.S. Environmental Protection Agency (EPA). 1986. Test Methods for Evaluation of Solid Waste, Vol II: Field Manual Physical/Chemical Methods (SW-846). Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. November 1986.

APPENDIX A
ANALYTICAL TESTING RESULTS



Mr. Richard Quine
Alta Geosciences Inc.
P O Box 492545
Redding, Ca 96049

Columbia Analytical Services Report
Westinghouse Emeryville Site
D0105059/D5059

June 6, 2001

Submitted by:

A handwritten signature in black ink, appearing to read 'Bryan Jones', is written over the printed name.

Bryan Jones
Project Manager/Client Services

This report contains a total of 31 pages.

0001

TABLE OF CONTENTS

CAS Lab Reference No.: D5059

Level II

	Page No.
Cover Page.....	1
Table of Contents.....	2
Organic Data Qualifiers.....	3
Organic Sample ID Qualifiers.....	4
Sample Identification Cross-Reference.....	5
GC PCBs.....	6
Case narrative.....	7
Sample results.....	8
Chain of Custody Documentation.....	28

Organic Data Qualifiers

- A** -- This qualifier indicates that a TIC is a suspected aldol-condensation product
- B** -- This flag is used when the analyte is found in the associated blank as well as the sample. This notation indicates possible blank contamination and suggests that the data user evaluate these compounds and their amounts carefully.
- C** -- The "C" flag indicates the presence of this compound has been confirmed by the GC/MS analysis.
- D** -- This qualifier is used for all the compounds identified in an analysis at a secondary dilution factor. "D" qualifiers are used only for the samples reported at more than one dilution factor.
- E** -- This flag indicates that the value reported exceeds the linear calibration range for that compound. Therefore, the sample should be reanalyzed at the appropriate dilution. The "E" qualified amount is an estimated concentration, and the results of the dilution will be reported on a separate Form I.
- I** -- The qualifier indicates that the reporting limit to the "I" qualifier has been raised. It is used when the chromatographic interference prohibits detection of a compound at a level below the concentration expressed on the Form I.
- J** -- Indicates an estimated value. It is used when the data indicates the presence of a target compound below the reporting limit or the presence of a Tentatively Identified Compound (TIC).
- N** -- This qualifier indicates presumptive evidence of a compound. This flag is only used for Tentatively Identified Compounds (TIC), where the identification is based on a mass spectral library research. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the "N" qualifier is not used.
- P** -- This qualifier is used for target analytes when there is a greater than 40% difference for detected concentrations between the two columns or detectors. The concentration value is reported on Form I and flagged with a "P".
- U** -- Indicates the compound was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that compound. The reporting limit can vary from sample to sample depending on dilution factors or percent moisture adjustments when indicated.

Organic Sample ID Qualifiers

The qualifiers that may be appended to the Lab Sample ID and/or the Client Sample ID for organic analysis are defined below:

- DL** -- Diluted reanalysis. Indicates that the results were determined in an analysis of a secondary dilution of a sample or extract. A digit to indicate multiple dilutions of the sample or extract may follow the "DL" suffix. The results of more than one diluted reanalysis may be reported.
- MS** -- Matrix spike (may be followed by a digit to indicate multiple matrix spikes within a sample set).
- MSD** -- Matrix spike duplicate (may be followed by a digit to indicate multiple matrix spikes within a sample set).
- R** -- Reanalysis. The extract was reanalyzed without re-extraction. The "R" is not used if the sample was also re-extracted. May be followed by a digit to indicate multiple reanalysis of the sample at the same dilution.
- RE** -- Re-extraction analysis. The sample was re-extracted and reanalyzed. May be followed by a digit to indicate multiple re-extracted analysis of the same sample at the same dilution.

