TerraNext

165 South Union Boulevard Union Tower, Suite 1000 Lakewood, CO 80228

Corporate Office

SEMIANNUAL GROUNDWATER MONITORING REPORT
JANUARY AND APRIL 1998
BEAUMONT TEST SITE FACILITY No. 1
BEAUMONT, CALIFORNIA

Prepared by:

BEK/TERRANEXT
165 SOUTH UNION BOULEVARD, SUITE 1000
LAKEWOOD, COLORADO 80228

Prepared for:

LOCKHEED MARTIN CORPORATION
BURBANK PROGRAM OFFICE
2550 N. HOLLYWOOD WAY, SUITE 301
BURBANK, CALIFORNIA 91505

August 14, 1998

Telephone: 303 914•1700 Facsimile: 303 914•1710 www.terranext.com

Semiannual Groundwater Monitoring Report
January and April 1998
Beaumont Test Site Facility No. 1
Beaumont, California

Patrick A. Schanen
Project Manager

Charles Mazowiecki, P. E.
Technical Advisor

TerraNext

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 PURPOSE AND SCOPE 2

3.0 FIELD ACTIVITIES AND LABORATORY METHODS 3
- 3.1 Field Activities 3
- 3.2 Laboratory Methods 4

4.0 WATER LEVEL ELEVATION RESULTS 5
- 4.1 Potentiometric Surface Maps 5
- 4.2 Water Level Hydrographs 6
- 4.3 Groundwater Elevation Fluctuations 6

5.0 LABORATORY RESULTS 8
- 5.1 Mount Eden Formation and the Burn Pit Area 9
- 5.2 Quaternary Alluvium and the Motor Production Area 9
- 5.3 Area Between the Burn Pit and Motor Production Areas 9
- 5.4 Upgradient Wells 10
- 5.5 Downgradient Wells 10
- 5.6 Deep Well 11

6.0 SUMMARY AND CONCLUSIONS 12

7.0 REFERENCES 13

TABLE OF CONTENTS (Continued)

TABLES

Table 1	Well Construction Data, Lockheed Martin Beaumont Site No. 1
Table 2	Water Level Measurements
Table 3	Sampling and Analysis Schedule
Table 4	Summary of Laboratory Analysis of Groundwater Samples

FIGURES

Figure 1	Site Location Map
Figure 2	Well Location Map
Figure 3	Wells Sampled, April 1998
Figure 4	Water Table Potentiometric-Surface Map, January 1998
Figure 5	Water Table Potentiometric-Surface Map, April 1998
Figure 6	1,1,1,-Trichloroethane (1,1,1-TCA) in Groundwater, April 1998
Figure 7	1,2-Dichloroethane (1,2-DCA) in Groundwater, April 1998
Figure 8	1,1-Dichloroethene (1,1-DCE) in Groundwater, April 1998
Figure 9	Trichloroethene (TCE) in Groundwater, April 1998
Figure 10	Total VOCs in Groundwater, April 1998

APPENDICES

Appendix A	Field Data Sheets, Water Levels (January and April 1998)
Appendix B	Field Data Sheets, Water Quality (April 1998)
Appendix C	Standard Operating Procedures
Appendix D	Laboratory Reports and Chain-of-Custody Forms
Appendix E	Quality Assessment Report
Appendix F	Water Level Hydrographs
Appendix G	Analyte Concentration Graphs

LIST OF ACRONYMS

AER	AER Laboratories, Inc.
BPO	Burbank Program Office
DTSC	California Department of Health Services, Department of Toxic Substances Control
EPA	United States Environmental Protection Agency
gpm	gallons per minute
HASP	Health and Safety Plan
QA/QC	Quality Assurance/Quality Control
SOP	Standard Operating Procedure
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION

This semiannual report presents results of quarterly groundwater measurements for the period January and April 1998, and semi-annual water quality sampling for the period April 1998, at the former Lockheed Propulsion Company facility, hereafter referred to as Beaumont Site No. 1.

Beaumont Site No. 1 is located approximately 3 miles south of the town of Beaumont, California, about 75 miles east of Los Angeles, and immediately north of the Colorado River Aqueduct Tunnel (Figure 1). The site covers approximately 9,100 acres in the San Jacinto Nuevo y Potrero Valley, which is drained by Potrero Creek. A site plan, including well locations and prominent site features, is presented on the Well Location Map, Figure 2.

Beginning in January 1996, water level measurements were conducted on a quarterly basis in January, April, July, and October. Groundwater sampling (or monitoring) activities have been rescheduled from June and December of each year to April and October.

Water level measurements are taken prior to groundwater monitoring to help evaluate extraction well performance and determine groundwater flow direction and gradients. Ongoing groundwater monitoring is being conducted to evaluate changes in the previously identified contaminant plume of volatile organic compounds (VOCs) in the alluvial aquifer and the underlying Mount Eden Formation at Beaumont Site No. 1.

2.0 PURPOSE AND SCOPE

The purpose of this report is to present field, laboratory and quality assurance/quality control (QA/QC) data related to quarterly water level measurement activities conducted in January and April 1998, and a semiannual water-quality measurement event performed during April 1998.

Quarterly groundwater measurements were made in all site monitoring wells and in extraction wells that are not connected to the two-phase extraction system. Depth-to-water measurements were made in 99 wells as part of the groundwater monitoring program. Following completion of field activities, the newly generated data were added to the site-specific Beaumont Site No. 1 Water Level Database. From the database, a water level measurement table was produced, along with hydrographs of historic water levels from 1989 to the present. Data from wells screened in discrete hydrogeologic zones were used to construct water table potentiometric surface maps.

Groundwater samples were collected from 39 monitoring wells during the April 1998 sampling event as part of the ongoing groundwater monitoring program. QA/QC water samples were also collected during the April 1998 sampling event. Following completion of field activities, the newly generated analytical data were added to the site-specific Beaumont Site No. 1 Water Quality Database. From the database, analyte concentration graphs of historic water quality from 1989 to the present were produced. The laboratory results from the sampled wells were used to generate iso-concentration maps for certain analytes across the site. The water level and water quality field data collected during the sampling round are presented in Appendices A and B, respectively.

3.0 FIELD ACTIVITIES AND LABORATORY METHODS

3.1 Field Activities

Field work was conducted following the Lockheed Martin Beaumont Site No. 1 Operations and Maintenance Health and Safety Plan (HASP) and the Terranext Field Operations HASP (Terranext HASP). Groundwater depth measurements and groundwater samples were collected according to the Lockheed Martin Standard Operating Procedure (SOP) in Appendix C.

Depth to water was measured in January and April 1998, in all of the site monitoring and extraction wells, except for those connected to the two-phase extraction system (Figure 2). In January and April 1998, during the water level measurement event, the two-phase and groundwater treatment systems were operating. Groundwater extraction well EW-01 was pumped at approximately 20.4 gallons per minute (gpm) during January 1998 and 18.6 gpm during April 1998. Groundwater extraction well EW-02 was pumped at approximately 4.6 gpm during January 1998 and 3.9 gpm during April 1998.

In January and April 1998, overflowing conditions were noted in monitoring wells MW-09, MW-45 and MW-47. Well 0W-02 was measured, but the readings are not deemed representative due to a damaged well casing.

In accordance with the SOP, water quality parameters were monitored while purging multiple casing volumes of water to assure representative groundwater samples were obtained. Following parameter stabilization, representative groundwater samples were collected from the monitoring wells for laboratory analysis. Wells sampled in April 1998 are depicted on Figure 3.

Groundwater samples were collected, handled, transported, and documented in accordance with the SOP. The samples were preserved as required by the specific analytical method, packed in a chilled portable cooler with ice or blue ice, and submitted under standard chain-of-custody procedures to Applied Engineering & Remediation Laboratories, Inc. (AER) a state certified analytical laboratory, in Sun Valley, California, for analysis.

Table 1 presents well construction data for each well including: the well identifier, date drilled, surface elevation in feet above mean sea level (MSL), measuring point elevation, total depth, top of screen, bottom of screen, formation screened, and depth to the Mount Eden Formation. Table 2 summarizes well location information, hydrogeologic units, depth-to-water measurements collected, and derived groundwater elevation values. Table 3 summarizes the well sampling and analysis schedule.

3.2 Laboratory Methods

AER (California State Certification No. 1006) analyzed the groundwater samples obtained in April 1998. The samples were analyzed for VOCs in accordance with U.S. Environmental Protection Agency Method 8010. The laboratory results are summarized on Table 4. Laboratory reports and chain-of-custody records are included in Appendix D.

An assessment of the water quality data is presented in Appendix E. In order to perform the QA/QC check on the laboratory data, the following samples were collected throughout the sampling event: equipment blanks (EB), field blanks (FB), laboratory trip blanks (LTB), duplicate (DUP), blind duplicate (BD), and Matrix Spike (MS) and Matrix Spike Duplicate (MSD).

4.0 WATER LEVEL ELEVATION RESULTS

4.1 Potentiometric Surface Maps

January and April 1998, depth-to-water data collected from wells screened in the Quaternary Alluvium and the Mount Eden Formation were evaluated and composited to construct water table potentiometric surface maps. Figure 4 shows the potentiometric surface of the site based on the January 1998, water level measuring event. Figure 5 shows the potentiometric surface of the site based on the April 1998, water level measuring event.

Data collected from wells MW-03, MW-31, and MW-32 were not used to develop contours because they are screened much deeper than other wells in the Mount Eden Formation and have relatively anomalous pressure heads. Well OW-02 was also not used to develop contours due to relatively anomalous water level measurements, which may be the result of an obstructed well casing. Overflowing wells (MW-09, MW-45, and MW-47) were also not included in the water level contouring, as water level measurements from these wells would not be representative of water table conditions. In multiple well clusters, the shallowest screened well which represents water table conditions was evaluated; thus, deeper wells constructed to monitor vertical gradients were not included. However, in the burn pit area, monitoring well MW-61D was evaluated for contouring because it is believed to better represent water table conditions than well MW-61B.

The water table surface outside of the groundwater extraction areas (near EW-01 and EW-02) during the current reporting period appears consistent with previous reports by Radian (1986, 1990, 1992a, 1992b), Lockheed Martin (1995, 1996) and Terranext (1998).

In the January and April 1998 data, Figures 4 and 5 depict capture zones in the former burn pit area, and corresponding ones in the vicinity of groundwater extraction wells EW-01, and EW-02. Figures 4 and 5 shows the influence of pumping on the groundwater table in the extraction well areas. In January and April 1998, the groundwater treatment system was running.

Groundwater elevations measured in active extraction wells and injection wells were used in generating the potentiometric surface maps. Extraction wells not measured during the January and April 1998 water level measuring events are: EW-11, EW-12, EW- 13, EW-15, EW-16, and EW-18.

Based on the January and April 1998, water level data, the groundwater gradient across the site was approximately 0.020 feet per foot (ft/ft). The groundwater gradient steepens in the area of wells MW-43 and MW-46 (Figures 4 and 5), located in the western area of the site, downgradient from the burn pit and rocket motor production areas, which is probably due to a nearby subsurface fault that creates a groundwater barrier (Radian 1992b).

4.2 Water Level Hydrographs

In general, water levels gradually increased across the site between January and April 1998. Hydrographs of historic water levels from 1989 to present are presented in Appendix F. The elapsed time between water level measuring events is portrayed as a dashed line when the time between measuring events exceeds 6 months, and is a solid line when the time between measuring events is less than 6 months.

4.3 Groundwater Elevation Fluctuations

The water level data indicate that water level elevations increased in all of the wells measured. The greatest elevation increase occurred in well MW-36 (+53.74 feet) during the period from January to April 1998. The smallest increase in groundwater elevation occurred in well IW-05 (+1.54 feet) during this period.

Groundwater data from all wells that were measured show that the minimum elevation of 1979.06 feet above MSL occurred in well MW-18 during January 1998 and the maximum elevation of 2182.73 feet above MSL occurred in well OW-01 during April 1998. These are not unexpected because MW-18 is the furthest downgradient well and OW-01 is the farthest upgradient well.

5.0 LABORATORY RESULTS

Analytical results for the groundwater samples collected in April and May 1998 are summarized on Table 4. Figures 6 through 10 depict the iso-concentrations for the analytes of interest:

* 1,1,1,-Trichloroethane (1,1,1-TCA),
* 1,2-Dichloroethane (1,2-DCA),
* 1,1-Dichloroethene (1,1-DCE),
* Trichloroethene (TCE), and
* Total VOCs.

Wells IW-03, IW-04, IW-05, MW-08, and MW-34 were not sampled during the current sampling event. Past values of the above VOCs were used with the current data to plot concentration contours on Figures 6 through 10, to present what is thought to be a more accurate delineation of analyte occurrence.

Appendix G contains analyte concentration graphs showing changes in analyte concentrations over time. On the analyte concentration graphs, the solid symbols represent detected values. The open symbols represent no detection, plotted at a numerical value of the practical quantitation limit.

The results of the data assessment and data validation process for the AER laboratory analyses are presented in Appendix E. A summary of water quality results for several key areas of investigation are presented in the following subsections. The results are presented in micrograms per liter (µg/l).

5.1 Mount Eden Formation and the Burn Pit Area

Groundwater samples were collected from two wells (MW-26 and MW-59B) in the burn pit area. These wells are screened in the Mount Eden Formation. The maximum concentrations reported for 1,1-DCE and TCE were 2,784 µg/l and 2,768 µg/l , respectively, from the groundwater sample collected from MW-26. The maximum concentrations reported for 1,1-DCE and TCE were 187 µg/l and 195 µg/l, respectively, from the groundwater sample collected from MW-59B. Overall, concentrations have significantly decreased in both wells compared to prior sampling events.

5.2 Quaternary Alluvium and the Motor Production Area

Groundwater samples were collected from five wells in the Motor Production Area. These wells are MW-19, MW-49, MW-50, and MW-52, which are screened in the Quaternary Alluvium and well MW-29 which is screened in the Mount Eden Formation. Results from the wells sampled indicated slight increases in concentrations of 1,1-DCE, 1,1,1-TCA, and TCE in well MW-19 compared to the results from the previous sampling event. The highest concentrations of 1,1,1-TCA, 1,1-DCE, and TCE (6.2 µg/l, 60.6 µg/l, 74.1 µg/l, respectively), in the samples collected from these five wells, were detected in the sample collected from monitoring well MW-52. Concentrations of 1,1-DCA, 1,1-DCE, and TCE (7.96 µg/l, 29.8 µg/l, 63.6 µg/l, respectively), were detected in the sample collected from monitoring well MW-29. Concentrations of 1,1-DCE (24.0 µg/l), TCE (11.2 µg/l) and 1,1,1-TCA (4.1 µg/l) were detected in the sample from well MW-19. PCE was not detected in groundwater samples from the five wells in the Motor Production Area. 1,2-DCA was not detected in monitoring well MW-19.

5.3 Area Between the Burn Pit and Motor Production Areas

Monitoring wells MW-02, MW-04, MW-07, MW-20, and MW-55, were sampled to evaluate the continuity of the contamination between the burn pit and Motor Production Areas. 1,1-DCE

concentrations between the two areas ranged from 3.7 (MW-07) to 152 µg/l (MW-02). TCE concentrations between the two areas ranged from 10.0 (MW-07) to 151 µg/l (MW-02). The concentrations of 1,1-DCE and TCE have decreased significantly in samples from MW-55 and MW-20 compared to prior events. Monitoring well MW-02 has not been sampled during recent events therefore no comparison data is available for this well.

5.4 Upgradient Wells

Five wells (MW-10, MW-11, MW-36, MW-39, and MW-66) upgradient from the burn pit and Motor Production Areas were sampled to delineate the northern and eastern extent of the contaminant plume. No compounds were detected above the method detection limit in wells MW-10, MW-11, and MW-36. 1,1- DCE was detected in wells MW-39 and MW-66 at levels of 143 µg/l, and 200 µg/l respectively. TCE was also detected in these two wells at concentrations of 125 µg/l, and 222 µg/l respectively. 1,1-DCA was detected in MW-39 at a concentration of 6.4 µg/l. Other compounds detected in groundwater samples include: 1,1,1-TCA in MW-39 (4.6 µg/l) and MW-66 (6.8 µg/l), Chloroform in MW-66 (6.6 µg/l) and Carbon Tetrachloride in MW-39 (4.6 µg/l).

5.5 Downgradient Wells

Four Downgradient Wells (MW-17, MW-40, MW-42, and MW-49) in the Motor Production Area were sampled to delineate the southwest boundary of the contaminant plume. 1,1-DCE concentrations ranging from 12.3 to 117 µg/l, and TCE concentrations ranging from 17.4 to 85 µg/l were detected in the samples from the four wells. Overall, results from this sampling event indicated slight increases in concentrations of 1,1-DCE, TCE, and 1,1,1-TCA in well MW-17 compared to previous sampling events. However, concentrations have significantly decreased in wells MW-04, MW-40, and MW-49 compared to prior events.

5.6 Deep Well

One deep well (MW-56A) located in the Motor Production Area was sampled to estimate the vertical distribution of impact. None of the EPA Method 8010 target analytes were detected in the groundwater sample collected from MW-56A. The data from the previous sampling event reported 1,1-DCE detected at a level of 0.8 ppb and TCE at 1.61 ppb. Data from other wells located within the contaminant plume generally indicate that concentrations decrease with depth.

6.0 SUMMARY AND CONCLUSIONS

* In general, water levels gradually increased from January through April 1998. Following peak water level conditions during early 1995, flowing artesian conditions were still observed in three wells during January and April 1998 (MW-09, MW-45, and MW-47).

* The two-phase extraction system was operating during the current sampling event (April 1998). The two-phase extraction system creates cones of depression downgradient of the burn pit area as noted in previous reports (Lockheed Martin 1995, 1996 and Terranext, March 1998).

* In general, the groundwater flow observed during this monitoring period is consistent with previous reporting periods (Terranext, March 1998).

* Analytes of interest present at or above the MCL include TCE (35 of the 39 wells), 1,1- DCE (34 of the 39 wells), and 1,2-DCA (19 of 39 wells). 1,1,1-TCA was not detected at concentrations above the MCL.

* Analytes of interest and trace VOC concentrations generally stayed the same during the current sampling round.

7.0 REFERENCES

Lockheed Martin Corporation. 1995. May 1995 Water Quality Report, Beaumont Test Site Facility No. 1, Beaumont, CA.

Lockheed Martin Corporation. 1996. December 1995 Water Elevation Report, Beaumont Test Site Facility No. 1, Beaumont, CA.

Radian Corporation. 1986. Lockheed Propulsion Company Beaumont Test Facilities Preliminary Remedial Investigation. December 1986.

Radian Corporation. 1990. Lockheed Propulsion Company Beaumont Test Facilities Source and Hydrogeologic Investigation Final. February 1990.

Radian Corporation. 1992a. Lockheed Beaumont No. 1 Tractability Study. February 1992.

Radian Corporation. 1992b. Lockheed Propulsion Company Beaumont No. 1 Facility Hydrogeologic Report. December 1992.

Terranext. 1998. Semiannual Groundwater Monitoring Report. March 1998

TABLES

TABLE 1

WELL CONSTRUCTION DATA
LOCKHEED MARTIN BEAUMONT SITE NO. 1

WELL CONSTRUCTION DATA (PAGE 1 OF 5)
LOCKHEED MARTIN CORPORATION
BEAUMONT SITE No. 1, BEAUMONT, CALIFORNIA

Well	Date Drilled	Surface Elevation	Measuring Point Elevation	Total Depth	Top of Screen	Bottom of Screen	Formation Screened	Depth to Mt. Eden
EW-01	09/22/92	2140.0	2142.6	78.00	35.00	76.00	QA	
EW-02	10/22/92	2125.7	2125.1	70.00	25.00	66.00	QA	
EW-08	10/21/92	2174.8	2175.1	115.00	61.00	112.00	ME	52.00
EW-09	09/23/92	2176.5	2176.4	122.00	70.00	120.00	ME	27.00
EW-10	10/20/92	2176.5	2176.9	115.00	61.00	112.00	ME	38.00
EW-11	10/07/92	2178.6	2178.7	105.00	60.00	111.00	ME	30.00
EW-12	10/12/92	2176.8	2176.8	115.00	60.00	111.00	ME	58.00
EW-13	09/17/92	2179.7	2179.9	117.00	74.00	114.00	ME	41.00
EW-14	10/08/92	2180.6	2181.4	106.00	60.00	101.00	ME/QA	70.00
EW-15	09/25/92	2180.9	2181.3	107.00	65.00	105.00	ME	50.00
EW-16	09/28/92	2181.7	2182.3	107.00	65.00	105.00	ME	48.00
EW-18	02/03/93	2184.4	2182.3	102.00	60.00	101.00	ME	49.00
IW-01	08/12/92	2158.0	2158.3	95.00	6.00	90.00	QA	
IW-02	08/13/92	2153.0	2152.5	100.00	10.00	95.00	QA	
IW-03	09/29/92	2130.0	2129.9	65.00	22.00	63.00	QA	
IW-04	10/01/92	2132.0	2132.0	65.00	22.00	63.00	QA	
IW-05	10/02/92	2134.0	2134.1	65.00	21.00	62.00	QA	
MW-01	12/07/92	2173.2	2174.3	128.00	116.00	126.00	ME	93.00
MW-02	12/04/92	2166.3	2167.5	102.00	73.00	93.00	ME	92.00
MW-03	12/19/92	2165.6	2166.4	272.00	260.00	270.00	ME	82.17
MW-04	12/09/92	2156.7	2157.4	85.00	62.00	82.00	QA	
MW-05	12/10/92	2117.5	2118.7	44.50	23.00	43.00	QA	
MW-06	12/10/92	2117.7	2119.1	119.00	104.00	114.00	QA/ME	112.62
MW-07	12/14/92	2172.6	2173.8	93.00	70.00	90.00	QA	

WELL CONSTRUCTION DATA (PAGE 2 OF 5)
LOCKHEED MARTIN CORPORATION
BEAUMONT SITE No. 1, BEAUMONT, CALIFORNIA

Well	Date Drilled	Surface Elevation	Measuring Point Elevation	Total Depth	Top of Screen	Bottom of Screen	Formation Screened	Depth to Mt. Eden
MW-08	12/03/92	2086.5	2087.8	35.00	13.00	33.00	QA	
MW-09	12/01/92	2085.3	2086.3	132.00	115.00	125.00	QA	
MW-10	12/06/89	2176.1	2176.7	100.00	79.00	99.00	QA	
MW-11	12/01/89	2118.6	2119.9	70.00	46.00	66.00	QA	
MW-12	12/02/89	2094.6	2095.8	55.00	29.00	49.00	QA	
MW-13	12/05/89	2053.9	2055.2	38.00	16.00	36.00	QA	
MW-14	12/07/89	2025.9	2027.0	50.00	29.00	49.00	QA	
MW-15	12/21/89	2006.2	2007.1	93.00	81.00	91.00	QA/ME	91.00
MW-16	12/09/89	1818.0	1818.0	15.00	8.00	13.00	QA/ME	12.50
MW-17	12/11/89	2135.2	2137.7	65.00	44.00	64.00	QA	
MW-18	12/13/89	2004.9	2006.0	52.00	30.00	50.00	QA	
MW-19	12/13/89	2114.7	2115.8	50.00	25.00	45.00	QA	
MW-20	01/21/91	2157.2	2156.9	135.00	65.00	95.00	QA	
MW-21	01/24/91	2158.9	2158.1	165.00	70.00	100.00	QA	155.00
MW-22	01/28/91	2168.4	2168.2	120.00	74.00	114.00	QA	
MW-23	08/13/92	2159.7	2159.6	119.00	85.00	115.00	QA	
MW-24	09/29/92	2179.9	2180.6	105.00	85.00	105.00	ME	53.00
MW-26	01/03/91	2180.1	2179.9	129.00	88.00	128.00	ME	54.00
MW-27	02/08/91	2178.3	2178.0	92.20	29.30	91.40	QA	
MW-28	12/03/91	2157.9	2158.3	134.00	120.00	130.00	QA	133.00
MW-29	12/03/91	2109.5	2112.4	50.00	23.70	48.70	ME	22.00
MW-30	02/13/91	2159.3	2159.0	125.00	90.00	124.50	QA	
MW-31	02/09/91	2181.8	2183.3	195.00	180.00	190.00	ME	62.00
MW-32	02/11/91	2171.9	2173.4	223.00	210.00	220.00	ME	88.48

WELL CONSTRUCTION DATA (PAGE 3 OF 5)
LOCKHEED MARTIN CORPORATION
BEAUMONT SITE No. 1, BEAUMONT, CALIFORNIA

Well	Date Drilled	Surface Elevation	Measuring Point Elevation	Total Depth	Top of Screen	Bottom of Screen	Formation Screened	Depth to Mt. Eden
MW-34	02/18/91	2150.4	2151.4	85.00	62.00	82.00	QA	
MW-35	03/07/91	2166.1	2168.3	140.00	60.00	80.00	QA	138.00
MW-36	03/14/91	2200.8	2202.5	105.00	85.00	105.00	QA	
MW-37	02/27/91	3036.5	2038.3	62.00	40.00	60.00	QA/ME	50.00
MW-38	02/25/91	2026.2	2027.6	82.00	60.00	80.00	ME	38.50
MW-39	03/11/91	2139.3	2141.5	86.00	60.00	80.00	QA	82.00
MW-40	02/19/91	2122.2	2123.7	67.00	46.00	66.00	ME	38.00
MW-41	12/10/91	2129.7	2131.3	55.00	35.00	55.00	QA/ME	49.50
MW-42	12/04/91	2088.7	2089.9	36.00	13.20	34.70	QA	
MW-43	12/06/91	2064.4	2065.8	115.50	8.40	23.40	QA	
MW-44	12/11/91	2126.0	2124.4	59.00	34.00	54.00	QA	
MW-45	12/10/91	2063.3	2068.9	55.00	42.70	52.70	QA	
MW-46	09/28/92	2068.3	2069.4	55.00	42.70	61.50	QA	
MW-47	02/03/93	2073.0	2077.1	54.00	43.30	53.30	QA	
MW-48	08/12/92	2072.3	2173.7	25.00	8.70	23.70	QA	
MW-49	12/20/91	2127.2	2128.2	113.50	30.50	52.00	QA	110.50
MW-50	12/19/91	2148.1	2148.8	74.30	54.30	74.30	QA	
MW-51	08/14/92	2134.6	2135.7	67.00	39.00	59.00	QA	
MW-52	08/17/92	2132.0	2133.5	65.00	37.00	57.00	QA	
MW-53	08/20/92	2149.5	2150.6	78.00	53.00	73.00	QA	
MW-54	08/19/92	2149.8	2150.8	80.00	53.00	73.00	QA	
MW-55	08/19/92	2162.4	2153.5	93.00	67.00	87.00	QA	
MW-56A	08/23/92	2139.4	2140.4	183.00	176.00	180.00	ME	100.00
MW-56B	08/27/92	2139.3	2139.9	95.50	89.00	91.00	QA	

WELL CONSTRUCTION DATA (PAGE 4 OF 5)
LOCKHEED MARTIN CORPORATION
BEAUMONT SITE No. 1, BEAUMONT, CALIFORNIA

Well	Date Drilled	Surface Elevation	Measuring Point Elevation	Total Depth	Top of Screen	Bottom of Screen	Formation Screened	Depth to Mt. Eden
MW-56C	08/31/92	2139.2	2140.0	63.80	48.00	58.00	QA	
MW-56D	09/11/92	2138.9	2140.1	75.00	72.00	74.00	QA	
MW-57A	09/08/92	2138.7	2139.9	75.00	59.00	69.00	QA	
MW-57B	09/09/92	2142.7	2143.3	98.00	94.00	96.00	QA	98.00
MW-57C	09/10/92	2142.5	2143.4	85.00	81.50	83.50	QA	
MW-57D	09/10/92	2142.6	2143.5	57.00	46.00	56.00	QA	
MW-58A	09/14/92	2137.1	2138.1	88.50	79.00	81.00	QA	
MW-58B	09/14/92	2137.2	2138.1	50.00	40.00	50.00	QA	
MW-58C	09/14/92	2137.4	2138.4	60.00	57.50	59.50	QA	
MW-58D	09/15/92	2137.5	2138.3	70.00	68.00	70.00	QA	
MW-59A	08/26/92	2175.2	2177	144.00	138.00	140.00	ME	48.00
MW-59B	09/04/92	2175.5	2177.2	110.00	97.00	107.00	ME	49.00
MW-59C	09/10/92	2175.5	2176.7	135.50	134.00	134.00	ME	53.00
MW-59D	09/10/92	2175.7	2177.3	125.00	118.00	120.00	ME	53.00
MW-60A	09/02/92	2177.9	2179.5	149.00	132.00	134.00	ME	69.00
MW-60B	09/02/92	2177.9	2179.5	119.00	112.00	114.00	ME	69.00
MW-61A	09/01/92	2181.2	2183.7	155.00	148.00	150.00	ME	50.00
MW-61B	09/02/92	2181.2	2183.6	105.00	92.00	102.00	ME	50.00
MW-61C	09/08/92	2181.2	2183.7	135.00	128.00	130.00	ME	50.00
MW-61D	09/09/92	2181.2	2183.7	120.00	114.00	116.00	ME	53.00
MW-62A	10/20/92	2127.9	2128.8	45.00	39.00	41.00	QA	
MW-62B	10/20/92	2127.7	2128.9	65.00	62.00	64.00	QA	
MW-63	02/04/93	2153.4	2156.4	64.00	21.00	63.00	QA	
MW-64	02/05/93	2124.1	2125.8	41.00	29.00	40.00	QA	
MW-65	02/09/93	2123.8	2126.3	47.00	23.00	45.00	QA	
MW-66	02/10/93	2126.5	2127.9	50.00	37.00	48.00	QA	

WELL CONSTRUCTION DATA (PAGE 5 OF 5)
LOCKHEED MARTIN CORPORATION
BEAUMONT SITE No. 1, BEAUMONT, CALIFORNIA

OW-01	05/25/83	2200.5	2202.3	70.00	60.00	70.00	QA	
OW-02	05/26/83	2074.8	2076.6	50.00	56.00	66.00	QA	44.00
OW-03	05/26/83	2139.4	2141	70.00	46.00	56.00	QA	
OW-08	05/27/83	2032	2033	64.00	51.00	61.00	QA	
P-02	12/05/91	2076.9	2078.6	36.00	24.50	34.70		
P-03	12/04/91	2135.6	2137.6	58.00	47.70	57.70	QA	
P-04	12/07/91	2109.9	2109	49.00	38.70	48.70	QA	
P-05	12/08/91	2157.9	2159.5	120.00	61.40	71.40	QA	

BGS = Below Ground Surface
MSL = Mean Sea Level
OW = Observation Well
MW = Monitoring Well
EW = Extraction Well
QA = Quaternary Alluvium
ME = Mount Eden Formation
IW = Injection Well

TABLE 2

WATER LEVEL MEASUREMENTS

LOCKHEED MARTIN BEAUMONT SITE NO. 1

FIRST QUARTER 1998

WELL IDENTIFIER	HYDROGEOLOGIC UNIT	MEASUREMENT DATE	MEASURING POINT ELEVATION (feet msl)	DEPTH TO WATER (feet)	WATER LEVEL ELEVATION (feet msl)	COMMENT
EW-01	QA	1/9/98	2142.64	47.32	2095.32	Pumping
	QA	4/21/98	2142.64	31.16	2111.48	Pumping
EW-02	QA	1/9/98	2125.06	33.28	2091.78	Pumping
	QA	4/21/98	2125.06	31.60	2093.46	Pumping
EW-08	ME	1/9/98	2175.13	61.00	2114.13	
	ME	4/21/98	2175.13	49.30	2125.83	
EW-09	ME	1/9/98	2176.39	63.24	2113.15	
	ME	4/21/98	2176.39	43.92	2132.47	
EW-10	ME	1/9/98	2176.94	64.70	2112.24	
	ME	4/21/98	2176.94	52.40	2124.54	
EW-11	ME	1/9/98	2178.74			Not Measured
	ME	4/21/98	2178.74			Not Measured
EW-12	ME	1/9/98	2176.79			Not Measured
	ME	4/21/98	2176.79			Not Measured
EW-13	ME	1/9/98	2179.89			Not Measured
	ME	4/21/98	2179.89			Not Measured
EW-14	QA/ME	1/9/98	2181.40	65.98	2115.42	
	QA/ME	4/21/98	2181.40	59.64	2121.76	
EW-15	ME	1/9/98	2181.32			Not Measured
	ME	4/21/98	2181.32			Not Measured
EW-16	ME	1/9/98	2182.30			Not Measured
	ME	4/21/98	2182.30			Not Measured
EW-18	ME	1/9/98	2182.34			Not Measured
	ME	4/21/98	2182.34			Not Measured
IW-01	QA	1/9/98	2158.30	45.92	2112.38	Not Pumping
	QA	4/21/98	2158.30	8.66	2149.64	Pumping
IW-02	QA	1/9/98	2152.52	37.02	2115.50	Pumping
	QA	4/21/98	2152.52	12.90	2139.62	Pumping
IW-03	QA	1/9/98	2129.94	25.02	2104.92	Pumping
	QA	4/21/98	2129.94	19.76	2110.18	Pumping
IW-04	QA	1/9/98	2132.49	16.22	2116.27	Pumping
	QA	4/21/98	2132.49	14.28	2118.21	Pumping
IW-05	QA	1/9/98	2134.07	3.88	2130.19	Pumping
	QA	4/21/98	2134.07	2.34	2131.73	Pumping
MW-01	ME	1/9/98	2174.30	61.92	2112.38	
	ME	4/21/98	2174.30	36.10	2138.20	
MW-02	ME	1/9/98	2167.46	54.28	2113.18	
	ME	4/21/98	2167.46	37.18	2130.28	
MW-03	ME	1/9/98	2166.44	119.80	2046.64	
	ME	4/21/98	2166.44	111.06	2055.38	
MW-04	QA	1/9/98	2157.39	44.22	2113.17	
	QA	4/21/98	2157.39	28.60	2128.79	
MW-05	QA	1/9/98	2118.71	12.86	2105.85	
	QA	4/21/98	2118.71	7.40	2111.31	

WELL IDENTIFIER	HYDROGEOLOGIC UNIT	MEASUREMENT DATE	MEASURING POINT ELEVATION (feet msl)	DEPTH TO WATER (feet)	WATER LEVEL ELEVATION (feet msl)	COMMENT
MW-06	QA/ME	1/9/98	2119.11	14.64	2104.47	
	QA/ME	4/21/98	2119.11	4.00	2115.11	
MW-07	QA	1/9/98	2173.84	61.42	2112.42	
	QA	4/21/98	2173.84	35.76	2138.08	
MW-08	QA	1/9/98	2087.79	10.30	2077.49	
	QA	4/21/98	2087.79	6.88	2080.91	
MW-09	QA	1/9/98	2086.32			Overflowing
	QA	4/21/98	2086.32			Overflowing
MW-10	QA	1/9/98	2176.72	60.60	2116.12	
	QA	4/21/98	2176.72	54.00	2122.72	
MW-11	QA	1/9/98	2119.90	37.08	2082.82	
	QA	4/21/98	2119.90	36.02	2083.88	
MW-12	QA	1/9/98	2095.79	18.56	2077.23	
	QA	4/21/98	2095.79	13.28	2082.51	
MW-13	QA	1/9/98	2055.19	13.60	2041.59	
	QA	4/21/98	2055.19	8.28	2046.91	
MW-14	QA	1/9/98	2026.97	29.58	1997.39	
	QA	4/21/98	2026.97	15.00	2011.97	
MW-15	QA/ME	1/9/98	2007.06	27.32	1979.74	
	QA/ME	4/21/98	2007.06	22.42	1984.64	
MW-17	QA	1/9/98	2137.72	26.80	2110.92	
	QA	4/21/98	2137.72	7.74	2129.98	
MW-18	QA	1/9/98	2006.00	26.94	1979.06	
	QA	4/21/98	2006.00	22.42	1983.58	
MW-19	QA	1/9/98	2115.79	11.84	2103.95	
	QA	4/21/98	2115.79	4.58	2111.21	
MW-20	QA	1/9/98	2159.52	47.14	2112.38	
	QA	4/21/98	2159.52	27.12	2132.40	
MW-21	QA	1/9/98	2158.13	45.38	2112.75	
	QA	4/21/98	2158.13	27.22	2130.91	
MW-22	QA	1/9/98	2168.22	54.36	2113.86	
	QA	4/21/98	2168.22	40.30	2127.92	
MW-23	QA	1/9/98	2159.56	46.50	2113.06	
	QA	4/21/98	2159.56	28.80	2130.76	
MW-24	ME	1/9/98	2180.62	68.68	2111.94	
	ME	4/21/98	2180.62	39.26	2141.36	
MW-26	ME	1/9/98	2179.93	66.74	2113.19	
	ME	4/21/98	2179.93	37.28	2142.65	
MW-27	QA	1/9/98	2180.80	63.98	2116.82	
	QA	4/21/98	2180.80	57.20	2123.60	
MW-28	QA	1/9/98	2158.25	45.92	2112.33	
	QA	4/21/98	2158.25	26.04	2132.21	
MW-29	ME	1/9/98	2112.37	19.28	2093.09	
	ME	4/21/98	2112.37	15.20	2097.17	
MW-30	QA	1/9/98	2159.04	45.00	2114.04	
	QA	4/21/98	2159.04	31.20	2127.84	
MW-31	ME	1/9/98	2183.30	82.16	2101.14	
	ME	4/21/98	2183.30	61.90	2121.40	
MW-32	ME	1/9/98	2173.38	75.58	2097.80	

WELL IDENTIFIER	HYDROGEOLOGIC UNIT	MEASUREMENT DATE	MEASURING POINT ELEVATION (feet msl)	DEPTH TO WATER (feet)	WATER LEVEL ELEVATION (feet msl)	COMMENT
MW-32	ME	4/21/98	2173.38	54.16	2119.22	
MW-34	QA	1/9/98	2151.38	36.42	2114.96	
	QA	4/21/98	2151.38	26.42	2124.96	
MW-35	QA	1/9/98	2168.34	56.04	2112.30	
	QA	4/21/98	2168.34	32.42	2135.92	
MW-36	QA/GB	1/9/98	2202.53	81.26	2121.27	
	QA/GB	4/21/98	2202.53	27.52	2175.01	
MW-37	QA/ME	1/9/98	2038.25	32.40	2005.85	
	QA/ME	4/21/98	2038.25	12.16	2026.09	
MW-38	ME	1/9/98	2027.58	43.64	1983.94	
	ME	4/21/98	2027.58	39.24	1988.34	
MW-39	QA	1/9/98	2141.54	29.56	2111.98	
	QA	4/21/98	2141.54	13.66	2127.88	
MW-40	ME	1/9/98	2123.69	32.64	2091.05	
	ME	4/21/98	2123.69	27.38	2096.31	
MW-41	QA/ME	1/9/98	2131.28	22.56	2108.72	
	QA/ME	4/21/98	2131.28	15.62	2115.66	
MW-42	QA	1/9/98	2089.86	3.90	2085.96	
	QA	4/21/98	2089.86	0.40	2089.46	
MW-43	QA	1/9/98	2065.81	3.86	2061.95	
	QA	4/21/98	2065.81	2.10	2063.71	
MW-44	QA	1/9/98	2124.42	21.84	2102.58	
	QA	4/21/98	2124.42	16.60	2107.82	
MW-45	QA	1/9/98	2068.88			Overflowing
	QA	4/21/98	2068.88			Overflowing
MW-46	QA	1/9/98	2069.40	49.92	2019.48	
	QA	4/21/98	2069.40	37.00	2032.40	
MW-47	QA	1/9/98	2077.12			Overflowing
	QA	4/21/98	2077.12			Overflowing
MW-48	QA	1/9/98	2073.73	6.18	2067.55	
	QA	4/21/98	2073.73	3.80	2069.93	
MW-49	QA	1/9/98	2128.76	17.98	2110.78	
	QA	4/21/98	2128.76	1.30	2127.46	
MW-50	QA	1/9/98	2148.76	37.04	2111.72	
	QA	4/21/98	2148.76	18.08	2130.68	
MW-51	QA	1/9/98	2135.71	24.50	2111.21	
	QA	4/21/98	2135.71	7.34	2128.37	
MW-52	QA	1/9/98	2133.53	22.92	2110.61	
	QA	4/21/98	2133.53	7.52	2126.01	
MW-53	QA	1/9/98	2150.63	38.80	2111.83	
	QA	4/21/98	2150.63	19.84	2130.79	
MW-54	QA	1/9/98	2150.77	38.58	2112.19	
	QA	4/21/98	2150.77	20.80	2129.97	
MW-55	QA	1/9/98	2163.53	51.50	2112.03	
	QA	4/21/98	2163.53	31.86	2131.67	
MW-56A	ME	1/9/98	2140.44	42.08	2098.36	
	ME	4/21/98	2140.44	26.78	2113.66	
MW-56B	QA	1/9/98	2139.93	28.24	2111.69	
	QA	4/21/98	2139.93	9.95	2129.98	

WELL IDENTIFIER	HYDROGEOLOGIC UNIT	MEASUREMENT DATE	MEASURING POINT ELEVATION (feet msl)	DEPTH TO WATER (feet)	WATER LEVEL ELEVATION (feet msl)	COMMENT
MW-56C	QA	1/9/98	2140.14	28.98	2111.16	
	QA	4/21/98	2140.14	12.50	2127.64	
MW-56D	QA	1/9/98	2139.85	28.38	2111.47	
	QA	4/21/98	2139.85	10.56	2129.29	
MW-57A	QA	1/9/98	2143.34	31.54	2111.80	
	QA	4/21/98	2143.34	13.30	2130.04	
MW-57B	QA	1/9/98	2143.58	31.68	2111.90	
	QA	4/21/98	2143.58	12.90	2130.68	
MW-57C	QA	1/9/98	2143.38	31.50	2111.88	
	QA	4/21/98	2143.38	12.84	2130.54	
MW-57D	QA	1/9/98	2143.48	31.72	2111.76	
	QA	4/21/98	2143.48	14.80	2128.68	
MW-58A	QA	1/9/98	2138.06	26.98	2111.08	
	QA	4/21/98	2138.06	8.90	2129.16	
MW-58B	QA	1/9/98	2138.13	26.96	2111.17	
	QA	4/21/98	2138.13	10.35	2127.78	
MW-58C	QA	1/9/98	2138.36	27.32	2111.04	
	QA	4/21/98	2138.36	10.66	2127.70	
MW-58D	QA	1/9/98	2138.31	27.20	2111.11	
	QA	4/21/98	2138.31	8.78	2129.53	
MW-59A	ME	1/9/98	2176.95	68.12	2108.83	
	ME	4/21/98	2176.95	51.26	2125.69	
MW-59B	ME	1/9/98	2177.18	63.56	2113.62	
	ME	4/21/98	2177.18	40.60	2136.58	
MW-59C	ME	1/9/98	2176.71	65.20	2111.51	
	ME	4/21/98	2176.71	46.90	2129.81	
MW-59D	ME	1/9/98	2177.32	65.34	2111.98	
	ME	4/21/98	2177.32	44.88	2132.44	
MW-60A	ME	1/9/98	2179.35	67.94	2111.41	
	ME	4/21/98	2179.35	54.60	2124.75	
MW-60B	ME	1/9/98	2179.52	67.26	2112.26	
	ME	4/21/98	2179.52	55.90	2123.62	
MW-61A	ME	1/9/98	2183.74	74.26	2109.48	
	ME	4/21/98	2183.74	58.74	2125.00	
MW-61B	ME	1/9/98	2183.59	86.74	2096.85	
	ME	4/21/98	2183.59	80.94	2102.65	
MW-61C	ME	1/9/98	2183.68	74.94	2108.74	
	ME	4/21/98	2183.68	57.30	2126.38	
MW-61D	ME	1/9/98	2183.65	76.54	2107.11	
	ME	4/21/98	2183.65	58.60	2125.05	
MW-62A	QA	1/9/98	2128.82	19.40	2109.42	
	QA	4/21/98	2128.82	8.30	2120.52	
MW-62B	QA	1/9/98	2128.86	19.16	2109.70	
	QA	4/21/98	2128.86	4.42	2124.44	
MW-63	QA	1/9/98	2153.75	41.34	2112.41	
	QA	4/21/98	2153.75	22.56	2131.19	
MW-64	QA	1/9/98	2125.76	18.78	2106.98	
	QA	4/21/98	2125.76	11.80	2113.96	
MW-65	QA	1/9/98	2126.27	19.50	2106.77	

WELL IDENTIFIER	HYDROGEOLOGIC UNIT	MEASUREMENT DATE	MEASURING POINT ELEVATION (feet msl)	DEPTH TO WATER (feet)	WATER LEVEL ELEVATION (feet msl)	COMMENT
MW-65	QA	4/21/98	2126.27	11.50	2114.77	
MW-66	QA	1/9/98	2127.87	23.76	2104.11	
	QA	4/21/98	2127.87	19.22	2108.65	
OW-01	QA	1/9/98	2202.79	52.56	2150.23	
	QA	4/21/98	2202.79	20.06	2182.73	
OW-02	QA	1/9/98	2076.60	2.88	2073.72	
	QA	4/21/98	2076.60	2.20	2074.40	
OW-03	QA	1/9/98	2141.01	29.70	2111.31	
	QA	4/21/98	2141.01	16.56	2124.45	
OW-08	QA	1/9/98	2033.66	47.48	1986.18	
	QA	4/21/98	2033.66	42.24	1991.42	
P-03	QA	1/9/98	2137.58	37.44	2100.14	
	QA	4/21/98	2137.58	31.94	2105.64	
P-04	QA	1/9/98	2109.02	23.96	2085.06	
	QA	4/21/98	2109.02	18.44	2090.58	
P-05	QA	1/9/98	2159.51	47.94	2111.57	
	QA	4/21/98	2159.51	26.56	2132.95	

TABLE 3

SAMPLING AND ANALYSIS SCHEDULE

TABLE 3 (Page 1 of 2)

SAMPLING AND ANALYSIS SCHEDULE

LOCKHEED MARTIN CORPORATION
BEAUMONT SITE No. 1, BEAUMONT, CALIFORNIA

Well Identifier	Date Sampled	Analysis	QA/QC			
		EPA	Field	Equipment	Duplicate	*MS/MSD
		8010	Blank	Blank		
MW-02	05/01/98	X				
MW-04	04/30/98	X	X			
MW-05	04/29/98	X				
MW-07	05/01/98	X				
MW-10	04/23/98	X				
MW-11	04/23/98	X				
MW-17	04/28/98	X				
MW-19	04/27/98	X	X			
MW-20	05/01/98	X				
MW-26	05/04/98	X				
MW-29	04/27/98	X				
MW-36	04/23/98	X		X		
MW-39	04/27/98	X				
MW-40	04/27/98	X				
MW-41	04/28/98	X	X	X	X	X
MW-42	04/27/98	X				
MW-44	04/28/98	X				
MW-49	04/29/98	X				
MW-50	04/30/98	X	X			
MW-51	04/29/98	X				
MW-52	04/29/98	X				
MW-55	05/01/98	X				
MW-56A	04/30/98	X				
MW-56C	04/30/98	X				
MW-57A	04/30/98	X				
MW-58D	04/30/98	X	X	X	X	X

*MS/MSD -Matrix Spike/ Matrix Spike Duplicate

TABLE 3 (Page 2 of 2)

SAMPLING AND ANALYSIS SCHEDULE

LOCKHEED MARTIN CORPORATION
BEAUMONT SITE No. 1, BEAUMONT, CALIFORNIA

Well Identifier	Date Sampled	Analysis	QA/QC			
		EPA	Field	Equipment	Duplicate	*MS/MSD
		8010	Blank	Blank		
MW-59B	05/04/98	X	X			
MW-62A	04/29/98	X				
MW-63	05/01/98	X				
MW-66	04/28/98	X	X			
OW-03	04/28/98	X				
EW-01	04/29/98	X				
EW-02	04/28/98	X				
EW-11	05/08/98	X				
EW-12	05/05/98	X	X	X	X	X
EW-13	05/04/98	X				
EW-15	05/08/98	X				
EW-16	05/08/98	X	X			
EW-18	05/04/98	X				
MW-110**		X				
MW-112**		X				
MW-115**		X				

*MS/MSD -Matrix Spike/ Matrix Spike Duplicate

** - Blind duplicates for EW-12, MW-41 and MW-58D, respectively

TABLE 4

SUMMARY OF LABORATORY ANALYSIS OF GROUNDWATER SAMPLES

TABLE 4 (PAGE 1 OF 3)
SUMMARY OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
LOCKHEED MARTIN CORPORATION
BEAUMONT SITE No. 1, BEAUMONT, CALIFORNIA

Well Identifier	EPA Method 8010 (results listed in micrograms per liter)										
	1,1-DCE	1,1-DCA	CF	1,1,1-TCA	CT	TCE	1,2-DCA	1,1,2-TCA	PCE	Trans 1,2-DCE	Total VOCs
EW-01	96.7	5.5	4.2	7.2	<0.5	92	<0.5	<0.5	<0.5	<0.5	205.6
EW-02	166	8	5.8	8.7	4.5	189	4.2	<0.5	<0.5	<0.5	386.2
EW-11	512	11.8	4.9	15.4	4.6	608	20	3.5	3.6	<0.5	1183.8
EW-11-FB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
EW-12	1952	24.4	10.9	75.3	5	1192	65.7	16.2	4.6	<0.5	3346.1
EW-12-DUP	3007	51	14.5	122	6.5	1234	63	26.9	2.9	<0.5	4527.8
EW-12-FB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
EW-12-EB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
EW-12-MS	2808	51.8	26.4	132	9.1	1177	67.2	27.5	2.7	<0.5	4301.7
EW-13	1240	51	12.4	68.7	4.9	880	124	17.7	4.6	<0.5	2403.3
EW-15	2496	76.7	19	75.4	6.2	1160	43.3	10.1	5.2	<0.5	3891.9
EW-16	1280	27.5	20.8	38.4	5	1304	8.7	4.9	3.9	<0.5	2693.2
EW-16-FB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
EW-18	10480	179	66.2	155	12.9	2672	88.1	24.3	10.1	<0.5	13687.6
MW-02	152	8.4	4.8	13	<0.5	151	6.8	<0.5	<0.5	<0.5	336
MW-04	65.6	5.4	4.4	4.5	<0.5	51.6	4.4	<0.5	<0.5	<0.5	135.9
MW-05	202	9.5	6.7	11	5.2	246	3.2	<0.5	<0.5	<0.5	483.6
MW-07	3.7	<0.5	<0.5	2.3	<0.5	10	7.1	<0.5	<0.5	<0.5	23.1
MW-10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4.8	<0.5	<0.5	<0.5	4.8
MW-11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
MW-17	18.9	4.1	<0.5	8.6	<0.5	20.7	<0.5	<0.5	<0.5	<0.5	52.3
MW-19	24	5.2	4.2	4.1	<0.5	11.2	<0.5	<0.5	<0.5	<0.5	48.7
MW-19-FB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
MW-20	14.9	4.1	<0.5	3.5	<0.5	19.7	<0.5	<0.5	<0.5	<0.5	42.2
MW-26	2784	101	23.8	141	9.5	2768	175	21.4	9.9	<0.5	6033.6
MW-29	29.8	7.96	4.2	2.9	<0.5	63.6	<0.5	<0.5	<0.5	<0.5	108.46
MW-36	<0.5	<0.5	<0.5	<0.5	<0.5	6.3	<0.5	<0.5	<0.5	<0.5	6.3
MW-36-EB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
MW-39	143	6.4	6.3	4.6	4.6	125	<0.5	<0.5	<0.5	<0.5	289.9
MW-40	17.6	4.4	<0.5	<0.5	<0.5	24.9	<0.5	<0.5	<0.5	<0.5	46.9
MW-41	134	6.3	5.9	4.1	5.1	162	<0.5	<0.5	<0.5	9.6	327
MW-41-DUP	122	1.7	2.7	1.3	1.6	136	<0.5	<0.5	<0.5	<0.5	265.3
California MCL(µg/l)	6	5	[100]	200	0.5	5	0.5	32	5	10	
Reportable Detection Limit (µg/l)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	

1,1-DCE = 1,1-Dichloroethene
1,1-DCA = 1,1-Dichloroethane
CF = Chloroform
1,1,1-TCA = 1,1,1-Trichloroethan
CT = Carbon tetrachloride
TCE = Trichloroethene
1,2-DCA = 1,2-Dichloroethane
1,1,2- TCA = 1,1,2-Trichloroethane
PCE = Tetrachloroethene
Trans 1,2-DCE =Trans 1,2-Dichloroethen
FD = Field Duplicate
LTB = Laboratory Trip Blank
FB - Field Blank
EB = Equipment Blank
MS = Matrix Spike/ Matrix Spike Duplicate
BD = Blind Duplicate
µg/l = micrograms per liter
[100] = MCL for total trihalomethanes (sum of bromoform, bromodichloromethane, chloroform, and dibromochloromethane).

TABLE 4 (PAGE 2 OF 3)
SUMMARY OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
LOCKHEED MARTIN CORPORATION
BEAUMONT SITE No. 1, BEAUMONT, CALIFORNIA

Well Identifier	EPA Method 8010 (results listed in micrograms per liter)										
	1,1-DCE	1,1-DCA	CF	1,1,1-TCA	CT	TCE	1,2-DCA	1,1,2-TCA	PCE	Trans 1,2-DCE	Total VOCs
MW-41-FB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
MW-41-EB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
MW-41-MS	122	1.7	2.5	1.2	1.6	133	<0.5	<0.5	<0.5	<0.5	262
MW-42	117	9.1	<0.5	<0.5	<0.5	85	<0.5	<0.5	<0.5	<0.5	211.1
MW-44	222	11.8	6.2	9	4.5	235	4.1	<0.5	<0.5	<0.5	492.6
MW-49	12.3	<0.5	<0.5	3.3	<0.5	17.4	<0.5	<0.5	<0.5	<0.5	33
MW-50	10.2	<0.5	<0.5	3.2	<0.5	15.7	<0.5	<0.5	<0.5	<0.5	29.1
MW-50-FB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
MW-51	66.7	5.3	4.5	7.1	<0.5	73.3	<0.5	<0.5	<0.5	<0.5	156.9
MW-52	60.6	5.5	4.3	6.2	<0.5	74.1	<0.5	<0.5	<0.5	<0.5	150.7
MW-55	18.3	4.1	<0.5	3	1.6	17.6	6.3	<0.5	<0.5	<0.5	50.9
MW-56A	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
MW-56C	91.6	6	4.4	7.9	<0.5	101	4.5	<0.5	<0.5	<0.5	215.4
MW-57A	145	8.1	4.7	10.7	<0.5	144	3.3	<0.5	<0.5	<0.5	315.8
MW-58D	97	4.4	4.4	6.9	<0.5	105	<0.5	<0.5	<0.5	<0.5	217.7
MW-58D-DUP	78.6	1.2	0.7	11.8	<0.5	89.1	<0.5	<0.5	<0.5	<0.5	181.4
MW-58D-FB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
MW-58D-EB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
MW-58D-MS	76.2	0.8	0.6	2.3	<0.5	80	<0.5	<0.5	<0.5	<0.5	159.9
MW-59B	187	14.5	6.6	11.8	4.9	195	19.9	4.2	3.4	<0.5	447.3
MW-59B-FB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
MW-62A	157	7.6	6.7	8.5	4.9	180	<0.5	<0.5	<0.5	<0.5	364.7
MW-63	62.1	4.9	<0.5	6.5	<0.5	51.7	<0.5	<0.5	<0.5	<0.5	125.2
MW-66	200*	9.3	6.6	6.8	<0.5	222	<0.5	<0.5	<0.5	<0.5	444.7
MW-66-FB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
OW-03	72.7	5.2	4.4	6.5	<0.5	84.9	<0.5	<0.5	<0.5	<0.5	173.7
MW-110 (BD, EW-12)	2216	19.7	8.4	71.3	5.3	1408	67.5	15.9	5.5	<0.5	3817.6
California MCL(µg/l)	6	5	[100]	200	0.5	5	0.5	32	5	10	
Reportable Detection Limit (µg/l)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	

1,1-DCE = 1,1-Dichloroethene
1,1-DCA = 1,1-Dichloroethane
CF = Chloroform
1,1,1-TCA = 1,1,1-Trichloroethane
CT = Carbon tetrachloride
TCE = Trichloroethene
1,2-DCA = 1,2-Dichloroethane
1,1,2- TCA = 1,1,2-Trichloroethane
PCE = Tetrachloroethene
Trans 1,2-DCE =Trans 1,2-Dichloroethene
FD = Field Duplicate
LTB = Laboratory Trip Blank
FB - Field Blank
EB = Equipment Blank
MS = Matrix Spike/ Matrix Spike Duplicate
BD = Blind Duplicate
µg/l = micrograms per liter
[100] = MCL for total trihalomethanes (sum of bromoform, bromodichloromethane, chloroform, and dibromochloromethane).

TABLE 4 (PAGE 3 OF 3)
SUMMARY OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
LOCKHEED MARTIN CORPORATION
BEAUMONT SITE No. 1, BEAUMONT, CALIFORNIA

Well Identifier	EPA Method 8010 (results listed in micrograms per liter)										
	1,1-DCE	1,1-DCA	CF	1,1,1-TCA	CT	TCE	1,2-DCA	1,1,2-TCA	PCE	Trans 1,2-DCE	Total VOCs
MW-112 (BD, MW-41)	120	1.8	2.6	1.3	4.9	131	<0.5	<0.5	<0.5	<0.5	261.6
MW-115 (BD, MW-58D)	84.0	4.6	0.6	2.54	<0.5	62.4	<0.5	<0.5	<0.5	<0.5	154.14
LTB042298-1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
LTB042798-1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
LTB042898-1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
LTB042998-1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
LTB043098-1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
LTB050198-1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
LTB050498-1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
LTB050598-1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
LTB050898-1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0
California MCL(µg/l)	6	5	[100]	200	0.5	5	0.5	32	5	10	
Reportable Detection Limit (µg/l)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	

1,1-DCE = 1,1-Dichloroethene
1,1-DCA = 1,1-Dichloroethane
CF = Chloroform
1,1,1-TCA = 1,1,1-Trichloroethane
CT = Carbon tetrachloride
TCE = Trichloroethene
1,2-DCA = 1,2-Dichloroethane
1,1,2- TCA = 1,1,2-Trichloroethane
PCE = Tetrachloroethene
Trans 1,2-DCE =Trans 1,2-Dichloroethene
FD = Field Duplicate
LTB = Laboratory Trip Blank
FB - Field Blank
EB = Equipment Blank
MS = Matrix Spike/ Matrix Spike Duplicate
BD = Blind Duplicate
µg/l = micrograms per liter
[100] = MCL for total trihalomethanes (sum of bromoform, bromodichloromethane, chloroform, and dibromochloromethane).

FIGURES

Figure 1: Site Location Map

Lockheed Martin Corporation Beaumont Site No. 1

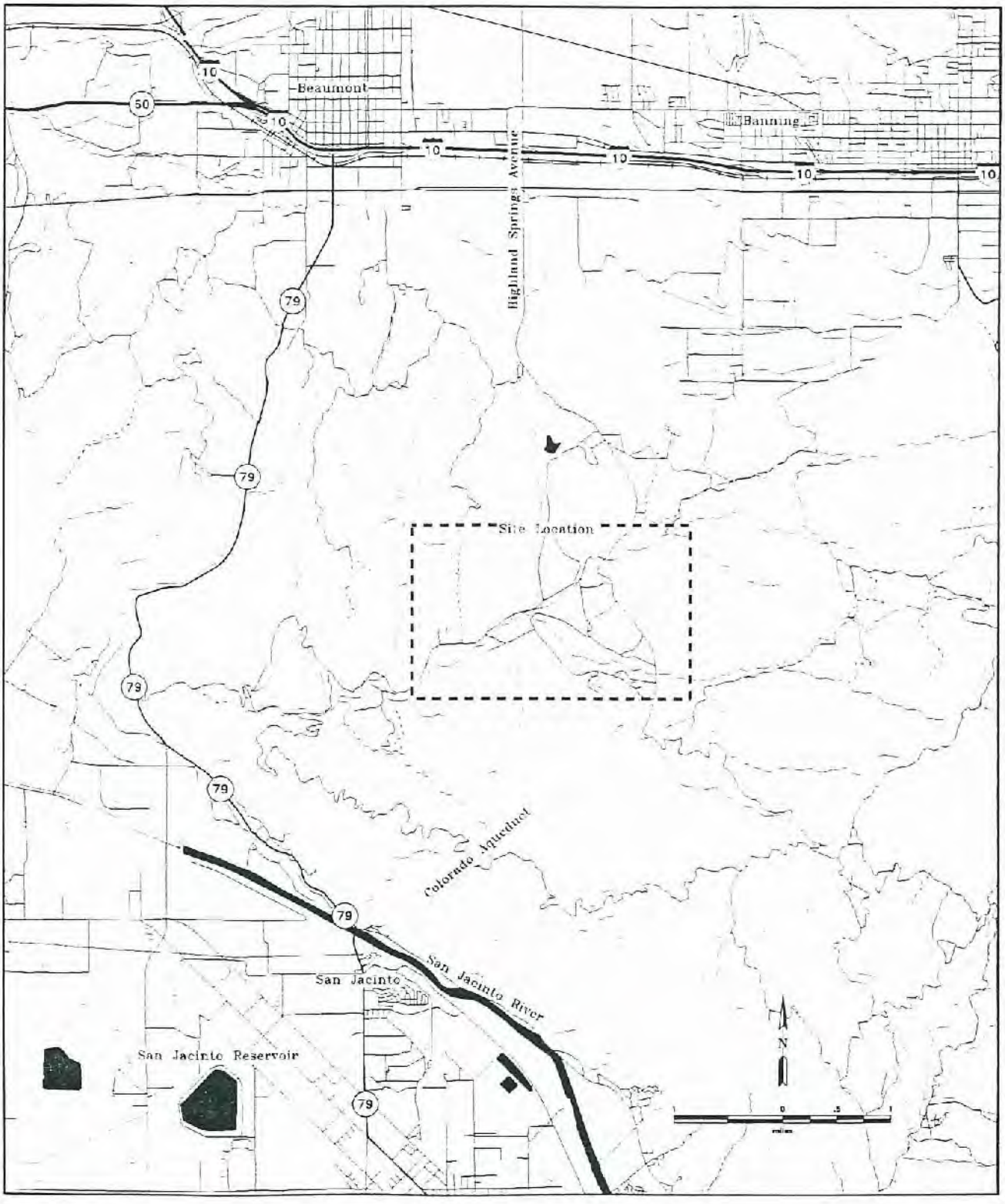


Figure 2: Well Location Map

Lockheed Martin Corporation Beaumont Site No. 1

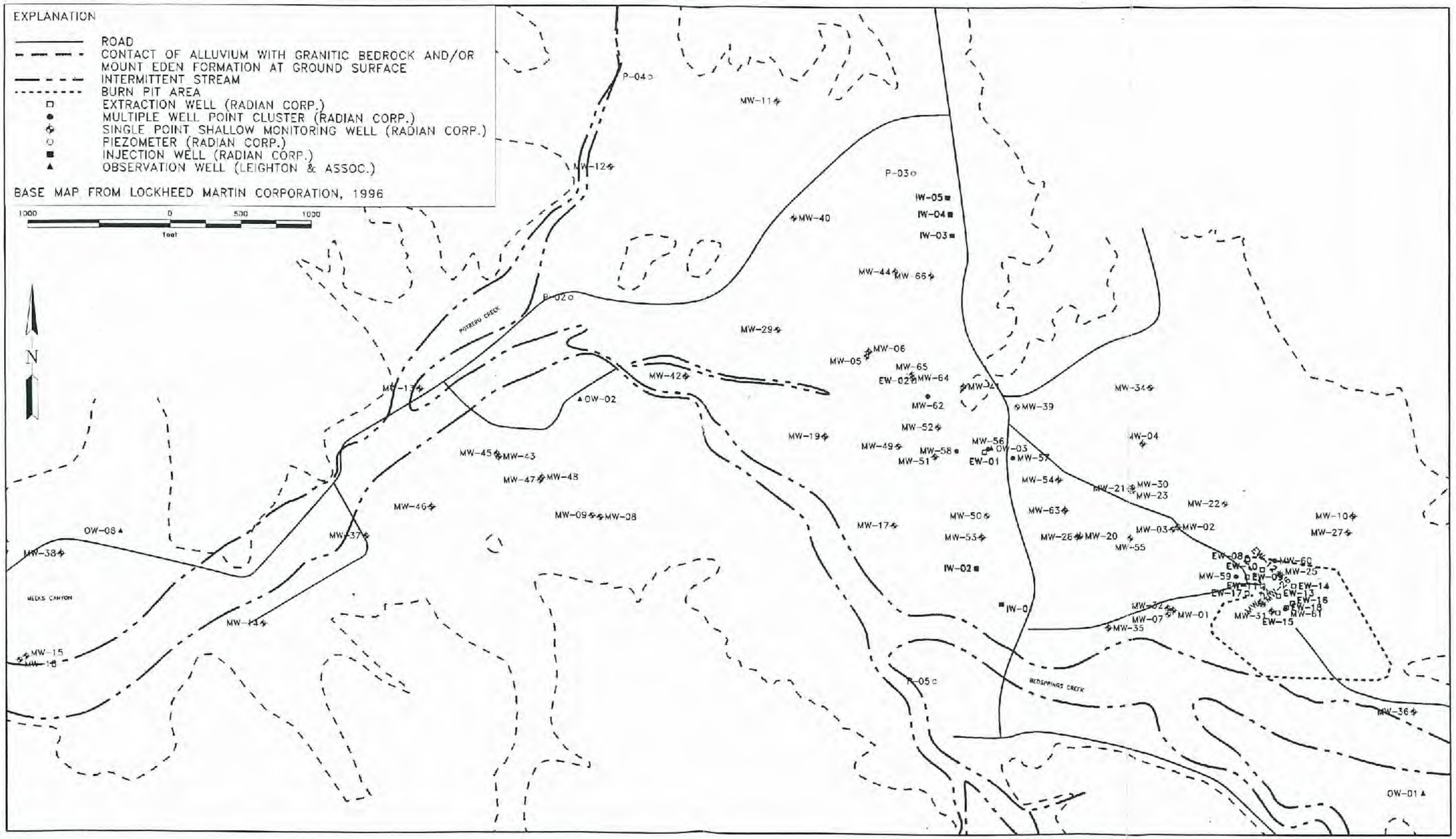
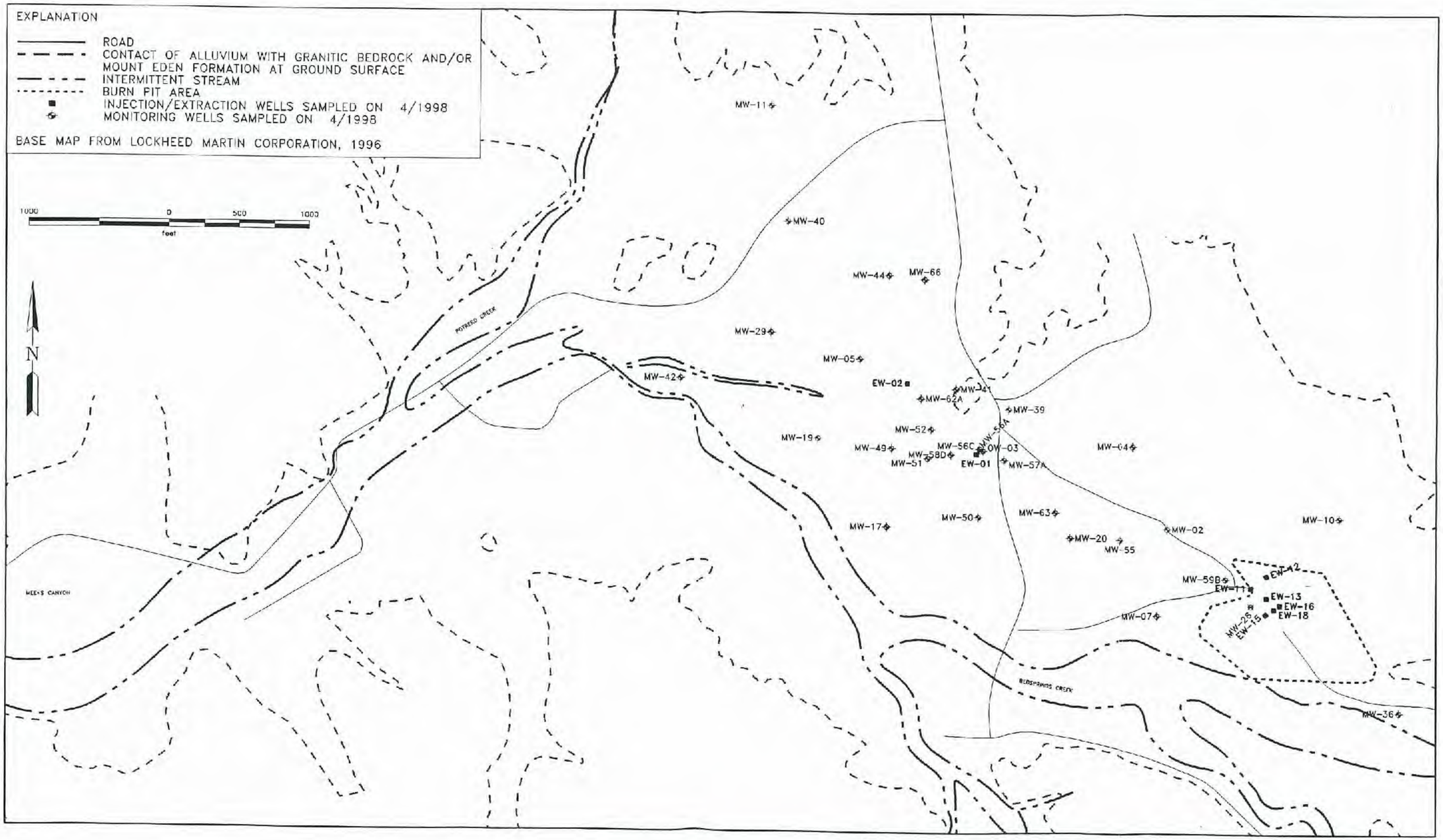


Figure 3: Wells Sampled April 1998

Lockheed Martin Corporation Beaumont Site No. 1



TerraNext

Figure 4: Potentiometric-Surface Map January 1998

Lockheed Martin Corporation Beaumont Site No. 1

LOCKHEED MARTIN

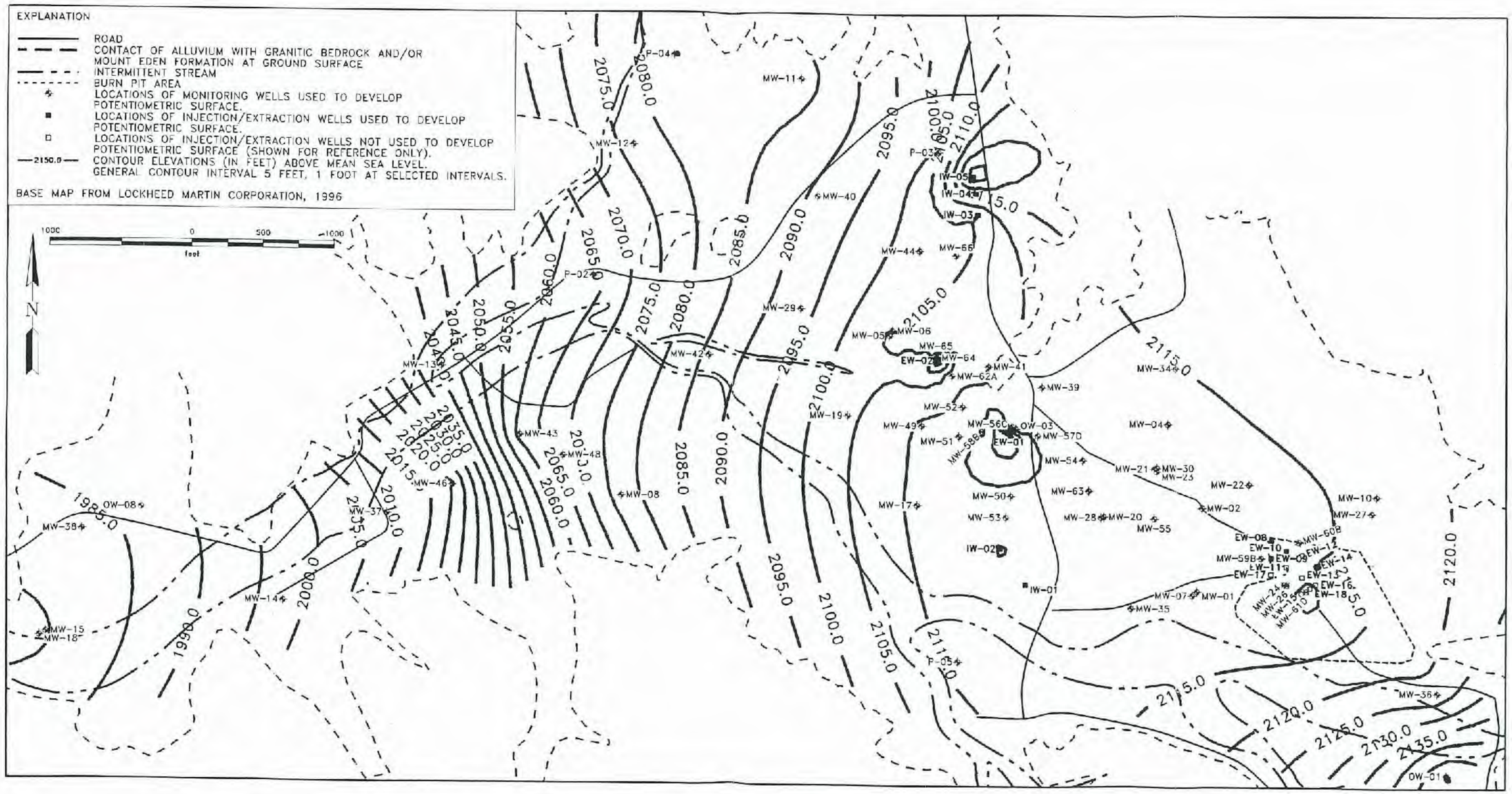


Figure 5: Potentiometric-Surface Map April 1998

Lockheed Martin Corporation Beaumont Site No. 1

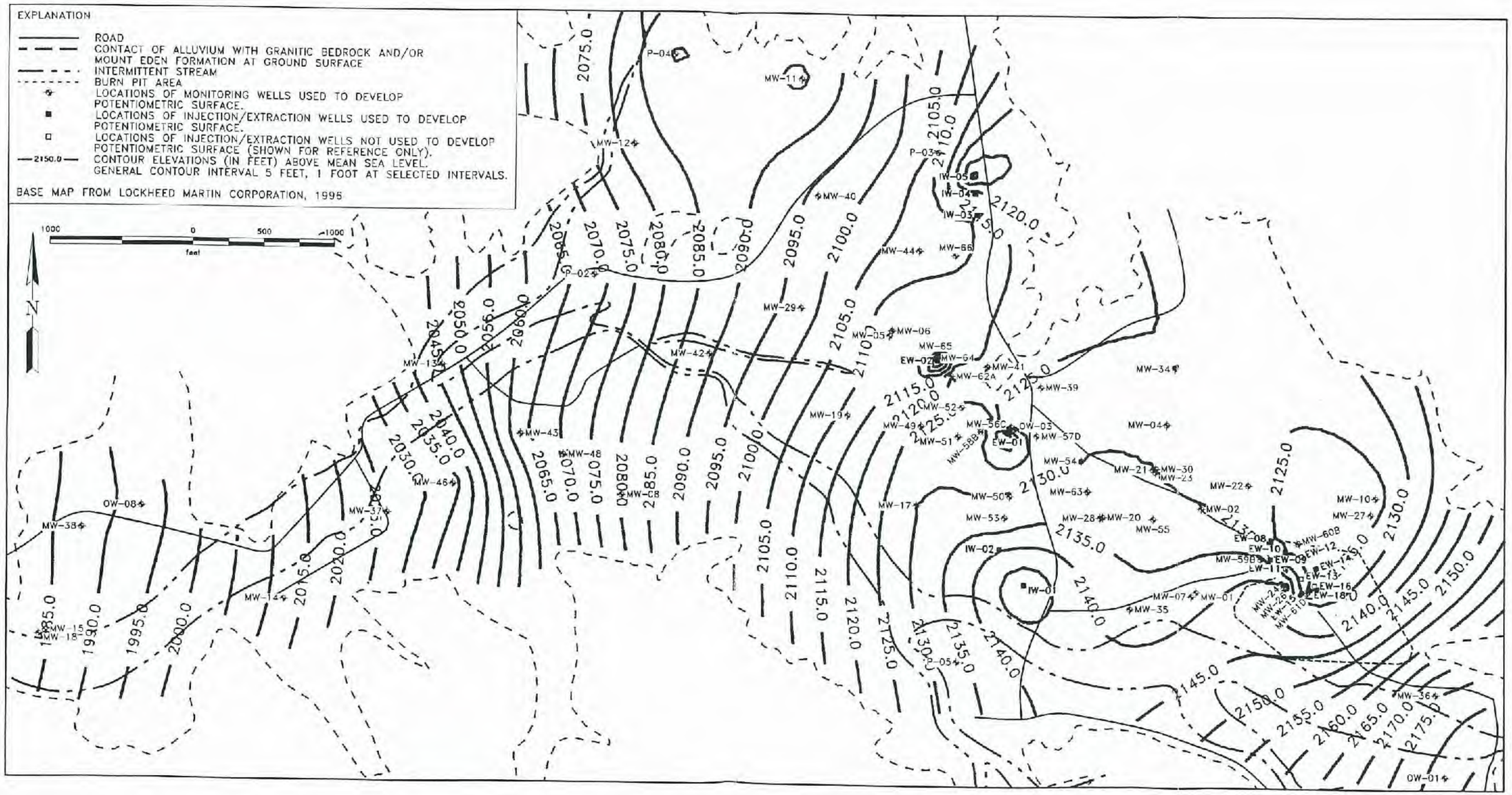


Figure 6: 1,1,1-TCA in Groundwater April 1998

Lockheed Martin Corporation Beaumont Site No. 1

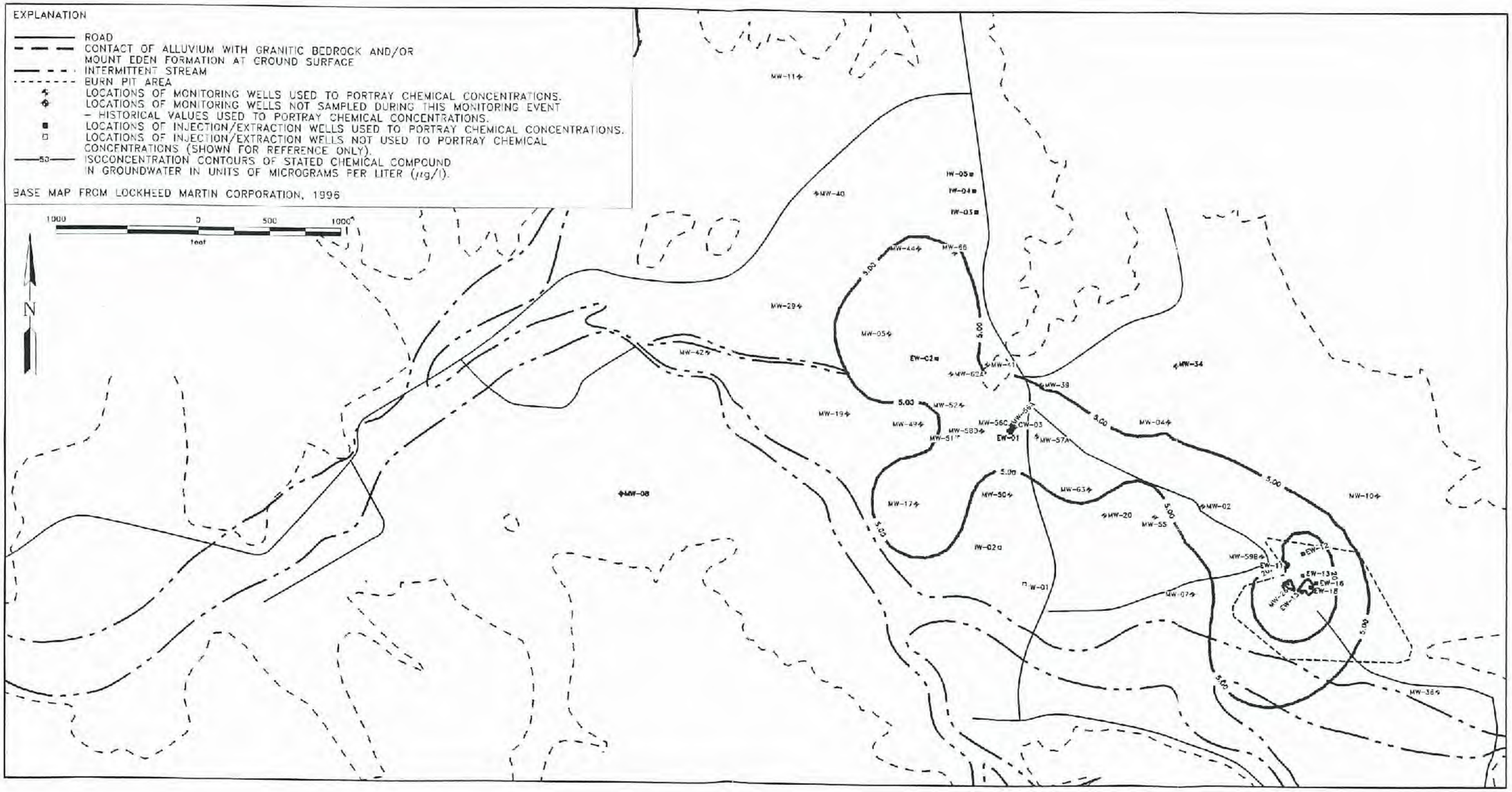


Figure 7: 1,2-DCA in Groundwater
April 1998

Lockheed Martin Corporation Beaumont Site No. 1

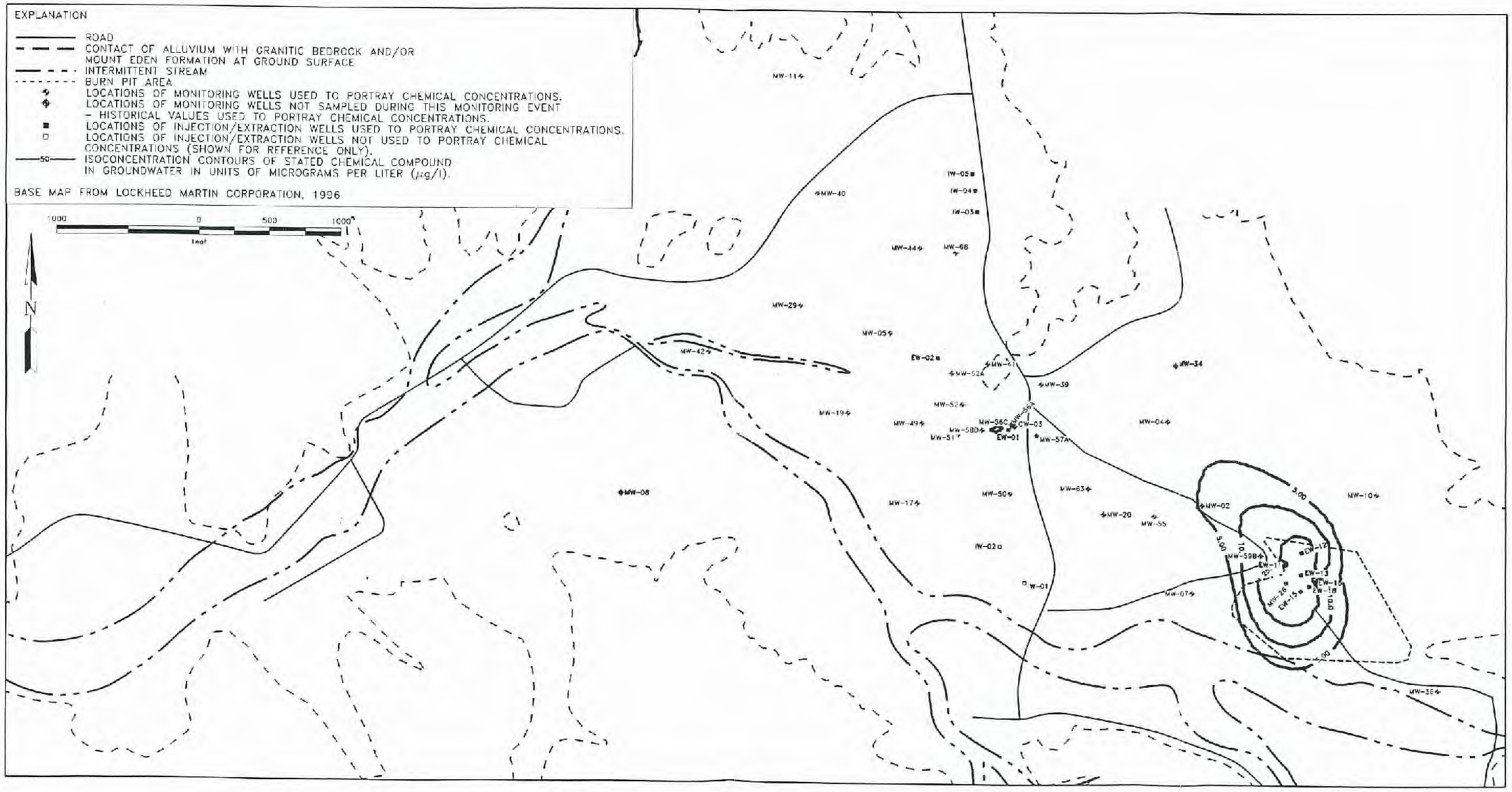


Figure 8: 1,1–DCE in Groundwater
April 1998

Lockheed Martin Corporation Beaumont Site No. 1

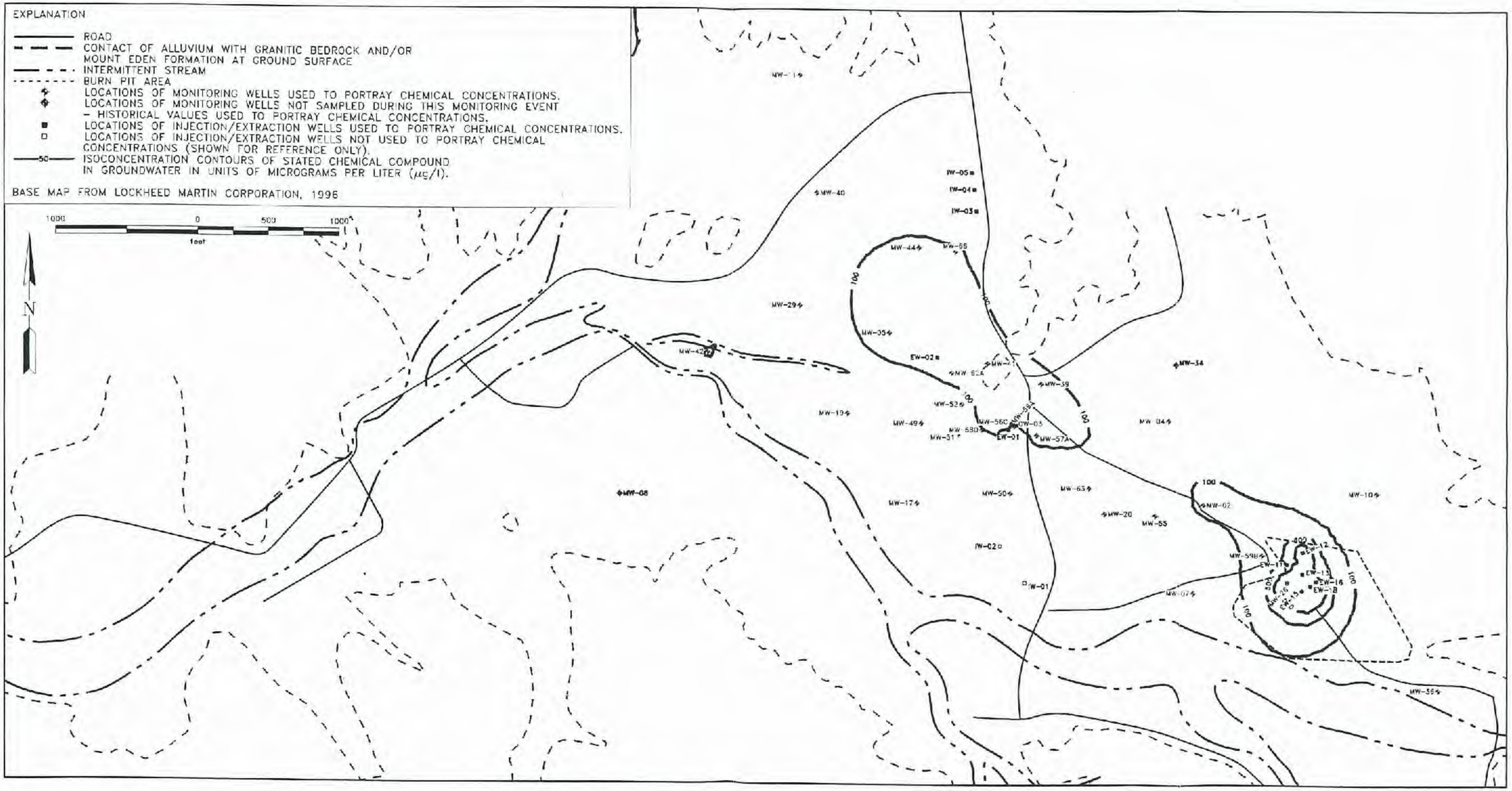


Figure 9: TCE in Groundwater
April 1998

Lockheed Martin Corporation Beaumont Site No. 1

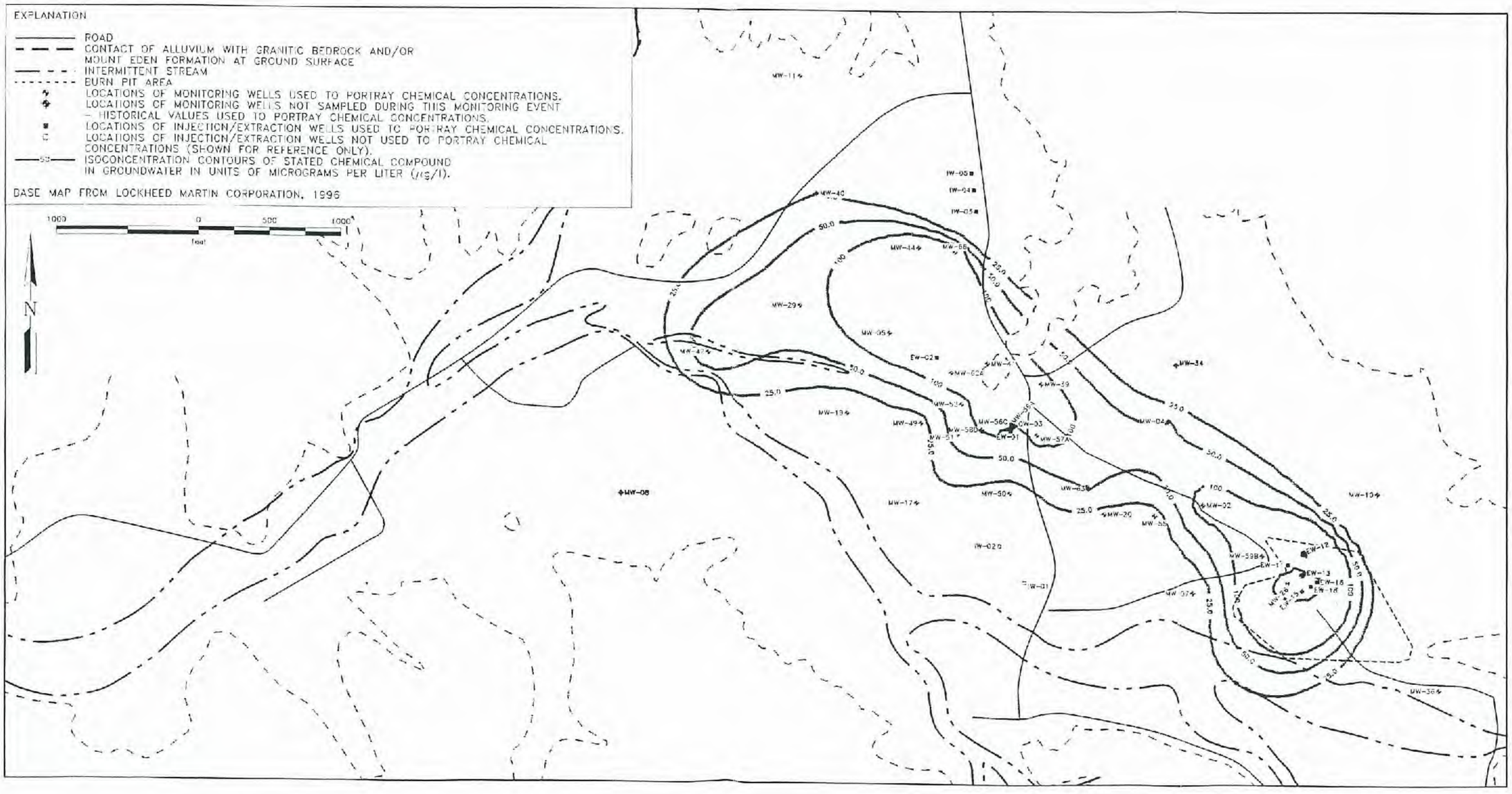
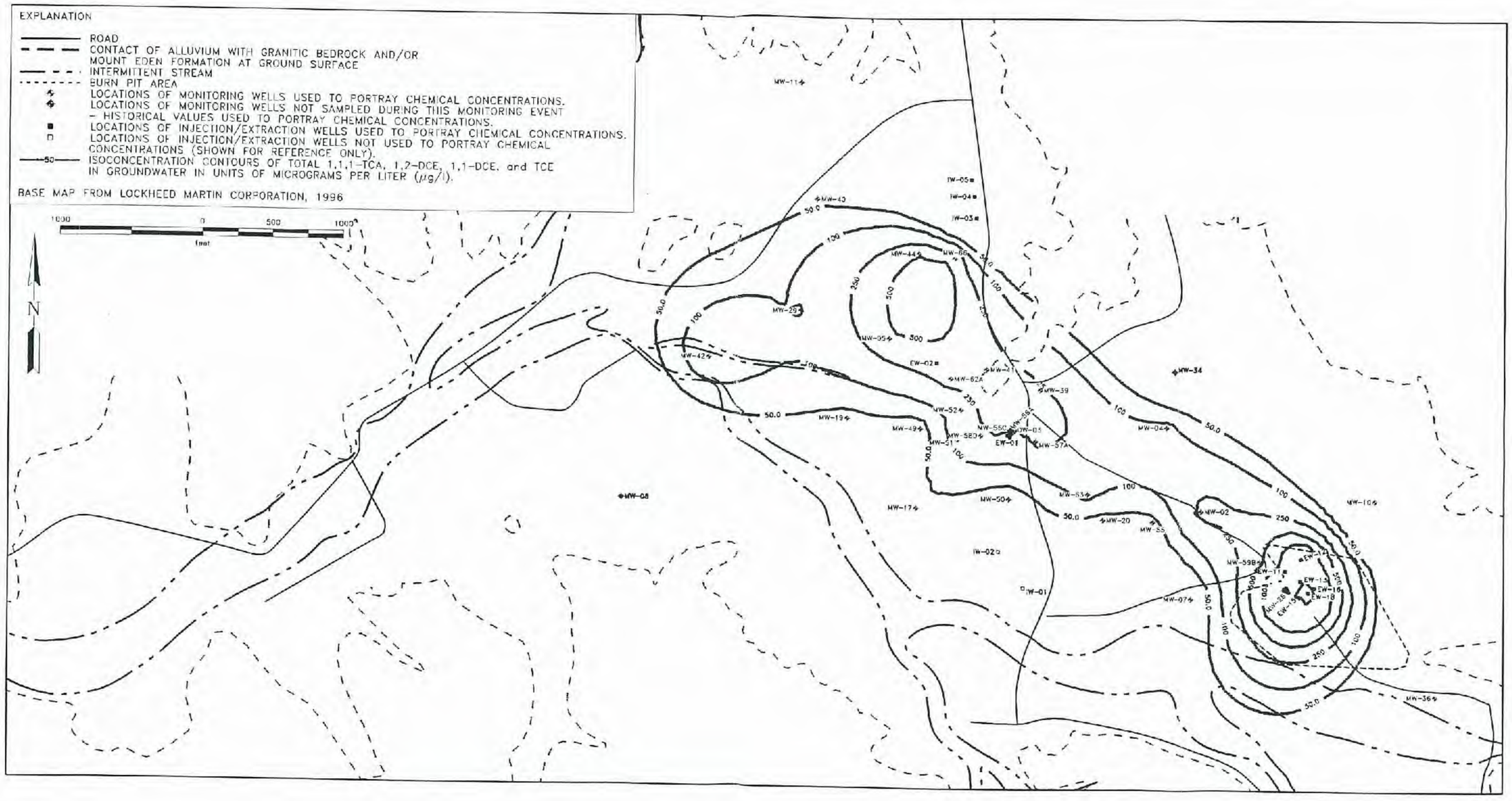


Figure 10: Total VOCs in Groundwater April 1998

Lockheed Martin Corporation Beaumont Site No. 1



APPENDIX A

FIELD DATA SHEETS, WATER LEVELS (JANUARY AND APRIL 1998)

TABLE BEAUMONT SITE No. 1 STATIC WATER LEVEL DATA SHEET

MONTH/YEAR JAN 1997

STATIC WATER LEVEL DATA SHEET

LOCKHEED WATER LEVEL MONITORING PROGRAM

WELL IDENTIFIER	DATE	TIME	METHOD OF MEASUREMENT	SOUNDER FOOTAGE MARK (feet)	ADDITIONAL INCREMENT (feet)	DEPTH TO WATER FROM REFERENCE POINT (feet)	REFERENCE POINT ELEVATION (feet msl)	PREVIOUS DEPTH TO WATER (feet)	CHANGE IN WATER LEVEL (feet)	COMMENT	INITIALS
EW-01	1-9-98	1522		47	32	47.32	2142.64	14.16	-33.16	small is 47.90 0900 8837 18.6	RDA
EW-02	1-9-98	1057		33	28	33.28	2125.06	27.74	-5.54	33 12 - small is 33.04 1156 0830	RDA
EW-08	1-9-98	1357		61	00	61.00	2175.13	59.5	-1.5	small is 61.04	RDA
EW-09	1-9-98	1426		63	24	63.24	2176.39	61.52	-1.72	small is 63.16	RDA
EW-10	1-9-98	1356		64	70	64.70	2176.94	60.86	-3.84	small is 64.76	RDA
EW-11							2178.74				
EW-12							2176.79				
EW-13							2179.89				
EW-14	1-9-98	1352		65	98	65.98	2181.80	64.4	-1.58	small is Dry	RDA
EW-15							2181.32				
EW-16							2182.30				
EW-18							2182.34				
IW-01	1-9-98	1614		45	92	45.92	2158.30	44.6	-1.32	2485370. Not Recovering	RDA
IW-02	1-9-98	1620		37	02	37.02	2152.52	39	1.98	6767530 Pumping	RDA
IW-03	1-9-98	1025		25	02	25.02	2129.94	26.76	1.74	Pump Pump 7527046	RDA
IW-04	1-9-98	1023		16	22	16.22	2132.49	29.64	13.43	Pumping 3641566	RDA
IW-05	1-9-98	1021		3	88	3.88	2134.07	31.52	27.64	Pumping 87128 90.0	RDA
MW-01	1-9-98	1314		61	92	61.92	2174.30	60.34	-1.58		RDA