Sample ID Cross-reference Table

CAS Lab Sample ID	Client Sample ID	Receive Date	Collect Date	Sample Matrix	Additional Description
FS = Field Sample; MS = Matrix Spike; MSD = Matrix Spike Duplicate; RB = Rinsate Blank					
D5059001	FS S3	05/15/01	05/12/01	11:15 Water	
D5059002	FS D3	05/15/01	05/12/01	12:00 Water	
D5059003	FS S2R	05/15/01	05/12/01	13:10 Water	
D5059004	FS D9	05/15/01	05/12/01	13:40 Water	
D5059005	FS D2R	05/15/01	05/12/01	14:00 Water	
D5059006	FS S1	05/15/01	05/12/01	15:45 Water	
D5059006MS	MS S1MS	05/15/01	05/12/01	15:45 Water	
D5059006MSD	MSD S1MSD	05/15/01	05/12/01	15:45 Water	
D5059007	FS D1	05/15/01	05/12/01	16:30 Water	
D5059008	FS D4	05/15/01	05/13/01	08:10 Water	
D5059009	FS S4	05/15/01	05/13/01	09:15 Water	
D5059010	FS S5	05/15/01	05/13/01	10:25 Water	
D5059011	FS D5	05/15/01	05/13/01	11:00 Water	
D5059012	FS S8	05/15/01	05/13/01	12:25 Water	
D5059013	FS S7	05/15/01	05/13/01	13:30 Water	
D5059014	FS D6	05/15/01	05/13/01	16:40 Water	
D5059015	FS S6	05/15/01	05/13/01	17:30 Water	
D5059016	RB RINSATE	05/15/01	05/13/01	00:00 Water	

The above lab sample ID's and cross reference information apply to samples as received by the laboratory. Modifiers to the lab sample ID may be added for internal tracking purposes. Any modified sample ID will be reflected in the appropriate case narrative only.

**CASE NARRATIVE
GC ORGANOCHLORINE PCBs**

CAS Lab Reference No./SDG: D5059

Project: Westinghouse Emeryville Site

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody included with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHOD

Preparation: SW-846 3520C

Cleanup: none

Analysis: SW-846 8082

IV. PREPARATION

Sample preparation proceeded normally.

V. ANALYSIS

A. Calibration: All acceptance criteria were met.

1. Retention Time Windows: All analytes were within criteria.

B. Blanks: All acceptance criteria were met.

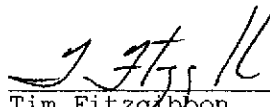
C. Surrogates: Surrogate recovery for Decachlorobiphenyl (DCB) in sample D5059006 was below established laboratory acceptance criteria. DCB recoveries for samples D5059006MS and D5059006MSD are also low but not out. The associated method blanks and laboratory control sample exhibited surrogate recoveries and target analytes within acceptable QC limits. This would indicate a possible matrix effect in the sample.

D. Spikes: All acceptance criteria were met.

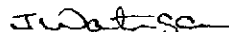
E. Samples: Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Columbia Analytical Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

SIGNED: _____


Tim Fitzgibbon
Analyst III, GC Organics

Reviewer: _____



1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

S3

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059 SDG No.: D5059 Lab Sample ID: D5059001

Matrix: WATER Level: LOW Lab File ID: A0525021

Sample Wt/Vol: 1.050 L Date Received: 05/15/01

Extract Vol: 10 ML Date Extracted: 05/17/01

Column: RTX-CLP Date Analyzed: 05/26/01

Extraction Type: CONTINUOUS Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

D3

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059	SDG No.: D5059	Lab Sample ID: D5059002
Matrix: WATER	Level: LOW	Lab File ID: A0525022
Sample Wt/Vol: 1.050 L		Date Received: 05/15/01
Extract Vol: 10 ML		Date Extracted: 05/17/01
Column: RTX-CLP		Date Analyzed: 05/26/01
Extraction Type: CONTINUOUS		Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

S2R

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059	SDG No.: D5059	Lab Sample ID: D5059003
Matrix: WATER	Level: LOW	Lab File ID: A0525023
Sample Wt/Vol: 1.050 L		Date Received: 05/15/01
Extract Vol: 10 ML		Date Extracted: 05/17/01
Column: RTX-CLP		Date Analyzed: 05/26/01
Extraction Type: CONTINUOUS		Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

D9

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059 SDG No.: D5059

Lab Sample ID: D5059004

Matrix: WATER Level: LOW

Lab File ID: A0525024

Sample Wt/Vol: 1.050 L

Date Received: 05/15/01

Extract Vol: 10 ML

Date Extracted: 05/17/01

Column: RTX-CLP

Date Analyzed: 05/26/01

Extraction Type: CONTINUOUS

Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

D2R

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059 SDG No.: D5059

Lab Sample ID: D5059005

Matrix: WATER Level: LOW

Lab File ID: A0525027

Sample Wt/Vol: 1.050 L

Date Received: 05/15/01

Extract Vol: 10 ML

Date Extracted: 05/17/01

Column: RTX-CLP

Date Analyzed: 05/26/01

Extraction Type: CONTINUOUS

Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

S1

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059	SDG No.: D5059	Lab Sample ID: D5059006
Matrix: WATER	Level: LOW	Lab File ID: A0525028
Sample Wt/Vol: 1.050 L		Date Received: 05/15/01
Extract Vol: 10 ML		Date Extracted: 05/17/01
Column: RTX-CLP		Date Analyzed: 05/26/01
Extraction Type: CONTINUOUS		Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