Verified by: [signature] Date: 1-10-97

TABLE _ BEAUMONT SITE No. 1 STATIC WATER LEVEL DATA SHEET

MONTH/YEAR JAN 1998

STATIC WATER LEVEL DATA SHEET

LOCKHEED WATER LEVEL MONITORING PROGRAM

WELL IDENTIFIER	DATE	TIME	METHOD OF MEASUREMENT	SOUNDER FOOTAGE MARK (feet)	ADDITIONAL INCREMENT (feet)	DEPTH TO WATER FROM REFERENCE POINT (feet)	REFERENCE POINT ELEVATION (feet msl)	PREVIOUS DEPTH TO WATER (feet)	CHANGE IN WATER LEVEL (feet)	COMMENT	INITIALS
MW-02	1-9-98	1430		54	28	54.28	2167.46	52.72	-1.56		RJA
MW-03	1-9-98	1433		119	80	119.80	2166.44	119	-0.8		RJA
MW-04	1-9-98	1444		44	22	44.22	2157.39	42.68	-1.54		RJA
MW-05	1-9-98	1049		12	86	12.86	2118.71	11.98	-0.88		RJA
MW-06	1-9-98	1047		14	64	14.64	2119.11	13.86	-0.78		RJA
MW-07	1-9-98	1309		61	42	61.42	2173.84	59.78	-1.64		RJA
MW-08	1-9-98	0927		10	30	10.30	2087.79	10.44	0.14		RJA
MW-09	1-9-98	0924				OVERFLOWING	2086.32	overflowing	0		RJA
MW-10	1-9-98	1403		60	60	60.60	2176.72	59.14	-1.46		RJA
MW-11	1-9-98	1013		37	08	37.08	2119.90	36.72	-1.08		RJA
MW-12	1-9-98	1006		18	56	18.56	2095.79	20.62	2.06		RJA
MW-13	1-9-98	0957		13	60	13.60	2055.19	15.76	2.16		RJA
MW-14	1-9-98	0956		29	58	29.58	2026.97	28.66	-0.92		RJA
MW-15	1-9-98	0902		27	32	27.32	2007.06	27.16	-0.16		RJA
MW-17	1-9-98	1605		26	80	26.80	2137.72	25.29	-1.51		RJA
MW-18	1-9-98	0900		26	94	26.94	2006.00	26.82	-0.12		RJA
MW-19	1-9-98	1119		11	84	11.84	2115.79	11.4	-0.44		RJA
MW-20	1-9-98	1459		47	14	47.14	2159.52	45.5	-1.64		RJA

Verified by: RJA Date: 1-12-98

TABLE BEAUMONT SITE No. 1 STATIC WATER LEVEL DATA SHEET

MONTH/YEAR JAN 1998

(6)

STATIC WATER LEVEL DATA SHEET

LOCKHEED WATER LEVEL MONITORING PROGRAM

WELL IDENTIFIER	DATE	TIME	METHOD OF MEASUREMENT	SOUNDER FOOTAGE MARK (feet)	ADDITIONAL INCREMENT (feet)	DEPTH TO WATER FROM REFERENCE POINT (feet)	REFERENCE POINT ELEVATION (feet msl)	PREVIOUS DEPTH TO WATER (feet)	CHANGE IN WATER LEVEL (feet)	COMMENT	INITIALS
MW-21	1-9-98	1438		45	38	45.38	2158.13	43.76	-1.62		RAA
MW-22	1-9-98	1432		54	36	54.36	2168.22	52.8	-1.56		RAA
MW-23	1-9-98	1439		46	50	46.50	2159.56	45	-1.5		RAA
MW-24	1-9-98	1345		68	68	68.68	2180.62	66.66	-2.02		RAA
MW-26	1-9-98	1340		66	74	66.74	2179.93	64.74	-2		RAA
MW-27	1-9-98	1407		63	98	63.98	2180.80	62.58	-1.4		RAA
MW-28	1-9-98	1455		45	92	45.92	2158.25	44.28	-1.64		RAA
MW-29	1-9-98	1045		19	28	19.28	2112.37	19.26	-0.02		RAA
MW-30	1-9-98	1441		45	00	45.00	2159.04	43.5	-1.5		RAA
MW-31	1-9-98	1330		82	16	82.16	2183.30	81.27	-0.89		RAA
MW-32	1-9-98	1311		75	58	75.58	2173.38	74.21	-1.37		RAA
MW-34	1-9-98	1446		36	42	36.42	2151.38	34.96	-1.46		RAA
MW-35	1-9-98	1300		56	04	56.04	2168.34	54.52	-1.52		RAA
MW-36	1-9-98	1402		81	26	81.26	2202.53	79.63	-1.63		RAA
MW-37	1-9-98	0908		32	40	32.40	2038.25	31.56	-0.84		RAA
MW-38	1-9-98	0904		43	64	43.64	2027.58	42.98	-0.66		RAA
MW-39	1-9-98	1542		29	56	29.56	2141.54	27.9	-1.66		RAA
MW-40	1-9-98	1017		32	64	32.64	2123.69	32.16	-0.48		RAA

Verified by: Richard Date 1-10-97

TABLE _ BEAUMONT SITE No. 1 STATIC WATER LEVEL DATA SHEET

MONTH/YEAR Jan 1998

STATIC WATER LEVEL DATA SHEET

LOCKHEED WATER LEVEL MONITORING PROGRAM

WELL IDENTIFIER	DATE	TIME	METHOD OF MEASUREMENT	SOUNDER FOOTAGE MARK (feet)	ADDITIONAL INCREMENT (feet)	DEPTH TO WATER FROM REFERENCE POINT (feet)	REFERENCE POINT ELEVATION (feet msl)	PREVIOUS DEPTH TO WATER (feet)	CHANGE IN WATER LEVEL (feet)	COMMENT	INITIALS
MW-41	1-9-98	1102		2	56	2.56	2131.28	21.22	-1.34		RDA
MW-42	1-9-98	1112		3	90	3.90	2089.86	4.38	0.48		RDA
MW-43	1-9-98	0916		3	86	3.86	2065.81	4.2	0.34		RDA
MW-44	1-9-98	1091		21	84	21.84	2124.42	21	-1.84		RDA
MW-45	1-9-98	0916				OVERFlow	2068.88	overflowing	-		RDA
MW-46	1-9-98	1630		49	92 R2	6.48 49.92	2069.40	49.38	-0.54		RDA
MW-47	1-9-98	0922		24	50 R2	OVERFlow	2077.12	overflowing	-		RDA
MW-48	1-9-98	0922		6	18	6.18	2073.73	7.06	0.88		RDA
MW-49	1-9-98	1115		17	98	17.98	2128.76	16.38	-1.6		RDA
MW-50	1-9-98	1611		37	04	37.04	2148.76	35.4	-1.64		RDA
MW-51	1-9-98	1600		24	50	24.50	2135.71	23.04	-1.46		RDA
MW-52	1-9-98	1125		22	92	22.92	2133.53	21.16	-1.76		RDA
MW-53	1-9-98	1409		38	80	38.80	2150.63	37.2	-1.6		RDA
MW-54	1-9-97	1504		38	58	38.58	2150.77	36.96	-1.62		RDA
MW-55	1-9-97	1450		51	50	51.50	2163.53	49.92	-1.58		RDA
MW-56A	1-9-97	1506		42	08	42.08	2140.41	40.8	-1.28		RDA
MW-56B	1-9-97	1508		28	24	28.24	2139.93	26.94	-1.3		RDA
MW-56C	1-9-97	1512		28	98	28.98	2140.14	26.96	-2.02		RDA

Verified by: Richard Allen Date 1-10-97

c:\data\1\project1\0522134\wt\M.wk4

TABLE BEAUMONT SITE No. 1 STATIC WATER LEVEL DATA SHEET

MONTH/YEAR JAN 1998

STATIC WATER LEVEL DATA SHEET

LOCKHEED WATER LEVEL MONITORING PROGRAM

WELL IDENTIFIER	DATE	TIME	METHOD OF MEASUREMENT	SOUNDER FOOTAGE MARK (feet)	ADDITIONAL INCREMENT (feet)	DEPTH TO WATER FROM REFERENCE POINT (feet)	REFERENCE POINT ELEVATION (feet msl)	PREVIOUS DEPTH TO WATER (feet)	CHANGE IN WATER LEVEL (feet)	COMMENT	INITIALS
MW-56D	1-9-98	1516		28	38	28.38	2139.85	26.54	-1.84		RDA
MW-57A	1-9-98	1552		31	59	31.59	2143.34	29.82	-1.72		RDA
MW-57B	1-9-98	1549		31	68	31.68	2143.58	30.06	-1.62		RDA
MW-57C	1-9-98	1547		31	50	31.50	2143.38	29.6	-1.90		RDA
MW-57D	1-9-98	1545		31	72	31.72	2143.48	29.92	-1.80		RDA
MW-58A	1-9-98	1600		26	98	26.98	2138.06	25.34	-1.64		RDA
MW-58B	1-9-98	1558		26	96	26.96	2138.13	25.16	-1.80		RDA
MW-58C	1-9-98	1555		27	32	27.32	2138.36	25.56	-1.76		RDA
MW-58D	1-9-98	1553		27	20	27.20	2138.31	25.56	-1.64		RDA
MW-59A	1-9-98	1422		68	12	68.12	2176.95	66.68	-1.44		RDA
MW-59B	1-9-98	1420		63	56	63.56	2177.18	61.92	-1.64		RDA
MW-59C	1-9-98	1418		65	20	65.20	2176.71	63.66	-1.54		RDA
MW-59D	1-9-98	1415		65	34 200	65.34 265	2177.32	63.52	-1.82		RDA
MW-60A	1-9-98	1412		67	~~26~~ 94	67 ~~26~~ 94	2179.35	65.86	-2.08		RDA
MW-60B	1-9-98	1410		67	26	67.26	2179.52	63.76	-3.50	Double checked	RDA
MW-61A	1-9-98	1315		74	26	74.26	2183.74	73.54	-0.72		RDA
MW-61B	1-9-98	1316		86	74	86.74	2183.59	67.9	-18.84	Double Checked	RDA
MW-61C	1-9-98	1318		74	94	74.94	2183.68	72.14	-2.80		RDA

Verified by: Richard Ahl Date: 1-9-98

TABLE BEAUMONT SITE No. 1 STATIC WATER LEVEL DATA SHEET

MONTH/YEAR Jan 1998

STATIC WATER LEVEL DATA SHEET

LOCKHEED WATER LEVEL MONITORING PROGRAM

WELL IDENTIFIER	DATE	TIME	METHOD OF MEASUREMENT	SOUNDER FOOTAGE MARK (feet)	ADDITIONAL INCREMENT (feet)	DEPTH TO WATER FROM REFERENCE POINT (feet)	REFERENCE POINT ELEVATION (feet msl)	DEPTH TO WATER FROM REFERENC POINT (feet)	CHANGE IN WATER LEVEL (feet)	COMMENT	INITIALS
MW-61D	1-9-98	1326		76	54	76.54	2183.65	69.74	-6.8		RDA
MW-62A	1-9-98	1104		19	40	19.40	2128.82	17.46	-1.94		RDA
MW-62B	1-9-98	1107		19	16	19.16	2128.86	17.6	-1.56	RDA	RDA
MW-63	1-9-98	1301		41	34	41.34	2153.75	39.74	-1.60	SMALL is 41.34	RDA
MW-64	1-9-98	1055		18	78	18.78	2125.76	16.8	-1.98	RDA	RDA
MW-65	1-9-98	1052		19	50	19.50	2126.27	17.52	-1.98		RDA
MW-66	1-9-98	1039		23	76	23.76	2127.87	23.7	-0.06		RDA
OW-01	1-9-98	1533		52	56	52.56	2202.79	51.96	-0.60		RDA
OW-02	1-9-98	0913		2	88	2.88	2076.60	2.39	-0.49	NO [illegible]	RDA
OW-03	1-9-98	1517		29	70	29.70	2141.01	27.82	-1.88		RDA
OW-08	1-9-98	0906		47	48	47.48	2033.66	46.82	-0.66	NO [illegible]	RDA
P-02	1-9-98	1002		16	38	16.38	2078.64	17.58	1.2		RDA
P-03	1-9-98	1037		31	44	31.44	2137.58	31.04	-0.40		RDA
P-04	1-9-98	1008		23	76	23.46	2109.02	25.3	1.34		RDA
P-05	1-9-98	1255		47	94	47.94	2159.51	46.48	-1.46		RDA

Verified by: Richard Allen Date: 1-11-98

TABLE BEAUMONT SITE No. 1 STATIC WATER LEVEL DATA SHEET

MONTH/YEAR April 1998

STATIC WATER LEVEL DATA SHEET

LOCKHEED WATER LEVEL MONITORING PROGRAM

WELL IDENTIFIER	DATE	TIME	METHOD OF MEASUREMENT	SOUNDER FOOTAGE MARK (feet)	ADDITIONAL INCREMENT (feet)	DEPTH TO WATER FROM REFERENCE POINT (feet)	REFERENCE POINT ELEVATION (feet msl)	PREVIOUS DEPTH TO WATER (feet)	CHANGE IN WATER LEVEL (feet)	COMMENT	INITIALS
EW-01	4-21-98	1446		31	16	31.16	2142.64	47.32	16.16	00473550 204 Pumping	RDA
EW-02	4-21-98	1012		51	60	51.60	2125.06	33.28	18.32	01018101515 Pumping	RDA
EW-08	4-21-98	1107		49	30	49.30	2175.13	61	11.70	small 48.46	RDA
EW-09	4-21-98	1387		43	92	43.92	2176.39	63.24	19.32		RDA
EW-10	4-21-98	1110		52	40	52.40	2176.94	64.7	12.30	small = 52.50	RDA
EW-11							2178.74				
EW-12							2176.79				
EW-13							2179.89				
EW-14	4-15-98	1103		59	64	59.64	2181.40	65.98	6.34	small pipe - rusty	RDA
EW-15							2181.32				
EW-16							2182.30				
EW-18							2182.34				
IW-01	4-21-98	1332		8	66	8.66	2158.30	45.92	37.26	30501355 Pumping	
IW-02	4-21-98	1330		12	90	12.90	2152.52	37.02	24.12	73472769 Pumping	RDA
IW-03	4-21-98	0948		19	76	14.76	2129.94	25.02	5.26	9218147.8 PUMPING	RDA
IW-04	4-21-98	0946		14	28	14.28	2132.49	16.22	1.94	50015516.2 PUMPING	RDA
IW-05	4-21-98	0943		2	34	2.34	2134.07	3.88	1.54	49601.8.0 Pumping	RDA
MW-01	4-21-98	1126		36	10	36.10	2174.30	61.92	25.82		RDA

Verified by: Richard Allen Date: 4-21-98

TABLE BEAUMONT SITE No. 1 STATIC WATER LEVEL DATA SHEET

MONTH/YEAR ~~January 1998~~ APRIL 1998

STATIC WATER LEVEL DATA SHEET

LOCKHEED WATER LEVEL MONITORING PROGRAM

WELL IDENTIFIER	DATE	TIME	METHOD OF MEASUREMENT	SOUNDER FOOTAGE MARK (feet)	ADDITIONAL INCREMENT (feet)	DEPTH TO WATER FROM REFERENCE POINT (feet)	REFERENCE POINT ELEVATION (feet msl)	PREVIOUS DEPTH TO WATER (feet)	CHANGE IN WATER LEVEL (feet)	COMMENT	INITIALS
MW-02	4-21-98	1349		37	18	37.18	2167.46	54.28	17.10		RDA
MW-03	4-21-98	1347		111	06	111.06	2166.44	119.8	8.74		RDA
MW-04	4-21-98	1409		28	60	28.60	2157.39	44.22	15.62		RDA
MW-05	4-21-98	1001		7	40	7.40	2118.71	12.86	5.46		RDA
MW-06	4-21-98	1006		4	00	4.00	2119.11	14.64	10.64		RDA
MW-07	4-21-98	1129		35	76	35.76	2173.84	61.42	25.66		RDA
MW-08	4-21-98	0842		6	88	6.88	2087.79	10.3	3.42		RDA
MW-09	4-21-98	0841			overflow		2086.32			overflowing	APP
MW-10	4-21-98	1401		54	00	54.00	2176.72	60.6	6.60		RDA
MW-11	4-21-98	0930		36	02	36.02	2119.90	37.8	1.78		RDA
MW-12	4-21-98	0924		13	28	13.28	2095.79	18.56	5.28		RDA
MW-13	4-21-98	0910		8	28	8.28	2055.19	13.6	5.32		RDA
MW-14	4-21-98	0856		15	00	15.00	2026.97	29.58	14.58		RDA
MW-15	4-21-98	0810		22	42	22.42	2007.06	27.32	4.90		RDA
MW-17	4-21-98	1325		7	74	7.74	2137.72	26.8	19.06		RDA
MW-18	4-21-98	0812		22	42	22.42	2006.00	26.94	4.52		RDA
MW-19	4-21-98	1315		4	58	4.58	2115.79	11.84	7.26		RDA
MW-20	4-21-98	1421		27	12	27.12	2159.52	47.14	20.02		RDA

Verified by: Richard A. Date: 4-21-98

TABLE BEAUMONT SITE No. 1 STATIC WATER LEVEL DATA SHEET

MONTH/YEAR April 1998

STATIC WATER LEVEL DATA SHEET

LOCKHEED WATER LEVEL MONITORING PROGRAM

WELL IDENTIFIER	DATE	TIME	METHOD OF MEASUREMENT	SOUNDER FOOTAGE MARK (feet)	ADDITIONAL INCREMENT (feet)	DEPTH TO WATER FROM REFERENCE POINT (feet)	REFERENCE POINT ELEVATION (feet msl)	PREVIOUS DEPTH TO WATER (feet)	CHANGE IN WATER LEVEL (feet)	COMMENT	INITIALS
MW-21	4-21-98	1411		27	22	27.22	2158.13	45.38	18.16		
MW-22	4-21-98	1352		40	30	45.30	2168.22	54.36	14.06		
MW-23	4-21-98	1413		28	80	28.80	2159.56	46.5	17.70		
MW-24	4-21-98	1059		39	26	39.26	2180.62	68.68	29.42		
MW-26	4-21-98	1102		37	28	37.28	2179.93	66.74	29.46		
MW-27	4-21-98	1359		57	20	57.20	2180.80	63.98	6.78		
MW-28	4-21-98	1425		26	04	26.04	2158.25	45.92	19.88		
MW-29	4-21-98	0958		15	20	15.20	2112.37	19.28	4.08		
MW-30	4-21-98	0952		31	20	31.20	2159.04	45	13.80		
MW-31	4-21-98	1515		61	90	61.90	2183.30	82.16	20.26		
MW-32	4-21-98	1127		54	16	54.16	2173.38	75.58	21.42		
MW-34	4-21-98	1406		26	42	26.42	2151.38	36.42	10.00		
MW-35	4-21-98	1134		32	42	32.42 27.52	2168.34	56.04	23.62		
MW-36	4-21-98	1041		127	52	~~52.76~~	2202.53	81.26	53.74	✓ Double Checked	RDA
MW-37	4-21-98	0823		12	16	12.16	2038.25	32.4	20.24		
MW-38	4-21-98	0816		39	24	39.24	2027.58	43.64	4.40		RDA
MW-39	4-21-98	1432		13	66	13.66	2141.54	29.56	15.90		
MW-40	4-21-98	0936		27	38	27.38	2123.69	32.64	5.26		

Verified by: Richard Allen Date: 1998

TABLE BEAUMONT SITE No. 1 STATIC WATER LEVEL DATA SHEET

MONTH/YEAR April 1998

STATIC WATER LEVEL DATA SHEET

LOCKHEED WATER LEVEL MONITORING PROGRAM

WELL IDENTIFIER	DATE	TIME	METHOD OF MEASUREMENT	SOUNDER FOOTAGE MARK (feet)	ADDITIONAL INCREMENT (feet)	DEPTH TO WATER FROM REFERENCE POINT (feet)	REFERENCE POINT ELEVATION (feet msl)	PREVIOUS DEPTH TO WATER (feet)	CHANGE IN WATER LEVEL (feet)	COMMENT	INITIALS
MW-41	4-21-98	1310		15	62	15.62	2131.28	22.56	6.94		RDA
MW-42	4-21-98	1320		0	0.4	0.4	2089.86	3.9	3.4		RDA
MW-43	4-21-98	0830		2	10	2.10	2065.81	3.86	2.10		RDA
MW-44	4-21-98	0954		16	60	16.60	2124.42	21.84	5.24		RDA
MW-45	4-21-98	0831			overflowing		2068.88			Overflowing	RDA
MW-46	4-21-98	0858		37	00	37.00	2069.40	49.92	12.92		RDA
MW-47	4-21-98	0990			overflow		2077.12			Overflowing	RDA
MW-48	4-21-98	0842		3	80	3.80	2073.73	6.18	2.38		RDA
MW-49	4-21-98	1455		1	30	1.30	2128.76	17.98	16.68		RDA
MW-50	4-21-98	1446		18	08	18.08	2148.76	37.04	18.96		RDA
MW-51	4-21-98	1513		7	34	7.34	2135.71	24.5	17.16		RDA
MW-52	4-21-98	1505		7	52	7.52	2133.53	22.92	15.40		RDA
MW-53	4-21-98	1503		19	84	19.84	2150.63	38.8	18.96		RDA
MW-54	4-21-98	1430		20	80	20.80	2150.77	38.58	17.78		RDA
MW-55	4-21-98	1418		31	86	31.86	2163.53	51.5	19.64		RDA
MW-56A	4-21-98	1437		26	78	26.78	2140.44	42.08	15.30		RDA
MW-56B	4-21-98	1439		9	95	9.95	2139.93	28.24	18.29		RDA
MW-56C	4-21-98	1441		12	50	12.50	2140.14	28.98	16.48		RDA

Verified by: [signature] Date: 4-21-98

TABLE BEAUMONT SITE No. 1 STATIC WATER LEVEL DATA SHEET

MONTH/YEAR April 1998

STATIC WATER LEVEL DATA SHEET

LOCKHEED WATER LEVEL MONITORING PROGRAM

WELL IDENTIFIER	DATE	TIME	METHOD OF MEASUREMENT	SOUNDER FOOTAGE MARK (feet)	ADDITIONAL INCREMENT (feet)	DEPTH TO WATER FROM REFERENCE POINT (feet)	REFERENCE POINT ELEVATION (feet msl)	PREVIOUS DEPTH TO WATER (feet)	CHANGE IN WATER LEVEL (feet)	COMMENT	INITIALS
MW-56D	4-21-98	1443		10	56	10.56	2139.85	28.38	17.82		RDA
MW-57A	4-21-98	1457		13	30	13.30	2143.34	31.54	18.24		RDA
MW-57B	4-21-98	1459		12	90	12.90	2143.58	31.68	18.78		RDA
MW-57C	4-21-98	1450		12	84	12.84	2143.38	31.5	18.66		RDA
MW-57D	4-21-98	1452		14	80	14.80	2143.48	31.72	16.92		RDA
MW-58A	4-21-98	1522		8	90	8.90	2138.06	26.98	18.08		RDA
MW-58B	4-21-98	1516		10	35	10.35	2138.13	26.96	16.61		RDA
MW-58C	4-21-98	1518		10	66	10.66	2138.36	27.32	16.66		RDA
MW-58D	4-21-98	1520		8	78	8.78	2138.31	27.2	18.42		RDA
MW-59A	4-21-98	1344		51	26	51.26	2176.95	68.12	16.86		RDA
MW-59B	4-21-98	1342		40	60	40.60	2177.18	63.56	22.96		RDA
MW-59C	4-21-98	1340		46	90	46.90	2176.71	65.2	18.30		RDA
MW-59D	4-21-98	1338		44	88	44.88	2177.32	65.34	20.46		RDA
MW-60A	4-21-98	1354		54	60	54.60	2179.35	67.94	13.34		RDA
MW-60B	4-21-98	1558		55	90	55.90	2179.52	67.26	11.36		RDA
MW-61A	4/21/98	1045		58	74	58.74	2183.74	74.26	15.52		RDA
MW-61B	4/21/98	1048		80	94	80.94	2183.59	86.74	5.80		RDA
MW-61C	4/21/98	1050		57	30	57.30	2183.68	74.94	17.64		RDA

Verified by: Richard Allen Date 4-21-98

TABLE BEAUMONT SITE No. 1 STATIC WATER LEVEL DATA SHEET

MONTH/YEAR April 1998

STATIC WATER LEVEL DATA SHEET

LOCKHEED WATER LEVEL MONITORING PROGRAM

WELL IDENTIFIER	DATE	TIME	METHOD OF MEASUREMENT	SOUNDER FOOTAGE MARK (feet)	ADDITIONAL INCREMENT (feet)	DEPTH TO WATER FROM REFERENCE POINT (feet)	REFERENCE POINT ELEVATION (feet msl)	DEPTH TO WATER FROM REFERENC POINT (feet)	CHANGE IN WATER LEVEL (feet)	COMMENT	INITIALS
MW-61D	4-21-98	1054		58	60	58.60	2183.65	76.54	17.94		RDA
MW-62A	4-21-98	1314		8	30	8.30	2128.82	19.4	11.10		RDA
MW-62B	4-21-98	1318		4	42	4.42	2128.86	19.16	14.74		RDA
MW-63	4-21-98	1428		22	56	22.56	2153.75	41.34	18.78		RDA
MW-64	4-21-98	1020		11	80	11.80	2125.76	18.76	6.96		RDA
MW-65	4-21-98	1014		11	50	11.50	2126.27	19.5	8.00		RDA
MW-66	4-21-98	1010		19	22	19.22	2127.87	23.76	4.54		RDA
OW-01	4-21-98	0952		20	06	20.06	2202.79	52.56	32.50		RDA
OW-02	4-21-98	0848		2	20	2.20	2076.60	2.88	0.68		RDA
OW-03	4-21-98	1437		16	56	16.56	2141.01	29.7	13.14		RDA
OW-08	4-21-98	0820		42	24	42.24	2033.66	47.48	5.24		RDA
P-02	4-21-98	0915		11	62	11.62	2078.64	16.38	4.76		RDA
P-03	4-21-98	0939		31	94	31.94	2137.58	37.44	5.50		RDA
P-04	4-21-98	0921		18	44	18.44	2109.02	23.96	5.52		RDA
P-05	4-21-98	1137		26	56	26.56	2159.51	47.94	21.38		RDA

Verified by: Richard D. Allen Date: 4-21-98

APPENDIX B

FIELD DATA SHEETS, WATER QUALITY (APRIL 1998)

WELL ID: EW 01 (QA)

Page 1 of 1

Date: 4-29-98

Team No: 1

Samplers' Initials: RDF

TD OF CASING 78 ft

STATIC DTW (-) 31.16 ft @ 1800 hr

FT WATER (=) 46.84

SAMPLE PUMP INTAKE @ 70 ft

SCREEN INTERVAL: 35 . 76 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 gal / ft (=) 31.38 gal / 1 CASING VOL (x3 =) 94.15 gal / 3 CASING VOL (+) INIT FLOWMETER READING ____ (=) ____ TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1800	PUMP ON								
1803	19.3	.236	6.20	10	10	0.318	10 / 3	3.33	Well Pumping
1806	19.8	.238	6.24	20	20	0.637	10 / 3	3.33	use stopwatch.
1809	20.4	.240	6.50	30	30	0.956	10 / 3	3.33	
1812	20.4	.268	6.54	40	40	1.275	10 / 3	3.33	
1815	20.4	.268	6.56	50	50	1.59	10 / 3	3.33	
1818	20.5	.270	6.56	60	60	1.91	10 / 3	3.33	
1821	20.5	.274	6.58	70	70	2.23	10 / 3	3.33	
1824	20.6	.274	6.58	80	80	2.55	10 / 3	3.33	
1827	20.6	.276	6.58	90	90	2.86	10 / 3	3.33	
1830	—	—	—	— STOPPED TO SAMPLING			— / —	—	
				95	95		/		
1831	—	—	—	— STOPPED TO SAMPLING			— / —	—	
							/		

PUMP ON @ 1800 Hrs

PUMP OFF @ 1831 Hrs

GALLONS PURGED 95

CASING VOLS. PURGED 3.02

AVERAGE Q: 5.32 GPM

FINAL PURGE PUMPING WL 31.46 ft @ 1831 Hrs

START SAMPLING @ 1830 Hrs

STOP SAMPLING @ 1831 Hrs

WEATHER CONDITIONS

TIME 1758 TEMP --

SKIES Clear

WIND (mph) 0 from

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / (BUCKET)

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 17.58

Verified by: [signature] Date: 4-29-98

Page 1 of 1

WELL ID: GW-02 ( )

Date: 4-28-98

TD OF CASING 72.00 ft | SAMPLE PUMP INTAKE @ 70 ft | Team No: 1

STATIC DTW (-) 55.04 ft @ 1250 hr | SCREEN INTERVAL: 25 - 65 ft | Samplers' Initials: KDL

FT WATER (=) 22.96 | SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 gal / ft (=) 15.38 gal / 1 CASING VOL (x3 =) 46.14 gal / 3 CASING VOL (+) INIT FLOWMETER READING ____ (=) ____ TARGET

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1300	PUMP ON								
1312	19.7	0.290	6.98	5	5	0.325	5 / 12	0.416	
1316	20.9	0.284	7.02	5	10	0.650	5 / 4	1.25	
1321	19.7	0.274	7.14	5	15	0.975	5 / 5	1.00	
1329	20.7	0.315	7.12	5	20	1.30	5 / 8	0.625	
1337	20.7	0.315	7.11	5	25	1.625	5 / 8	0.625	
1348	20.7	0.314	7.11	5	30	1.95	5 / 7	0.714	
1355	20.7	0.314	7.10	5	35	2.28	5 / 9	0.55	
1404	20.8	0.313	7.05	5	40	2.60	5 / 14	0.35	
1413	20.8	0.310	7.08	5	45	2.93	5 / 4	1.25	DTW = 55.04 @ 1413
1416	—	—	—	STARTED	Sampling	—	1	—	
				3	218		1		
1418	—	—	—	STOPPED	Sampling	—	1	—	
							1		

PUMP ON @ 1300 Hrs

PUMP OFF @ 1418 Hrs

GALLONS PURGED 48

CASING VOLS. PURGED 3.12

AVERAGE Q: 0.75 GPM

FINAL PURGE PUMPING WL 55.04 ft @ ____ Hrs

START SAMPLING @ 1416 Hrs

STOP SAMPLING @ 1418 Hrs

WEATHER CONDITIONS

TIME 1300 TEMP —

SKIES clear

WIND (mph) 0 from

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass / HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1300

Verified by: Richard L. Ulm Date: 4-28-98

Page 1 of 1

WELL ID: EW-11 (PAL)

Date: 5-8-98

TD OF CASING 105.00 ft

STATIC DTW (-) 94.04 ft @ 1110 hr

FT WATER (=) 10.96

SAMPLE PUMP INTAKE @ 95 ft

SCREEN INTERVAL: 60 - 111 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RDR

CAP OF CASING (x) 1.02 gal / ft (=) 10.84 gal / 1 CASING VOL (x3 =) 32.52 gal / 3 CASING VOL (+) INIT FLOWMETER READING 2040972 (=) 204 219.7 RT TARGET

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1110	PUMP ON			2040972					
1126	19.3	0.244	10.28	204120	22.8	0.558	22.8 / 14	1.628	
1138	19.3	.292	10.42	204139	41.8	1.024	19 / 12	1.58	DTW = 57.84 @ 1143
1148	19.9	.158	9.05	204160	62.8	1.538	21 / 10	2.10	
1159	20.0	.294	8.37	204190	92.8	2.27	30 / 11	2.72	DTW = 61.30 @ 1150
1206	20.3	.293	8.74	204205	107.8	2.63	15 / 7	2.14	DTW = 65.66 @ 1157
1208				START SAMPLING			/		
				204 2230	1		/		
1210				STOPPED	SAMPLING		/		
							/		
							/		
							/		
							/		
							/		

PUMP ON @ 1112 Hrs

PUMP OFF @ 1210 Hrs

GALLONS PURGED 125.8

CASING VOLS. PURGED 3.08

AVERAGE Q: 2.05 GPM

FINAL PURGE PUMPING WL 67.70 ft @ 1210 Hrs

START SAMPLING @ 1208 Hrs

STOP SAMPLING @ 1210 Hrs

WEATHER CONDITIONS

TIME 1110 TEMP ____

SKIES Clear

WIND (mph) 0 from ____

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

(GLOVES) / (GOGGLES) / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

Verified by: Richard Allen Date: 5-8-98

Page 1 of 1

WELL ID: GW-12 (ME)

Date: 5-5-10

TD OF CASING 115 ft

STATIC DTW (-) 53.20 ft @ 0830 hr

FT WATER (=) 61.8

SAMPLE PUMP INTAKE @ 105 ft

SCREEN INTERVAL: 60 - 110 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RA/CW

CAP OF CASING (x) 1.02 gal / ft (=) 41.4 gal / 1 CASING VOL (x3 =) 124.2 gal / 3 CASING VOL (+) INIT FLOWMETER READING 203789.0 (=) 203913.2 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
0910	PUMP ON			203780.0					
0922	19.2	.293	7.13	203791.2	11.2	0.270	11.2 / 12	0.93	
0935	19.4	.247	7.11	203819.0	39	0.942	27.8 / 13	2.13	DTW = 58.70 @ 0940
0948	19.6	.261	7.07	203827.5	47.5	1.147	8.5 / 13	0.65	
0958	19.3	.250	7.05	203846.5	66.5	1.60	19. / 12	1.58	
1012	19.5	.275	7.03	203866.0	86.0	2.077	19.5 / 12	1.62	
1024	19.5	.331	7.02	203898.0	108	2.600	32 / 12	1.83	
1030	—	—	—	STARTED sampling			— / —	—	DTW = 62.48 @ 1030
				203915.00			/		
1034	—	—	—	stopped	sampl	ng	— / —	—	
							/		
							/		
							/		
							/		

10.00 PPA

PUMP ON @ 0910 Hrs

PUMP OFF @ 1034 ~~1035~~ Hrs

GALLONS PURGED ~~3250~~ R

CASING VOLS. PURGED 3.26

AVERAGE Q: 1.457 GPM

FINAL PURGE PUMPING WL 62.40 ft @ 1034 Hrs

START SAMPLING @ 1030 Hrs

STOP SAMPLING @ 1034 Hrs

WEATHER CONDITIONS

TIME 0900 TEMP —

SKIES Cloudy

WIND (mph) 0 from

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

(GLOVES) / (GOGGLES) / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	18	40 ml glass / HCl

(DUP) / MS/MSD / ~~(TB)~~ / (EB) (Y) N

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

Blind Dup = MW-10 @ 1030

Field Blank @ 1022

Equipment Blank @ 0950

Verified by: Richard Allen Date: 5-8-10

RPP

WELL ID: 12N - H13 (MC)

Page 1 of 1

Date: 5-8-98

TD OF CASING 117 ft
STATIC DTW (-) 50.84 ft @ 0820 hr
FT WATER (=) 66.18
SAMPLE PUMP INTAKE @ 110 ft
SCREEN INTERVAL: 74 - 114 ft
SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)
Team No: 1
Samplers' Initials: ROP

CAP OF CASING (x) 1.02 gal / ft (=) 44.32 gal / 1 CASING VOL (x3 =) 133 gal / 3 CASING VOL (+) INIT FLOWMETER READING 203906.6 (=) 204040 TARGET

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
0922	PUMP ON			203906.6					
0832	18.5	0.327	9.85	203917	10.4	0.235	10.4 / 10	1.04	Rust, cloudy
0844	18.8	0.327	9.02	203926	19.4	0.438	9 / 12	0.75	DTW = 67.70 @ 0838
0854	18.9	0.326	8.60	203941	34.4	0.776	14 / 10	1.4	
0904	18.8	0.415	8.40	203962	55.4	1.25	22 / 10	2.2	
0914	19.2	0.412	8.36	203987	80.4	1.81	25 / 10	2.5	
0930	19.3	0.416	8.33	204022	115.4	2.60	35 / 16	2.18	DTW = 86.10 @ 0933
0940	19.2	0.418	8.32	204038	131.4	2.96	16 / 10	1.6	
0944	—	—	—	Pump off	—	—	/	—	
1007	—	—	—	Pump on	—	—	/		
1010	—	—	—	START sampling	—	—	/	—	
~~1012~~	Rpp			204041			/		
1012	—	—	—	Stopped sampling	—	—	/	—	
							/		

PUMP ON @ ~822 Hrs
PUMP OFF @ 1012 Hrs
GALLONS PURGED 134.4
CASING VOLS. PURGED 3.03
AVERAGE Q: 1.66 GPM
FINAL PURGE PUMPING WL 82.30 ft @ 1012 Hrs
START SAMPLING @ 1010 Hrs
STOP SAMPLING @ 1012 Hrs.

WEATHER CONDITIONS
TIME 820 TEMP ____
SKIES Overcast
WIND (mph) 0 - 5 from N-NE

AIR MONITORING PID / FID (ppm)
VAULT 0 BKGD 0
BREATHING ZONE 0
DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT
GLOVES / GOGGLES / HARDHAT
RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)
If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:
(Factors possibly affecting samples, condition of sampling equipment, etc.)
pH = 7.00 @ 820

Verified by: Richard Alm Date: 5-18-98

Page 1 of 1

WELL ID: EW-13 (ME)

Date: 5-4-98

TD OF CASING 107 ft

STATIC DTW (-) 65.9 ft @ 1310 hr

FT WATER (=) 41.1

SAMPLE PUMP INTAKE @ 100 ft

SCREEN INTERVAL: 65 . 105 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RDP

CAP OF CASING (x) 1.02 gal / ft (=) 27.53 gal / 1 CASING VOL (x3 =) 82.59 gal / 3 CASING VOL (+) INIT FLOWMETER READING 203663. (=) 203745. TARGET

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1323	PUMP ON			203663					
1330	20.2	.373	7.73	203671.2	8.2	0.293	8.2 / 7	1.17	clear.
1337	19.2	.482	8.07	203679.3	18.3	0.592	8.1 / 7	1.16	
1344	19.0	.625	7.68	203689.0	26	0.944	9.7 / 7	1.38	DTW = 76.66 @ 1340
1353	20.1	.506	7.80	203698.0	35	1.27	9 / 9	1.00	
1405	20.2	.426	7.88	203705.0	42	1.52	7 / 13	0.53	
1416	19.1	.405	7.85	203717.2	54.2	1.97	12 / 10	1.22	
1426	19.1	.003	7.52	203726.5	63.5	2.31	9.3 / 10	.93	
1440	20.2	.413	7.55	203737.5	74.5	2.71	11 / 14	0.78	DTW = 88.84 @ 1435
1446	—	—	—	START Sampling	—	—	/		
				203746.0			/		
1448	—	—	—	Stopped sampling	—	—	/		
							/		
							/		

PUMP ON @ 1323 Hrs

PUMP OFF @ 1448 Hrs

GALLONS PURGED 83

CASING VOLS. PURGED 3.01

AVERAGE Q: 0.9078 GPM

FINAL PURGE PUMPING WL 88.90 ft @ 1448 Hrs

START SAMPLING @ 1446 Hrs

STOP SAMPLING @ 1448 Hrs.

WEATHER CONDITIONS

TIME 1320 TEMP —

SKIES clear

WIND (mph) 0 (from

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml / glass / HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1320

Verified by: Richard Allen Date: 5-4-98

Page 1 of 1

WELL ID: EW-16 (MW)

Date: 5-8-98

TD OF CASING 107.0 ft

STATIC DTW (-) 57.10 ft @ 0935 hr

FT WATER (=) 49.10

SAMPLE PUMP INTAKE @ 100 ft

SCREEN INTERVAL: 65 . 105 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

Team No: 2

Samplers' Initials: RDA

CAP OF CASING (x) 1.02 gal / ft (=) 31.9 gal / 1 CASING VOL (x3 =) 98.7 gal / 3 CASING VOL (+) INIT FLOWMETER READING 204949 (=) 204038.7 TARGET

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
0936	PUMP ON			204940.0					
1000	18.5	1316	11.42	204067.0	27	0.870	27 / 24	1.125	
1016	19.2	0.350	10.20	204083.0	43	1.31	16 / 16	1.00	DTW = 75.85 @ 1018
1033	19.1	0.344	9.29	204103.0	63	1.91	20 / 17	1.18	
1043	19.1	0.322	9.71	204118.0	78	2.37	15 / 10	1.50	DTW = 79.10 @ 1033
1052	17.2	0.314	9.94	204130.0	90	2.73	12 / 9	1.33	
1058	—	—	—	STARTED	sampling		— / —	—	—
				204139.0			/		
1100	—	—	—	STOPPED	sampling		— / —	—	—
							/		
							/		
							/		
							/		
							/		
							/		

PUMP ON @ 0936 Hrs

PUMP OFF @ 1101 Hrs

GALLONS PURGED 99

CASING VOLS. PURGED 3.01

AVERAGE Q: 1.227 GPM

FINAL PURGE PUMPING WL 83.30 ft @ 1101 Hrs

START SAMPLING @ 1058 Hrs

STOP SAMPLING @ 1100 Hrs.

WEATHER CONDITIONS

TIME 0935 TEMP —

SKIES OVERCAST

WIND (mph) 0 from

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	6	40 ml glass / HCl

DUP / MS/MSD / TB / FB (Y) N

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:
(Factors possibly affecting samples, condition of sampling equipment, etc.)

Field Blank @ 1052

Verified by: Richard Allen Date: 5-8-98

Page 1 of 1

WELL ID: GW-18 (MC)

Date: 5-4-98

TD OF CASING 107 ft

STATIC DTW (-) 68.74 ft @ 1545 hr

FT WATER (=) 33.26

SAMPLE PUMP INTAKE @ 97 ft

SCREEN INTERVAL: 66 - 101 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: R.T.P

CAP OF CASING (x) 1.02 gal / ft (=) 22.28 gal / 1 CASING VOL (x3 =) 66.85 gal / 3 CASING VOL (+) INIT FLOWMETER READING 203740 (=) 203806.85 PURGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1547	PUMP ON			303740					
1600	19.0	350	7.57	303746	6	0.269	6 13	0.461	
1608	18.3	630	7.85	303754.3	14.3	0.641	8 31 8	1.038	DTW = 81.47 @ 1610
1620	19.2	706	7.36	303765.8	25.8	1.16	11.5 12	0.959	
1632	19.4	688	7.20	303774.0	34.0	1.53	8.2 12	0.683	DTW = 89.9 @ 1630
1652	19.4	668	7.19	303779.0	39.0	1.75	5 120	0.25	
							1		
							1		
				Allowed to	Recover to		50% PVD	Sampled.	
				on 5-5-	98		1		
							1		
							1		
							1		
							1		

PUMP ON @ 1547 Hrs

PUMP OFF @ 1700 Hrs

GALLONS PURGED 39.00

CASING VOLS. PURGED 1.75

AVERAGE Q: 0.678 GPM

FINAL PURGE PUMPING WL 68.56 ft @ 0730 Hrs

START SAMPLING @ 0725 Hrs

STOP SAMPLING @ 0730 Hrs.

WEATHER CONDITIONS

TIME 1545 TEMP —

SKIES clo-cly

WIND (mph) 0 from

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

Verified by: R. Land Allen Date: 5-4-98

WELL ID: MW-02 (MG)

Date: 5-1-98

TD OF CASING 102 ft | SAMPLE PUMP INTAKE @ 97 ft | Team No: 1

STATIC DTW (-) 36.5 ft @ 1207 hr | SCREEN INTERVAL: 73 . 93 ft | Samplers' Initials: RDA

FT WATER (=) 65.5 | SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 gal / ft (=) 43.89 gal / 1 CASING VOL (x3 =) 131.65 gal / 3 CASING VOL (+) INIT FLOWMETER READING 203127.5 (=) 203259.2 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1216	PUMP ON			203127.5					
1223	20.2	0.158	6.81	203141.7	14.2	0.323	14.216	2.36	effervescent
1230	20.2	0.175	6.77	203155.8	28.3	0.645	14.116	2.35	DTW = 36.88 @ 1231
1236	20.2	0.170	6.76	203169.2	41.7	0.95	13.416	2.23	
1242	20.2	0.163	6.77	203183.0	55.5	1.26	13.816	2.3	
1250	20.2	0.158	6.77	203201.5	74	1.68	18.518	2.31	
1300	20.2	0.163	6.77	203223.4	96.4	2.196	22.410	2.24	DTW = 36.88 @ 1252
1310	20.2	0.176	6.78	203246.2	118.7	2.704	22.310	2.23	
1316	—	—	—	STOPPED	sampling		—	—	—
~~1318~~				203260.9			/		
1318	—	—		STARTED	sampling		—	—	—
							/		
							/		
							/		

PUMP ON @ 1216 Hrs

PUMP OFF @ 1316 Hrs

GALLONS PURGED 131.4

CASING VOLS. PURGED 3.08

AVERAGE Q: 2.29 GPM

FINAL PURGE PUMPING WL

36.90 ft @ 1316 Hrs

START SAMPLING @ 1316 Hrs

STOP SAMPLING @ 1318 Hrs

WEATHER CONDITIONS

TIME 1216 TEMP ~

SKIES clear

WIND (mph) 0-5 from West

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1215

Verified by: Richard Allen Date: 5-1-98

Page 1 of 1

WELL ID: MW-04 (GP)

Date: 4-30-98

TD OF CASING 85 ft | SAMPLE PUMP INTAKE @ 80 ft | Team No: 1

STATIC DTW (-) 27.5 ft @ 1555 hr | SCREEN INTERVAL: 62 . 82 ft | Samplers' Initials: RDD

FT WATER (=) 57.5 | SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 gal / ft (=) 58.52 gal / 1 CASING VOL (x3 =) 175.57 gal / 3 CASING VOL (+) INIT FLOWMETER READING 202526.5 (=) 202642.1 TARG

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1557	PUMP ON			202526.5					
1603	25.5	.317	6.80	202536.3	98	0.254	9.8 16	1.63	clear
1608	21.4	.314	6.86	202551.8	25.3	0.657	15.5 15	3.1	DTW = 31.96 @ 1607
1616	21.5	.344	6.87	202572.0	45.5	1.18	20.2 18	2.52	
1621	21.5	.373	6.86	202587.0	60.5	1.57	15 15	3.0	
1628	21.4	.367	6.86	202604.0	77.5	2.01	17 17	2.43	
1634	21.4	.370	6.85	202618.5	92	2.39	14.5 16	2.42	DTW = 32.66 @ 1635
1640	21.4	.367	6.86	202635.0	108.5	2.81	16.5 16	2.75	
1643	—	—	—	STARTED	Sampling	—	—	—	
				202650.4		0			
1645	—	—	—	STOPPED	Sampling	—	—	—	

PUMP ON @ 1557 Hr

PUMP OFF @ 1645 Hr

GALLONS PURGED 123.4

CASING VOLS. PURGED 3.21

AVERAGE Q: 2.50 GPM

FINAL PURGE PUMPING WL 32.69 ft @ 1645 Hr

START SAMPLING @ ____ Hr

STOP SAMPLING @ ____ Hr

WEATHER CONDITIONS

TIME 1550 TEMP ____

SKIES clear

WIND (mph) 15- from SW

AIR MONITORING PID / FID (ppm)

VAULT 0.1 BKGD 0.1

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	6	40ml glass/HCl

DUP / MS/MSD / TB / (FB) Y N

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:
(Factors possibly affecting samples, condition of sampling equipment, etc.)

Field Blank @

Verified by: Richard S. Mc Date: 4-30-98

WELL ID: MW-05 (QA)

Date: 4-29-98

Team No: 1

Samplers' Initials: RPA

TD OF CASING 44.50 ft

STATIC DTW (-) 7.08 ft @ 1101 hr

FT WATER (=) 37.42

SAMPLE PUMP INTAKE @ 41.0 ft

SCREEN INTERVAL: 23 . 43 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 gal / ft (=) 25.07 gal / 1 CASING VOL (x3 =) 75.2 gal / 3 CASING VOL (+) INIT FLOWMETER READING 98536 (=) 98611.2 TARG

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1111	PUMP ON			98536.0					
1118	20.7	.254	6.63	98546.0	10.0	0.399	1016	1.66	DTW = 12.20 @ 1118
1123	20.7	.224	6.63	98552.0	16.0	0.638	615	1.20	
1128	20.6	.252	6.62	98562.0	26.0	1.037	1015	2.00	DTW = 14.16 @ 1125
1133	20.6	.243	6.61	98571.0	35.0	1.396	915	1.80	
1140	20.7	.237	6.61	98583	49.3	1.97	14.317	2.04	DTW = 15.82 @ 1135
1146	20.7	.230	6.61	98597.0	61.0	2.43	11716	1.95	
1156	20.7	.279	6.61	98608.0	72.0	2.87	11010	1.10	DTW = 16.52 @ 1144
1158	—	—	—	START sampling	—	—	—	—	
				98616.0					
1200	—	—	—	STOPPED sampling	—	—	—	—	

PUMP ON @ 1111 Hr

PUMP OFF @ 1200 Hr

GALLONS PURGED 90

CASING VOLS. PURGED 3.19

AVERAGE Q: 1.67 GPM

FINAL PURGE PUMPING WL 19.21 ft @ 1200 Hr

START SAMPLING @ 1158 Hrs

STOP SAMPLING @ 1200 Hrs

WEATHER CONDITIONS

TIME 1100 TEMP —

SKIES clear

WIND (mph) 0-10 from west

AIR MONITORING PID / FID (ppm)

VAULT 95 BKGD 0.4

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

~~GLOVES~~ / ~~GOGGLES~~ / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass / HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1100

Verified by: [signature] Date: 4-29-98

Page 1 of 1

WELL ID: MW-07 (QA)

Date: 5-1-98

TD OF CASING 93 ft

STATIC DTW (-) 36.16 ft @ 1338 hr

FT WATER (=) 56.84

SAMPLE PUMP INTAKE @ 88 ft

SCREEN INTERVAL: 70 . 90 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RDJ

CAP OF CASING (x) 1.02 gal / ft (=) 58.08 gal / 1 CASING VOL (x3 =) 174.24 gal / 3 CASING VOL (+) INIT FLOWMETER READING 203260.8 (=) 203375.04 ARC

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1342	PUMP ON			203260.8					
1348	16.2	152	6.69	203276.0	15.2	0.399	15.216	2.53	
1355	16.0	130	6.66	203291.0	30.2	0.793	15.017	2.14	DTW = 36.28 @ 1356
1402	15.9	139	6.65	203310.0	49.2	1.292	19.017	2.71	
1409	15.9	126	6.66	203330.0	69.2	1.817	20.017	2.85	
1416	16.0	139	6.64	203349.0	88.2	2.31	19.017	2.71	DTW = 36.30 @ 1412
1422	16.0	164	6.65	203365.0	104.2	2.73	16.016	2.66	
1427	—	—	—	START SAMPLING	—	—	/		
				203381.0			/		
1429	—	—	—	STOPPED	SAMPLING	—	/		
							/		
							/		
							/		
							/		

PUMP ON @ 1342 Hr

PUMP OFF @ 1429 Hr

GALLONS PURGED 120.2

CASING VOLS. PURGED 3.16

AVERAGE Q: 2.60 GPM

FINAL PURGE PUMPING WL 36.32 ft @ 1429 Hr

START SAMPLING @ 1427 Hr

STOP SAMPLING @ 1429 Hr

WEATHER CONDITIONS

TIME 1340 TEMP —

SKIES Clear

WIND (mph) 0-5 from W-NW

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1340

Verified by: [signature] Date: 5-1-98

Page 1 of 1

WELL ID: MW-10 (QA)

Date: 4-23-98

Team No: 1

Samplers' Initials: RDA/JV

TD OF CASING 100 ft

STATIC DTW (-) 53.82 ft @ 1312 hr

FT WATER (=) 46.18

SAMPLE PUMP INTAKE @ 95 ft

SCREEN INTERVAL: 79 - 99 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) ~~.02~~ .17 gal / ft (=) 30.94 gal / 1 CASING VOL (x3 =) 92.82 gal / 3 CASING VOL (+) INIT FLOWMETER READING 98139.6 (=) 98232.4 TARGET

TIME 20	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1513	PUMP ON			98139.6					
1528	21.1	0.265	7.29	98152.5	12.9	0.417	2.9 / 6	1.61	DTW = 54.52 @ 1527
1540	22.2	0.325	7.08	98173.0	33.4	1.079	20.5 / 12	1.70	
1550	23.5	0.326	7.06	98194.8	55.2	1.78	21.8 / 12	1.81	DTW = 54.94 @ 1543
1602	24.6	0.327	7.05	98214.0	74.4	2.40	19.2 / 10	1.92	
1607	25.0	0.317	7.05	98224.0	84.4	2.72	10 / 5	2.0	DTW = 54.34 @ 1609
1610	—	—	—	START SAMPLING	—	—	/	—	
				98239.3			/		
1612	—	—	—	STOPPED	SAMPLING	—	/	—	
							/		
							/		
							/		
							/		
							/		
							/		

PUMP ON @ 1320 Hrs

PUMP OFF @ 1610 Hrs

GALLONS PURGED 99.7

CASING VOLS. PURGED 3.22

AVERAGE Q: 1.81 GPM

FINAL PURGE PUMPING WL 54.30 ft @ 1612 Hrs

START SAMPLING @ 1610 Hrs

STOP SAMPLING @ 1612 Hrs

WEATHER CONDITIONS

TIME 1508 TEMP ____

SKIES Clear

WIND (mph) 0-5 from West

AIR MONITORING PID / FID (ppm)

VAULT 0.7 BKGD 0.8

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

(GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml/glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1320

Verified by: Richard Allen Date: 4-23-98

Page 1 of 1

WELL ID: MW-11 (GIA)

Date: 4-23-98

TD OF CASING 70 ft

STATIC DTW (-) 36 ft @ 1350 hr

FT WATER (=) 34

SAMPLE PUMP INTAKE @ 65 ft

SCREEN INTERVAL: 46 - 66 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RDA / SV

CAP OF CASING (x) .02 .67 gal / ft (=) 2.278 gal / 1 CASING VOL (x3 =) 6.834 gal / 3 CASING VOL (+) INIT FLOWMETER READING 98066.4 (=) 98134.70 TARGET

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1337	PUMP ON			98066.4					
1344	21.9	0.806	7.30	98076.6	10.2	448	10217	1.46	clear
1350	22.0	.790	7.29	98087.5	21.1	.926	10,916	1.81	DTW = 38.04 @ 1346
1356	21.9	.796	7.28	98096.2	29.8	1.31	8.716	1.45	DTW = 38.54 @ 1357
1402	22.1	.788	7.26	98106.5	40.1	1.76	10,316	1.72	
1408	22.1	.801	7.26	98116.6	50.2	2.20	10,116	1.68	DTW = 38.90 @ 1410
1414	22.0	.803	7.29	98127.0	60.6	2.66	10,416	1.73	
1420	—	—	—	START Sampling —			—	—	
				98135.1			1		
1421	—	—	—	STOPPED Sampling —			—	—	
				LAST Item			1		
							1		
							1		
							1		
							1		

PUMP ON @ 1337 Hrs

PUMP OFF @ 1422 Hrs

GALLONS PURGED 64

CASING VOLS. PURGED 3.03

AVERAGE Q: 1.64 GPM

FINAL PURGE PUMPING WL 38.94 ft @ 1420 Hrs

START SAMPLING @ 1420 Hrs

STOP SAMPLING @ 1421 Hrs.

WEATHER CONDITIONS

TIME 1350 TEMP —

SKIES Clear

WIND (mph) 0-5 from W

AIR MONITORING PID / FID (ppm)

VAULT 1.7 BKGD 1.0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass / HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 1335

Verified by: Richard Ace Date: 4-23-98

Page 1 of 1

WELL ID: MW-17 (QA)

Date: 4-28-98

TD OF CASING 65 ft

STATIC DTW (-) 7.5 ft @ 0852 hr

FT WATER (=) 57.5

SAMPLE PUMP INTAKE @ 60 ft

SCREEN INTERVAL: 47.4 - 62.5 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RPD

CAP OF CASING (x) 1.02 gal / ft (=) 58.52 gal / 1 CASING VOL (x3 =) 175.58 gal / 3 CASING VOL (+) INIT FLOWMETER READING 98230.6 (=) 98351.5 TARGET

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
0903	PUMP ON			98230.6					
0907	18.3	221	7.05	98246.2	15.6	0.20	15 / 4	3.5	
0912	18.0	231	7.07	98257.3	21.1	0.547	11.1 / 5	2.22	TPW = 30.5 @ 0911
0922	19.3	220	7.14	98270.0	35.8	0.877	12.7 / 10	1.27	TPW = 41.74 @ 0921
0931	19.0	210	7.12	98278.0	41.8	1.085	8 / 9	0.88	DTW = 46.80 @ 0931
0940	20.2	210	7.12	98286.7	50.5	1.311	8.7 / 9	0.96	DTW = 51.00 @ 0940
0957	22.8	033	7.02	98302.2	66.3	1.72	16 / 17	0.94	
1011	20.2	232	7.05	98308.2	72.0	1.86	5.7 / 14	0.40	
1015	20.2	1252	7.14	98313.5	77.3	2.01	5.3 / 4	1.325	TPW = 58.50 @ 1017
				Pump off			/		
							/		
							/		
							/		
							/		

PUMP ON @ 0903 Hrs

PUMP OFF @ 1017 Hrs

GALLONS PURGED 77.3

CASING VOLS. PURGED 2.00

AVERAGE Q: 1.31 GPM

FINAL PURGE PUMPING WL 58.50 ft @ 1017 Hrs

START SAMPLING @ 1840 Hrs

STOP SAMPLING @ 1840 Hrs

WEATHER CONDITIONS

TIME 0900 TEMP —

SKIES Clear

WIND (mph) 0-5 from West

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass / HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 0900

Recharged to 11.36 (

Verified by: Richard C. Ng Date: 4-28-98

977

WELL ID: MW-19 (GD)

Page 1 of 1

Date: 4-27-96

Team No: 1

Samplers' Initials: RPH

TD OF CASING 56.05 ft

STATIC DTW (-) 3.30 ft @ 1135 hr

FT WATER (=) 46.70

SAMPLE PUMP INTAKE @ 45 ft

SCREEN INTERVAL: 25 - 45 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 / 1.67 gal / ft (=) 31.29 gal / 1 CASING VOL (x3 =) 93.86 gal / 3 CASING VOL (+) INIT FLOWMETER READING 201828.0 (=) 201922 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1135	PUMP ON			201828.0					
1145	19.4	226	6.85	201843.5	15.5	0.495	15.5/10	1.55	
1150	19.9	226	6.86	201852.5	24.5	0.783	9.5/5	1.90	DTW = 37.60 @ 1147
1156	19.9	228	6.88	201860.5	30.5	0.974	8.0/6	1.33	
1208	19.9	230	6.88	201869.3	39.3	1.26	8.8/7	1.26	DTW = 37.80 @ 1205
1209	19.9	230	6.95	201874.3	44.3	1.42	5/6	0.83	DTW = 39.10 @ 1209
							/	2GP	DTW = 42.02 @ 1215
		SAMPLE		Big Bail Ave		AT	8:00	Rate	
				Allow to	Recover	TO	80%		
							/		
							/		
							/		
							/		
							/		

PUMP ON @ 1135 Hrs

PUMP OFF @ 1210 Hrs

GALLONS PURGED 46.3

CASING VOLS. PURGED 1.47

AVERAGE Q: 1.374 GPM

FINAL PURGE PUMPING WL 46.16 ft @ 1925 Hrs

START SAMPLING @ 1830 Hrs

STOP SAMPLING @ 1831 Hrs.

WEATHER CONDITIONS

TIME 1430 TEMP --

SKIES Clear

WIND (mph) 0-5 from West

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass/HCl

DUP / MS/MSD / TB (FB) (Y) N

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

Field Blank @ 1530

Verified by: Richard Ulm Date: 4-27-96

WELL ID: MW-20 (QA)

Date: 5-1-98

TD OF CASING 135 ft | SAMPLE PUMP INTAKE @ 100 ft | Team No: 1

STATIC DTW (-) 26.8 ft @ 0900 hr | SCREEN INTERVAL: 65 - 95 ft | Samplers' Initials: RHT

FT WATER (=) 108.2 | SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 gal / ft (=) 72.5 gal / 1 CASING VOL (x3 =) 217.5 gal / 3 CASING VOL (+) INIT FLOWMETER READING 202776.3 (=) 202993.8 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
0907	PUMP ON			202776.3					
0916	16.8	.144	6.86	202785.5	10.2	0.14	10.2/10	1.02	Cloudy, Reddish brown
0926	17.1	.147	6.78	202810.5	35.2	0.486	25 / 10	2.50	DTW = 27.1 @ 0922
0936	18.4	.152	6.78	202838.5	62.2	0.857	28 / 10	2.80	Cloudy, Brown
0946	17.2	.154	6.78	202862.5	86.2	1.18	24 / 10	2.40	DTW = 27.1 @ 0946
0957	17.4	.160	6.76	202893.1	116.8	1.61	30.6 / 11	2.78	
1006	17.2	.144	6.74	202923.2	146.9	2.026	30.1 / 9	3.34	Slightly Cloudy
1016	17.8	.168	6.77	202945.40	177.7	2.45	30.8 / 10	3.08	DTW = 27.24 @ 1018
1026	19.3	.138	6.66	202984.8	208.5	2.87	30.8 / 10	3.09	
1029	-	-	-	Stopped Sampling	-	-	/		
				202996.8			/		
1031	-	-	-	Stopped Sampling			/		
							/		
							/		

PUMP ON @ 0907 Hrs

PUMP OFF @ 1032 Hrs

GALLONS PURGED 220.5

CASING VOLS. PURGED 3.04

AVERAGE Q: 2.63 GPM

FINAL PURGE PUMPING WL

27.26 ft @ 1032 Hrs

START SAMPLING @ 1029 Hrs

STOP SAMPLING @ 1031 Hrs

WEATHER CONDITIONS

TIME 0900 TEMP -

SKIES clear

WIND (mph) 0-5 from NW

AIR MONITORING PID / FID (ppm)

VAULT 0.2 BKGD 0.2

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

~~GLOVES~~ / ~~GOGGLES~~ / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 0905

Verified by: Richard Alm Date: 5-1-98

Page 1 of 1

WELL ID: MW-26 (MB)

Date: 5-4-95

TD OF CASING 129.00 ft

STATIC DTW (-) 30.34 ft @ 1005 hr

FT WATER (=) 90.66

SAMPLE PUMP INTAKE @ 110 ft

SCREEN INTERVAL: 88 . 128 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RDA

CAP OF CASING (x) 1.02 gal / ft (=) 92.47 gal / 1 CASING VOL (x3 =) 277.4 gal / 3 CASING VOL (+) INIT FLOWMETER READING 203380 (=) 203 657.4 TARGET

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1010	PUMP ON			203380					
1025	23.6	0.173	8.23	203397.5	17.5	1.89	17.5 / 15	1.16	
1040	23.8	0.326	8.22	203431.0	51.0	0.551	33.5 / 15	2.23	DTW = 64.92 @ 1042
1056	23.9	0.117	8.20	203463.2	83.2	0.899	52.7 / 16	3.29	DTW = 67.90 @ 1052
1111	19.9	0.129	7.25	203490.0	110.0	1.189	26.8 / 15	1.79	
1128	19.5	0.252	7.09	203521.0	141.0	1.52	31 / 17	1.82	
1142	20.2	0.414	7.06	203550.0	170.0	1.83	29 / 14	2.07	DTW = 74.96 @ 1044
1157	21.7	0.423	7.03	203582.0	202.0	2.18	32 / 15	2.13	
1215	22.8	0.421	7.02	203618.0	238.0	2.57	36 / 19	2.00	
1235 (RDA)				START Sampling 203663.0			/		DTW = 79.80 @ 1235
1236				STOPPED Sampling			/		
							/		
							/		

PUMP ON @ 1010 Hrs

PUMP OFF @ 1236 Hrs

GALLONS PURGED 283

CASING VOLS. PURGED 3.06

AVERAGE Q: 2.1 GPM

FINAL PURGE PUMPING WL

79.80 ft @ 1235 Hrs

START SAMPLING @ 1235 Hrs

STOP SAMPLING @ 1230 Hrs.

WEATHER CONDITIONS

TIME 1008 TEMP _____

SKIES clear

WIND (mph) 0 from

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass / HCl

DUP / MS/MSD / TB / FB Y N

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1008

Verified by: Richard Ally Date: 5-2-98

Page 1 of 1

WELL ID: MW 29 [MW-]

Date: 4-27-95

TD OF CASING 50.00 ft

STATIC DTW (-) 16.06 ft @ 1545 hr

FT WATER (=) 34.94

SAMPLE PUMP INTAKE @ 45.0 ft

SCREEN INTERVAL: 33.7 - 48.7 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RDA

CAP OF CASING (x) 1.02 gal / ft (=) 23.40 gal / 1 CASING VOL (x3 =) 70.23 gal / 3 CASING VOL (+) INIT FLOWMETER READING 201975.0 (=) 202045.2 TARGET

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1550	PUMP ON			201975.0					
1556	22.8	709	7.21	201984.0	9.0	3846	9 / 6	1.5	DTW @ 1556 = 17.90
1602	21.5	574	7.15	201994.2	19.2	0.871	10.216	1.7	
1606	21.5	568	7.09	202006.8	31.8	1.36	12.614	3.15	DTW @ 1603 = 18.58
1610	21.5	556	7.07	202020.0	45.0	1.92	13.214	3.30	DTW = 19.04 @ 1611
1616	21.5	555	7.06	202034.0	59.0	2.52	19 / 6	3.16	
1621	—	—	—	START'D Sampling			—	—	—
				202051.5			/		
1623	—	—	—	STOPPED Sampling			—	—	—
							/		
							/		
							/		
							/		
							/		

RDA

PUMP ON @ 1550 Hrs

PUMP OFF @ 1624 Hrs

GALLONS PURGED 76.5

CASING VOLS. PURGED 3.27

AVERAGE Q: 2.56 GPM

FINAL PURGE PUMPING WL 19.58 ft @ 1623 Hrs

START SAMPLING @ 1621 Hrs

STOP SAMPLING @ 1623 Hrs.

WEATHER CONDITIONS

TIME / 1550 TEMP --

SKIES Clear

WIND (mph) 0-5 from W

AIR MONITORING PID / FID (ppm)

VAULT 0.7 BKGD 0.6

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass / HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1545

Verified by: [signature] Date: 4-27-95

Page 1 of 1

WELL ID: MW-36 (QA)

Date: 4-23-98

TD OF CASING 105 ft

STATIC DTW (-) 98.34 ft @ 1130 hr

FT WATER (=) 76.66

SAMPLE PUMP INTAKE @ 100 ft

SCREEN INTERVAL: 95 105 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RPP/SV

CAP OF CASING (x) ~~0.02~~ 0.17 gal / ft (=) 13.03 gal / 1 CASING VOL (x3 =) 39.09 gal / 3 CASING VOL (+) INIT FLOWMETER READING 98017.7 (=) 98056.8 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1132	PUMP ON			98017.7					
1136	26.2	.235	8.53	98022.0	4.3	0.33	4.3 1 4	1.075	DTW = 29.30 @ 1136
1141	26.5	.187	8.29	98029.0	11.3	0.88	7 1 5	1.40	DTW = 30.50 @ 1140
1147	26.7	.193	8.28	98041.7	24.0	1.84	12.716	2.11	DTW = 31.52 @ 1148
1153	26.9	.019	8.27	98053.9	36.2	2.77	12.2 1 6	2.03	DTW = 28.82 @ 1152
1157	—	STARTED		Sampling	—	—	—	—	—
				98060.4			1		
1158	—	STOPPED		Sampling	—	—	1		—
				LAST ITEM			1		
							1		
							1		
							1		
							1		
							1		

PUMP ON @ 1132 Hrs

PUMP OFF @ 1158 Hrs

GALLONS PURGED 42.7

CASING VOLS. PURGED 3.28

AVERAGE Q: 1.65 GPM

FINAL PURGE PUMPING WL 28.82 ft @ ~~28.82~~ Hrs

START SAMPLING @ 1157 Hrs

STOP SAMPLING @ 1158 Hrs

WEATHER CONDITIONS

TIME ~~1200~~ 1132 TEMP —

SKIES clear

WIND (mph) 0-5 from (Quad)

AIR MONITORING PID / FID (ppm)

VAULT 1.7 BKGD 1.0

BREATHING ZONE 0.0

DISCHARGE WATER 0.0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml / HCl

DUP / MS/MSD / TB / FB / EB (Y) N

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

EQUIPMENT Blank at 1120

Verified by: [signature] Date: 4-23-98

WELL ID: MW-39 (QA)

Page 1 of 1

Date: 4-27-98

TD OF CASING 86 ft

STATIC DTW (-) 13.00 ft @ 1720 hr

FT WATER (=) 73

SAMPLE PUMP INTAKE @ 81 ft

SCREEN INTERVAL: 40 - 80 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RDP

CAP OF CASING (x) ~~0.02~~ 0.67 gal / ft (=) 48.9 gal / 1 CASING VOL (x3 =) 146.73 gal / 3 CASING VOL (+) INIT FLOWMETER READING 202056.5 (=) 202220.323 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1720	PUMP ON			202056.5					
1731	20.6	.474	7.27	202073.0	16.5	3.37	16.5 / 11	1.5	cloudy
1738	20.5	.469	7.19	202090.0	33.5	6.85	17 / 7	2.43	DTW = 27.50 @ 1737
1744	20.5	.466	7.16	202111.0	54.5	1.11	21 / 6	3.33	
1750	21.6	.481	7.25	202131.5	75.0	1.53	20.5 / 6	3.41	DTW = 34.48 @ 1755
1756	22.2	.490	7.24	202150.0	93.5	1.91	18.5 / 6	3.08	
1802	20.5	.462	7.23	202168.0	111.5	2.28	18.0 / 6	3.00	
1810	20.4	.462	7.20	202194.0	137.5	2.81	26 / 8	3.25	
1813	—	—	—	START Sampling	—	—	/		—
				202205.5			/		
1815	—	—	—	STOPPED	Sampling	—	/		—
							/		
							/		
							/		

PUMP ON @ 17:20 Hrs

PUMP OFF @ 1815 Hrs

GALLONS PURGED 147.

CASING VOLS. PURGED 3.05

AVERAGE Q: 2.86 GPM

FINAL PURGE PUMPING WL

36.84 ft @ 18.15 Hrs

START SAMPLING @ 18:13 Hrs

STOP SAMPLING @ 18:15 Hrs

WEATHER CONDITIONS

TIME 1715 TEMP —

SKIES clear

WIND (mph) 5-10 from west

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass/vial

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH @ 7.00 at 1715

Verified by: Richard Hess Date: 4-27-98

Page 1 of 1

WELL ID: MW-40 (ME)

Date: 4-27-98

TD OF CASING 67 ft

STATIC DTW (-) 27.50 ft @ 1340 hr

FT WATER (=) 39.50

SAMPLE PUMP INTAKE @ 62 ft

SCREEN INTERVAL: 46 . 66 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RDP

CAP OF CASING (x) 1.02 gal / ft (=) 26.46 gal / 1 CASING VOL (x3 =) 79.39 gal / 3 CASING VOL (+) INIT FLOWMETER READING 201880 (=) 201959.4 TARG

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1340	PUMP ON			201880					
1346	22.1	.314	6.99	201894	14	0.529	14/6	2.33	
1352	22.0	.320	7.03	201904	24	0.907	10/5	2.00	DTW = 30.04 @ 1353
1356	22.0	.327	7.05	201911.8	31.8	1.209	7.8/5	1.56	
1405	22.9	.327	7.07	201928.0	48.0	1.814	16.2/9	1.80	DTW = 30.30 @ 1403
1412	22.0	.327	7.07	201941.3	61.3	2.316	13.3/7	1.90	DTW = 30.48 @ 1414
1417	21.9	.327	7.08	201950.7	70.7	2.672	9.4/5	1.88	
1426	—	—	—	STOP PUMP	SAMPLING		—	—	—
				201964			/		
1428	—	—	—	STOP PUMP	SAMPLING		—	—	—
							/		
							/		
							/		
							/		
							/		

PUMP ON @ 1340 Hrs

PUMP OFF @ 1426 Hrs

GALLONS PURGED 84

CASING VOLS. PURGED 3.14

AVERAGE Q: 1.91 GPM

FINAL PURGE PUMPING WL 30.50 ft @ 1426 Hrs

START SAMPLING @ 1426 Hrs

STOP SAMPLING @ 1428 Hrs

WEATHER CONDITIONS

TIME 1340 TEMP —

SKIES clear

WIND (mph) 0-3 (constant)

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml / glass / HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

Verified by: Richard Mc Date: 4-27-98

Page ___ of ___

WELL ID: MW-41 (Mine)

Date: 1-28-98

TD OF CASING 55 ft

STATIC DTW (-) 14.5 ft @ 1445 hr

FT WATER (=) 40.5

SAMPLE PUMP INTAKE @ 55 ft

SCREEN INTERVAL: 35 . 55 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RDA

CAP OF CASING (x) 1.02 gal / ft (=) 27.63 gal / 1 CASING VOL (x3 =) 81.40 gal / 3 CASING VOL (+) INIT FLOWMETER READING 98431.5 (=) 98512.9 TARGET

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1456	PUMP ON			98437.5					
1456	21.3	.467	7.11	98444.0	6.5	.239	6.5 15	1.3	
1511	21.1	.462	7.28	98470.0	32.5	1.17	26 11C	1.625	
1518	21.0	.454	7.27	98485.0	47.5	1.75	15 17	2.14	
1526	21.0	.461	7.25	98499.0	61.5	2.27	14 18	1.75	DTW = 22.26 @ 1528
1534	21.0	.456	7.31	98514.0	76.5	2.81	15 18	1.875	
1536	----	----	START	ING SAM	Pling	----	----	----	
				98521.8			/		
1538	----	----	STOP	PED SAMP	ling	----	----	----	
							/		
							/		
							/		
							/		
							/		
							/		

PUMP ON @ 1456 Hrs

PUMP OFF @ 1540 Hrs

GALLONS PURGED 84.3

CASING VOLS. PURGED 3.10

AVERAGE Q: 1.738 GPM

FINAL PURGE PUMPING WL 22.35 ft @ 1538 Hrs

START SAMPLING @ 1536 Hrs

STOP SAMPLING @ 1538 Hrs.

WEATHER CONDITIONS

TIME 1456 TEMP ____

SKIES clear

WIND (mph) 10-15 from SW

AIR MONITORING PID / FID (ppm)

VAULT 5 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	18	40 ml Vglass / HCl

DUP / MS/MSD / TB / EB (Y) N

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

Blind Dup = MW-112 @ 1646

Field Blank = 1530

Verified by: Richard Allen Date: 1-28-98

Page 1 of 1

WELL ID: MW-42 (G1)

Date: 11-27-96

TD OF CASING 36 ft | SAMPLE PUMP INTAKE @ 31 ft | Team No: 1

STATIC DTW (-) 0.3 ft @ 1025 hr | SCREEN INTERVAL: 13.2 - 34.7 ft | Samplers' Initials: RJD

FT WATER (=) 35.7 | SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 gal / ft (=) 23.9 gal / 1 CASING VOL (x3 =) 71.75 gal / 3 CASING VOL (+) INIT FLOWMETER READING 2017524 (=) 2018024.15 TARGET

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
0905	PUMP ON			2017524					
0913	22.7	.123	6.75	2017596	7.2	0.301	7.2 / 8	0.9	DTW = 4.95 @ 911
0919	20.3	.230	6.60	2017680	15.6	0.653	8.4 / 6	1.4	Cloudy
0928	21.4	.223	6.67	2017825	30.1	1.259	14.5 / 9	1.6	DTW = 8.05 @ 0914
0935	22.5	.136	6.67	2017970	44.6	1.866	14.5 / 7	2.07	DTW = 13.18 @ 0933
0947	23.8	.149	6.66	2018165	64.1	2.682	19.5 / 9	2.16	
0947	—	—	START SAMPLING	2018280	—	—	/		
							/		
0948	—	—	STOP	SAMPLING	—	—	/		
							/		
							/		
							/		
							/		
							/		

PUMP ON @ 0905 Hrs

PUMP OFF @ 0948 Hrs

GALLONS PURGED 75.4

CASING VOLS. PURGED 3.15

AVERAGE Q: 1.636 GPM

FINAL PURGE PUMPING WL 15.80 ft @ 0948 Hrs

START SAMPLING @ 0947 Hrs

STOP SAMPLING @ 0948 Hrs.

WEATHER CONDITIONS

TIME 0900 TEMP —

SKIES Cloudy

WIND (mph) 0-5 from West

AIR MONITORING PID / FID (ppm)

VAULT 0.2 BKGD 0.2

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	4	40 ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH - 7.00 @ 1030 0900

Verified by: [signature] Date: 11 20 96

Page 1 of 1

WELL ID: MW-44 (411)

Date: 4-28-96

TD OF CASING 57 ft

STATIC DTW (-) 16.30 ft @ 1042 hr

FT WATER (=) 40.7

SAMPLE PUMP INTAKE @ 51 ft

SCREEN INTERVAL: 34 . 51 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: KPD

CAP OF CASING (x) 1.02 gal / ft (=) 28.6 gal / 1 CASING VOL (x3 =) 35.82 gal / 3 CASING VOL (+) INIT FLOWMETER READING 98313.2 (=) 98348.03 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1055	PUMP ON			98385.2					
1100	21.1	.298	7.01	98326.8	13.3	0.46	13.31 5	2.66	DTW - 18.2 @ 1058
1107	21.4	.297	6.97	98347.0	33.5	1.17	19 17	2.84	
1111	22.0	.266	6.97	98358.0	44.5	1.56	11 14	2.75	DTW = 18.45 @ 1114
1116	23.0	.286	6.93	98374.0	60.5	2.12	16 15	3.2	
1121	21.2	.297	6.97	98385.0	71.5	2.5	11 15	2.2	DTW = 18.36 @ 1120
1125	21.2	.297	6.97	98396.0	82.5	2.88	11 14	2.75	
1126	—	—	—	STOPPED	90 mpl	~	/		
				98403.5			/		
1129	—	—		STOPPED	90 mpl	~	/		
							/		
							/		
							/		
							/		

PUMP ON @ 1055 Hrs

PUMP OFF @ 1129 Hrs

GALLONS PURGED 90

CASING VOLS. PURGED 3.14

AVERAGE Q: 2.73 GPM

FINAL PURGE PUMPING WL 18.30 ft @ 1130 Hrs

START SAMPLING @ 1126 Hrs

STOP SAMPLING @ 1129 Hrs

WEATHER CONDITIONS

TIME 1100 TEMP —

SKIES Clear

WIND (mph) 0-5 from W

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1055

Verified by: Richard Hall Date: 4-28-96

WELL ID: MW-49 (GW)

Page 1 of ___

Date: 4-27-98

Team No: 1

Samplers' Initials: R.JP

TD OF CASING 113.5 ft

STATIC DTW (-) 0.9 ft @ 12.45 hr

FT WATER (=) 112.6

SAMPLE PUMP INTAKE @ 105 ft

SCREEN INTERVAL: 30.5 - 52 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 gal / ft (=) 75.37 gal / 1 CASING VOL (x3 =) 226.13 gal / 3 CASING VOL (+) INIT FLOWMETER READING 98614.0 (=) 98840 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1348	PUMP ON			98614.0					
1351	20.4	155	6.79	98629.0	15.0	0.199	15.0 / 8	1.875	
1305	18.8	.144	6.77	98657.0	43.0	0.570	18 / 9	3.11	DTW = 4.3 @ 1256
1310	18.8	.144	6.77	98675.0	61.0	0.809	18 / 5	3.6	DTW = 9.9 @ 1307
1320	18.9	.146	6.77	98710.0	96.0	1.27	35 / 10	3.5	
1330	18.8	.145	6.80	98741.5	127.5	1.69	31.5 / 10	3.15	
1340	18.8	.144	6.81	98776.5	162.5	2.16	35 / 10	3.5	
1350	18.8	.134	6.80	98811.5	197.0	2.61	35 / 10	3.5	STW = 5.16 @ 1348
1357	—	—	—	STARTED	SAMPLING		/		
				98842.0			/		
1359	—	—	—	STOPPED	SAMPLING		/		
							/		
							/		
							/		
							/		

PUMP ON @ 1348 Hrs

PUMP OFF @ 1400 Hrs

GALLONS PURGED 228.0

CASING VOLS. PURGED 3.02

AVERAGE Q: 3.2 GPM

FINAL PURGE PUMPING WL 5.15 ft @ 1400 Hrs

START SAMPLING @ 1357 Hrs

STOP SAMPLING @ 1359 Hrs

WEATHER CONDITIONS

TIME 1340 TEMP —

SKIES Clear

WIND (mph) 0-5 from WSW

AIR MONITORING PID / FID (ppm)

VAULT 0.4 BKGD 0.3

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

Verified by: [signature] Date: 4-29-98

324

Page 1 of 1

WELL ID: MW-50 (QP)

Date: 4-30-98

TD OF CASING 74.30 ft | SAMPLE PUMP INTAKE @ 70 ft | Team No: 1

STATIC DTW (-) 17.70 ft @ 0735 hr | SCREEN INTERVAL: 54.3 to 74.30 ft | Samplers' Initials: RW

FT WATER (=) 56.6 | SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) ~~1.02~~ 0.67 gal / ft (=) 37.92 gal / 1 CASING VOL (x3 =) 113.76 gal / 3 CASING VOL (+) INIT FLOWMETER READING 202215.0 (=) 203328 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
0738	PUMP ON			202215.0					
0742	18.3	.124	6.17	202220.0	5.0	0.131	5 / 5	1.0	
0748	16.8	.128	6.72	202235.5	20.5	0.541	15.5 / 5	3.1	DTW = 17.98 @ 0752
0753	16.8	.128	6.74	202248.0	33.0	0.870	13 / 5	2.6	
0759	16.8	.128	6.75	202264.0	49.0	1.29	16 / 6	2.67	
0805	16.9	.144	6.76	202285.0	70.0	1.85	21 / 6	3.50	DTW = 17.98 @ 0805
0811	17.1	.155	6.79	202304.0	89.0	2.34	19 / 6	3.16	
0819	17.7	.158	6.59	202322.5	107.5	2.83	18.5 / 6	3.08	
0820	—	—	—	START	Sampling		— / —	—	
				202331.0			/		
0822	—	—	—	STOPPED	Sampling		— / —	—	
							/		
							/		
							/		

PUMP ON @ 0730 Hrs
PUMP OFF @ 0821 Hrs
GALLONS PURGED 116
CASING VOLS. PURGED 3.05
AVERAGE Q: 2.73 GPM
FINAL PURGE PUMPING WL 17.96 ft @ 0820 Hrs
START SAMPLING @ 0820 Hrs
STOP SAMPLING @ 0822 Hrs

WEATHER CONDITIONS
TIME 0730 TEMP —
SKIES Clear
WIND (mph) 0 from

AIR MONITORING PID / FID (ppm)
VAULT 0.1 BKGD 0.2
BREATHING ZONE 0
DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT
(GLOVES) / (GOGGLES) / HARDHAT
RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	6	40ml glass / HCl

DUP / MS/MSD / TB (FB) (Y) N
If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:
(Factors possibly affecting samples, condition of sampling equipment, etc.)
pH = 7.06 @ 0730
Field Blank @ 0817

Verified by: Richard Alley Date: 4-30-98

Page 1 of 1

WELL ID: MW-51 (QA)

Date: 4-29-98

TD OF CASING 67 ft

STATIC DTW (-) 6.9 ft @ 1630 hr

FT WATER (=) 60.1

SAMPLE PUMP INTAKE @ 62 ft

SCREEN INTERVAL: 39 - 59 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: Richard

CAP OF CASING (x) 1.02 gal / ft (=) 40.27 gal / 1 CASING VOL (x3 =) 120.8 gal / 3 CASING VOL (+) INIT FLOWMETER READING 98981.0 (=) 99101.8 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	VOLUME APPROX. GALS PURGED	VOLUME APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	DISCHARGE RATE Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1633	PUMP ON			98981.0					
1638	18.9	0.165	6.81	98992.5	11.5	0.286	11.5 / 5	2.3	
1644	18.8	0.157	6.81	99010.1	29.1	0.723	17.6 / 6	2.9	DTW = 13.84 @ 1640
1650	18.7	0.165	6.83	99028.0	47.0	1.16	17.9 / 6	2.98	
1658	18.7	0.166	6.83	99052.0	71.0	1.76	24 / 8	3.00	DTW = 14.52 @ 1655
1704	18.6	0.165	6.83	99070.0	89.0	2.21	18 / 6	3.00	
1710	18.7	0.195	6.83	99087.5	106.5	2.64	17.5 / 6	2.94	
1715	—	—	—	STARTED	Sampling		—	—	—
				99102.6			/		
1717	—	—	—	STOPPED	Sampling		/		
							/		
							/		
							/		
							/		
							/		

PUMP ON @ 1633 Hrs

PUMP OFF @ 1717 Hrs

GALLONS PURGED 121.6

CASING VOLS. PURGED 3.02

AVERAGE Q: 2.86 GPM (POOR)

FINAL PURGE PUMPING WL 15.42 ft @ 1717 Hrs

START SAMPLING @ 1715 Hrs

STOP SAMPLING @ 1717 Hrs

WEATHER CONDITIONS

TIME 1640 TEMP —

SKIES Clear

WIND (mph) 10-15 from W-NW

AIR MONITORING PID / FID (ppm)

VAULT 0.3 BKGD 0.3

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml/glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1623

Verified by: Richard Hall Date: 4-29-98

WELL ID: MW-52 (QP)

Date: 4-29-98

TD OF CASING 65 ft | SAMPLE PUMP INTAKE @ 60 ft | Team No: 1

STATIC DTW (-) 7 ft @ 1435 hr | SCREEN INTERVAL: 37 . 57 ft | Samplers' Initials: RJ, JP

FT WATER (=) 58 | SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 gal / ft (=) 36.86 gal / 1 CASING VOL (x3 =) 116.58 gal / 3 CASING VOL (+) INIT FLOWMETER READING 98847.0 (=) 98963.6 TARGET 99079.6 144

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1443	PUMP ON			98847.0					
1450	20.2	.161	6.74	98861.0	14.0	0.360	14.017	2.00	
1457	20.1	.173	6.74	98877.0	30.0	0.776	16.017	2.28	
1503	20.2	191	6.74	98893.0	46.0	1.184	16.017	2.28	
1512	20.2	.167	6.74	98917.0	69.0	1.77	23.019	2.55	DTW = 8.22 @ 1515
1520	20.2	.167	6.74	98936.0	88.0	2.01	19.018	2.37	
1529	20.2	.169	6.74	98958.0	111.0	2.85	23.019	2.55	
1534	—	—	—	START SAMPLING					
				98972.0					
1535	—	—	—	STOP SAMPLING					

PUMP ON @ 1434 Hrs

PUMP OFF @ 1535 Hrs

GALLONS PURGED 125

CASING VOLS. PURGED 3.22

AVERAGE Q: 2.33 GPM

FINAL PURGE PUMPING WL 8.28 ft @ 1535 Hrs

START SAMPLING @ 1534 Hrs

STOP SAMPLING @ 1535 Hrs.

WEATHER CONDITIONS

TIME 1440 TEMP —

SKIES Clear

WIND (mph) 0-5 from W

AIR MONITORING PID / FID (ppm)

VAULT 0.5 BKGD 0.5

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass / HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1438

Verified by: Richard Hall Date: 4-29-98

WELL ID: MW-55 (QA)

Date: 5-1-98

TD OF CASING (POR 93) ft

STATIC DTW (-) 31.46 ft @ 1045 hr

FT WATER (=) 61.54

SAMPLE PUMP INTAKE @ 88 ft

SCREEN INTERVAL: 67 - 87 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RDA

CAP OF CASING (x) 1.02 gal / ft (=) 4.23 gal / 1 CASING VOL (x3 =) 12.7 gal / 3 CASING VOL (+) INIT FLOWMETER READING 202947.5 (=) 203121.2 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1052	PUMP ON			202947.5					
1057	18.1	.131	6.09	203013.0	15.5	.376	15.5 / 5	3.1	DTW = 31.74 1058
1102	18.0	.146	6.71	203024.0	26.5	.643	11 / 5	2.2	clear.
1107	18.0	.130	6.67	203037.0	39.5	.958	13 / 5	2.6	
1113	18.0	.144	6.66	203052.0	54.5	1.322	15 / 6	2.5	
1118	18.0	.145	6.64	203065.0	69.5	1.637	13 / 5	2.6	
1127	18.0	.135	6.64	203086.0	88.5	2.146	21 / 9	2.3	DTW = 31.74 @ 1219
1136	18.1	.144	6.63	203112.0	114.5	2.777	26 / 9	2.88	
1140	18.1	.136	6.63	203120.0			/		
1140	—	—	—	Start sampling			/		
				203123.8			/		
1142	—	—	—	Stop sampling			/		
							/		
							/		

RDA

PUMP ON @ 1052 Hrs

PUMP OFF @ 1142 Hrs

GALLONS PURGED 126.3

CASING VOLS. PURGED 3.06

AVERAGE Q: 2.9 GPM

FINAL PURGE PUMPING WL 31.74 ft @ 1142 Hrs

START SAMPLING @ ____ Hrs

STOP SAMPLING @ ____ Hrs

WEATHER CONDITIONS

TIME 1030 TEMP —

SKIES Clear

WIND (mph) 10-15 from var

AIR MONITORING PID / FID (ppm)

VAULT 0.2 BKGD 0.2

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

ph = 7.00 @ 1040

Verified by: Richard Alm Date: 5-1-98

Page 1 of 1

WELL ID: MW-56A (IRP)

Date: 4-30-98

TD OF CASING 183 ft | SAMPLE PUMP INTAKE @ 180 ft | Team No: 1

STATIC DTW (-) 26.04 ft @ 1133 hr | SCREEN INTERVAL: 176 - 180 ft | Samplers' Initials: RDA

FT WATER (=) 156.96 | SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 gal / ft (=) 2668 gal / 1 CASING VOL (x3 =) 80.04 gal / 3 CASING VOL (+) INIT FLOWMETER READING 202385 (=) 202465 TARG

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1135	PUMP ON			202385					
1145	20.5	0.262	9.49	202400	15	0.56	15 / 10	1.5	DTW @ 1145 = 35.00
1152	20.3	0.282	8.88	202413.8	28.8	1.06	13.81 / 7	1.97	DTW = 37.71 @ 1155
1159	20.3	0.283	8.93	202425.8	40.8	1.51	12 / 7	1.71	
1206	20.2	0.291	8.92	202437.5	52.5	1.96	11.7 / 7	1.67	DTW = 41.94 @ 1211
1214	20.3	0.290	8.97	202451.5	66.5	2.49	14 / 8	1.75	
1220	20.3	0.289	8.97	202461.0	76	2.84	9.5 / 6	1.58	
1223	—	—	—	STARTED Sampling	—	—	— / —	—	
				202470.0			/		
1225	—	—	—	Stopped Sampling	—	—	— / —	—	
							/		
							/		
							/		
							/		
							/		

PUMP ON @ 1135 Hr

PUMP OFF @ 1225 Hr

GALLONS PURGED 85

CASING VOLS. PURGED 3.19

AVERAGE Q: 1.70 GPM

FINAL PURGE PUMPING WL 42.80 ft @ 1225 Hrs

START SAMPLING @ 1223 Hrs

STOP SAMPLING @ 1225 Hrs

WEATHER CONDITIONS

TIME 1135 TEMP —

SKIES Clear

WIND (mph) 0-3 from WA

AIR MONITORING PID / FID (ppm)

VAULT 0.2 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass / HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1135

Verified by: [signature] Date: 4-30-98

WELL ID: MW-56C (Q1)

Page 1 of ___

Date: 4-30-98

Team No: 1

Samplers' Initials: RAP

TD OF CASING 63.8 ppp

STATIC DTW (-) 10.62 ft @ 1245 hr

FT WATER (=) 52.18

SAMPLE PUMP INTAKE @ ~~60.8~~ 60.0 ppp ft

SCREEN INTERVAL: 48 . 58 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 gal / ft (=) 8.87 gal / 1 CASING VOL (x3 =) 26.61 gal / 3 CASING VOL (+) INIT FLOWMETER READING 202465 (=) 202491.61 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	VOLUME APPROX. GALS PURGED	VOLUME APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	DISCHARGE RATE Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1257	PUMP ON			202465					
1302	20.6	.184	6.81	202473.3	8.3	0.936	8.316	1.38	
1306	20.4	.237	6.73	202477.0	12.0	1.35	3.713	1.23	DTW = 14.34 @ 1308
1309	20.5	.331	6.63	202482.8	17.8	2.00	5.813	1.93	
1313	20.6	.237	6.58	202488.0	23.0	2.59	5.214	1.3	
1316	—	—	—	STARTED SAMPLING	—	—	—	—	DTW = 14.86 @ 1315
				202493.0					
1318	—	—	—	STOPPED	SAMPLING	—	—	—	

PUMP ON @ 1257 Hrs

PUMP OFF @ 1318 Hrs

GALLONS PURGED 28

CASING VOLS. PURGED 3.16

AVERAGE Q: 1.46 GPM

FINAL PURGE PUMPING WL 1480 ft @ 1330 Hrs

START SAMPLING @ 1314 Hrs

STOP SAMPLING @ 1318 Hrs

WEATHER CONDITIONS

TIME 1255 TEMP —

SKIES clear

WIND (mph) 0 from

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1255

Verified by: Richard Allen Date: 4-30-98

Page 1 of 1

WELL ID: MW-57A (QP)

Date: 4-30-98

TD OF CASING 75 ft

STATIC DTW (-) 12.7 ft @ 1340 hr

FT WATER (=) 62.3

SAMPLE PUMP INTAKE @ 70 ft

SCREEN INTERVAL: 59 - 69 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RDA

CAP OF CASING (x) 1.02 gal / ft (=) 10.6 gal / 1 CASING VOL (x3 =) 31.7 gal / 3 CASING VOL (+) INIT FLOWMETER READING 202493 (=) 202524.8 TARGI

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1343	PUMP ON			202493.0					
1346	20.6	0.188	6.70	202499.0	6.0	.566	6 3	2.0	Cloudy, Brown
1348	20.5	0.175	6.70	202503.5	10.5	1.01	4 5 2	2.25	cloudy
1352	20.5	0.135	6.69	202507.5	14.5	1.36	4 1 4	1.00	
1356	20.5	0.275	6.69	202511.5	18.5	1.74	4 1 4	1.00	DTW = 13.30 @ 1354
1359	20.5	0.187	6.69	202518.0	25.0	2.52	6 5 1 3		
1403	—	—	—	START SAMPLING	—	—	—	—	
				202526.5			1		
1404	—	—	—	STOPPED	SAMPLING	—	—	—	
							1		
							1		
							1		
							1		
							1		

PUMP ON @ 1343 Hrs

PUMP OFF @ 1405 Hrs

GALLONS PURGED 33.5

CASING VOLS. PURGED 3.16

AVERAGE Q: 1.55 GPM

FINAL PURGE PUMPING WL 14.10 ft @ 1405 Hrs

START SAMPLING @ 1403 Hrs

STOP SAMPLING @ 1404 Hrs

WEATHER CONDITIONS

TIME 1340 TEMP —

SKIES clear

WIND (mph) 15-20 from WSW

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1340

Verified by: Richard Hall Date: 4-30-98

Page 1 of 1

WELL ID: MW-58D (GA)

Date: 4-30-98

TD OF CASING 70.0 ft

STATIC DTW (-) 7.8 ft @ 0940 hr

FT WATER (=) 62.2

SAMPLE PUMP INTAKE @ 65.0 ft

SCREEN INTERVAL: 68 - 70 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RPP

CAP OF CASING (x) 1.62 gal / ft (=) 10.57 gal / 1 CASING VOL (x3 =) 31.72 gal / 3 CASING VOL (+) INIT FLOWMETER READING 202352.8 (=) 384.52 TARGE

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
0950	PUMP ON			202352.8					
0958	23.2	.220	6.75	202359	6.2	0.587	6.218	0.775	DTW = 38.28 @ 0958
1011	20.8	.243	6.79	202364.5	11.7	1.106	5.513	0.42	DTW = 39.8 @ 1000
1016	21.2	.290	6.78	202368.2	15.4	1.46	3.715	0.74	DTW = 53.64 @ 1016
1017				Pump off			/		
1025				Pump on			/		
1037	22.0	.260	6.62	202372.0	19.2	1.81	3.812	0.316	
1042	21.4	.255	6.65	202376.3	23.5	2.22	4.31	0.86	DTW = 51.40 @ 1040
1052	21.6	.263	6.67	202381.5			/		
1058	—	—	—	STARTED Sampling			—		
				202385.0			/		
1100	—	—	—	STOPPED Sampling			—		
							/		
							/		

PUMP ON @ 0950 Hrs

PUMP OFF @ 1100 Hrs

GALLONS PURGED 32.22

CASING VOLS. PURGED 3.05

AVERAGE Q: 0.622 GPM

FINAL PURGE PUMPING WL

54.28 ft @ 1100 Hrs

START SAMPLING @ 1058 Hrs

STOP SAMPLING @ 1100 Hrs

WEATHER CONDITIONS

TIME 0950 TEMP —

SKIES clear

WIND (mph) 0-5 from calm

AIR MONITORING PID / FID (ppm)

VAULT 0.2 BKGD 0.2

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	21	40ml glass

DUP / MS/MSD / TB / FB (V) N

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

Field Duplicate @ 1056

Blind Dup. @ 1026

Verified by: Richard Ash Date: 4-30-98

WELL ID: MW-59E (MS)

Date: 5-4-98

TD OF CASING 100 ft

STATIC DTW (-) 40.84 ft @ 0800 hr

FT WATER (=) 9.16 29.84 5.07 ROP

CAP OF CASING (x) 1.02 gal / ft (=) 4.57 gal / 1 CASING VOL (x3 =) 14.7 15.2184 gal / 3 CASING VOL (+) INIT FLOWMETER READING 203389.2 (=) — TARGE

SAMPLE PUMP INTAKE @ 95 ft

SCREEN INTERVAL: 40 - 50 ft

SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RPP

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
0816	PUMP ON								
0820	16.1	.209	7.70	1	1	0.117	1 / 4	0.25	DTW = 45.60 @ 0822
0835	18.2	.257	7.65	3	3	0.591	2 / 15	0.13	DTW = 53.89 @ 0831
0859	19.3	.293	8.04	2	5	0.986	2 / 29	0.083	
0912	21.1	.337	8.23	3	8	1.578	3 / 13	0.23	DTW = 75.98 @ 0914
0925	20.7	.319	8.15	2	10	1.972	2 / 13	0.15	
0938	20.7	.310	8.12	2	12	2.36	2 / 13	0.15	DTW = 86.02 @ 0926
0950	20.8	.308	8.09	2	14	2.76	2 / 12	0.16	
0955	—	—	—	STARTED	Sampling		—	—	—
					15.5		/		
0957	—	—	—	STOPPED	Sampling		—	—	—
							/		
							/		
							/		

PUMP ON @ 0816 Hrs

PUMP OFF @ 0957 Hrs

GALLONS PURGED 15.5

CASING VOLS. PURGED 3.05

AVERAGE Q: 0.12 GPM

FINAL PURGE PUMPING WL 88.02 ft @ 0957 Hrs

START SAMPLING @ ____ Hrs

STOP SAMPLING @ ____ Hrs.