D1

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059 SDG No.: D5059 Lab Sample ID: D5059007

Matrix: WATER Level: LOW Lab File ID: A0525031

Sample Wt/Vol: 1.050 L Date Received: 05/15/01

Extract Vol: 10 ML Date Extracted: 05/17/01

Column: RTX-CLP Date Analyzed: 05/26/01

Extraction Type: CONTINUOUS Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

D4

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059	SDG No.: D5059	Lab Sample ID: D5059008
Matrix: WATER	Level: LOW	Lab File ID: A0525032
Sample Wt/Vol: 1.050 L		Date Received: 05/15/01
Extract Vol: 10 ML		Date Extracted: 05/17/01
Column: RTX-CLP		Date Analyzed: 05/26/01
Extraction Type: CONTINUOUS		Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

S4

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059 SDG No.: D5059

Lab Sample ID: D5059009

Matrix: WATER Level: LOW

Lab File ID: A0525033

Sample Wt/Vol: 1.050 L

Date Received: 05/15/01

Extract Vol: 10 ML

Date Extracted: 05/17/01

Column: RTX-CLP

Date Analyzed: 05/26/01

Extraction Type: CONTINUOUS

Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

S5

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059 SDG No.: D5059

Lab Sample ID: D5059010

Matrix: WATER Level: LOW

Lab File ID: A0525034

Sample Wt/Vol: 1.050 L

Date Received: 05/15/01

Extract Vol: 10 ML

Date Extracted: 05/17/01

Column: RTX-CLP

Date Analyzed: 05/26/01

Extraction Type: CONTINUOUS

Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

D5

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059	SDG No.: D5059	Lab Sample ID: D5059011
Matrix: WATER	Level: LOW	Lab File ID: A0525035
Sample Wt/Vol: 1.050 L		Date Received: 05/15/01
Extract Vol: 10 ML		Date Extracted: 05/17/01
Column: RTX-CLP		Date Analyzed: 05/26/01
Extraction Type: CONTINUOUS		Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

S8

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059	SDG No.: D5059	Lab Sample ID: D5059012
Matrix: WATER	Level: LOW	Lab File ID: A0525036
Sample Wt/Vol: 1.050 L		Date Received: 05/15/01
Extract Vol: 10 ML		Date Extracted: 05/17/01
Column: RTX-CLP		Date Analyzed: 05/26/01
Extraction Type: CONTINUOUS		Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

S7

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059	SDG No.: D5059	Lab Sample ID: D5059013
Matrix: WATER	Level: LOW	Lab File ID: A0525039
Sample Wt/Vol: 1.050 L		Date Received: 05/15/01
Extract Vol: 10 ML		Date Extracted: 05/17/01
Column: RTX-CLP		Date Analyzed: 05/26/01
Extraction Type: CONTINUOUS		Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

D6

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059 SDG No.: D5059

Lab Sample ID: D5059014

Matrix: WATER Level: LOW

Lab File ID: A0525040

Sample Wt/Vol: 1.050 L

Date Received: 05/15/01

Extract Vol: 10 ML

Date Extracted: 05/17/01

Column: RTX-CLP

Date Analyzed: 05/26/01

Extraction Type: CONTINUOUS

Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

S6

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059	SDG No.: D5059	Lab Sample ID: D5059015
Matrix: WATER	Level: LOW	Lab File ID: A0525041
Sample Wt/Vol: 1.050 L		Date Received: 05/15/01
Extract Vol: 10 ML		Date Extracted: 05/17/01
Column: RTX-CLP		Date Analyzed: 05/26/01
Extraction Type: CONTINUOUS		Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

RINSATE

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059	SDG No.: D5059	Lab Sample ID: D5059016
Matrix: WATER	Level: LOW	Lab File ID: A0525042
Sample Wt/Vol: 1.050 L		Date Received: 05/15/01
Extract Vol: 10 ML		Date Extracted: 05/17/01
Column: RTX-CLP		Date Analyzed: 05/26/01
Extraction Type: CONTINUOUS		Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059

SDG No.: D5059

Column: RTX-CLP

Matrix Spike -

Sample No.: S1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Aroclor-1016	4.762	0.0000	3.963	83	56-126
Aroclor-1260	4.762	0.0000	3.136	66	56-124

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Aroclor-1016	4.762	3.937	83	1	30	56-126
Aroclor-1260	4.762	3.211	67	2	30	56-124

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 2 outside limits

Spike Recovery: 0 out of 4 outside limits

COMMENTS:

3E
PESTICIDE LAB CONTROL SAMPLE

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059 SDG No.: D5059 Column: RTX-CLP

LCS - Sample No.: PWB10517

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Aroclor-1016	5.000	N/A	4.421	88	56-126
Aroclor-1260	5.000	N/A	4.501	90	56-124

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT ID.