WEATHER CONDITIONS

TIME 0800 TEMP —

SKIES Clear

WIND (mph) 0-5 from west

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass / HCl

DUP / MS/MSD / TB / (EB) (Y) N

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / (BUCKET)

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

Field Blanks at 0950

Verified by: R Allen Date: 5-4-98

Page 1 of 1

WELL ID: MW-62A (QA)

Date: 4-29-98

TD OF CASING 45 ft

STATIC DTW (-) 7.7 ft @ 0840 hr

FT WATER (=) 37.3

SAMPLE PUMP INTAKE @ 40 ft

SCREEN INTERVAL: 39 - 41 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

Team No: 1

Samplers' Initials: RDD

CAP OF CASING (x) 1.02 gal / ft (=) 6.34 gal / 1 CASING VOL (x3 =) 19.03 gal / 3 CASING VOL (+) INIT FLOWMETER READING 202332.8 (=) 202351.8 START

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
0848	PUMP ON			202332.8					
0853	20.5	0.359	6.82	202336.8	4.0	.631	4.0 / 2	2.0	
0855	20.2	0.327	6.74	202339.0	6.2	0.977	2.2 / 3	0.7	DTW = 25.8 @ 0858
0901	20.6	0.369	6.66	202342.0	9.2	1.45	3 / 6	0.5	
0906	20.7	0.348	6.63	202346.7	13.9	2.19	4.7 / 5	0.94	DTW = 27.26 @ 0904
0910	20.8	0.358	6.66	202350.0	17.2	2.71	3.3 / 4	0.825	DTW = 29.2 @ 0906
0913	—	—	—	START PUMP	SAMPLING		— / —	—	
				202352.6			/		
0915	—	—	—	STOP PUMP	SAMPLING		— / —	—	
							/		
							/		
							/		
							/		
							/		

PUMP ON @ 0851 H

PUMP OFF @ 0915 H

GALLONS PURGED 20.8

CASING VOLS. PURGED 3.2

AVERAGE Q: 1.2 GP

FINAL PURGE PUMPING WL

31.36 ft @ 0913 H

START SAMPLING @ 0913 Hr

STOP SAMPLING @ 0915 Hr

WEATHER CONDITIONS

TIME 0850 TEMP —

SKIES Clear

WIND (mph) 0 from

AIR MONITORING PID / FID (ppm

VAULT 0.2 BKGD 0.5

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass / HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 0850

Verified by: Richard Alle Date: 4-29-98

Page 1 of 1

WELL ID: MW-63 (GA)

Date: 5-7-98

TD OF CASING 64 ft
STATIC DTW (-) 23.9 ft @ 0743 hr
FT WATER (=) 40.1
SAMPLE PUMP INTAKE @ 60 ft
SCREEN INTERVAL: 21 - 63 ft
SPURGE PUMP: ____ (hp) ____ (volts) 30 (amps)
Team No: 1
Samplers' Initials: RDP

CAP OF CASING (x) 1.02 gal / ft (=) 40.4 gal / 1 CASING VOL (x3 =) 122.7 gal / 3 CASING VOL (+) INIT FLOWMETER READING 202651.4 (=) 202774.1 TARGET

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
0750	PUMP ON			202651.4					
0756	18.1	0.172	7.40	202662.5	11.1	.271	11.1 / 6	1.85	DTW = 25.50 @ 0755
0802	18.1	0.190	6.76	202673.0	21.6	.528	10.5 / 6	1.75	Cloudy, Brown
0808	18.2	0.198	6.58	202689.0	37.6	0.919	16 / 8	2.00	Cloudy, Brown
0818	18.3	0.200	6.86	202704.0	52.6	1.286	15 / 8	1.88	Cloudy, Brown.
0826	18.3	0.199	6.86	202727.0	75.6	1.85	23 / 8	2.88	
0834	18.3	0.200	6.65	202746.0	94.6	2.31	19 / 8	2.37	DTW = 25.50 @ 0831
0841	18.4	0.204	6.63	202761.0	109.6	2.68	15 / 7	2.14	Cloudy, Brown
0847	—	—	—	START Sampling	—	—	/	—	—
				202775.0			/		
0849	—	—	—	STOPPED Sampling	—	—	/	—	—
							/		
							/		
							/		

PUMP ON @ 0750 Hrs
PUMP OFF @ 0849 Hrs
GALLONS PURGED 123.6
CASING VOLS. PURGED 3.0
AVERAGE Q: 2.12 GPM
FINAL PURGE PUMPING WL 25.20 ft @ 0849 Hrs
START SAMPLING @ 0847 Hrs
STOP SAMPLING @ 0849 Hrs

WEATHER CONDITIONS
TIME 0730 TEMP —
SKIES OVERCAST
WIND (mph) 0 from

AIR MONITORING PID / FID (ppm)
VAULT 0 BKGD 0
BREATHING ZONE 0
DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT
GLOVES / GOGGLES / HARDHAT
RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40 ml glass / HCl

DUP / MS/MSD / TB / FB Y (N)
If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:
(Factors possibly affecting samples, condition of sampling equipment, etc.)
pH = 7.00 @ 0730

Verified by: Richard Hall Date: 5-1-98

Page 1 of 1

WELL ID: MW-66 (GP)

Date: 4-28-98

TD OF CASING 50 ft | SAMPLE PUMP INTAKE @ 45 ft | Team No: 1

STATIC DTW (-) 18.88 ft @ 1150 hr | SCREEN INTERVAL: 37.0 - 48.0 ft | Samplers' Initials: RDP

FT WATER (=) 31.12 | SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

CAP OF CASING (x) 1.02 gal / ft (=) 5.29 gal / 1 CASING VOL (x3 =) 15.87 gal / 3 CASING VOL (+) INIT FLOWMETER READING 98418.5 (=) 98434.7 TARG

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1206	PUMP ON			98418.5					
1212	22.7	.17	7.38	98422.0	3.2	0.605	3.2 / 6	0.53	Brown, silty
1218	22.5	.309	7.41	98426.8	8	1.51	6.3 / 6	1.01	DTW = 33.90 @ 1215
1224	22.7	.280	7.46	98430.5	11.7	2.21	3.7 / 6	0.61	clear
1230	22.6	.273	7.40	98434.2	15.4	2.91	3.7 / 6	0.61	DTW = 32.20 @ 1229
1231	—	—	—	STARTED	START	ING	/		—
				98435.0			/		
1232	—	—	—	STOPPED	STOPP	ING	— /		—
							/		
							/		
							/		
							/		
							/		
							/		
							/		

PUMP ON @ 1206 Hr
PUMP OFF @ 1232 Hr
GALLONS PURGED 16.2
CASING VOLS. PURGED 3.06
AVERAGE Q: 0.69 GPM
FINAL PURGE PUMPING WL 32.20 ft @ 1232 Hr

START SAMPLING @ 1231 Hr
STOP SAMPLING @ 1232 Hr

WEATHER CONDITIONS
TIME 1200 TEMP _____
SKIES Clear
WIND (mph) 0-15 from W

AIR MONITORING PID / FID (ppm)
VAULT 0 BKGD 0
BREATHING ZONE 0
DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT
GLOVES / GOGGLES / HARDHAT
RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	6	40 ml glass/HCl

DUP / MS/MSD / TB (FB) (Y) N
If "Y", complete appropriate forms

MEASUREMENT METHOD: (FLOWMETER) / BUCKET

OTHER NOTES & COMMENTS:
(Factors possibly affecting samples, condition of sampling equipment, etc.)

Field Blank @ 1227

Verified by: [signature] Date: 4-28-98

WELL ID: OW-3 (GI)

Page 1 of 1

Date: 4-28-98

Team No: 1

Samplers' Initials: KD

TD OF CASING 70 ft

STATIC DTW (-) 14.96 ft @ 1638 hr

FT WATER (=) 55.04

CAP OF CASING (x) 1.02 gal / ft (=) 85 gal / 1 CASING VOL (x3 =) 255 gal / 3 CASING VOL (+) INIT FLOWMETER READING 98536.0 (=) 98563.5 TARGET

SAMPLE PUMP INTAKE @ 65 ft

SCREEN INTERVAL: 46 - 56 ft

SPURGE PUMP: _____ (hp) _____ (volts) 30 (amps)

TIME	FIELD PARAMETERS T°C	EC	pH	VOLUME TOTALIZER FLOWMETER READING	APPROX. GALS PURGED	APPROX. CASING VOLS PURGED	DISCHARGE RATE VOLUME / TIME (min)	Q (GPM)	NOTES (Color, odor, sand & silt content & other characteristics of the discharge water)
1643	PUMP ON			98538.0					
1646	25.7	.197	7.22	98545.0	7.0	0.80	7 / 3	2.3	DTW = 20.10 @ 1645
1659	25.6	.192	7.20	13	13.0	1.17	3 / 13	0.25	
1706	25.7	.191	7.20	9	15.0	1.76	5 / 7	0.7	
1716	25.7	.188	7.19	5	20.0	2.35	5 / 10	0.5	
1726	25.8	.201	7.19	5	25.0	2.94	5 / 10	0.5	
1730	—	—	—	STARTED SAMPLING			—	—	DTW = 57.06 @ 1720
				2			1		
1732	—	—	—	STOP SAMPLING			—	—	
							1		
							1		
							1		
							1		
							1		

PUMP ON @ 1643 Hrs

PUMP OFF @ 1732 Hrs

GALLONS PURGED 27.0

CASING VOLS. PURGED 5

AVERAGE Q: 0.703 GPM

FINAL PURGE PUMPING WL 57.06 ft @ 1734 Hrs

START SAMPLING @ 1730 Hrs

STOP SAMPLING @ 1732 Hrs.

WEATHER CONDITIONS

TIME 1643 TEMP 60

SKIES Rain Clear

WIND (mph) 10 15 from E

AIR MONITORING PID / FID (ppm)

VAULT 0 BKGD 0

BREATHING ZONE 0

DISCHARGE WATER 0

HEALTH & SAFETY EQUIPMENT

GLOVES / GOGGLES / HARDHAT

RESPIRATORS / TYVEK / VEST

SAMPLE COLLECTION

ANALYSIS	QUANTITY	CONTAINER / ACID
8010	3	40ml glass/HCl

DUP / MS/MSD / TB / FB Y (N)

If "Y", complete appropriate forms

MEASUREMENT METHOD: FLOWMETER / BUCKET

OTHER NOTES & COMMENTS:

(Factors possibly affecting samples, condition of sampling equipment, etc.)

pH = 7.00 @ 1640

Verified by: Richard Alla Date: 4-28-98

APPENDIX C

STANDARD OPERATING PROCEDURES

STANDARD OPERATING PROCEDURES (SOP)

TABLE OF CONTENTS

1.0 GENERAL STATEMENT
- 1.1 General Statement
- 1.2 Objective
- 1.3 Equipment and/or Instrumentation
- 1.4 Preparation
- 1.5 Sample Containers, Preservation and Transmittal
- 1.6 Procedures
- 1.7 Equipment Decontamination & Disposal Procedures
- 1.8 Documentation
- 1.9 Quality Assurance

2.0 WATER QUALITY PARAMETER MEASUREMENT
- 2.1 General Statement
- 2.2 Objective
- 2.3 Equipment and/or Instruction
- 2.4 Procedure
- 2.5 Equipment Decontamination & Waste Disposal
- 2.6 Documentation
- 2.7 Quality Assurance

3.0 WATER LEVEL MEASUREMENT
- 3.1 General Statement
- 3.2 Objective
- 3.3 Equipment and/or Instruction
- 3.4 Preparation
- 3.5 Procedure
- 3.6 Equipment Decontamination & Waste Disposal
- 3.7 Documentation
- 3.8 Quality Assurance

STANDARD OPERATING PROCEDURE (SOP)
BEAUMONT No. 1

1.0 GROUNDWATER SAMPLE COLLECTION

1.1 GENERAL STATEMENT

Representative groundwater samples will be collected for chemical analysis. Although the groundwater sampling program for this site is not currently regulated, the sampling protocol is based upon the recommendations found in "Representative Sampling of Groundwater for Hazardous Substances, Interim Final" (CalEPA, 1994). Samples will be analyzed for VOCs according to EPA Method 8010 and EPA Method 8020. The water quality parameters temperature, pH, and specific electrical conductivity (EC) will also be measured while attempting to purge a minimum of three (3) well volumes. Stabilized parameters measured during purging operations prior to sampling will be used to indicate that freshly drawn water which is representative of the aquifer is being sampled. Water quality parameters will be measured using the procedures detailed in the water quality parameter measurement SOP (Section 2.0). Cascading of water will be avoided in low-yielding wells. If a well goes dry during pumping, the water sample may be collected as soon as a sufficient volume of groundwater has entered the well to enable the collection of the necessary samples. Results of groundwater sample laboratory analyses will be used to determine the chemical characteristics of the groundwater and to further delineate the extent of the hydrocarbon plumes.

1.2 OBJECTIVE

In general, data resulting from the collection and analysis of groundwater samples will be used to monitor the distribution of chemical compounds and/or constituents in the hydrogeologic units of study. In addition, groundwater samples may be collected to satisfy the following objectives:

- Track chemical compound concentrations and/or define source areas.
- Monitor a specific hydrogeologic unit independent of other units.
- Establish baseline information for each well.
- Monitor the effects of containment/reclamation wellfield operations during remedial activities.
- Confirm or refute anomalous analytical results from a previous sampling event.
- Monitor the general groundwater chemistry in the area.

1.3 EQUIPMENT AND/OR INSTRUMENTATION

Sample containers required for collection of water samples for chemical analysis are specified in Table B-1. Information on water quality parameter measurement instrumentation is specified in Section 2.0 Basic purging and sampling equipment will consist of a submersible pump, water level meter, hoses, water quality parameter kit, disposable sampling bailers, and tanks to capture and transport purge water for treatment. Some wells will be purged and sampled using a smeel rig crew. Most samples will be collected from the discharge of the submersible pump, through a stream spitter. In low-yield wells that have been purged nearly dry and which recharge at a very slow rate, a disposable Teflon bailor may be used to collect the groundwater samples.

1.4 PREPARATION

Prior to commencing the bi-annual sampling event for a project, the following information will be determined:

- daily sampling schedule;
- analyte list for each well;
- number of sample containers needed per well and in total;
- QC wells for 10% of each analyte group (duplicates, equipment blanks, MS/MSDs for VOAs, etc.);
- QC wells for each day of sampling (field blanks).

The following procedures will be used during preparation for groundwater sample collection:

- Review project objectives, sample location, sampling procedures, preservation, special handling requirements, packaging, shipping, analytical parameters (equipment calibration, operation, and data recording) and detection limits, and sampling schedule with personnel.
- Review health and safety procedures and attend the daily tailgate meeting.
- Inform laboratory of expected number of samples and sample shipment schedules.
- Obtain laboratory-cleaned sample vials.
- Obtain from the laboratory containers of organic-free water for preparation of field blanks.
- Obtain from the laboratory enough trip blank water vials containing organic-free water for each ice chest containing samples to be analyzed for VOCs. The purpose of the blank is to identify potential contamination associated with container preparation and sample transport.

1.5 SAMPLE CONTAINERS, PRESERVATION AND TRANSMITTAL

The laboratory prepares the 40-ml glass vials and septa used for collecting samples for VOC analysis. The vials are washed with detergent, rinsed with organic-free water, and dried for one hour at 105°C. Vials to be used for EPA Method 8010/8020 will be preserved with 1:1

hydrochloric acid. These vials will not be rinsed with sample water prior to collection of samples.

1.6 PROCEDURES

The following procedures will be used for collection of groundwater samples from monitoring wills by a 2-inch GROUNFOS submersible pump:

- Decontaminate the outside of the submersible pump and hoses according to Section 1.7.
- Whenever possible, position the truck and water tank such that the generator for the submersible pump is down-wind of the wellhead or vault.
- After opening the wellhead, check for volatile contaminants in the background air and in the wellhead with an OVA (HNu, PhotoVac, or equivalent device). If an elevated reading (with respect to the background) is obtained in the wellhead, step back and allow the vapors to dissipate. Leather work gloves should be worn to prevent cuts and scratches. Visually inspect the wellhead for spider webs, as black widow spiders may nest in the wellheads and vaults.
- Set up the table and chair, and arrange the flow meter and parameters kit in a safe manner around the open wellhead.
- Measure depth to water in the well to be sampled (Section 3.0). Before placing the probe in the well, make sure that the sounder is functional by turning the knob on the side and pressing the test button. Record the STATIC DTW (Depth To Water) on the top of the field data sheet.
- Calibrate the YSI 3500 water quality parameters instrument at the beginning of each day or if the instrument has been turn-off (Section 2.0). If the instrument has not been turned off, use the pH standard solution and take a reading. Record the measurement in the pH Calibration Log. Wet the rubber O-rings in the flow cell and insert the probes into their respective openings in the flow cell.
- Decontaminate the internal area of the pump and hoses and collect three (3) equipment blank VOA's according to Section 1.7.
- Carefully drop the submersible pump and hose into the well until it reaches the bottom of the well, then raise the pump approximately 5 feet and secure the reel mount.
- Connect the hoses between the pump and flow meter inlet (female end to pump, male to meter), and the flow meter outlet (female fitting) and purge tank. Connect the five foot clear PVC hose from the flow meter pipe the EC probe in the flow cell, and the 20 foot PVC hose from the flow cell center to the purge tank.
- Connect the electrical extension cord to the generator and the control box inside the back of the van. Check that the 115V/220V switch on the front of the generator is properly selected.

- Check to see that the generator has enough gasoline to complete the well purging and sampling and that the gasoline floe valve is open. Wear plastic gloves and safety glasses while handling gasoline.
- Fill in the following data on the field data sheet:

– From the well construction table in the back of the field sampling notebook,

TD of casing
Screen interval
Purge pump hp and volts (all pump are 30 amps).
Fill in the date, page number, weather conditions, air monitoring readings for all but the discharge water, and complete the health and safety information.
Record the initial flowmeter reading in the first box under "Totalizer Flowmeter Reading". Also fill in the time that the pump will be turned on.
In the lower left hand corner, fill in the analytical parameters for which the well will be sampled (consult the analyte list in the front of the sampling book), the container type and preservative contained within (if applicable).
Calculate one and three well volumes (for a 2" well) as follows:

(TD OF CASING) - (STATIC DTW) = FT WATER [This distance is referred to as the water column],
(FT WATER) X 1.02 = GAL/1 CASING VOL (for 2" wells; use the Radian well volume table for larger casings),
(GAL/1 CASING VOL) X 3 = GAL/3 CASING VOL [This is the minimum volume to be pumped before sampling]
(GAS/3 CASING VOL) ÷ (INITIAL FLOWMETER READING) = FLOWMETER TARGET.
If the well casing is larger than 2", use the Radian well volume chart in the Fieldbook ti determine the purge volume.

- Make sure that no plastic or flammable materials are near the generator exhaust. Start the generator. Then start the pump when the time is at 00 seconds.
- Adjust flow through the flow cell to about 1.5 gallons per minute. There should be bubbles suspended in the flow stream indicating flow. Check the outflow tube to gauge the flow rate if necessary.
- At the beginning of the purge, record the parameters from the YSI 3500, the time (at 00 seconds) and the flowmeter reading every one or two minutes until the flow the discharge rate (Q) stabilizes. If the purge and sample is done from the smeel rig, use a Hydac meter to measure groundwater parameters.
- Calculate the current volume and discharge as follows:

(CURRENT FLOWMETER)-(FIRST FLOWMETER) = GALLONS PURGED
(GALLONS PURGED)/(GAL/1CASING VOLUME) = CASING VOLUMES PURGED [(CURRENT FLOWMETER)-(PREVIOUS FLOWMETER)]/ELAPSED TIME FROM PREVIOUS RECORDING = Q

- Purge with the submersible pump and attempt to purge at least three purge volumes have been removed. While pumping take frequent water level measurements to determine if the well is low-yielding. Also consult the pumping data from the December, 1994 sampling round to see if that well was previously pumped and to estimate the recharge rate. If the recharge rate is indicated to be slow, adjust the pumping rate accordingly. Consult the well construction data to see what the screened interval for the particular well is and use this to determine if pumping should be stopped. Avoid pumping any well completely dry because cascading of recharge water should be averted. If the recharge rate is good, ensure that the measured field parameters pH, EC, and temperature have stabilized (section 2.0), and that the flowmeter target has been attained.
- Follow the same procedure if using a smeel rig.
- During purging, the second team member should do the following preparation for sampling:
  - Fill in the Chain-of-Custody record.
  - Fill in custody seals (signature and date).
  - Fill in the sample label.
  - Take periodic water depth sounding at the request of the person recording parameters.
- If a field blank is to be collected for the well, prepare three field blank water vials of laboratory-approved organic-free water for analyses. Prepare the blanks approximately 10 minutes before the regular samples are to be collected and be sure to record the sample time as earlier than the regular sample. Identify the sample as a field blank. The field blank preparation will be alternated each day between each team.
- Reduce the submersible pump discharge to a gentle flow prior to collecting samples for VOC analysis, if applicable. Collect VOC water samples in appropriate sample containers from the discharge at the wellhead.
- If the well goes dry, allow the well to recharge until enough groundwater is present to collect the sample. If you cannot sample after one hour go collect the sample within one day with a disposable Teflon bailer and reel.
- Record the sampling time on the field data sheet and on all sample labels.
- Collect headspace-free water samples for EPA Method 8010/8020 analyses in pre-acidified 40-milliliter (ml) glass sample vials preserved with hydrochloric acid. Do not rinse the glass vials with discharge water prior to sample collection. To avoid aeration, hold the glass vial at an angle so the stream of water flows down the side. Fill the vial until it forms a positive meniscus to eliminate any air bubbles and replace the teflon-lined cap. Turn the vial upside down and tap it to check for air bubbles. If there is any headspace, discard the original vial and use a new pre-acidified vial. Repeat this procedure until a sample without headspace is obtained. Make a note in the field data sheet that effervescence in the water was observed.
- Collect three VOA's for each VOC analysis for each well sampled. Wrap the vials in bubble wrap, then place samples in a ziplock bag and immediately store on ice chest.
- If the well is a QC well, collect field duplicate samples and MS/MSD samples by filling routine and QC sample containers for a given analyte at the same time, filling

the same number of sample containers for the QC samples as the routine samples. Label duplicate and MS/MSD samples for the same analyses as the original samples. Send duplicate samples and MS/MSD samples along with the original samples to the primary laboratory. The locations for duplicate and MS/MSD sample collection will be determined prior to the sampling event.

- Seal the samples with custody seals and label.
- Upon completion of sampling, shut down pump by turning off the power switch on the face of the generator. Wait until the minute hand reaches " 0" before turning off the pump and generator.
- Record the time the pump was shut off (at 00 seconds), the final flowmeter reading, and calculate the final purge volume and average pump rate.
- Fill in the Field Blank and Duplicate Sample Logs. Complete the Groundwater Tracking Log when unloading purge water at the groundwater stripper treatment unit. These logs are located in field notebook.
- Record chain-of-custody documentation at each sample location prior to sampling at the next well. On the line for the equipment blank, mark "Hold" in the Comment section.
- Immediately after each groundwater sample is collected, either bring the sample to the refrigerator in the trailer for storage or call the field coordinator to pick it up. Three trip blank VOA's will be placed in the refrigerator along with the first groundwater sample. Samples will be stored in the onsite refrigerator for up to four days until they are shipped to the laboratory. This procedure will be repeated at the start of the fifth day of sampling.
- When the samples are prepared for shipping include the three trip blank VOA's that were placed in the refrigerator at the start of the sampling round along with the groundwater and QC samples in the sample container during packing.
- Prepare letters of transmittal and finalize chain-of-custody documentation.
- Place bubble wrap in the coolers to fill excess space and to ensure that samples are secure. Place the Transmittal Letter and the top two (retain the bottom gold copy for the field manager) copies of the chain-of-custody form in a one gallon plastic zip-lock bag and tape to inside of the lid. Close the cooler lid and place two custody seals either side of the locking mechanism across the cooler seal. Tape the cooler closed with strapping tape over the custody seals and around the cooler three times. Fill out a sample shipment form, and transport coolers to the shipping facility.

1.7 EQUIPMENT DECONTAMINATION AND DISPOSAL PROCEDURES

Teams 1 and 2. Prior to purging each well, the submersible pump and hoses must be decontaminated. Drive the van with the submersible pump and hoses to the catox unit. Turn on the system and use the HOTSI sprayer to wash the pump, frame, and hose. Unwind the pump and as much hose as went down the previous well before spraying. Scrub the pump and the frame. Use a screwdriver to remove the screw-like fixture at the end of the pump and wash the inside of the pump. Be very careful not to lose the fixture. You may refill the tap water bottle with treated water from the system. Then be sure to turn of the system.

Set up for sampling at the next well, then decontaminate the inside of the system as follows. Place the 3-piece PVC decon unit beside the pump and frame. Fill the tube marked "Soap and water" with alconox and tap water and flush 5 gallons of the solution through the pump and hose system and into the purge tank, followed by 5 gallons of tap water in the appropriate PVC tube and then by 5 gallons of distilled water. Before the distilled water is spent collect the equipment blank sample.

Team 3 (Smeel Rig). The decontamination procedure for the smeel rig crew is slightly different. Upon removal of the pump from each well, the pump and wire are rinsed with a steam cleaner. The pump is then lowered into a barrel of trisodium phosphate (TSP) and water. The pump is turned on and the solution allowed to recirculate for 1 to 2 minutes. Then the pump will be washed in a container of tap water. The pump is then removed and steamed again to remove any additional residue. Then a 5-gallon PVC container is filled with distilled water, the pump is lowered into the container, and an equipment blank is collected from the effluent.

Groundwater discharged during well evacuation and water sample collection will be contained and transported to the water treatment system. The water will be treated by the stripper system and reinjected into the ground.

All sampling and purging equipment is to be decontaminated at the end of the sampling round prior to use at another site.

1.8 DOCUMENTATION

A record of sample identification numbers will be maintained on standardized field data form. Additional field data include a record of significant events, observations, and measurements during sampling, such as personnel present, site condition, sampling procedures, measurement procedures and calibration records.

All entries of field data will be signed, dated, and kept as a permanent record. Erroneous entries will be corrected by crossing a line through the error and entering the correct information. Correction will be initialed by the person making the re-entry.

Sample identification documents will be prepared so that sample identification and chain-of-custody are maintained and sample disposition controlled. The sample identification documents to be used are:

- Sample identification label;
- Chain-of-custody records.

Sample documentation forms and labels will be completed with water-proof ink. The sample documentation forms accompany the samples to the laboratory. Copies of the sample documentation forms will be retained by the samplers and given to the field coordinator and then sent directly to the Lockheed QA manager for the project.

Pre-printed adhesive sample labels will be secured to the sample containers by field personnel. The following information will be recorded on the sample label:

- sample location/identifier;
- date and time sample was collected;
- analyses to be performed;
- preservation instructions;
- sampler's initials;
- any special instructions to laboratory personnel.

Official custody of samples will be maintained and documented from the time of sample collection until the validation of analytical results. The chain-of-custody record is the document that records the transfer of sample custody. The chain-of-custody record also serves to cross-reference the sample identifier assigned by the Lockheed QA Manager for the project with the sample identifier assigned by the laboratory. The chain-of-custody record includes the following information:

- sample location/identifier;
- date and time sample was collected;
- sampling personnel;
- shipping method and date;
- sample description;
- sample volume;
- number of containers;
- sample destination;
- preservative used;
- analyses to be performed;
- any unusual sampling or container conditions;
- special handling and reporting procedures;
- the identity of personnel relinquishing and accepting custody of the samples.

The sampling personnel will be responsible for the samples and will sign the chain-of-custody record to document sample transferral or transport. Samples will be packaged in sealed containers for transport and dispatched to the appropriate laboratory for analysis with a separate transmittal letter and chain-of-custody record accompanying each shipment. The method of transport, courier name(s), and other pertinent information will be entered on the transmittal letter accompanying the samples. During transport, samples will be accompanied by the chain-of-custody record.

Once received at the laboratory, laboratory custody procedures apply. It is the laboratory's responsibility to acknowledge receipt of samples and verify that the containers have not been opened or damaged. It is also the laboratory's responsibility to maintain custody and sample tracking records throughout sample preparation and analysis. A copy of the chain-of-custody record is then sent to the Lockheed QA Manager for the project.

1.9 QUALITY ASSURANCE

QA for groundwater samples collected during routine groundwater monitoring will be accomplished by following the procedure described in previous sections of this SOP and by monitoring laboratory QA procedures. In addition, the following field quality control methods will be implemented during sample collection:

- Collect one field duplicate sample for each analytical group for 10 percent of the samples collected during the sampling event. Analyze duplicate samples for the same analytes as the original samples. Send duplicate samples along with original samples to the primary laboratory. The duplicate sample measures the total system error, consisting of the precision of field sampling, sample preparation error and laboratory analysis techniques.

- Include three trip blank water VOA's containing organic-free water for VOC analyses to accompany the samples during storage in the onsite refrigerator and during shipping. The trip blanks will be prepared by the analytical laboratory using organic-free water. The purpose of the trip blanks to identify possible contamination associated with container preparation and sample transport. Visually check to see that the trip blank has no headspace. If it does, make a note on the chain-of-custody record.

- Include a field blank water bottle containing organic-free water for VOC analyses with each field team on alternating days. Sampling personnel will prepare three field blank VOA's from the field blank water at a sample location using organic-free water obtained from the analytical laboratory. The blanks will be prepared a few minutes prior to collection of the groundwater sample. The purpose of the field blank is to identify possible contamination associated with sample collection and transport.

- During equipment decontamination prior to purging each well, collect three equipment blank VOA's from the distilled water effluent. The purpose of the equipment blank is to identify possible cross contamination from the previous well.

- Prepare co-samples for EPA or other agencies during groundwater sampling, if required, by alternately filling agency and Lockheed sample containers in sequential order for each parameter until all containers are filled.

- Identify duplicates and blank samples according to the examples shown in "Description of the Beaumont QA Program Design" located before this SOP in the Fieldbook.

- Prior to the start of the sampling event, sample locations for field blank preparation, and duplicate sample collection will be determined. Additionally, labeling procedures for all QC samples will be specified. This information will be contained in the sampling memorandum issued to field sampling personnel prior to the start of sampling activates.

- Chain-of-Custody forms and Well Sampling Information forms are to be checked for completeness and correctness of calculations and to confirm stability of observed parameters.

2.0 WATER QUALITY PARAMETER MEASUREMENT

2.1 GENERAL STATEMENT

The water quality parameters EC, pH, and temperature will be measured in groundwater while pumping at least three well volumes at each sampling location. These will generally be measured by a single instrument, the YSI 3500 at most wells. However, at wells purged using the smeel rig, a Hydac meter and sample beaker will be used. All equipment required for calibration and measurement of the water quality parameters, are referred to-as the parameters kit.

2.2 OBJECTIVE

Water quality parameters will be measured to indicate the general water chemistry of the groundwater sample. Stabilization of these parameter is indicative of representative water from the aquifer or water source of interest.

2.3 EQUIPMENT AND/OR INSTRUMENTATION

Groundwater parameters will be measured from the submersible pump in a flow-through cell or transfer bottle. The flow-through cell will be equipped with temperature, EC, and pH electrodes. If the YSI 3500 fails to work properly for any of the parameters and one or more hand-held instruments are used, groundwater samples will be placed in a transfer bottle for measurement.

2.4 PROCEDURE

The pH meter will be recalibrated in pH 4 and pH 10 buffer solution before use at the start of each day at the first field location. These two pH values are expected to bracket the range of pH in groundwater samples collected in the study area. The pH 7 standard will be used when calibration each day and prior to purging at each well. The results are recorded on the pH Meter Calibration Log.

The YSI 3500 meter is calibrated as follows:

- Connect both temperature probe to the meter.
- Select pH setting, with shorting cap on terminal;
- Turn the CALIBRATE knob all the way to the left, then all the way to right, then adjust knob to the center of its range. Repeat with the SLOPE knob.
- With the shorting cap still in place, use the CALIBRATE knob to adjust the pH reading to 7.0.
- Remove shorting cap and connect the pH probe.
- Turn selector to pH ATC (Automatic Temperature Compensation);
- Rinse the pH probe and both temperature probes with DI water and gently shake off the excess.
- Immerse pH and temperature probes into the pH 4.0 solution;
- Use the CALIBRATE knob to abject the pH reading to 4.0.
- Rinse probes with distilled water and gently shake off the excess;
- Immerse pH and temperature probes into the pH 10.0 solution;
- Use the SLOPE knob to adjust to 10.0;
- Immerse pH and temperature probes into the pH 7.0 solution;
- Record the time, measurement, and standard used in the Calibration Log;
- Dispose of the used buffer solutions in the yellow HAZARDOUS WASTE trash bag. NEVER RE-USE THE SOLUTIONS at another well.

The YSI 3500 Conductivity meter is calibrated as follows:

- Fill a container (a 250 ml wide-mouth container for nitrate samples work well) with 450 or 1000 millimhos/centimeter electroconductivity (EC) solution;
- Rinse the conductivity and both temperature probes with DI water and gently shake off excess;
- Immerse the gray probe to the middle of the knurled (ridged) section, along with the temperature probes into the container of conductivity fluid;
- The number on the meter is in micromohs/centimeter, so multiply by 1000 and record the conductivity value on the EC Meter Calibration Log;
- Calibrated the conductivity meter prior to the start of the sampling event and after the sampling is complete.

When using hand-held instruments (Hydac):

- Calibrate the pH meter to standard solutions according to the manufacture's specifications;
- Calibrate the conductivity meter to standard solutions according to the manufacturer's specifications;
- Rinse the transfer bottle three times with sample water prior to filling. Fill the transfer bottle with sample water;

- Immediately submerge the probes and thermometer in the transfer bottle and record measurements on groundwater sampling information form after they have stabilized;
- Discard the water sample in the transfer bottle. This water will not be used to fill sample containers;
- After parameters are measured, decontaminate the transfer bottle, thermometer, and probes by rinsing with distilled water.

2.5 EQUIPMENT DECONTAMINATION AND WASTE DISPOSAL

The flow-through cells will be emptied and decontaminated after each use. The transfer bottle and the probes used for measurement of field parameters will be decontaminated before and after each measurement by rinsing with distilled water. In both cases, rinse water will be collected in containers along with discarded water samples. The discharged water will be treated and disposed of at the Lockheed groundwater treatment system.

2.6 DOCUMENTATION

Measurements of EC, pH and temperature will be recorded on the groundwater sampling field data form or aquifer test data forms. The following information will be recorded in the field notebook:

- sample location/identifier;
- date and time sample was collected;
- sampler's initials;
- type of meter, including name and model number.

2.7 QUALITY ASSURANCE

QA of field measurements will be accomplished by following the procedures described in this SOP and by following the manufacturer's operating instructions. Temperature, pH, and EC will be measured during each groundwater sampling event. Prior to measuring field parameters, field personnel will verify that the instruments and properly calibrated. Calibration documentation for each instrument will be maintained for reference purposes. Reference solutions for pH, and EC will be prepared and used to properly calibrate the instrument. The pH meter will be calibrated before each separate use. The conductivity meter will be calibrated at the start of each sampling day.

Water quality parameter measurement data will be compared with previous data and examined for variations. If variations greater than 10 percent exist which cannot be accounted for by changes in field conditions and/or field measurement stabilization, the measurement instrument will be recalibrated and the measurements repeated. If large discrepancies exist from what is expected based on previous measurements, an alternative measuring device such as another thermometer, pH meter, or EC meter will be utilized to verify the data.

3.0 WATER LEVEL MEASUREMENTS

3.1 GENERAL STATEMENT

Water levels will be measured with a calibrated water level sounder. Water levels may be measured as part of groundwater sample collection, monitor well construction, water level monitoring, or aquifer testing and discharge measurement activities.

3.2 OBJECTIVE

Water levels will be measured in monitor wells prior to the start of the sampling round. Resulting data will be used in conjunction with measuring point elevation data to construct water level contour maps for the hydrogeologic units of interest at the Beaumont facility. These maps will be used in the interpretation of groundwater flow conditions in the hydrogeologic units of interest and the vertical gradients between units. The water level contour map will also be used in the interpretation of the distribution and movement of hydrocarbons. The water levels measured at the start of sampling at each well will only be used to calculate the amount of water to be purged, not for contouring.

3.3 EQUIPMENT AND/OR INSTRUMENTATION

The water level sounder used to measure water levels will be equipped with standard two-lead cable and marked in 1/10-foot increments. A standard weighted electrode will be attached to the end of the sounder cable.

3.4 PREPARATION

The water level sounder will be calibrated at least twice annually by comparing water level measurement made with the sounder against a water level measurement made with a steel tape, or by checking the distances between the sounder makings with a steel tape. Steel tapes will be checked for kinks and will have the first 5 to 10 feet chalked before each measurement.

The following procedures will be used during preparation for measuring water levels in wells:

- Identify the wells to be measured.
- Identify established measuring point for each well. The same measuring point must be used for all measurements at a well.
- Review the previous water level measurement for each well.
- Decontaminate the sounder by rinsing the probe with laboratory soap followed by a distilled water or deionized water rinse.

3.5 PROCEDURES

The following procedures will be used for measuring water levels in wells:

- Open the wellhead casing and/or well cap;
- Check for volatile contaminant vapor with an OVA or Microtip. Use appropriate respiratory protection, if necessary.
- Make sure that the sounder is functional, and lower the sounder down the well.
- Sound each well twice for depth to water. The variation between the two measurements must be less than 0.01 foot.
- Measure the distance from the water mark to nearest footage tab on the electric sounder in hundredth of feet.
- Record the depth to water, date, and time of measurement on the water level measurement form. Enter the whole footage value in the proper column, then the fractional footage in the next column, and finally the total column, then the fractional footage in the next column, and finally the total value in the next column. Examine the previous measured water level for the well. If the difference between the current water level measurement and the previous measurement varies by more than 1 foot, recheck the current measurement.
- Remove water level measurement equipment and decontaminate the bottom 5 feet of the sounder probe rinsing with a laboratory soap followed by a distilled water or deionized water rinse.
- Replace the plastic cap, and close the vault.

3.6 EQUIPMENT DECONTAMINATION AND WASTE DISPOSAL

The water level sounder will be decontaminated by rinsing the probe and bottom 5 feet of tape with a laboratory soap followed by a deionized or distilled water rinse.

3.7 DOCUMENTATION

All water level measurement will be recorded on a standard water level measurement form (Table B-14). The reported data will include depth to water in feet below the measuring point, the description of the measuring point, the date and time of the measurement, the calculated water level elevation, the method of the measurement and field personnel's initials. Water level measurements will be reported to the nearest 0.01 foot.

For water levels measurements during aquifer testing operations, depth to water and time measured will be recorded on aquifer test data forms.

Calibration of the sounders will be documented as outlined in the manufacturer's instructions.

3.9 QUALITY ASSURANCE

QA of water level measurement data will be accomplished by following the procedures described in this SOP. Calibration information will be entered onto a calibration form kept in a documentation notebook which will be carried with the instrument. In addition, the following QA procedures for water level measurements will be implemented:

- Measure water levels with a calibrated water level sounder or a steel tape. Prior to measuring water levels, verify that the instruments are properly calibrated.
- At each location and/or time interval, make at least two measurements during routine water level measurement activities. Measure water levels until two consecutive measurements are obtained which have a difference of less than 0.01 foot. The experienced field technician will determine which measurement to record. Record the measurement on the water level measurement form. Measure water levels to the nearest 0.01 foot.
- Compare measurement data to previous measurements obtained at the well. If the variation greater than 1.0 foot from the previous measurement exist, remeasure the water level. If variations from previous measurements greater than 1.0 foot exist which cannot be explained by groundwater changes or trends, repeat the measurements. If possible, use an alternative instrument to verify the accuracy of the data. Indicate the method(s) of water level measurement, the sounder or steel tape verification and any rechecked water levels in the comments section on the water level measurement form.

APPENDIX D

LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORMS

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT. INC
11235 Knott Avenue
Cypress. CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		M. BLANK	AD-994	AD-995
CLIENT SAMPLE I.D.		--	LTB042398-1	MW-36-EB
DATE SAMPLED		--	--	4-23-98
DATE SUBMITTED		--	4-24-98	4-24-98
DATE ANALYZED		4-30-98	4-30-98	4-30-98
COMPOUND	**RDL**	**M. BLANK**	**AD-994**	**AD-995**
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5
1,1,-Dichloroethene	0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	<0.5	<0.5	<0.5
Chloroform	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5

PROJECT: Lockheed Martin
METHOD: EPA 8010
SAMPLE MATRIX: Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			M. BLANK	AD-994	AD-995
CLIENT SAMPLE I.D.			--	LTB042398-1	MW-36-EB
DATE SAMPLED			--	--	4-23-98
DATE SUBMITTED			--	4-24-98	4-24-98
DATE ANALYZED			4-30-98	4-30-98	4-30-98
COMPOUND		**RDL**	**M. BLANK**	**AD-994**	**AD-995**
cis 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5
trans 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5
1.1.2-Trichloroethane		0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5
1.1.2.2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5
SURROGATE	**SPK CONC**	**ACP %**	**% RC**	**% RC**	**% RC**
BFB-8010	25	80-125	90	91	96

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AD-996	AD-997	AD-998	AE-017
CLIENT SAMPLE I.D.		MW-36	MW-11	MW-10	LTB042798-1
DATE SAMPLED		4-23-98	4-23-98	4-23-98	--
DATE SUBMITTED		4-24-98	4-24-98	4-24-98	4-29-98
DATE ANALYZED		4-30-98	4-30-98	4-30-98	4-30-98
COMPOUND	**RDL**	**AD-996**	**AD-997**	**AD-998**	**AE-017**
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0 5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

AER

ABORATORIES, INC., ANALYTICAL REPORT

.AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

PROJECT: Lockheed Martin

SAMPLING SITE: Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.			AD-996	AD-997	AD-998	AE-017
CLIENT SAMPLE I.D.			MW-36	MW-11	MW-10	LTB042798-1
DATE SAMPLED			4-23-98	4-23-98	4-23-98	--
DATE SUBMITTED			4-24-98	4-24-98	4-24-98	4-29-98
DATE ANALYZED			4-30-98	4-30-98	4-30-98	4-30-98
COMPOUND		RDL	AD-996	AD-997	AD-998	AE-017
cis 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1,1.2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2.2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	SPK CONC	ACP %	% RC	% RC	% RC	% RC
BFB-8010	25	80-125	94	100	95	93

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

Applied Engineering & Remediation Laboratories, Inc.
7949 Ajay Drive, Sun Valley, CA 91352 • (818) 767-2383 • FAX: (818) 768-7510

AER
ABORATORIES, INC., ANALYTICAL REPORT
LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-018	AE-019	AE-020	AE-021
CLIENT SAMPLE I.D.		MW-42	MW-40	MW-29	MW-39
DATE SAMPLED		4-27-98	4-27-98	4-27-98	4-27-98
DATE SUBMITTED		4-29-98	4-29-98	4-29-98	4-29-98
DATE ANALYZED		4-30-98	4-30-98	4-30-98	4-30-98
COMPOUND	**RDL**	**AE-018**	**AE-019**	**AE-020**	**AE-021**
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,-Dichloroethene	0.5	117	17.6	29.8	143
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	9.1	4.4	7.96	6.4
Chloroform	0.5	<0.5	<0.5	4.2	6.3
1,1,1-Trichloroethane	0.5	<0.5	<0.5	2.9	4.6
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	4.6
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	85.0	24.9	63.6	125
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

AER

ABORATORIES, INC., ANALYTICAL REPORT

AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-018	AE-019	AE-020	AE-021
CLIENT SAMPLE I.D.			MW-42	MW-40	MW-29	MW-39
DATE SAMPLED			4-27-98	4-27-98	4-27-98	4-27-98
DATE SUBMITTED			4-29-98	4-29-98	4-29-98	4-29-98
DATE ANALYZED			4-30-98	4-30-98	4-30-98	4-30-98
COMPOUND		RDL	AE-018	AE-019	AE-020	AE-021
cis 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2.2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	SPK CONC	ACP %	% RC	% RC	% RC	% RC
BFB-8010	25	80-125	95	100	96	90

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Bhatti, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-022	AE-023	AE-024	AE-025
CLIENT SAMPLE I.D.		MW-19-FB	MW-19	LTB-042898-1	MW-44
DATE SAMPLED		4-27-98	4-27-98	--	4-28-98
DATE SUBMITTED		4-29-98	4-29-98	4-29-98	4-29-98
DATE ANALYZED		4-30-98	4-30-98	4-30-98	4-30-98
COMPOUND	**RDL**	**AE-022**	**AE-023**	**AE-024**	**AE-025**
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,-Dichloroethene	0.5	<0.5	24.0	<0.5	222
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	<0.5	5.2	<0.5	11.8
Chloroform	0.5	<0.5	4.2	<0.5	6.2
1,1,1-Trichloroethane	0.5	<0.5	4.1	<0.5	9.0
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	4.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	4.1
Trichloroethene	0.5	<0.5	11.2	<0.5	235
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-022	AE-023	AE-024	AE-025
CLIENT SAMPLE I.D.			MW-19-FB	MW-19	LTB-042898-1	MW-44
DATE SAMPLED			4-27-98	4-27-98	--	4-28-98
DATE SUBMITTED			4-29-98	4-29-98	4-29-98	4-29-98
DATE ANALYZED			4-30-98	4-30-98	4-30-98	4-30-98
COMPOUND		RDL	AE-022	AE-023	AE-024	AE-025
cis 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	SPK CONC	ACP %	% RC	% RC	% RC	% RC
BFB-8010	25	80-125	86	81	96	90

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

AER

ABORATORIES, INC., ANALYTICAL REPORT

AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-026	AE-027	AE-028	AE-029
CLIENT SAMPLE I.D.		MW-66-FB	MW-66	EW-02	MW-41-EB
DATE SAMPLED		4-28-98	4-28-98	4-28-98	4-28-98
DATE SUBMITTED		4-29-98	4-29-98	4-29-98	4-29-98
DATE ANALYZED		4-30-98	4-30-98	4-30-98	4-30-98
COMPOUND	RDL	AE-026	AE-027	AE-028	AE-029
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,-Dichloroethene	0.5	<0.5	200	166	<0.5
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	<0.5	9.3	8.0	<0.5
Chloroform	0.5	<0.5	6.6	5.8	<0.5
1,1,1-Trichloroethane	0.5	<0.5	6.8	8.7	<0.5
Carbon tetrachloride	0.5	<0.5	<0.5	4.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	4.2	<0.5
Trichloroethene	0.5	<0.5	222	189	<0.5
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

[illegible]

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-026	AE-027	AE-028	AE-029
CLIENT SAMPLE I.D.			MW-66-FB	MW-66	EW-02	MW-41-EB
DATE SAMPLED			4-28-98	4-28-98	4-28-98	4-28-98
DATE SUBMITTED			4-29-98	4-29-98	4-29-98	4-29-98
DATE ANALYZED			4-30-98	4-30-98	4-30-98	4-30-98
COMPOUND		RDL	AE-026	AE-027	AE-028	AE-029
cis 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	SPK CONC	ACP %	% RC	% RC	% RC	% RC
BFB-8010	25	80-125	94	92	86	100

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

AER

ABORATORIES, INC., ANALYTICAL REPORT

AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-030	M. BLANK	AE-031	AE-032
CLIENT SAMPLE I.D.		MW-41-FB	--	MW-41	MW-41-DUP
DATE SAMPLED		4-28-98	--	4-28-98	4-28-98
DATE SUBMITTED		4-29-98	--	4-29-98	4-29-98
DATE ANALYZED		4-30-98	5-02-98	5-02-98	5-02-98
COMPOUND	**RDL**	**AE-030**	**M. BLANK**	**AE-031**	**AE-032**
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,-Dichloroethene	0.5	<0.5	<0.5	134	139
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	9.6	8.5
1,1-Dichloroethane	0.5	<0.5	<0.5	6.3	6.7
Chloroform	0.5	<0.5	<0.5	5.9	6.1
1,1,1-Trichloroethane	0.5	<0.5	<0.5	4.1	4.1
Carbon tetrachloride	0.5	<0.5	<0.5	5.1	5.2
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	<0.5	<0.5	162	153
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

AER

LABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-030	M. BLANK	AE-031	AE-032
CLIENT SAMPLE I.D.			MW-41-FB	--	MW-41	MW-41-DUP
DATE SAMPLED			4-28-98	--	4-28-98	4-28-98
DATE SUBMITTED			4-29-98	--	4-29-98	4-29-98
DATE ANALYZED			4-30-98	5-02-98	5-02-98	5-02-98
COMPOUND		RDL	AE-030	M. BLANK	AE-031	AE-032
cis 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	SPK CONC	ACP %	% RC	% RC	% RC	% RC
BFB-8010	25	80-125	91	82	96	94

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Basu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

Applied Engineering & Remediation Laboratories, Inc.
7949 Ajay Drive, Sun Valley, CA 91352 • (818) 767-2383 • FAX: (818) 768-7510

ANALYSES ARE PERFORMED IN ACCORDANCE TO THE LATEST EDITION OF STANDARD METHODS

AER

LABORATORIES, INC., ANALYTICAL REPORT

AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-035	AE-036	AE-037	AE-038
CLIENT SAMPLE I.D.		MW-112	OE-03	EW-01	MW-17
DATE SAMPLED		4-28-98	4-28-98	4-28-98	4-28-98
DATE SUBMITTED		4-29-98	4-29-98	4-29-98	4-29-98
DATE ANALYZED		5-02-98	5-02-98	5-02-98	5-02-98
COMPOUND	RDL	AE-035	AE-036	AE-037	AE-038
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,-Dichloroethene	0.5	156	72.7	96.7	18.9
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	5.3	5.2	5.5	4.1
Chloroform	0.5	6.0	4.4	4.2	<0.5
1,1,1-Trichloroethane	0.5	4.0	6.5	7.2	8.6
Carbon tetrachloride	0.5	4.9	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	4.3	<0.5
Trichloroethene	0.5	159	84.9	92.0	20.7
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-035	AE-036	AE-037	AE-038
CLIENT SAMPLE I.D.			MW-112	MW-03	EW-01	MW-17
DATE SAMPLED			4-28-98	4-28-98	4-28-98	4-28-98
DATE SUBMITTED			4-29-98	4-29-98	4-29-98	4-29-98
DATE ANALYZED			5-02-98	5-02-98	5-02-98	5-02-98
COMPOUND		**RDL**	**AE-035**	**AE-036**	**AE-037**	**AE-038**
cis 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0 5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2.2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	**SPK CONC**	**ACP %**	**% RC**	**% RC**	**% RC**	**% RC**
BFB-8010	25	80-125	94	101	99	98

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

AER

ABORATORIES, INC., ANALYTICAL REPORT

AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-039	AE-040	AE-041	AE-042
CLIENT SAMPLE I.D.		MW-05	MW-49	MW-51	MW-52
DATE SAMPLED		4-29-98	4-29-98	4-29-98	4-29-98
DATE SUBMITTED		5-01-98	5-01-98	5-01-98	5-01-98
DATE ANALYZED		5-02-98	5-02-98	5-02-98	5-02-98
COMPOUND	RDL	AE-039	AE-040	AE-041	AE-042
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,-Dichloroethene	0.5	202	12.3	66.7	60.6
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	9.5	<0.5	5.3	5.5
Chloroform	0.5	6.7	<0.5	4.5	4.3
1,1,1-Trichloroethane	0.5	11.0	3.3	7.1	6.2
Carbon tetrachloride	0.5	5.2	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	246	17.4	73.3	74.1
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

[illegible] is provided on the condition that neither it nor its contents shall be published, circulated or reproduced without our prior written consent, and that any liability on our part in connection with the execution of any tests or the making of any reports shall not exceed the amount paid for such tests or reports. Any reproduction of this report without authorization is prohibited.

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-039	AE-040	AE-041	AE-042
CLIENT SAMPLE I.D.			MW-05	MW-49	MW-51	MW-52
DATE SAMPLED			4-29-98	4-29-98	4-29-98	4-29-98
DATE SUBMITTED			5-01-98	5-01-98	5-01-98	5-01-98
DATE ANALYZED			5-02-98	5-02-98	5-02-98	5-02-98
COMPOUND		**RDL**	**AE-039**	**AE-040**	**AE-041**	**AE-042**
cis 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	**SPK CONC**	**ACP %**	**% RC**	**% RC**	**% RC**	**% RC**
BFB-8010	25	80-125	116	104	94	90

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

[illegible] is performed in accordance with [illegible] the accuracy of [illegible] is guaranteed, but [illegible] and conclusions are performed in accordance with the best [illegible] methods.
[illegible] reproduction of this report [illegible] is prohibited.

AER

ABORATORIES, INC., ANALYTICAL REPORT

AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-039	AE-040	AE-041	AE-042
CLIENT SAMPLE I.D.		MW-05	MW-49	MW-051	MW-52
DATE SAMPLED		4-29-98	4-29-98	4-29-98	4-29-98
DATE SUBMITTED		5-01-98	5-01-98	5-01-98	5-01-98
DATE ANALYZED		5-02-98	5-02-98	5-02-98	5-02-98
COMPOUND	RDL	AE-039	AE-040	AE-041	AE-042
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,-Dichloroethene	0.5	202	12.3	66.7	60.6
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	9.5	<0.5	5.3	5.5
Chloroform	0.5	6.7	<0.5	4.5	4.3
1,1,1-Trichloroethane	0.5	11.0	3.3	7.1	6.2
Carbon tetrachloride	0.5	5.2	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	246	17.4	73.3	74.1
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-039	AE-040	AE-041	AE-042
CLIENT SAMPLE I.D.			MW-05	MW-49	MW-051	MW-52
DATE SAMPLED			4-29-98	4-29-98	4-29-98	4-29-98
DATE SUBMITTED			5-01-98	5-01-98	5-01-98	5-01-98
DATE ANALYZED			5-02-98	5-02-98	5-02-98	5-02-98
COMPOUND		RDL	AE-039	AE-040	AE-041	AE-042
cis 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2.2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0 5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	SPK CONC	ACP %	% RC	% RC	% RC	% RC
BFB-8010	25	80-125	116	104	94	90

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Bakshi, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

The Client agrees that AER Laboratories and its employees shall not exceed the invoice amount for services provided
All analyses are performed in accordance with EPA and this approved manual
Any reproduction of this report without authorization is prohibited

AER

ABORATORIES, INC., ANALYTICAL REPORT

AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-043	AE-044	AE-045	AE-046
CLIENT SAMPLE I.D.		LTB042998-1	LTB043098-1	MW-50-FB	MW-50
DATE SAMPLED		--	--	4-30-98	4-30-98
DATE SUBMITTED		5-01-98	5-01-98	5-01-98	5-01-98
DATE ANALYZED		5-02-98	5-02-98	5-02-98	5-02-98
COMPOUND	RDL	AE-043	AE-044	AE-045	AE-046
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,-Dichloroethene	0.5	<0.5	<0.5	<0.5	10.2
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5	<0.5	<0.5	<0.5	3.2
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	<0.5	<0.5	<0.5	15.7
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

All analyses are performed in accordance with EPA and other recognized methods.
Any release of all or this report without authorization is prohibited.

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-043	AE-044	AE-045	AE-046
CLIENT SAMPLE I.D.			LTB042998-1	LTB043098-1	MW-50-FB	MW-50
DATE SAMPLED			--	--	4-30-98	4-30-98
DATE SUBMITTED			5-01-98	5-01-98	5-01-98	5-01-98
DATE ANALYZED			5-02-98	5-02-98	5-02-98	5-02-98
COMPOUND		**RDL**	**AE-043**	**AE-044**	**AE-045**	**AE-046**
cis 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	**SPK CONC**	**ACP %**	**% RC**	**% RC**	**% RC**	**% RC**
BFB-8010	25	80-125	98	91	92	104

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

[illegible] This report is for the exclusive use of the client listed above and may not be reproduced, except in full, without written approval of the laboratory. Opinions and interpretations expressed herein are outside the scope of our accreditation. Results apply only to the items tested.
All analyses are performed in accordance with our latest TNI/NELAP certification unless otherwise noted.
Any reproduction of this report without authorization is prohibited.

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-047	AE-048	AE-049	AE-050
CLIENT SAMPLE I.D.		MW-62A	MW-58D-EB	MW-58D-FB	MW-58D
DATE SAMPLED		4-30-98	4-30-98	4-30-98	4-30-98
DATE SUBMITTED		5-01-98	5-01-98	5-01-98	5-01-98
DATE ANALYZED		5-02-98	5-02-98	5-02-98	5-02-98
COMPOUND	RDL	AE-047	AE-048	AE-049	AE-050
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.5	157	<0.5	<0.5	97
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	7.6	<0.5	<0.5	6.2
Chloroform	0.5	6.7	<0.5	<0.5	4.4
1,1,1-Trichloroethane	0.5	8.5	<0.5	<0.5	6.9
Carbon tetrachloride	0.5	4.9	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	4.4
Trichloroethene	0.5	180	<0.5	<0.5	105
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

[illegible] laboratory as it is applicable. All reports are for the exclusive use of services provided.
All analyses are performed in accordance with approved methods.
Any reproduction of this report without authorization is prohibited.

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous

SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-047	AE-048	AE-049	AE-050
CLIENT SAMPLE I.D.			MW-62A	MW-58D-EB	MW-58D-FB	MW-58D
DATE SAMPLED			4-30-98	4-30-98	4-30-98	4-30-98
DATE SUBMITTED			5-01-98	5-01-98	5-01-98	5-01-98
DATE ANALYZED			5-02-98	5-02-98	5-02-98	5-02-98
COMPOUND		RDL	AE-047	AE-048	AE-049	AE-050
cis 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2.2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	SPK CONC	ACP %	% RC	% RC	% RC	% RC
BFB-8010	25	80-125	98	100	96	89

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

Applied Engineering & Remediation Laboratories, Inc.
7949 Ajay Drive, Sun Valley, CA 91352 • (818) 767-2383 • FAX: (818) 768-7510

...purposes and conforms ... to the ... laboratory methods
... reproduction of this report ... without ... permission

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-051	AE-053A	M. BLANK	AE-054
CLIENT SAMPLE I.D.		MW-58D-DUP	MW-115	--	MW-56A
DATE SAMPLED		4-30-98	4-30-98	--	4-30-98
DATE SUBMITTED		5-01-98	5-01-98	--	5-01-98
DATE ANALYZED		5-02-98	5-02-98	5-04-98	5-04-98
COMPOUND	**RDL**	**AE-051**	**AE-053A**	**M. BLANK**	**AE-054**
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.5	101	119	<0.5	<0.5
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	5.8	6.6	<0.5	<0.5
Chloroform	0.5	4.4	4.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5	7.1	7.5	<0.5	<0.5
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	4.6	4.6	<0.5	<0.5
Trichloroethene	0.5	101	108	<0.5	<0.5
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

[illegible] is applicable only to the samples analyzed. [illegible] of services provided
[illegible] is performed in accordance with EPA and DHS approved methods
[illegible] of this report without authorization is prohibited

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **SAMPLING SITE:** Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-051	AE-053A	M. BLANK	AE-054
CLIENT SAMPLE I.D.			MW-58D-DUP	MW-115	--	MW-56A
DATE SAMPLED			4-30-98	4-30-98	--	4-30-98
DATE SUBMITTED			5-01-98	5-01-98	--	5-01-98
DATE ANALYZED			5-02-98	5-02-98	5-04-98	5-04-98
COMPOUND		RDL	AE-051	AE-053A	M. BLANK	AE-054
cis 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2.2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	SPK CONC	ACP %	% RC	% RC	% RC	% RC
BFB-8010	25	80-125	99	87	103	96

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

All analyses are performed in accordance to EPA SW-846 and CWA approved methods.
Any reproduction of this report without authorization is prohibited.

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-055	AE-056	AE-057	AE-058
CLIENT SAMPLE I.D.		MW-56C	MW-57A	MW-04-FB	MW-04
DATE SAMPLED		4-30-98	4-30-98	4-30-98	4-30-98
DATE SUBMITTED		5-01-98	5-01-98	5-01-98	5-01-98
DATE ANALYZED		5-04-98	5-04-98	5-04-98	5-04-98
COMPOUND	RDL	AE-055	AE-056	AE-057	AE-058
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,-Dichloroethene	0.5	91.6	145	<0.5	65.6
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	6.0	8.1	<0.5	5.4
Chloroform	0.5	4.4	4.7	<0.5	4.4
1,1,1-Trichloroethane	0.5	7.9	10.7	<0.5	4.5
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	4.5	5.3	<0.5	4.4
Trichloroethene	0.5	101	144	<0.5	51.6
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

All products are performed in accordance with EPA and DHS approved methods.
Any reproduction of this report without authorization is prohibited.

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-055	AE-056	AE-057	AE-058
CLIENT SAMPLE I.D.			MW-56C	MW-57A	MW-04-FB	MW-04
DATE SAMPLED			4-30-98	4-30-98	4-30-98	4-30-98
DATE SUBMITTED			5-01-98	5-01-98	5-01-98	5-01-98
DATE ANALYZED			5-04-98	5-04-98	5-04-98	5-04-98
COMPOUND		RDL	AE-055	AE-056	AE-057	AE-058
cis 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2.2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	SPK CONC	ACP %	% RC	% RC	% RC	% RC
BFB-8010	25	80-125	104	96	101	101

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Batta, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-059	AE-060	AE-061	AE-062
CLIENT SAMPLE I.D.		LTB050198-1	MW-63	MW-20	MW-55
DATE SAMPLED		--	5-01-98	5-01-98	5-01-98
DATE SUBMITTED		5-01-98	5-01-98	5-01-98	5-01-98
DATE ANALYZED		5-04-98	5-04-98	5-04-98	5-04-98
COMPOUND	RDL	AE-059	AE-060	AE-061	AE-062
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.5	<0.5	62.1	14.9	18.3
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	<0.5	4.9	4.1	4.1
Chloroform	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5	<0.5	6.5	3.5	3.0
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	<0.5	51.7	19.7	17.6
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

AER

ABORATORIES, INC., ANALYTICAL REPORT

AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-059	AE-060	AE-061	AE-062
CLIENT SAMPLE I.D.			LTB050198-1	MW-63	MW-20	MW-55
DATE SAMPLED			--	5-01-98	5-01-98	5-01-98
DATE SUBMITTED			5-01-98	5-01-98	5-01-98	5-01-98
DATE ANALYZED			5-04-98	5-04-98	5-04-98	5-04-98
COMPOUND		**RDL**	**AE-059**	**AE-060**	**AE-061**	**AE-062**
cis 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	**SPK CONC**	**ACP %**	**% RC**	**% RC**	**% RC**	**% RC**
BFB-8010	25	80-125	91	104	111	95

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

AER

ABORATORIES, INC., ANALYTICAL REPORT

AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-063	AE-064	AE-076	AE-077
CLIENT SAMPLE I.D.		MW-02	MW-07	LTB050498-1	MW-59B-FB
DATE SAMPLED		5-01-98	5-01-98	--	5-04-98
DATE SUBMITTED		5-01-98	5-01-98	5-06-98	5-06-98
DATE ANALYZED		5-04-98	5-04-98	5-11-98	5-11-98
COMPOUND	**RDL**	**AE-063**	**AE-064**	**AE-076**	**AE-077**
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1.1.-Dichloroethene	0.5	152	3.7	<0.5	<0.5
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1.2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1.1-Dichloroethane	0.5	8.4	<0.5	<0.5	<0.5
Chloroform	0.5	4.8	<0.5	<0.5	<0.5
1.1.1-Trichloroethane	0.5	13.0	2.3	<0.5	<0.5
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichloroethane	0.5	6.8	<0.5	<0.5	<0.5
Trichloroethene	0.5	151	10.0	<0.5	<0.5
1.2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous

SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-063	AE-064	AE-076	AE-077
CLIENT SAMPLE I.D.			MW-02	MW-07	LTB050498-1	MW-59B-FB
DATE SAMPLED			5-01-98	5-01-98	--	5-04-98
DATE SUBMITTED			5-01-98	5-01-98	5-06-98	5-06-98
DATE ANALYZED			5-04-98	5-04-98	5-11-98	5-11-98
COMPOUND		**RDL**	**AE-063**	**AE-064**	**AE-076**	**AE-077**
cis 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	**SPK CONC**	**ACP %**	**% RC**	**% RC**	**% RC**	**% RC**
BFB-8010	25	80-125	96	110	95	88

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

Applied Engineering & Remediation Laboratories, Inc.
7949 Ajay Drive, Sun Valley, CA 91352 • (818) 767-2383 • FAX: (818) 768-7510

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-078	M. BLANK	AE-079	AE-080
CLIENT SAMPLE I.D.		MW-59B	--	MW-26	EW-15
DATE SAMPLED		5-04-98	--	5-04-98	5-04-98
DATE SUBMITTED		5-06-98	--	5-06-98	5-06-98
DATE ANALYZED		5-11-98	5-11-98	5-11-98	5-11-98
COMPOUND	**RDL**	**AE-078**	**M. BLANK**	**AE-079**	**AE-080**
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.5	187	<0.5	2784	2496
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	14.5	<0.5	101	76.7
Chloroform	0.5	6.6	<0.5	23.8	19.0
1,1,1-Trichloroethane	0.5	11.8	<0.5	141	75.4
Carbon tetrachloride	0.5	4.9	<0.5	9.5	6.2
1,2-Dichloroethane	0.5	19.9	<0.5	175	122
Trichloroethene	0.5	195	<0.5	2768	1160
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-078	M. BLANK	AE-079	AE-080
CLIENT SAMPLE I.D.			MW-59B	--	MW-26	EW-15
DATE SAMPLED			5-04-98	--	5-04-98	5-04-98
DATE SUBMITTED			5-06-98	--	5-06-98	5-06-98
DATE ANALYZED			5-11-98	5-11-98	5-11-98	5-11-98
COMPOUND		RDL	AE-078	M. BLANK	AE-079	AE-080
cis 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		0.5	4.2	<0.5	21.4	10.1
Tetrachloroethene		0.5	3.4	<0.5	9.9	5.2
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	SPK CONC	ACP %	% RC	% RC	% RC	% RC
BFB-8010	25	80-125	85	100	92	91

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

Applied Engineering & Remediation Laboratories, Inc.
7949 Ajay Drive, Sun Valley, CA 91352 • (818) 767-2383 • FAX: (818) 768-7510

AER

ABORATORIES, INC., ANALYTICAL REPORT

AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-081	AE-082	AE-083	AE-084
CLIENT SAMPLE I.D.		LTB-050598-1	EW-18	MW-110	EW-12-EB
DATE SAMPLED		--	5-05-98	5-05-98	5-05-98
DATE SUBMITTED		5-06-98	5-06-98	5-06-98	5-06-98
DATE ANALYZED		5-11-98	5-11-98	5-11-98	5-12-98
COMPOUND	RDL	AE-081	AE-082	AE-083	AE-084
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.5	<0.5	10480	2216	<0.5
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	<0.5	179	19.7	<0.5
Chloroform	0.5	<0.5	66.2	8.4	<0.5
1,1,1-Trichloroethane	0.5	<0.5	155	71.3	<0.5
Carbon tetrachloride	0.5	<0.5	12.9	5.3	<0.5
1,2-Dichloroethane	0.5	<0.5	12.4	67.5	<0.5
Trichloroethene	0.5	<0.5	2672	1408	<0.5
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-081	AE-082	AE-083	AE-084
CLIENT SAMPLE I.D.			LTB-050598-1	EW-18	MW-110	EW-12-EB
DATE SAMPLED			--	5-05-98	5-05-98	5-05-98
DATE SUBMITTED			5-06-98	5-06-98	5-06-98	5-06-98
DATE ANALYZED			5-11-98	5-11-98	5-11-98	5-12-98
COMPOUND		**RDL**	**AE-081**	**AE-082**	**AE-083**	**AE-084**
cis 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1.1.2-Trichloroethane		0.5	<0.5	24.3	15.9	<0.5
Tetrachloroethene		0.5	<0.5	10.1	5.5	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1,1.2.2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	**SPK CONC**	**ACP %**	**% RC**	**% RC**	**% RC**	**% RC**
BFB-8010	25	80-125	81	111	102	90

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Bindra, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

AER

ABORATORIES, INC., ANALYTICAL REPORT

.AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-085	AE-086	AE-089	AE-101
CLIENT SAMPLE I.D.		EW-12-FB	EW-12	EW-12-DUP	LTB-050898-1
DATE SAMPLED		5-05-98	5-05-98	5-05-98	--
DATE SUBMITTED		5-06-98	5-06-98	5-06-98	5-09-98
DATE ANALYZED		5-12-98	5-11-98	5-11-98	5-11-98
COMPOUND	RDL	AE-085	AE-086	AE-089	AE-101
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,-Dichloroethene	0.5	<0.5	1952	1976	<0.5
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	<0.5	24.4	28.7	<0.5
Chloroform	0.5	<0.5	10.9	10.9	<0.5
1,1,1-Trichloroethane	0.5	<0.5	75.3	77.7	<0.5
Carbon tetrachloride	0.5	<0.5	5.0	5.0	<0.5
1,2-Dichloroethane	0.5	<0.5	65.7	68.0	<0.5
Trichloroethene	0.5	<0.5	1192	1168	<0.5
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

PROJECT: Lockheed Martin
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous
SAMPLING SITE: Beaumont # 1
REPORTING UNIT: ug/L

LAB SAMPLE I.D.			AE-085	AE-086	AE-089	AE-101
CLIENT SAMPLE I.D.			EW-12-FB	EW-12	EW-12-DUP	LTB-050898-1
DATE SAMPLED			5-05-98	5-05-98	5-05-98	--
DATE SUBMITTED			5-06-98	5-06-98	5-06-98	5-09-98
DATE ANALYZED			5-12-98	5-11-98	5-11-98	5-11-98
COMPOUND		RDL	AE-085	AE-086	AE-089	AE-101
cis 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1,3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		0.5	<0.5	16.2	16.6	<0.5
Tetrachloroethene		0.5	<0.5	4.6	4.7	<0.5
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	SPK CONC	ACP %	% RC	% RC	% RC	% RC
BFB-8010	25	80-125	95	90	96	99

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1230, MOBILE # 1006

ANALYTICAL RESULTS FOR ORGANICS

CLIENT NAME: TERRANEXT, INC
11235 Knott Avenue
Cypress, CA 90630

PROJECT: Lockheed Martin **SAMPLING SITE:** Beaumont # 1

METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.		AE-102	AE-103	AE-104	AE-105
CLIENT SAMPLE I.D.		EW-13	EW-16-FB	EW-16	EW-11
DATE SAMPLED		5-08-98	5-08-98	5-08-98	5-08-98
DATE SUBMITTED		5-09-98	5-09-98	5-09-98	5-09-98
DATE ANALYZED		5-11-98	5-11-98	5-11-98	5-11-98
COMPOUND	RDL	AE-102	AE-103	AE-104	AE-105
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.5	1240	<0.5	1280	512
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	51.0	<0.5	27.5	11.8
Chloroform	0.5	12.4	<0.5	20.8	4.9
1,1,1-Trichloroethane	0.5	68.7	<0.5	38.4	15.4
Carbon tetrachloride	0.5	4.9	<0.5	5.0	4.6
1,2-Dichloroethane	0.5	124	<0.5	8.7	20.0
Trichloroethene	0.5	880	<0.5	1304	608
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
2-chloroethyl vinyl ether	0.5	<0.5	<0.5	<0.5	<0.5

PROJECT: Lockheed Martin
SAMPLING SITE: Beaumont # 1
METHOD: EPA 8010 **SAMPLE MATRIX:** Aqueous **REPORTING UNIT:** ug/L

LAB SAMPLE I.D.			AE-102	AE-103	AE-104	AE-105
CLIENT SAMPLE I.D.			EW-13	EW-16-FB	EW-16	EW-11
DATE SAMPLED			5-08-98	5-08-98	5-08-98	5-08-98
DATE SUBMITTED			5-09-98	5-09-98	5-09-98	5-09-98
DATE ANALYZED			5-11-98	5-11-98	5-11-98	5-11-98
COMPOUND		RDL	AE-102	AE-103	AE-104	AE-105
cis 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
trans 1.3- Dichloropropene		0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		0.5	17.7	<0.5	4.9	3.5
Tetrachloroethene		0.5	4.6	<0.5	3.9	3.6
Dibromochloromethane		0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		0.5	<0.5	<0.5	<0.5	<0.5
1,1.2.2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
1.4-Dichlorobenzene		0.5	<0.5	<0.5	<0.5	<0.5
SURROGATE	SPK CONC	ACP %	% RC	% RC	% RC	% RC
BFB-8010	25	80-125	106	110	102	99

RDL = Reportable Detection Limit
M.Blank = Method Blank

I.H. Sabherwal, Ph.D.
Laboratory Director

Ranjit Battu, Ph.D.
Reviewer

Daljit S. Khangura
Principal Analyst

All analyses and conclusions contained herein are the professional opinions of AER personnel and are performed according to accepted methods.
This report in full or in part may not be published without written approval.

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

QA/QC REPORT

II.Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 4-30-98 **ANALYTICAL METHOD:** 8010

UNIT : ug/L

LAB SAMPLE I.D.: AD-997

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS REC	%MS REC	SPIKE CONC (DUP)	MSD REC	%MSD REC	%RPD	MS.MSD LIMIT	%RPD LIMIT
Chlorobenzene	0	50	52.6	105	50	56.3	113	7.3	80-120	25
1,1-Dichloroethylene	0	50	55.6	111	50	50.4	101	9.4	80-120	25
Trichloroethene	0	50	55.2	110	50	57.6	115	4.4	80-120	25
Tetrachloroethene	0	50	49.7	99	50	53	106	6.8	80-120	25

Dilution Factor: NONE

Applied Engineering & Remediation Laboratories, Inc.
7949 Ajay Drive, Sun Valley, CA 91352 • (818) 767-2383 • FAX: (818) 768-7510

LIMITATION OF LIABILITY: The total liability of AER Laboratories and its employees and agents shall not exceed the invoiced amount of services rendered.
All analyses are performed in accordance with EPA and DHS authorized methods.
Any reproduction of this report without authorization is prohibited.

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

III.Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 4-30-98
SUPPLY SOURCE: ACCU STANDARD
LOT NUMBER: 115-311
DATE OF SOURCE: 01-14-98

ANALYTICAL METHOD: 8010
LAB LCS I.D : B2-24B

UNIT: ug/L

ANALYTE	SPIKE CONC	RESULT	% RECOVERY	ACP % REC LIMIT
Bromodichloromethane	50	55	110	80-120
Bromoform	50	55	110	80-120
Carbon tetrachloride	50	51	102	80-120
Chlorobenzene	50	52	104	80-120
Chloroform	50	56	112	80-120
1,2-Dichlorobenzene	50	50	100	80-120
1,3-Dichlorobenzene	50	50	100	80-120
1,4-Dichlorobenzene	50	53	106	80-120
1,1-Dichloroethane	50	52	104	80-120
1,2-Dichloroethane	50	53	106	80-120
1,1-Dichloroethene	50	48	96	80-120
trans-1,2-Dichloroethene	50	48	96	80-120
1,2-Dichloropropane	50	54	108	80-120
cis-1,3-dichloropropene	50	33	66	80-120
trans-1 3-Dichloropropene	50	32	64	80-120
1,1,2 Trichloroethane	50	50	100	80-120
Dibromochloromethane	50	51	102	80-120
Methylene Chloride	50	44	88	80-120
1,1,2,2-Tetrachloroethane	50	53	106	80-120
Tetrachloroethene	50	52	104	80-120
Trichloroethene	50	52	104	80-120
1,1,1-Trichloroethane	50	49	98	80-120

LIMIT OF LIABILITY: The total liability of AER laboratories and its employees shall not exceed the invoiced amount of services provided.
All analyses are performed in accordance with EPA and DHS approved methods.
Any reproduction of this report without authorization is prohibited.

AER

ABORATORIES, INC., ANALYTICAL REPORT

AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

QA/QC REPORT

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5-02-98 **ANALYTICAL METHOD:** 8010

UNIT : ug/L

LAB SAMPLE I.D.: AE-033 & AE-034*

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS REC	%MS REC	SPIKE CONC (DUP)	MSD REC	%MSD REC	%RPD	MS.MSD LIMIT	%RPD LIMIT
Chlorobenzene	0	50	58	116	50	55	110	5.3	80-120	25
1,1-Dichloroethylene	134	50	54	108	50	58	116	7.1	80-120	25
Trichloroethene	162	50	55	110	50	54	108	1.8	80-120	25
Tetrachloroethene	0	50	57	114	50	52	104	9.2	80-120	25

Dilution Factor: NONE **Dilution factor: 4***

All the results in this report is applicable only to the sample(s) tested. The total liability of this laboratory shall not exceed the invoiced amount for services provided.
All analyses are performed in accordance with EPA and DHS approved methods.
Any reproduction of this report without authorization is prohibited.

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

III.Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 5-02-98
SUPPLY SOURCE: ACCU STANDARD
LOT NUMBER: 115-311
DATE OF SOURCE: 01-14-98

ANALYTICAL METHOD: 8010
LAB LCS I.D : B2-24B

UNIT: ug/L

ANALYTE	SPIKE CONC	RESULT	% RECOVERY	ACP % REC LIMIT
Bromodichloromethane	50	44	88	80-120
Bromoform	50	52	104	80-120
Carbon tetrachloride	50	53	106	80-120
Chlorobenzene	50	52	104	80-120
Chloroform	50	56	112	80-120
1.2-Dichlorobenzene	50	43	86	80-120
1.3-Dichlorobenzene	50	49	98	80-120
1.4-Dichlorobenzene	50	51	102	80-120
1,1-Dichloroethane	50	56	112	80-120
1.2-Dichloroethane	50	58	116	80-120
1.1-Dichloroethene	50	47	94	80-120
trans-1.2-Dichloroethene	50	58	116	80-120
1.2-Dichloropropane	50	57	114	80-120
cis-1.3-dichloropropene	50	40	80	80-120
trans-1.3-Dichloropropene	50	40	80	80-120
1.1.2 Trichloroethane	50	52	104	80-120
Dibromochloromethane	50	56	112	80-120
Methylene Chloride	50	52	104	80-120
1,1,2,2-Tetrachloroethane	50	53	106	80-120
Tetrachloroethene	50	56	112	80-120
Trichloroethene	50	55	110	80-120
1,1,1-Trichloroethane	50	56	112	80-120

Applied Engineering & Remediation Laboratories, Inc.
7949 Ajay Drive, Sun Valley, CA 91352 • (818) 767-2383 • FAX: (818) 768-7510

All Chemical Analyses Performed by AER Laboratories and its employees shall not exceed the invoiced amount of services provided
All analyses are performed in accordance with EPA and DHS approved methods
Any reproduction of this report without author approval is prohibited

AER

ABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

QA/QC REPORT

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5-04 -98 **ANALYTICAL METHOD: 8010**

UNIT : ug/L

SAMPLE I.D.: AE-052 & AE-053*

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS REC	%MS REC	SPIKE CONC (DUP)	MSD REC	%MSD REC	%RPD	MS.MSD LIMIT	%RPD LIMIT
Chlorobenzene	0	50	53	106	50	52	104	1.9	80-120	25
1,1-Dichloroethylene	97	50	55.5	111	50	58.5	117	5.3	80-120	25
Trichloroethene	105	50	50.5	101	50	49.5	99	2.0	80-120	25
Tetrachloroethene	0	50	53	106	50	52	104	1.9	80-120	25

Dilution Factor: NONE **Dilution Factor: 2***

...HEALTH. The [illegible] laboratory is analyses and not exceed the invoiced amount of services provided
All analyses are performed in accordance with EPA and DHS approved methods
Any reproduction of this report without authorization is prohibited

AER

'ABORATORIES, INC., ANALYTICAL REPORT

AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

III.Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 5-04-98
SUPPLY SOURCE: ACCU STANDARD
LOT NUMBER: 115-311
DATE OF SOURCE: 01-14-98

ANALYTICAL METHOD: 8010
LAB LCS I.D : B2-24B

UNIT: ug/L

ANALYTE	SPIKE CONC	RESULT	% RECOVERY	ACP % REC LIMIT
Bromodichloromethane	50	50	100	80-120
Bromoform	50	48	96	80-120
Carbon tetrachloride	50	45	90	80-120
Chlorobenzene	50	49	98	80-120
Chloroform	50	51	102	80-120
1.2-Dichlorobenzene	50	45	90	80-120
1.3-Dichlorobenzene	50	53	106	80-120
1.4-Dichlorobenzene	50	55	110	80-120
1.1-Dichloroethane	50	47	94	80-120
1.2-Dichloroethane	50	55	110	80-120
1.1-Dichloroethene	50	42	84	80-120
trans-1.2-Dichloroethene	50	51	102	80-120
1.2-Dichloropropane	50	51	102	80-120
cis-1.3-dichloropropene	50	34	68	80-120
trans-1.3-Dichloropropene	50	34	68	80-120
1.1.2 Trichloroethane	50	46	92	80-120
Dibromochloromethane	50	46	92	80-120
Methylene Chloride	50	46	92	80-120
1.1.2.2-Tetrachloroethane	50	51	102	80-120
Tetrachloroethene	50	47	94	80-120
Trichloroethene	50	49	98	80-120
1.1.1-Trichloroethane	50	52	104	80-120

All analyses are performed in accordance with EPA and DHS approved methods.
Any reproduction of this report without authorization is prohibited.

AER

LABORATORIES, INC., ANALYTICAL REPORT

LAP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

QA/QC REPORT

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5-11-98 **ANALYTICAL METHOD:** 8010

UNIT : ug/L

LAB SAMPLE I.D.: AE-087 & AE-088*

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS REC	%MS REC	SPIKE CONC (DUP)	MSD REC	%MSD REC	%RPD	MS.MSD LIMIT	%RPD LIMIT
Chlorobenzene	0	50	48	96	50	46	92	4.3	80-120	25
1,1-Dichloroethylene	1952	50	53	106	50	58	116	9.0	80-120	25
Trichloroethene	1192	50	51	102	50	52	104	1.9	80-120	25
Tetrachloroethene	4.6	50	52	104	50	47	94	10.1	80-120	25

Dilution Factor: NONE **Dilution Factor: 40***

AER

ABORATORIES, INC., ANALYTICAL REPORT

.AP CERTIFICATE: FIXED FACILITY # 1239, MOBILE LAB # 1006

III.Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 5-11-98
SUPPLY SOURCE: ACCU STANDARD
LOT NUMBER: 115-311
DATE OF SOURCE: 01-14-98

ANALYTICAL METHOD: 8010
LAB LCS I.D : B2-24B

UNIT: ug/L

ANALYTE	SPIKE CONC	RESULT	% RECOVERY	ACP % REC LIMIT
Bromodichloromethane	50	57	114	80-120
Bromoform	50	49	98	80-120
Carbon tetrachloride	50	52	104	80-120
Chlorobenzene	50	57	114	80-120
Chloroform	50	53	106	80-120
1,2-Dichlorobenzene	50	42	84	80-120
1,3-Dichlorobenzene	50	45	90	80-120
1,4-Dichlorobenzene	50	46	92	80-120
1,1-Dichloroethane	50	51	102	80-120
1,2-Dichloroethane	50	57	114	80-120
1,1-Dichloroethene	50	42	84	80-120
trans-1,2-Dichloroethene	50	51	102	80-120
1,2-Dichloropropane	50	54	108	80-120
cis-1,3-dichloropropene	50	38	76	80-120
trans-1,3-Dichloropropene	50	37	74	80-120
1,1,2 Trichloroethane	50	54	108	80-120
Dibromochloromethane	50	57	114	80-120
Methylene Chloride	50	53	106	80-120
1,1,2,2-Tetrachloroethane	50	51	102	80-120
Tetrachloroethene	50	56	112	80-120
Trichloroethene	50	57	114	80-120
1,1,1-Trichloroethane	50	52	104	80-120

LIMITATION OF LIABILITY: The total liability of AER Laboratories and its employees shall not exceed the invoiced amount of services provided.
All analyses are performed in accordance with EPA and DHS approved methods
Any reproduction of this report without authorization is prohibited

AER
LABORATORIES, INC.,
7949 Ajay Drive,
Sun Valley, CA 91352
(818) 767-2383

Job Number _____

CHAIN OF CUSTODY RECORD

1. Contact Person/Project Manager: Pat Schanen

2. Page 1 of 1 Lab Number(s): AE076-AE080

3. Client Name & Address: Lockheed Martin Corporation #2550

4. Site Name & Address: Benumont Site

5. Sample Description: Soil ☐ Wastewater ☐ Groundwater ☒ Other ☐

12. Analyses Required

Lab No.	6. Field No.	7. Date Sampled	8. Time Sampled	9. Type Composite or Grab	10. Preservative	11. Sample Description / Sampling Location	12. No. of Containers	EPA 8010/601	EPA 8020/602	EPA 8015 ( )	418.1	Metals	Regular			14. Remarks
AE076						LTB050498-1	3	X								
AE077		5-4-98	0950	GRAB	HCl	MW-59B-FB	3	X								
AE078		5-4-98	0955	GRAB	HCl	MW-59B 1-75	3	X								
AE079		5-4-98	1235	GRAB	HCl	MW-26 50	3	X								
AE080		5-4-98	1446	GRAB	HCl	EW-15 80	3	X								

Condition of Receipt (Describe)

	Signature	Company	Date	Time
13. Sampled by	Richard Allen	B&K/TERRA NEXT	5-4-98	
Relinquished by	Richard Allen	B&K/TERRA NEXT	5-6-98	1116
Received by	AMIRALI Jiwani	AER LABS	5-6-98	1116
Relinquished by				
Received by				

Samples are discarded 30 days after results are reported unless other arrangements are made.

ER
LABORATORIES, INC.
7949 Ajay Drive,
Sun Valley, CA 91352
(818) 767-2383

Job Number _____

CHAIN OF CUSTODY RECORD

1. Contact Person/Project Manager: Pat Schaner

2. Page 1 of ___ Lab Number(s) _____

3. Client Name & Address: Lockheed Martin (GSD) 3500 Hollywood Hwy Burbank CA

4. Site Name & Address: Beaumont Site 1

5. Sample Description: Soil ☐ Wastewater ☐ Groundwater ☒ Other ☐

13. Analyses Required

Lab No.	6. Field No.	7. Date Sampled	8. Time Sampled	9. Type Composite or Grab	10. Preservative	11. Sample Description / Sampling Location	12. No. of Containers	EPA 8010/601	EPA 8020/602	EPA 8015 ( ) 418.1	Metals	Regular			14. Remarks
AD98-					HCl	TB-042398-1	3	X							
AD98-		4-23-98	1120	GRAB	HCl	MW-36-EB	3	X							
AD99-		4-23-98	1157	GRAB	HCl	MW-3L	3	X							
AD99-		4-23-98	1420	GRAB	HCl	MW-11	3	X							
AD99-		4-23-98	1610	GRAB	HCl	MW-10	3	X							

Condition of Receipt (Describe)

	Signature	Company	Date	Tin
15. Sampled by	Richard Allen	BEK/TERRANEXT	4-23-98	
Relinquished by	Richard Allen	BEK/TERRANEXT	4-24-98	14:1
Received by		AER Labs	4-24-98	2:(
Relinquished by				
Received by				

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

LANDAU [illegible] INC.
7949 Nj[illegible]rive.
Sun Valley, CA 91352
(818) 767-2383

Job Number _____

CHAIN OF CUSTODY RECORD

2. Page 1 of 1 Lab Number(s) _____

1. Contact Person/Project Manager: PAT SCHANEN

3. Client Name & Address: LOCKHEED MARTIN CORPORATION, 2550 Hollywood Way, Burbank, CA

4. Site Name & Address: BEAUMONT SITE 1

5. Sample Description: Soil ☐ Wastewater ☐ Groundwater ☒ Other ☐

13. Analyses Required

Lab No.	6. Field No.	7. Date Sampled	8. Time Sampled	9. Type Composite or Grab	10. Preservative	11. Sample Description / Sampling Location	12. No. of Containers	EPA 8010/601	EPA 8020/602	EPA 8015 ( )	418.1	Metals	Regular			14. Remarks
AE017				GRAB	HCl	EBLTB042798-1	3	X								
AE018		4-27-98	0947	GRAB	HCl	MW-42	3	X								
AE019		4-27-98	1426	GRAB	HCl	MW-40	3	X								
AE020		4-27-98	1621	GRAB	HCl	MW-29	3	X								
AE021		4-27-98	1815	GRAB	HCl	MW-39	3	X								
AE022		4-27-98	1827	GRAB	HCl	MW-19-EB	3	X								
AE023		4-27-98	1830	GRAB	HCl	MW-19 -06	3	X								

Condition of Receipt (Describe)

Signature	Company	Date	Time
15. Sampled by R Allen	BCK / LANDAU	4-27-98	
Relinquished by Richard Allen	BCK / LANDAU	4-29-98	0737
Received by [illegible]	ACL	4-30	11:30A
Relinquished by			
Received by			

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

HEW
LABORATORIES, INC.
7949 Ajay Drive,
Sun Valley, CA 91352
(818) 767-2383

Job Number _____

CHAIN OF CUSTODY RECORD

1. Contact Person/Project Manager: Pat Schaaf

2. Page 1 of 2 Lab Number(s) _____

3. Client Name & Address: Lockheed Martin Corporation, 2550 Hollywood Way, Burbank, CA

4. Site Name & Address: Beaumont Site 1

5. Sample Description: Soil ☐ Wastewater ☐ Groundwater ☒ Other ☐

13. Analyses Required

Lab No.	6. Field No.	7. Date Sampled	8. Time Sampled	9. Type Composite or Grab	10. Preservative	11. Sample Description / Sampling Location	12. No. of Containers	EPA 8010/601	EPA 8020/602	EPA 8015 ( )	418.1	Metals	Regular		14. Remarks
024					HCl	LTB042898-1	3	X							
025		4-28-98	1126	GRAB	GRAB	MW-44 1-15	3	X							
026		4-28-98	1227	GRAB	HCl	MW-66-1 15	3	X							
027		4-28-98	1231	GRAB	HCl	MW-66 1-15	3	X							
028		4-28-98	1406	GRAB	HCl	EW-02 1-15	3	X							
029		4-28-98	1450	GRAB	HCl	MW-41-LB 1-15	3	X							
030		4-28-98	1530	GRAB	HCl	MW-41-1B	3	X							
031		4-28-98	1536	GRAB	HCl	MW-41	3	X							Lockheed
032		4-28-98	1538	GRAB	HCl	MW-41-MW2	3	X							
033		4-28-98	1538	GRAB	HCl	MW-41-MW3	3	X							

Condition of Receipt (Describe)

Signature	Company	Date	Time
15. Sampled by: Richard Allen	BEK/HERCULES #1	4-28-98	
Relinquished by: Richard Allen	BEK/HERCULES #1	4-29-98	0737
Received by: [signature]	AFC Inc.	4-30-	11:30
Relinquished by			
Received by			

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

LABON[illegible]S, INC.
7949 Ajay Drive,
Sun Valley, CA 91352
(818) 767 2383

Job Number _____

CHAIN OF CUSTODY RECORD

1. Contact Person/Project Manager: Pat Schanen

2. Page 1 of 2 Lab Number(s) _____

3. Client Name & Address: LOCKHEED MARTIN CORPORATION, 2550 Hollywood Hwy, Burbank, CA

4. Site Name & Address: Beaumont Site 1

5. Sample Description: Soil ☐ Wastewater ☐ Groundwater ☒ Other ☐

13. Analyses Required

Lab No.	6. Field No.	7. Date Sampled	8. Time Sampled	9. Type Composite or Grab	10. Preservative	11. Sample Description / Sampling Location	12. No. of Containers	EPA 8010/601	EPA 8020/602	EPA 8015 ( )	418.1	Metals	Regular		14. Remarks
034		4-28-98	1538	GRAB	HCl	MW-41-MSD	3	X							
035		4-28-98	1646	GRAB	HCl	MW-112 1-12	3	X							
036		4-28-98	1730	GRAB	HCl	OW-03 ok	3	X							
037		4-28-98	1820	GRAB	HCl	ENV-01	3	X							
038		4-28-98	1840	GRAB	HCl	MW-17 -ok	3	X							

Condition of Receipt (Describe)

	Signature	Company	Date	Time
15. Sampled by	Richard Allen	BEK/TERRA NEXT	4-28-98	
Relinquished by	Richard Allen	BEK/TERRA NEXT	4-29-98	0737
Received by		AIR [illegible]	4-30	11:30
Relinquished by				
Received by				

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

AER LABORATORIES, INC.
7949 Ajay Drive,
Sun Valley, CA 91352
(818) 767-2383

Job Number _____

CHAIN OF CUSTODY RECORD

1. Contact Person/Project Manager: Pat Schanen

2. Page 1 of ___ Lab Number(s) _____

3. Client Name & Address: Lockheed Martin Corporation, 2550 Hollywood Way, Burbank, CA

4. Site Name & Address: Beaumont Site 1

5. Sample Description: Soil ☐ Wastewater ☐ Groundwater ☒ Other ☐

13. Analyses Required

Lab No.	6. Field No.	7. Date Sampled	8. Time Sampled	9. Type Composite or Grab	10. Preservative	11. Sample Description / Sampling Location	12. No. of Containers	EPA 8010/601	EPA 8020/602	EPA 8015 ( )	418.1	Metals	Regular		14. Remarks
AE-043						LTB042998-1	3	X							
AE039		4-29-98	1158	GRAB	HCl	MW-05	3	X							
AE040		4-29-98	1354	GRAB	HCl	MW-49	3	X							
AE041		4-29-98	1715	GRAB	HCl	MW-51	3	X							
AE042		4-29-98	1534	GRAB	HCl	MW-52	3	X							

Condition of Receipt (Describe)

	Signature	Company	Date	Time
15. Sampled by	Richard A. Allen	BGK/Terranext	4-29-98	
Relinquished by	Richard A. Allen	BGK/Terranext	4-1-98	1730
Received by	R. Bastiao	AER Labs	5-1-98	1730
Relinquished by				
Received by				

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

ER
LABORATORIES, INC.,
7949 Ajay Drive,
Sun Valley, CA 91352
(818) 767-2383

Job Number _____

CHAIN OF CUSTODY RECORD

1. Contact Person/Project Manager: Pat Schaner

2. Page 1 of 2 Lab Number(s) _____

3. Client Name & Address: Lockheed Martin Corporation, 2550 Hollywood Way, Burbank

4. Site Name & Address: Beaumont Site 1

5. Sample Description: Soil ☐ Wastewater ☐ Groundwater ☒ Other ☐

13. Analyses Required

Lab No.	6. Field No.	7. Date Sampled	8. Time Sampled	9. Type Composite or Grab	10. Preservative	11. Sample Description / Sampling Location	12. No. of Containers	EPA 8010/601	EPA 8020/602	EPA 8015 ( )	418.1	Metals	Regular		14. Remarks
AE-044					HCl	LTB043098-1	3	X							
AE-045		4-30-98	0817	GRAB	HCl	MW-50-FB	3	X							
AE-046		4-30-98	0820	GRAB	HCl	MW-50	3	X							
AE-047		4-30-98	0913	GRAB	HCl	MW-62A	3	X							
AE-048		4-30-98	0950	GRAB	HCl	MW-58D-EB	3	X							
AE-049		4-30-98	0956	GRAB	HCl	MW-58D-FB	3	X							
AE-050		4-30-98	1100	GRAB	HCl	MW-58D	3	X							
AE-051		4-30-98	1100	GRAB	HCl	MW-58D-DUP	3	X							
AE-052		4-30-98	1100	GRAB	HCl	MW-58D-MS	3	X							
AE-053		4-30-98	1100	GRAB	HCl	MW-58D-MSD	3	X							

Condition of Receipt (Describe)

	Signature	Company	Date	Time
15. Sampled by	Richard Allen	BCK/TERRANEXT	4-30-98	
Relinquished by	Richard Allen	BCK/TERRANEXT	5-1-98	
Received by	R. Bastro	AER Labs	05.01.98	17.
Relinquished by				
Received by				

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

BEK
LABORATORIES, INC.,
7949 Ajay Drive,
Sun Valley, CA 91352
(818) 767-2383

Job Number _____

CHAIN OF CUSTODY RECORD

1. Contact Person/Project Manager: Pat Schanen

2. Page 2 of 2 Lab Number(s) _____

3. Client Name & Address: Lockheed Martin Corporation, 2550 Hollywood Way, Burbank

4. Site Name & Address: Baaumont Site 1

5. Sample Description: Soil ☐ Wastewater ☐ Groundwater ☒ Other ☐

Lab No.	6. Field No.	7. Date Sampled	8. Time Sampled	9. Type Composite or Grab	10. Preservative	11. Sample Description / Sampling Location	12. No. of Containers	13. Analyses Required: EPA 8010/601	EPA 8020/602	EPA 8015 ( )	418.1	Metals	Regular			14. Remarks
AE-053	A	4-30-98	1026	GRAB	HCl	MW-115	3	X								
AE-054		4-30-98	1223	GRAB	HCl	MW-56A	3	X								
AE-055		4-30-98	1316	GRAB	HCl	MW-56C	3	X								
AE-056		4-30-98	1403	GRAB	HCl	MW-57A	3	X								
AE-057		4-30-98	1638	GRAB	HCl	MW-04-FB	3	X								
AE-058		4-30-98	1442	GRAB	HCl	MW-04	3	X								

Condition of Receipt (Describe)

	Signature	Company	Date	Time
15. Sampled by	Richard Allen	BEK/TERRANEXT	4-30-98	
Relinquished by	Richard Allen	BEK/TERRANEXT	5-1-98	1703
Received by	R S Badillo	AER Labs	5.1.98	17:3
Relinquished by				
Received by				

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

AER
LABORATORIES, INC.
7949 Ajay Drive.
Sun Valley, CA 91352
(818) 767-2383

Job Number _____

CHAIN OF CUSTODY RECORD

1. Contact Person/Project Manager: PAT Schanen

2. Page 1 of 1 Lab Number(s) _____

3. Client Name & Address: Lockheed Martin Corporation, 2550 Hollywood Way, Burbank, CA

4. Site Name & Address: Beaumont Site 1

5. Sample Description: Soil ☐ Wastewater ☐ Groundwater ☒ Other ☐

13. Analyses Required

Lab No.	6. Field No.	7. Date Sampled	8. Time Sampled	9. Type Composite or Grab	10. Preservative	11. Sample Description / Sampling Location	12. No. of Containers	EPA 8010/601	EPA 8020/602	EPA 8015	1,4-D	Metals	Regular			14. Remarks
AE-059				GRAB	HCl	LTB050198-1	3	X								
AE-060		5-1-98	0847	GRAB	HCl	MW-63	3	X								
AE-061		5-1-98	1029	GRAB	HCl	MW-20	3	X								
AE-062		5-1-98	1140	GRAB	HCl	MW-55	3	X								
AE-063		5-1-98	1316	GRAB	HCl	MW-02	3	X								
AE-064		5-1-98	1427	GRAB	HCl	MW-07	3	X								

Condition of Receipt (Describe)

	Signature	Company	Date	Tim
15. Sampled by	Richard Allen	BEK/TERRANEXT	5-1-98	
Relinquished by	Richard Allen	BEK/TERRANEXT	5-1-98	17:3
Received by	RSBatte	AER Labs	5.1.98	17:?
Relinquished by				
Received by				

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

AER
LABORATORIES, INC.
7949 Ajay Drive,
Sun Valley, CA 91352
(818) 767-2383

Job Number _____

CHAIN OF CUSTODY RECORD

1. Contact Person/Project Manager: Pat Schaden

2. Page 1 of 1 Lab Number(s) _____

3. Client Name & Address: Lockheed MARTIN Corporation, 2550 N. Hollywood Way Burbank

4. Site Name & Address: Beaumont Site 1

5. Sample Description: Soil ☐ Wastewater ☐ Groundwater ☒ Other ☐

13. Analyses Required

Lab No.	6. Field No.	7. Date Sampled	8. Time Sampled	9. Type Composite or Grab	10. Preservative	11. Sample Description / Sampling Location	12. No. of Containers	EPA 8010/601	EPA 8020/602	EPA 8015 ( )	418.1	Metals	Regular		14. Remarks
AE-101					HCl	LTB050898-1	3	X							
AE-102		5-8-98	1010	Grab	HCl	EW-13	3	X							
AE-103		5-8-98	1050	Grab	HCl	EW-16-FB	3	X							
AE-104		5-8-98	1058	Grab	HCl	EW-16	3	X							
AE-105		5-8-98	1208	Grab	HCl	EW-11	3	X							

Condition of Receipt (Describe)

	Signature	Company	Date	Time
15. Sampled by	Richard Allen	BEK/TERRANEXT	5-8-98	see above
Relinquished by	Richard Allen	BEK/TERRANEXT	5-9-98	1055
Received by	J. H. Salazar	AER Labs	5/9/98	1055
Relinquished by				
Received by				

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

AER
LABORATORIES, INC.,
7949 Ajay Drive,
Sun Valley, CA 91352
(818) 767-2383

Job Number _____

CHAIN OF CUSTODY RECORD

1. Contact Person/Project Manager: Pat Schaven

2. Page 1 of 1 Lab Number(s) AE081-AE0

3. Client Name & Address: Lockheed Martin Corporation, 2550 Hollywood Way, Burbank, CA

4. Site Name & Address: Beaumont Site 1

5. Sample Description: Soil ☐ Wastewater ☐ Groundwater ☒ Other ☐

12. Analyses Required

Lab No.	6. Field No.	7. Date Sampled	8. Time Sampled	9. Type Composite or Grab	10. Preservative	11. Sample Description / Sampling Location	12. No. of Containers	EPA 8010/601	EPA 8020/602	EPA 8015 ( )	418.1	Metals	Regular			14. Remarks
AE081						LTB050598-1	3	X								
AE082		5-5-98	0725	GRAB	HCl	EW-18 80	3	X								
AE083		5-5-98	0900	GRAB	HCl	MW-110 80	3	X								
AE084		5-5-98	0850	GRAB	HCl	EW-12-EB	3	X								
AE085		5-5-98	1021	GRAB	HCl	EW-12-FB	3	X								
AE086		5-5-98	1030	GRAB	HCl	EW-12 80	3	X								
AE087		5-5-98	1830	GRAB	HCl	EW-12-MS	3	X								
AE088		5-5-98	1030	GRAB	HCl	EW-12-MSD	3	X								
AE089		5-5-98	1030	GRAB	HCl	EW-12-DUP	3	X								

Condition of Receipt (Describe)

	Signature	Company	Date	Time
15. Sampled by	Richard Allen	BAK/TERRANEXT		See above
Relinquished by	Richard Allen	BAK/TERRANEXT	5-6-98	1116
Received by	Anisali Jivraj	AER Labs	5-6-98	1116
Relinquished by				
Received by				

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

APPENDIX E

QUALITY ASSESSMENT REPORT

QA Review of Beaumont Site No. 1 Analytical Data, April and May 1998

The laboratory results of analysis of groundwater samples from Beaumont Site No. 1 were reviewed. The groundwater samples were collected at the site in April and May 1998. The samples were subjected to analysis in accordance with EPA Method 8010. The sample introduction method was by direct purge and trap. This review was performed to evaluate overall data quality and to look for discrepancies within the data package.

Overall, the data quality is good for these samples. The required quality control samples were collected and analyzed. All the samples were analyzed within the EPA's recommended hold time of 14 days. All samples were properly preserved with hydrochloric acid, and delivered chilled to the laboratory, following standard chain-of-custody procedures.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries are within acceptable recovery Laboratory Quality Control Check Sample (LCS) results are within acceptable ranges of recovery. with the exception of cis 1,3-dichloropropane and trans 1,3-dichloropropane which were 68% recovery.

According to the USEPA (1994a, 1994b) 5-Times Rule, any compound other than common laboratory reagents, that are detected in a sample and also detected in an associated blank, must be qualified when the sample concentration is less than 5 times the blank concentration.

The 5-Times Rule does not have to be applied to any of the samples associated with the trip blanks, field blank, or equipment blanks. No trip blank, field blank, or equipment blank results reported the presence of any VOCs above the limit of detection.

The field blank results report no detection of any VOCs at the detection limits cited in the summary tables and appendix of laboratory results.

The Blind Duplicate (BD) results are an indication of the analytical precision obtained from the laboratory. The field and blind duplicate results summarized below for wells EW-12, MW-41, and MW-58D in parts per billion (ppb).

Sample ID	Type	1,1,1-TCA	1,1-DCA	1,1-DCE	TCE
EW-12	Original	75.3	24.4	1,952	1,192
EW-12-DUP	Field Duplicate	77.7	28.7	1,976	1,168
RPD	Relative % Difference	2.22	11.45	0.86	1.44
EW-12	Original	75.3	24.4	1,952	1,192
MW-110	Blind Duplicate	71.3	19.7	2,216	1,408
RPD	Relative % Difference	3.86	15.07	8.96	11.75
MW-41	Original	4.1	6.3	134	162
MW-41-DUP	Field Duplicate	4.1	6.7	139	153
RPD	Relative % Difference	0.00	4.35	2.59	4.04
MW-41	Original	4.1	6.3	134	162
MW-112	Blind Duplicate	4.0	5.3	156	159
RPD	Relative % Difference	1.75	12.19	10.73	1.32
MW-58D	Original	6.9	6.2	97	105
MW-58D-DUP	Field Duplicate	7.1	5.8	101	101
RPD	Relative % Difference	2.02	4.71	2.86	2.75
MW-58D	Original	6.9	6.2	97	105
MW-115	Blind Duplicate	7.5	6.6	119	108
RPD	Relative % Difference	5.89	4.42	14.40	1.99

The percent relative percent (%) difference (RPD) between field duplicate results and original results for wells EW-12, MW-41, and MW-58D are within about 10 percent for TCE, 1,1-DCE, and 1,1,1-TCA. The RPD for EW-12 for 1,1-DCA slightly exceeds 10%.

The RPD between blind duplicate results and original results for wells EW-12, MW-41, and MW-58D are within about 10 percent for 1,1,1-TCA. The RPD for MW-58D for 1,1-DCE, for MW-41 for 1,1,-DCA and 1,1-DCE, and for EW-12 for 1,1-DCA and TCE all exceed 10 percent. The blind dupicate for EW-12 for 1,1-DCA had the largest RPD at 15.07, all other values were slightly greater than 10 %.

REFERENCES

United States Environmental Protection Agency. 1994a. Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses. National Technical Information Services. Publication 9240.1-26 EPA/540/R/94/083 PB95-963525, December 1994.

United States Environmental Protection Agency. 1994b. Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses. National Technical Information Services. Publication 9240.1-27 EPA/540/R/94/082 PB95-963526, December 1994.

APPENDIX F

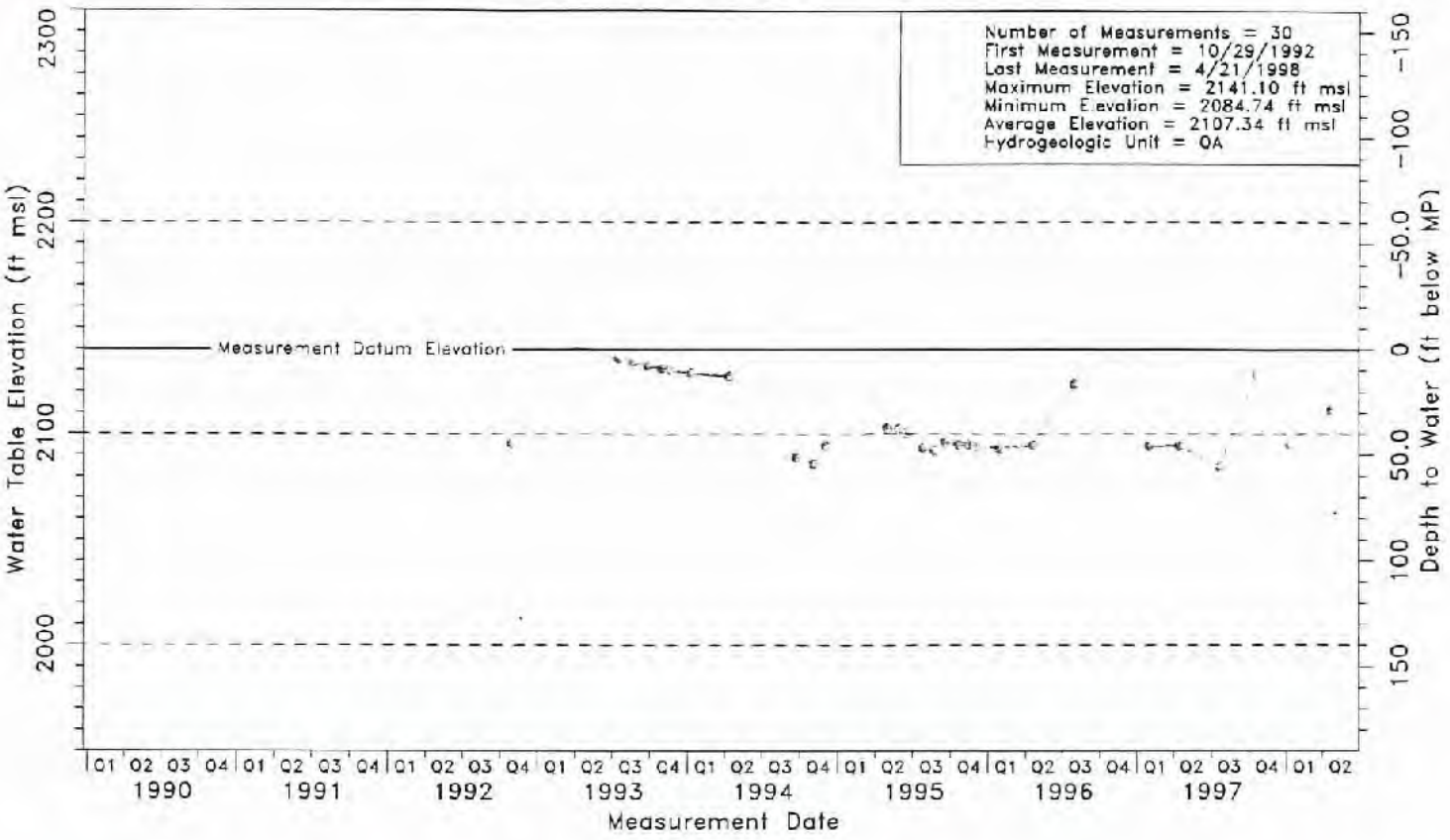
WATER LEVEL HYDROGRAPHS

TerraNext

HYDROGRAPH EW-01

Lockheed Martin Corporation Beaumont Site No. 1

LOCKHEED MARTIN

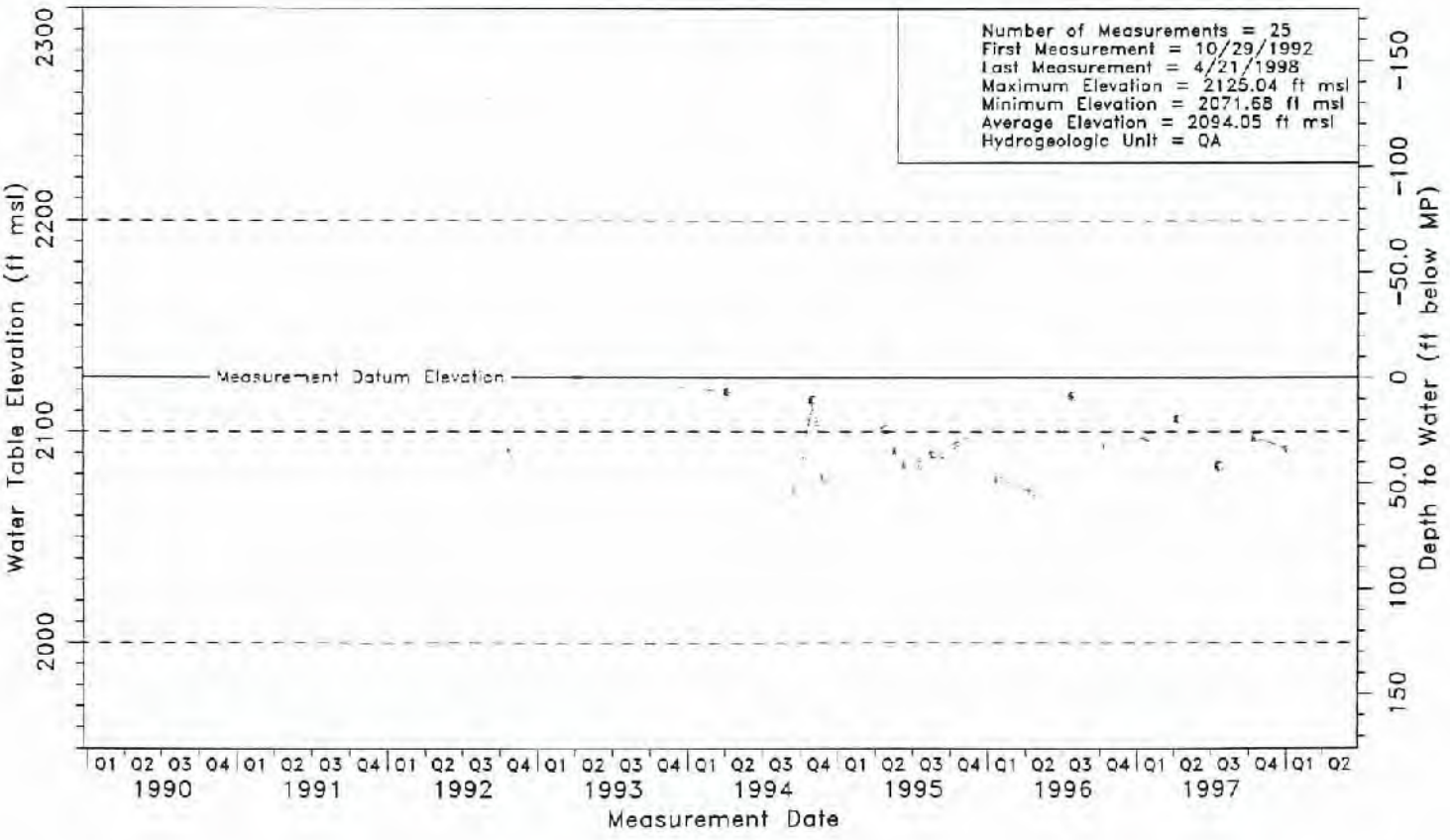


TerraNext

HYDROGRAPH EW-02

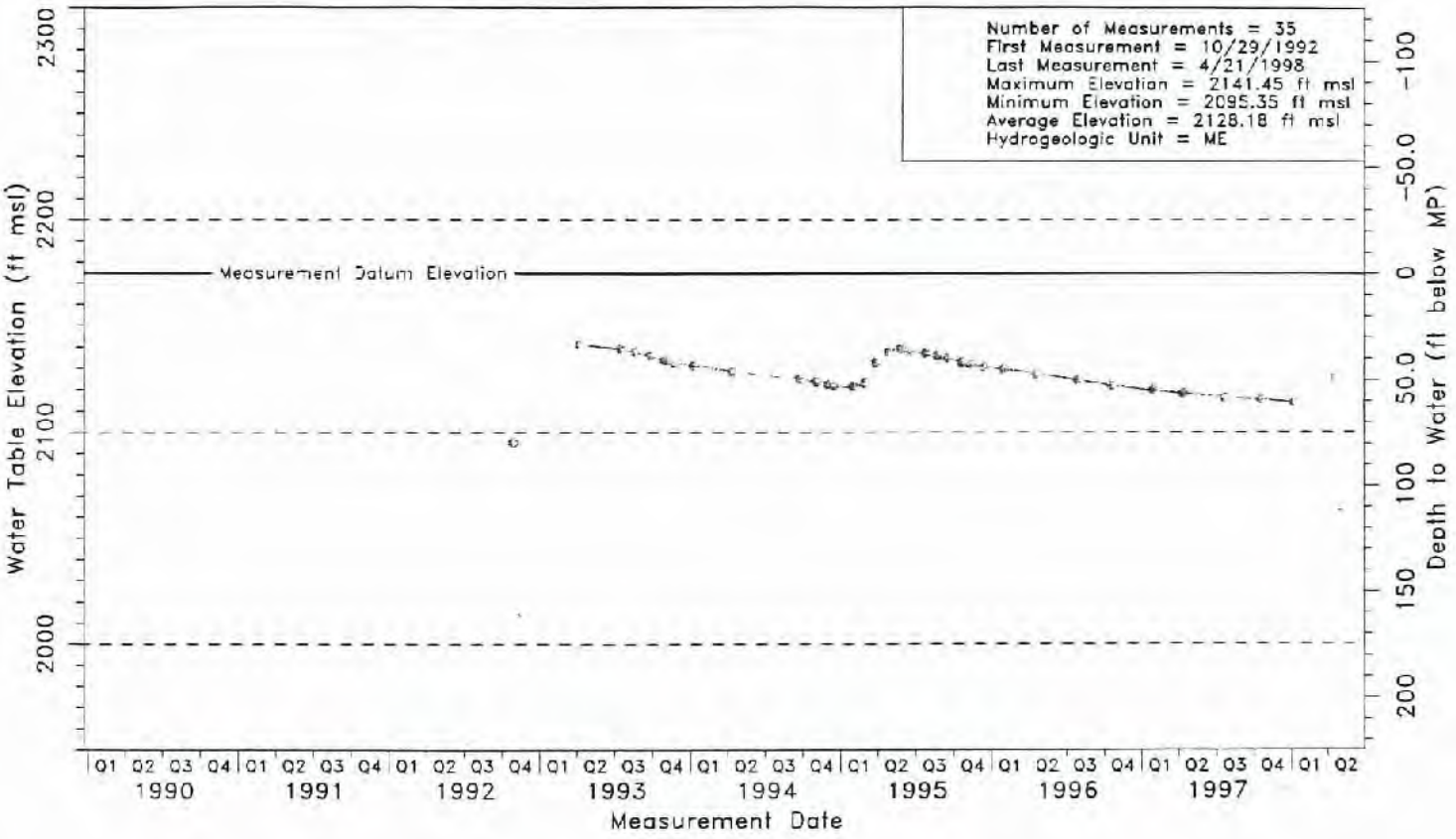
Lockheed Martin Corporation Beaumont Site No. 1