PWB10517

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059	SDG No.: D5059	Lab Sample ID: PWB10517
Matrix: WATER	Level: LOW	Lab File ID: A0525018
Sample Wt/Vol: 1.000 L		Date Received:
Extract Vol: 10 ML		Date Extracted: 05/17/01
Column: RTX-CLP		Date Analyzed: 05/26/01
Extraction Type: CONTINUOUS		Dilution Factor: 1.0

CAS NO.	COMPOUND	Units: ug/L	MDL	RL	RESULT	Q
12674-11-2--	Aroclor-1016		0.035	1.0	1.0	U
11104-28-2--	Aroclor-1221		0.18	2.0	2.0	U
11141-16-5--	Aroclor-1232		0.058	1.0	1.0	U
53469-21-9--	Aroclor-1242		0.022	1.0	1.0	U
12672-29-6--	Aroclor-1248		0.033	1.0	1.0	U
11097-69-1--	Aroclor-1254		0.10	1.0	1.0	U
11096-82-5--	Aroclor-1260		0.031	1.0	1.0	U

2C
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COLUMBIA ANALYTICAL SERVICES - REDDING

Case No.: D5059 SDG No.: D5059

	LAB ID	CLIENT ID.	S1 #	S2 #	S2	TOT OUT
01	PWB10517	PWB10517	54			0
02	PWB10517LCS	PWB10517LCS	88			0
03	D5059001	S3	95			0
04	D5059002	D3	81			0
05	D5059003	S2R	76			0
06	D5059004	D9	91			0
07	D5059005	D2R	92			0
08	D5059006	S1	28*			1
09	D5059006MS	S1MS	32			0
10	D5059006MSD	S1MSD	38			0
11	D5059007	D1	85			0
12	D5059008	D4	67			0
13	D5059009	S4	35			0
14	D5059010	S5	71			0
15	D5059011	D5	94			0
16	D5059012	S8	78			0
17	D5059013	S7	59			0
18	D5059014	D6	68			0
19	D5059015	S6	59			0
20	D5059016	RINSATE	90			0
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						

S1 = Decachlorobiphenyl QC LIMITS (29-117)

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

CHAIN OF CUSTODY

5090 Caterpillar Road • Redding, CA 96003 • Phone: (530) 244-5227 • FAX: (530) 244-4109

COC # **Nº 005105**

Project #		Purchase Order #		Requested Analytical Method #										THIS AREA FOR LAB USE ONLY									
Project Name Westinghouse Emeryville Site				TOTAL # OF CONTAINERS PCBs 8082											Lab # D5059	Page	of						
Company Name ALTA Geosciences															Lab PM Tag 5-15-01	Custody Review							
Project Manager or Contact & Phone # 530 R Quine 365-2645															Log In			LIMS Verification					
Report Copy to: R Quine															pH			Custody Seals Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>					
Requested Completion Date: Std Turnaround		Site ID			Sample Disposal: Dispose <input checked="" type="checkbox"/> Return <input type="checkbox"/>		Preservative (to be filled out by customer)										QC Level 1 2 3 Other _____						
Sampling		Type			Matrix		CLIENT SAMPLE ID (9 CHARACTERS)									LAB QC		Cooler Temperature 4, 5, 6					
Date	Time	COMP	GRA		WATER	SOIL	AIR												Alternate Description			Lab ID	
5/12/01	1115	✓	✓		✓	✓	✓	S3										2	✓				1
	1200	✓	✓		✓	✓	✓	D3										2	✓				2
	1310	✓	✓		✓	✓	✓	S2R										2	✓				3
	1340	✓	✓	✓	✓	✓	D9										2	✓				4	
	1400	✓	✓	✓	✓	✓	D2R										2	✓				5	
	1545	✓	✓	✓	✓	✓	S1										2	✓				6	
✓	1630	✓	✓	✓	✓	✓	D1										2	✓				7	
5/13/01	0810	✓	✓	✓	✓	✓	D4										2	✓				8	
	0915	✓	✓	✓	✓	✓	S4										2	✓				9	
✓	1025	✓	✓	✓	✓	✓	S5										2	✓				10	
Sampled By and Title Richard Quine, PE				(Please sign and print name) <i>Richard L. Quine</i>				Date/Time 5/15/01				Relinquished By <i>Richard Quine</i>				(Please sign and print name)				Date/Time			
Received By <i>Christine E. Sullivan</i>				(Please sign and print name)				Date/Time 5/15/01 1110				Relinquished By				(Please sign and print name)				Date/Time			
Received By				(Please sign and print name)				Date/Time				Shipped Via UPS Fed-Ex Other HAND				Shipping #							
Special Instructions: Report 7 Analyzers Reporting Limit 0.1 µg/L as possible We anticipate most samples ND or very low																INVOICE INFORMATION P.O. # _____ Bill To _____ _____							