LOCKHEED MARTIN



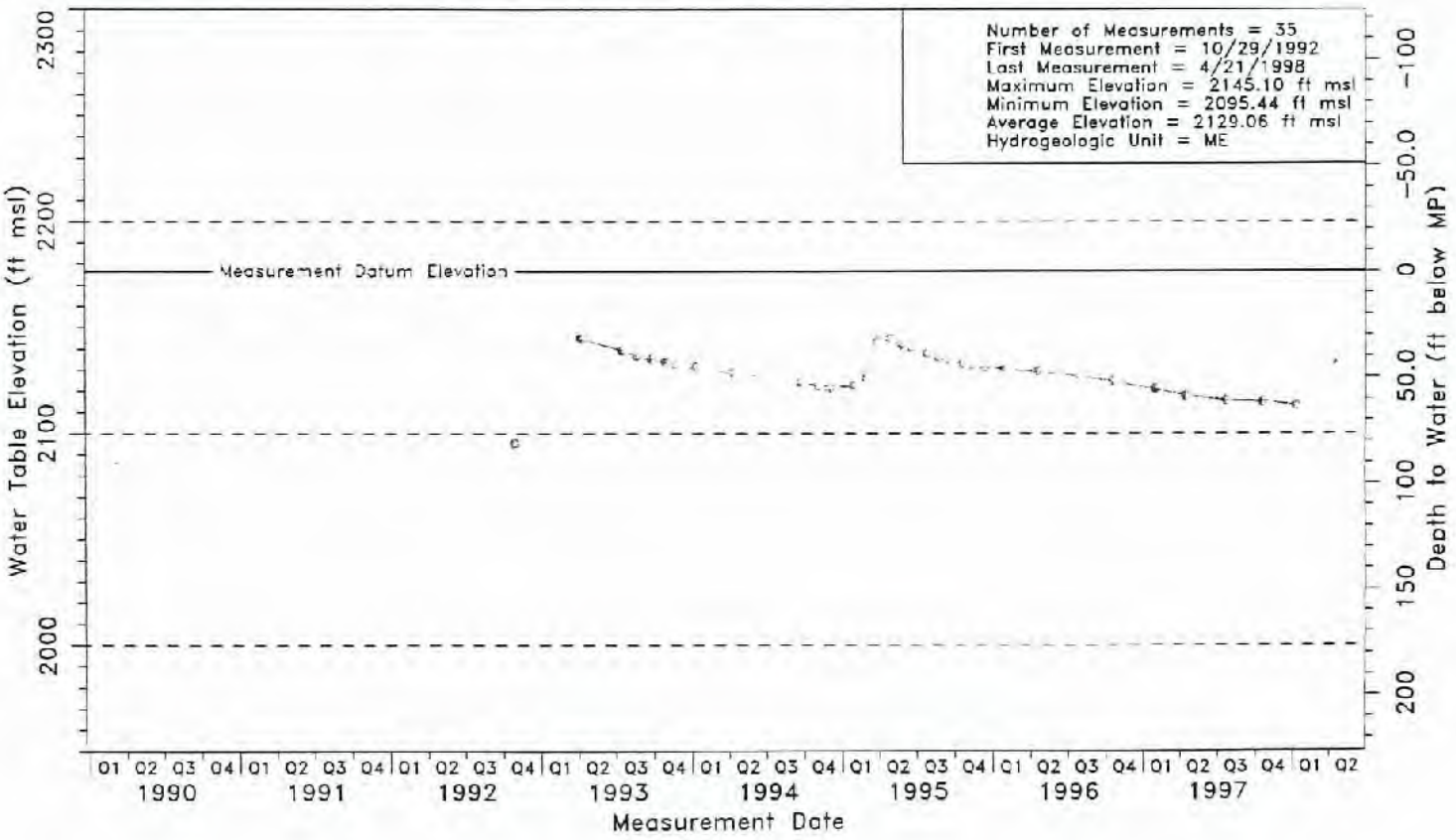
HYDROGRAPH EW-08

Lockheed Martin Corporation Beaumont Site No. 1



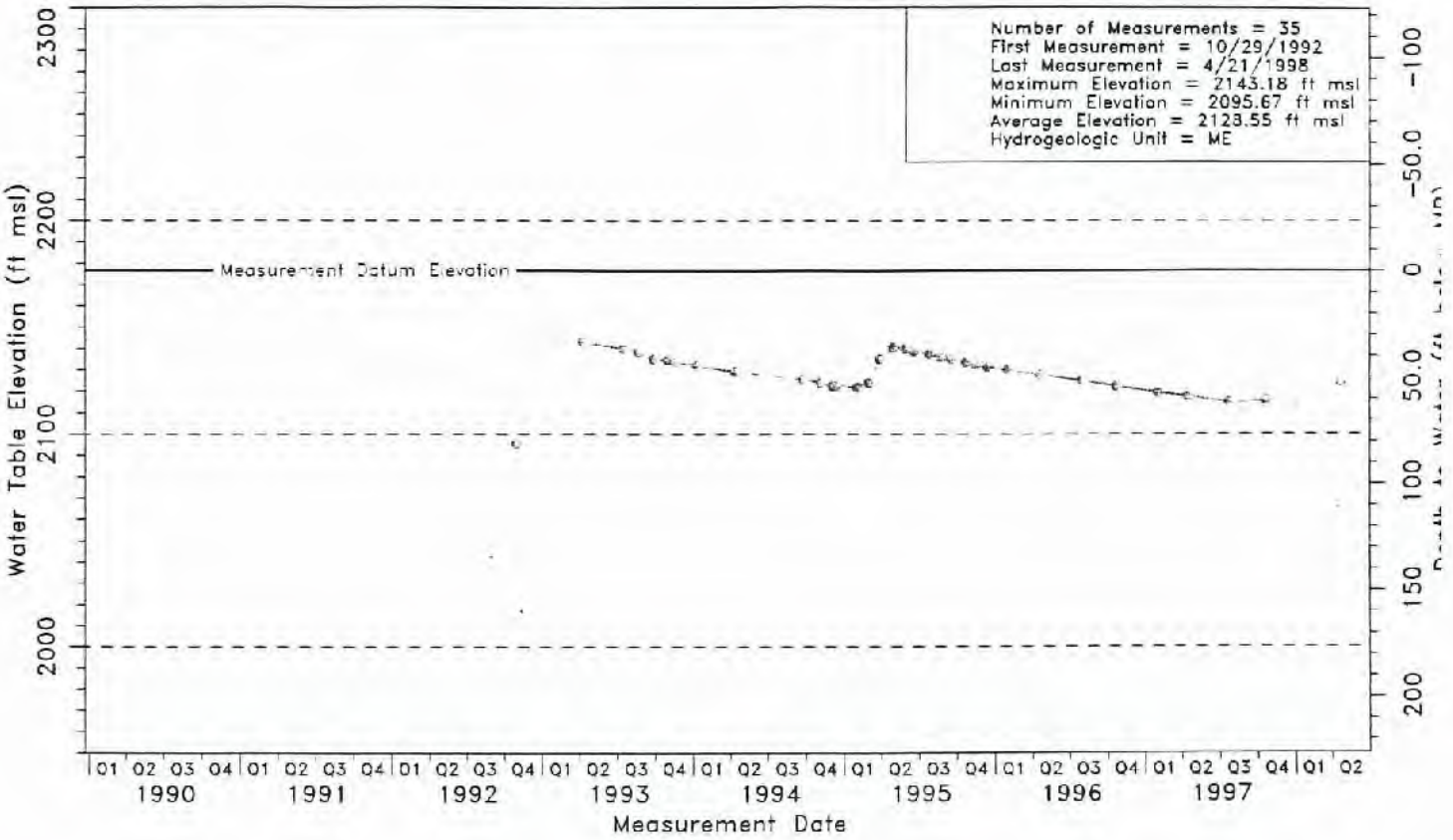
HYDROGRAPH EW-09

Lockheed Martin Corporation Beaumont Site No. 1



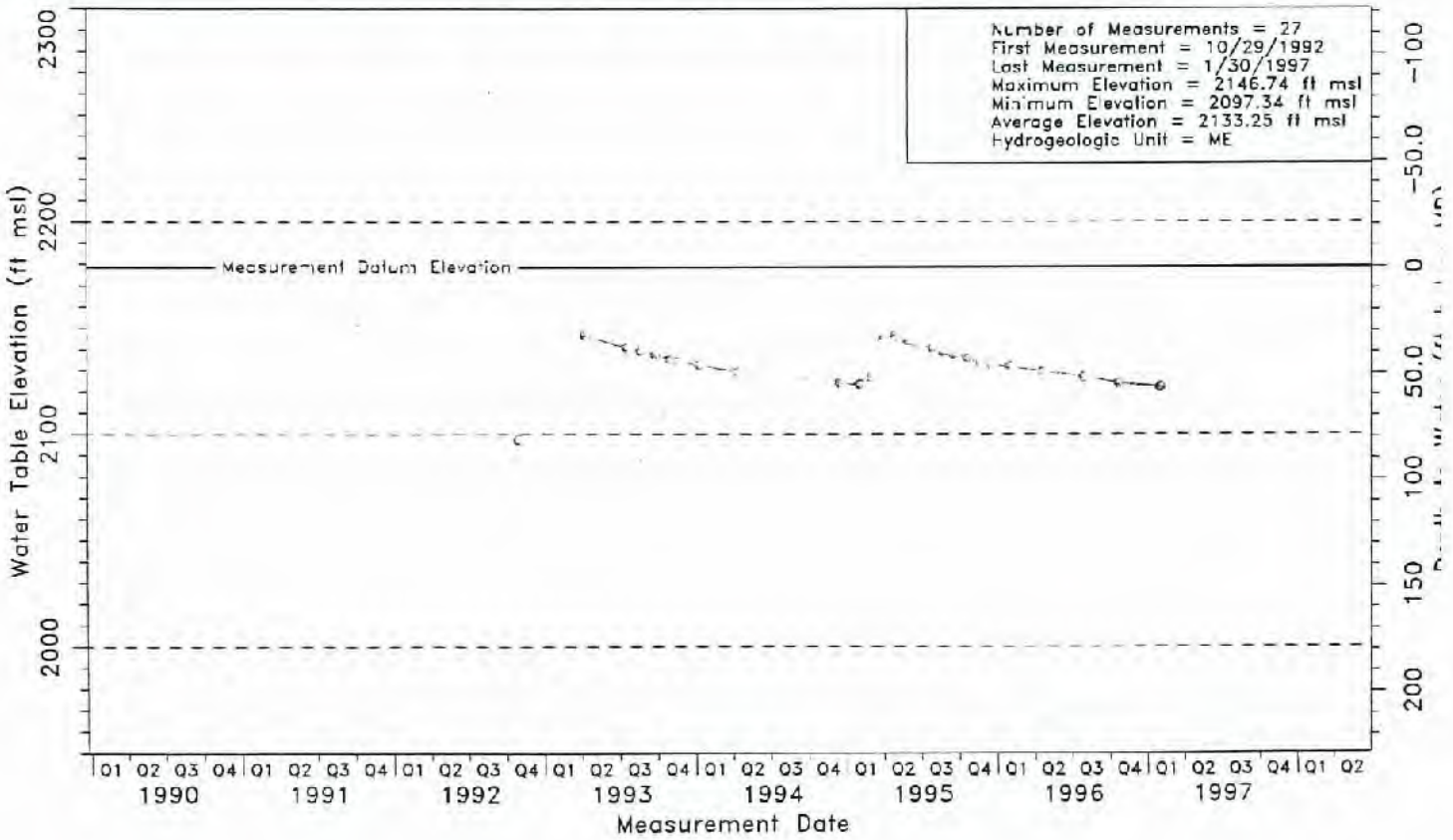
HYDROGRAPH EW-10

Lockheed Martin Corporation Beaumont Site No. 1



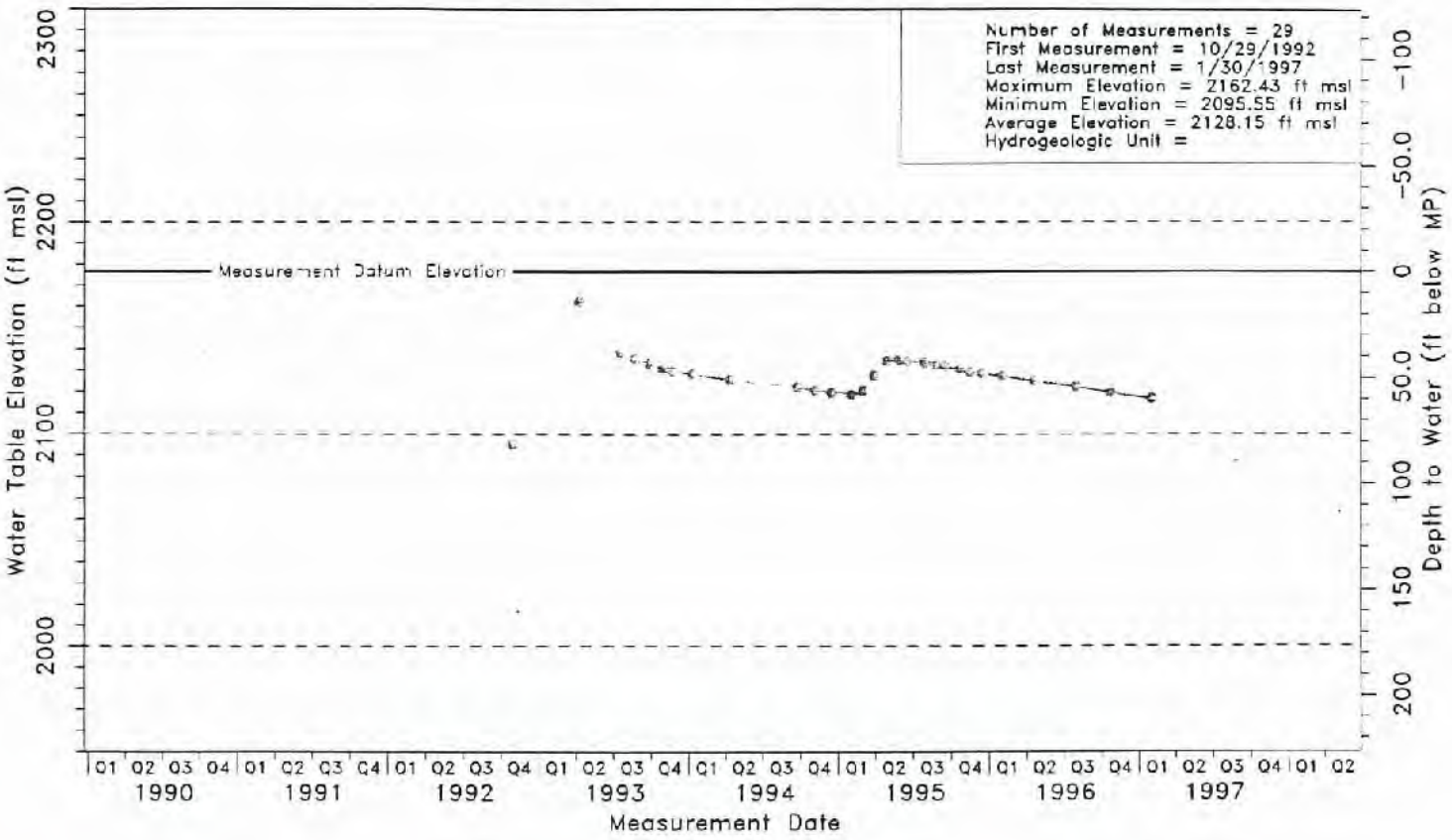
HYDROGRAPH EW-11

Lockheed Martin Corporation Beaumont Site No. 1



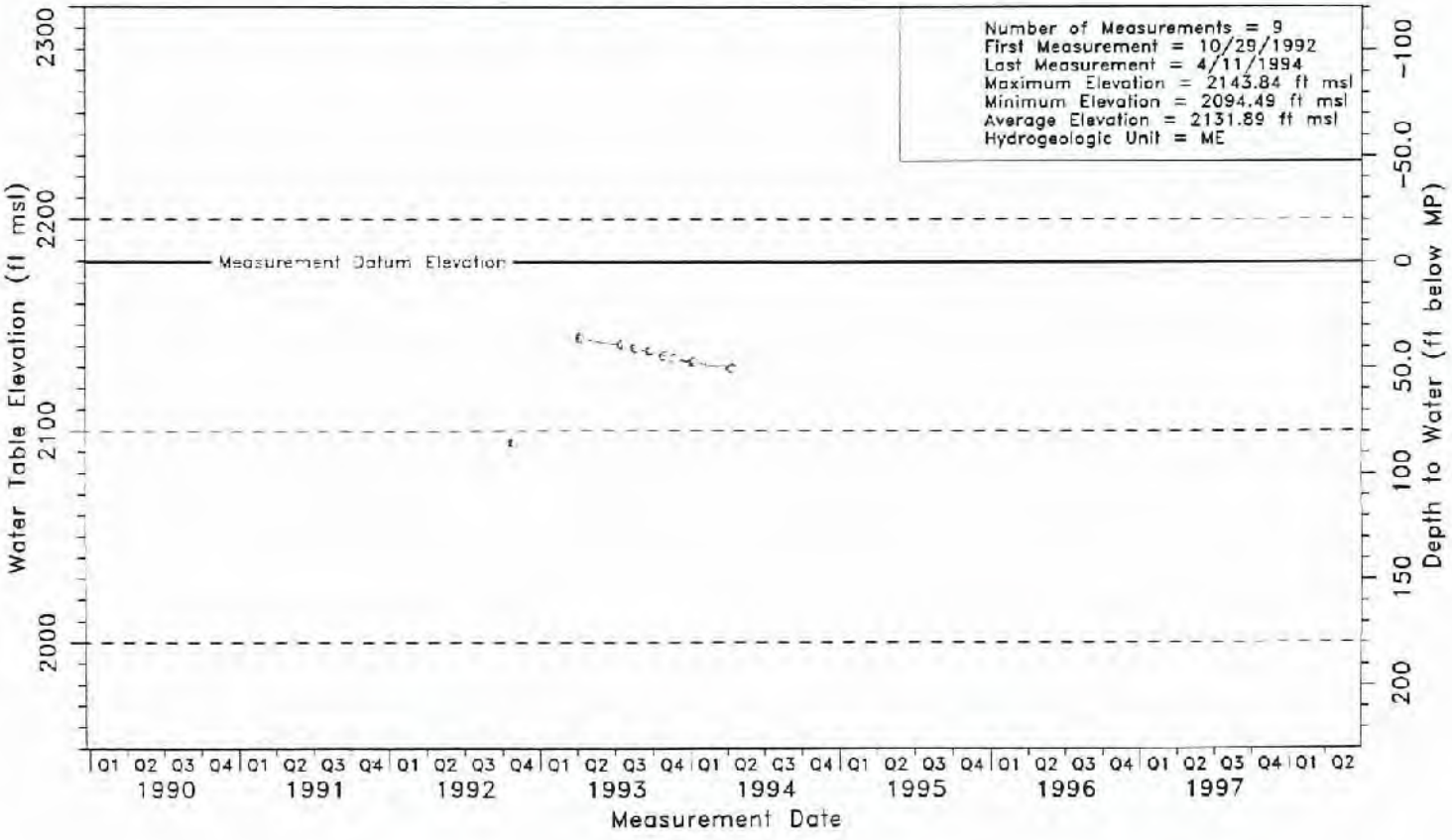
HYDROGRAPH EW-12

Lockheed Martin Corporation Beaumont Site No. 1



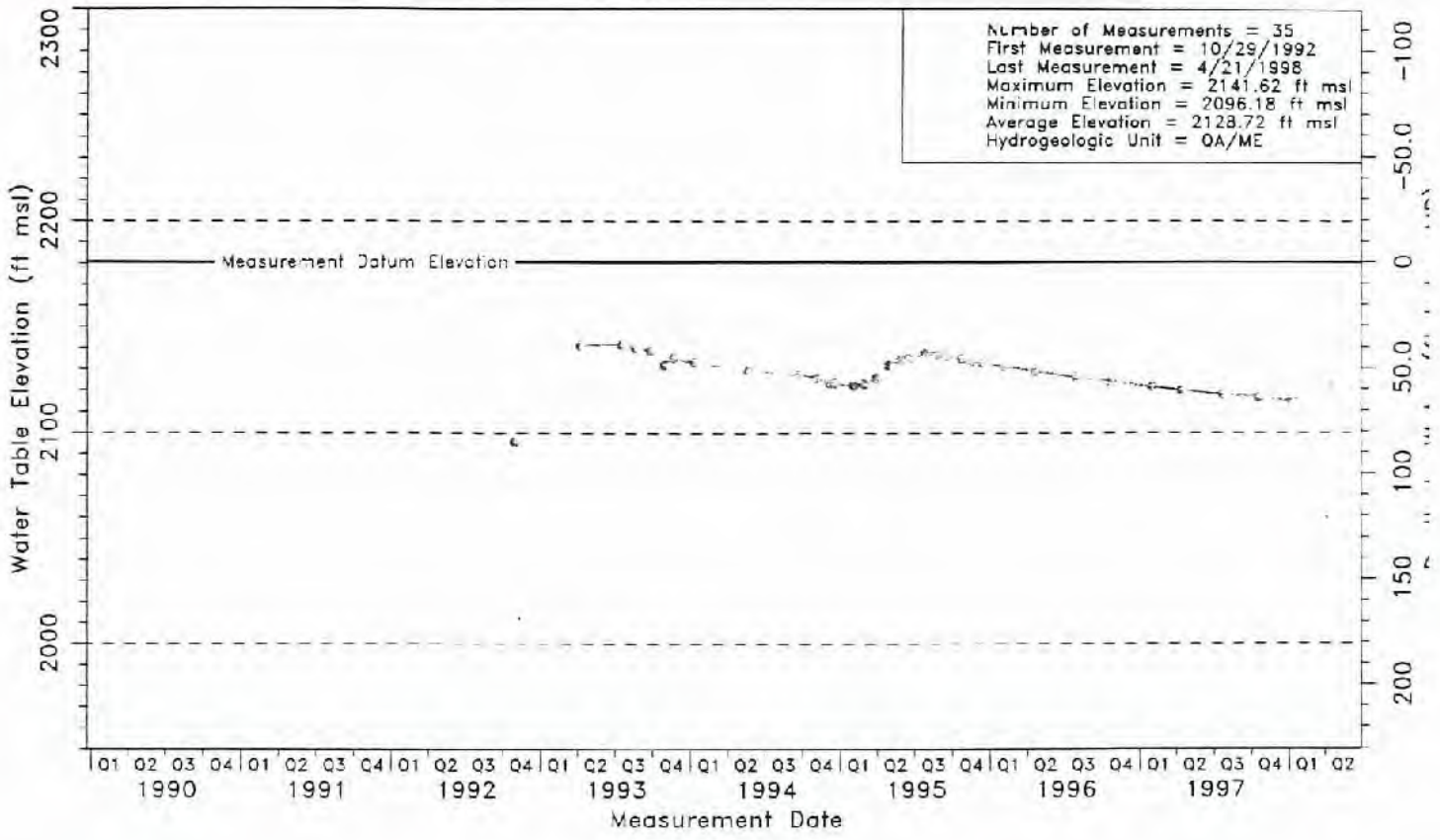
HYDROGRAPH EW-13

Lockheed Martin Corporation Beaumont Site No. 1



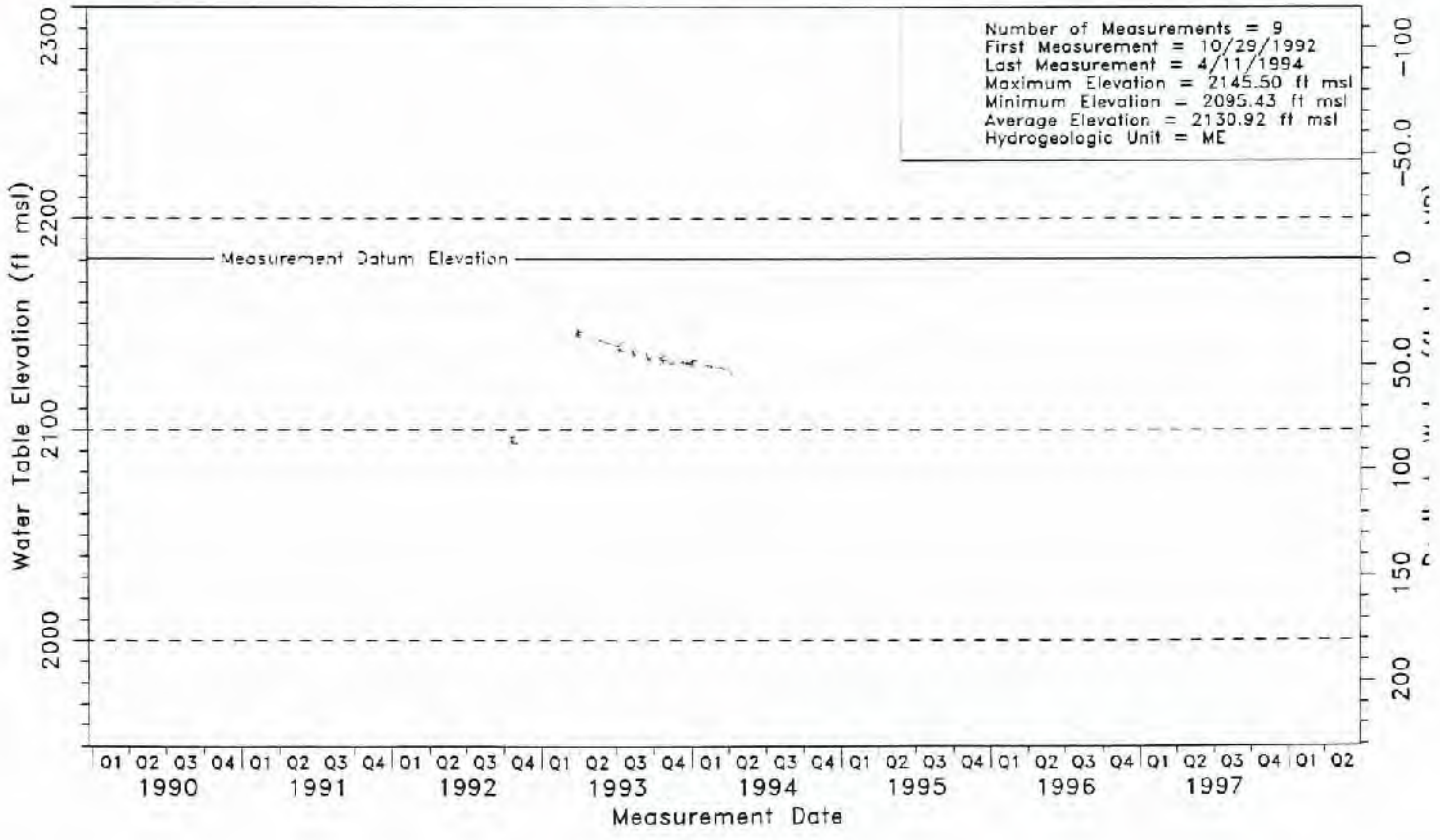
HYDROGRAPH EW-14

Lockheed Martin Corporation Beaumont Site No. 1



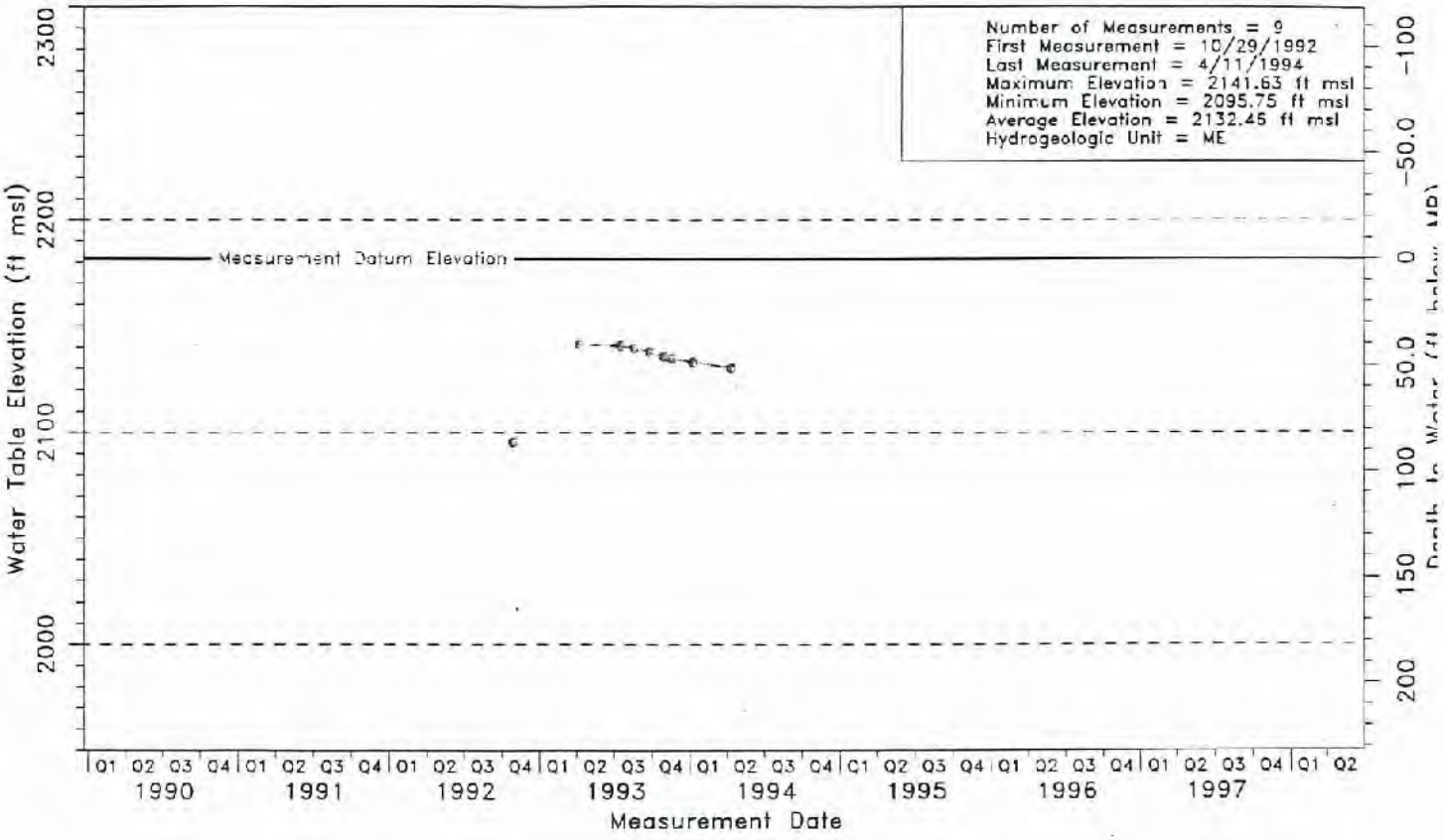
HYDROGRAPH EW-15

Lockheed Martin Corporation Beaumont Site No. 1



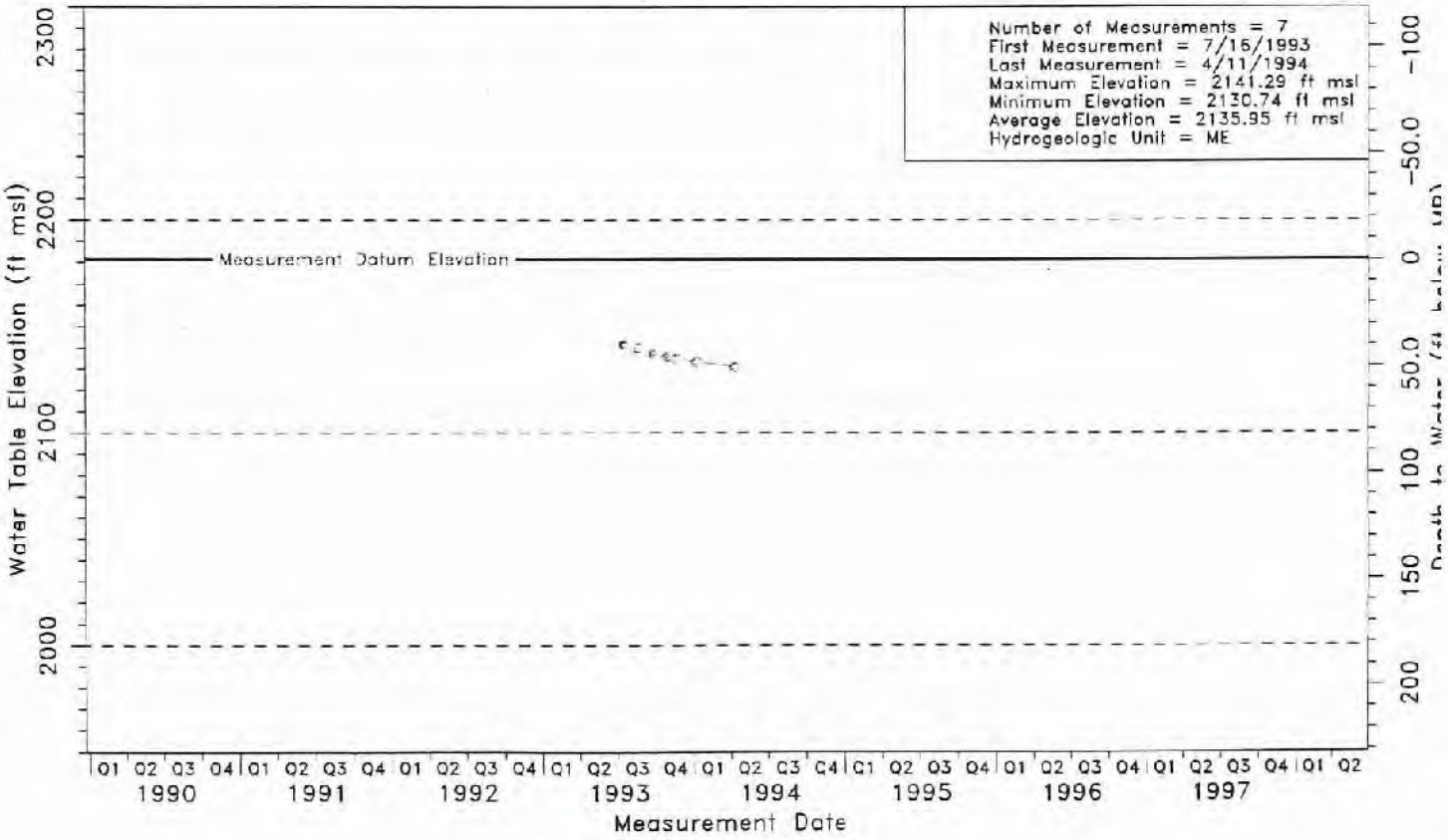
HYDROGRAPH EW-16

Lockheed Martin Corporation Beaumont Site No. 1



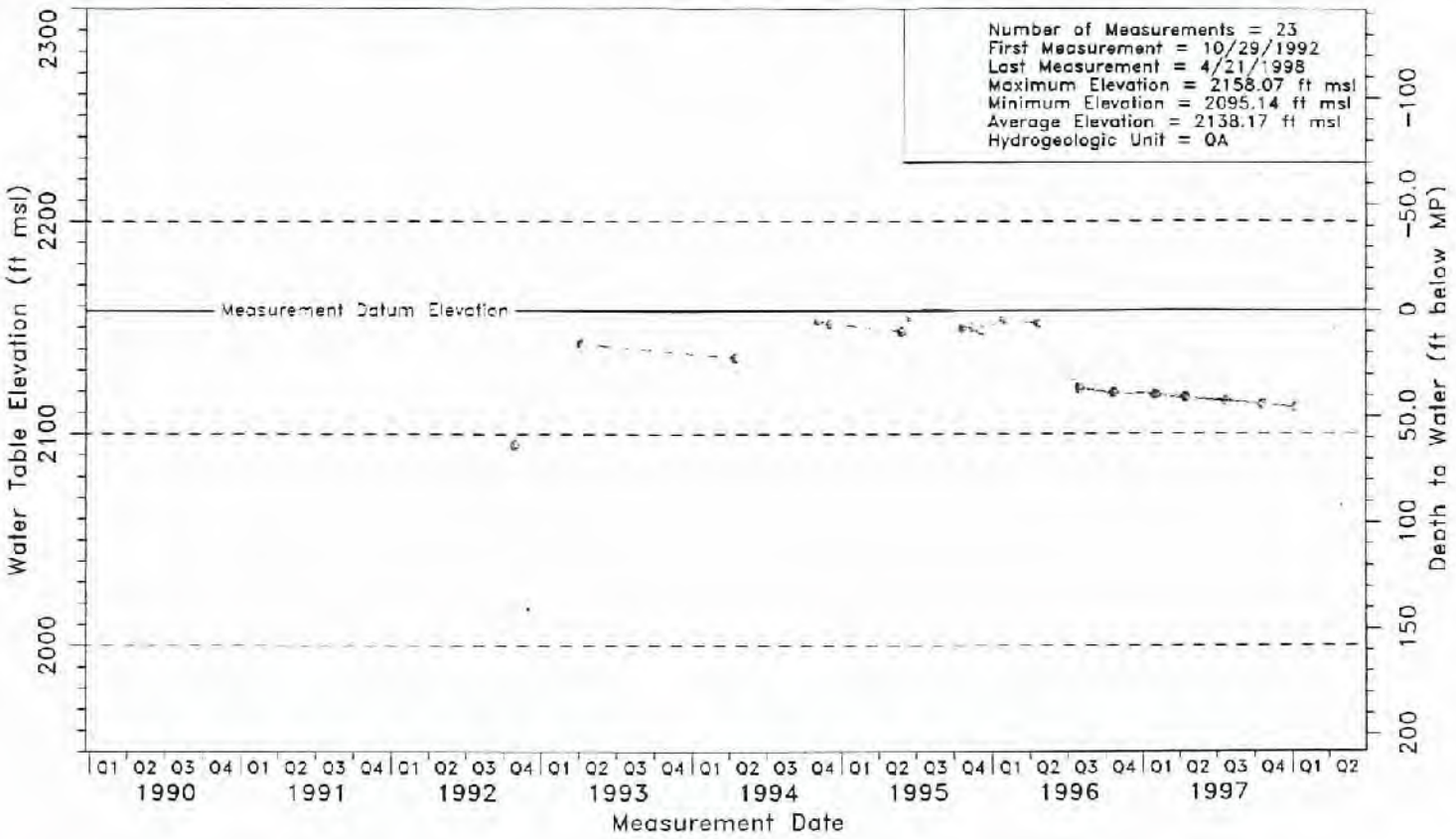
HYDROGRAPH EW-18

Lockheed Martin Corporation Beaumont Site No. 1



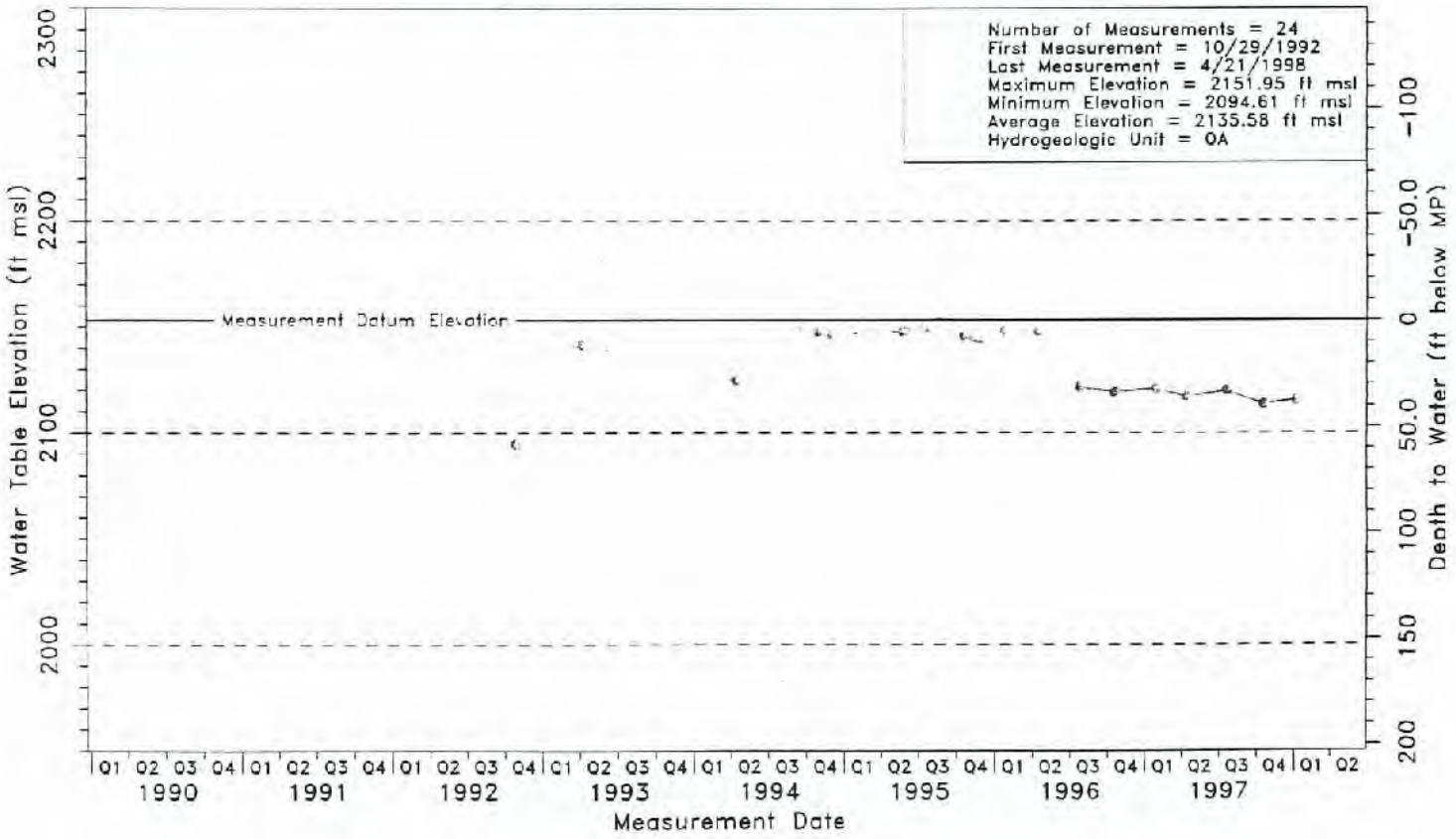
HYDROGRAPH IW-01

Lockheed Martin Corporation Beaumont Site No. 1



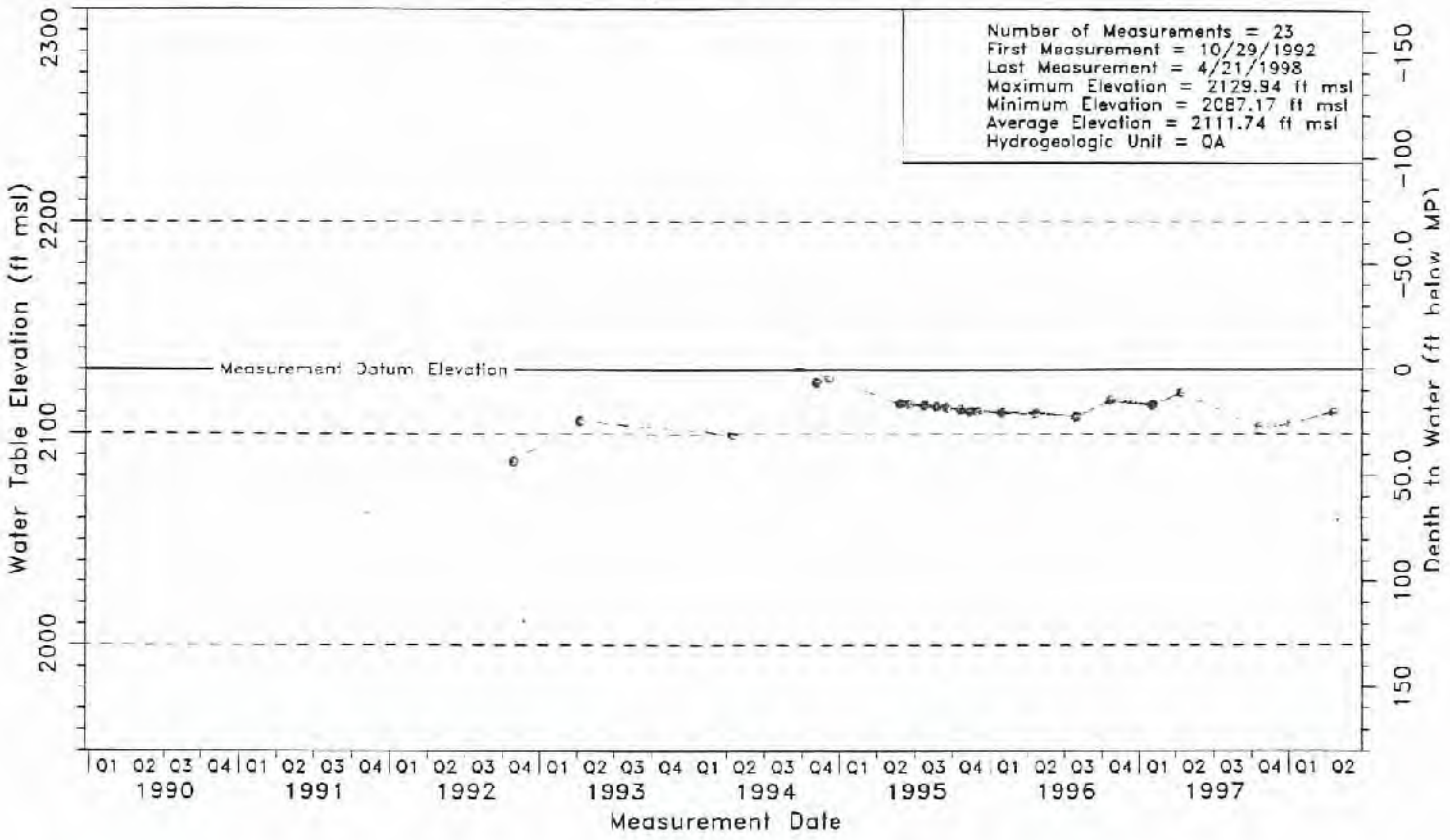
HYDROGRAPH IW-02

Lockheed Martin Corporation Beaumont Site No. 1



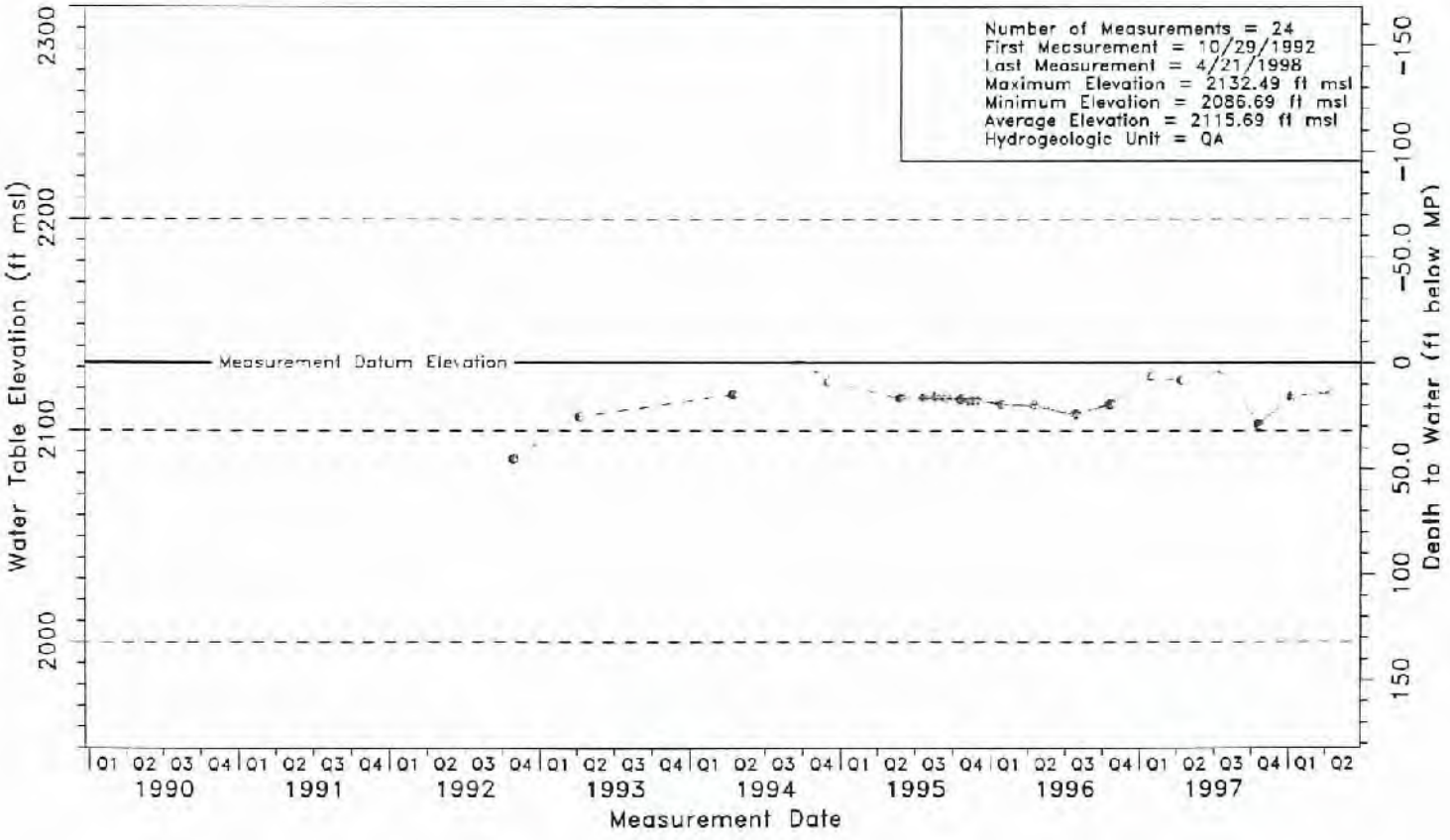
HYDROGRAPH IW-03

Lockheed Martin Corporation Beaumont Site No. 1



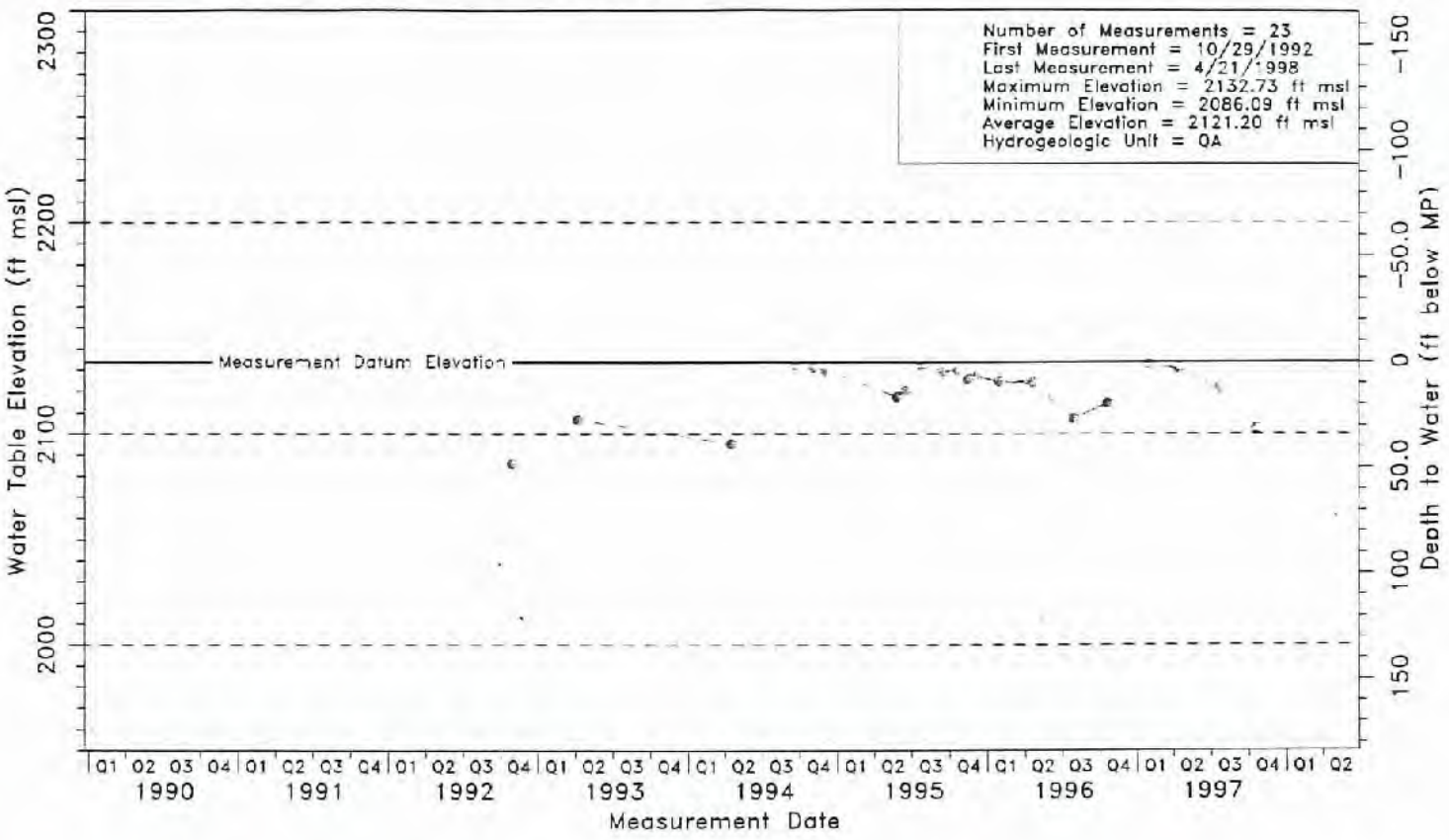
HYDROGRAPH IW-04

Lockheed Martin Corporation Beaumont Site No. 1



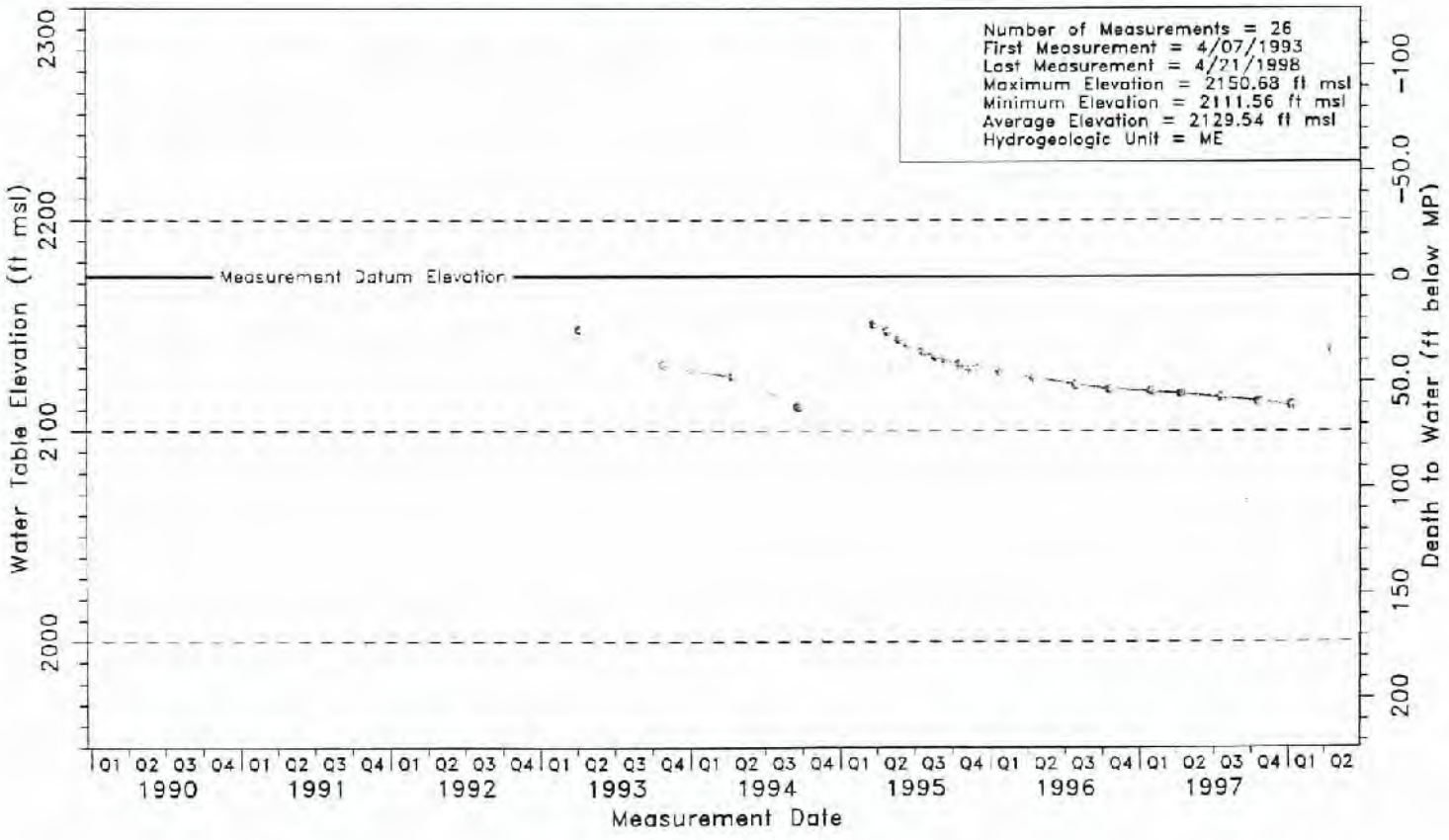
HYDROGRAPH IW-05

Lockheed Martin Corporation Beaumont Site No. 1



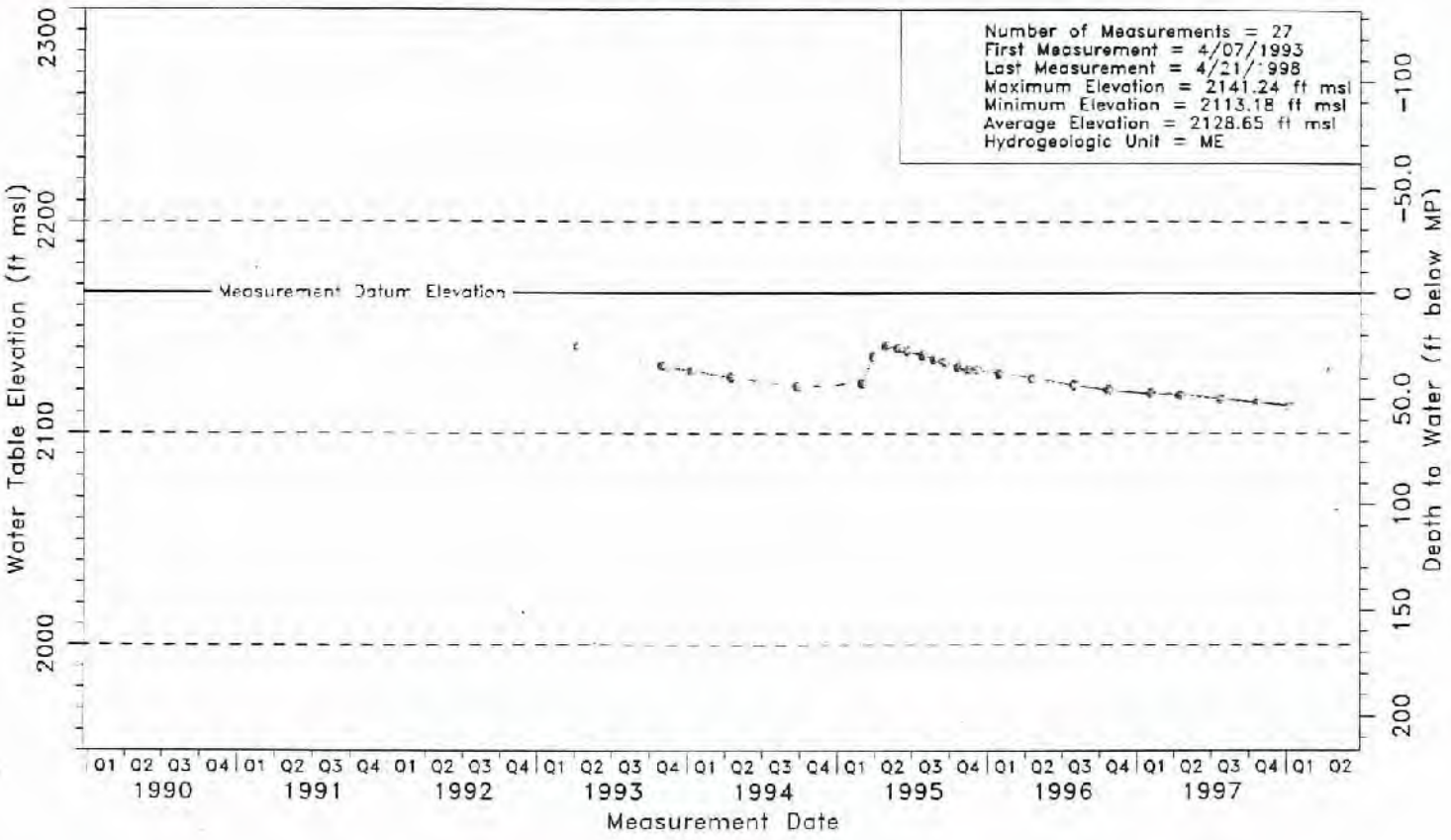
HYDROGRAPH MW-01

Lockheed Martin Corporation Beaumont Site No. 1



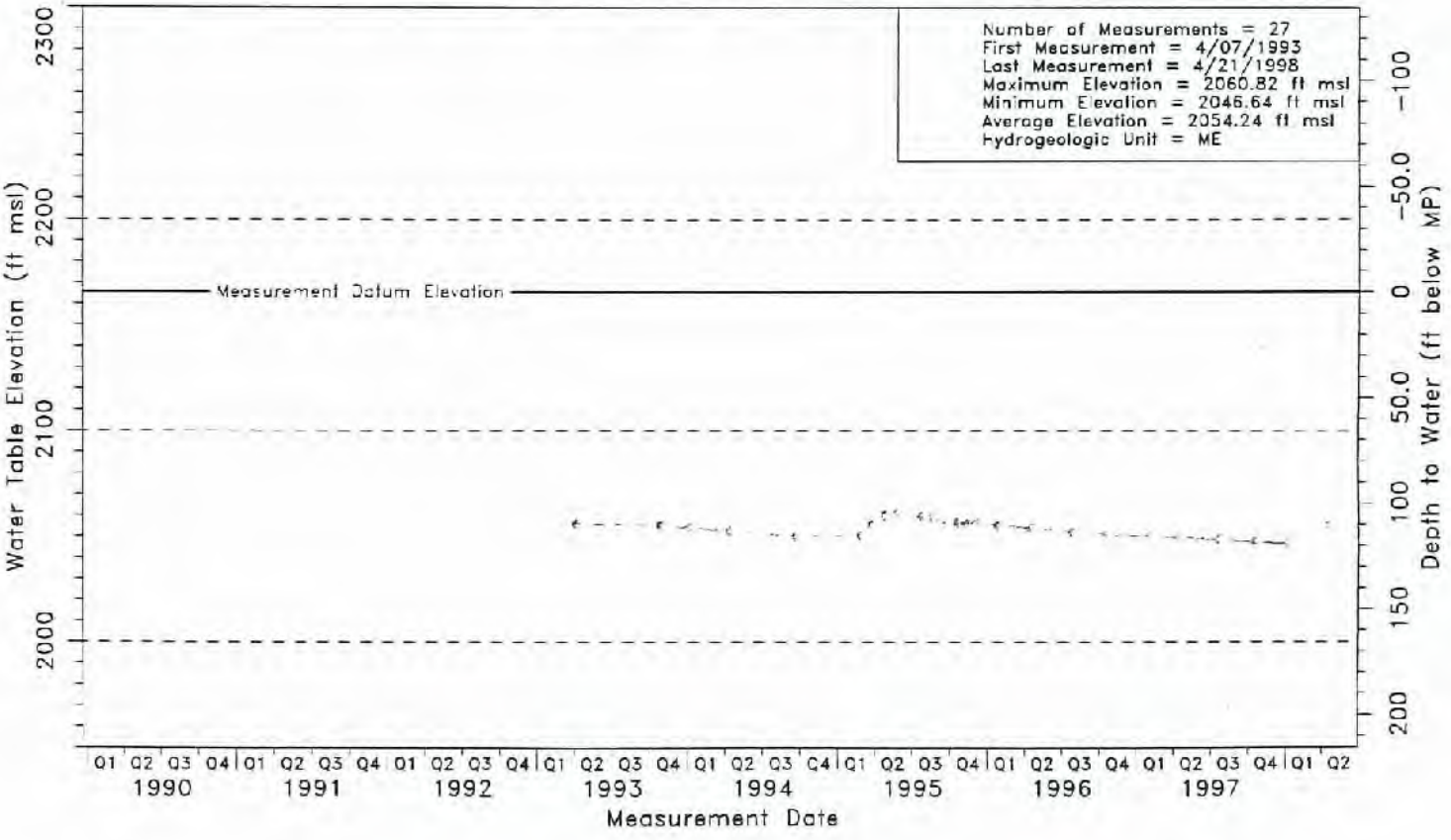
HYDROGRAPH MW-02

Lockheed Martin Corporation Beaumont Site No. 1



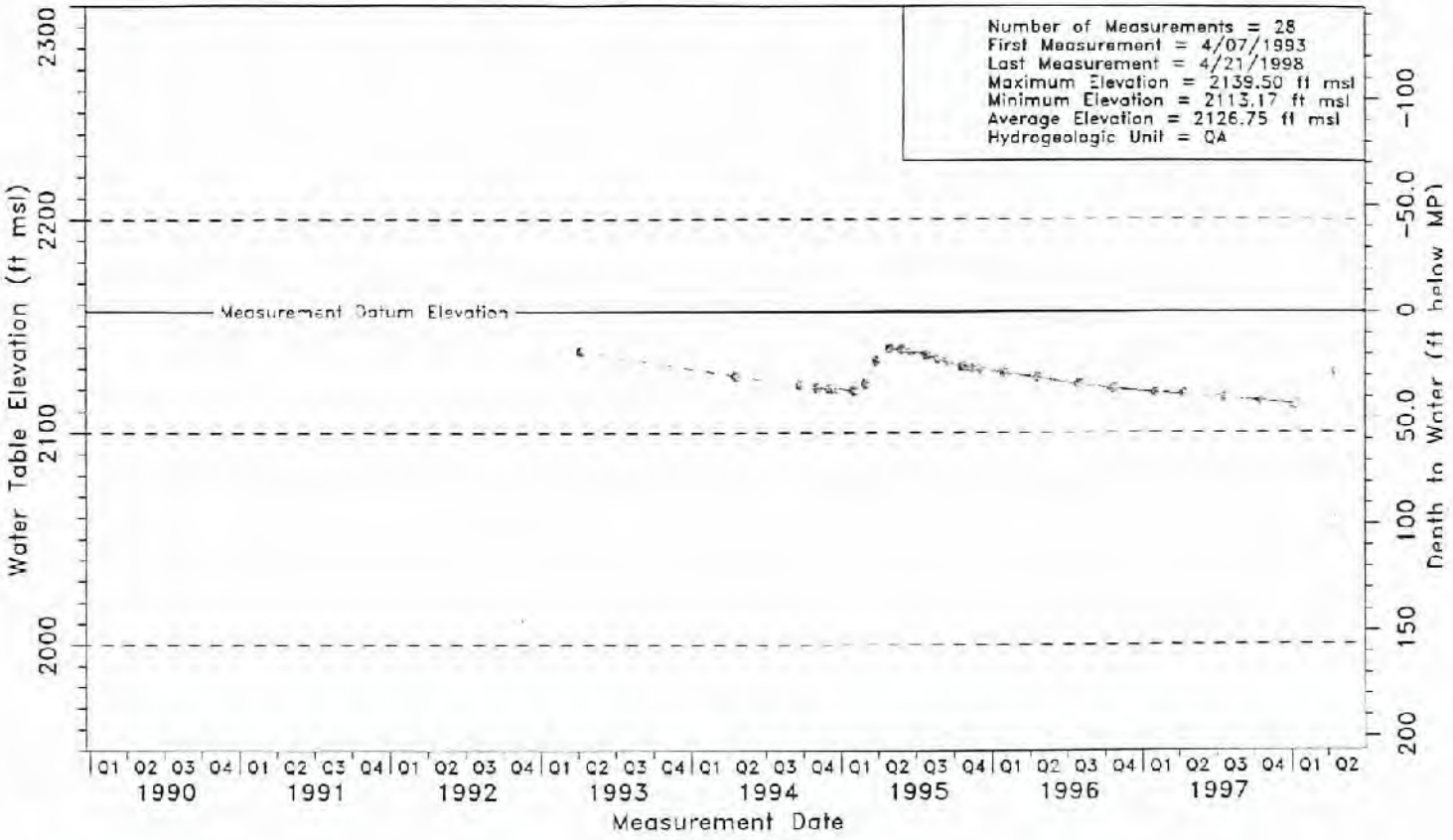
HYDROGRAPH MW-03

Lockheed Martin Corporation Beaumont Site No. 1



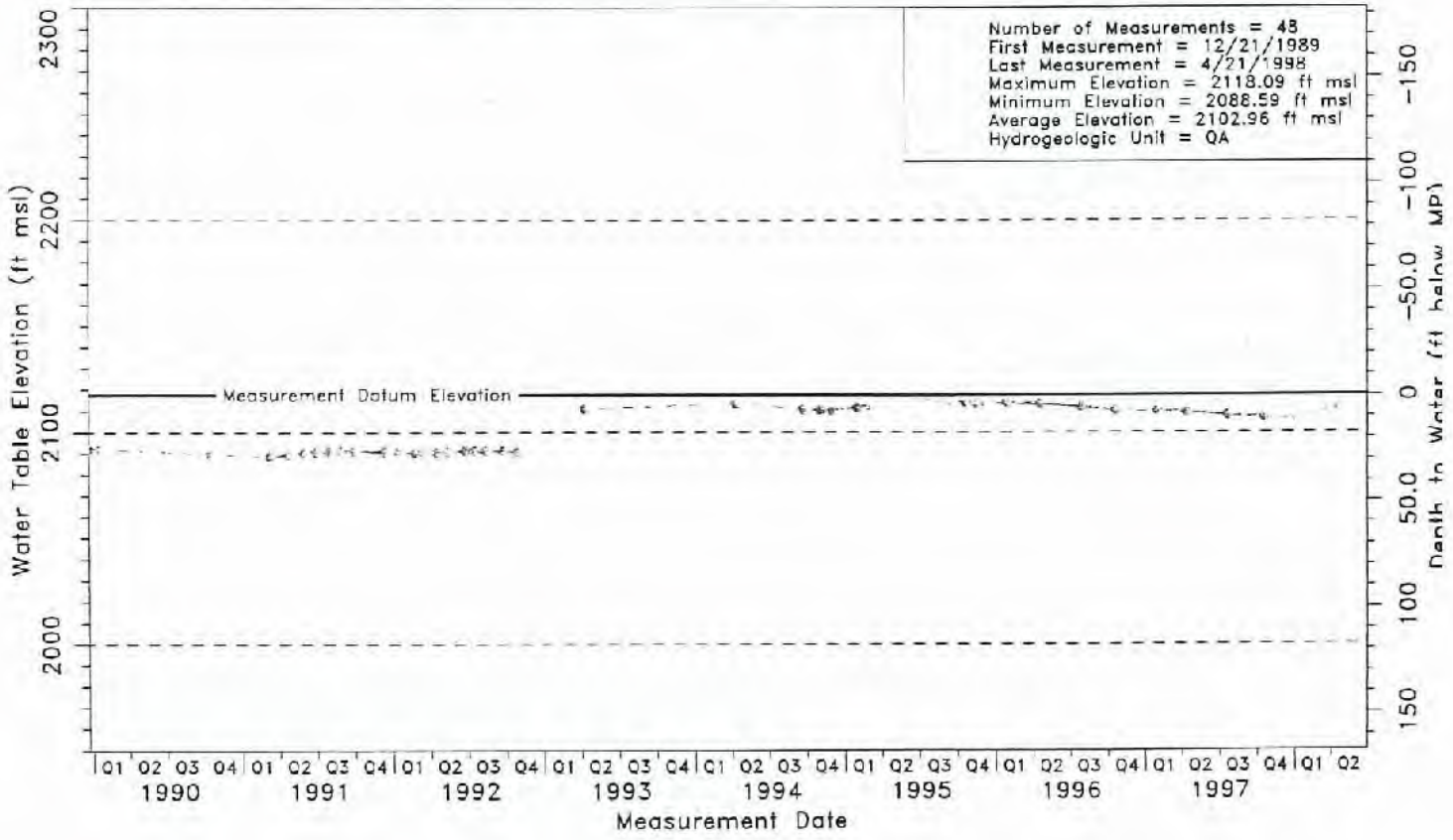
HYDROGRAPH MW-04

Lockheed Martin Corporation Beaumont Site No. 1



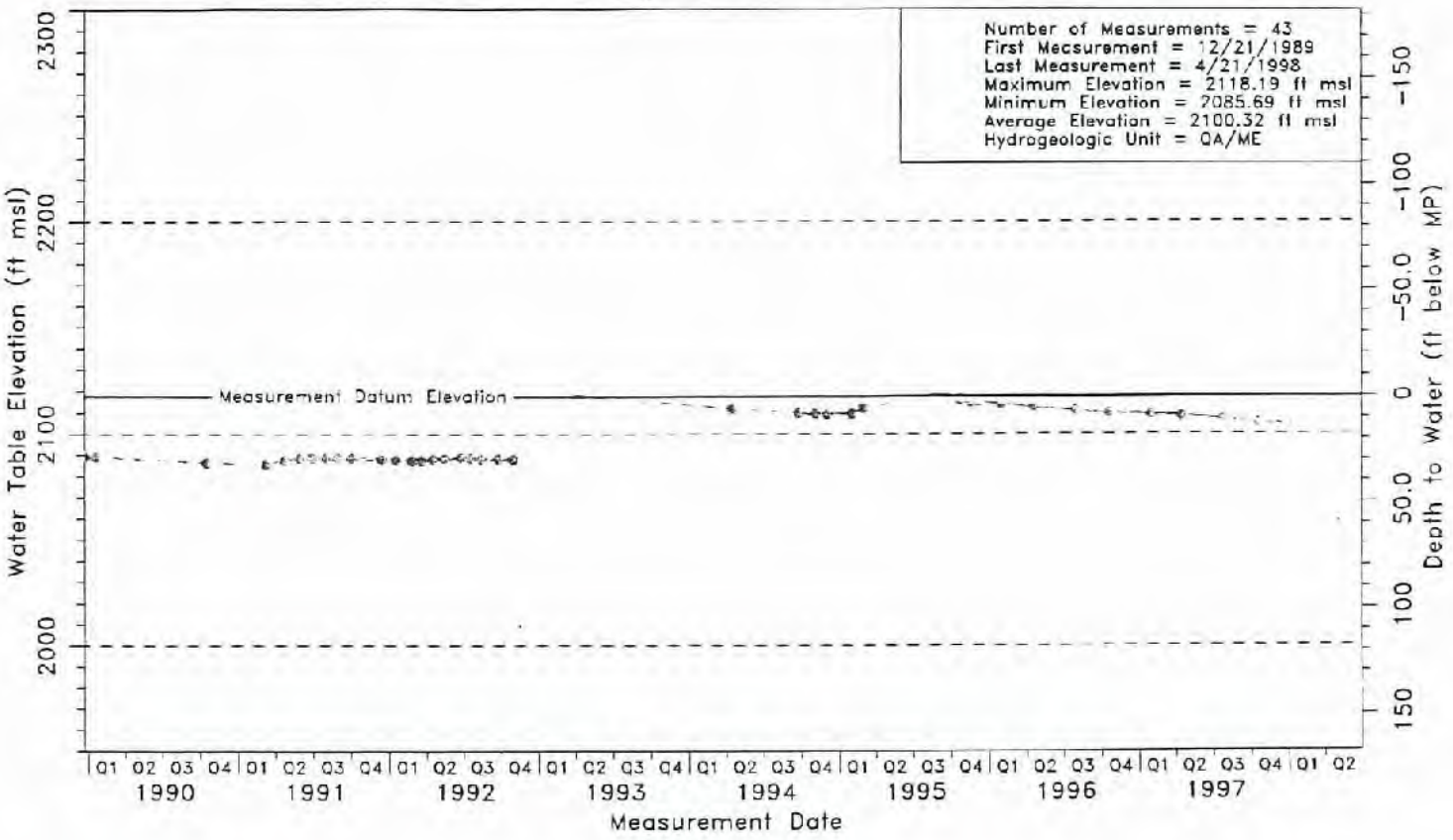
HYDROGRAPH MW-05

Lockheed Martin Corporation Beaumont Site No. 1



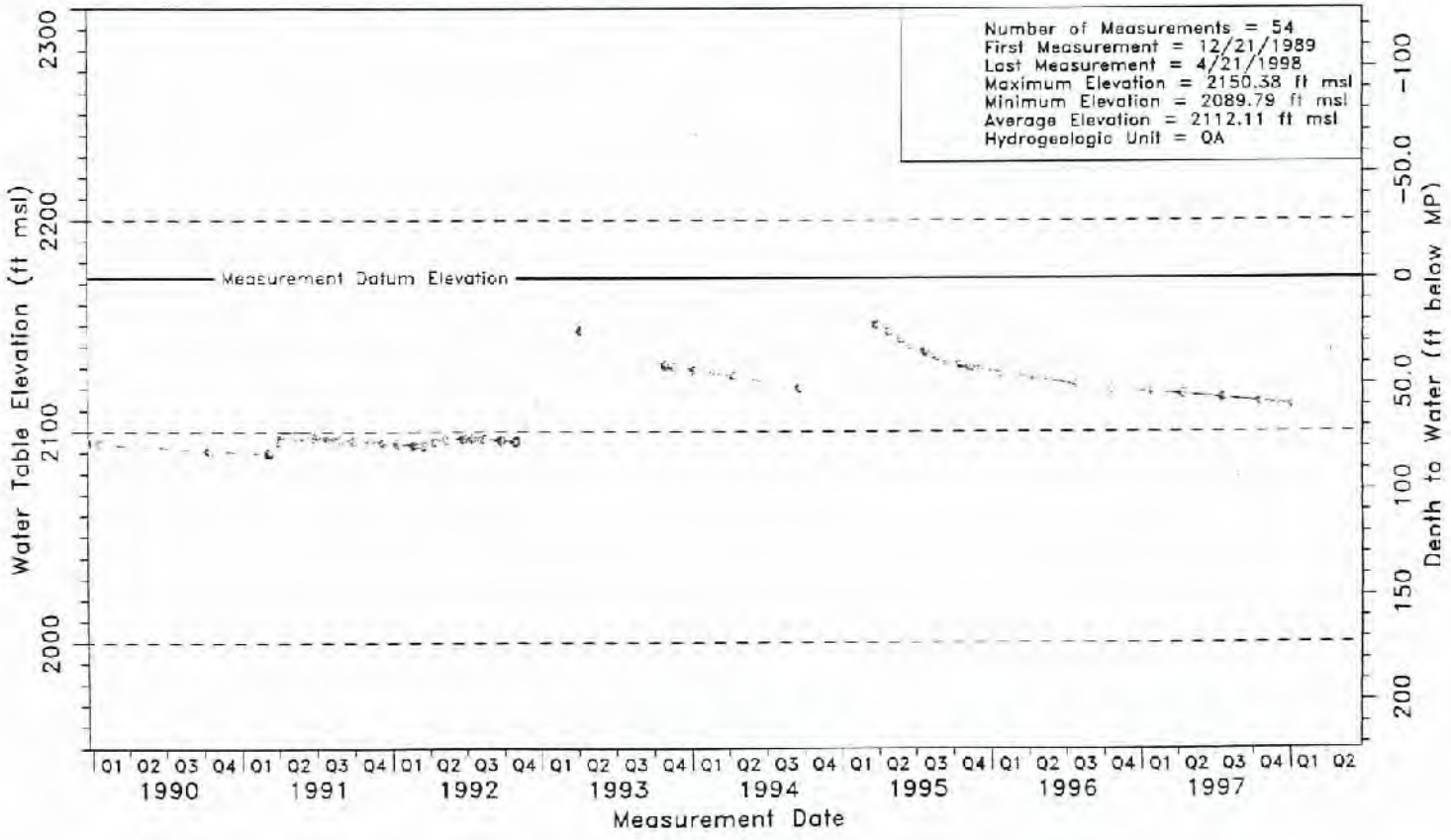
HYDROGRAPH MW-06

Lockheed Martin Corporation Beaumont Site No. 1



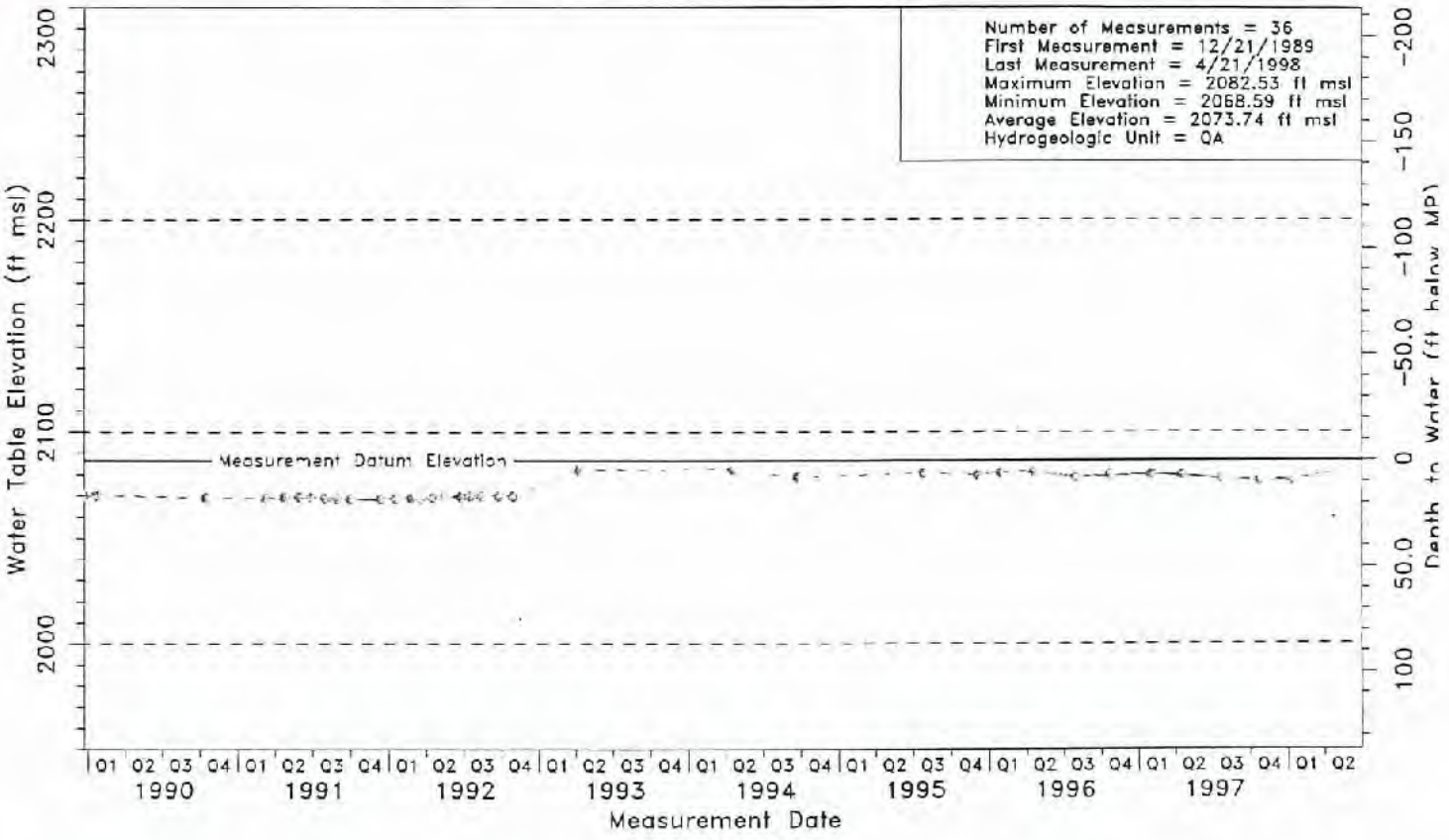
HYDROGRAPH MW-07

Lockheed Martin Corporation Beaumont Site No. 1



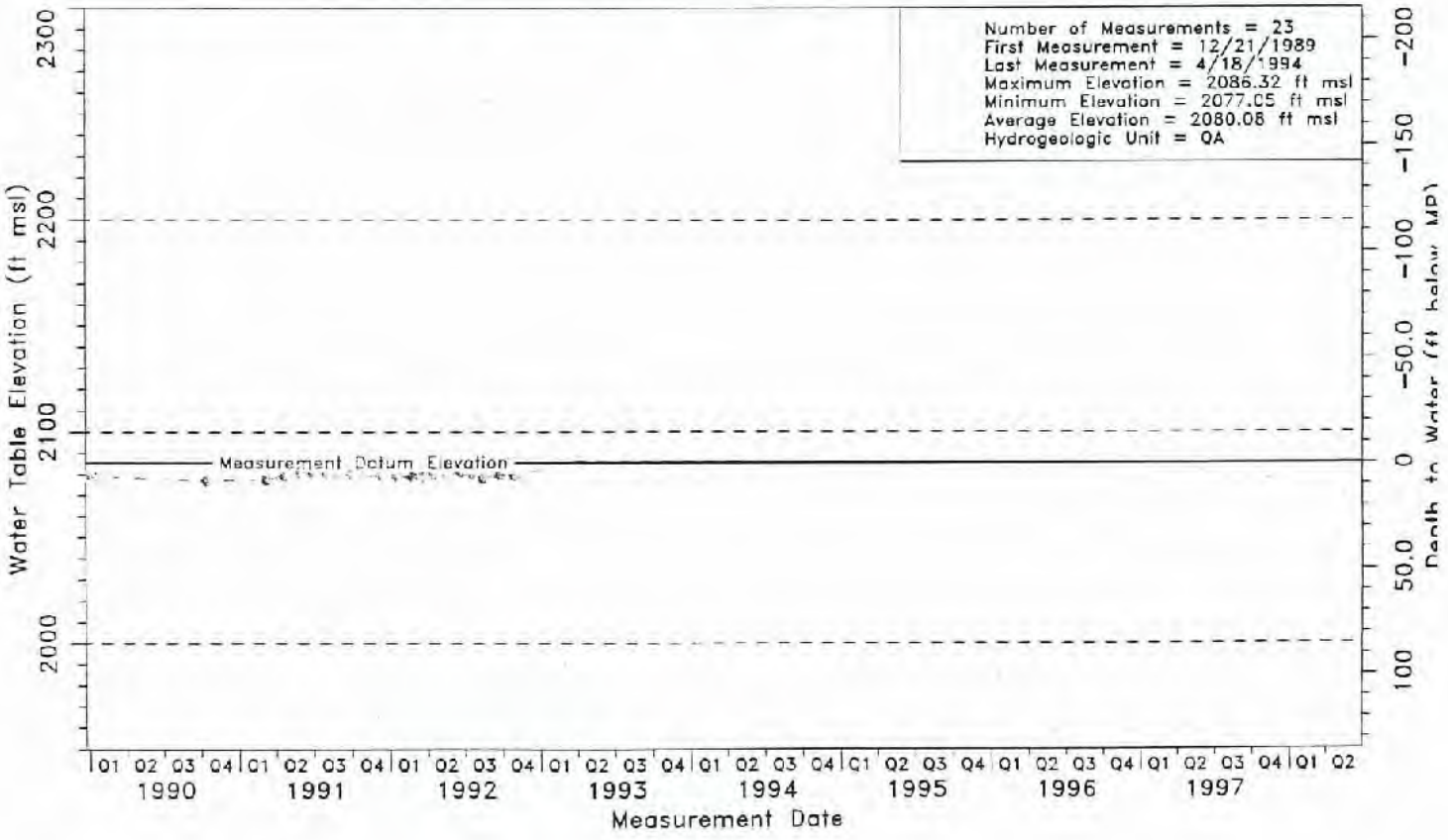
HYDROGRAPH MW-08

Lockheed Martin Corporation Beaumont Site No. 1



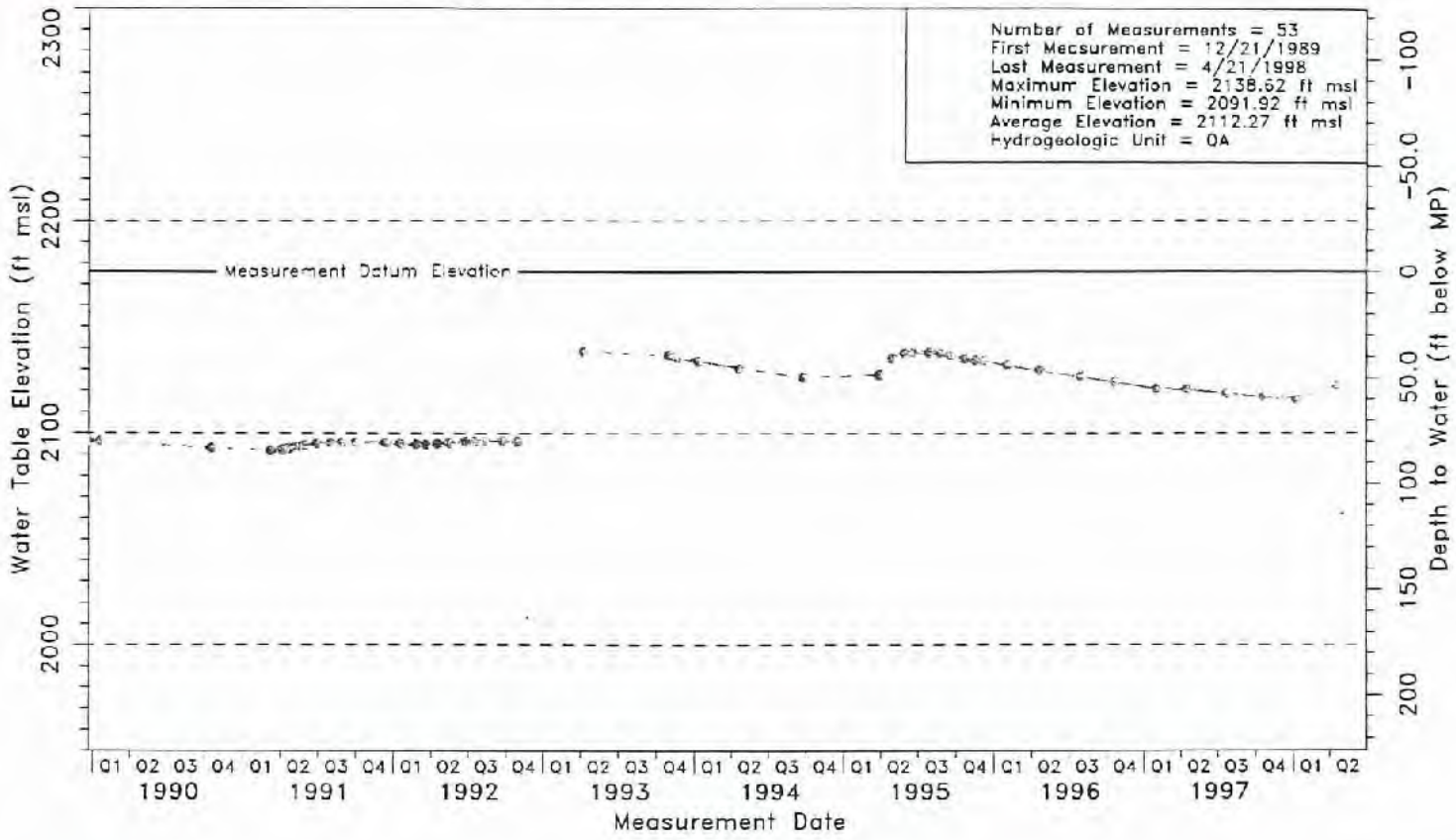
HYDROGRAPH MW-09

Lockheed Martin Corporation Beaumont Site No. 1



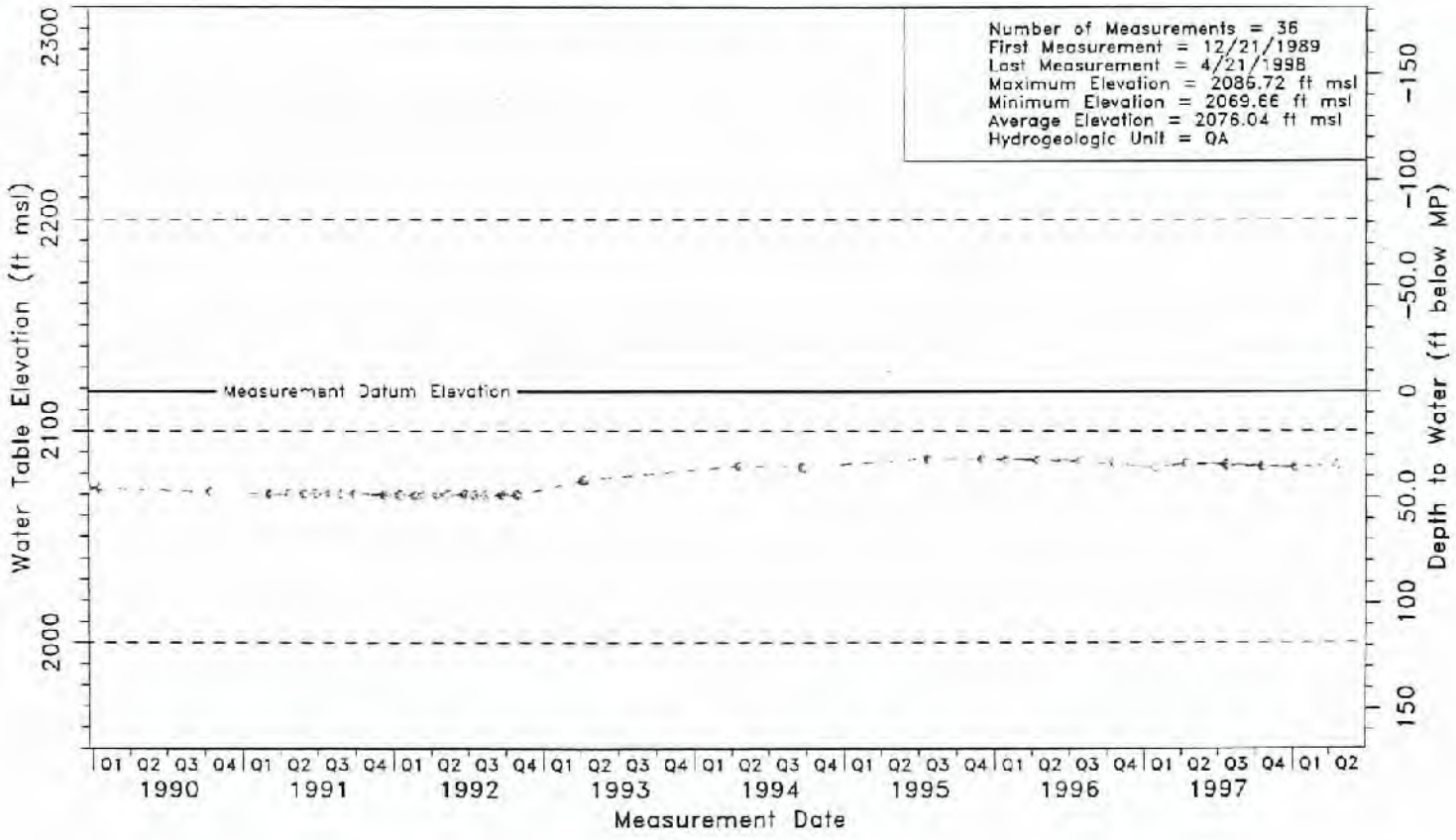
HYDROGRAPH MW-10

Lockheed Martin Corporation Beaumont Site No. 1



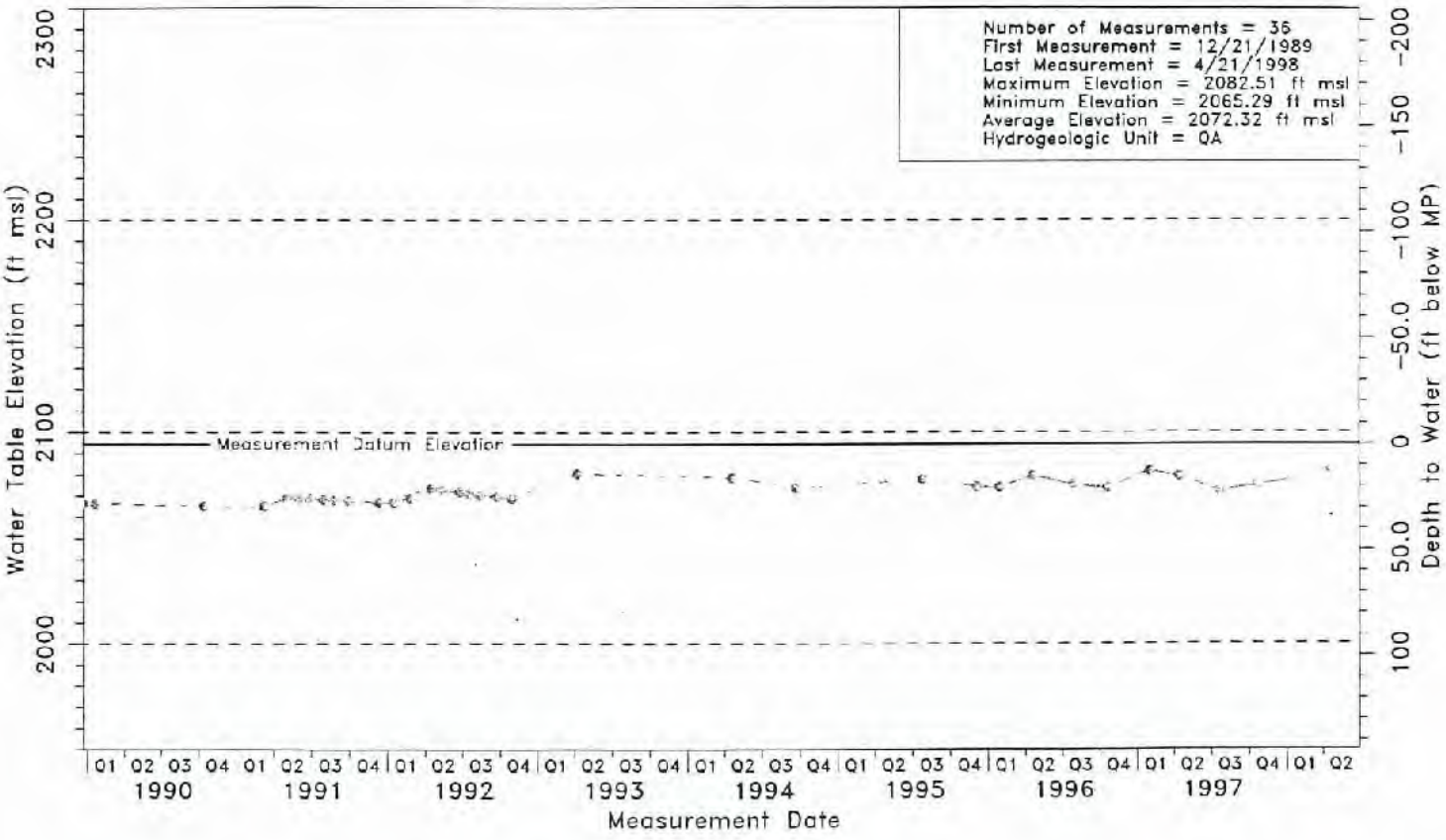
HYDROGRAPH MW-11

Lockheed Martin Corporation Beaumont Site No. 1



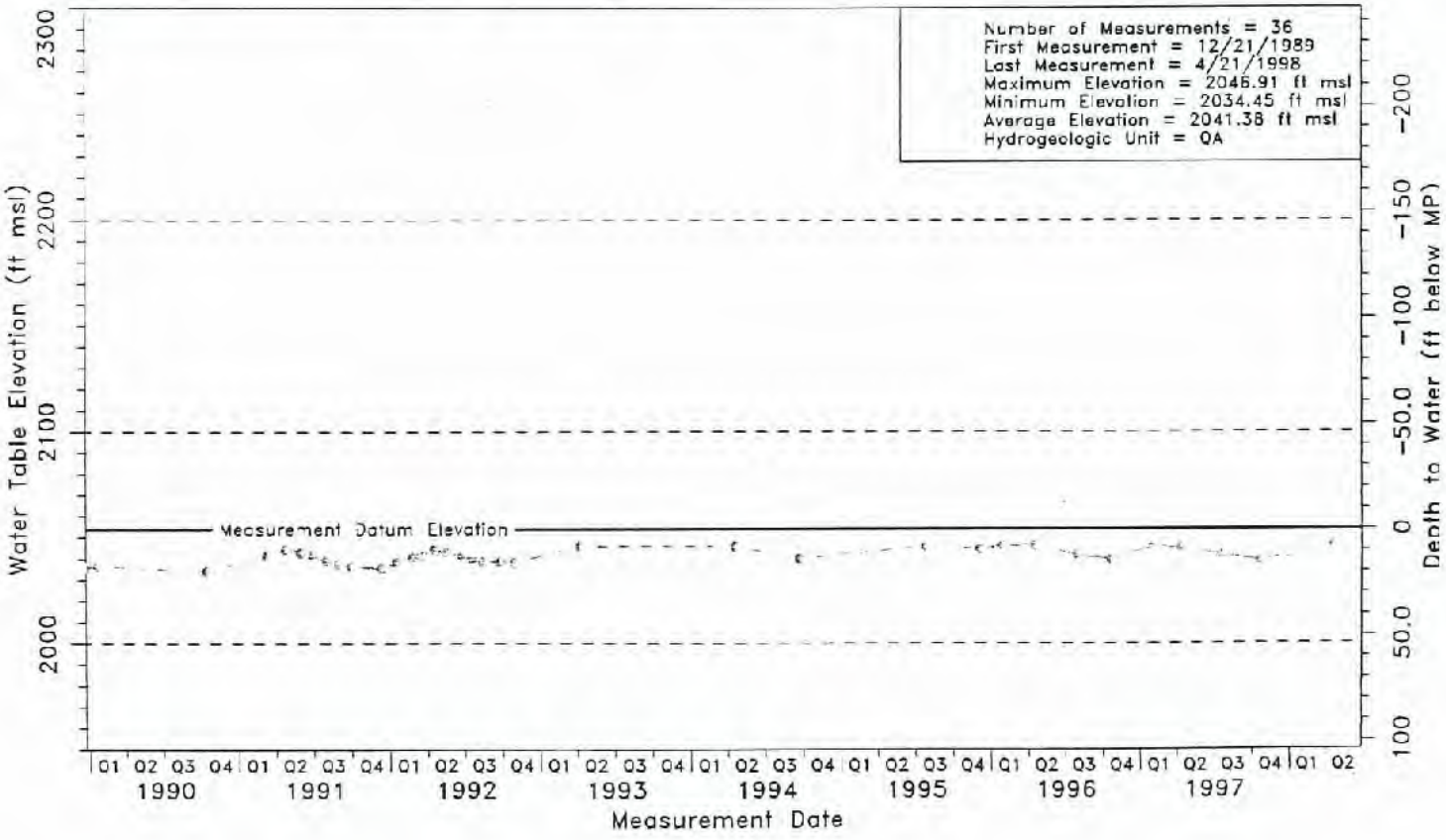
HYDROGRAPH MW-12

Lockheed Martin Corporation Beaumont Site No. 1



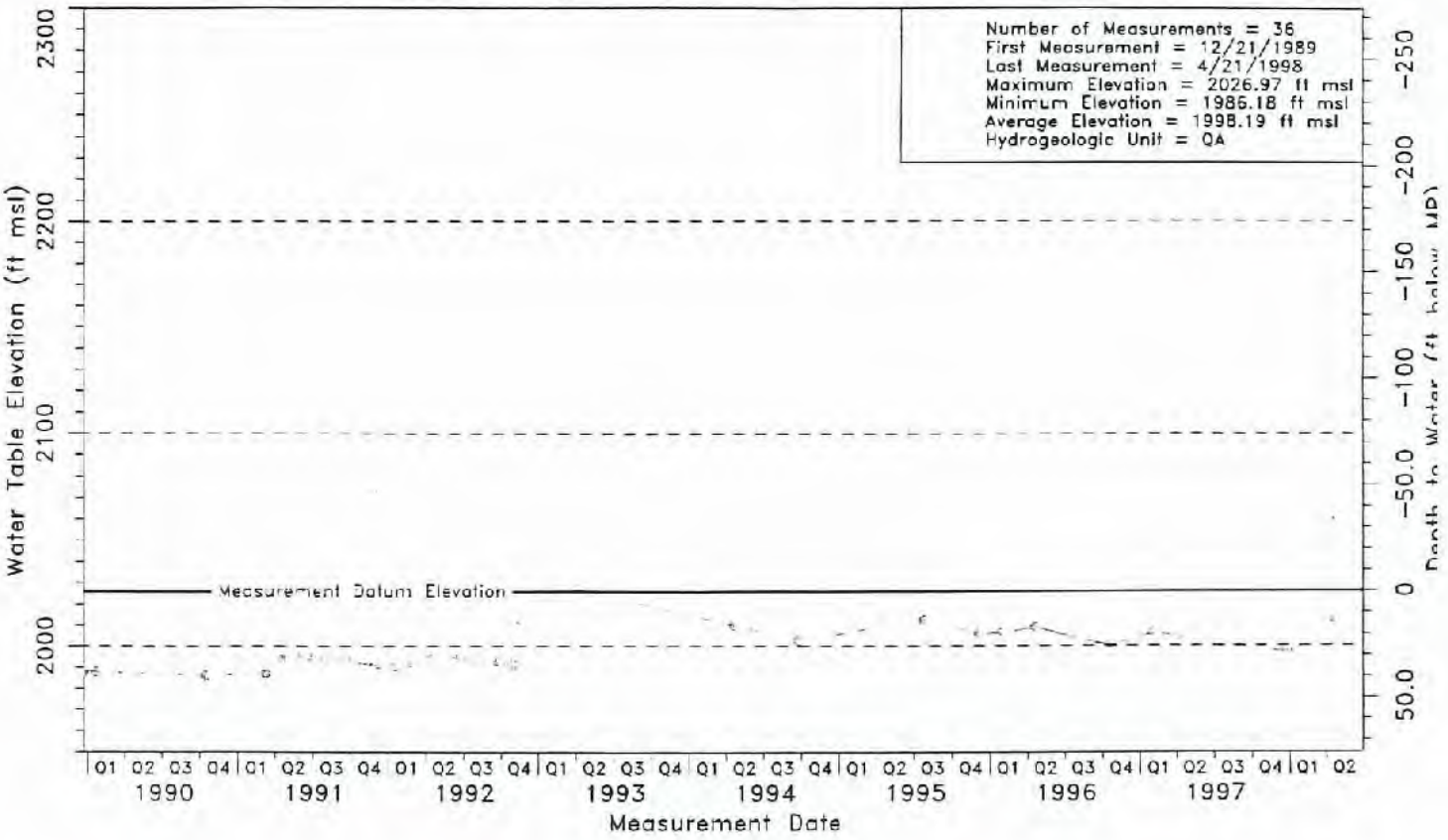
HYDROGRAPH MW-13

Lockheed Martin Corporation Beaumont Site No. 1



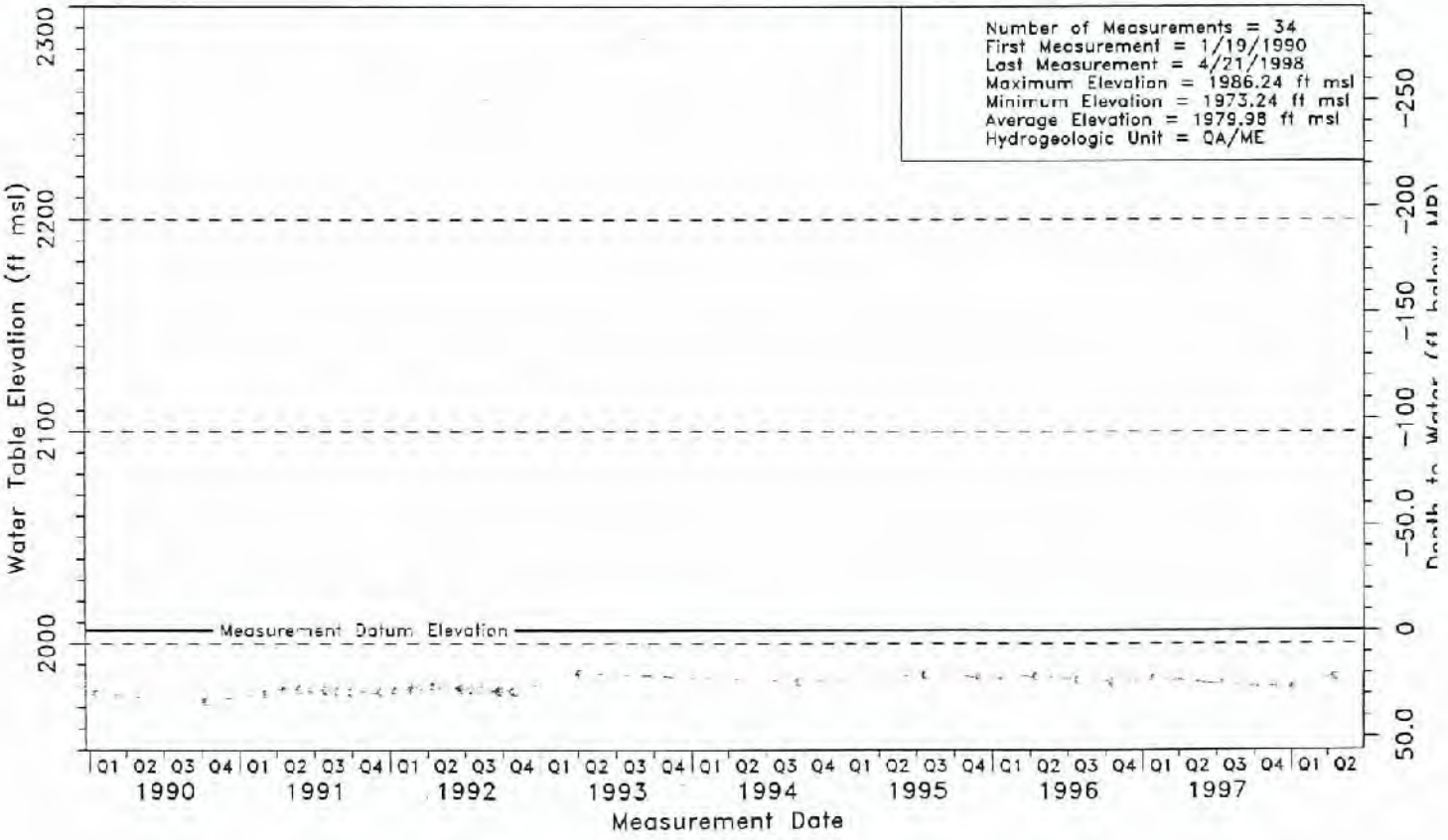
HYDROGRAPH MW-14

Lockheed Martin Corporation Beaumont Site No. 1



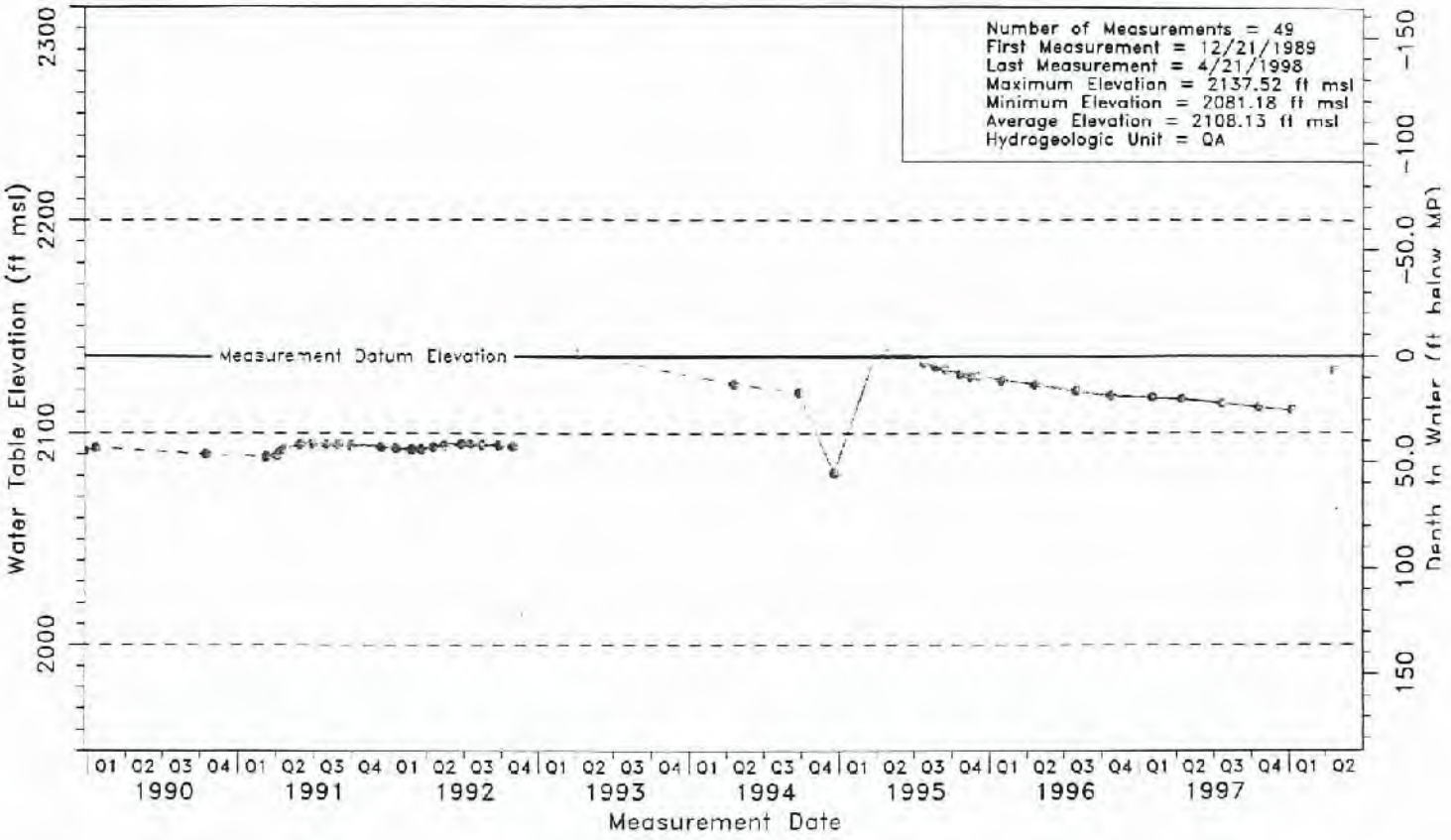
HYDROGRAPH MW-15

Lockheed Martin Corporation Beaumont Site No. 1



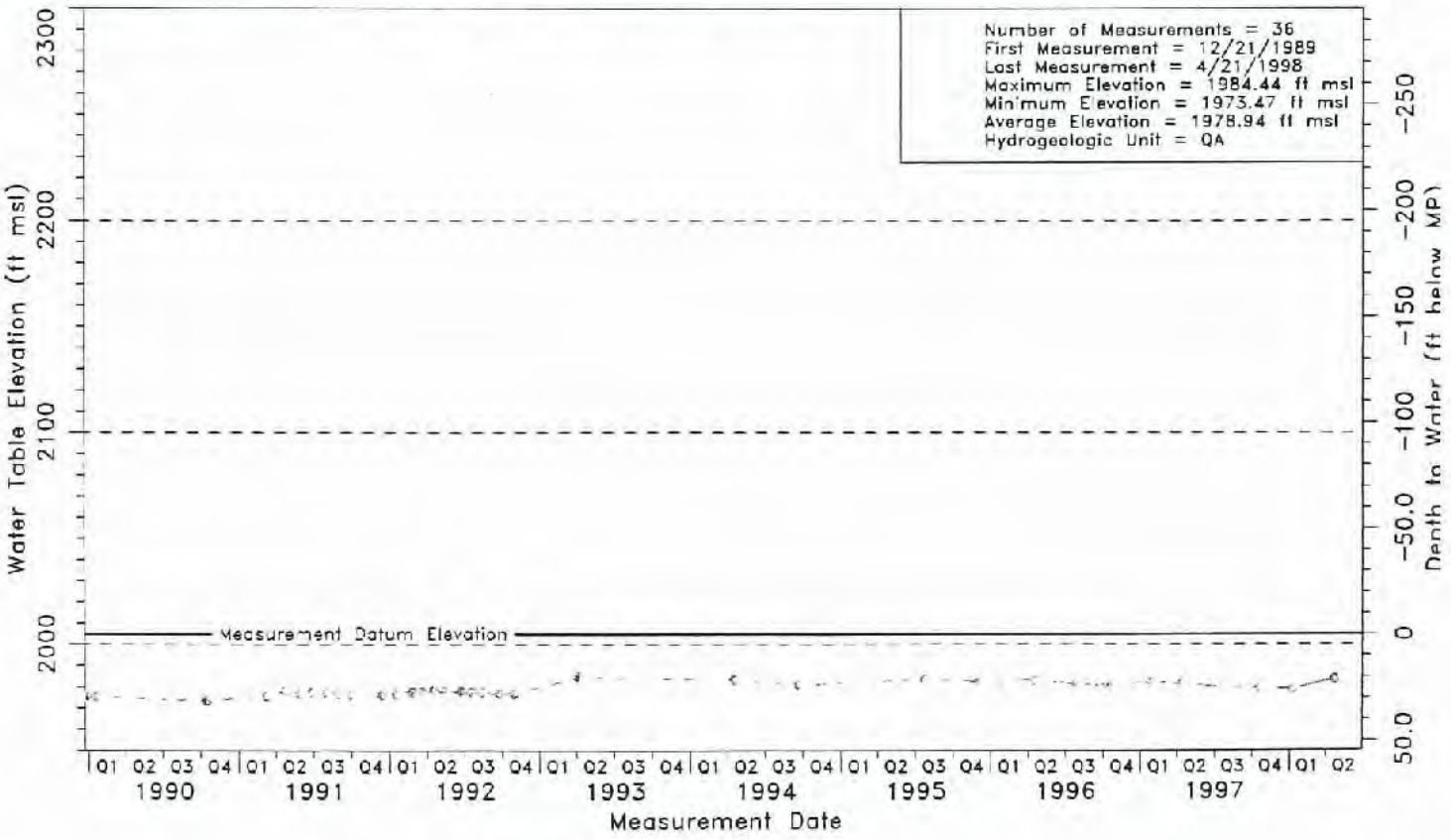
HYDROGRAPH MW-17

Lockheed Martin Corporation Beaumont Site No. 1



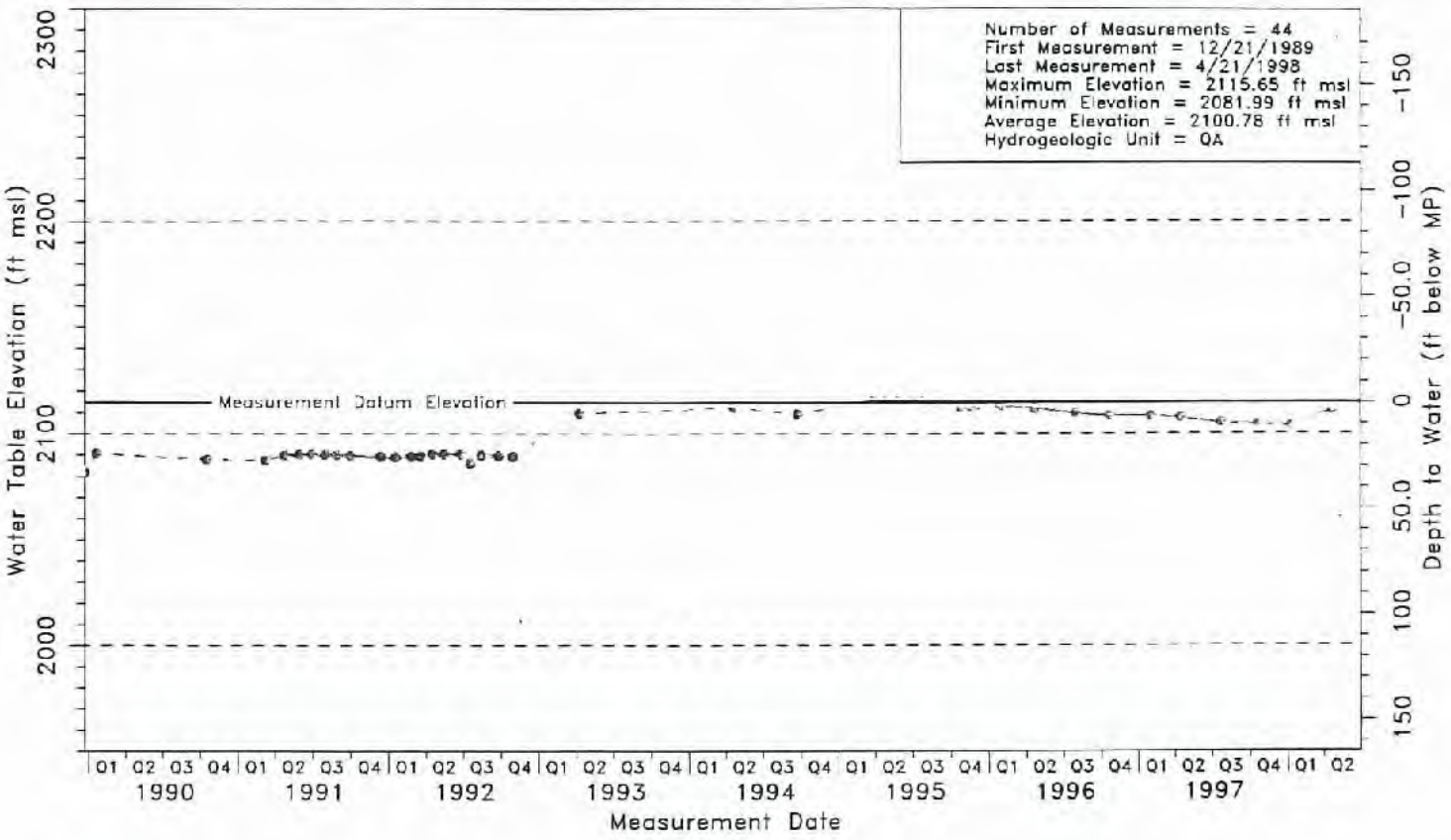
HYDROGRAPH MW-18

Lockheed Martin Corporation Beaumont Site No. 1



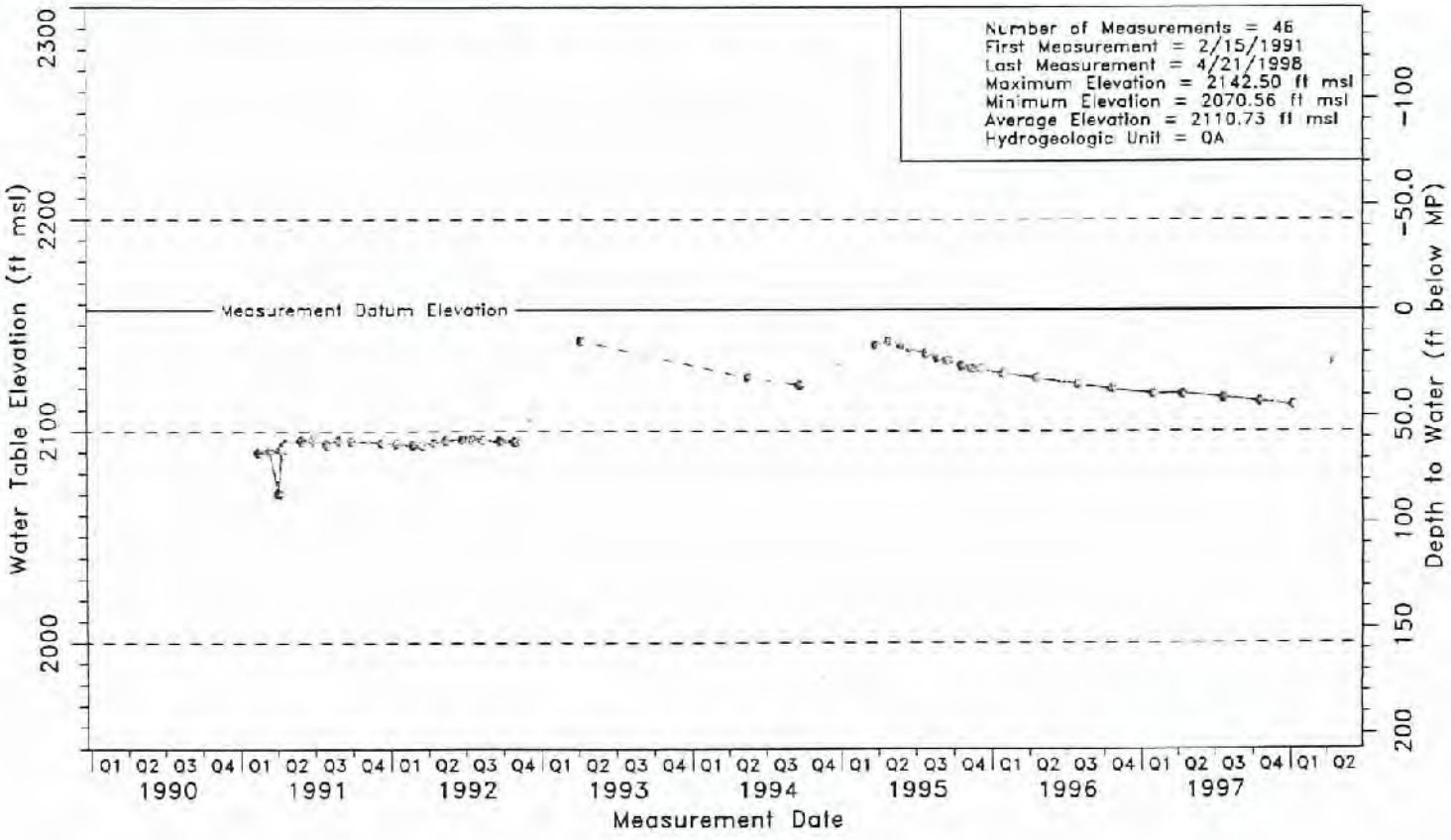
HYDROGRAPH MW-19

Lockheed Martin Corporation Beaumont Site No. 1



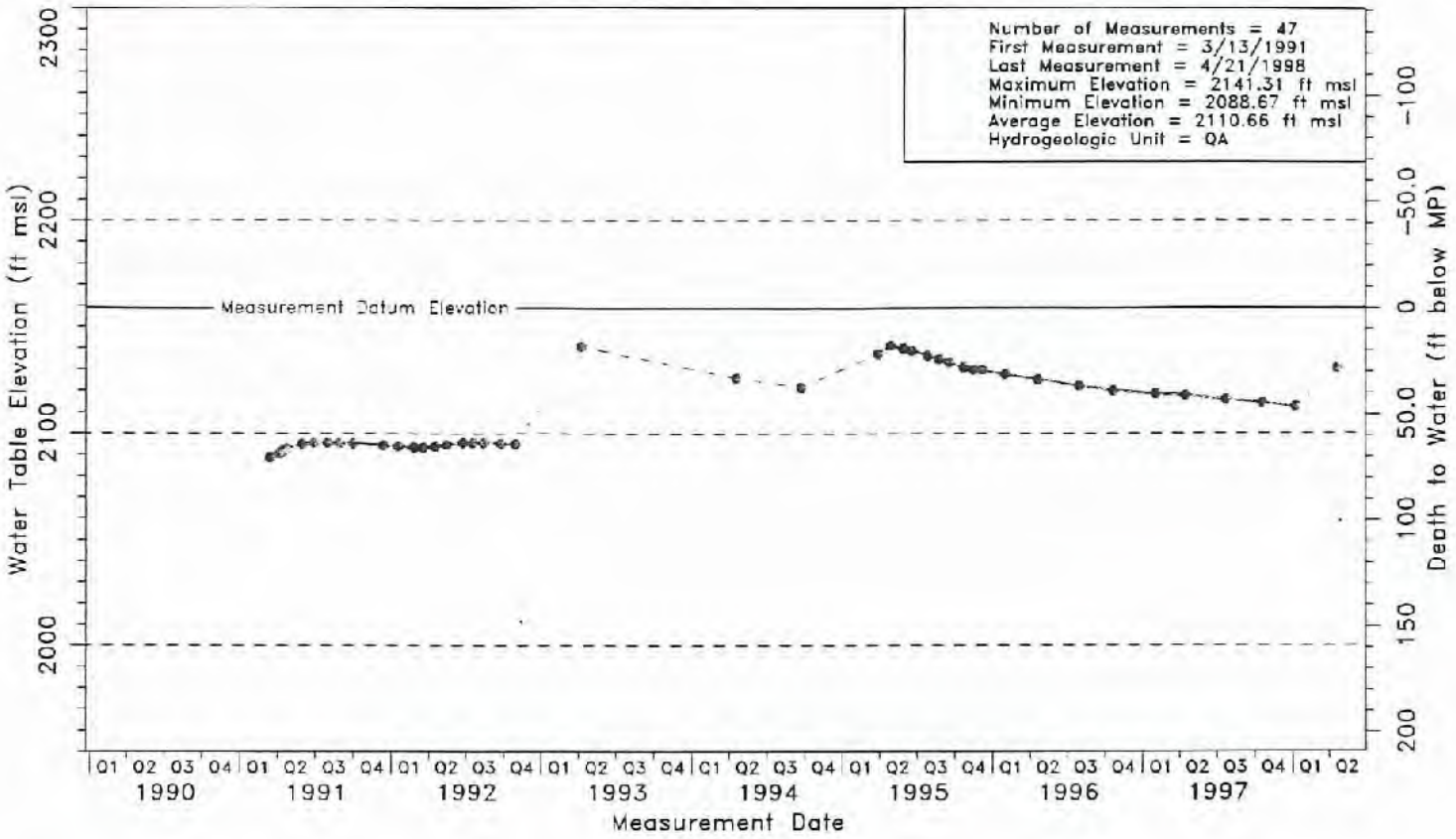
HYDROGRAPH MW-20

Lockheed Martin Corporation Beaumont Site No. 1



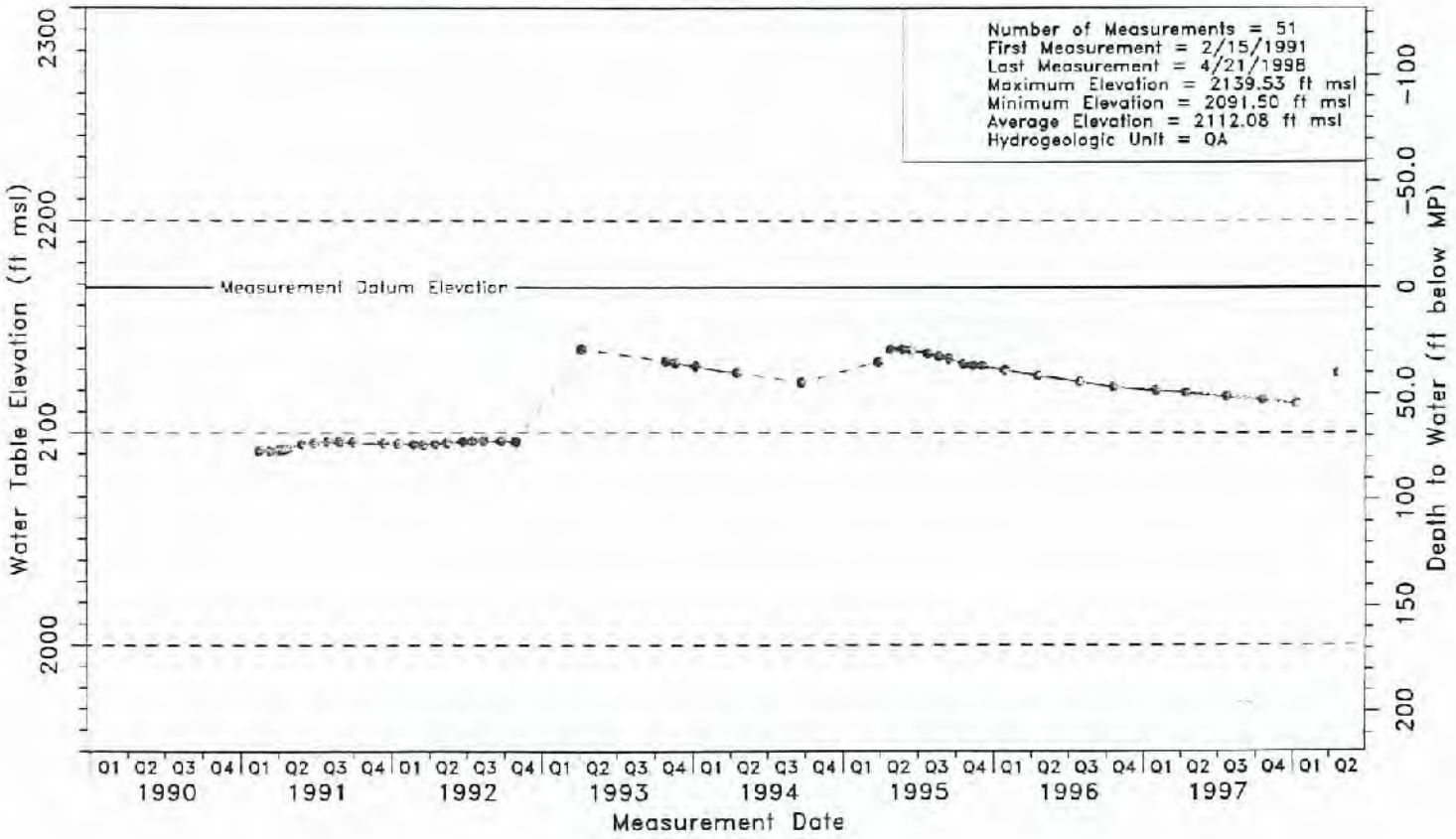
HYDROGRAPH MW-21

. Lockheed Martin Corporation Beaumont Site No. 1



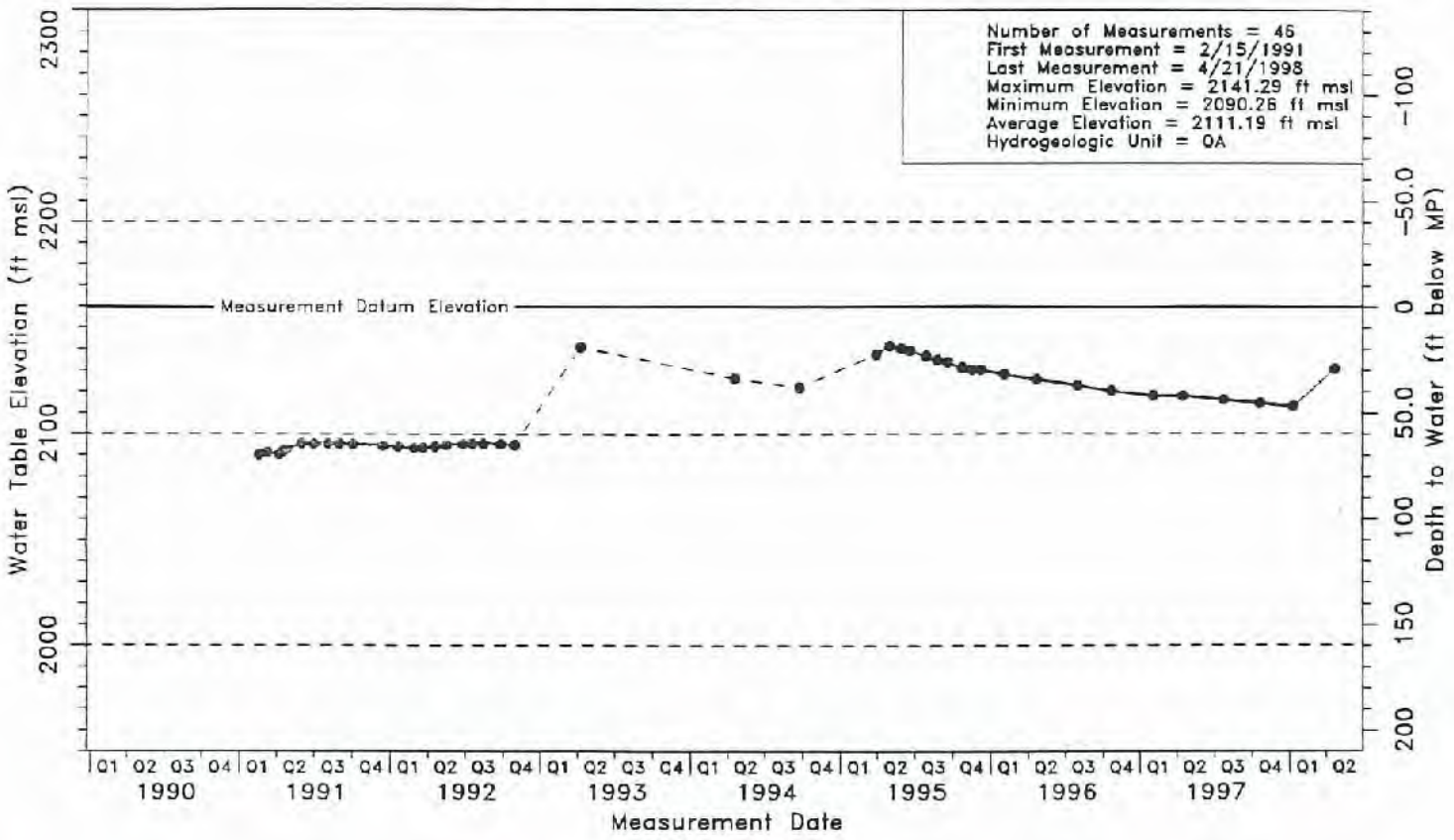
HYDROGRAPH MW-22

Lockheed Martin Corporation Beaumont Site No. 1



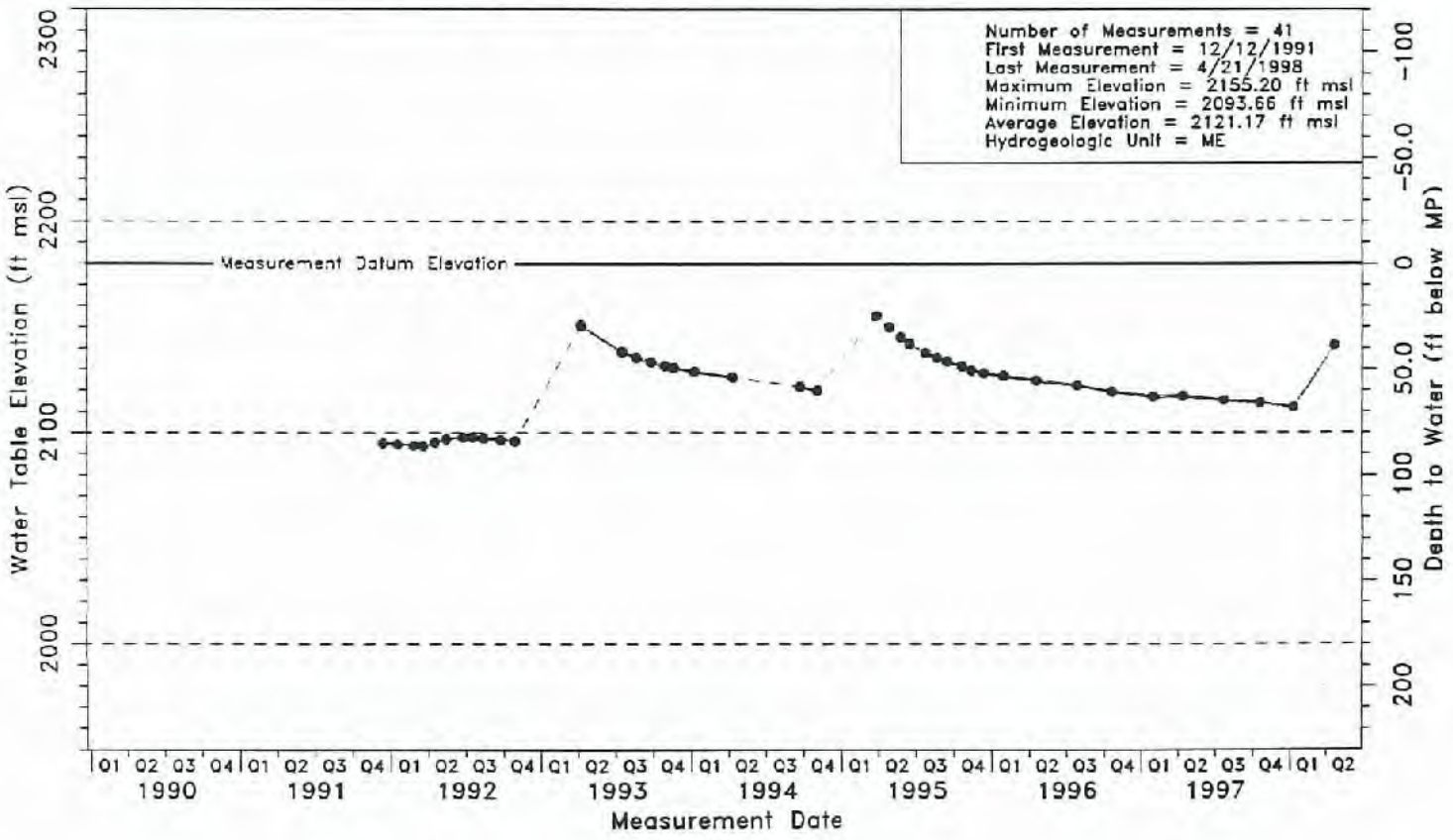
HYDROGRAPH MW-23

Lockheed Martin Corporation Beaumont Site No. 1



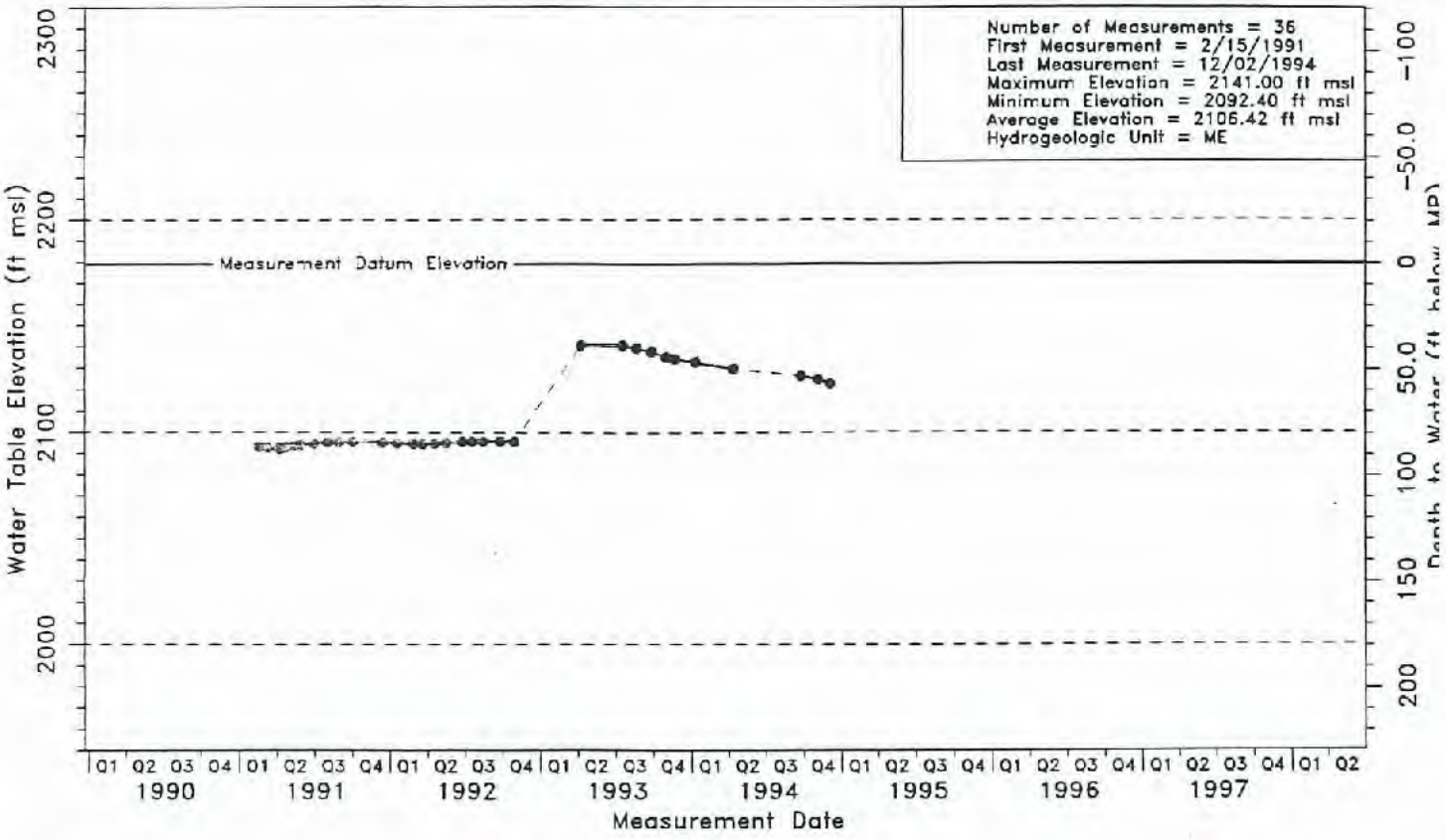
HYDROGRAPH MW-24

Lockheed Martin Corporation Beaumont Site No. 1



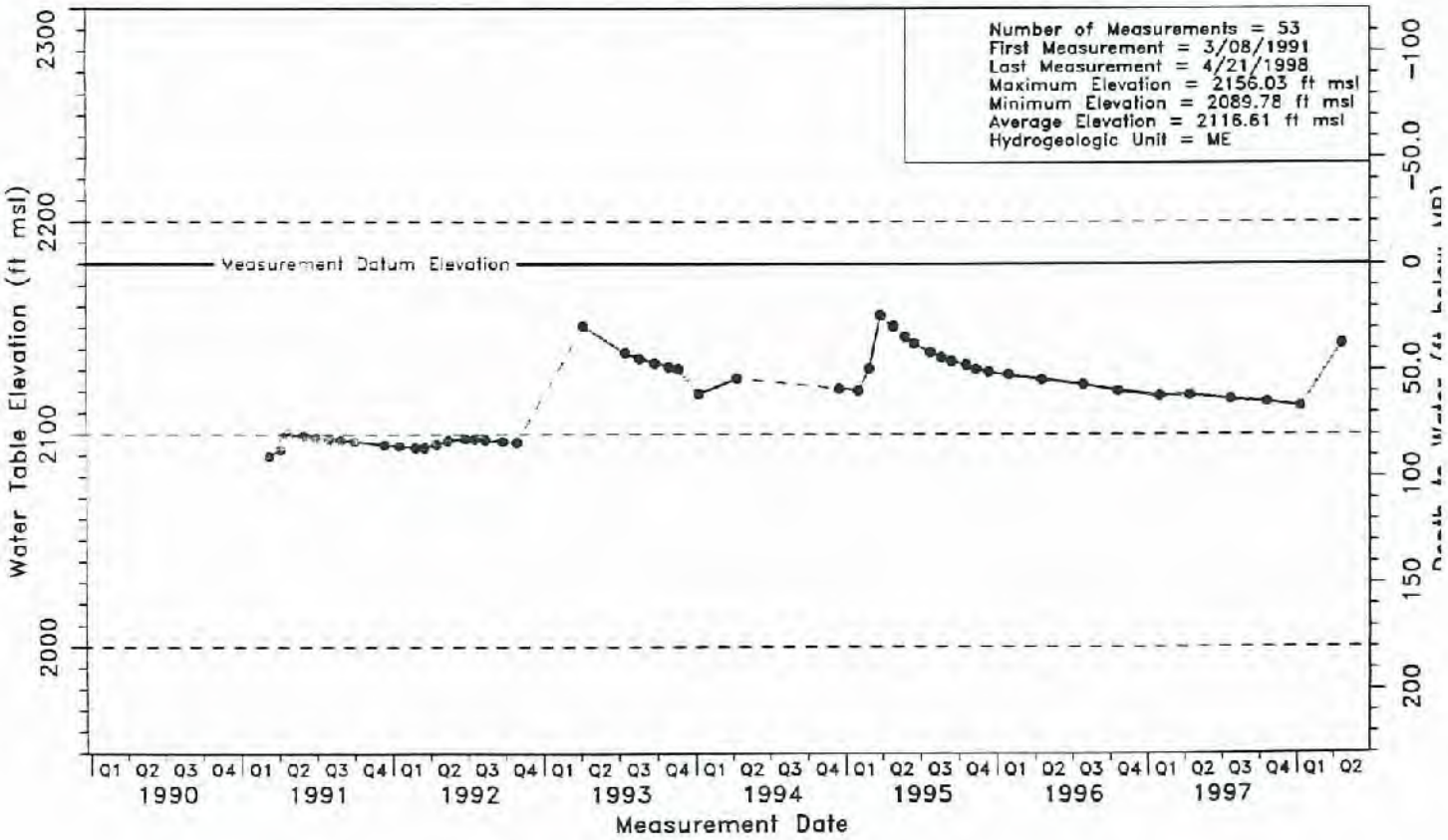
HYDROGRAPH MW-25

Lockheed Martin Corporation Beaumont Site No. 1



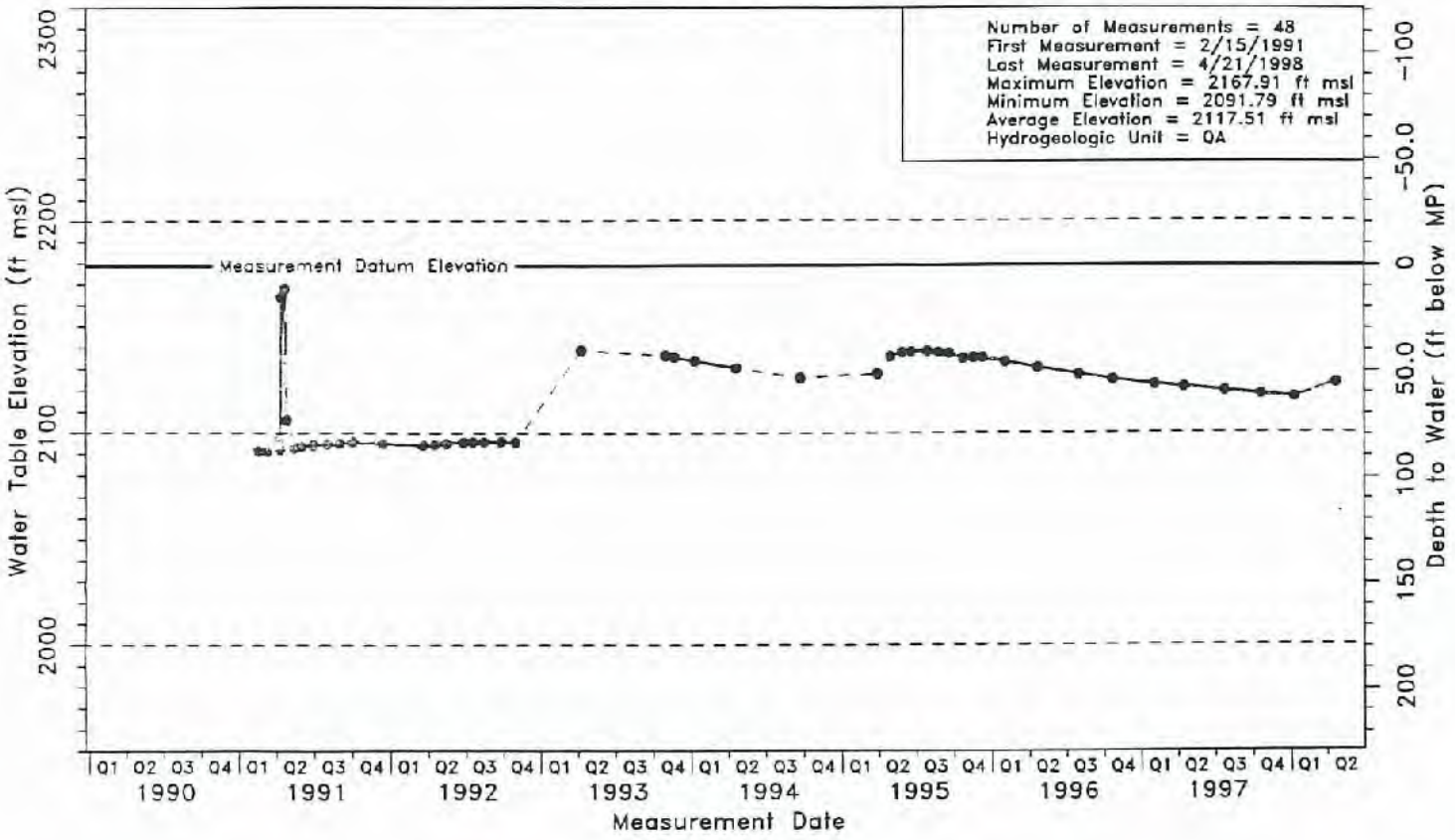
HYDROGRAPH MW-26

Lockheed Martin Corporation Beaumont Site No. 1



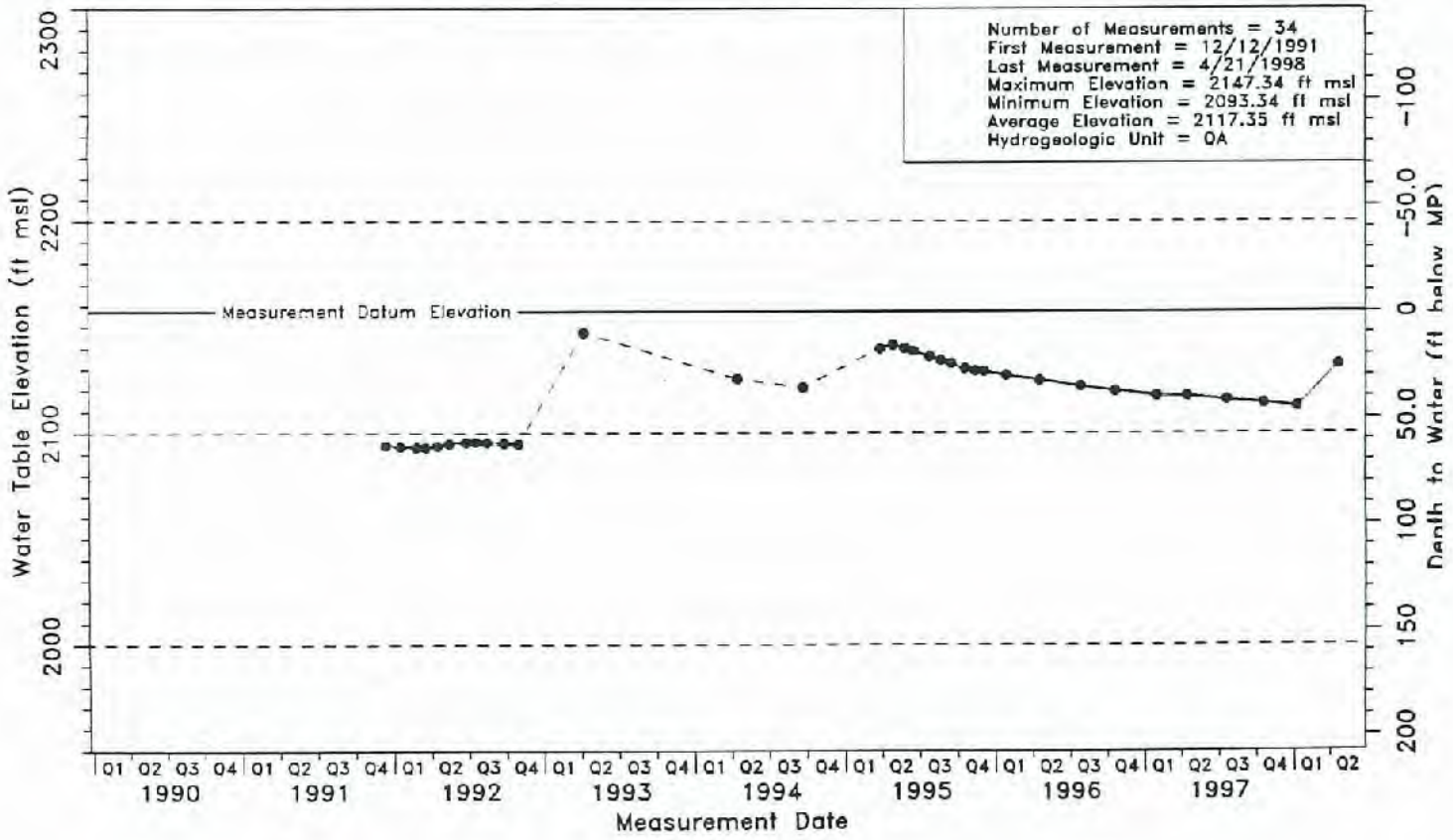
HYDROGRAPH MW-27

Lockheed Martin Corporation Beaumont Site No. 1



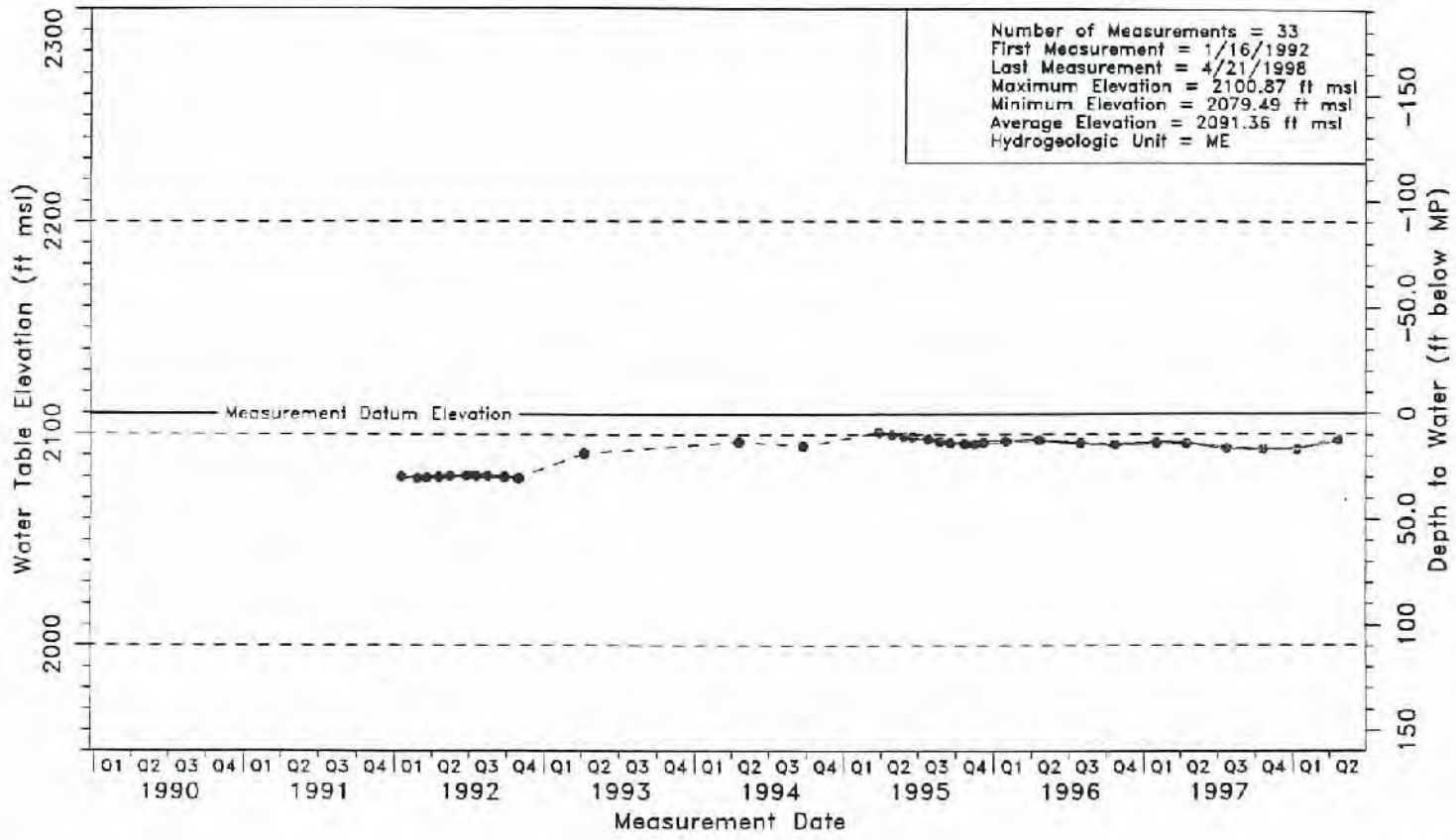
HYDROGRAPH MW-28

Lockheed Martin Corporation Beaumont Site No. 1



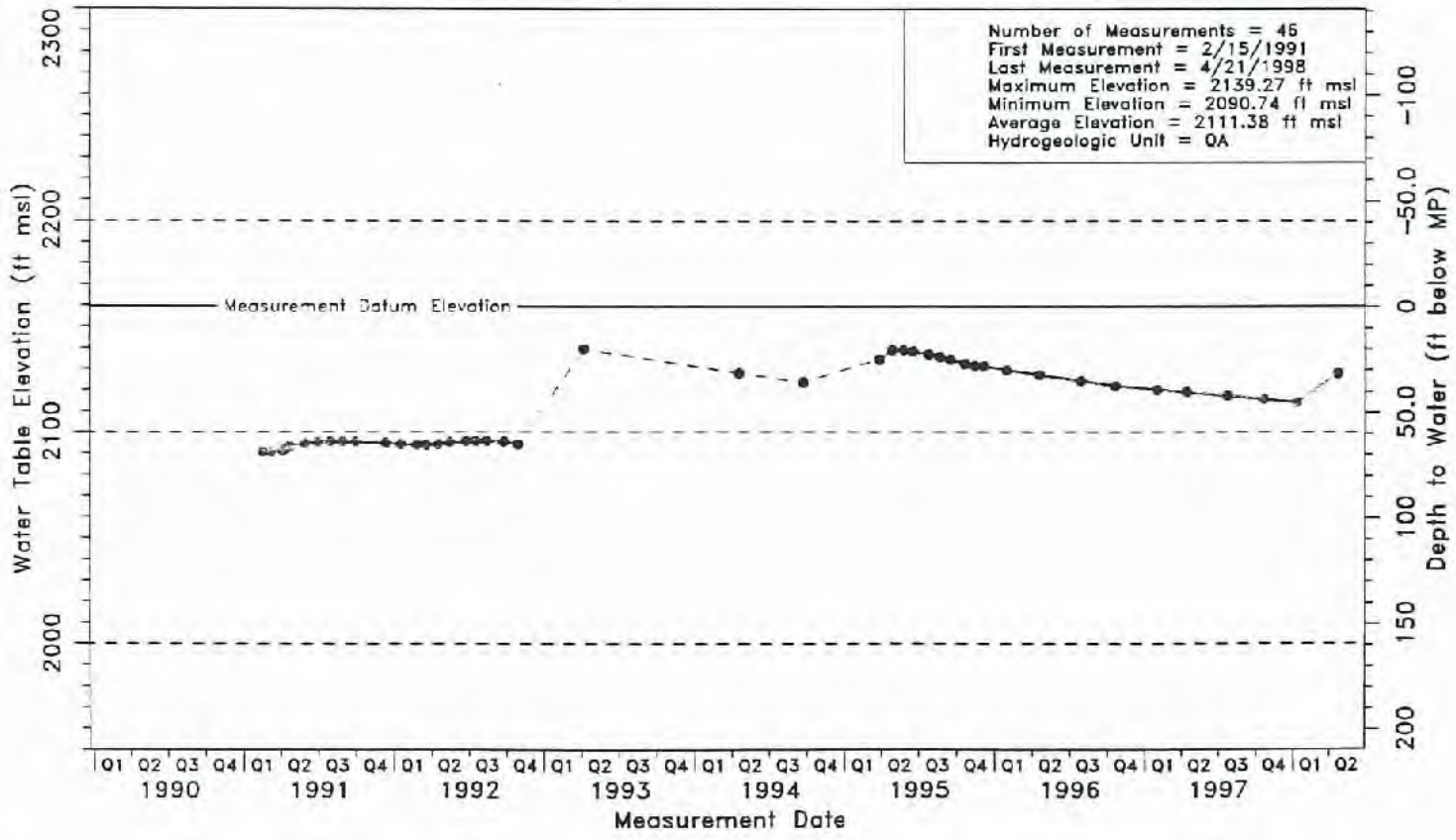
HYDROGRAPH MW-29

Lockheed Martin Corporation Beaumont Site No. 1



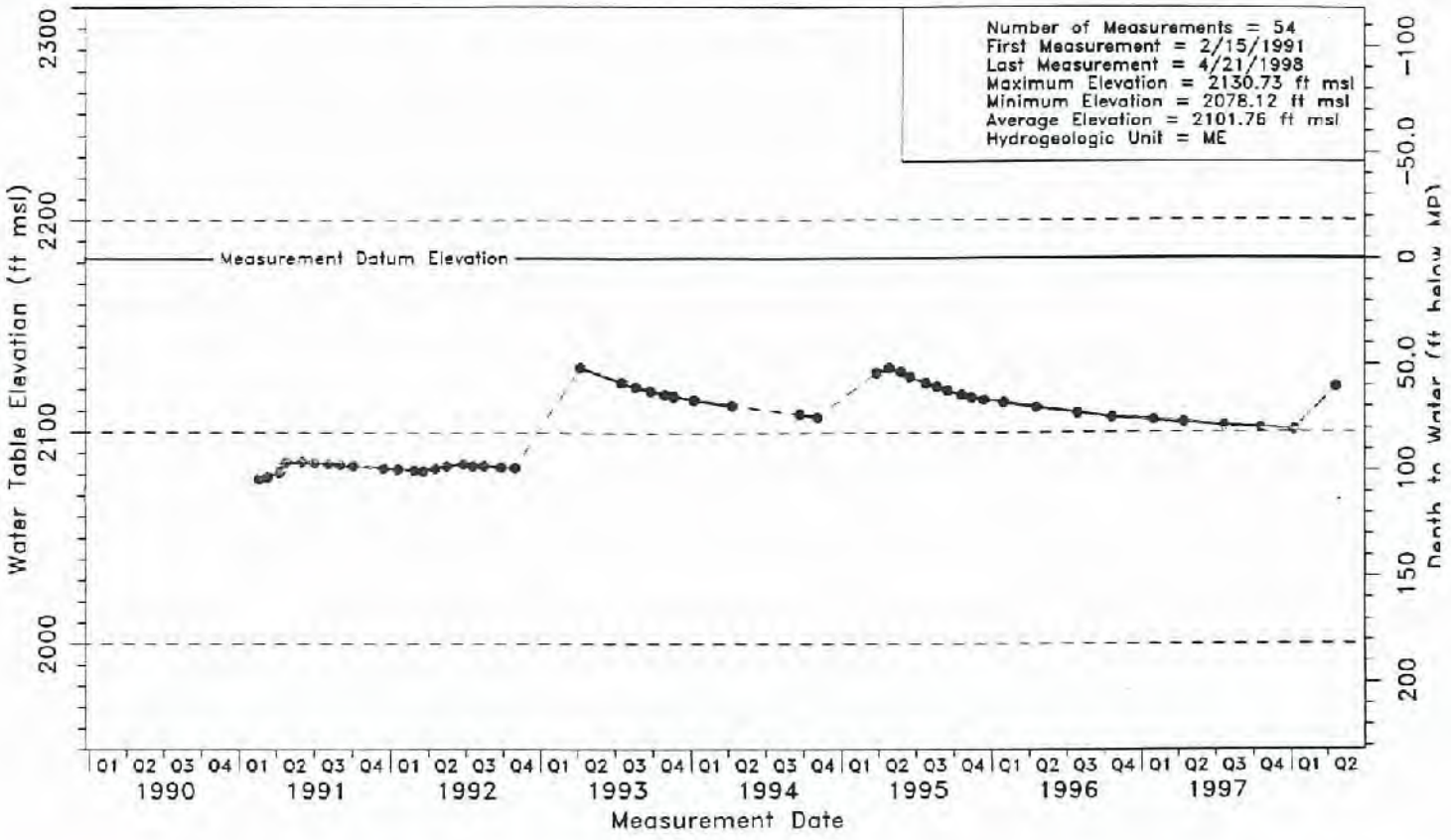
HYDROGRAPH MW-30

Lockheed Martin Corporation Beaumont Site No. 1



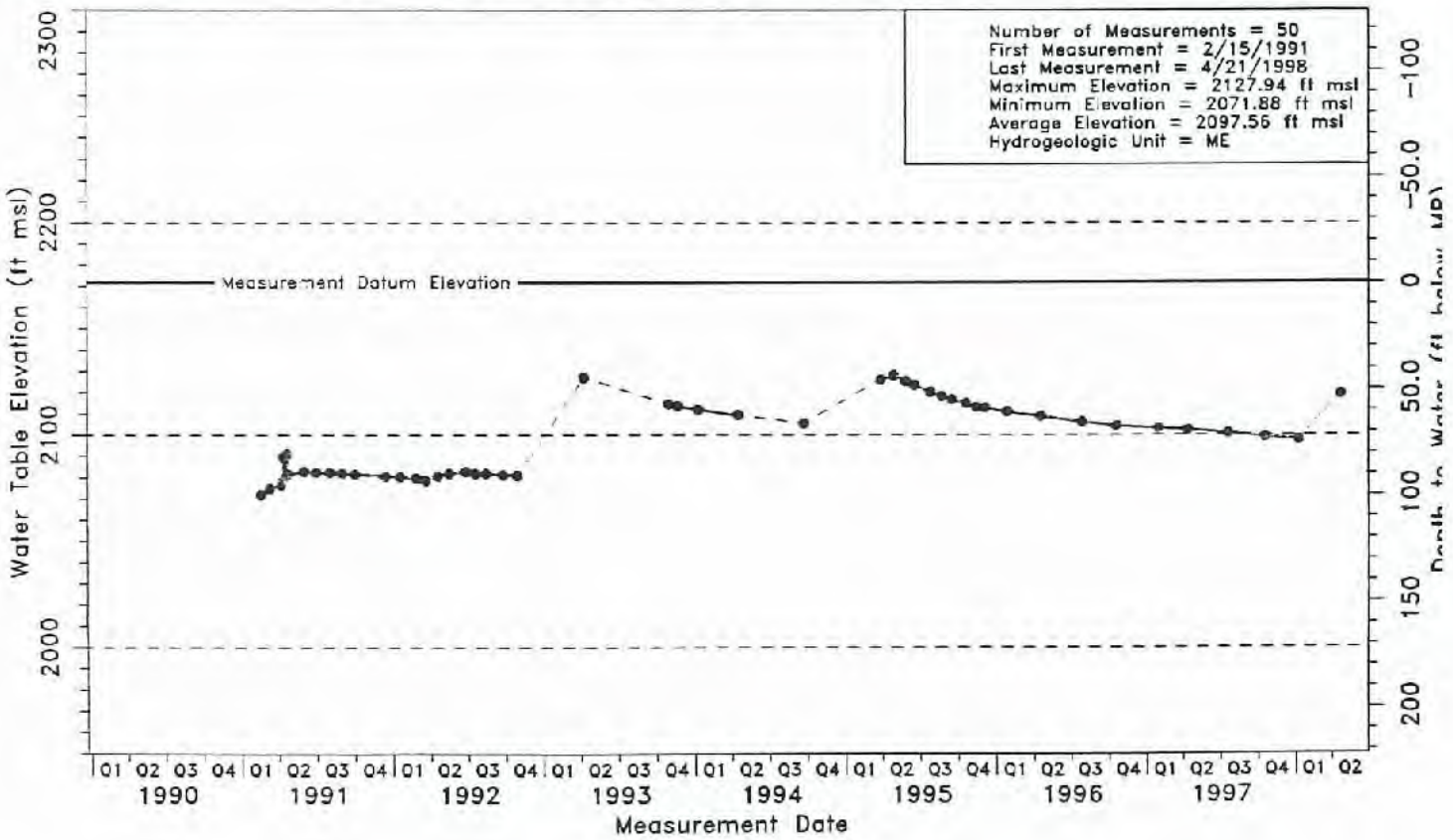
HYDROGRAPH MW-31

Lockheed Martin Corporation Beaumont Site No. 1



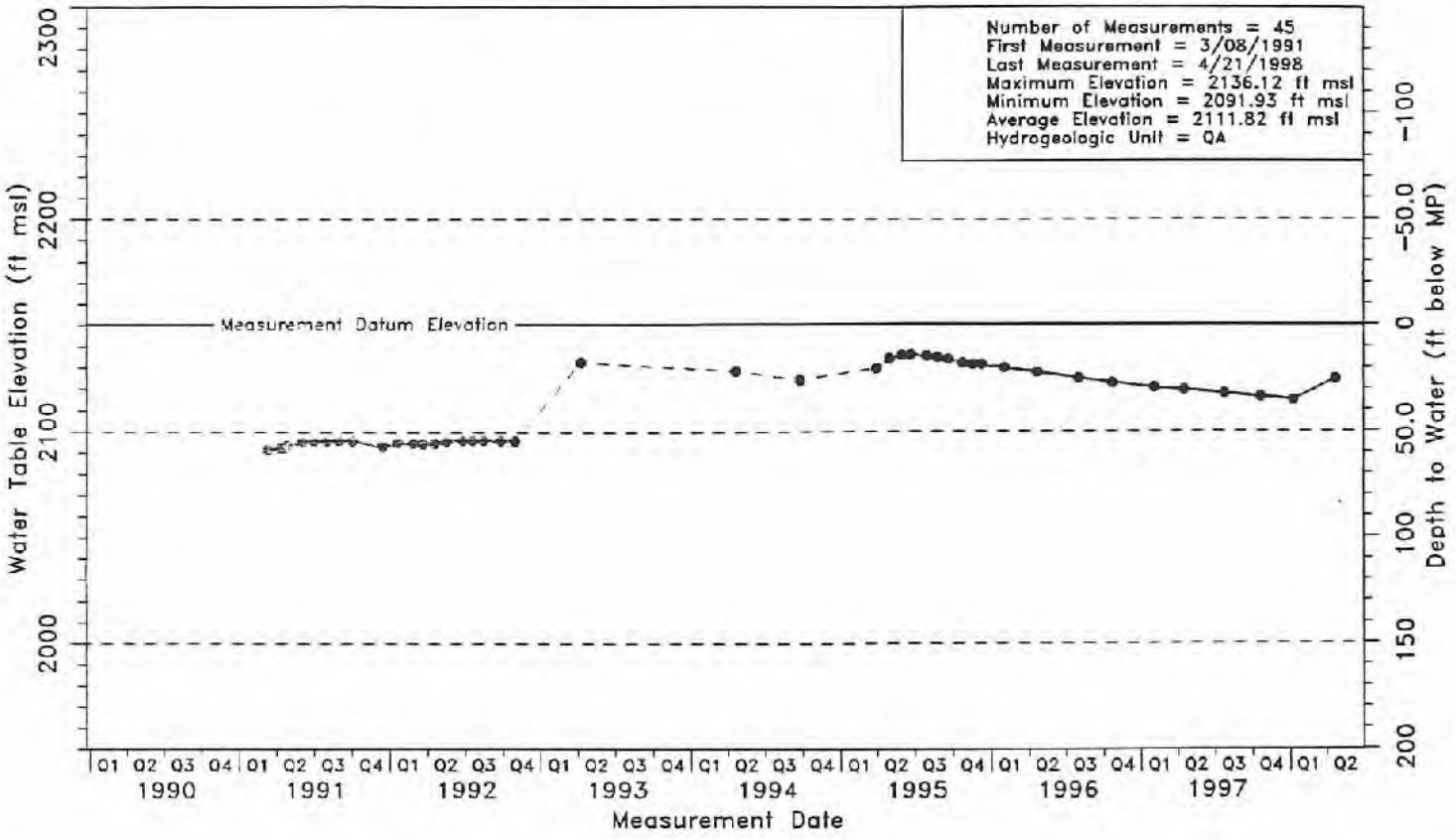
HYDROGRAPH MW-32

Lockheed Martin Corporation Beaumont Site No. 1



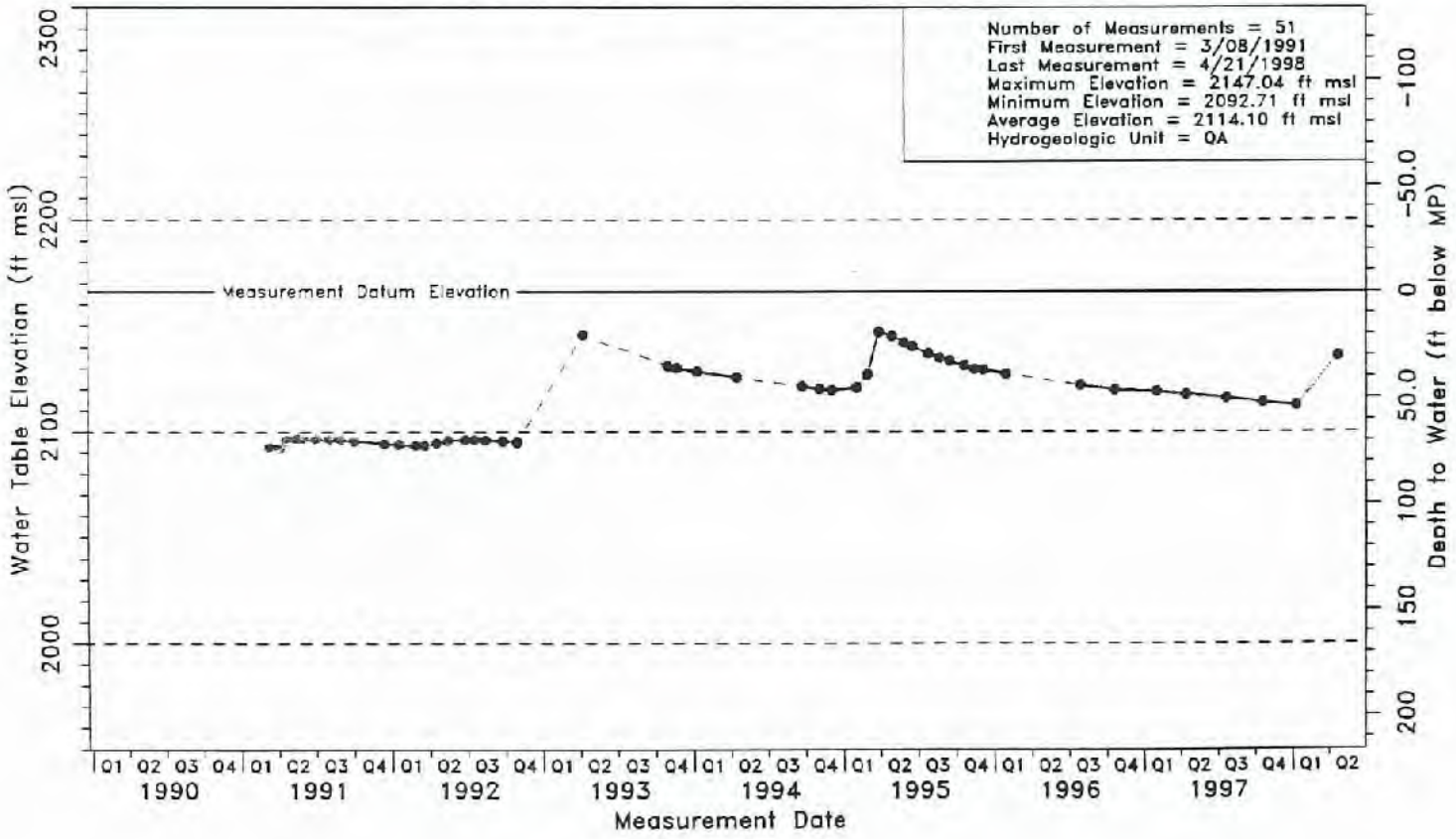
HYDROGRAPH MW-34

Lockheed Martin Corporation Beaumont Site No. 1



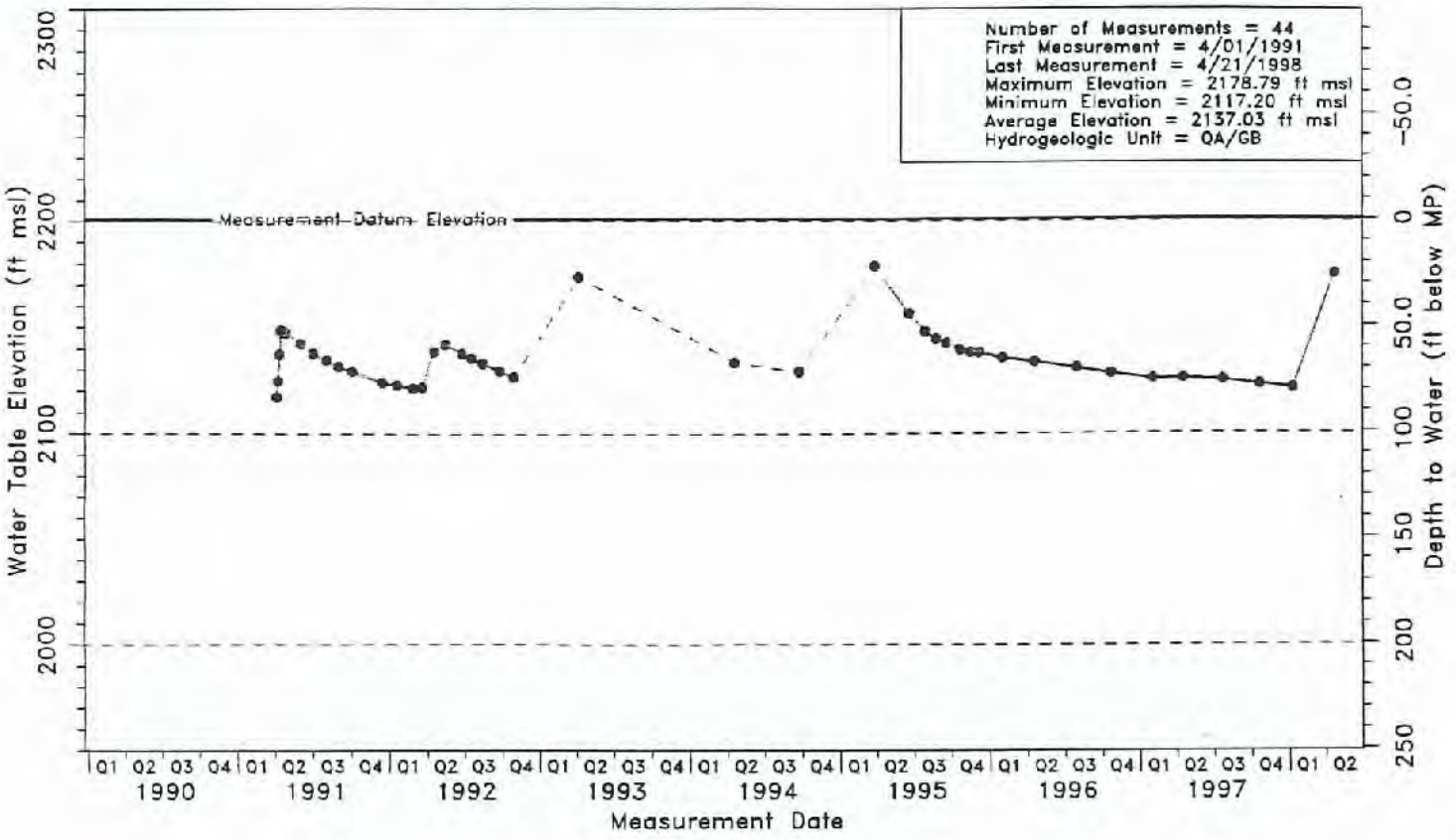
HYDROGRAPH MW-35

Lockheed Martin Corporation Beaumont Site No. 1



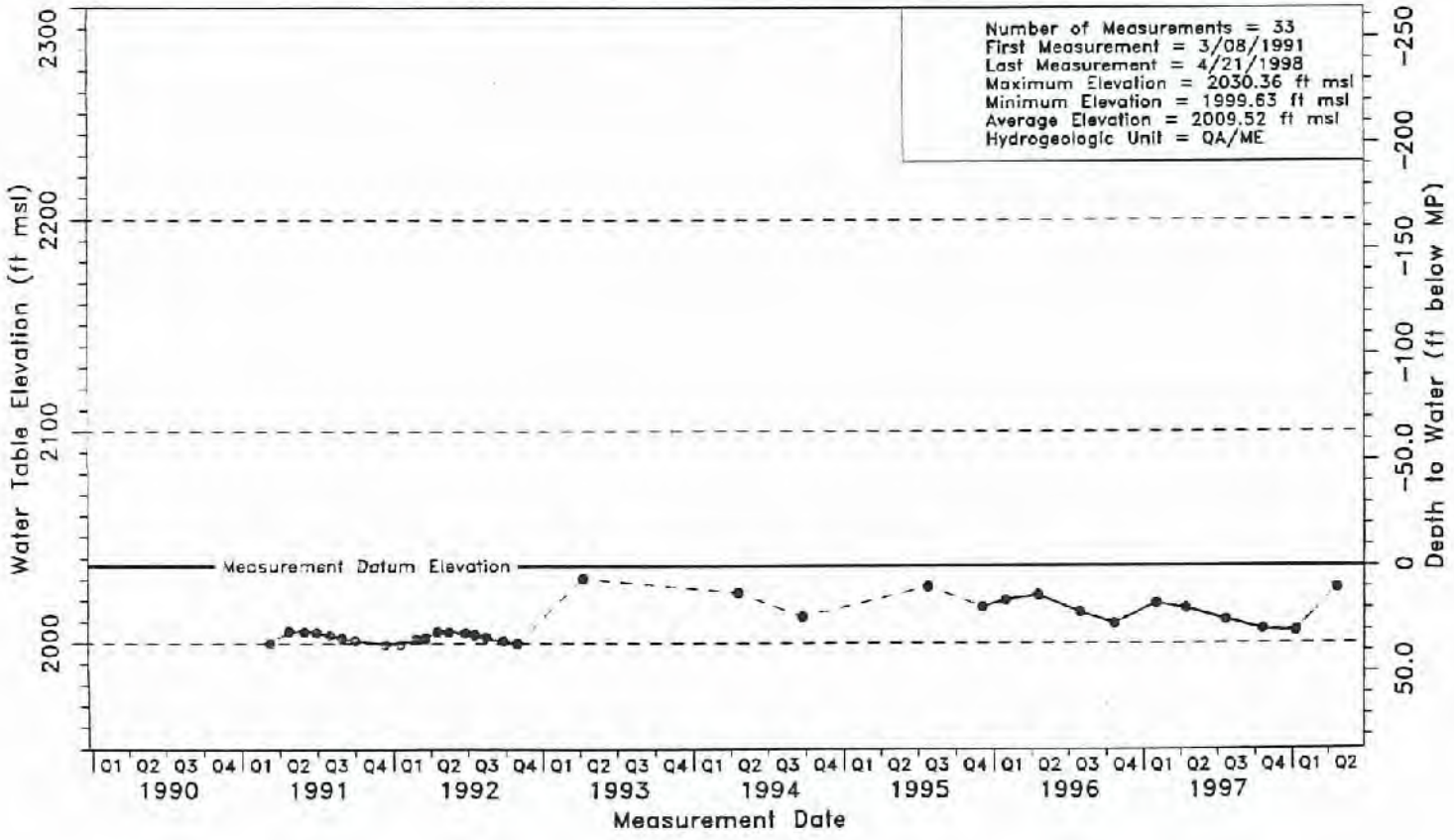
HYDROGRAPH MW-36

Lockheed Martin Corporation Beaumont Site No. 1



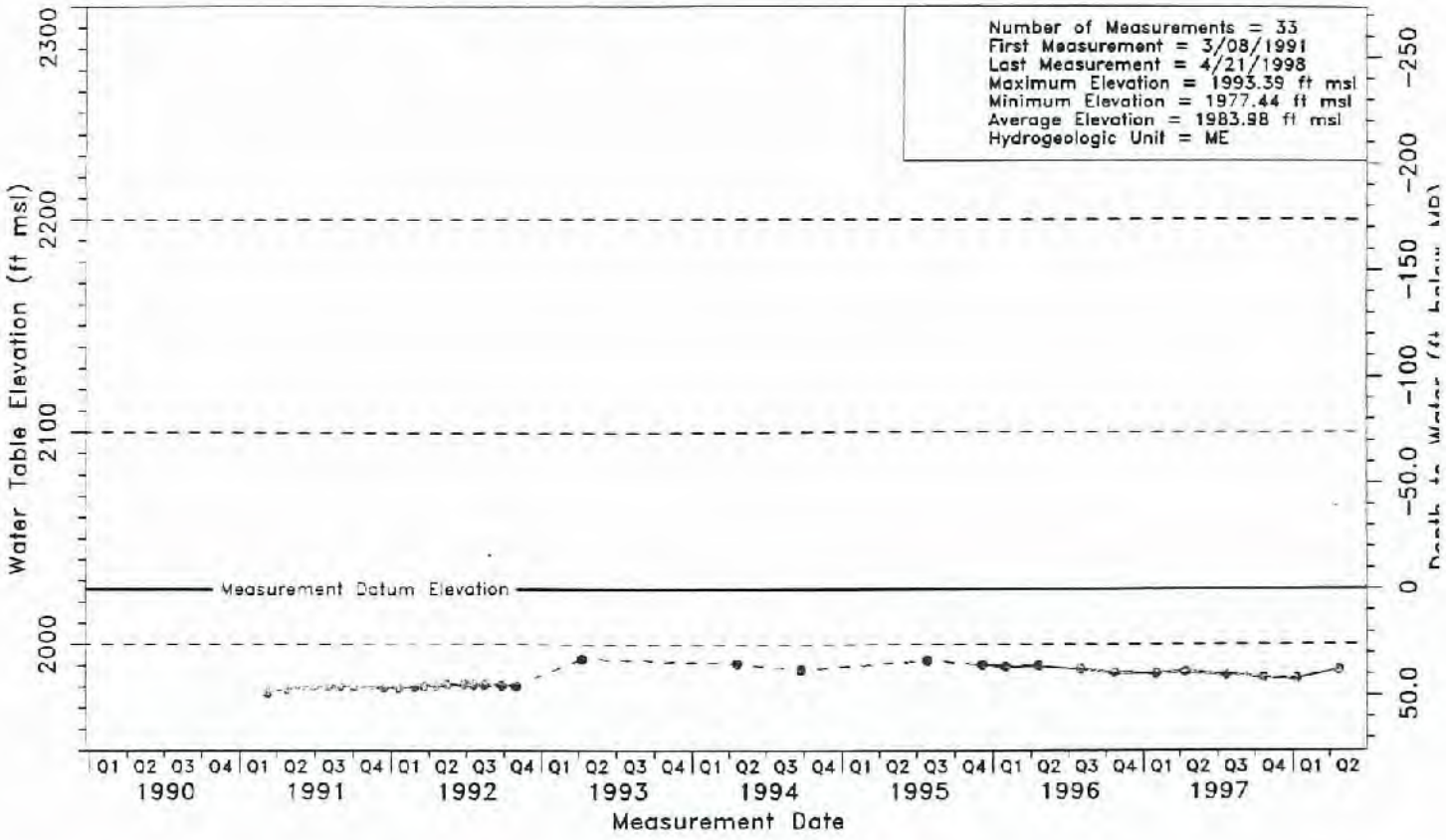
HYDROGRAPH MW-37

Lockheed Martin Corporation Beaumont Site No. 1



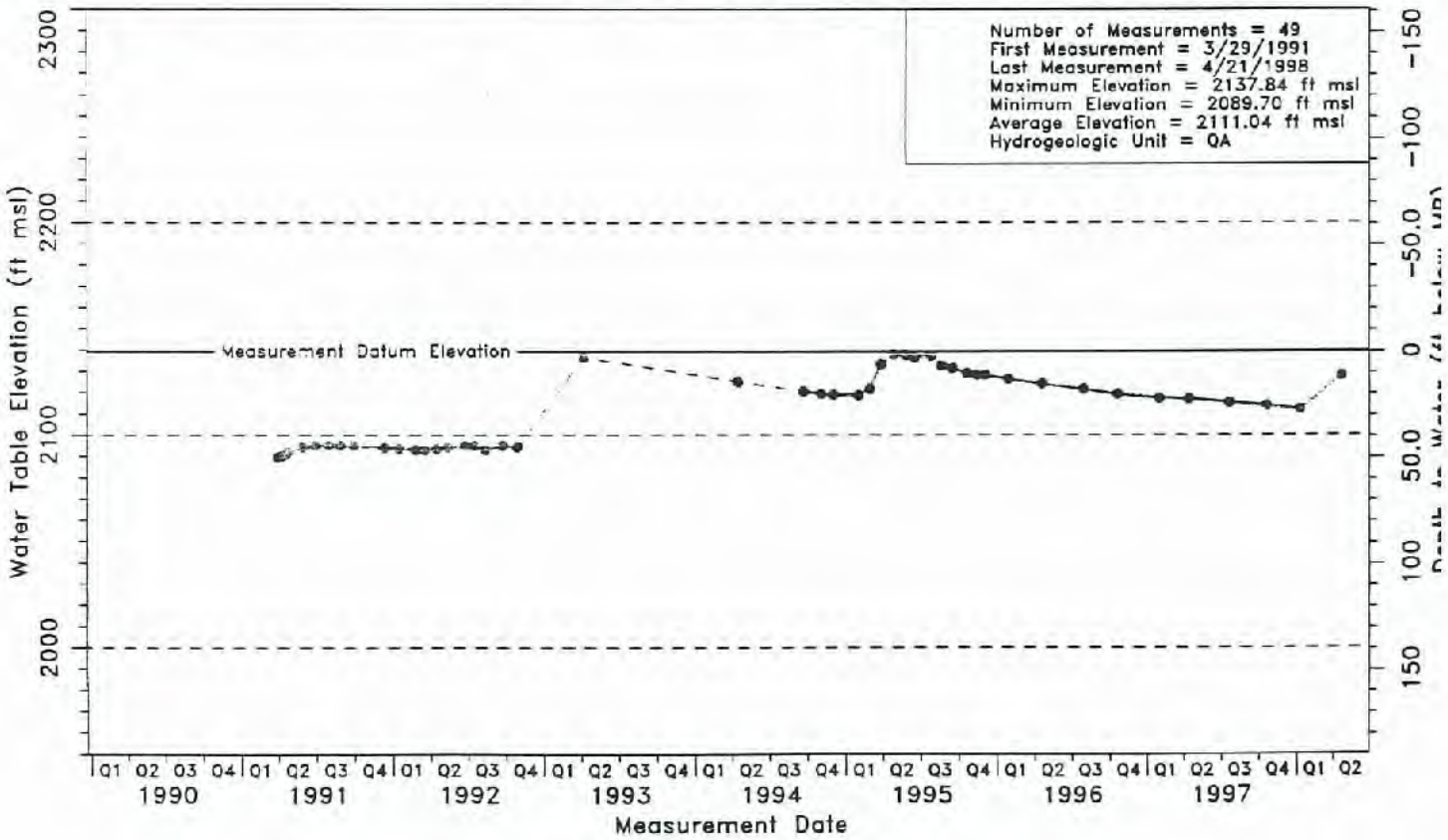
HYDROGRAPH MW-38

Lockheed Martin Corporation Beaumont Site No. 1



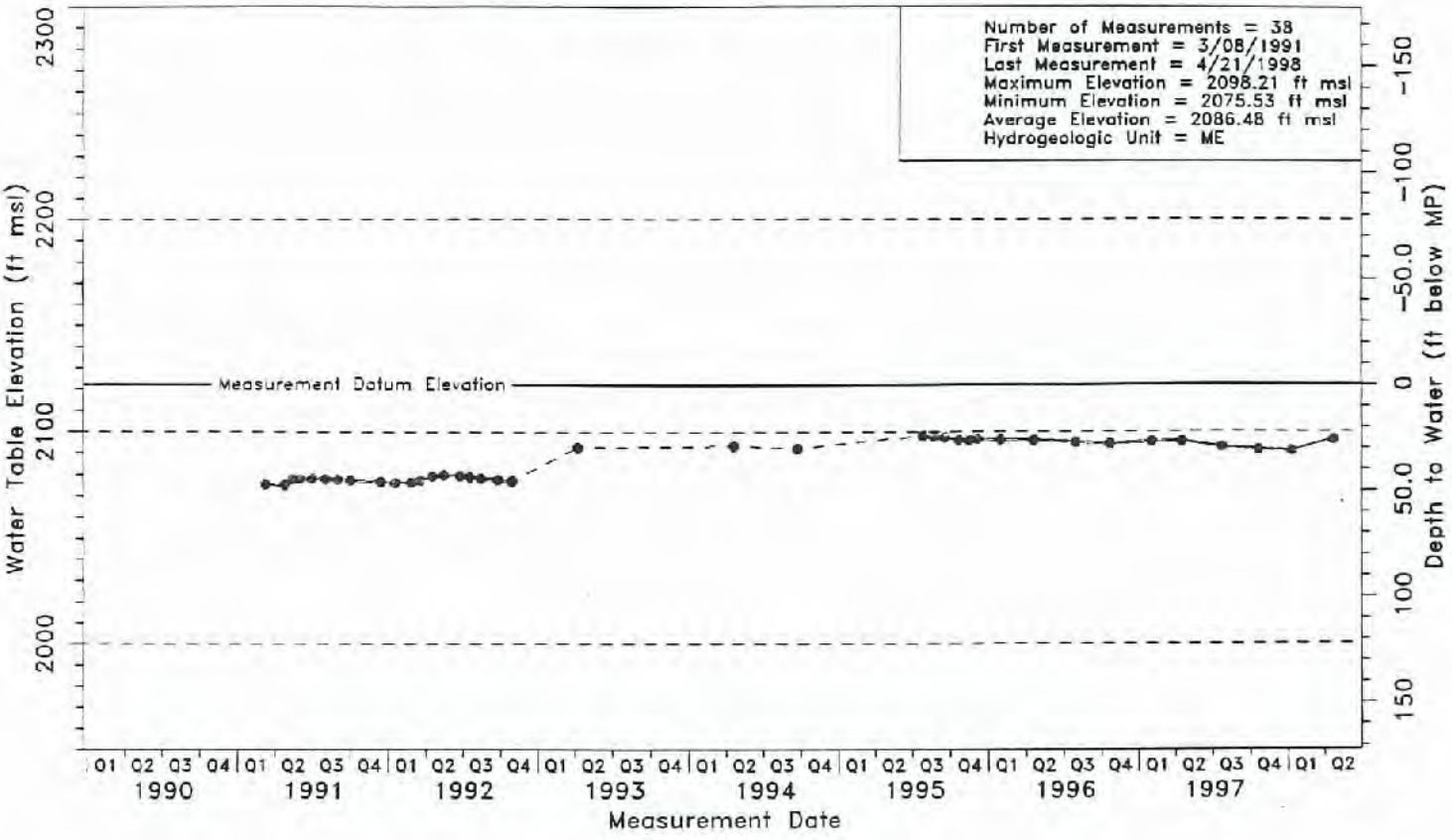
HYDROGRAPH MW-39

Lockheed Martin Corporation Beaumont Site No. 1



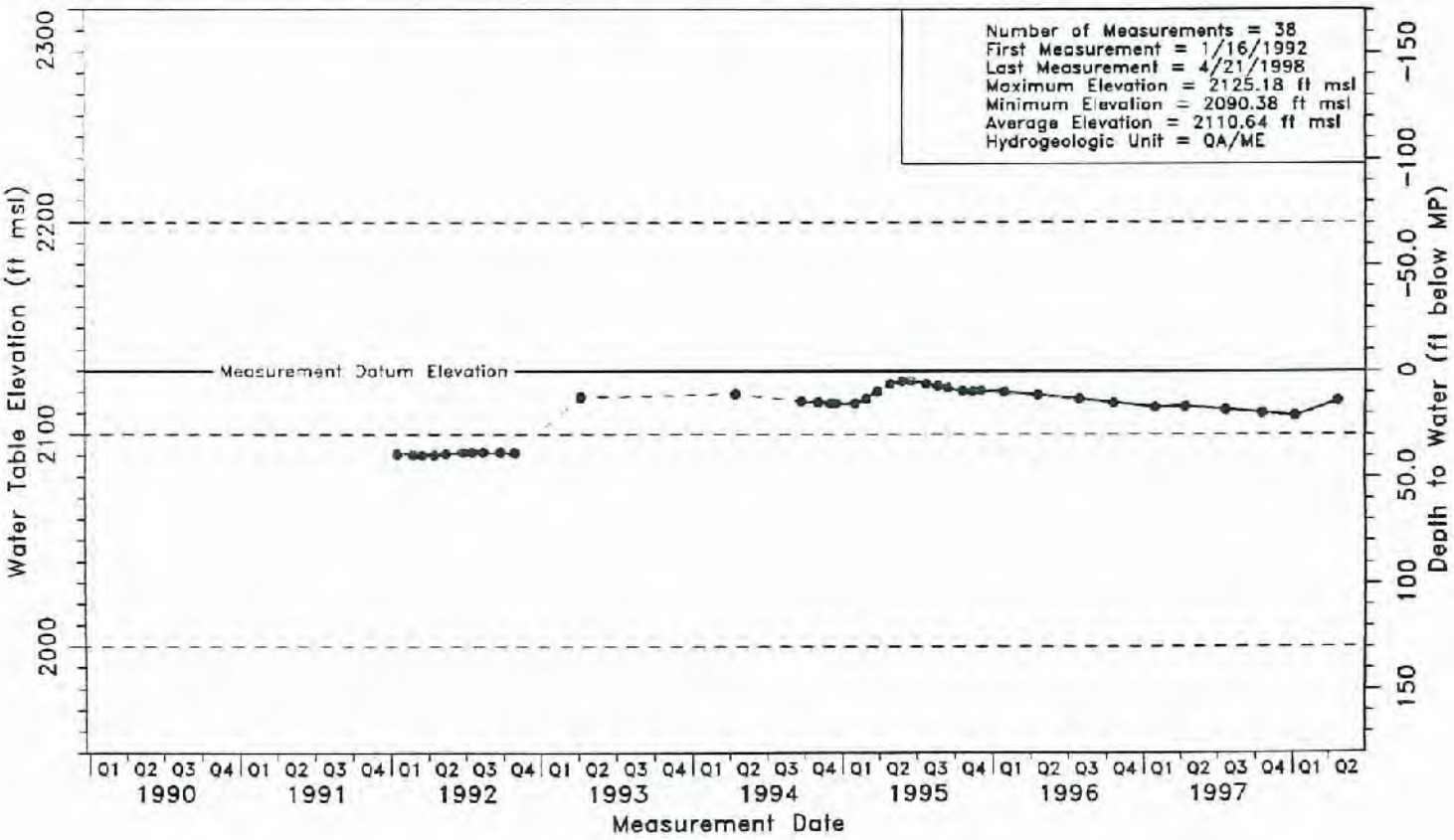
HYDROGRAPH MW-40

Lockheed Martin Corporation Beaumont Site No. 1



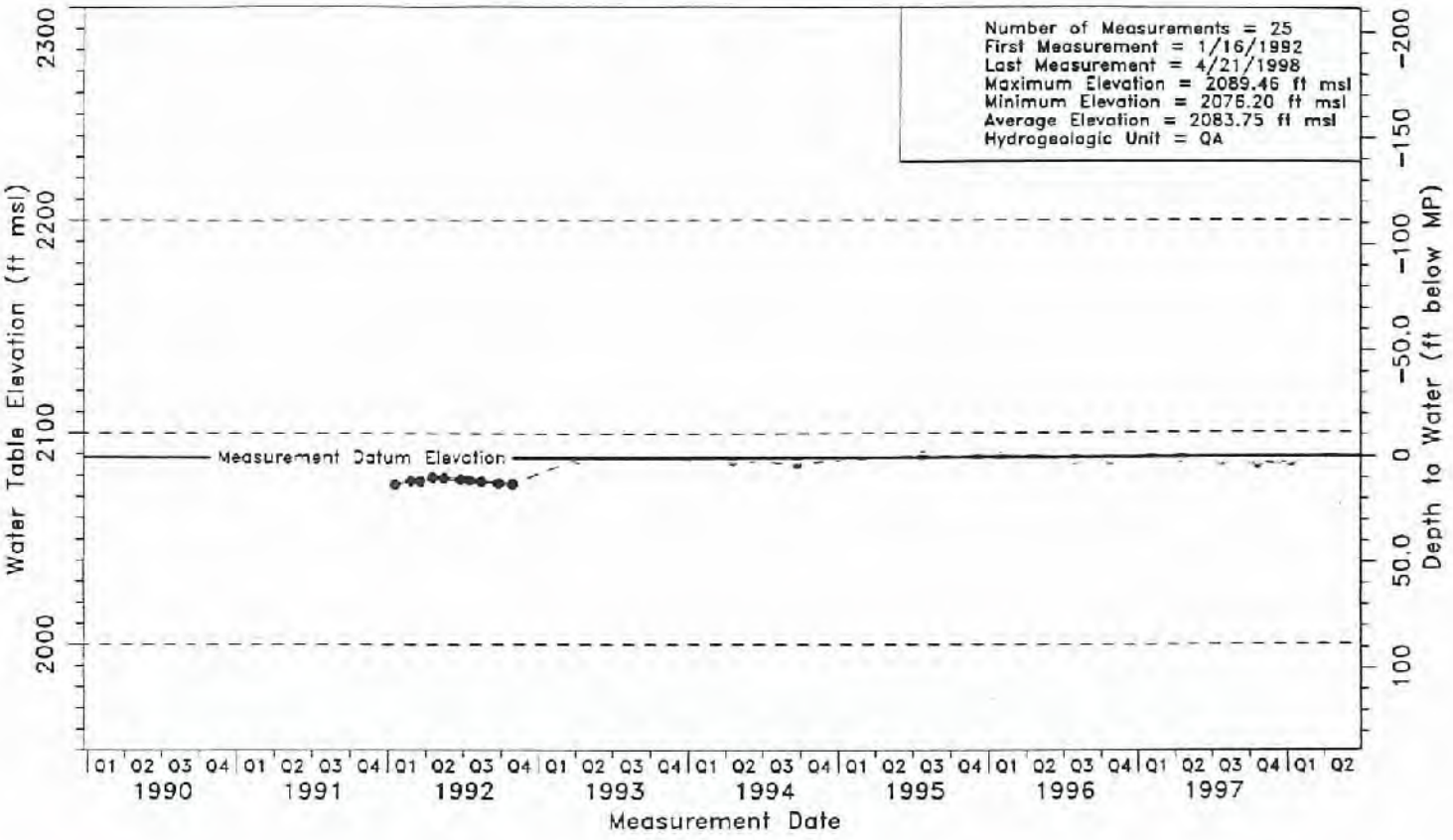
HYDROGRAPH MW-41

Lockheed Martin Corporation Beaumont Site No. 1



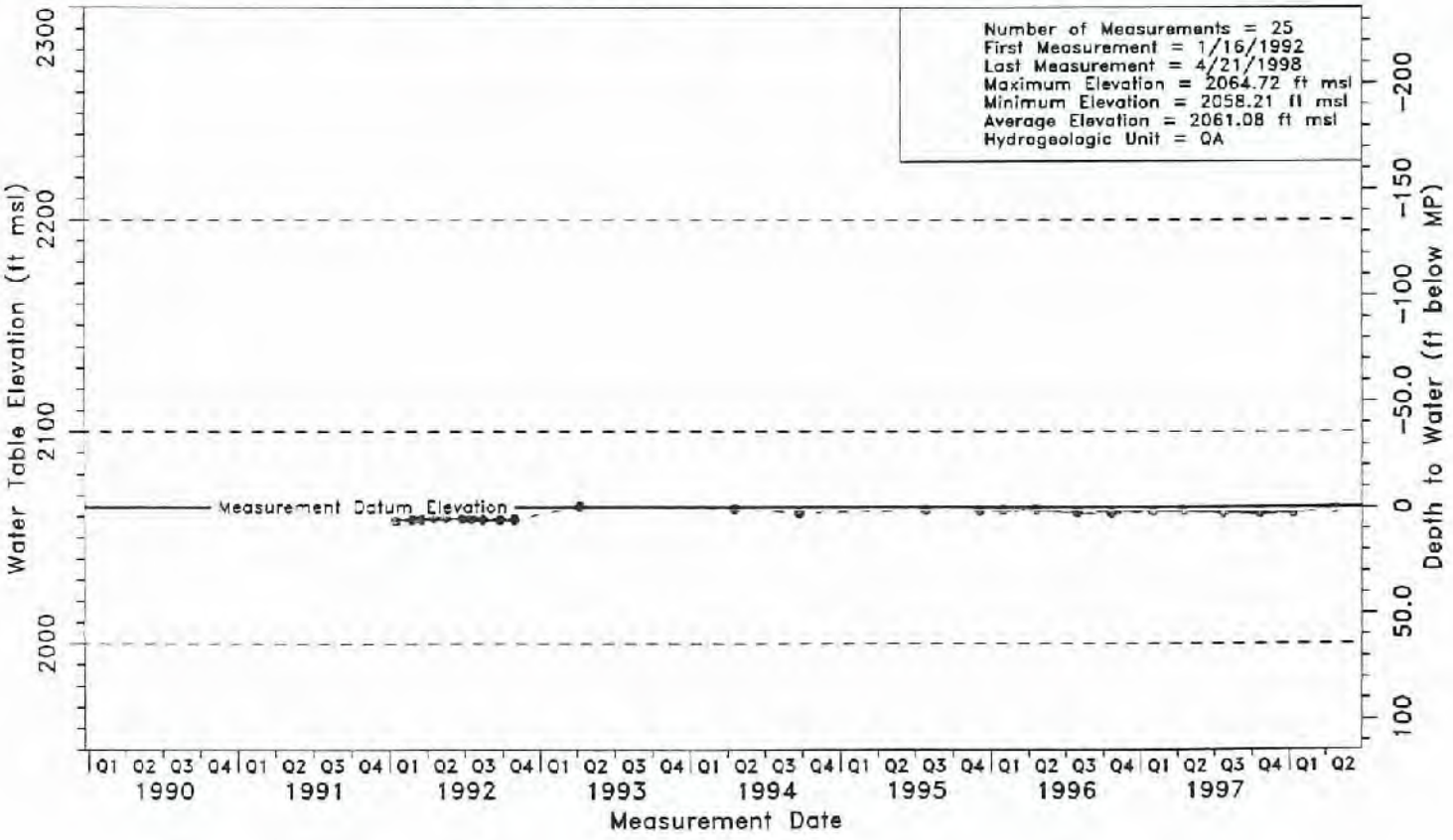
HYDROGRAPH MW-42

Lockheed Martin Corporation Beaumont Site No. 1



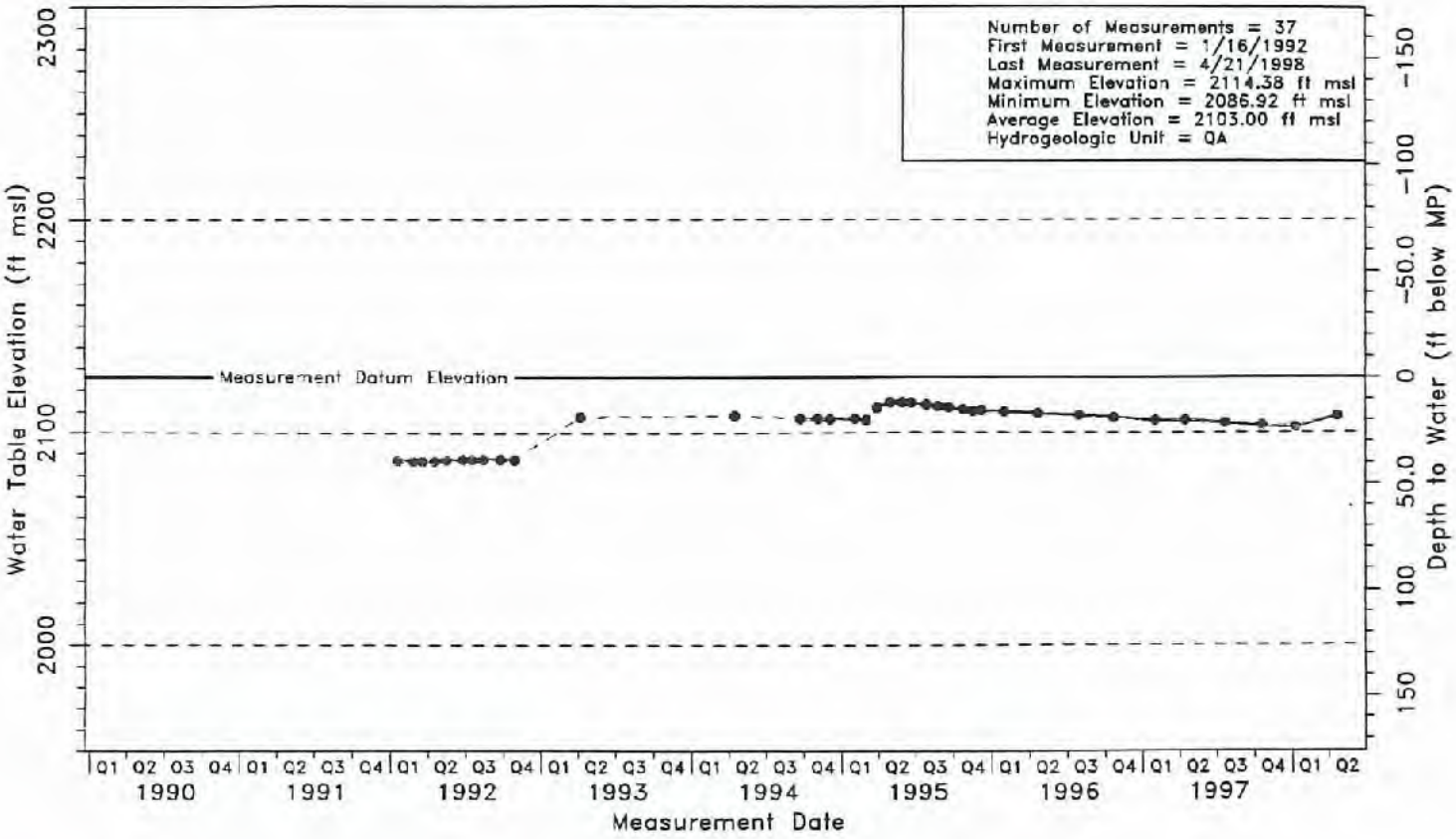
HYDROGRAPH MW-43

Lockheed Martin Corporation Beaumont Site No. 1



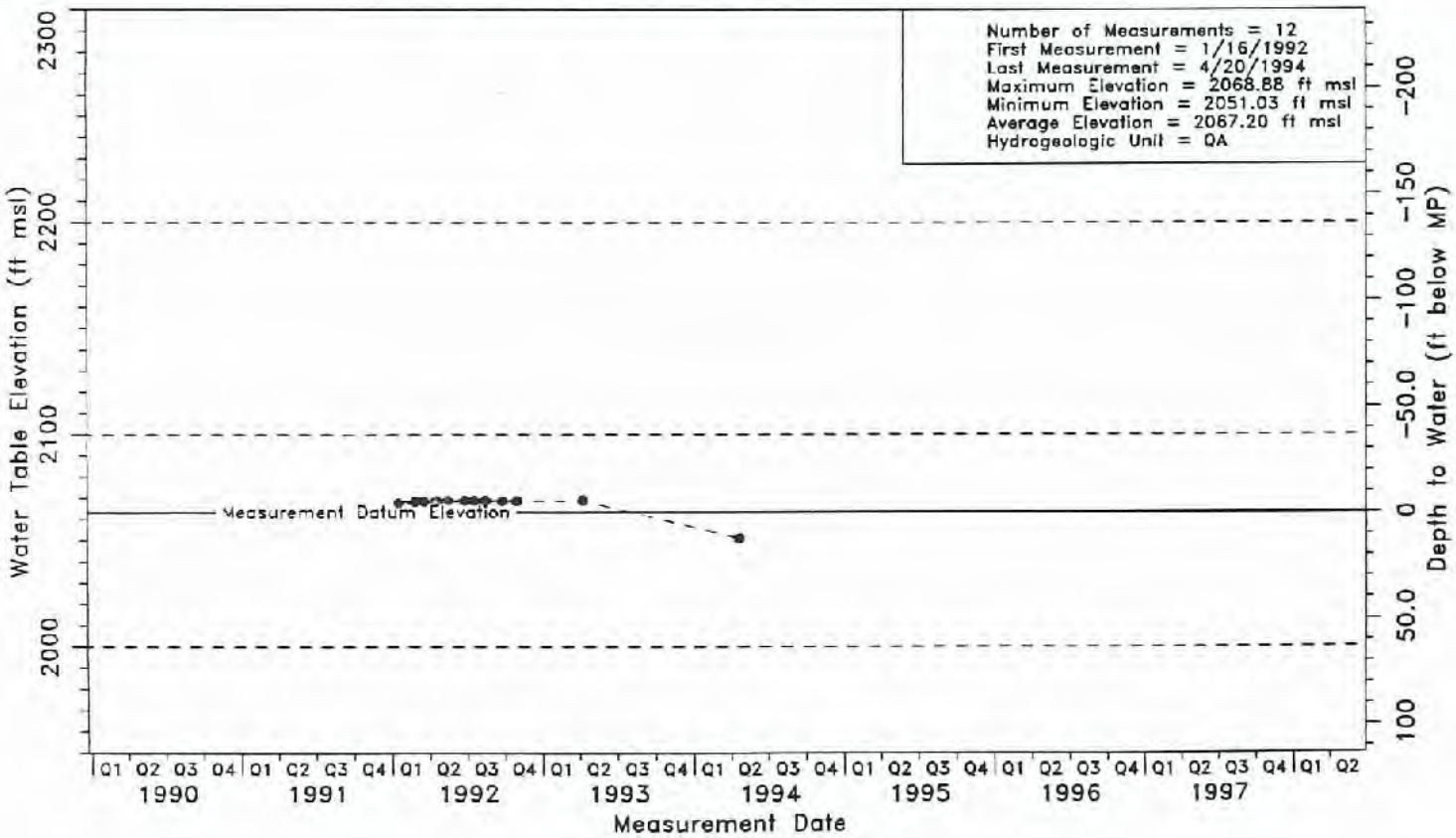
HYDROGRAPH MW-44

Lockheed Martin Corporation Beaumont Site No. 1



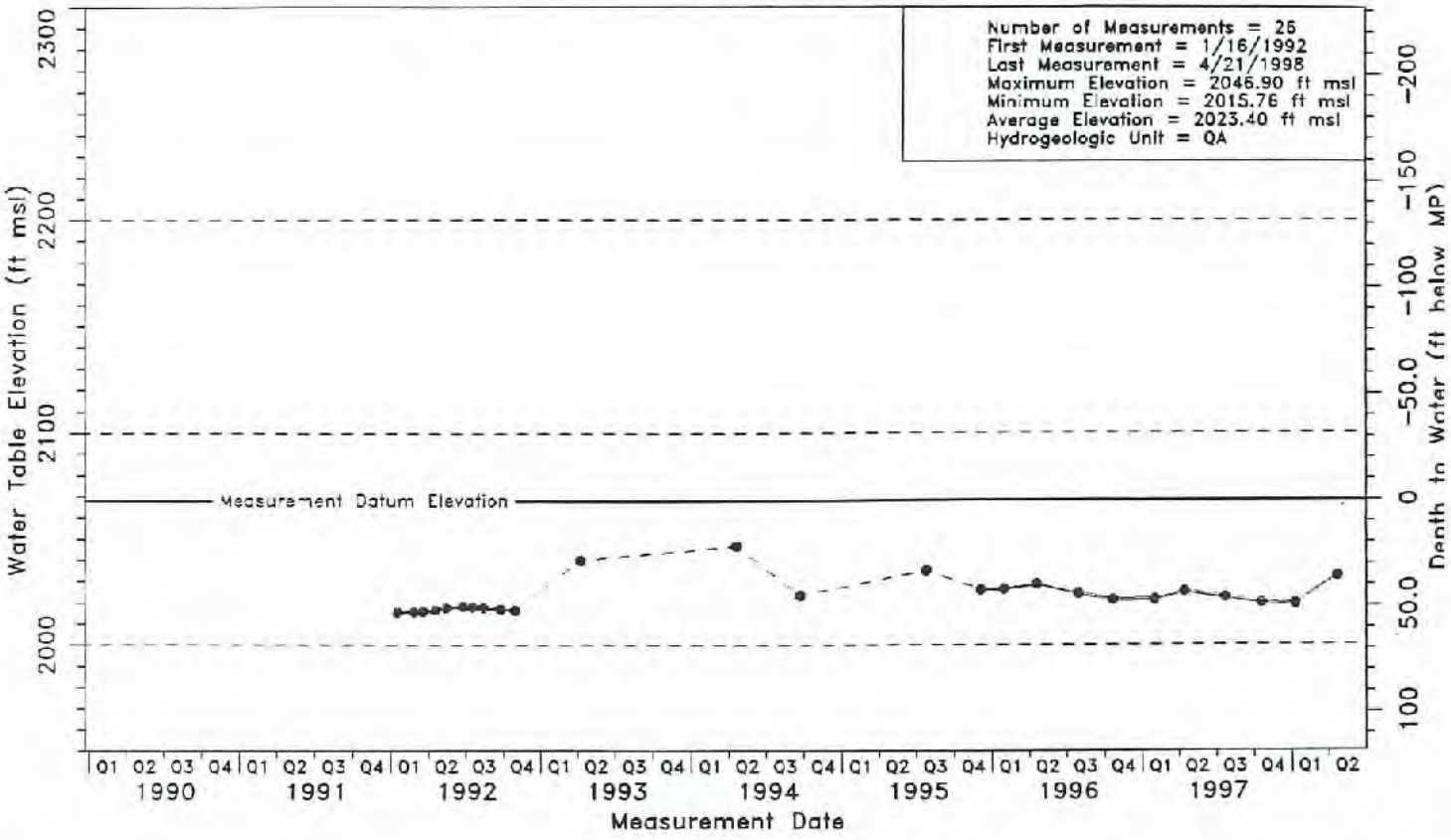
HYDROGRAPH MW-45

Lockheed Martin Corporation Beaumont Site No. 1



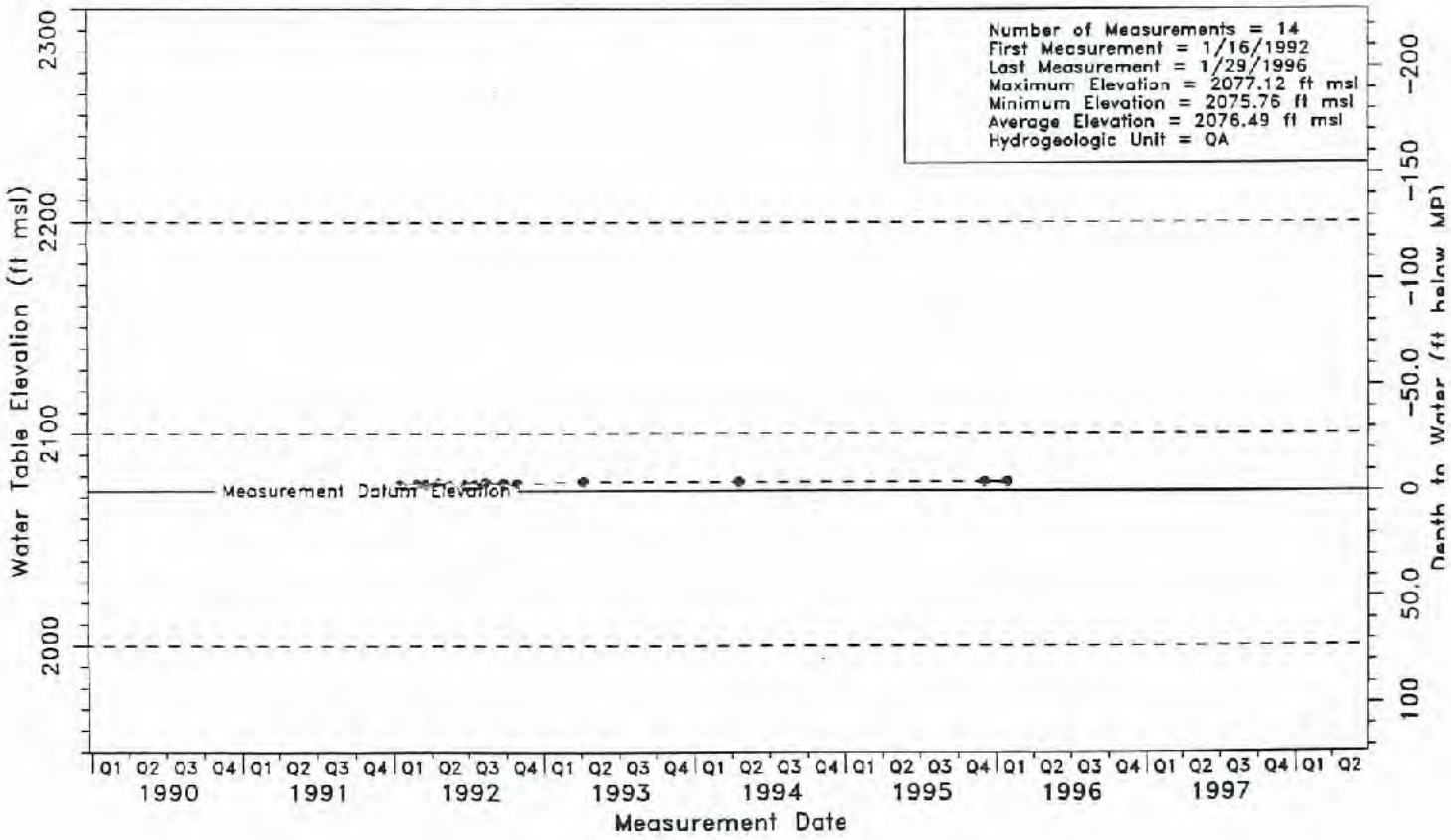
HYDROGRAPH MW-46

Lockheed Martin Corporation Beaumont Site No. 1



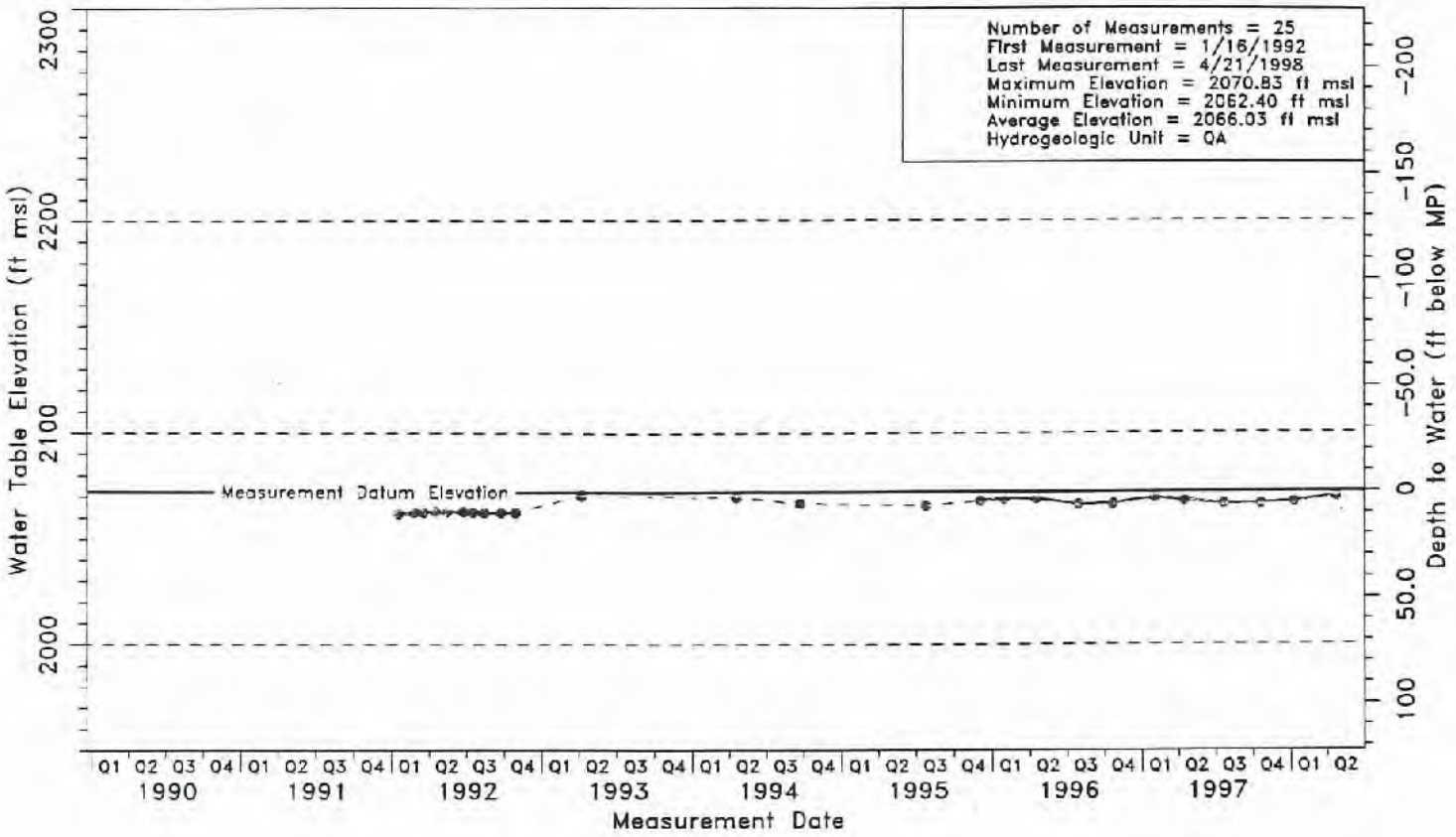
HYDROGRAPH MW-47

Lockheed Martin Corporation Beaumont Site No. 1



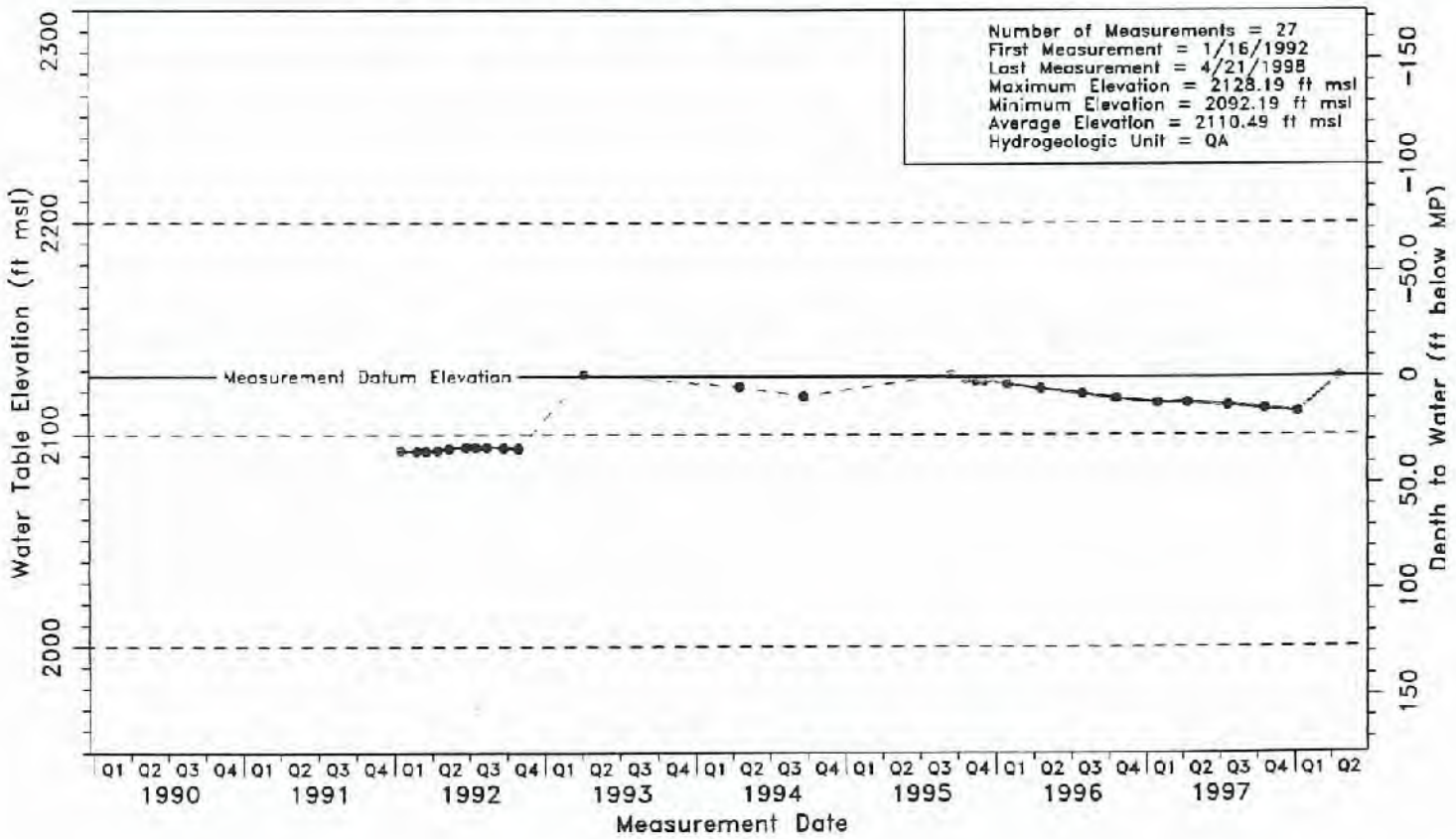
HYDROGRAPH MW-48

Lockheed Martin Corporation Beaumont Site No. 1



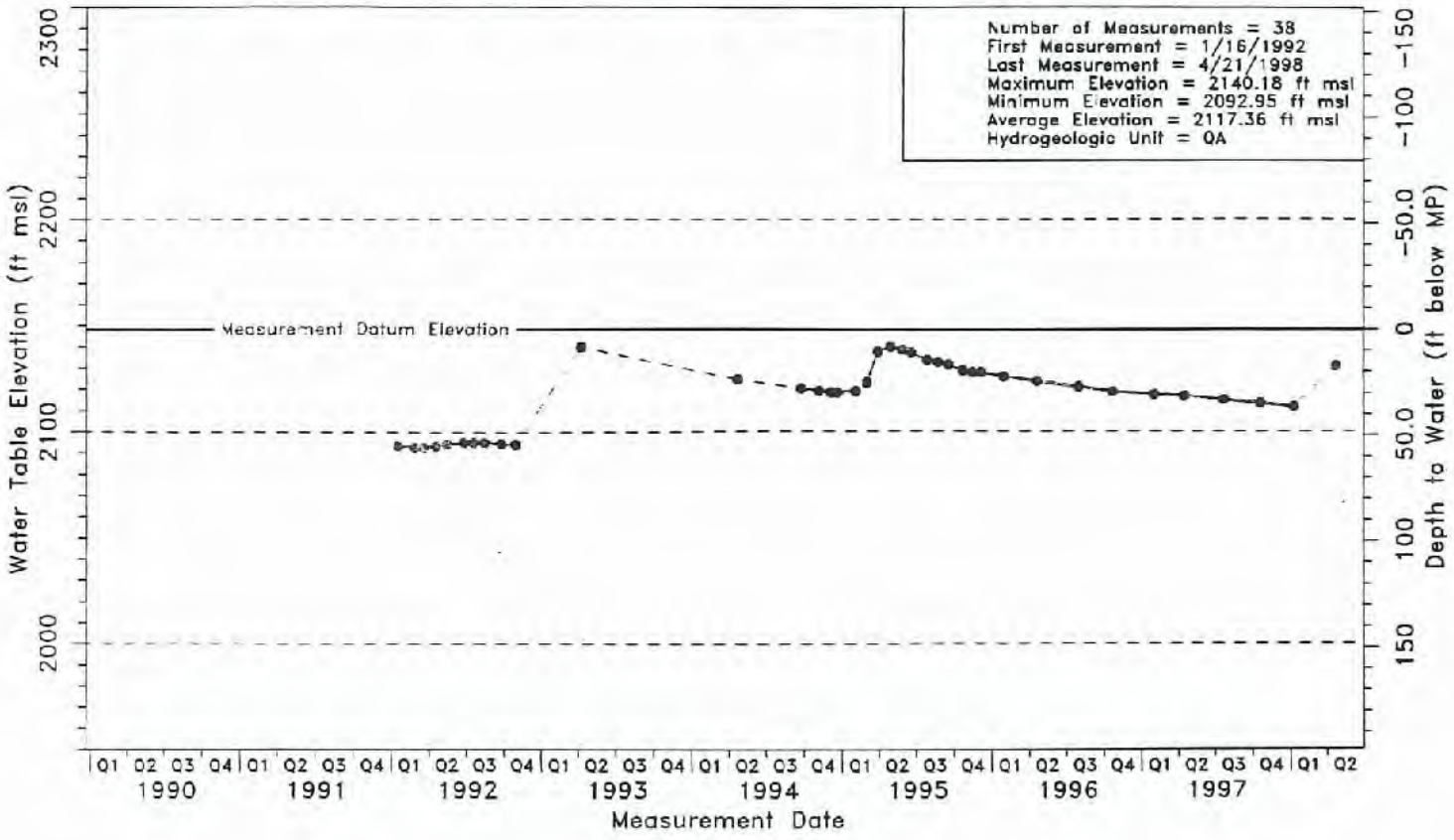
HYDROGRAPH MW-49

Lockheed Martin Corporation Beaumont Site No. 1



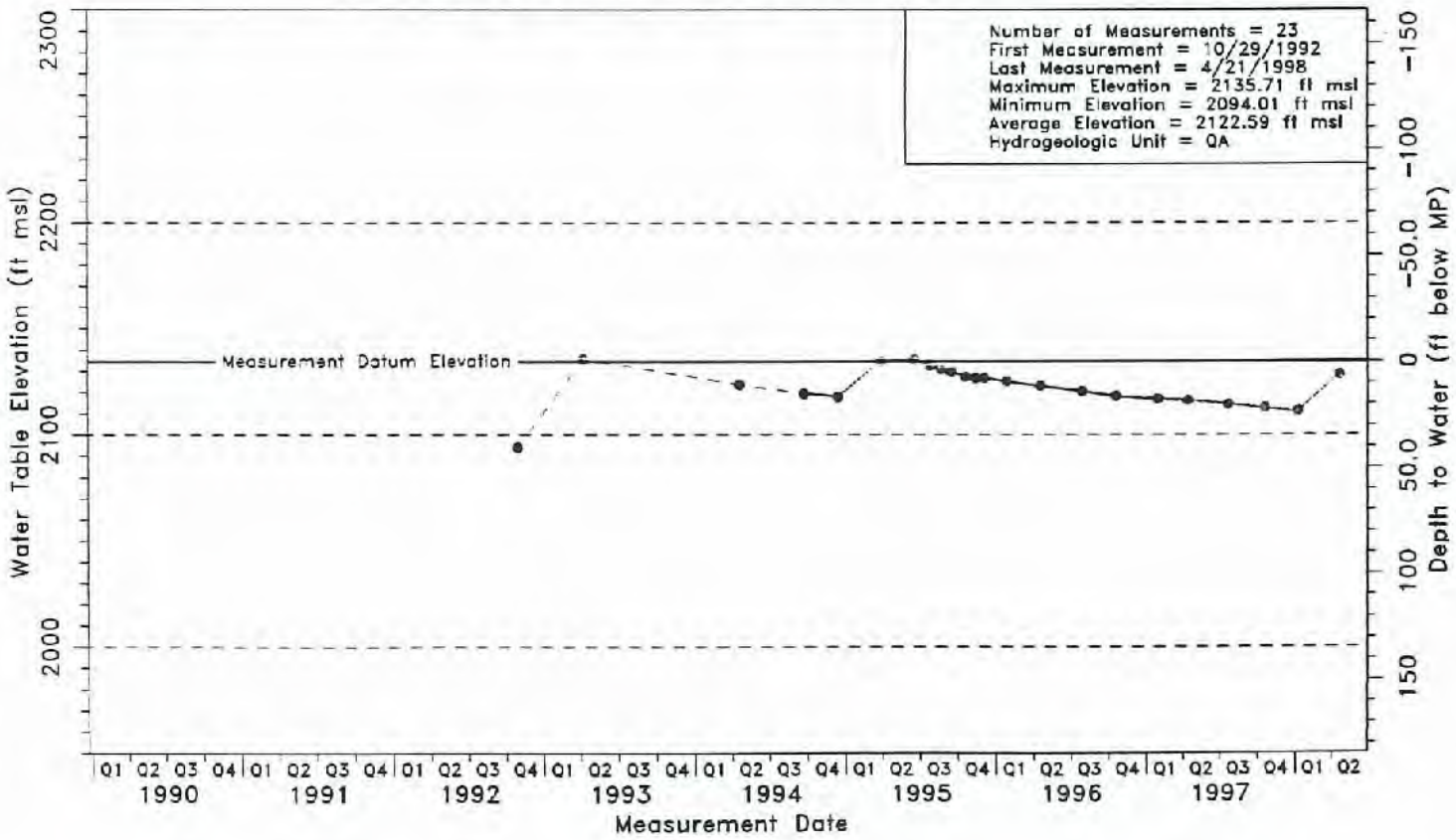
HYDROGRAPH MW-50

Lockheed Martin Corporation Beaumont Site No. 1



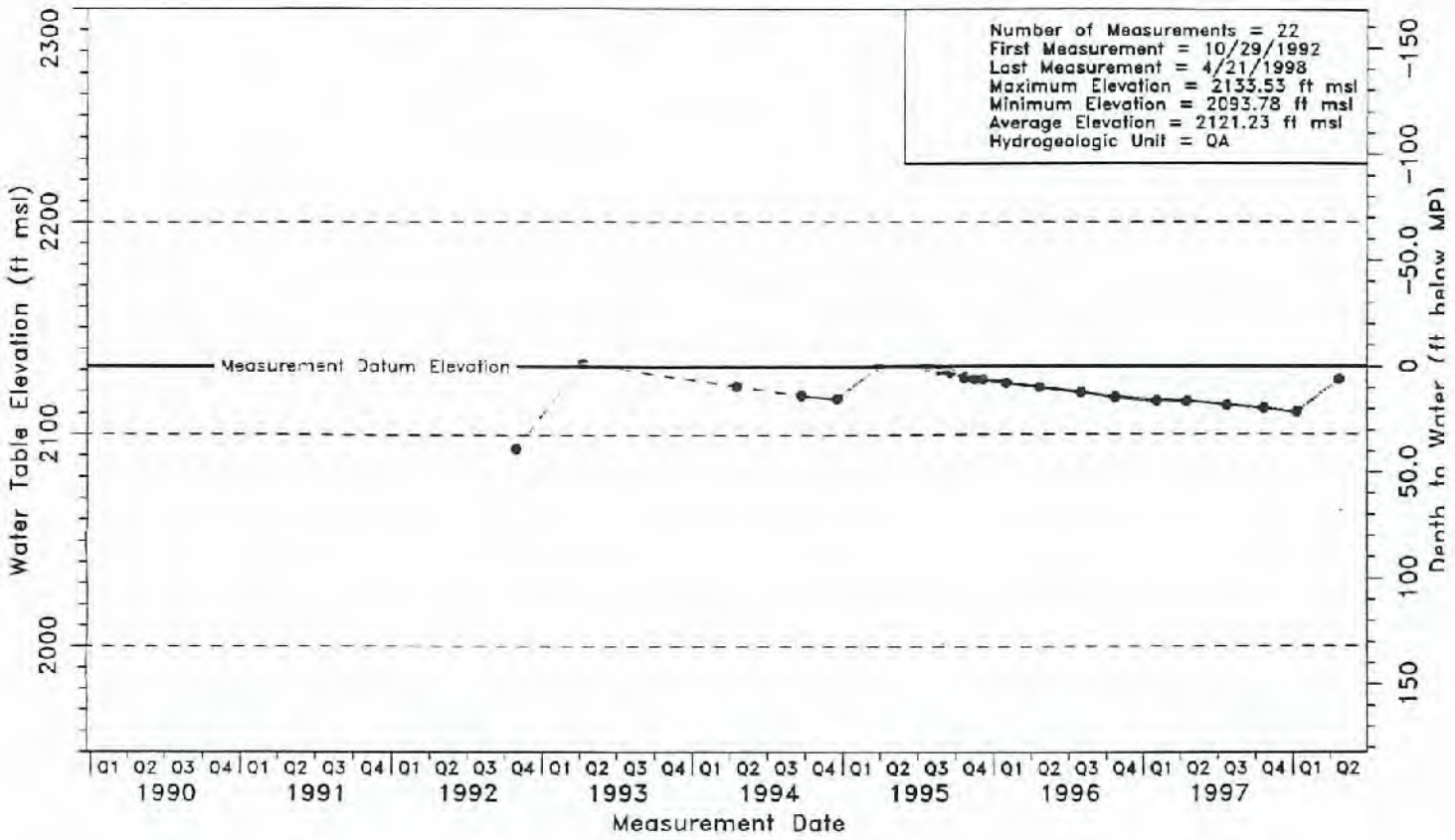
HYDROGRAPH MW-51

Lockheed Martin Corporation Beaumont Site No. 1



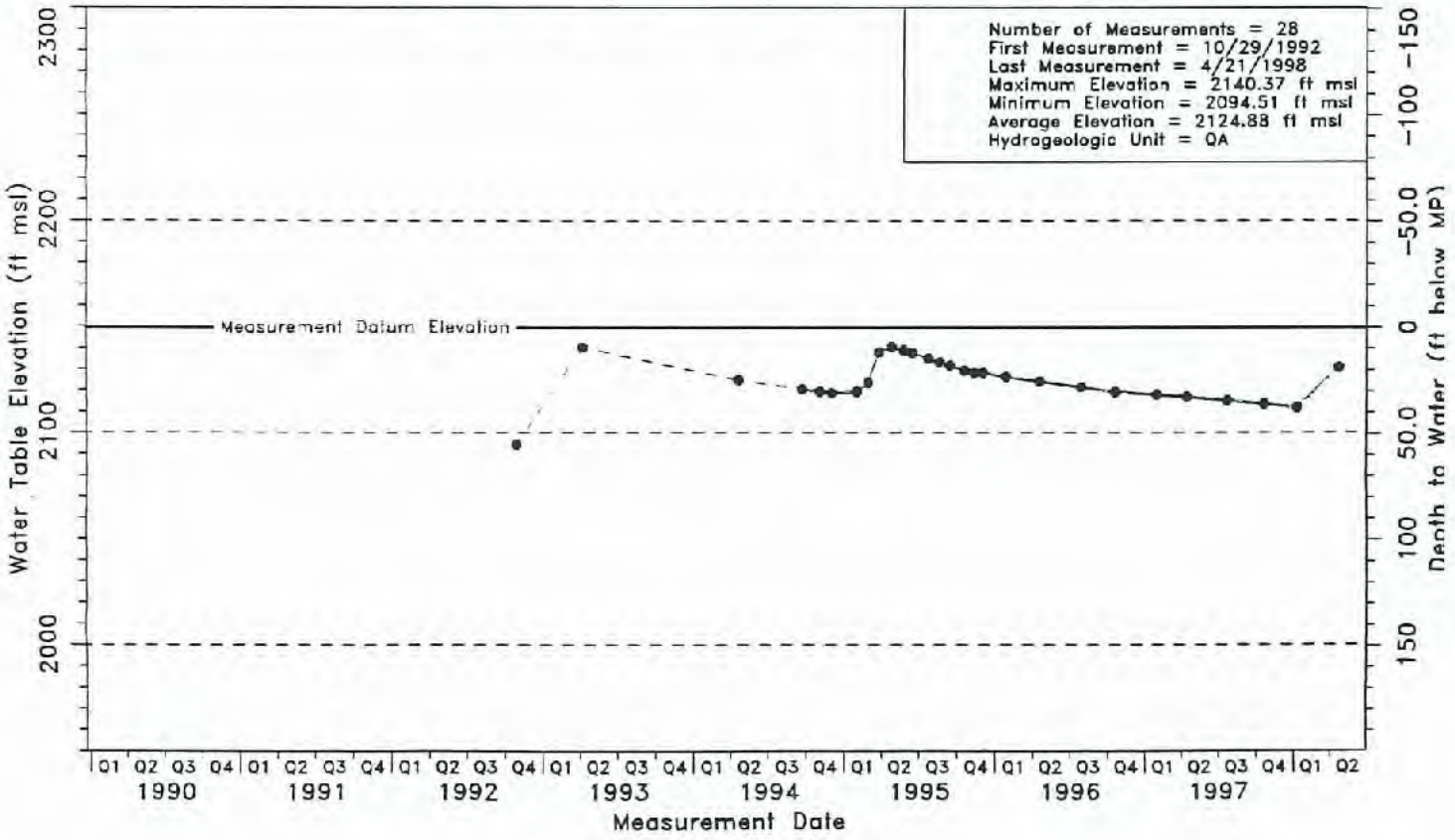
HYDROGRAPH MW-52

Lockheed Martin Corporation Beaumont Site No. 1