CHAIN OF CUSTODY

5090 Caterpillar Road • Redding, CA 96003 • Phone: (530) 244-5227 • FAX: (530) 244-4109

COC # **Nº 005104**

Project #		Purchase Order #		Requested Analytical Method #										THIS AREA FOR LAB USE ONLY			
Project Name Westinghouse Emeryville Site												Lab # D5059	Page	of			
Company Name ALTA Geosciences												Lab PM Tag 5/5/01	Custody Review				
Project Manager or Contact & Phone # 530 R Quire 365 2645						Report Copy to: R Quire						Log In		LIMS Verification			
Requested Completion Date: Std turnaround				Site ID		Sample Disposal: Dispose <input checked="" type="checkbox"/> Return <input type="checkbox"/>				pH		Custody Seals Y N Ice Y N					
TOTAL # OF CONTAINERS PCBs 8082												QC Level 1 2 3 Other _____					
Preservative (to be filled out by customer)												Cooler Temperature					
Sampling		Type		Matrix		CLIENT SAMPLE ID (9 CHARACTERS)						LAB QC		Alternate Description		Lab ID	
Date	Time	COMP	GRAV	WATER	SOIL	AIR											
5/30	1100	✓	✓				D5							2	✓		
"	1225	✓	✓				S8							2	✓		
"	1330	✓	✓				S7							2	✓		
"	1640	✓	✓				D6							2	✓		
"	1730	✓	✓				S6							2	✓		
"	1545	✓	✓				SIMS/MSD							2	✓	MS/MSD on SI	
"		✓	✓				Rinsate							2	✓		
Sampled By and Title Richard L Quire, PE				(Please sign and print name) <i>Richard L Quire</i>				Date/Time 5/15/01 1100		Relinquished By Richard L Quire				(Please sign and print name) <i>Richard L Quire</i>		Date/Time	
Received By Christine Erickson				(Please sign and print name) <i>Christine Erickson</i>				Date/Time 5/16/01 1100		Relinquished By				(Please sign and print name)		Date/Time	
Received By				(Please sign and print name)				Date/Time		Shipped Via UPS Fed-Ex Other HAND				Shipping #			
Special Instructions: Report 7 Analyzers Reporting Limit 0.1 mg as possible We anticipate most samples ND or very low												INVOICE INFORMATION P.O. # _____ Bill To _____ _____					



5090 Caterpillar Road
Redding, CA 96003

COOLER RECEIPT FORM

Project/Client ALTA GEOSCIENCES

Work Order D010 5059

1. Cooler(s)/Sample(s) received on: 5/15/01 Shipped via: HAND

Shipping Bill # (s): N/A

2. Cooler(s) screened by: Blanton Acceptable Rejected

3. Custody seals on outside of cooler. YES NO N/A
If yes, where? Front Rear Lt Side Rt Side

Seals intact. YES NO

COOLER/SAMPLE PROCESSING

4. Sample Processing/Tagging by: D. Sanchez

5. Cooler(s)/Sample(s) Temp.'s _____
(or)
Temp. Blank (if present) 2° 5° 6° _____

6. Type of packing material present: Big Ice

7. Custody papers properly filled out (ink, signed, dated, released, etc.)? YES NO

8. Containers arrived in good condition (unbroken, leaking, etc.)? YES NO

9. Container labels complete (i.e. analysis, preservation, date/time, etc.)? YES NO

10. Container labels and tags agree with custody papers? YES NO

11. Correct types of containers used for the tests indicated? YES NO

a.) Adequate sample received? If not, note on Exception Report. YES NO

12. Containers supplied by: CAS Other

13. Preserved containers received with the appropriate preservative? YES NO N/A

pH: _____ (or) See pH log.

14. VOA vials checked for absence of air bubbles? YES N/A

If present, note on the Exception Report. Unacceptable

15. Samples transferred to the freezer: Date: _____ Time: _____ N/A

0031

See Exception Report for discrepancies.