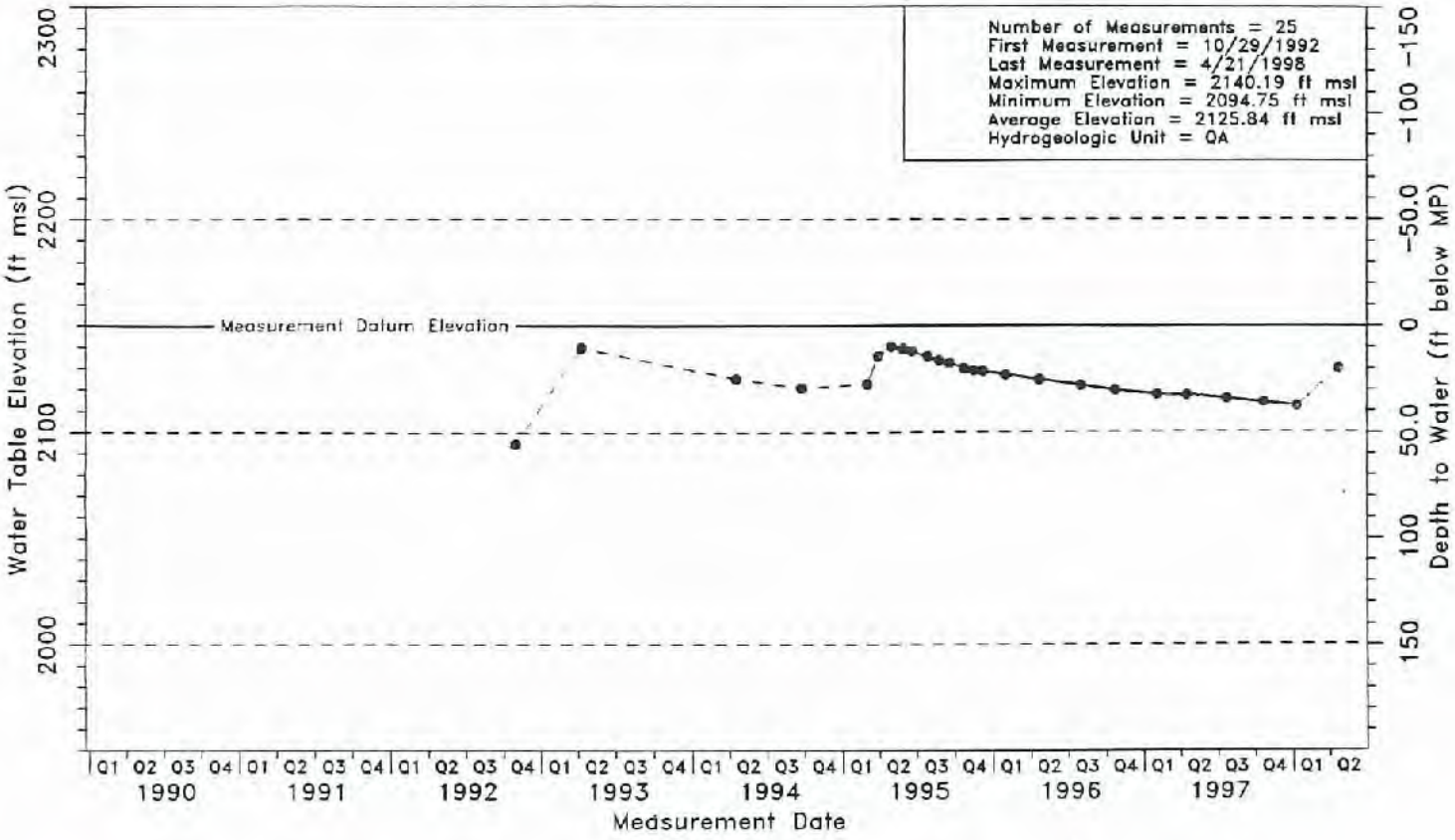
HYDROGRAPH MW-53

Lockheed Martin Corporation Beaumont Site No. 1



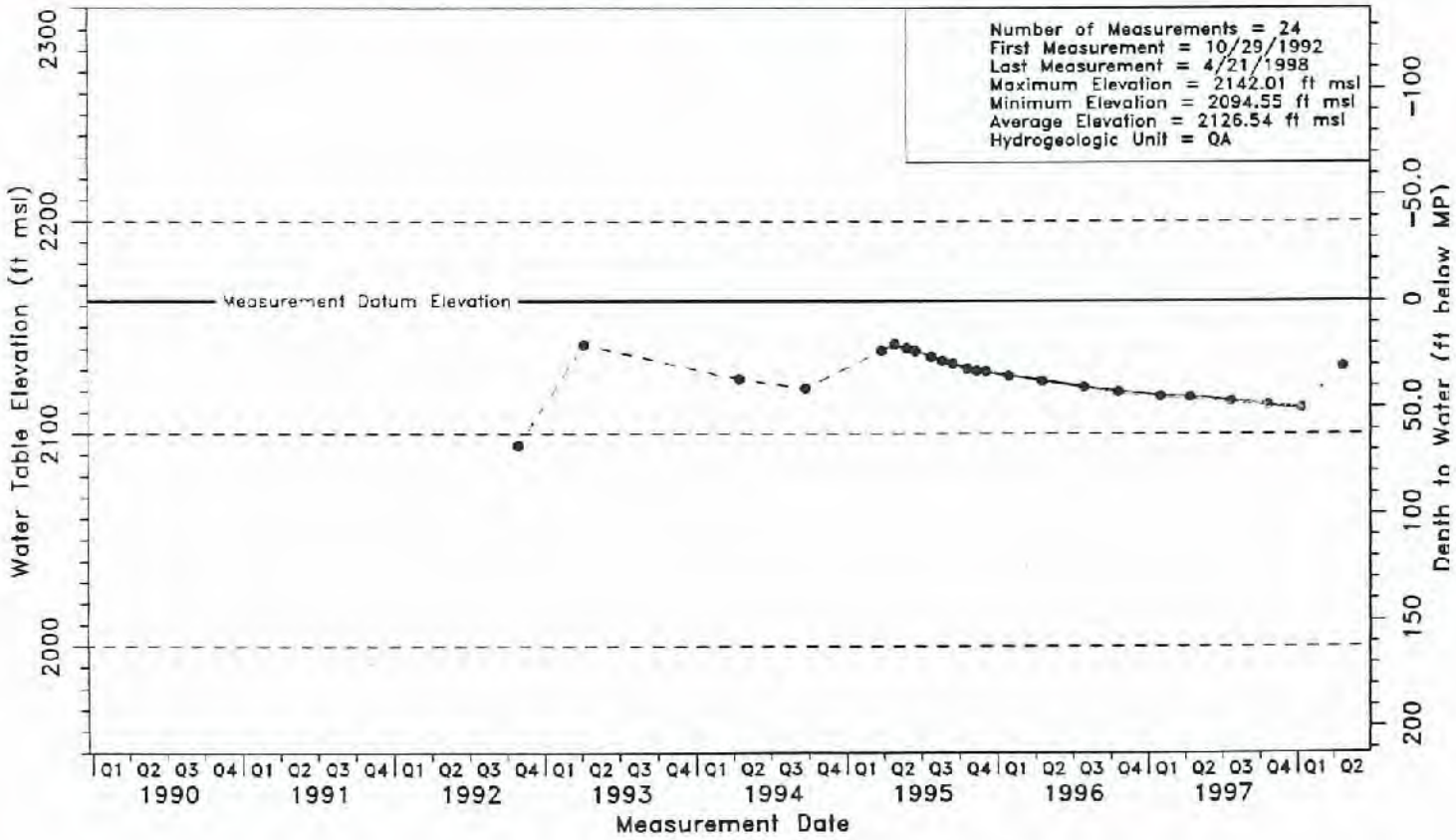
HYDROGRAPH MW-54

Lockheed Martin Corporation Beaumont Site No. 1



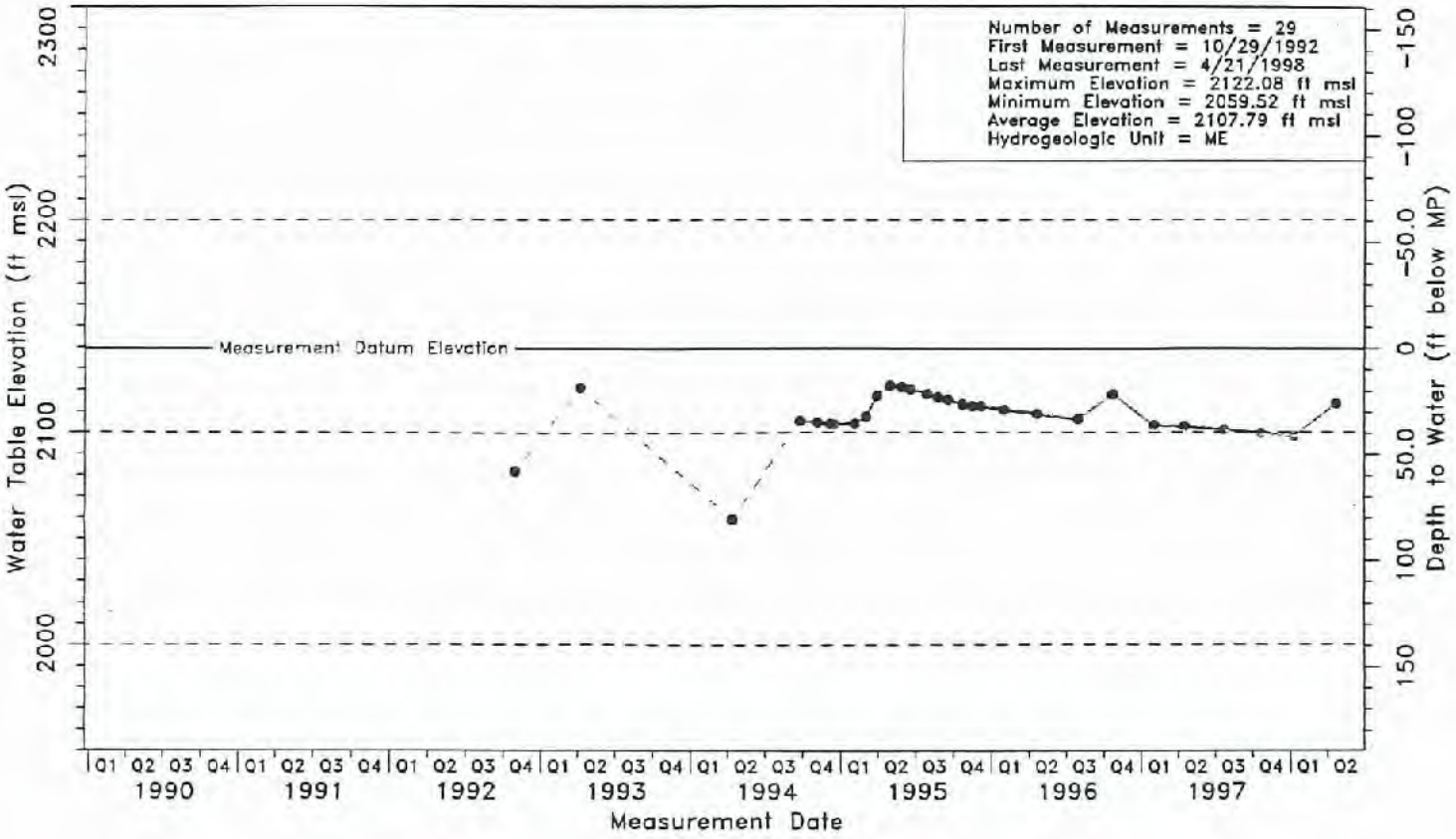
HYDROGRAPH MW-55

Lockheed Martin Corporation Beaumont Site No. 1



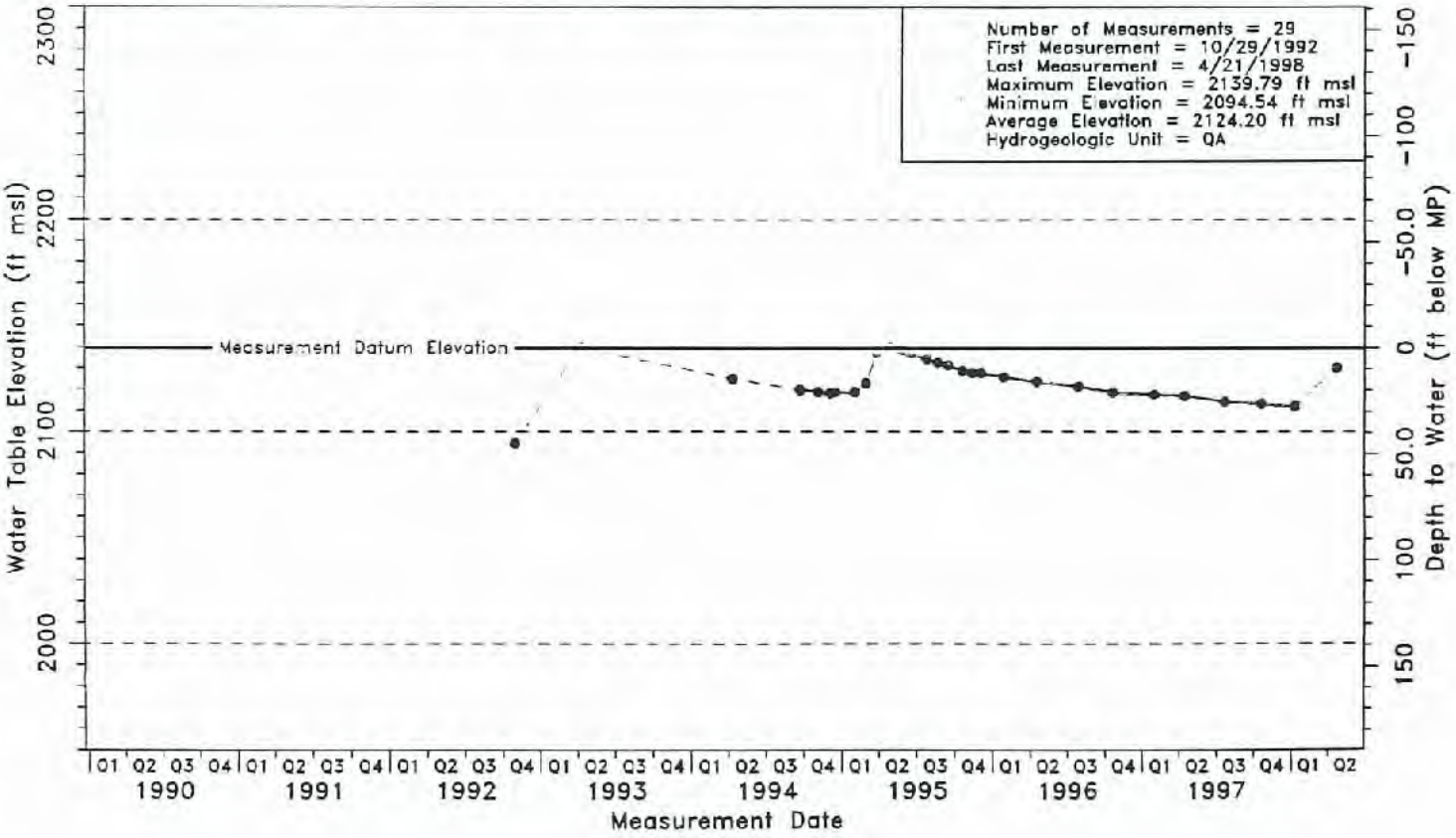
HYDROGRAPH MW-56A

Lockheed Martin Corporation Beaumont Site No. 1



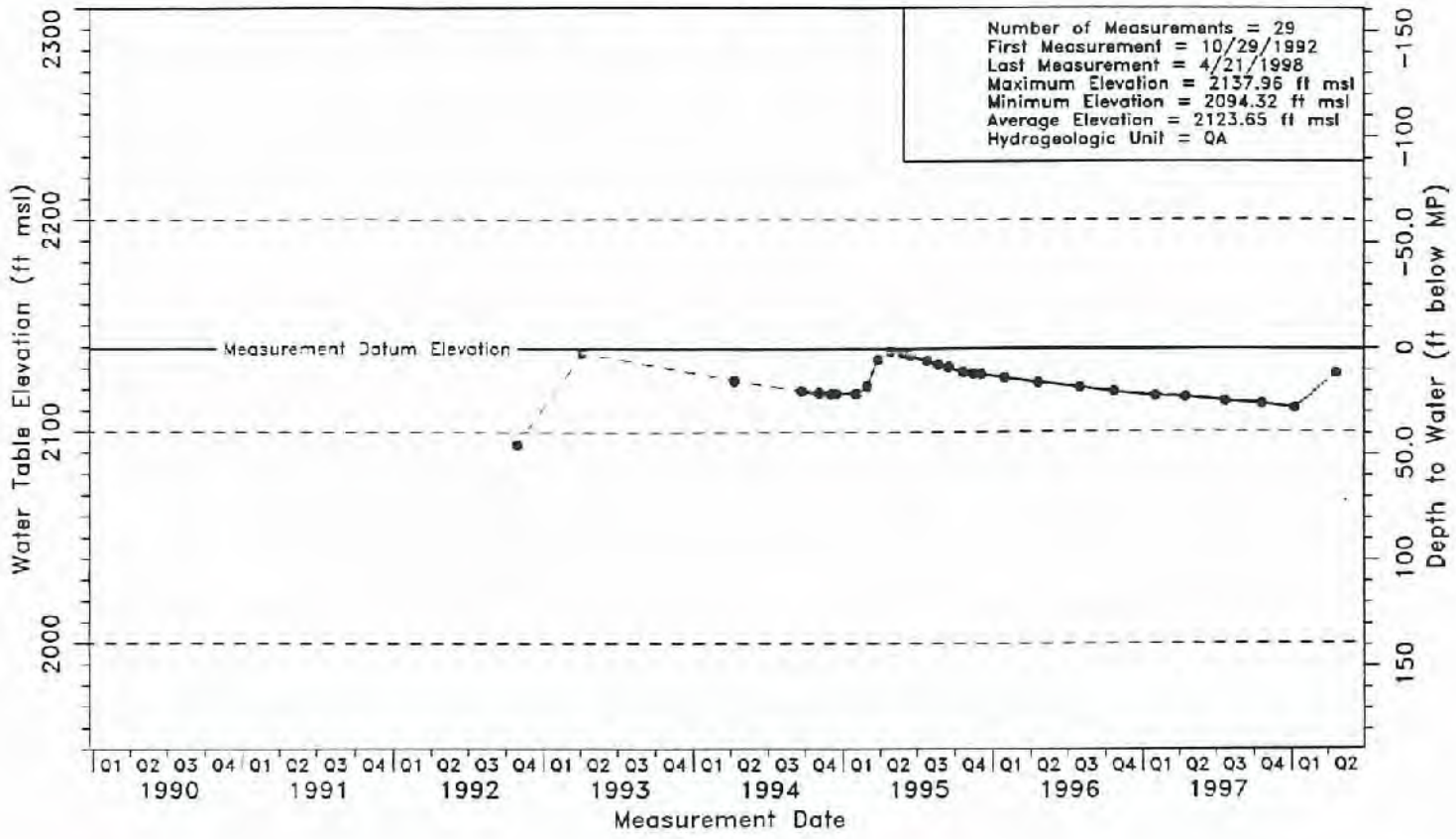
HYDROGRAPH MW-56B

Lockheed Martin Corporation Beaumont Site No. 1



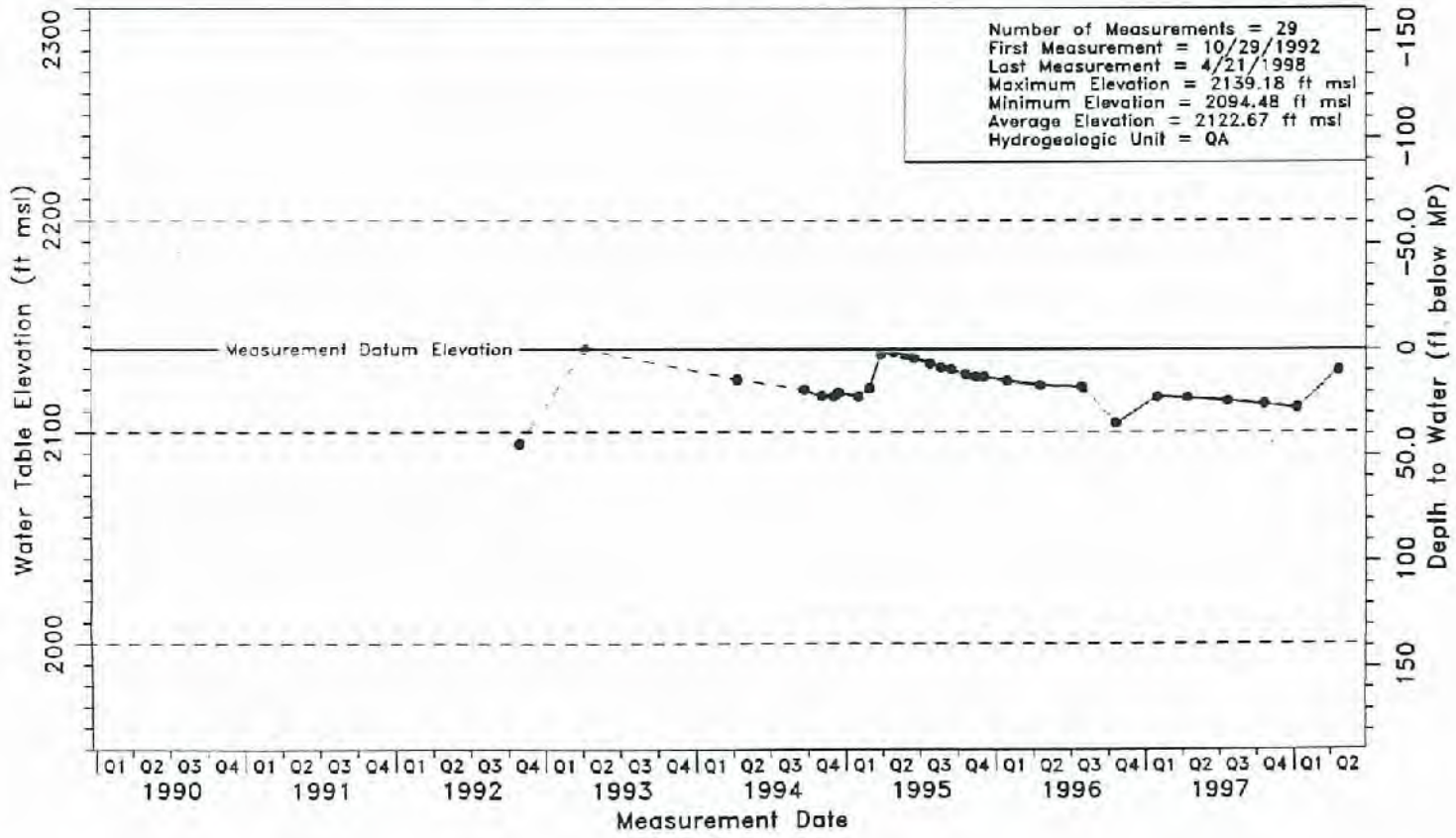
HYDROGRAPH MW-56C

Lockheed Martin Corporation Beaumont Site No. 1



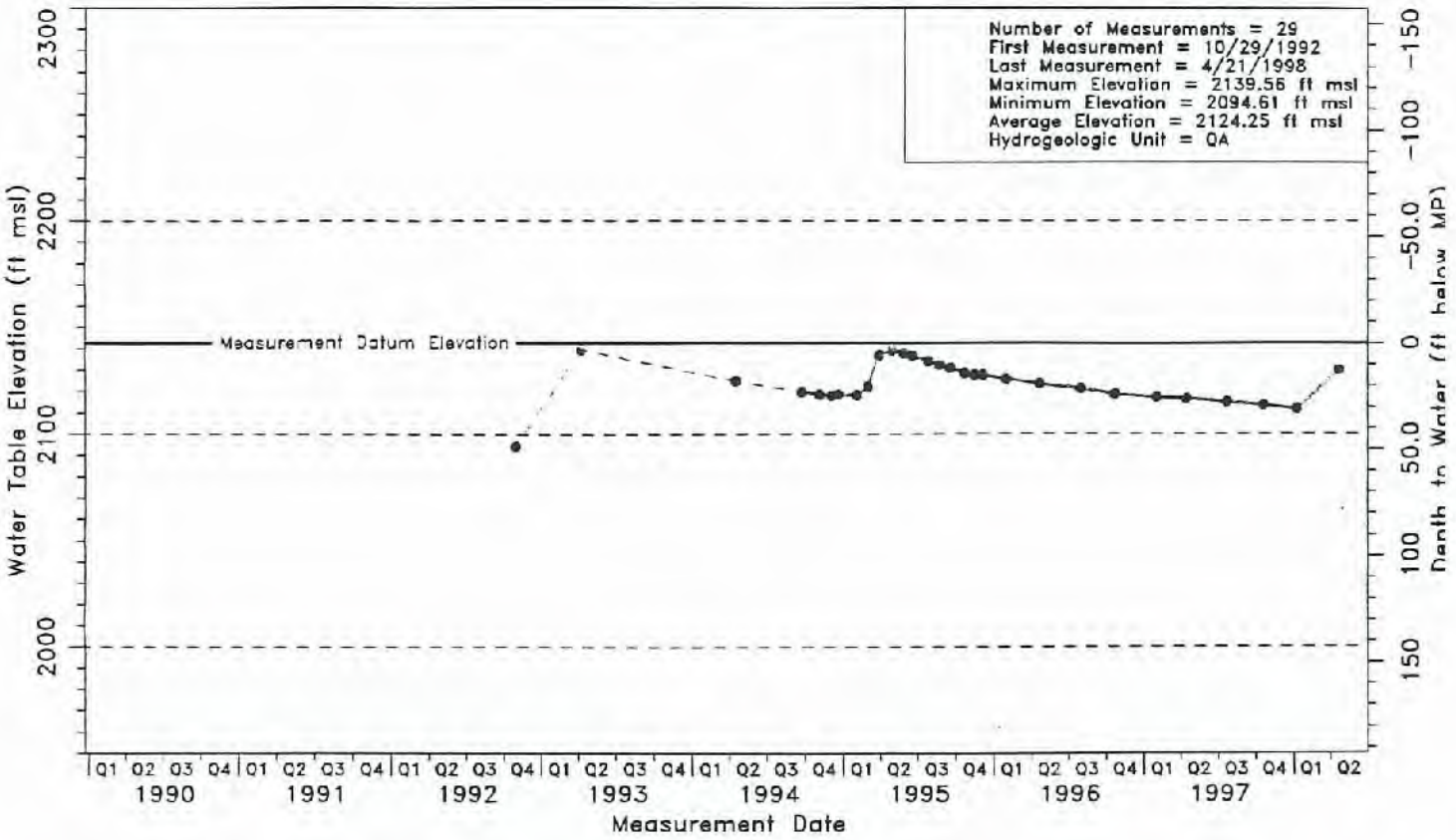
HYDROGRAPH MW-56D

Lockheed Martin Corporation Beaumont Site No. 1



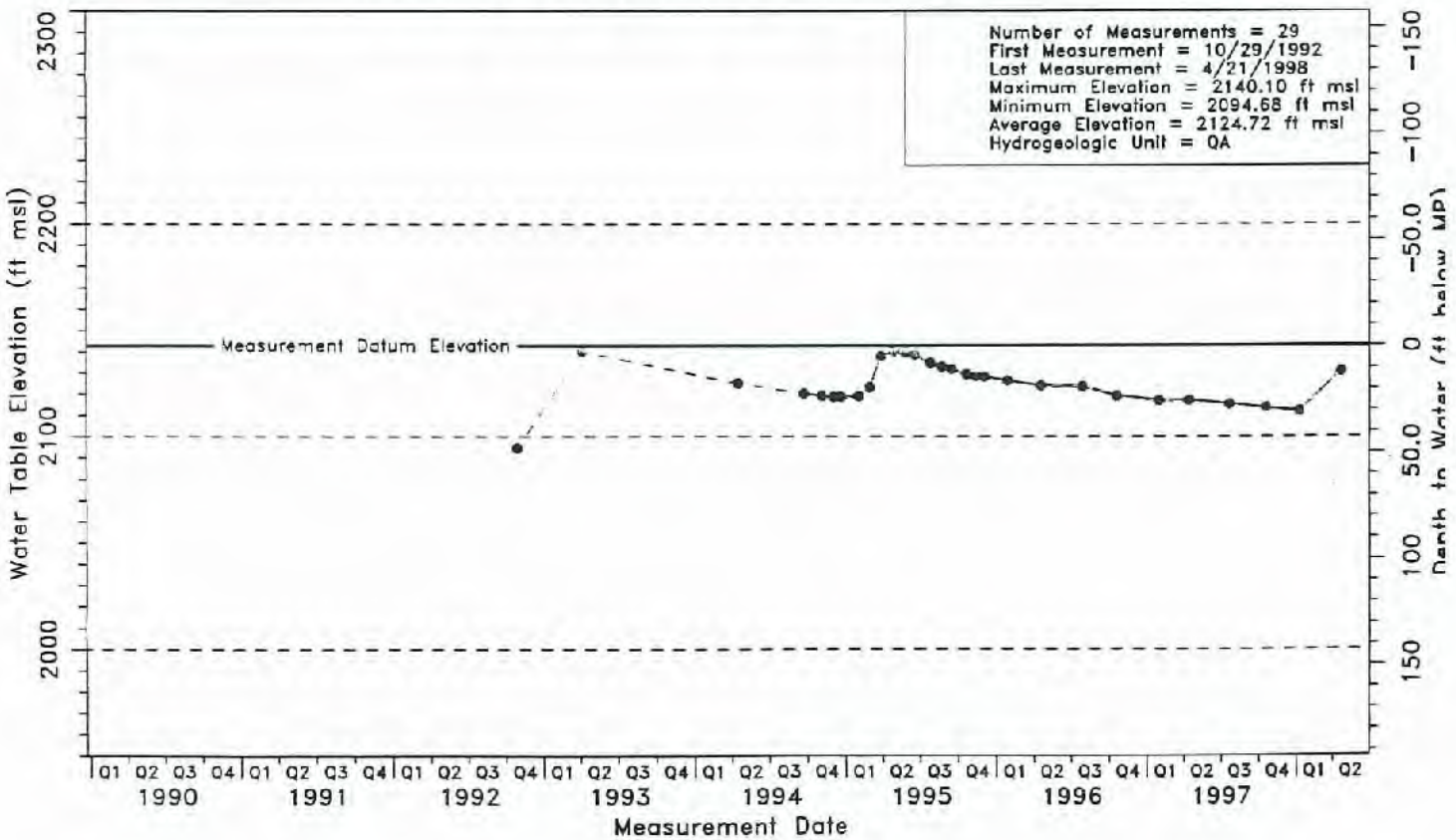
HYDROGRAPH MW-57A

Lockheed Martin Corporation Beaumont Site No. 1



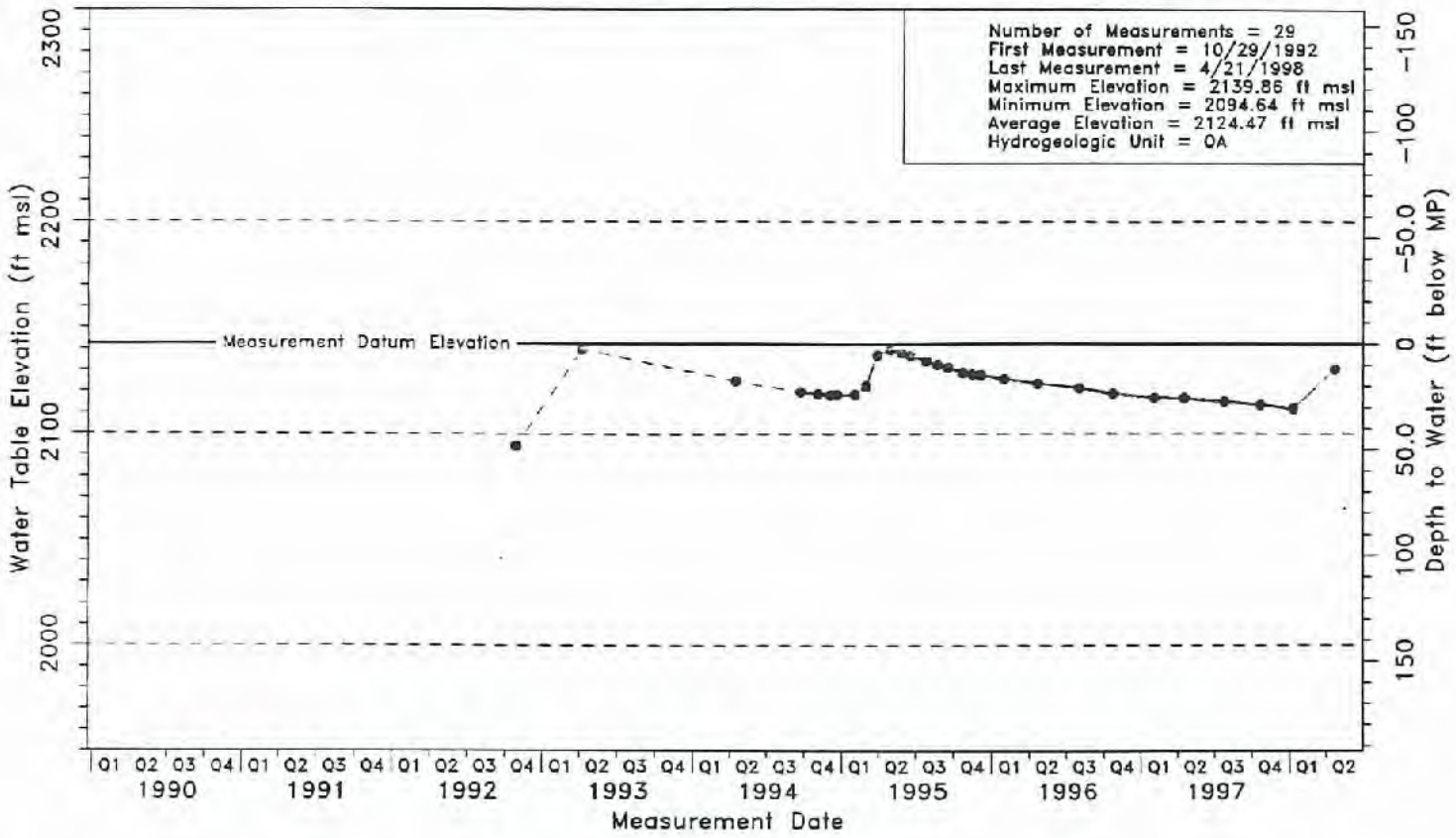
HYDROGRAPH MW-57B

Lockheed Martin Corporation Beaumont Site No. 1



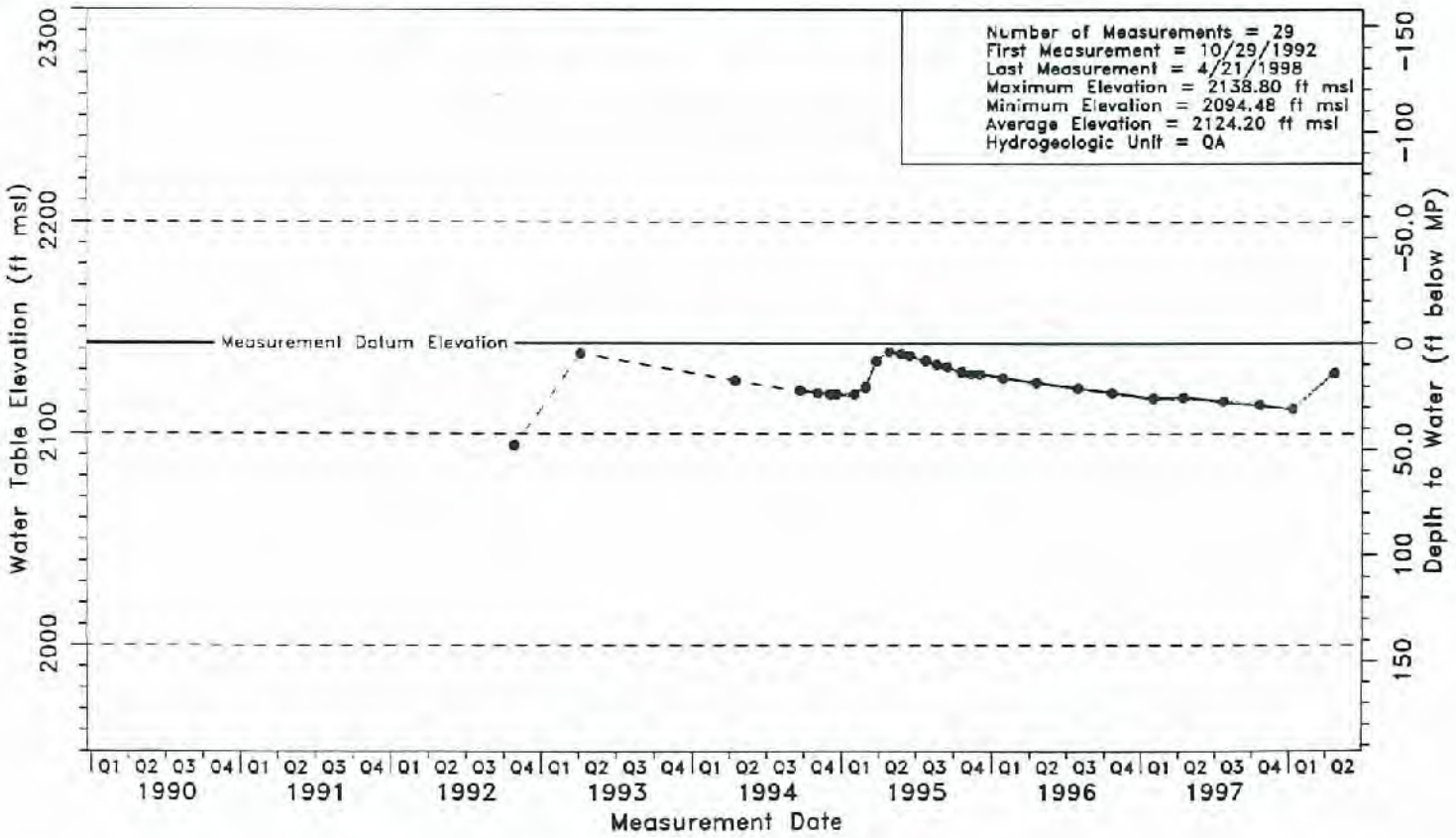
HYDROGRAPH MW-57C

Lockheed Martin Corporation Beaumont Site No. 1



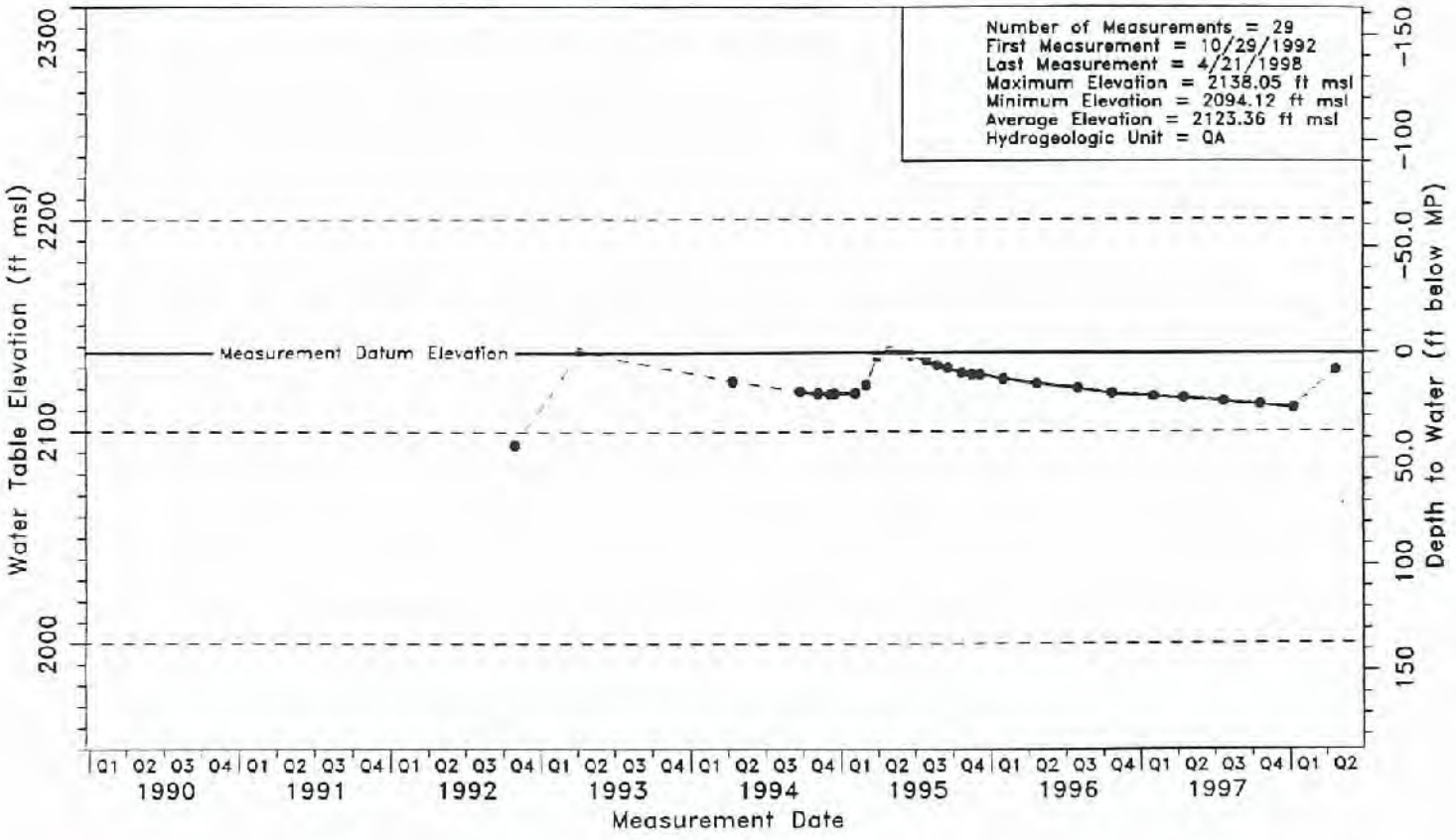
HYDROGRAPH MW-57D

Lockheed Martin Corporation Beaumont Site No. 1



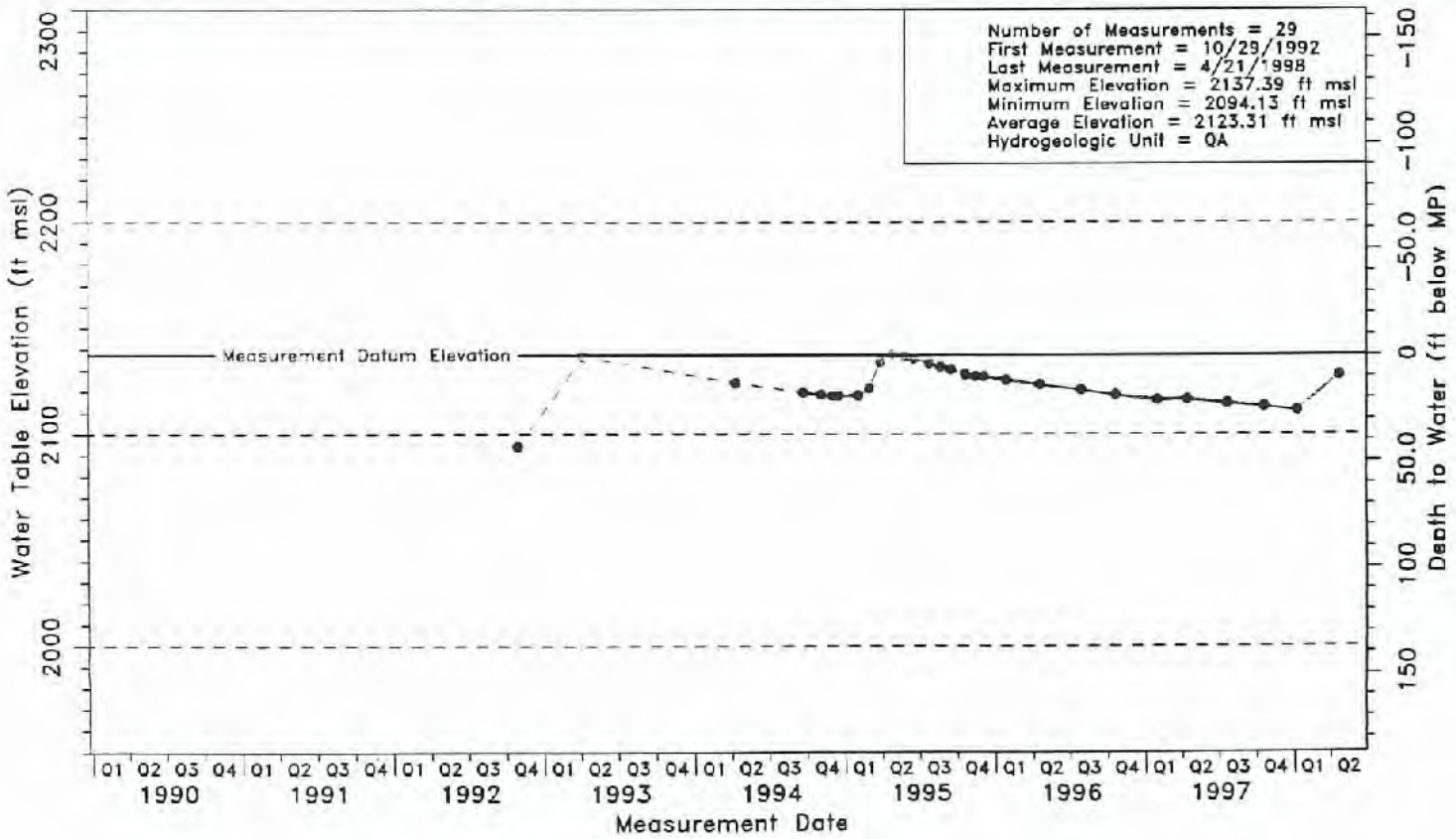
HYDROGRAPH MW-58A

Lockheed Martin Corporation Beaumont Site No. 1



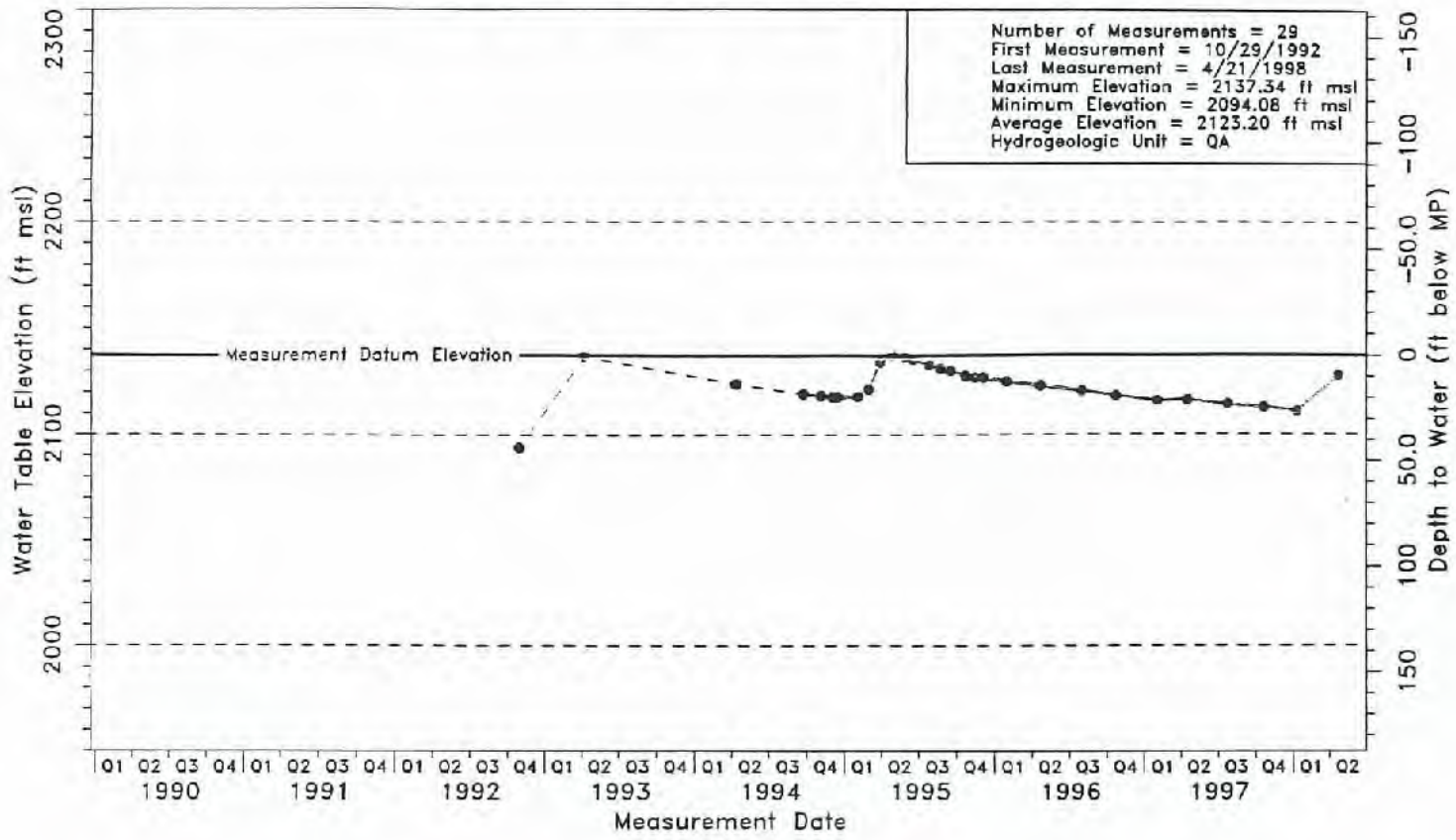
HYDROGRAPH MW-58B

Lockheed Martin Corporation Beaumont Site No. 1



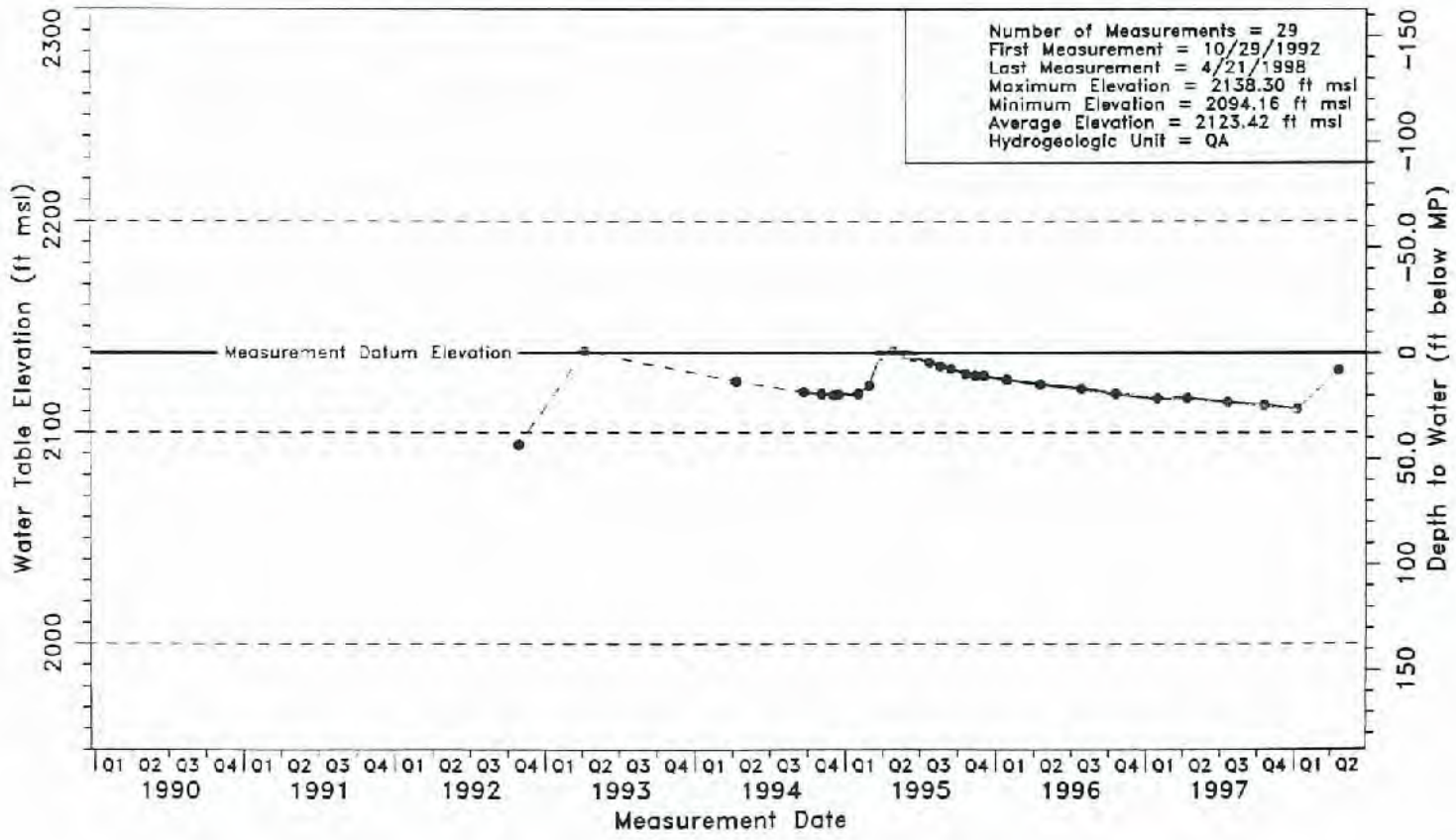
HYDROGRAPH MW-58C

Lockheed Martin Corporation Beaumont Site No. 1



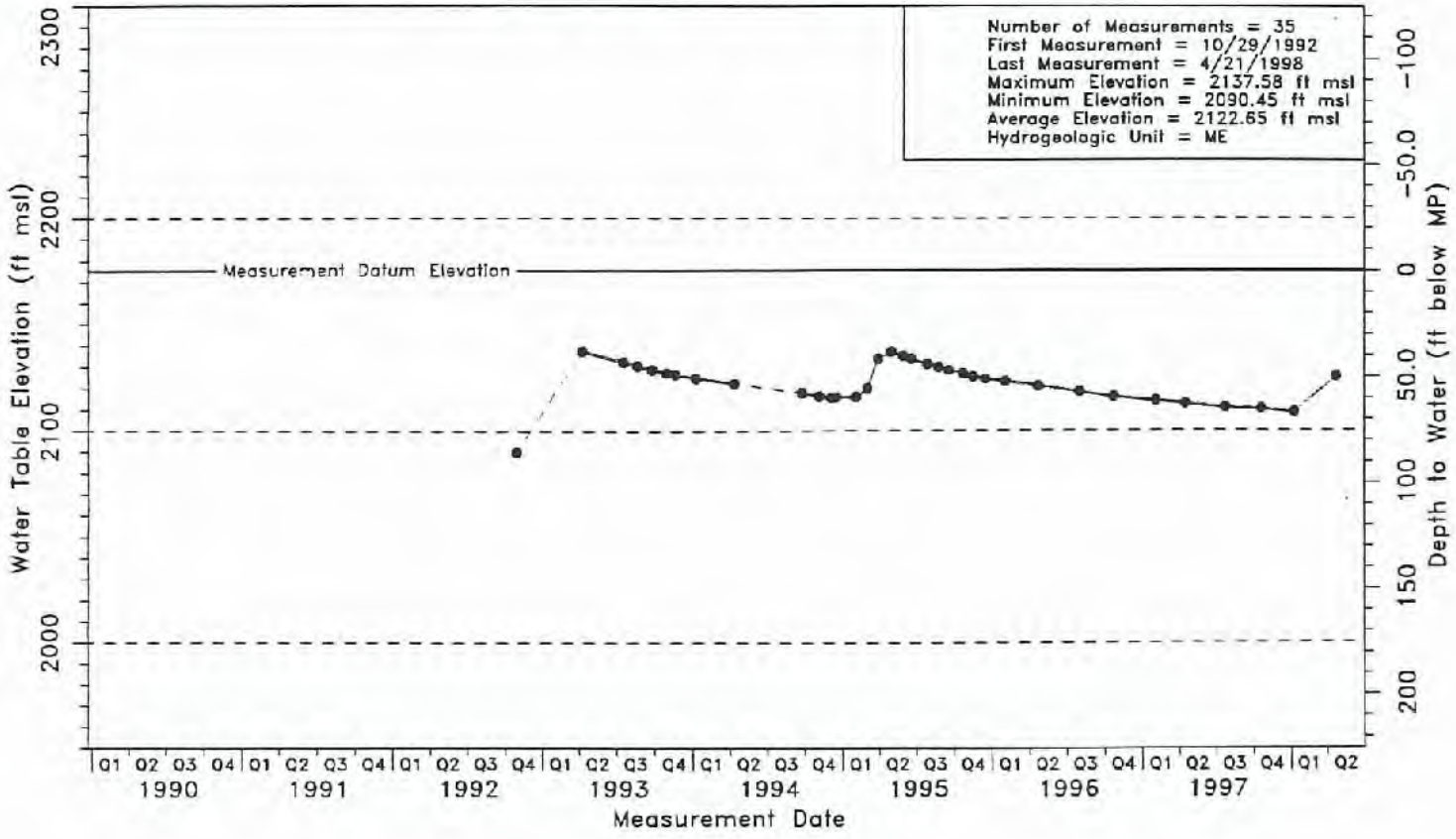
HYDROGRAPH MW-58D

Lockheed Martin Corporation Beaumont Site No. 1



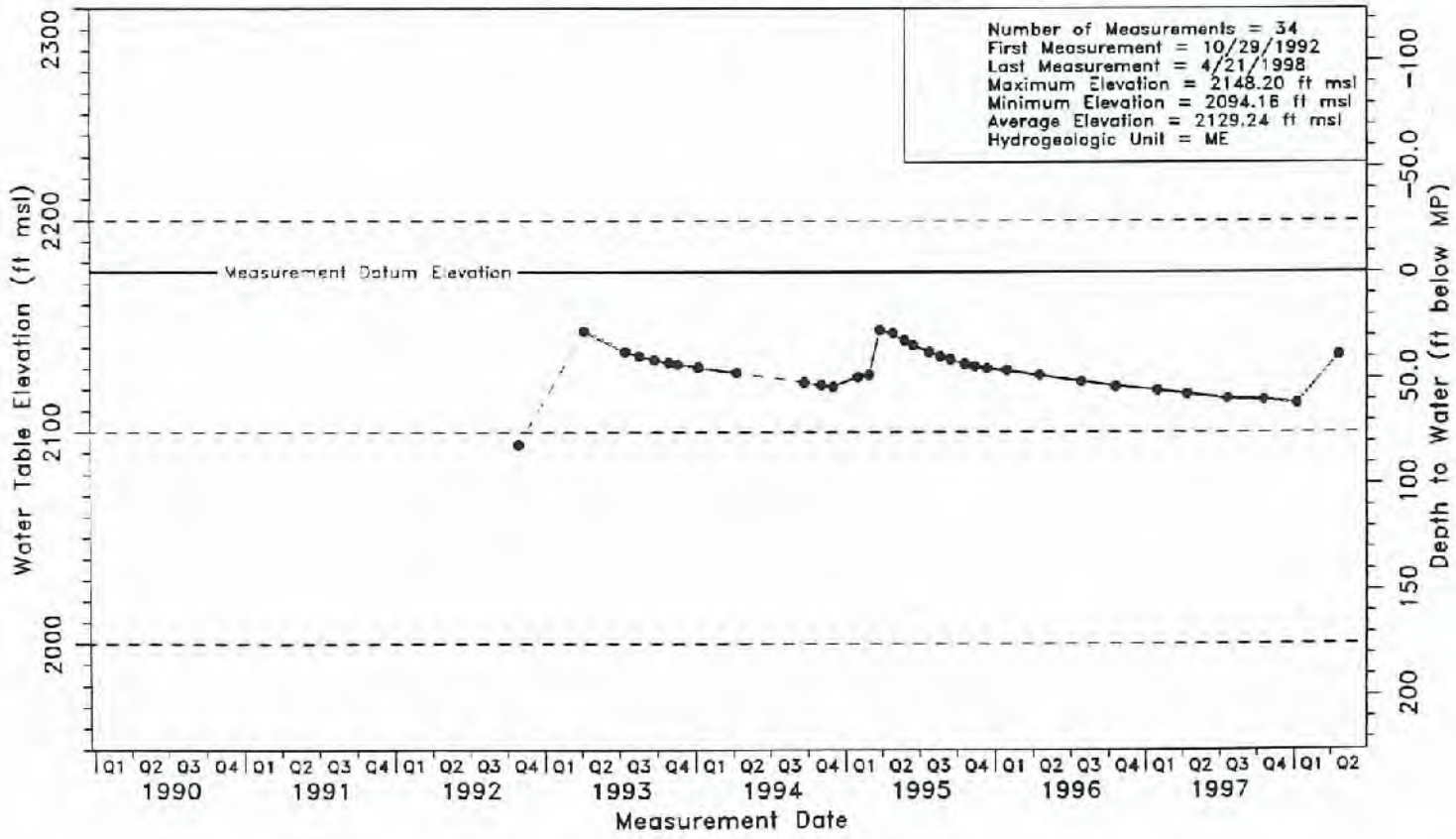
HYDROGRAPH MW-59A

Lockheed Martin Corporation Beaumont Site No. 1



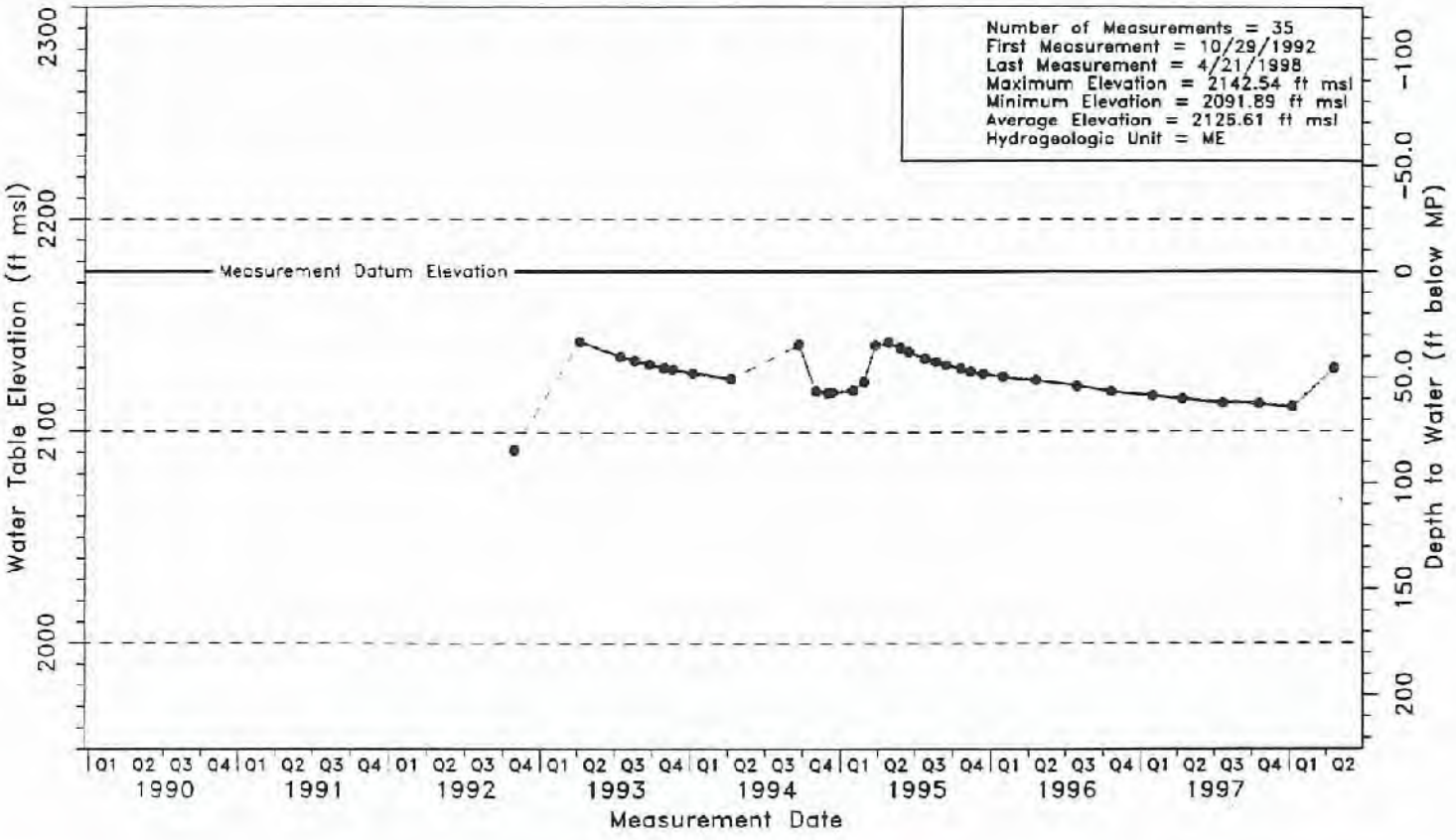
HYDROGRAPH MW-59B

Lockheed Martin Corporation Beaumont Site No. 1



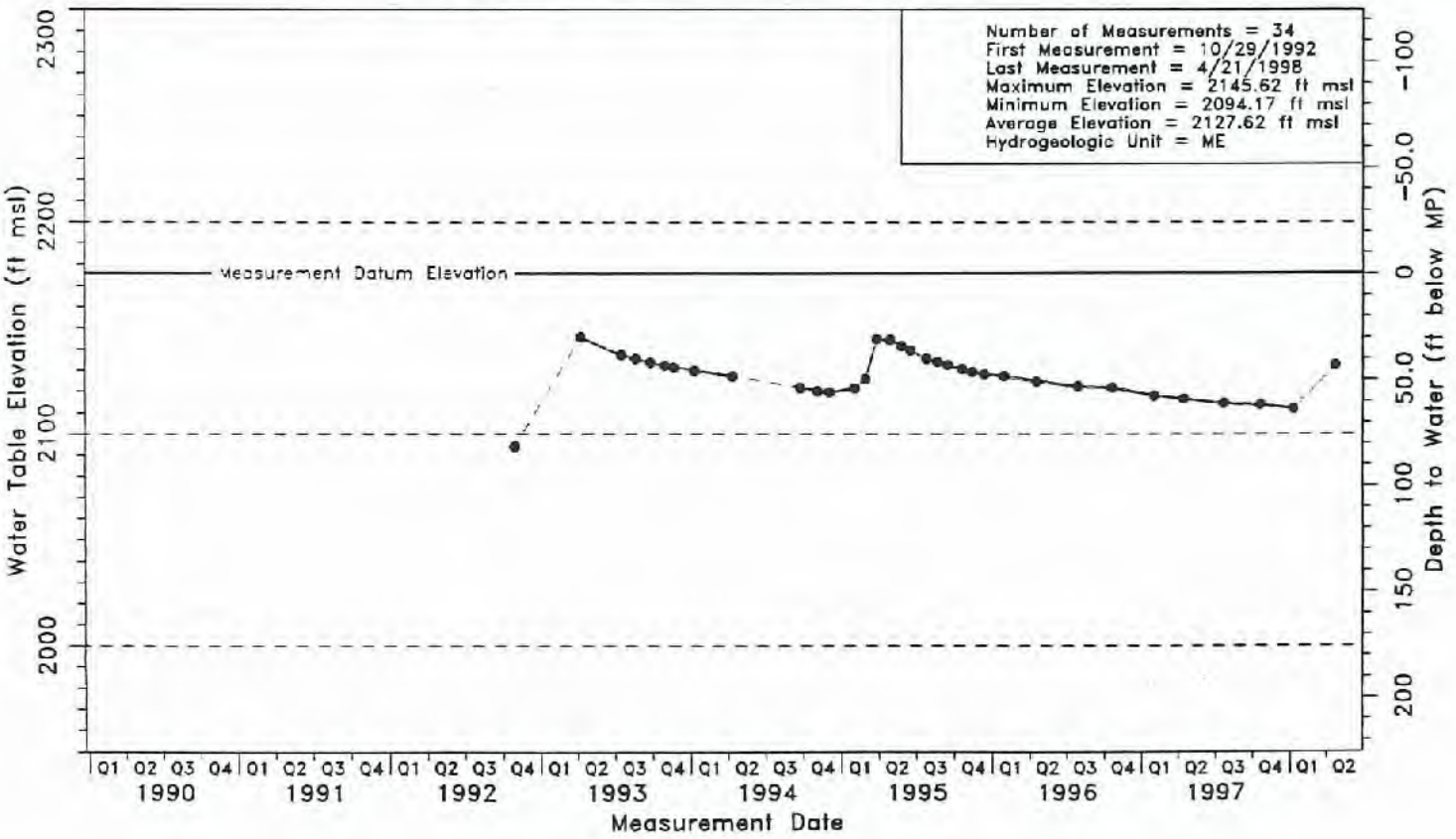
HYDROGRAPH MW-59C

Lockheed Martin Corporation Beaumont Site No. 1



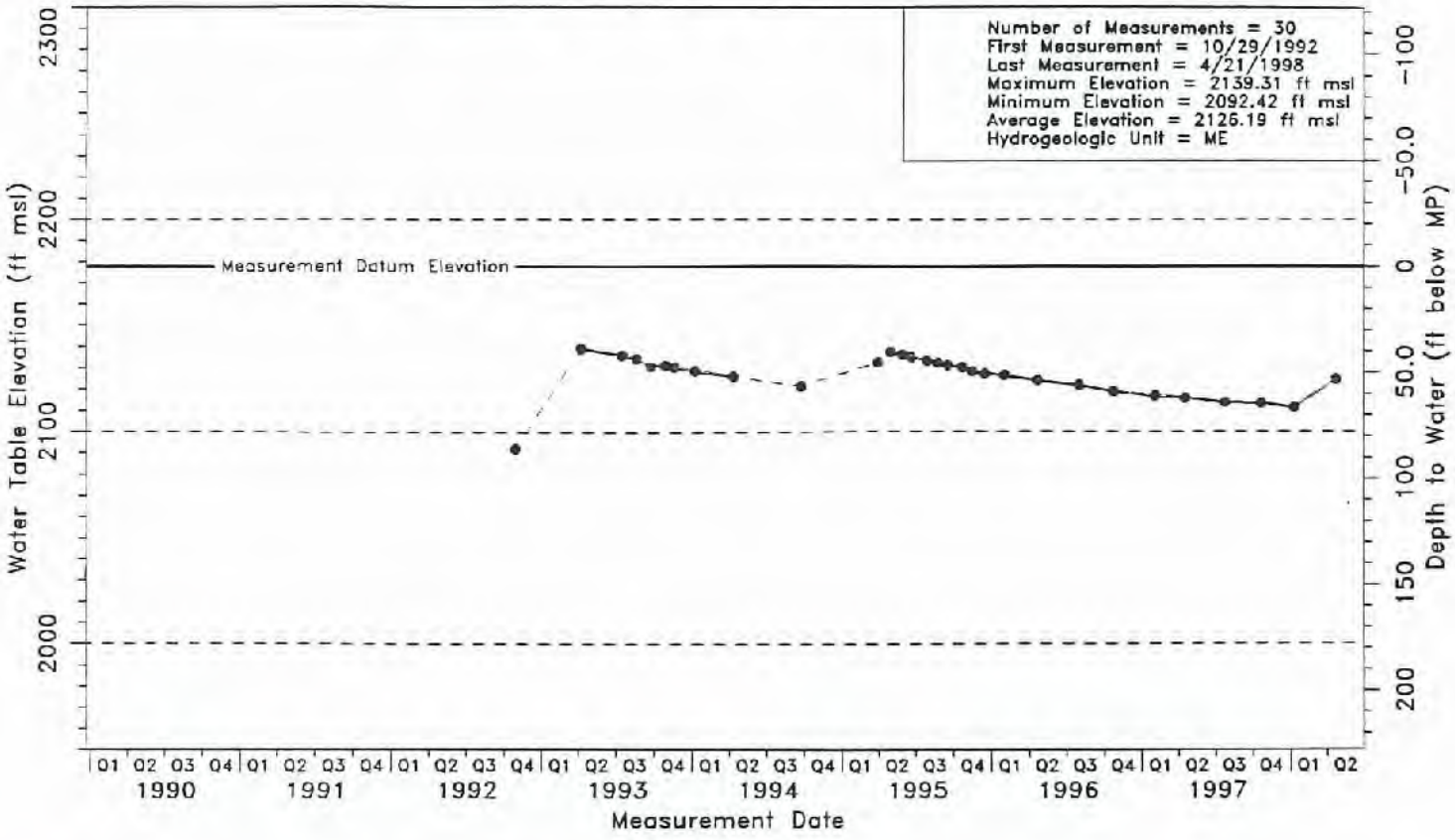
HYDROGRAPH MW-59D

Lockheed Martin Corporation Beaumont Site No. 1



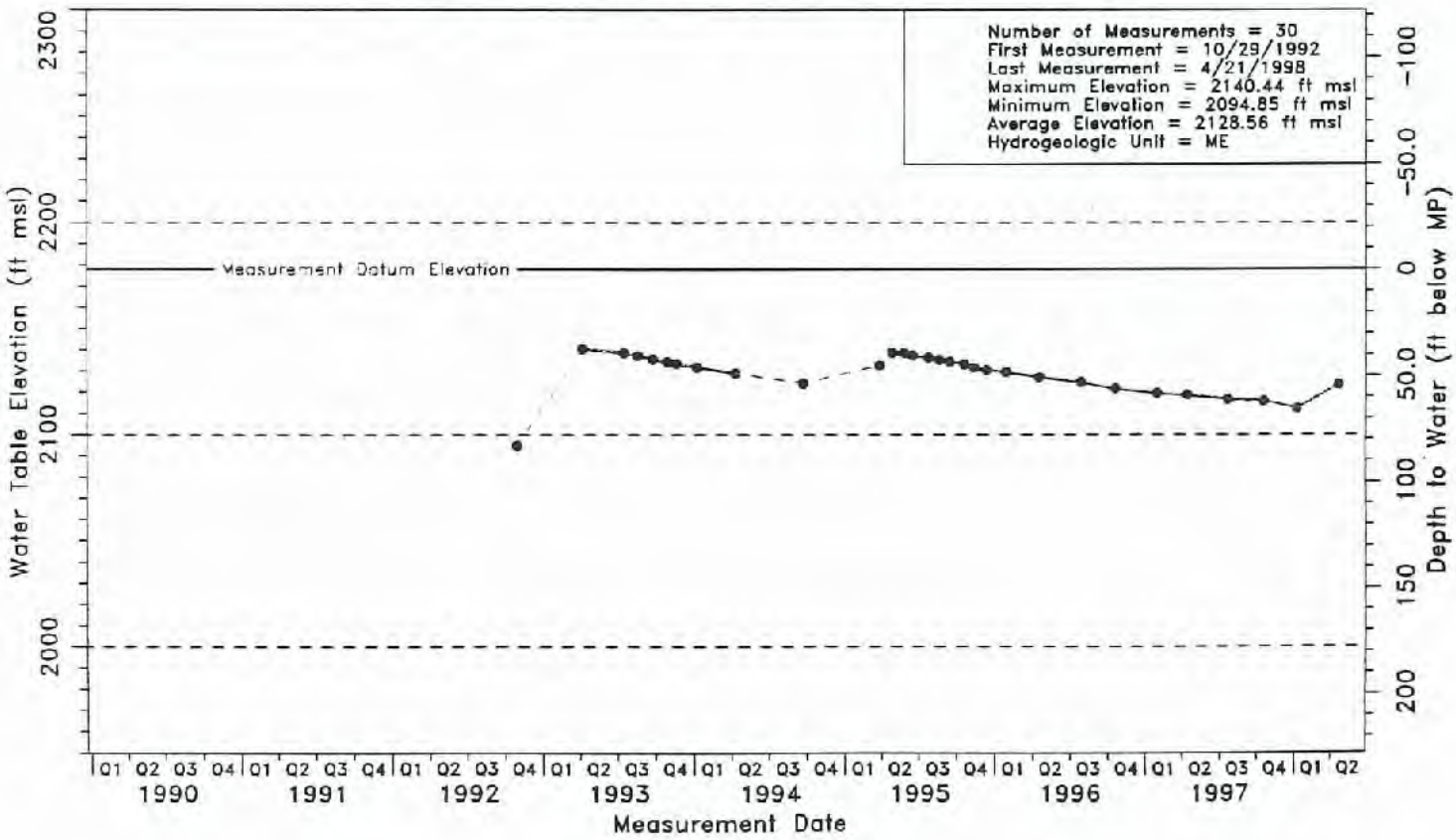
HYDROGRAPH MW-60A

Lockheed Martin Corporation Beaumont Site No. 1



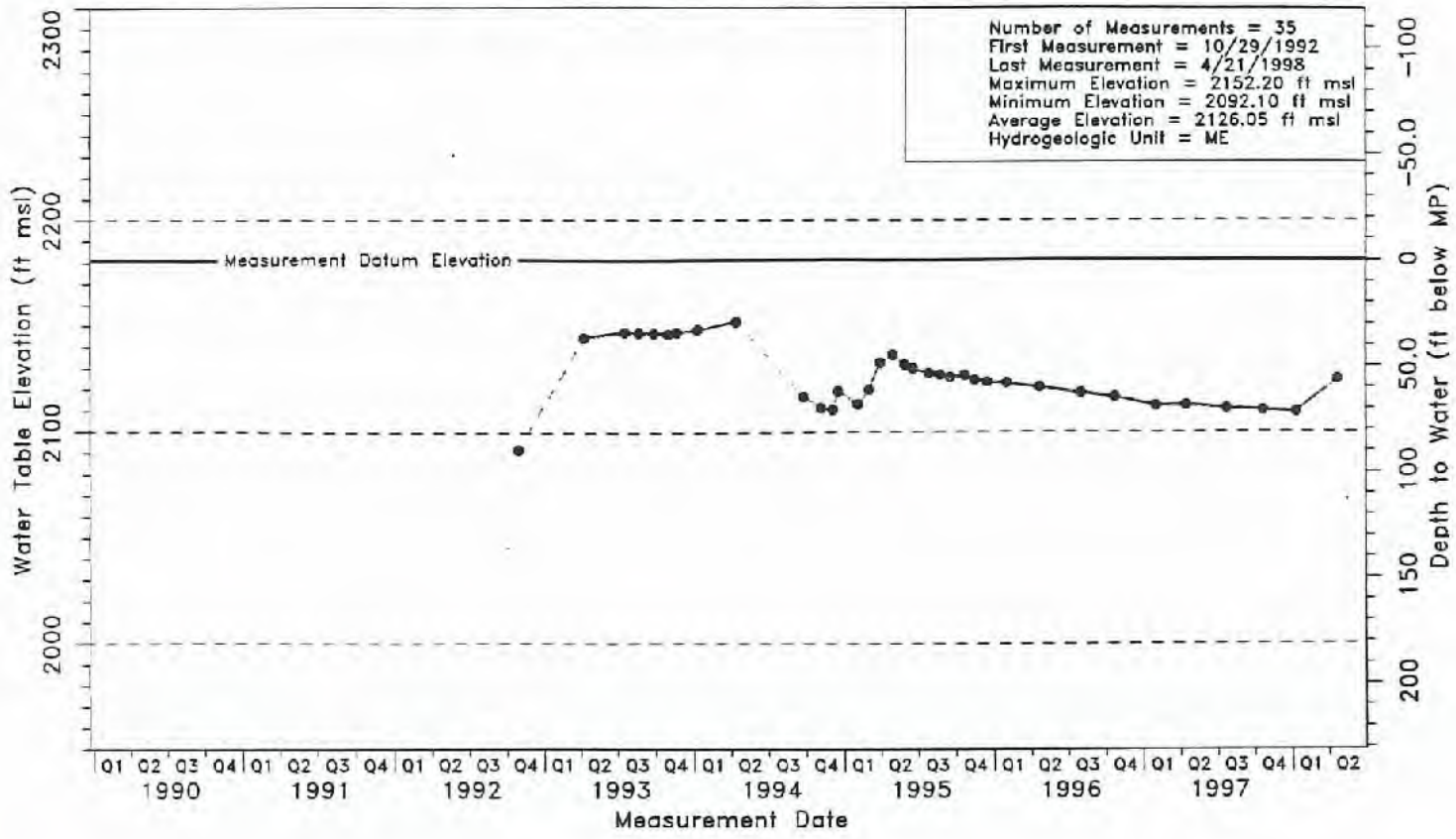
HYDROGRAPH MW-60B

Lockheed Martin Corporation Beaumont Site No. 1



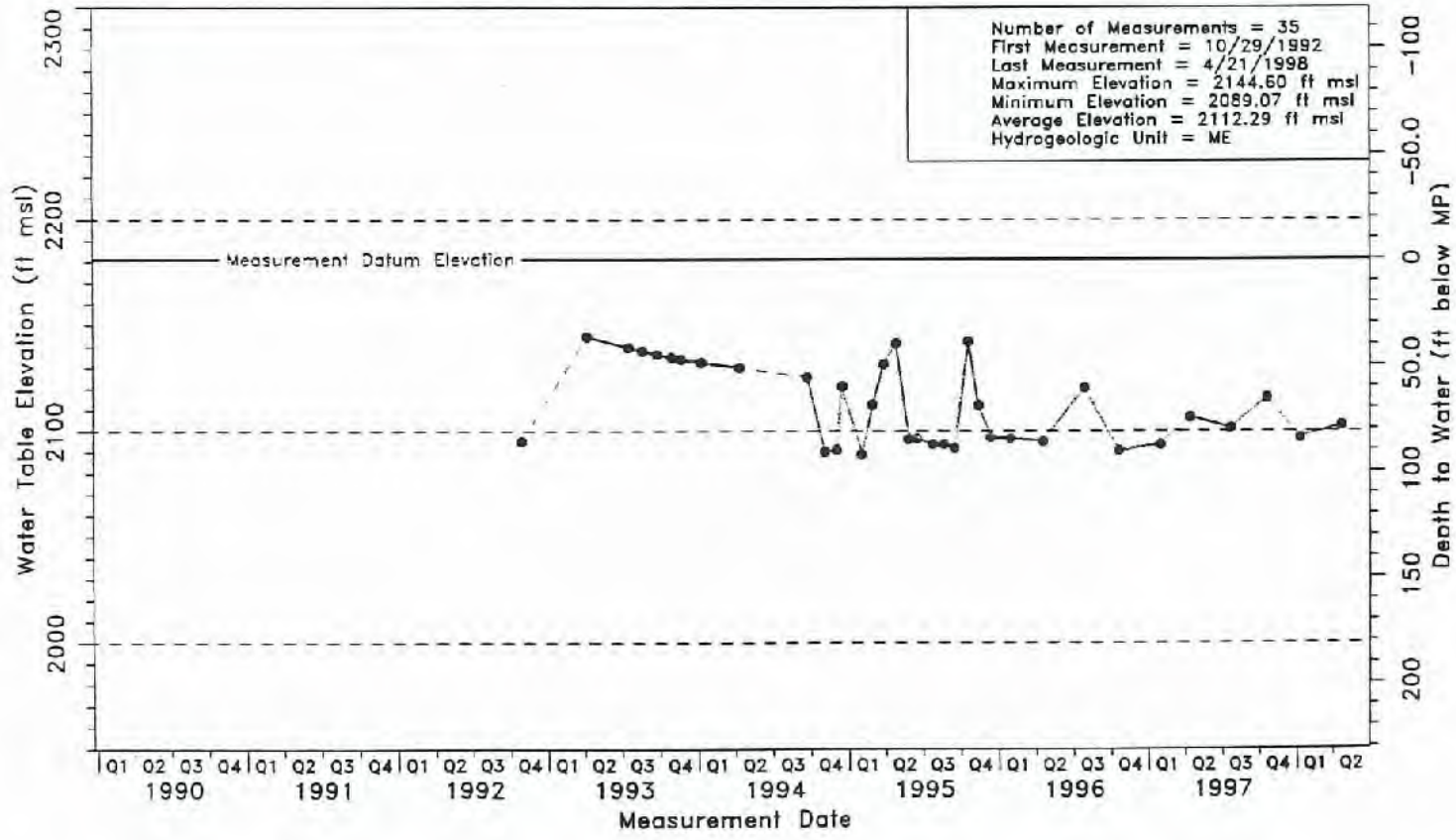
HYDROGRAPH MW-61A

Lockheed Martin Corporation Beaumont Site No. 1



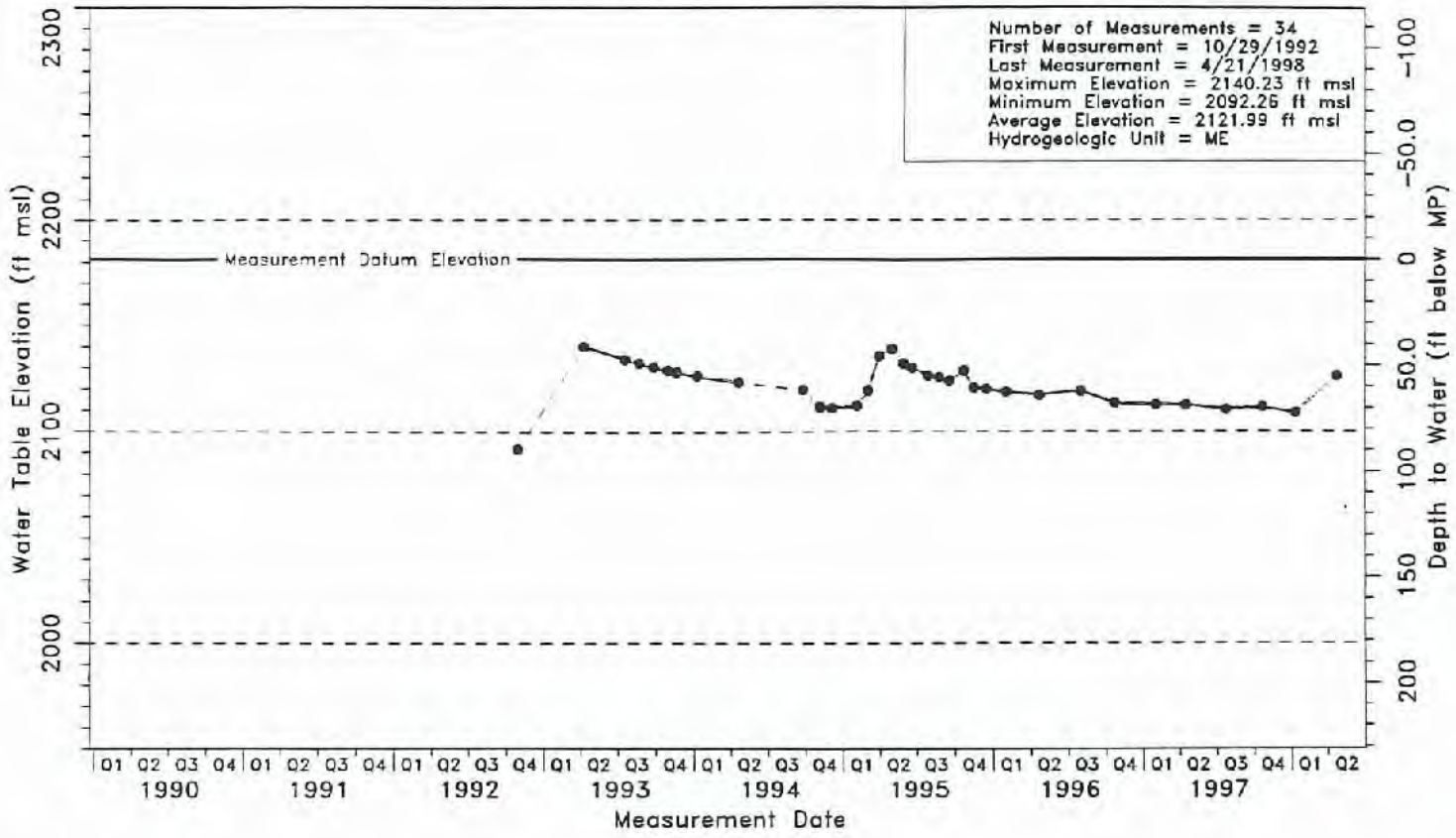
HYDROGRAPH MW-61B

Lockheed Martin Corporation Beaumont Site No. 1



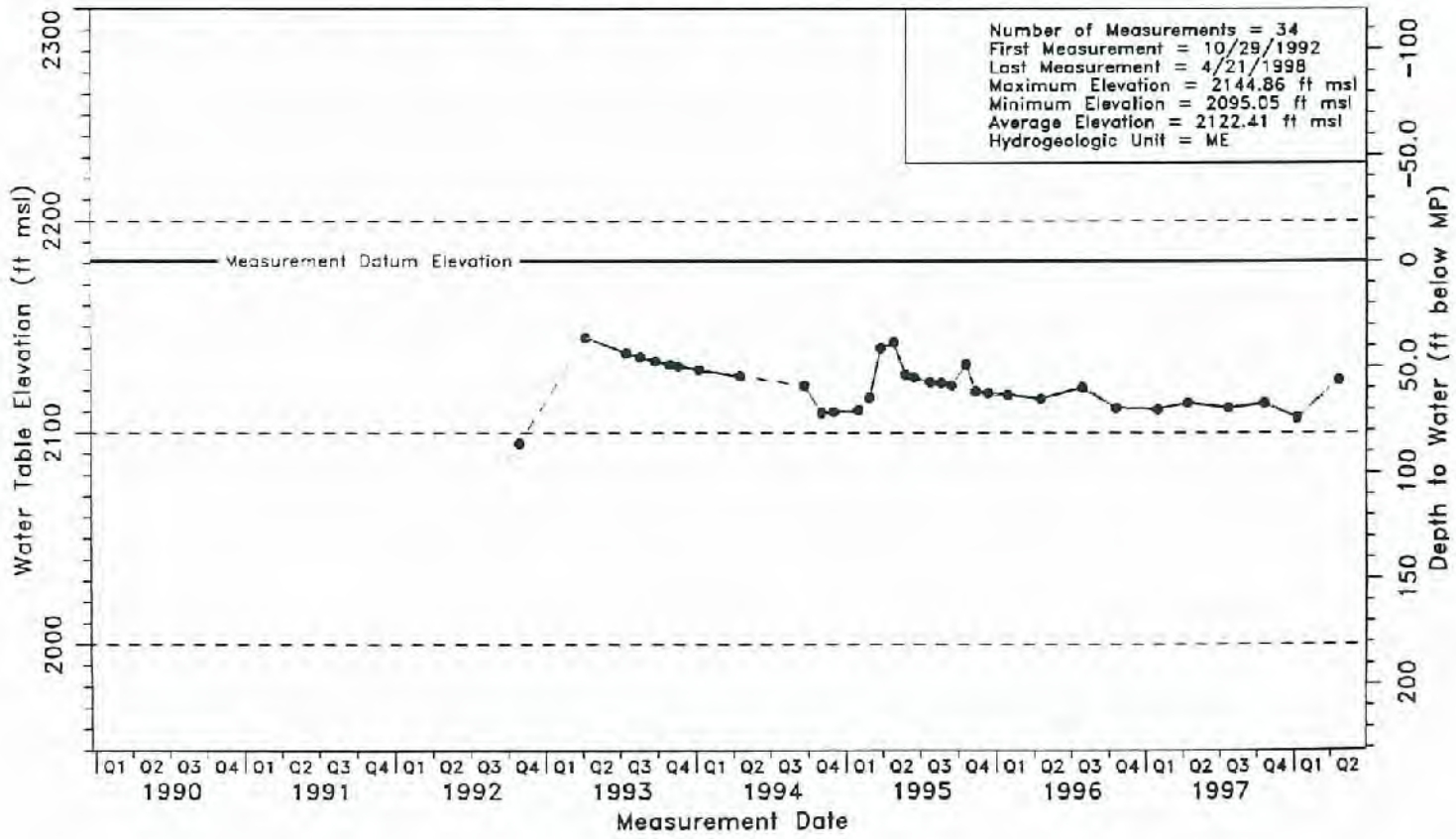
HYDROGRAPH MW-61C

Lockheed Martin Corporation Beaumont Site No. 1



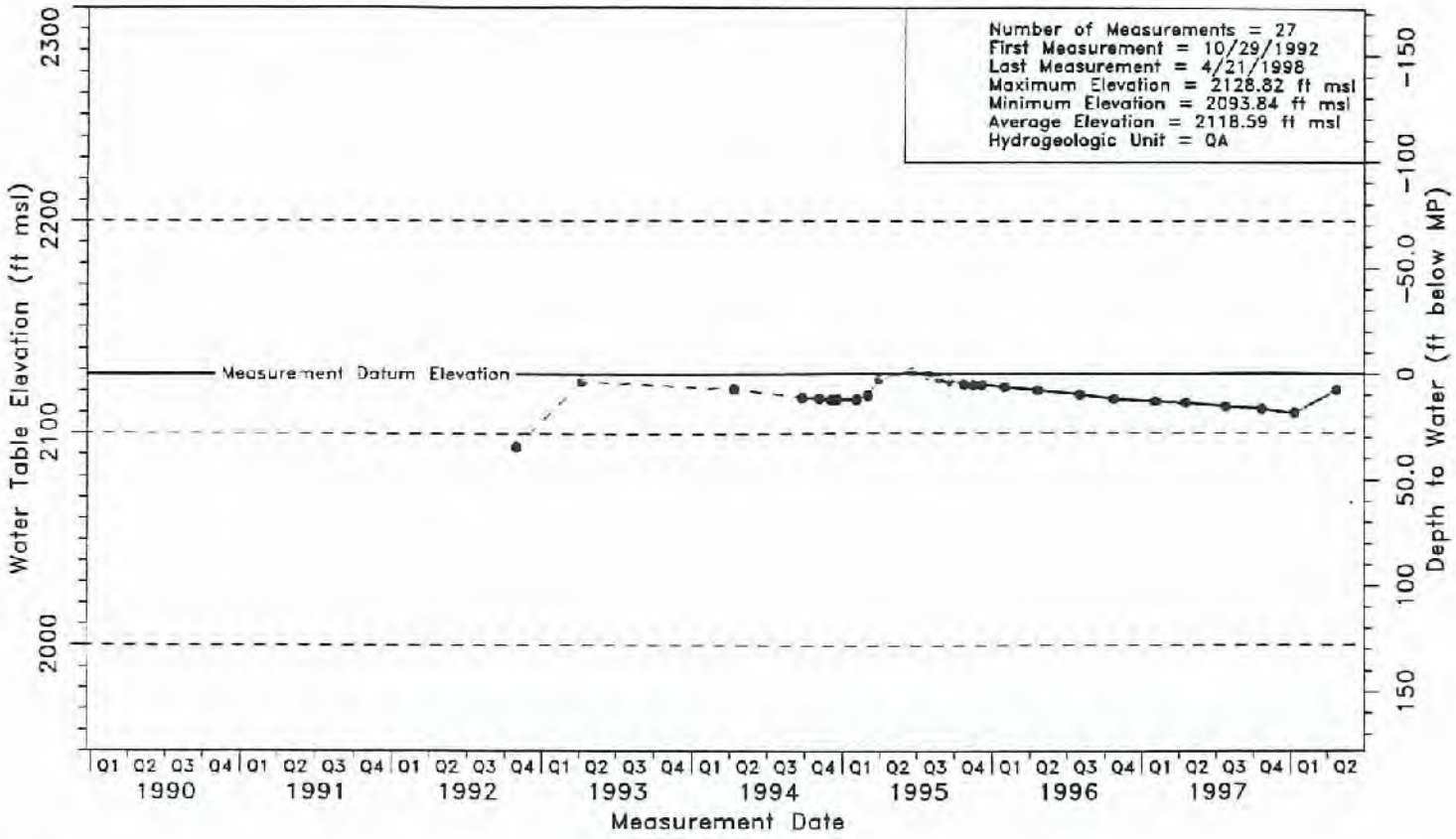
HYDROGRAPH MW-61D

Lockheed Martin Corporation Beaumont Site No. 1



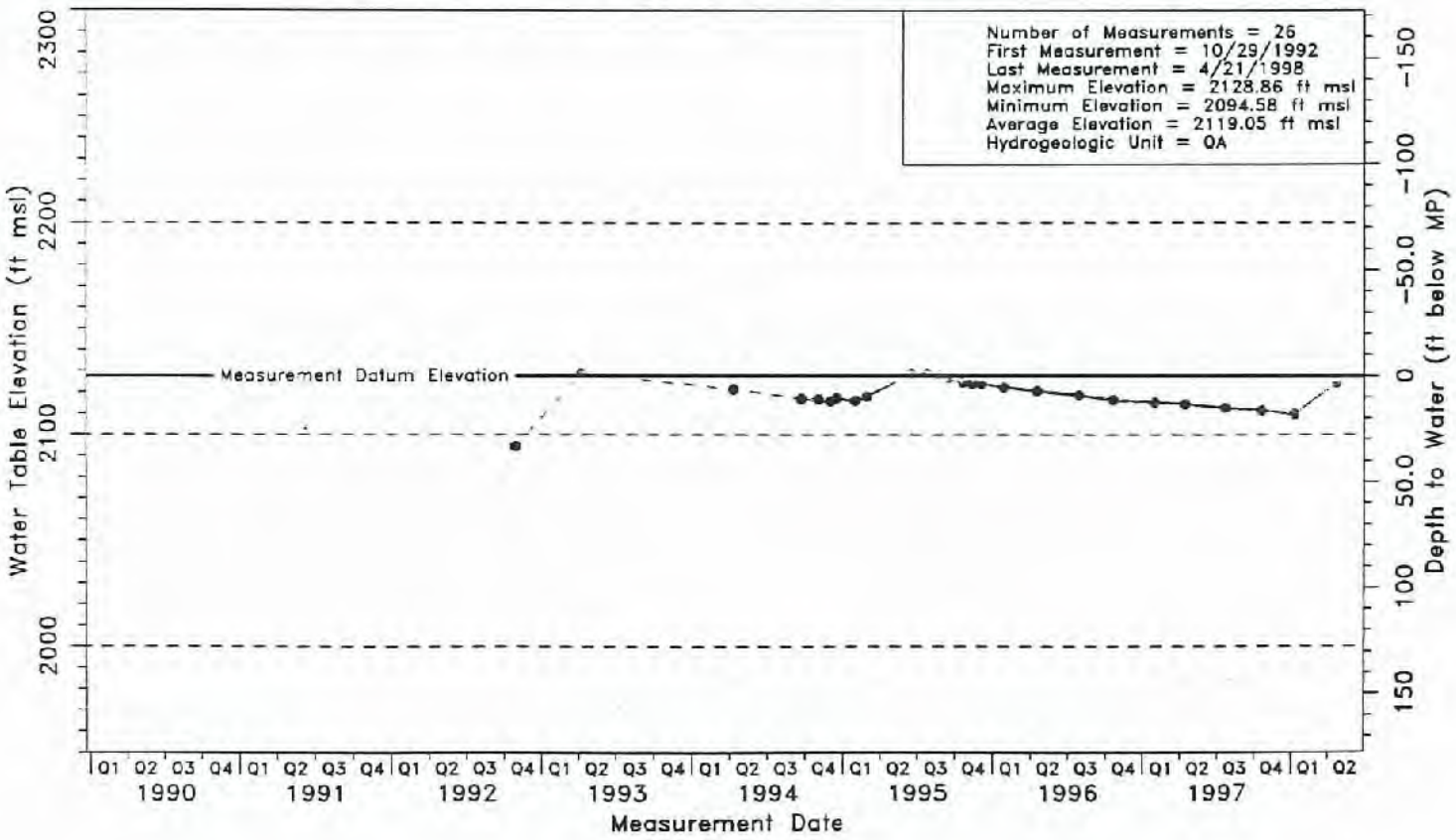
HYDROGRAPH MW-62A

Lockheed Martin Corporation Beaumont Site No. 1



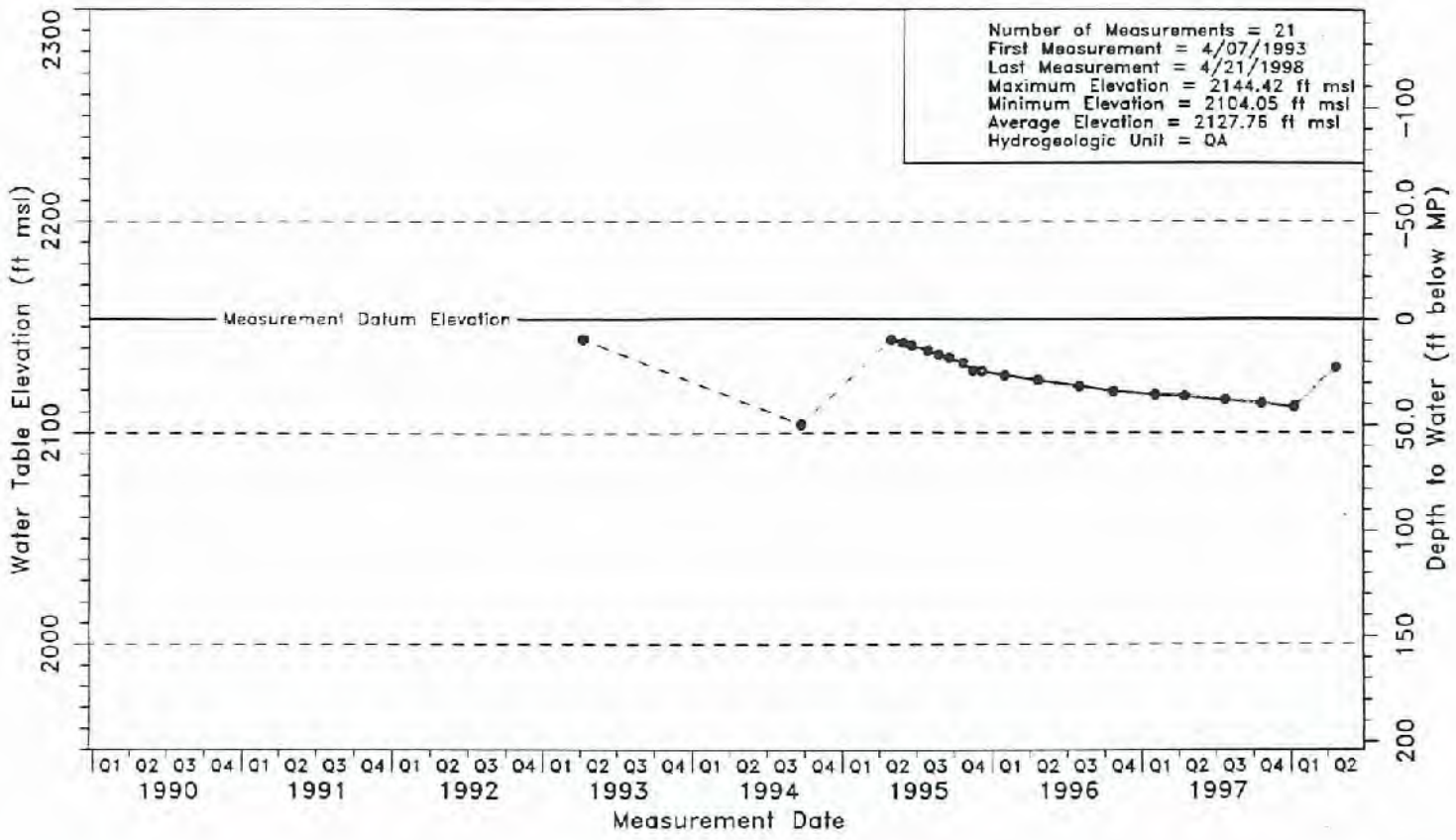
HYDROGRAPH MW-62B

Lockheed Martin Corporation Beaumont Site No. 1



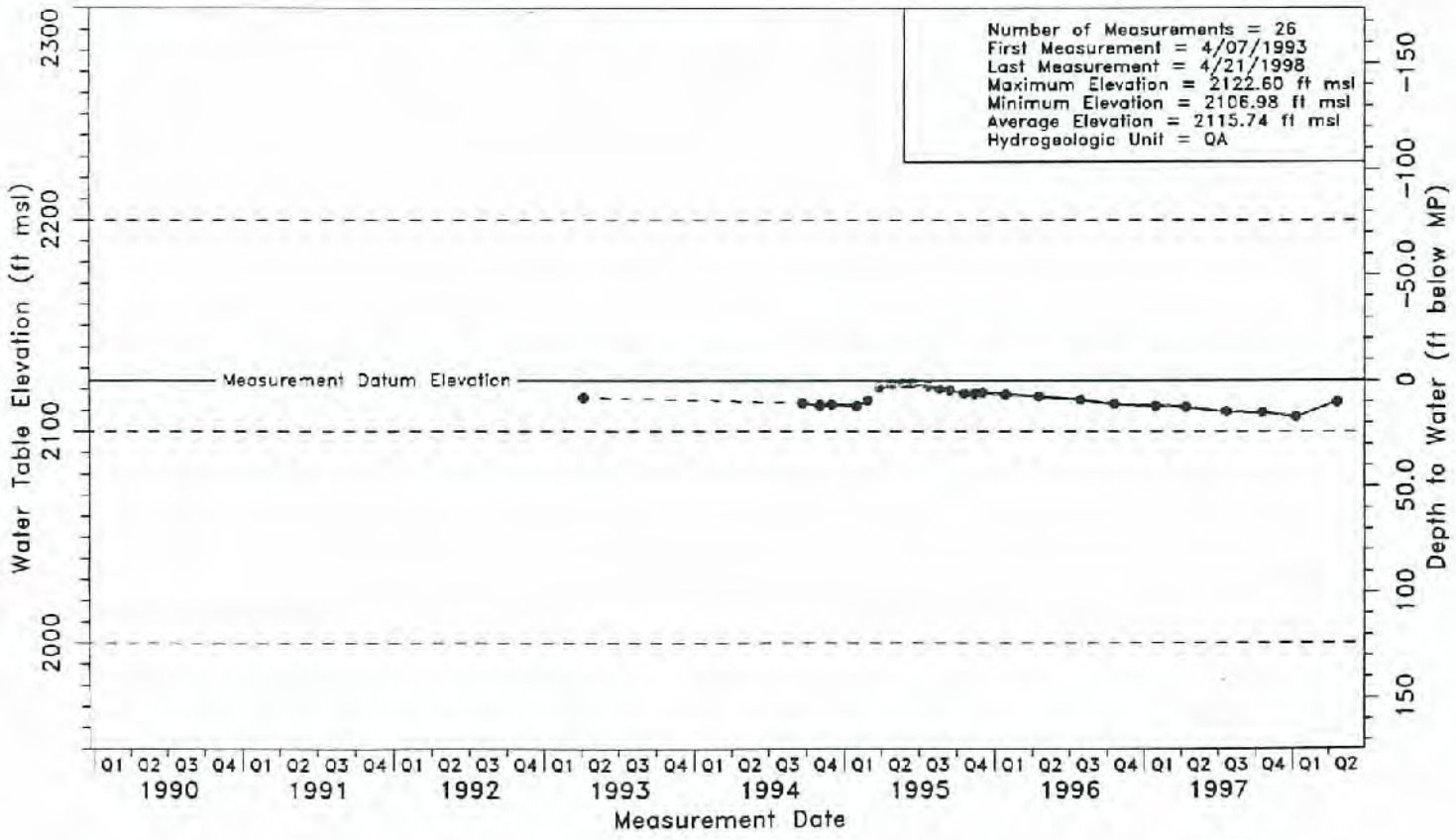
HYDROGRAPH MW-63

Lockheed Martin Corporation Beaumont Site No. 1



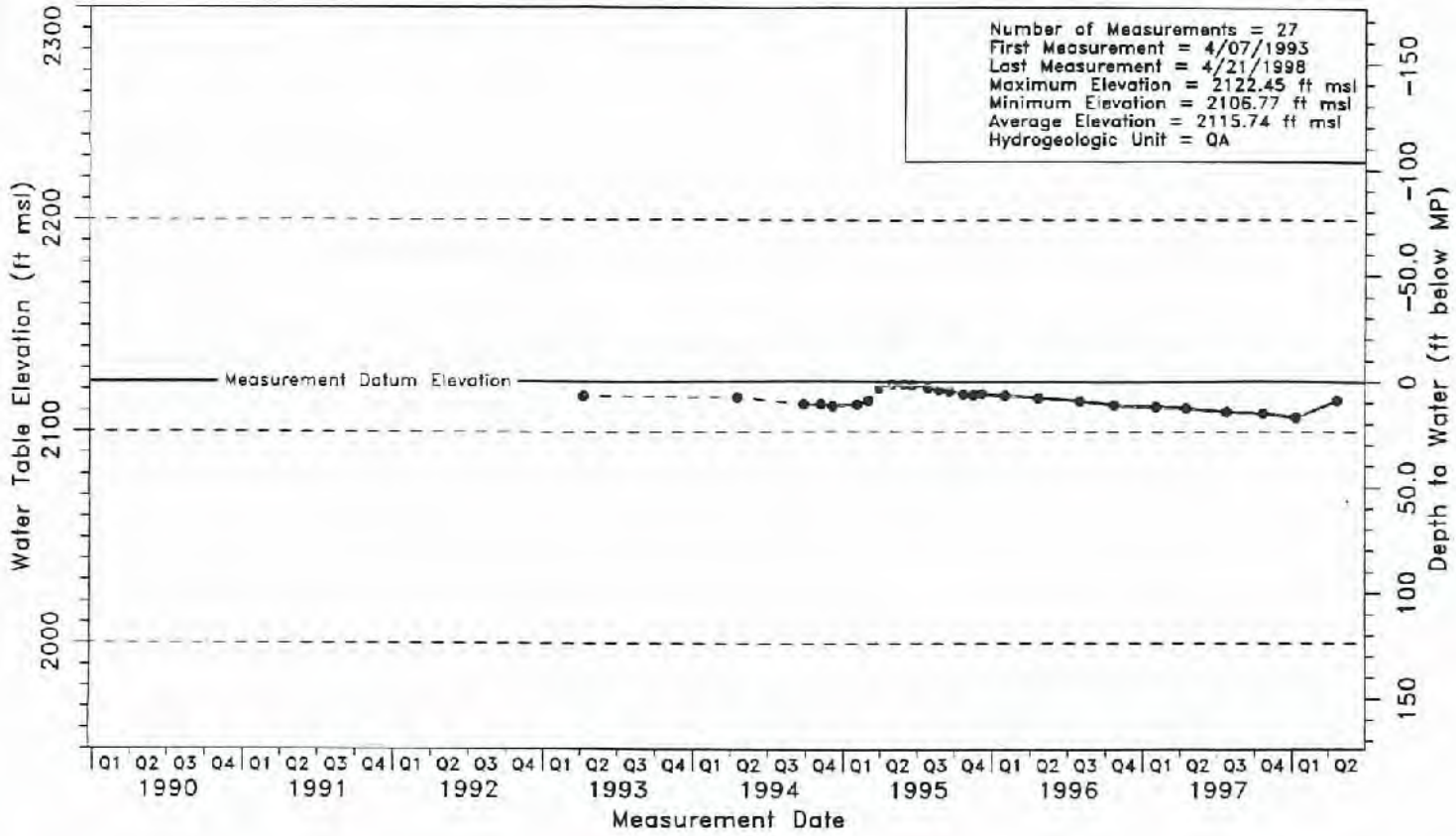
HYDROGRAPH MW-64

Lockheed Martin Corporation Beaumont Site No. 1



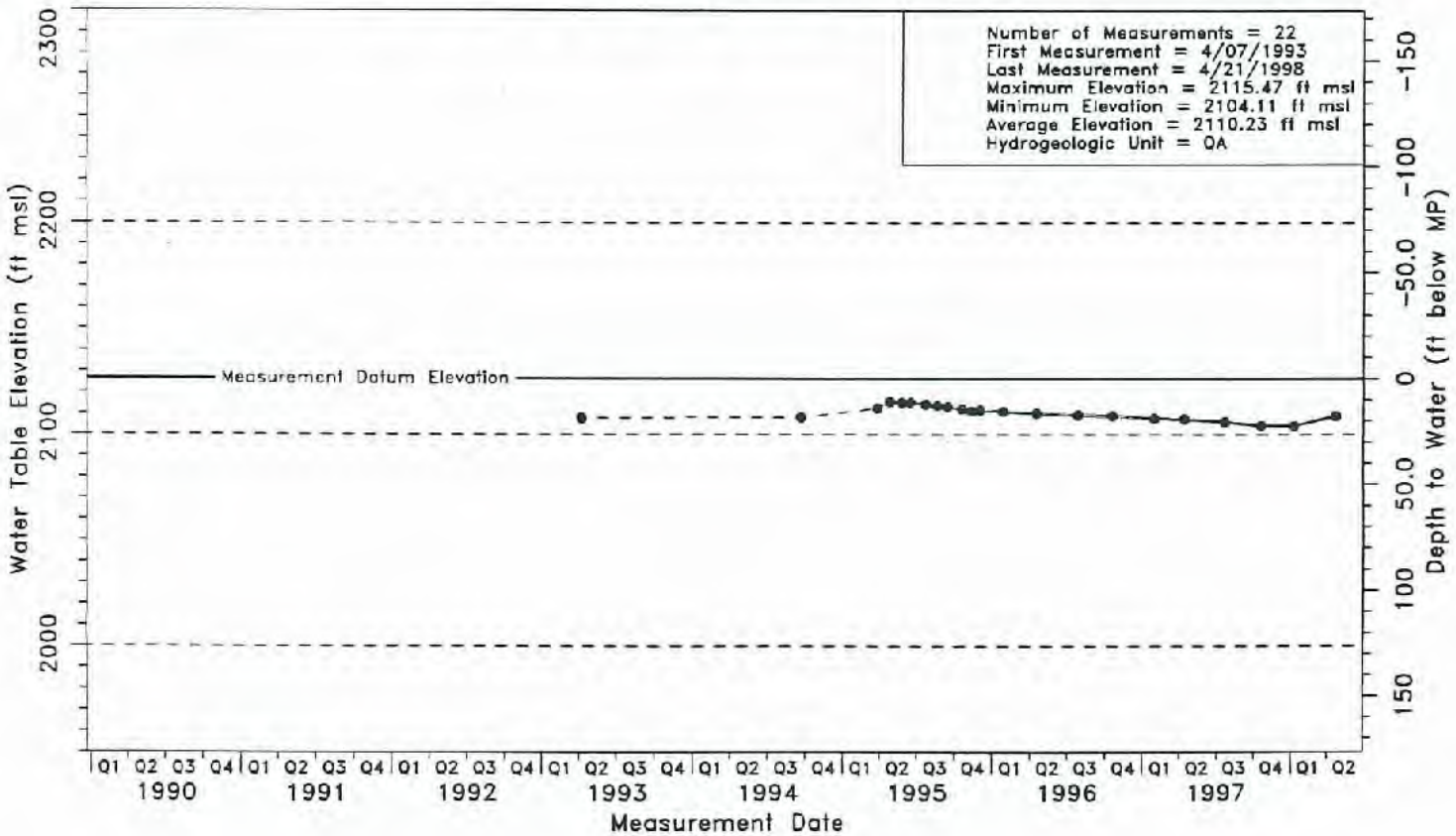
HYDROGRAPH MW-65

Lockheed Martin Corporation Beaumont Site No. 1



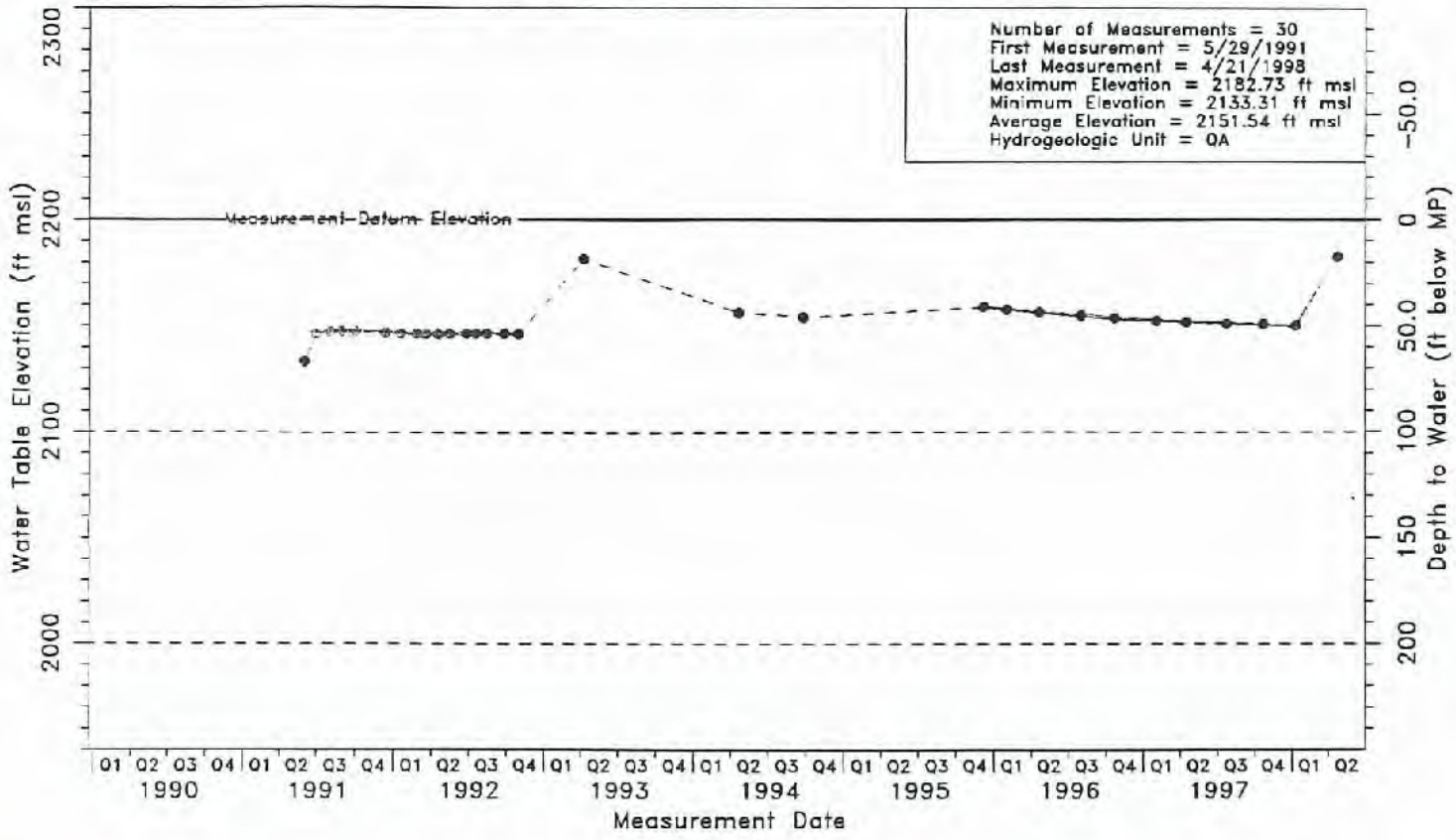
HYDROGRAPH MW-66

Lockheed Martin Corporation Beaumont Site No. 1



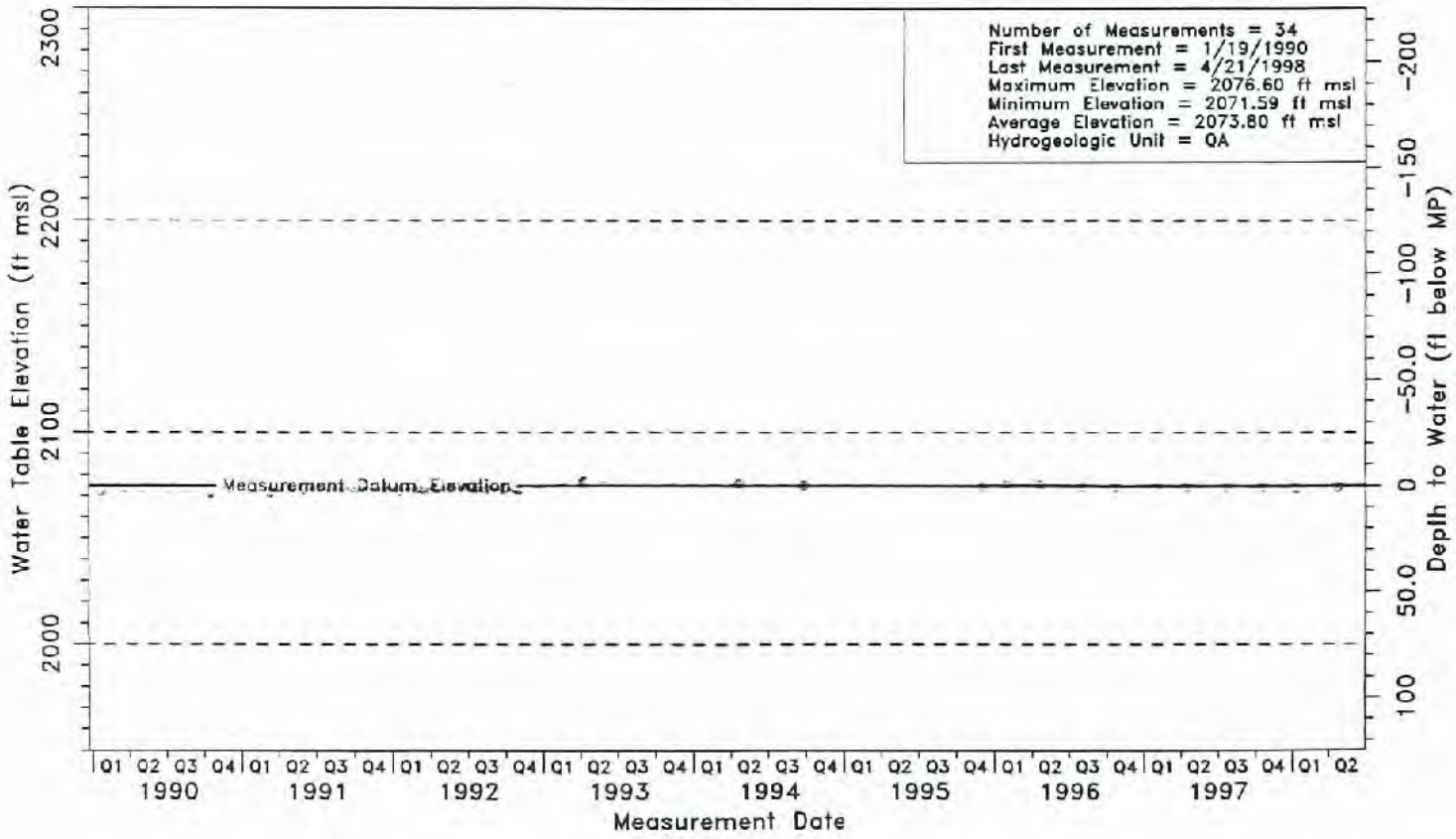
HYDROGRAPH OW-01

Lockheed Martin Corporation Beaumont Site No. 1



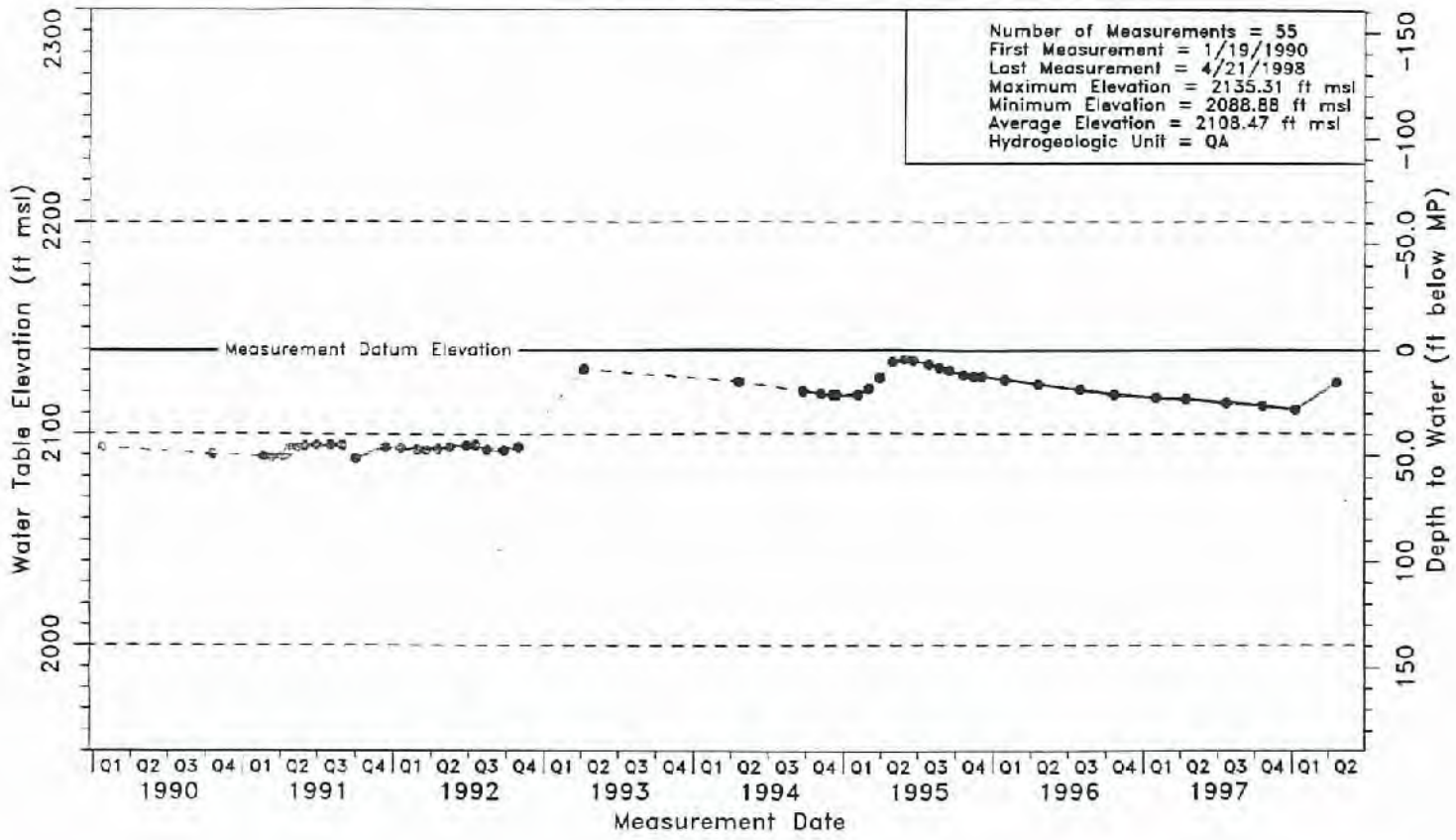
HYDROGRAPH OW-02

Lockheed Martin Corporation Beaumont Site No. 1



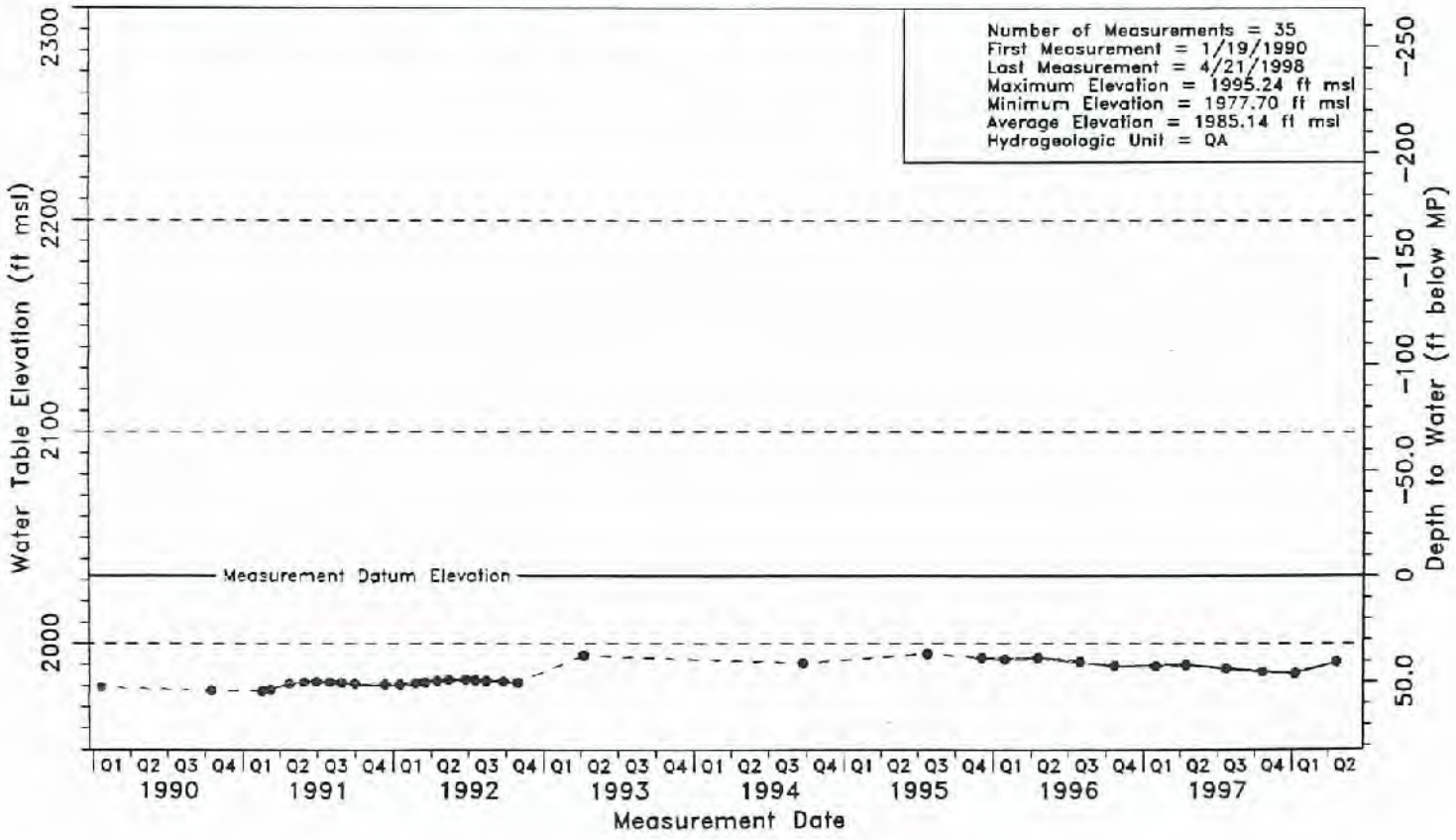
HYDROGRAPH OW-03

Lockheed Martin Corporation Beaumont Site No. 1



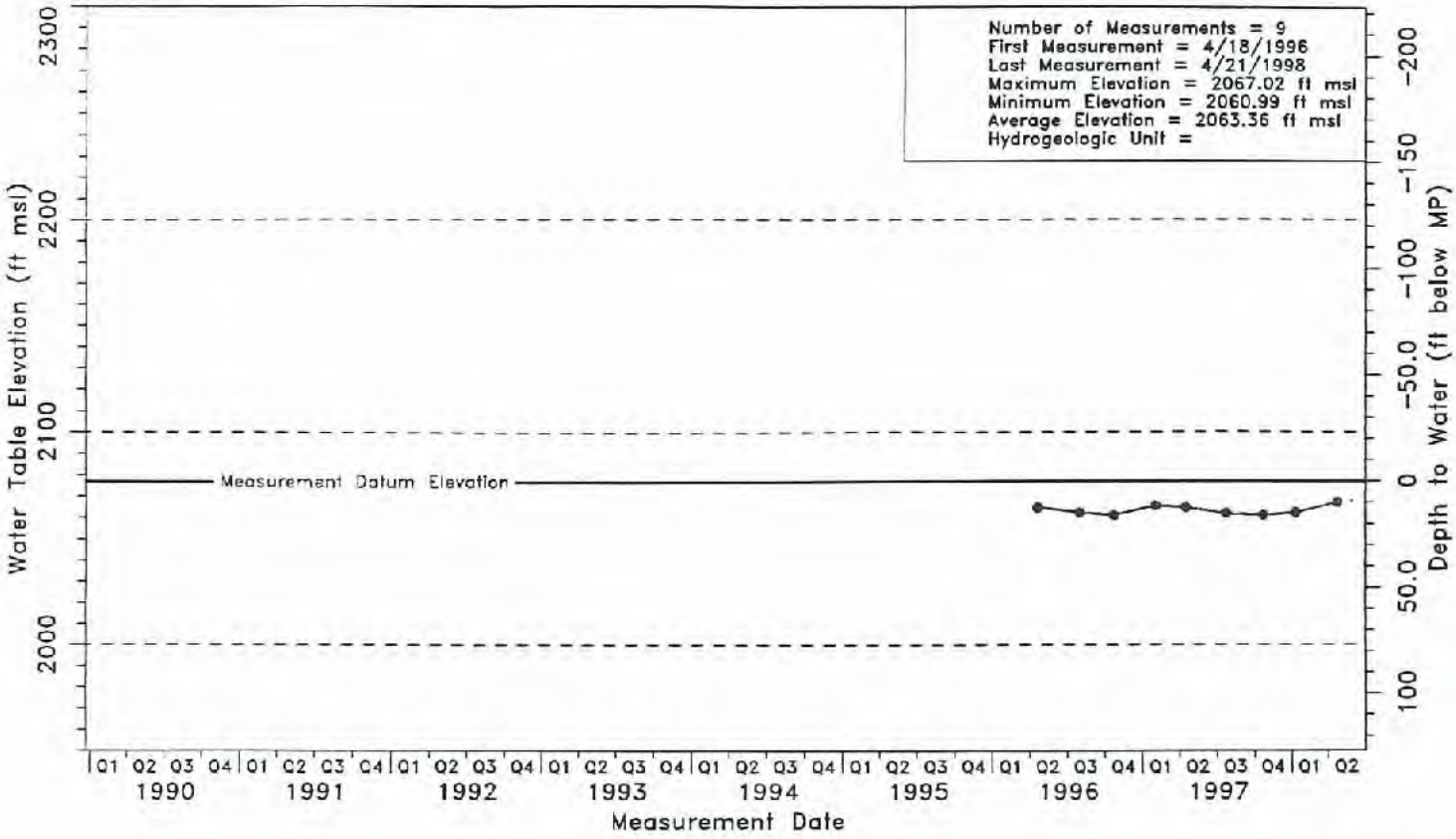
HYDROGRAPH OW-08

Lockheed Martin Corporation Beaumont Site No. 1



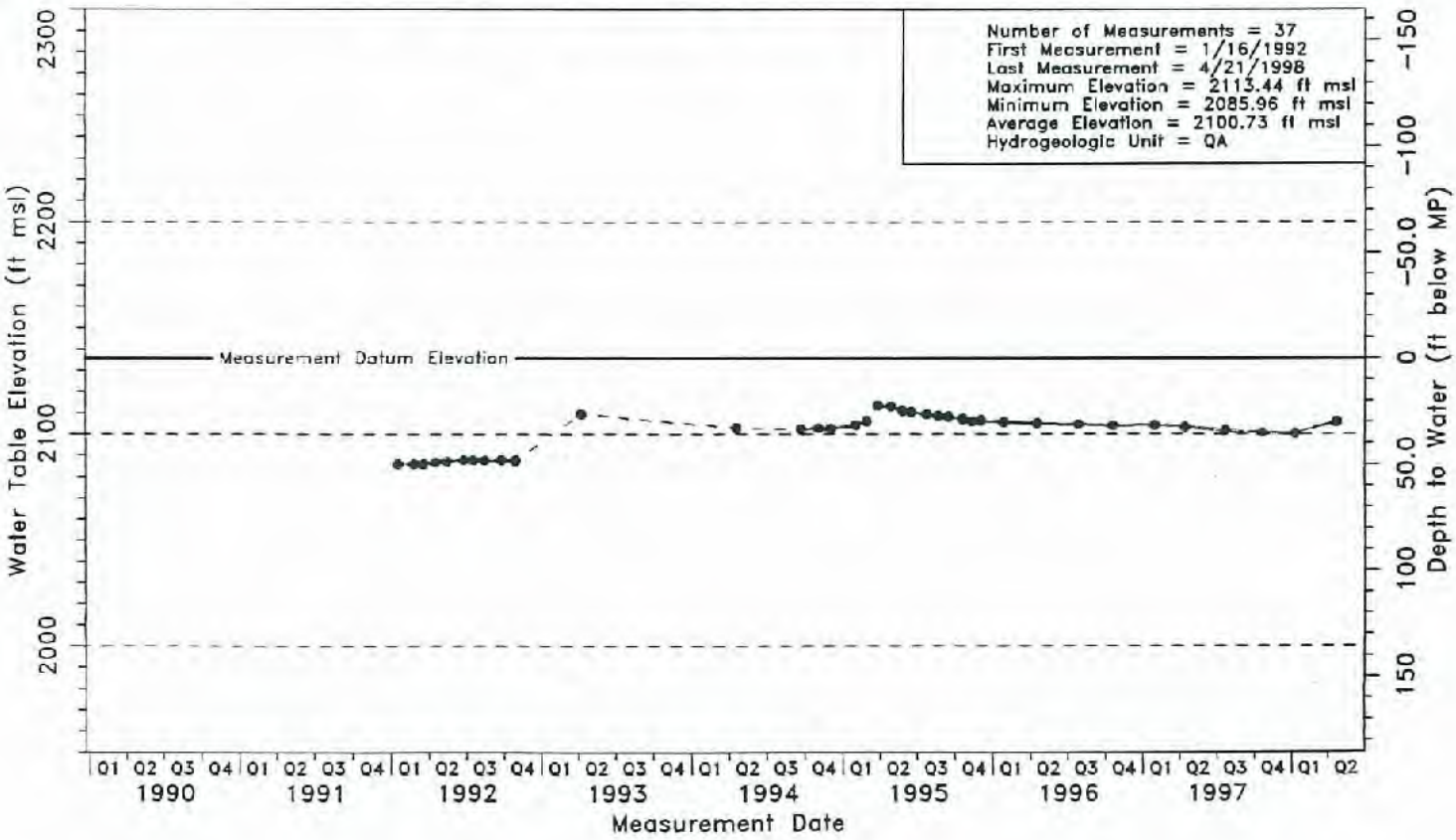
HYDROGRAPH P-02

Lockheed Martin Corporation Beaumont Site No. 1



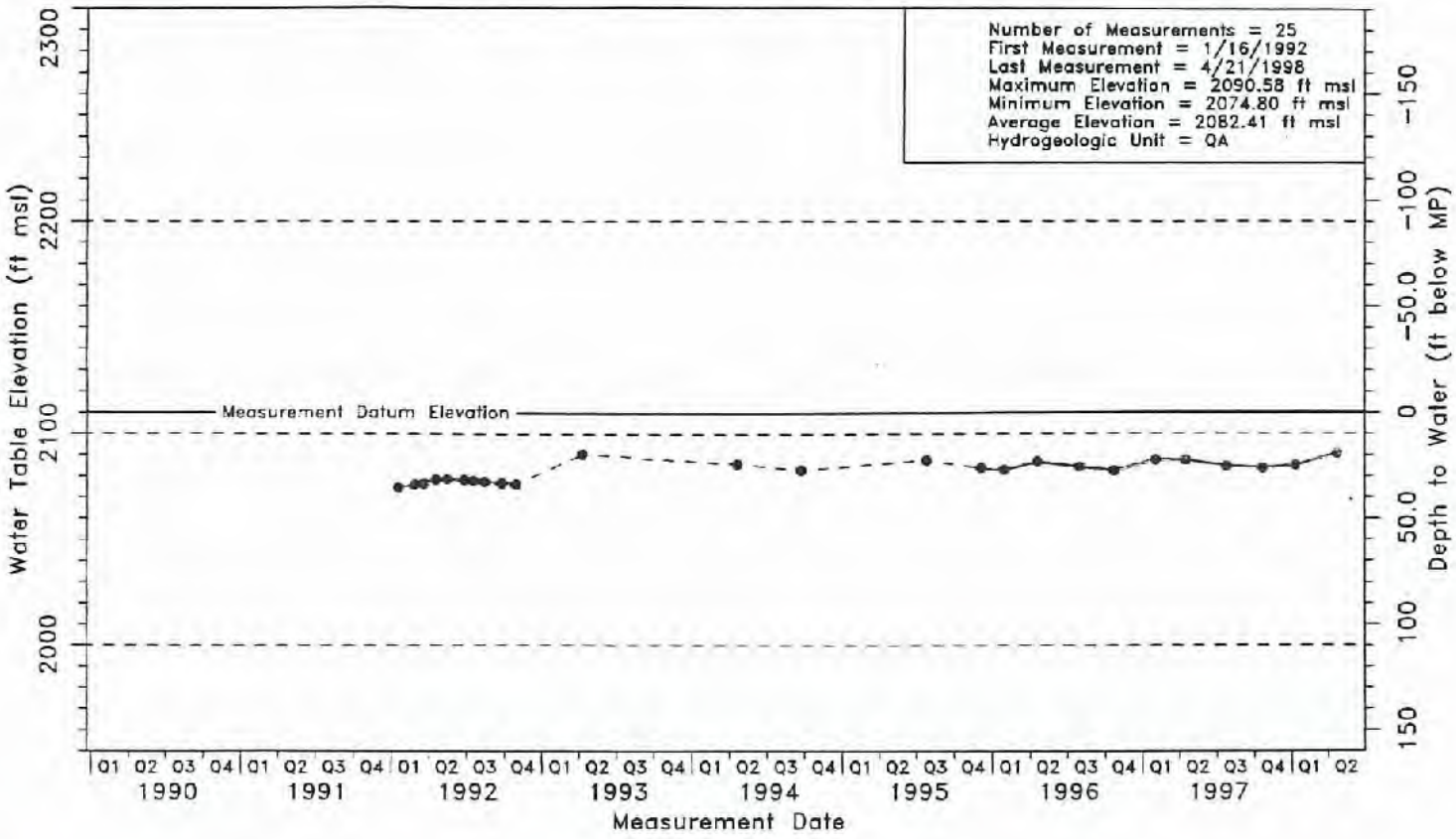
HYDROGRAPH P-03

Lockheed Martin Corporation Beaumont Site No. 1



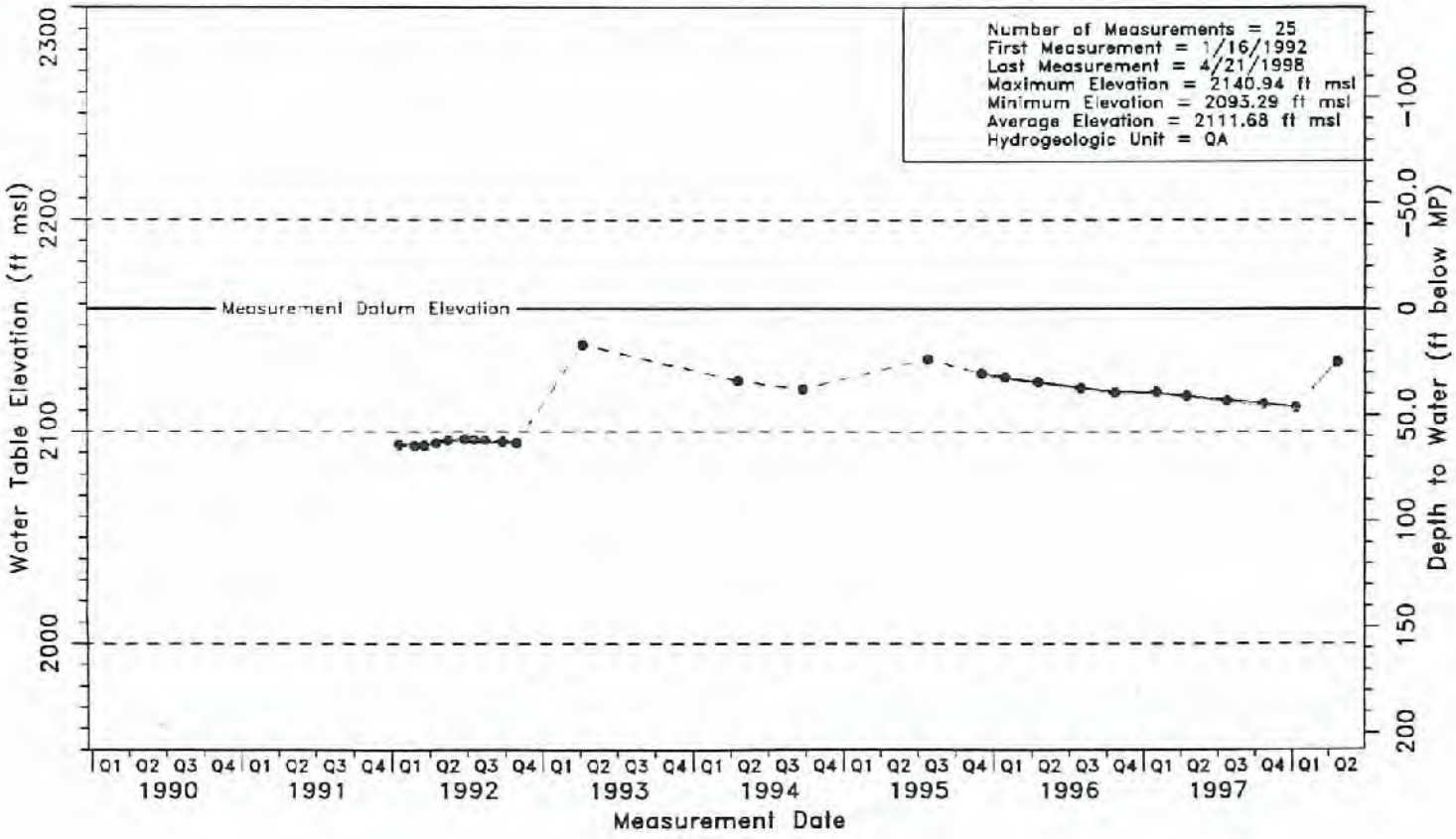
HYDROGRAPH P–04

Lockheed Martin Corporation Beaumont Site No. 1



HYDROGRAPH P–05

Lockheed Martin Corporation Beaumont Site No. 1

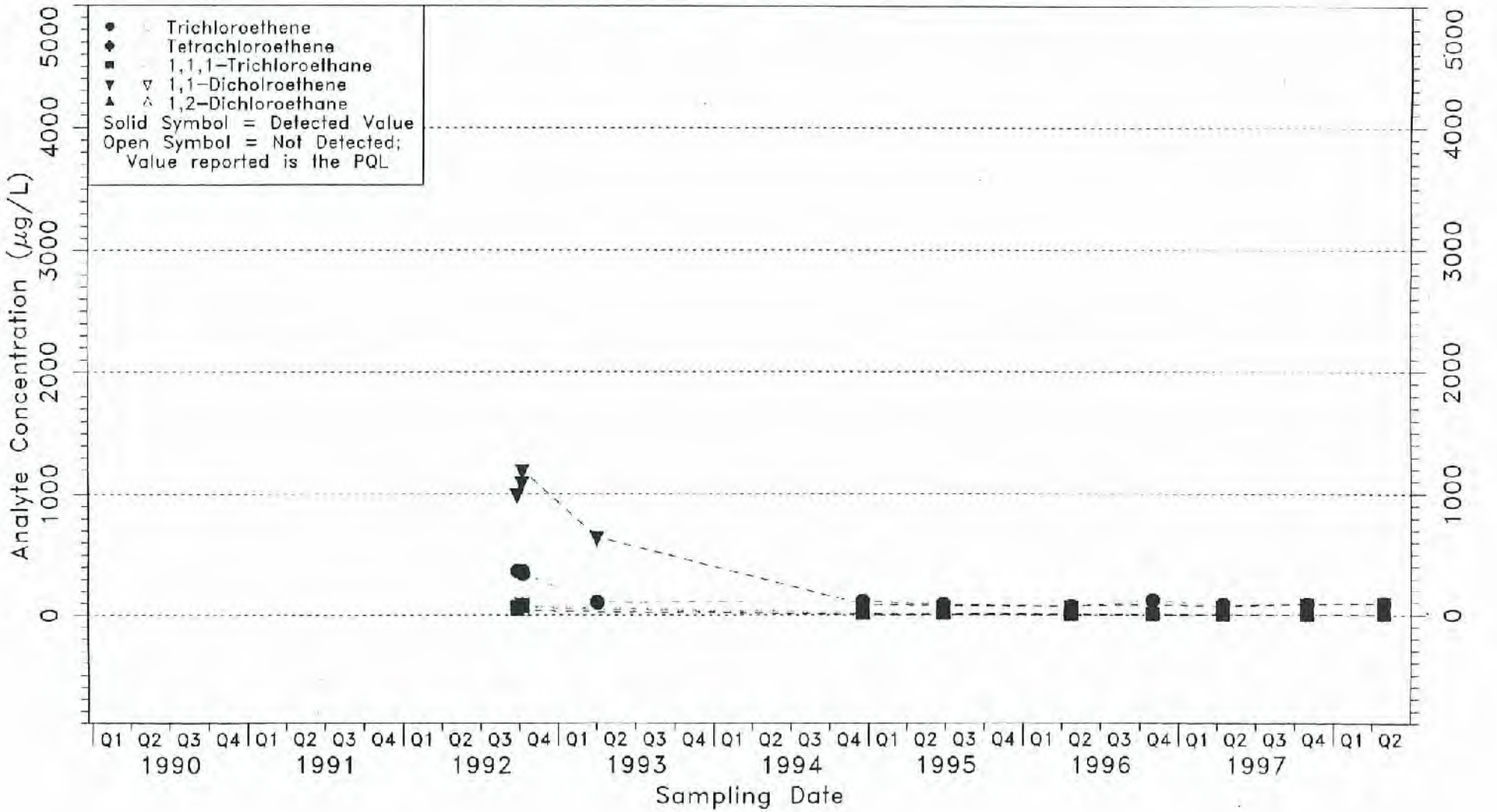


APPENDIX G

ANALYTE CONCENTRATION GRAPHS

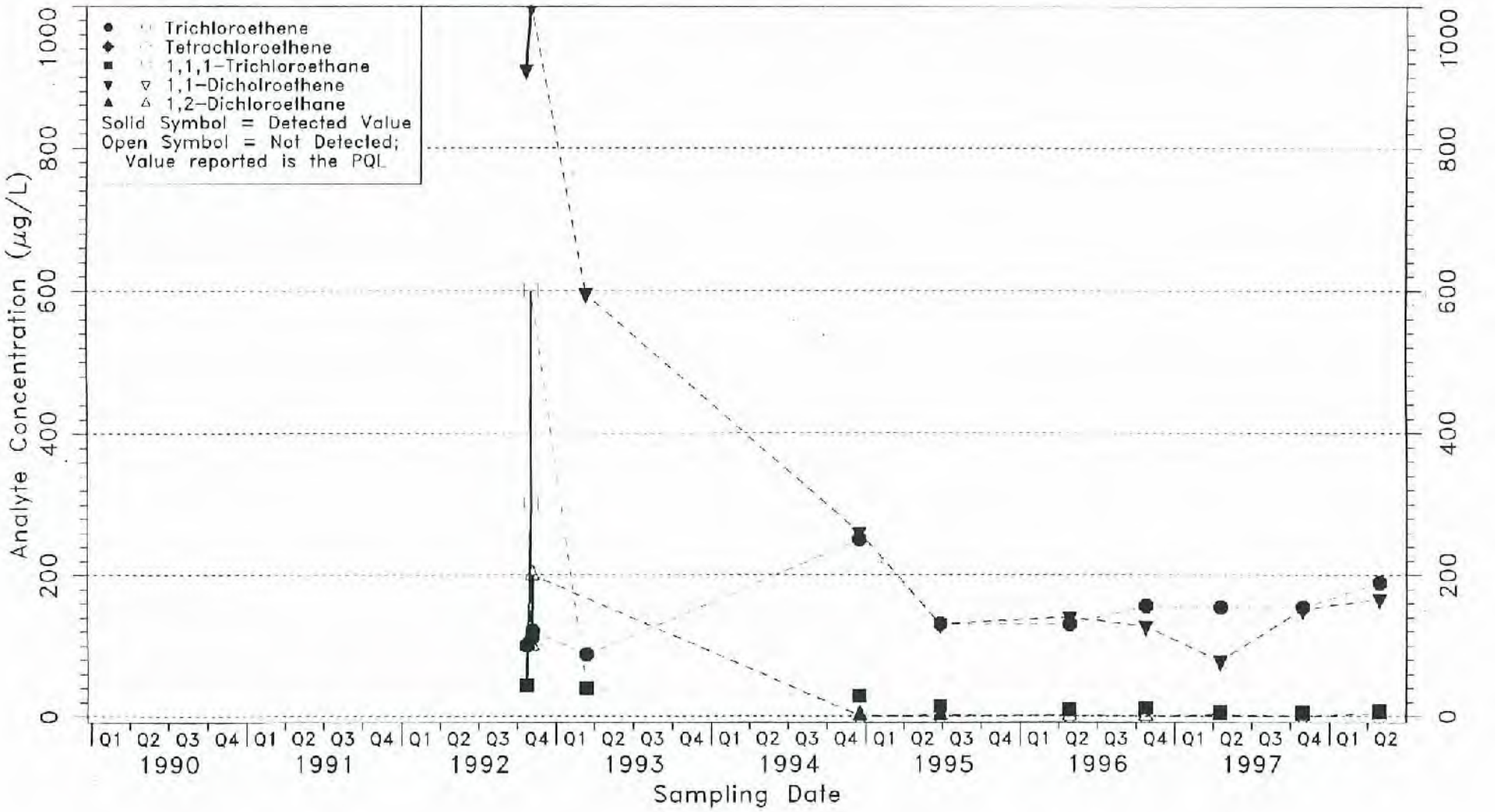
Analyte Concentrations EW-01

Lockheed Martin Corporation Beaumont Site No. 1



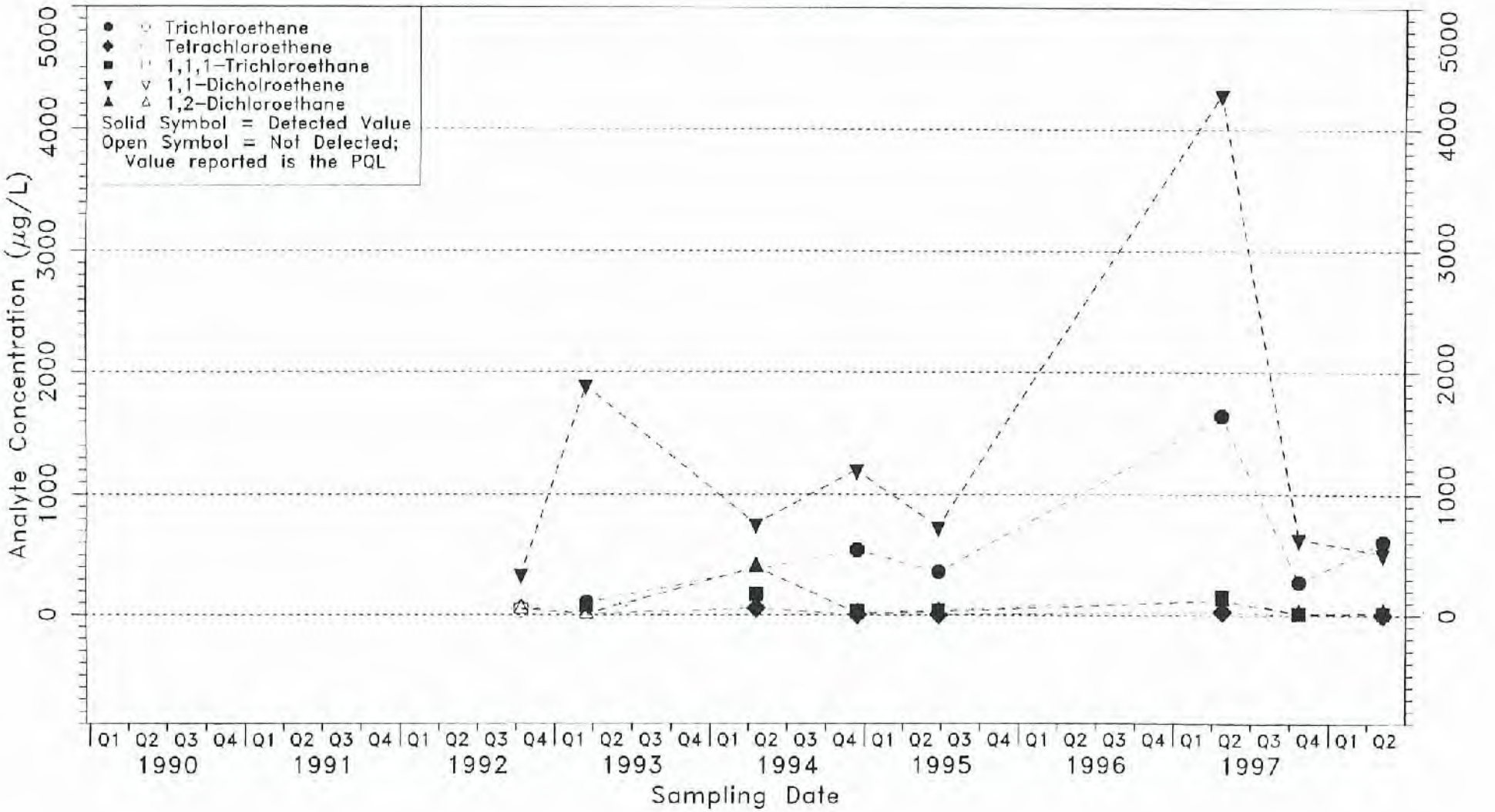
Analyte Concentrations EW-02

Lockheed Martin Corporation Beaumont Site No. 1



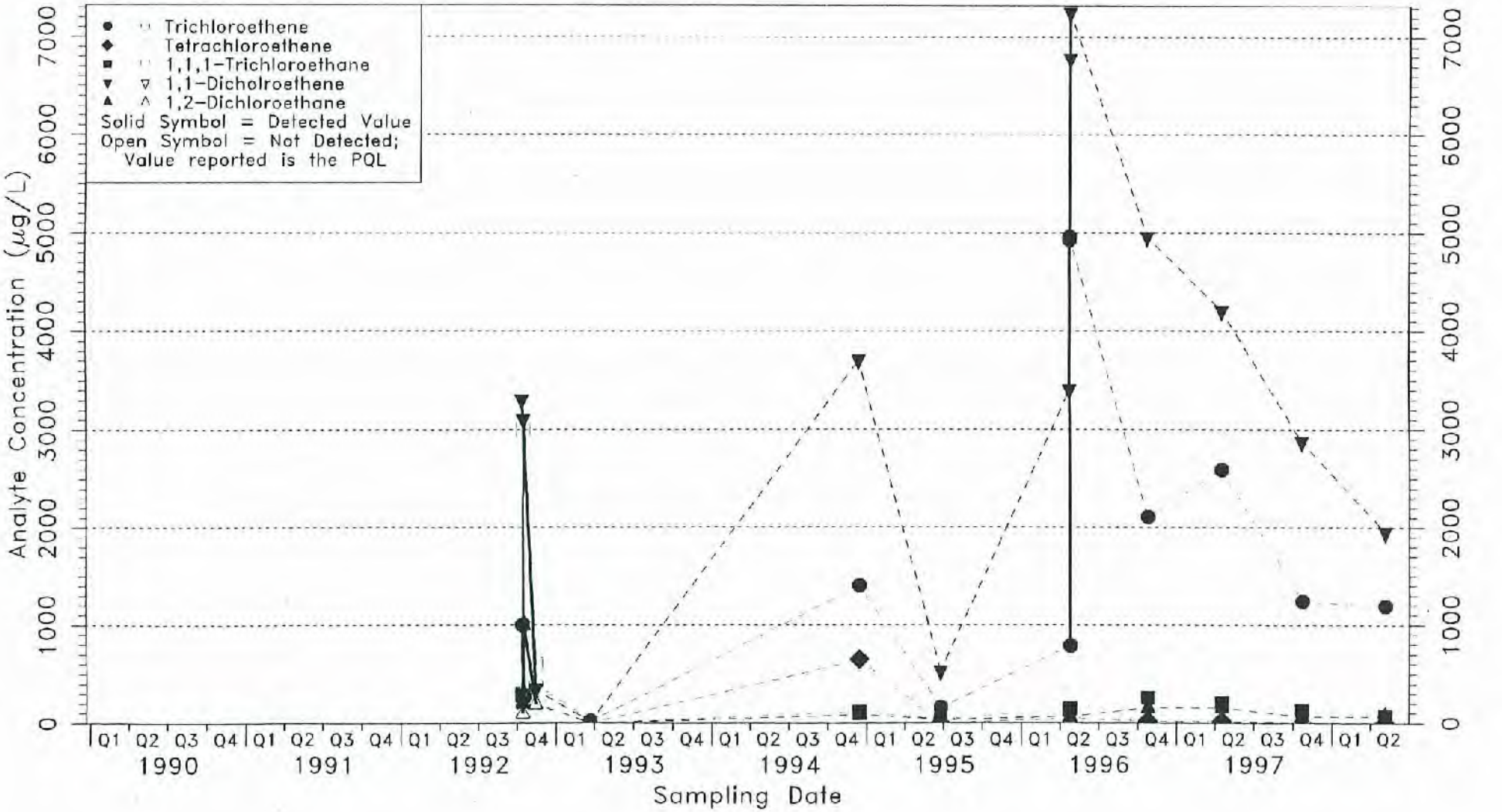
Analyte Concentrations EW-11

Lockheed Martin Corporation Beaumont Site No. 1



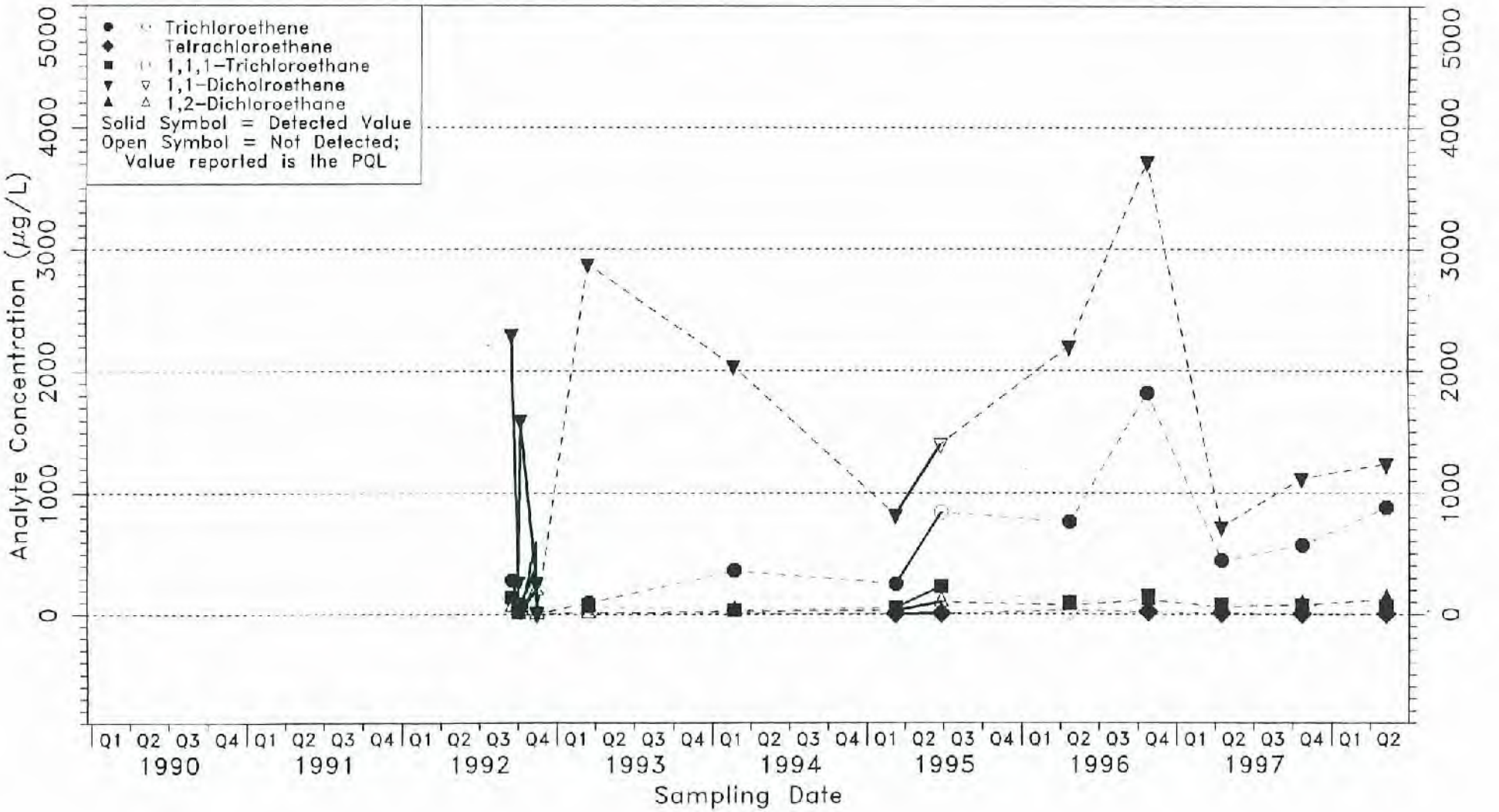
Analyte Concentrations EW-12

Lockheed Martin Corporation Beaumont Site No. 1



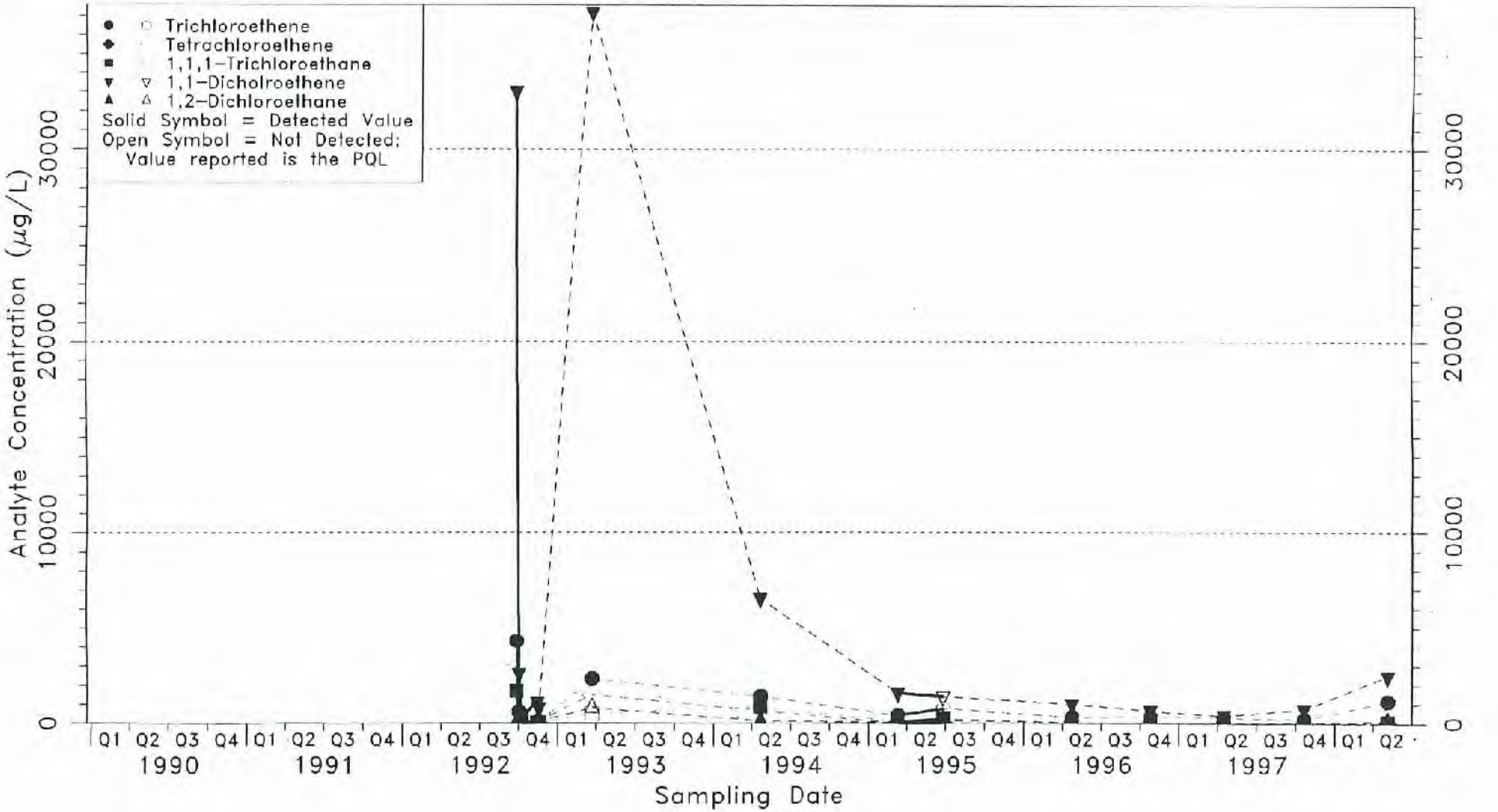
Analyte Concentrations EW-13

Lockheed Martin Corporation Beaumont Site No. 1



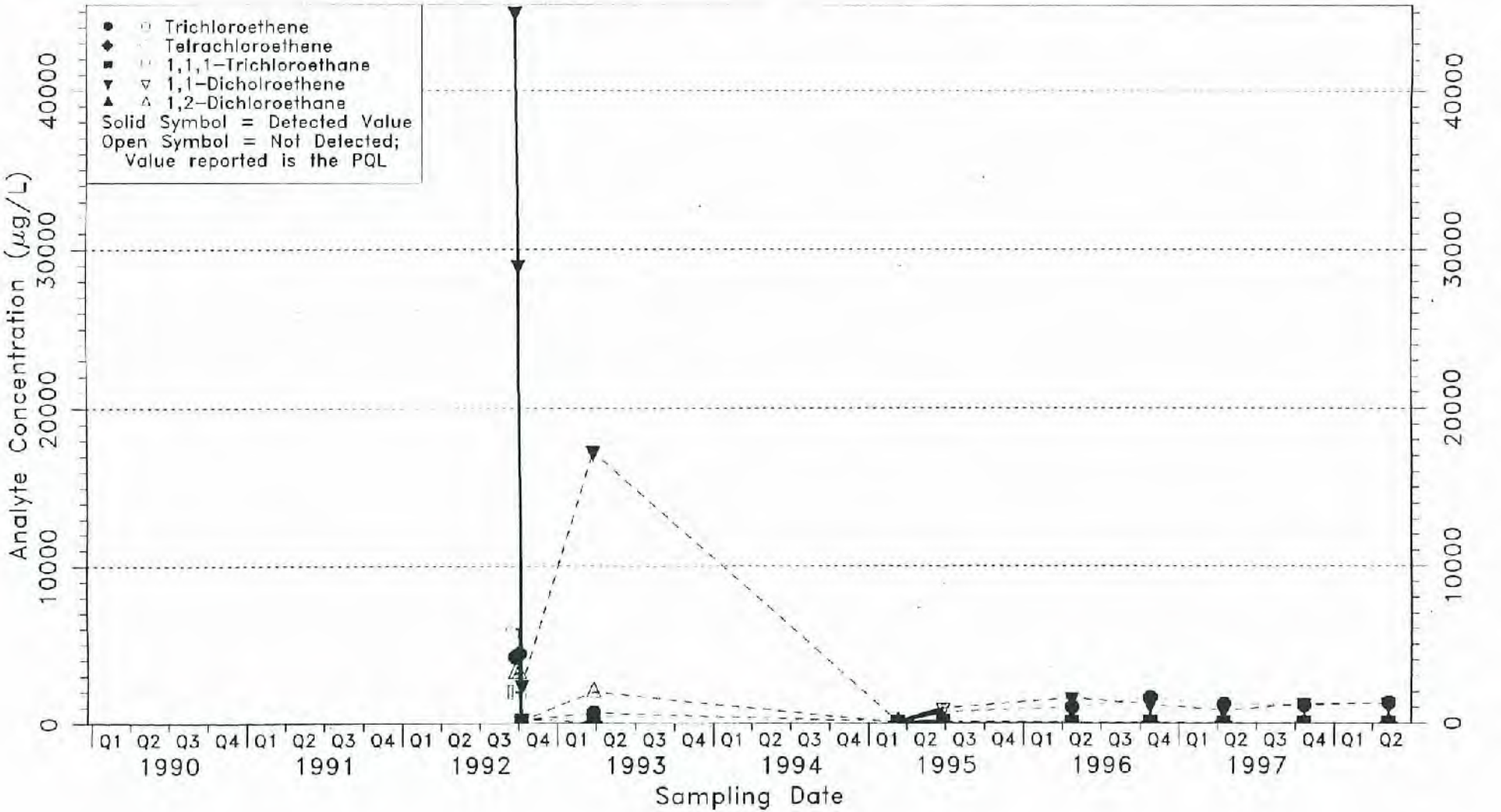
Analyte Concentrations EW-15

Lockheed Martin Corporation Beaumont Site No. 1



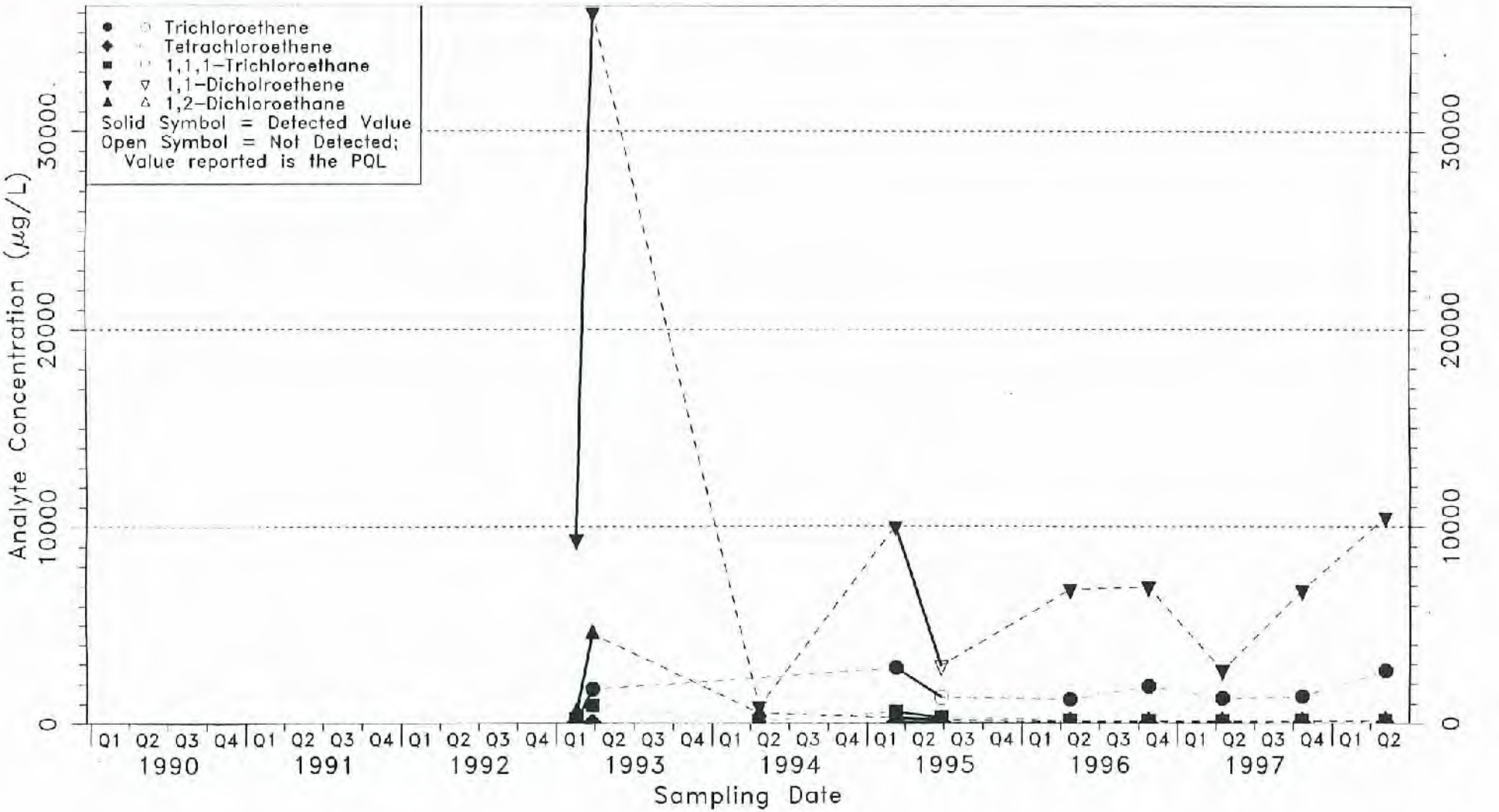
Analyte Concentrations EW-16

Lockheed Martin Corporation Beaumont Site No. 1



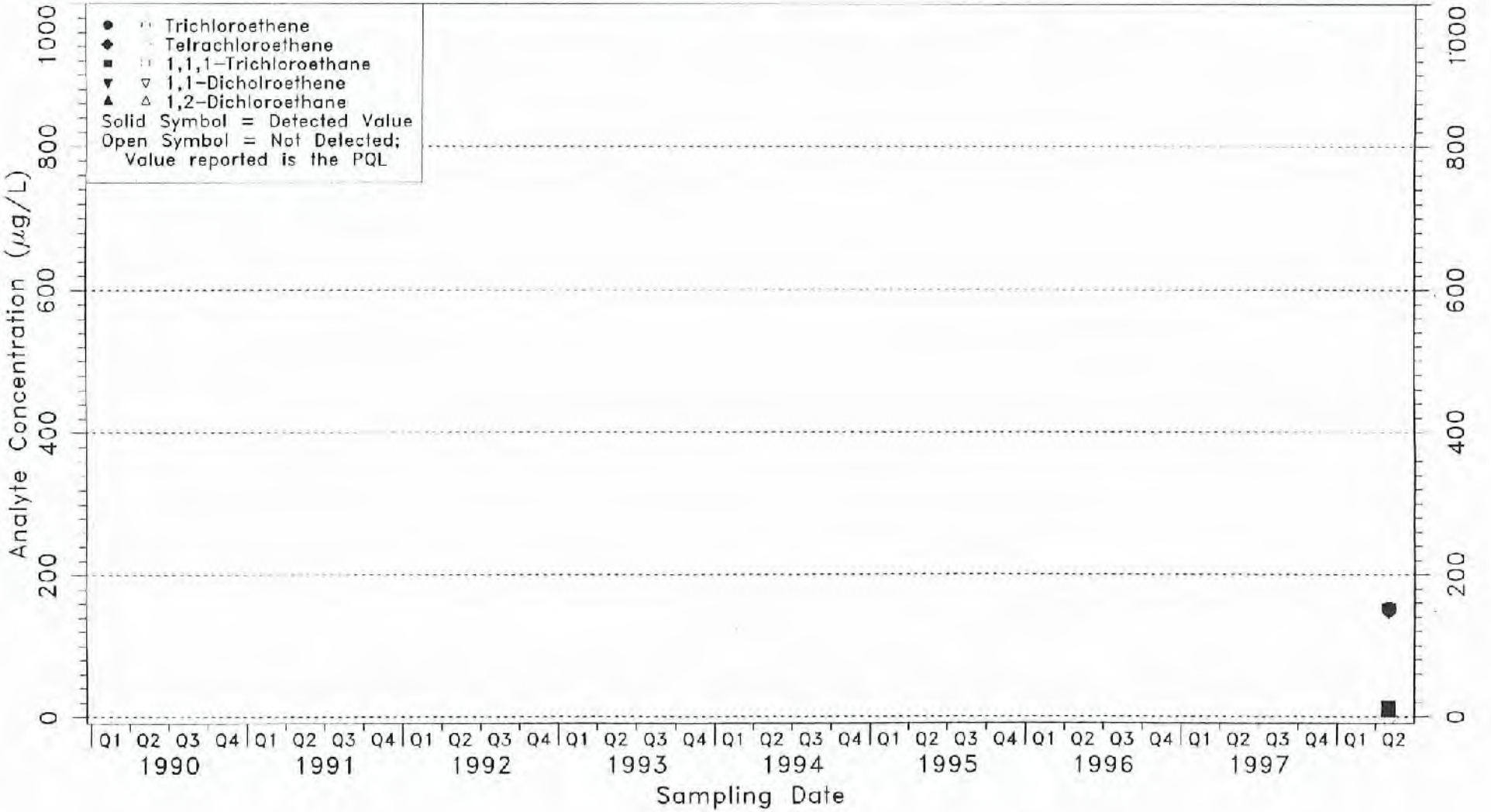
Analyte Concentrations EW-18

Lockheed Martin Corporation Beaumont Site No. 1



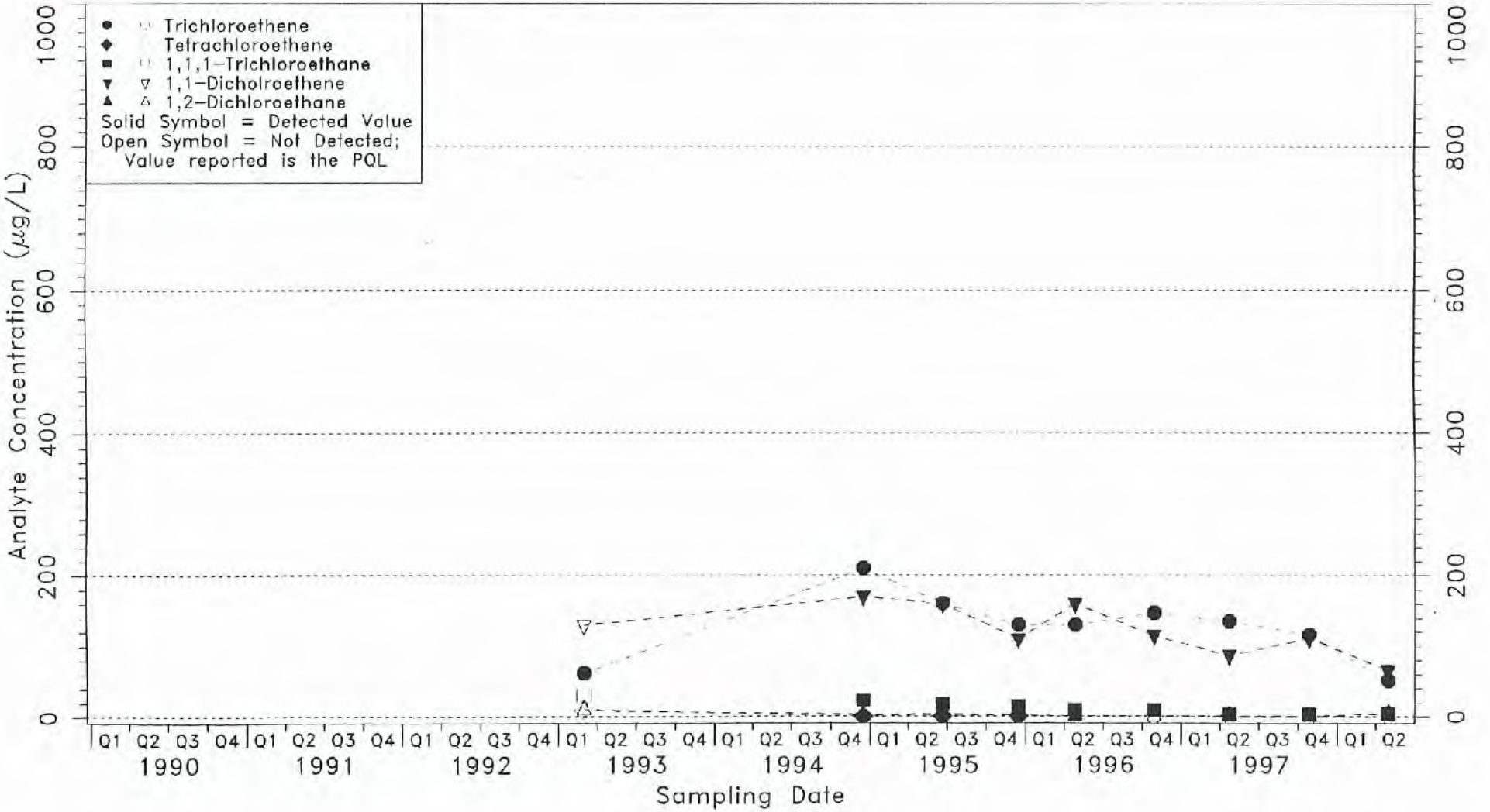
Analyte Concentrations MW-02

Lockheed Martin Corporation Beaumont Site No. 1



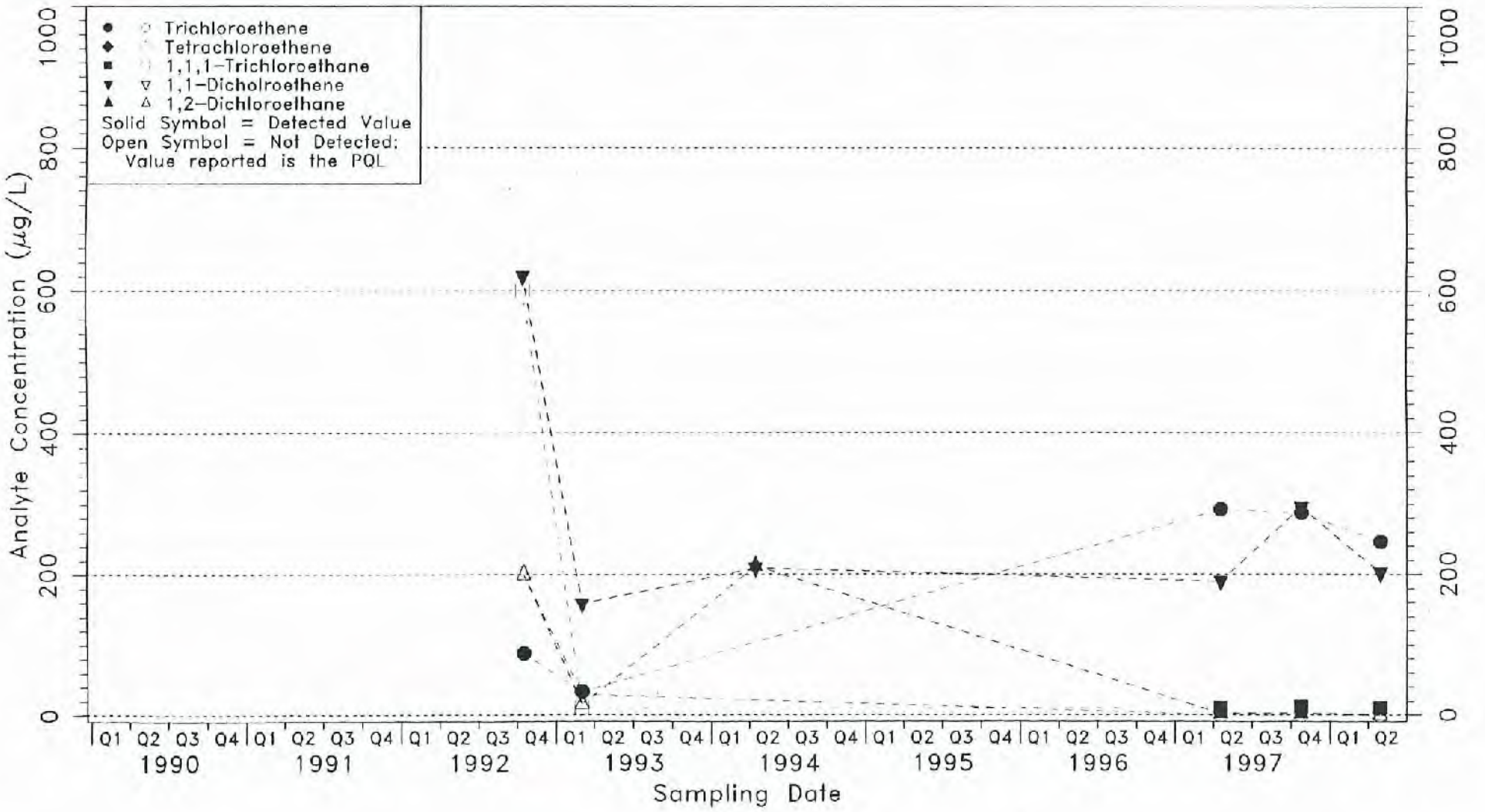
Analyte Concentrations MW-04

Lockheed Martin Corporation Beaumont Site No. 1



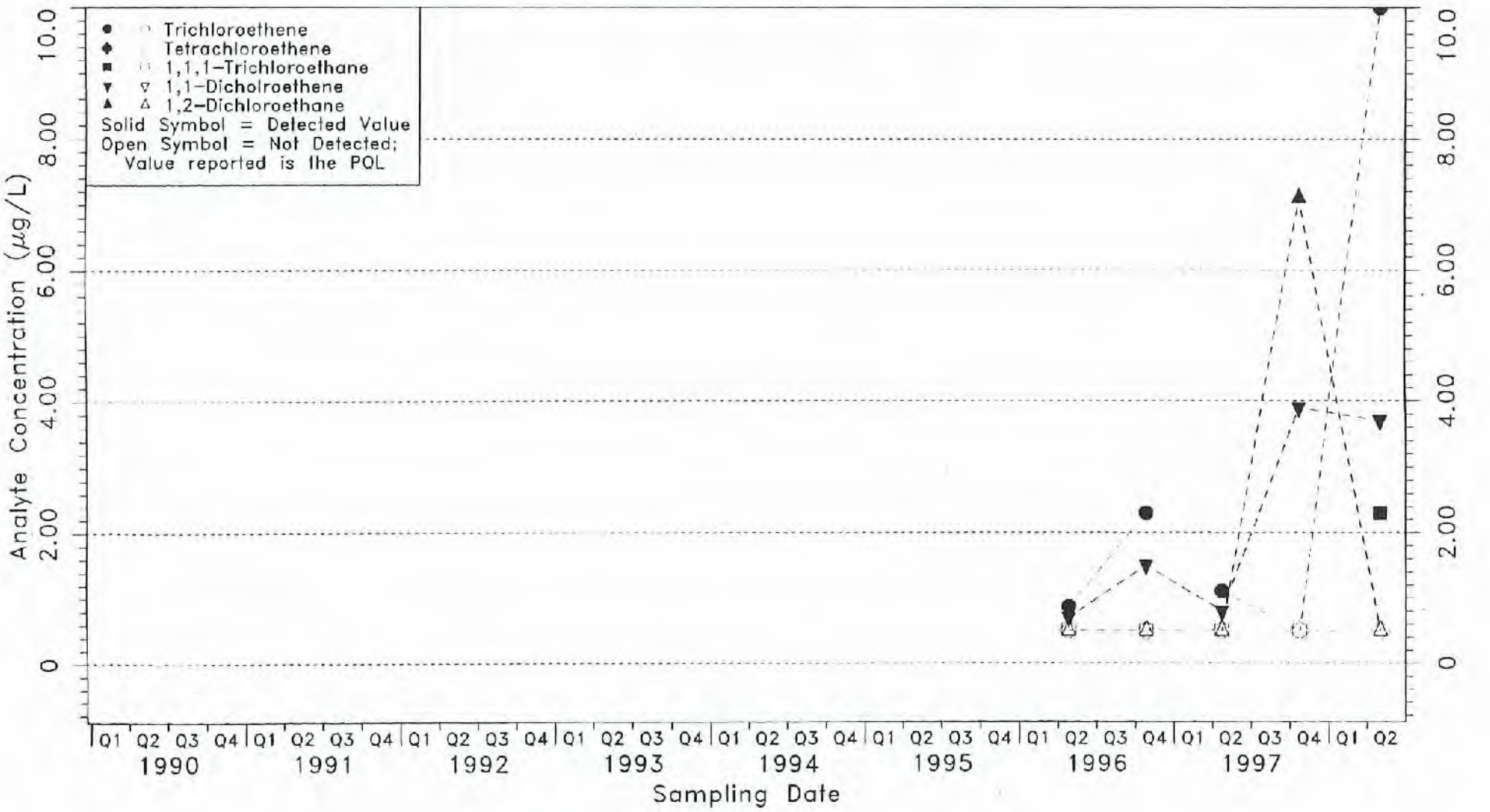
Analyte Concentrations MW-05

Lockheed Martin Corporation Beaumont Site No. 1



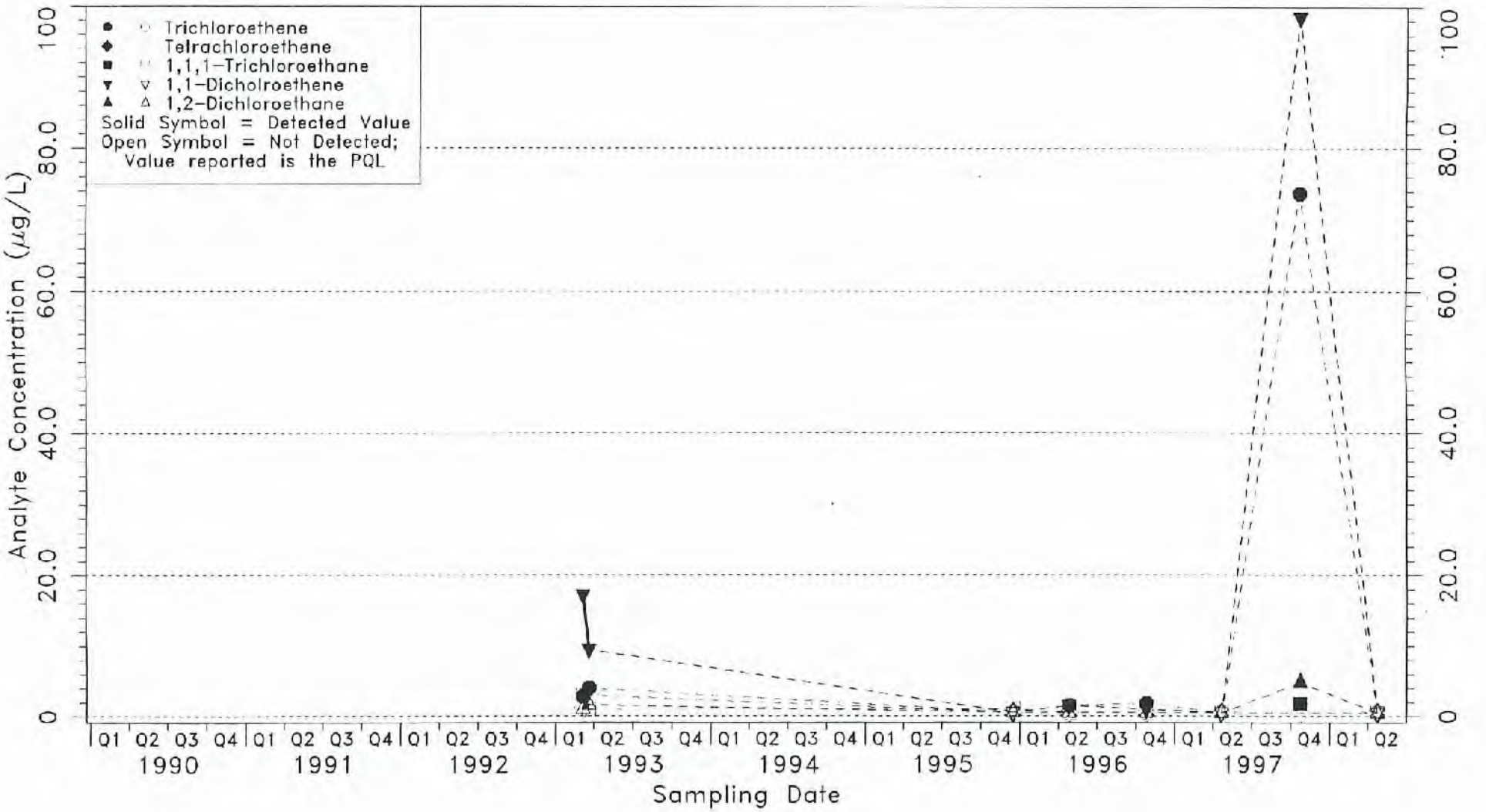
Analyte Concentrations MW-07

Lockheed Martin Corporation Beaumont Site No. 1



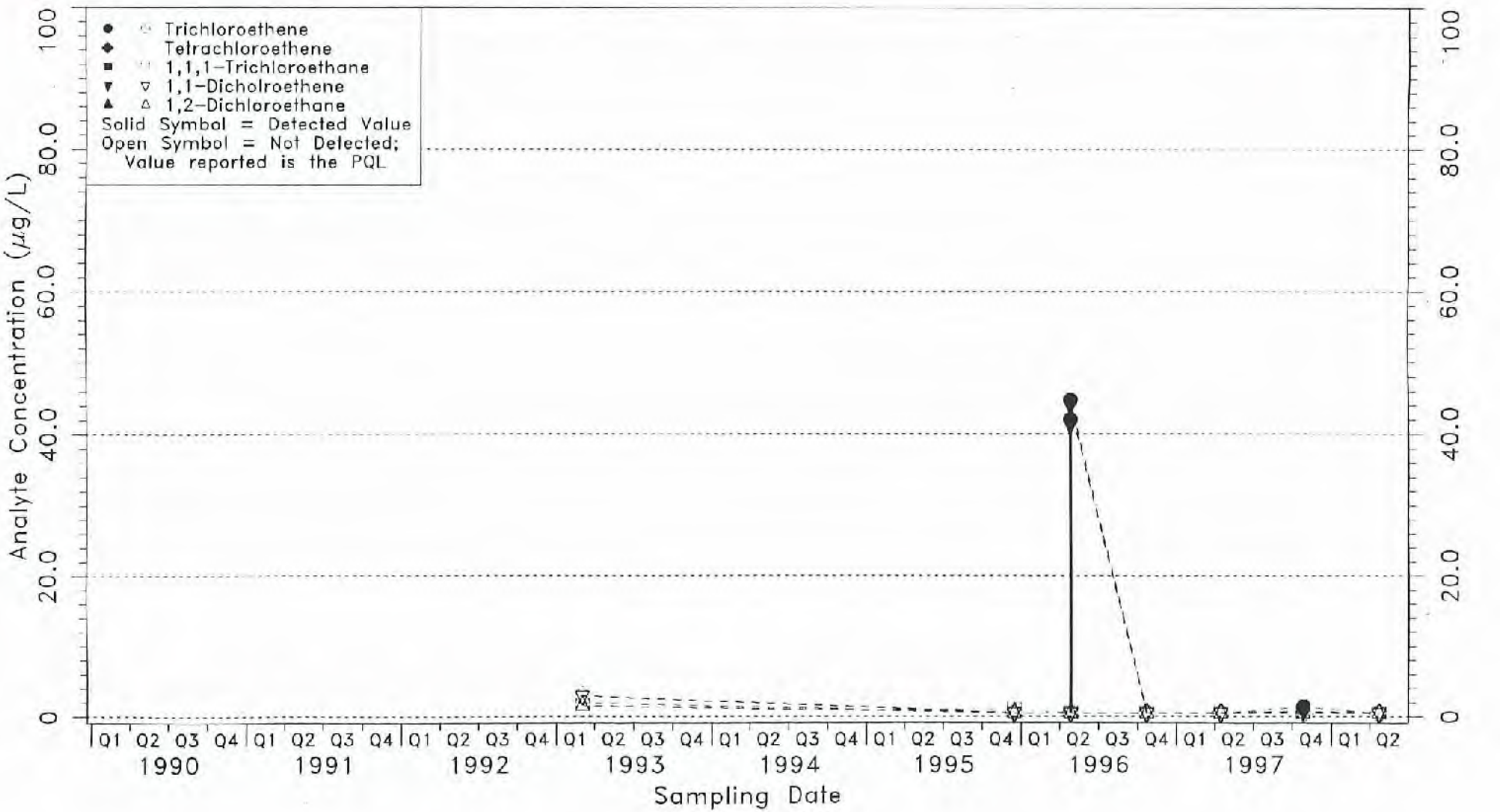
Analyte Concentrations MW-10

Lockheed Martin Corporation Beaumont Site No. 1



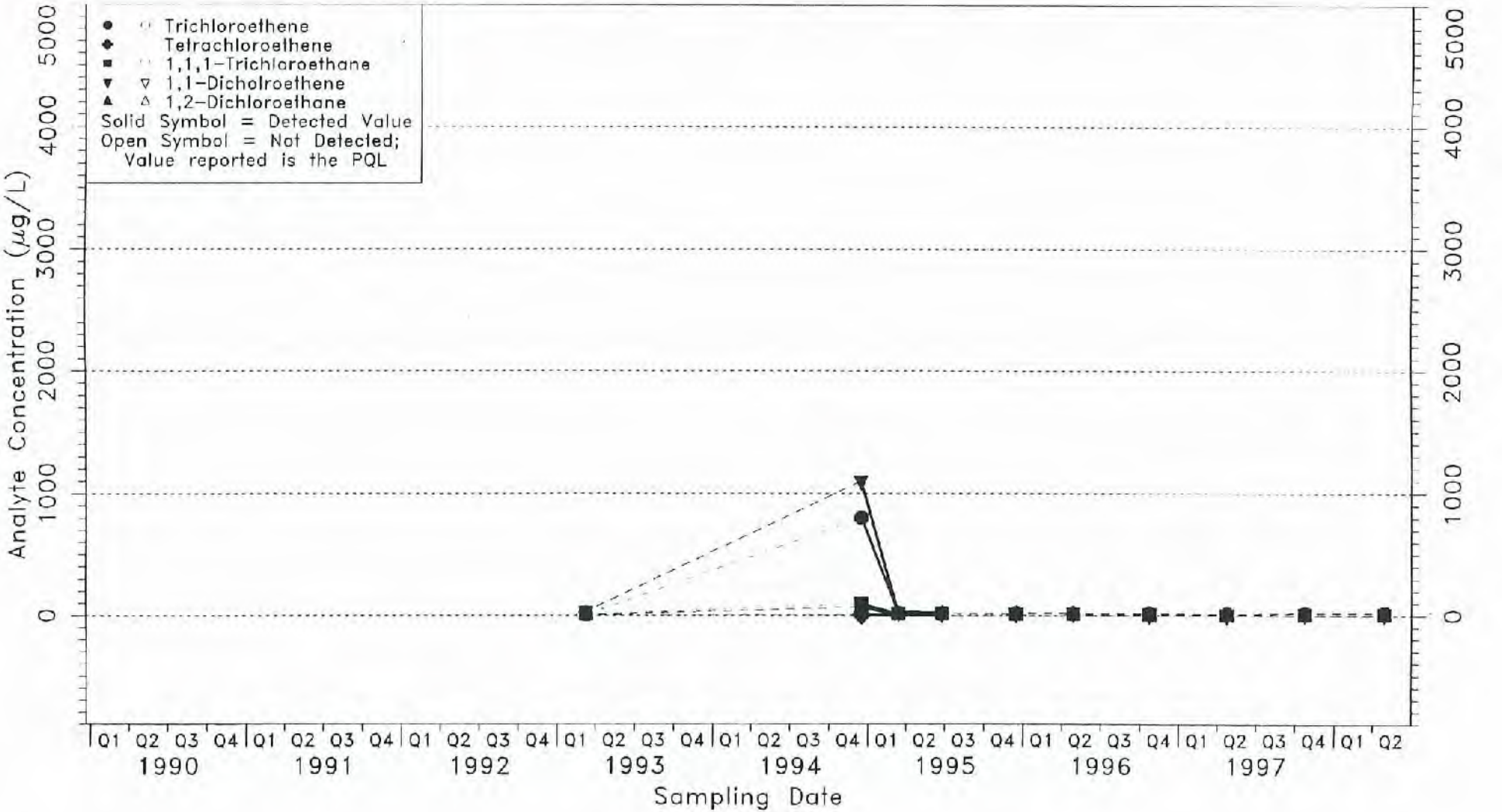
Analyte Concentrations MW-11

Lockheed Martin Corporation Beaumont Site No. 1



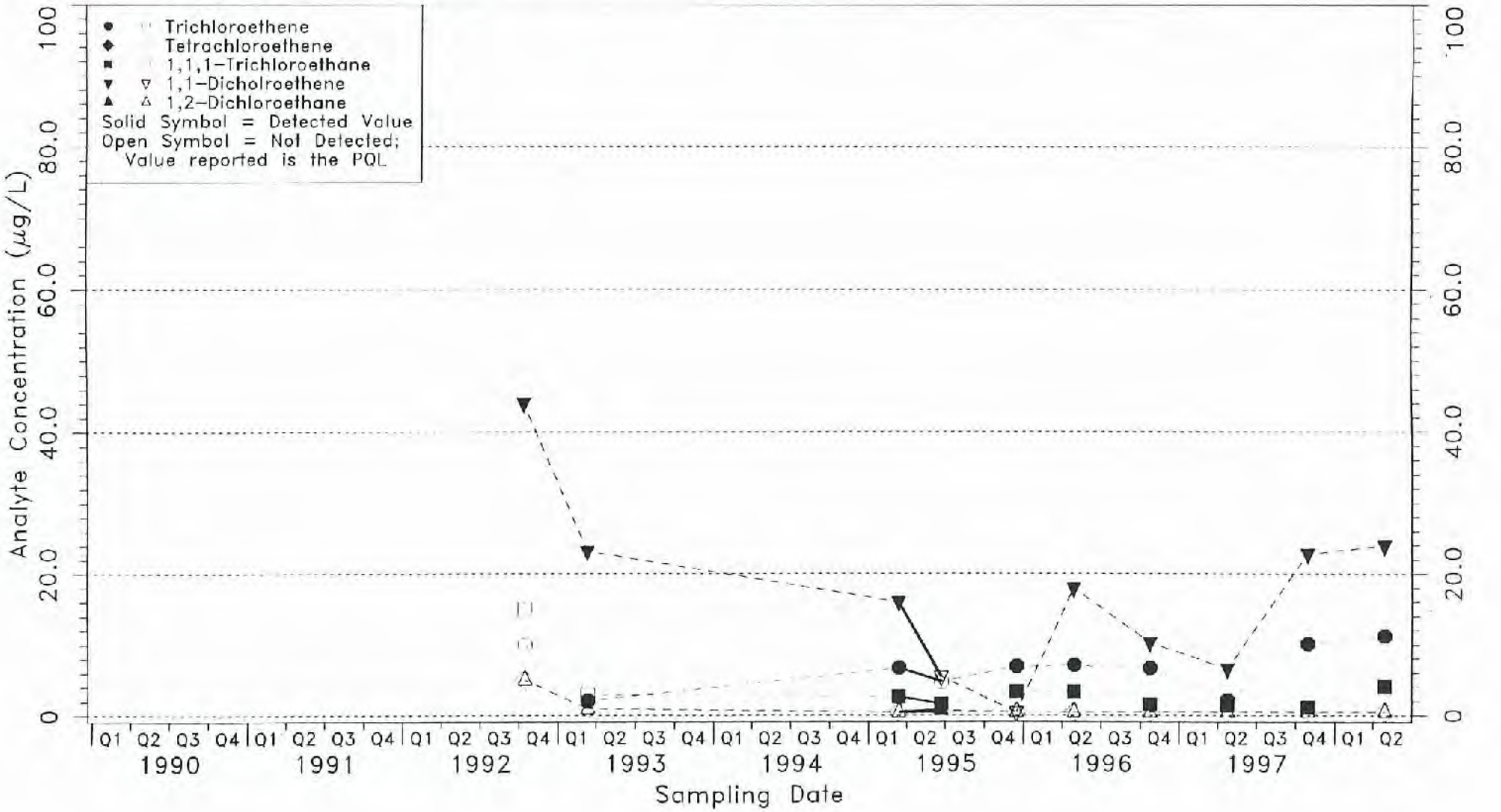
Analyte Concentrations MW-17

Lockheed Martin Corporation Beaumont Site No. 1



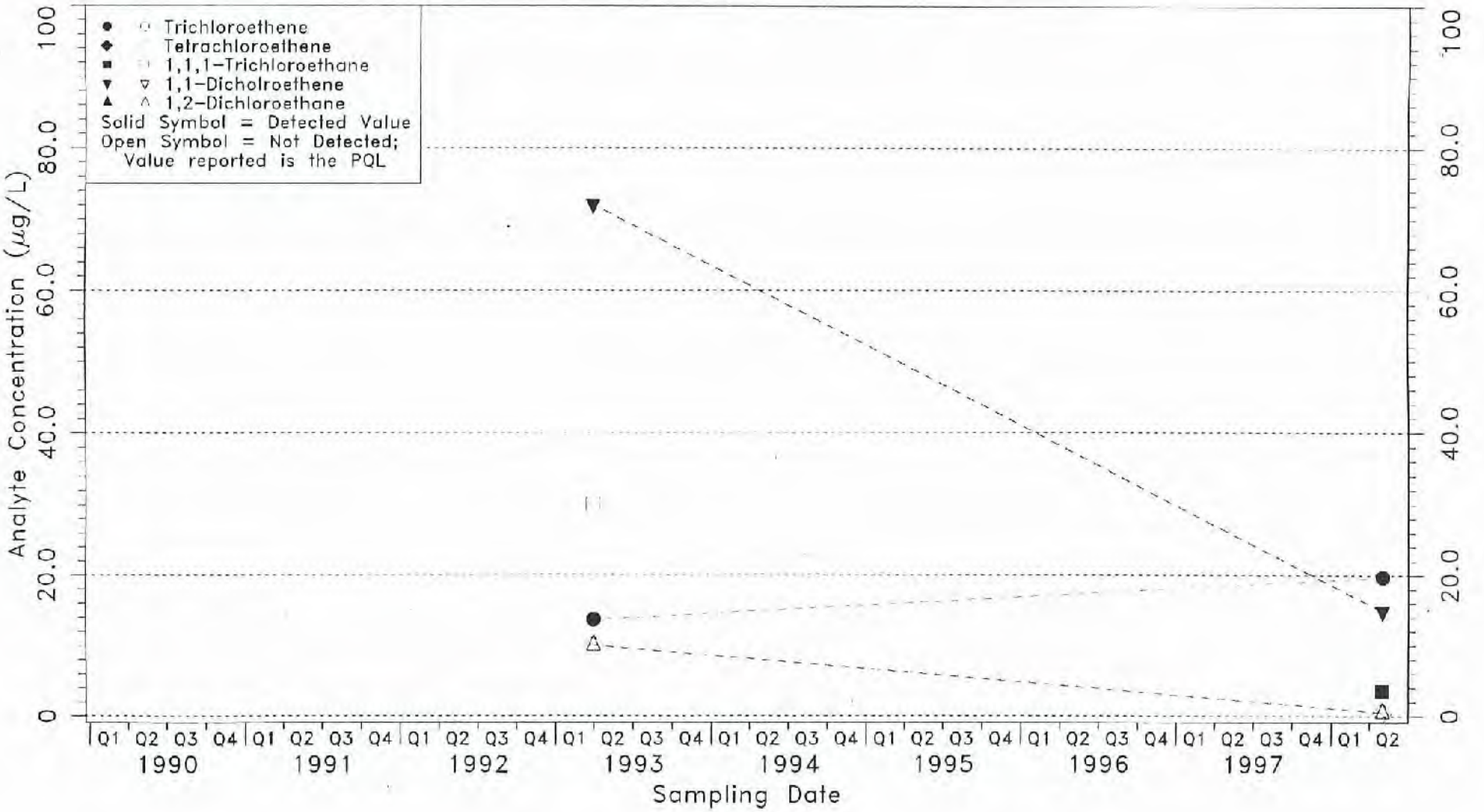
Analyte Concentrations MW-19

Lockheed Martin Corporation Beaumont Site No. 1



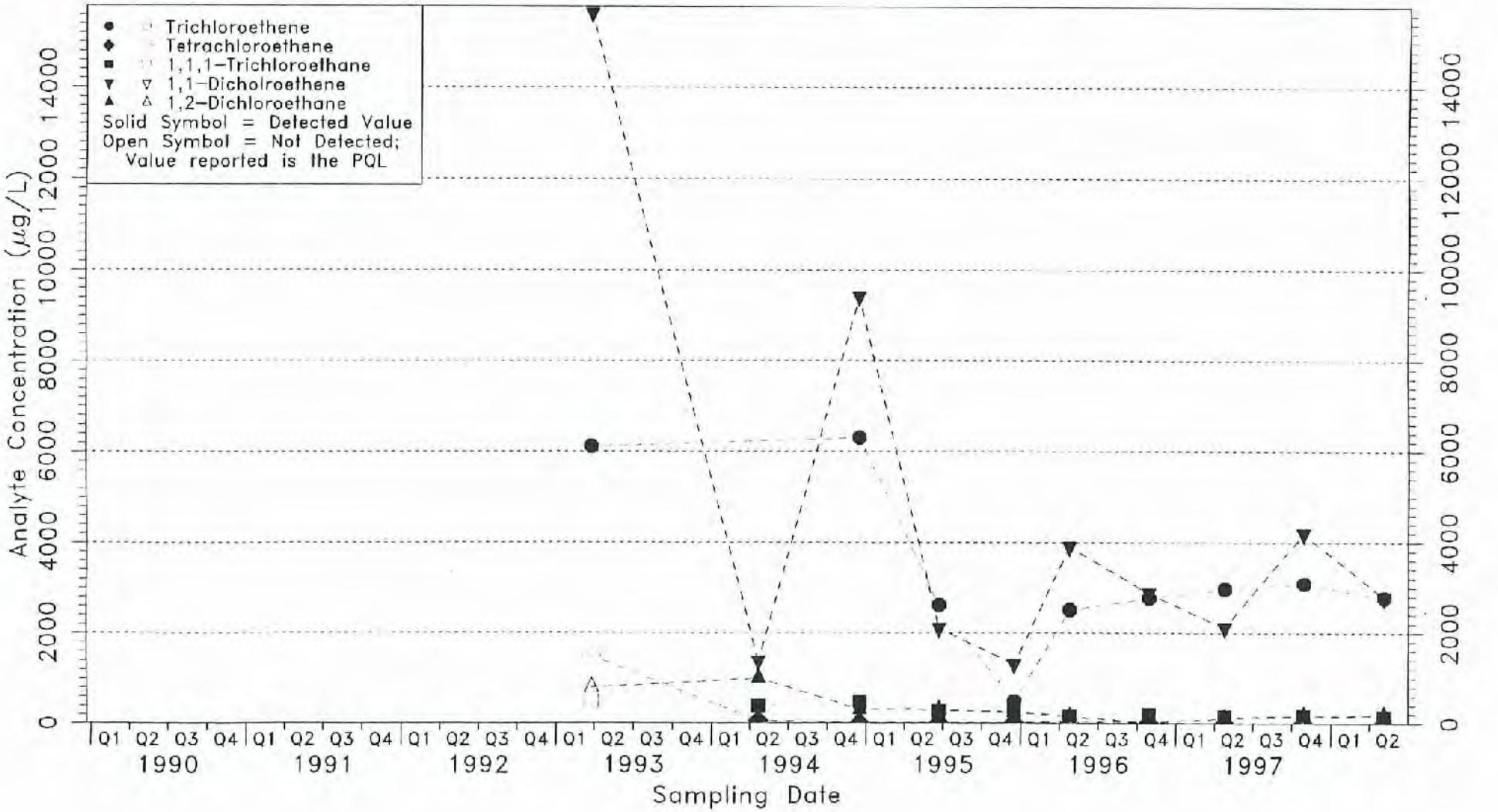
Analyte Concentrations MW-20

Lockheed Martin Corporation Beaumont Site No. 1



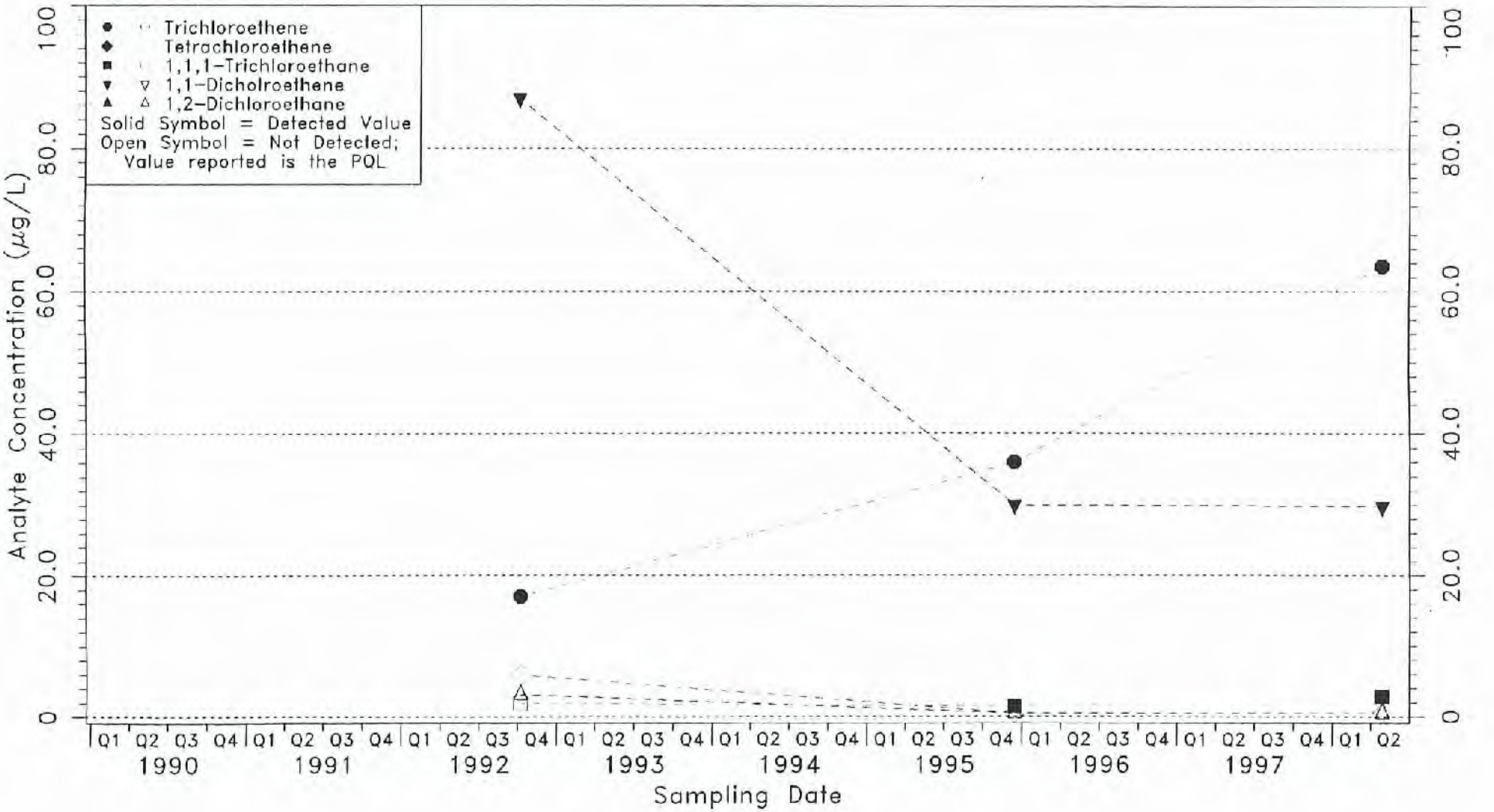
Analyte Concentrations MW-26

Lockheed Martin Corporation Beaumont Site No. 1



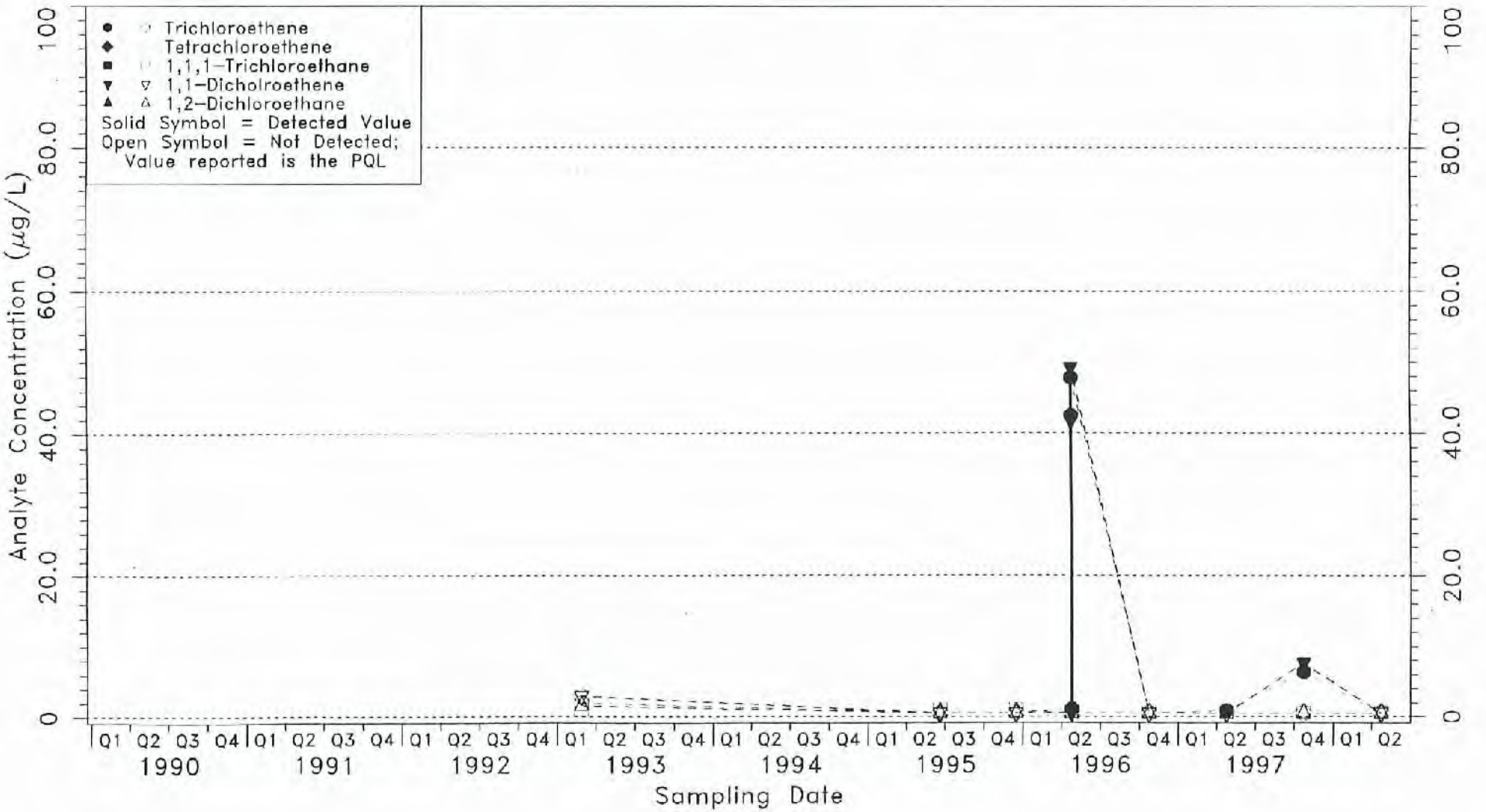
Analyte Concentrations MW-29

Lockheed Martin Corporation Beaumont Site No. 1



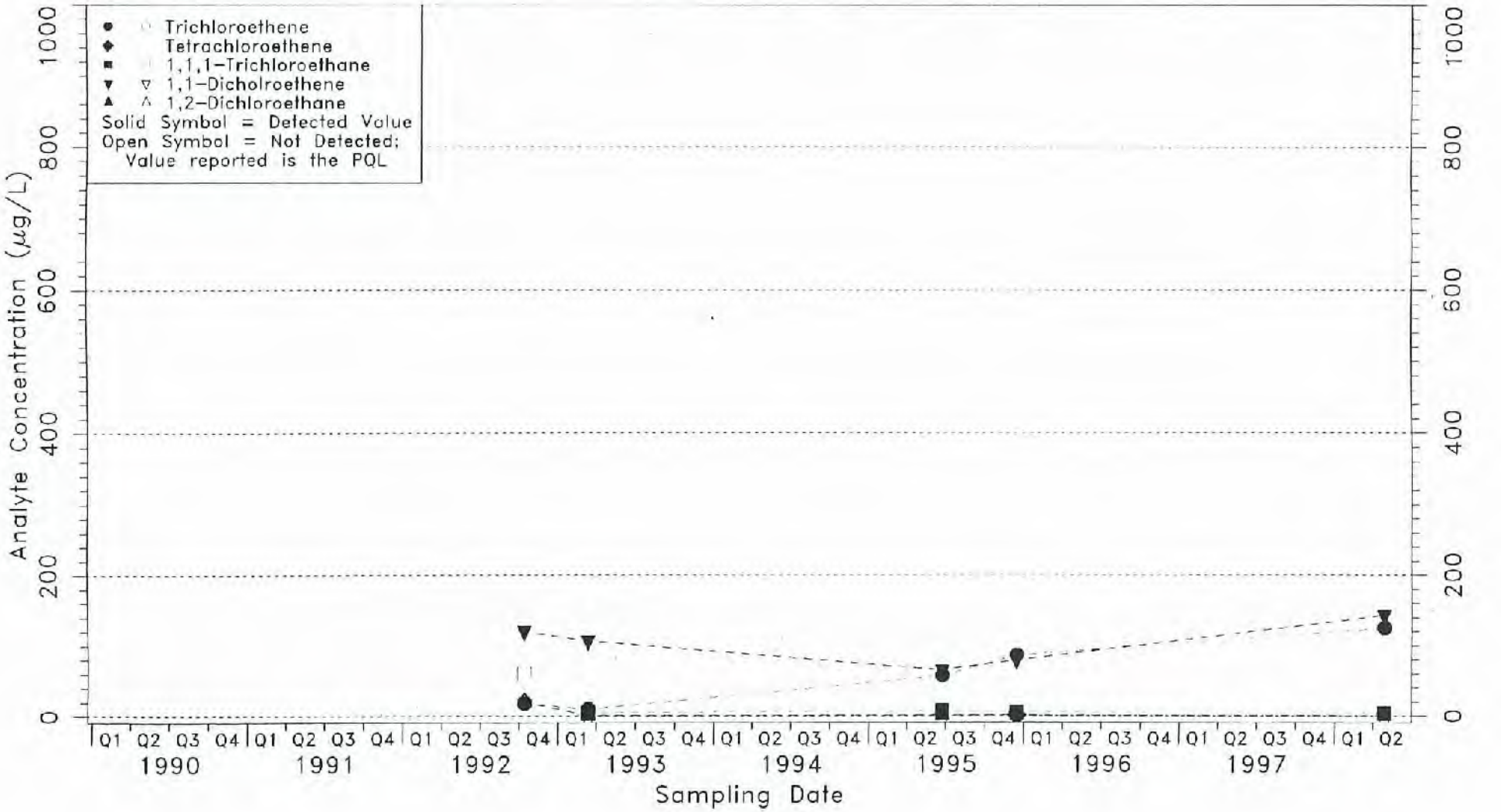
Analyte Concentrations MW-36

Lockheed Martin Corporation Beaumont Site No. 1



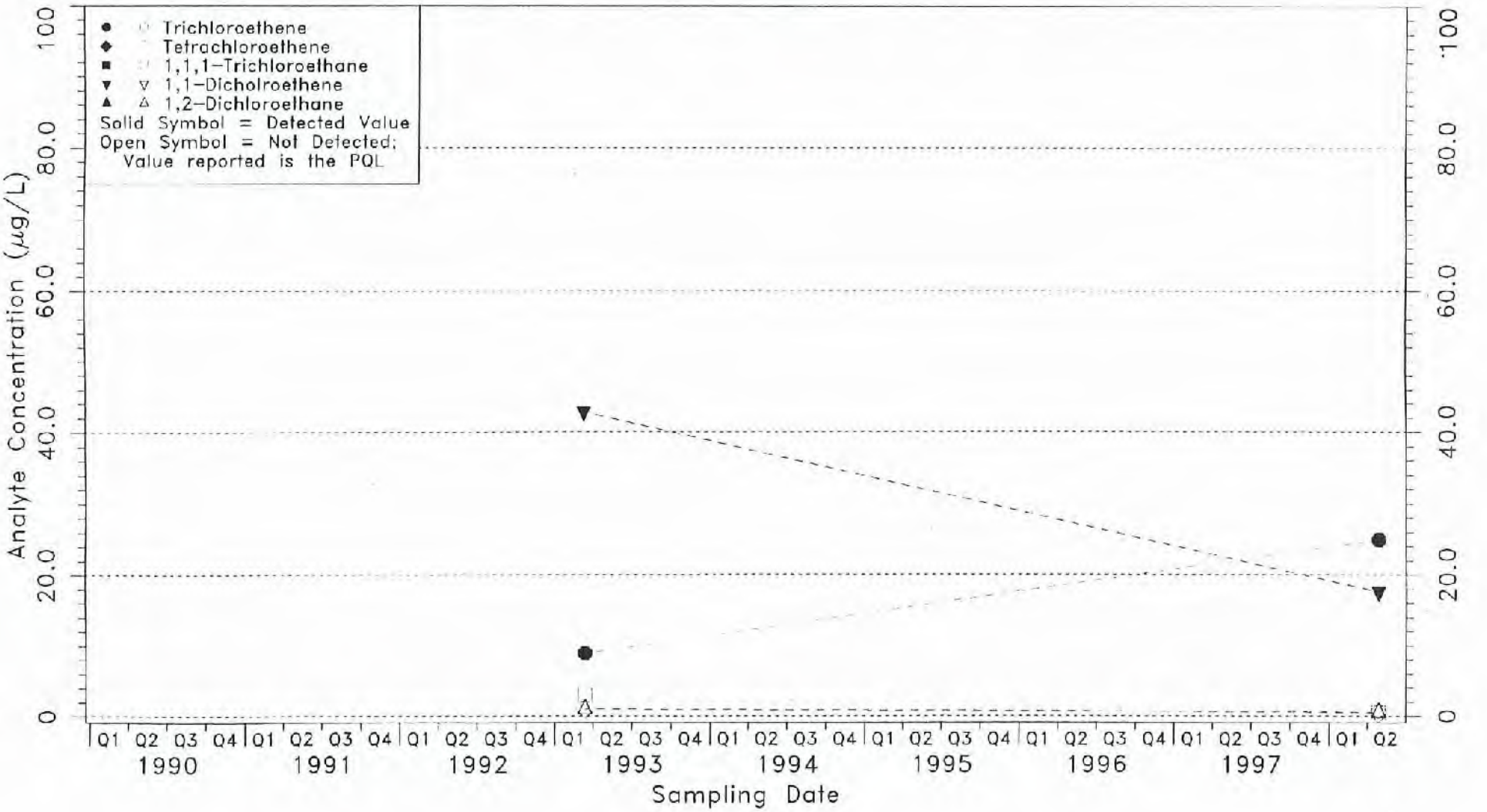
Analyte Concentrations MW-39

Lockheed Martin Corporation Beaumont Site No. 1



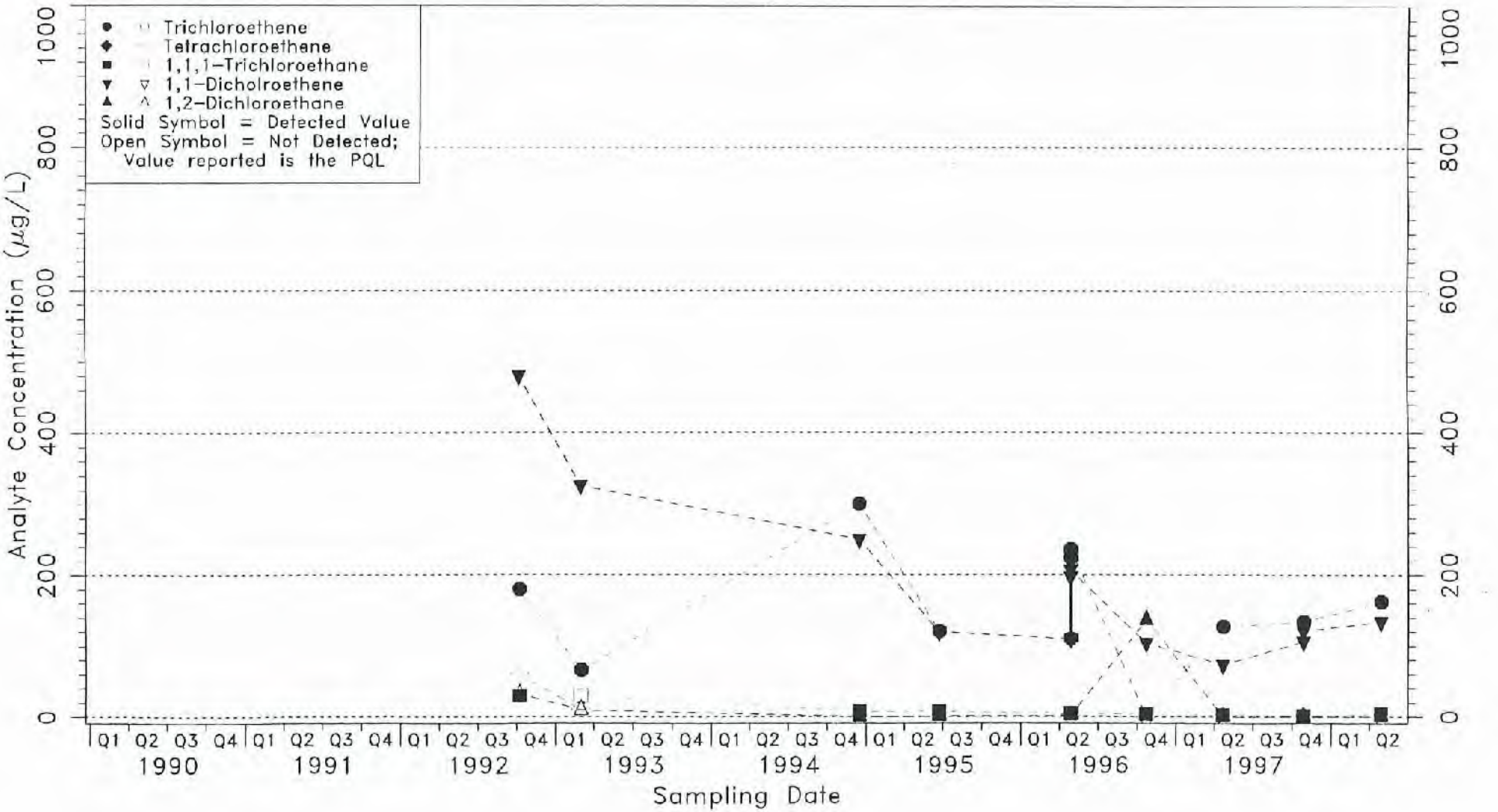
Analyte Concentrations MW-40

Lockheed Martin Corporation Beaumont Site No. 1



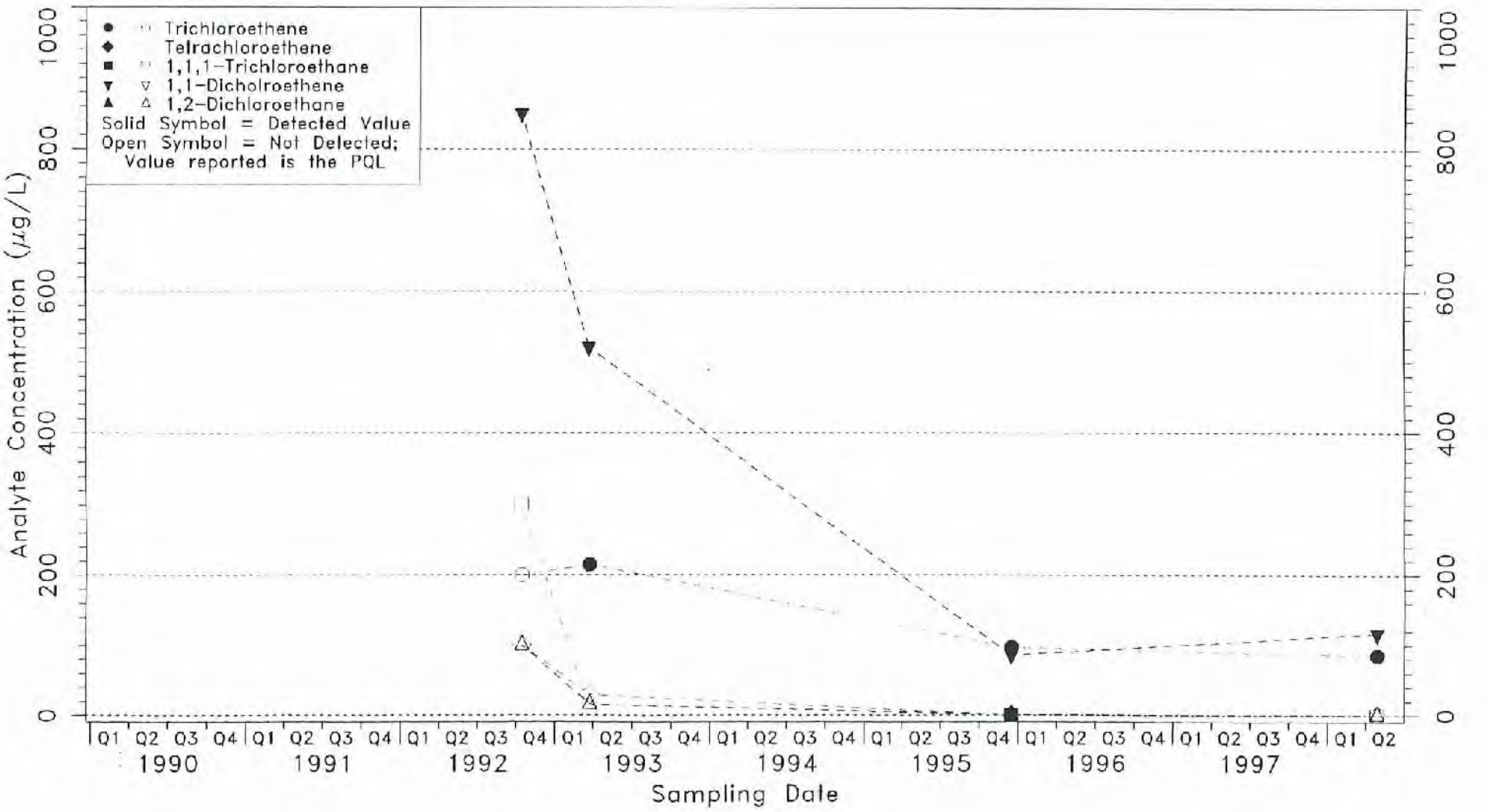
Analyte Concentrations MW-41

Lockheed Martin Corporation Beaumont Site No. 1



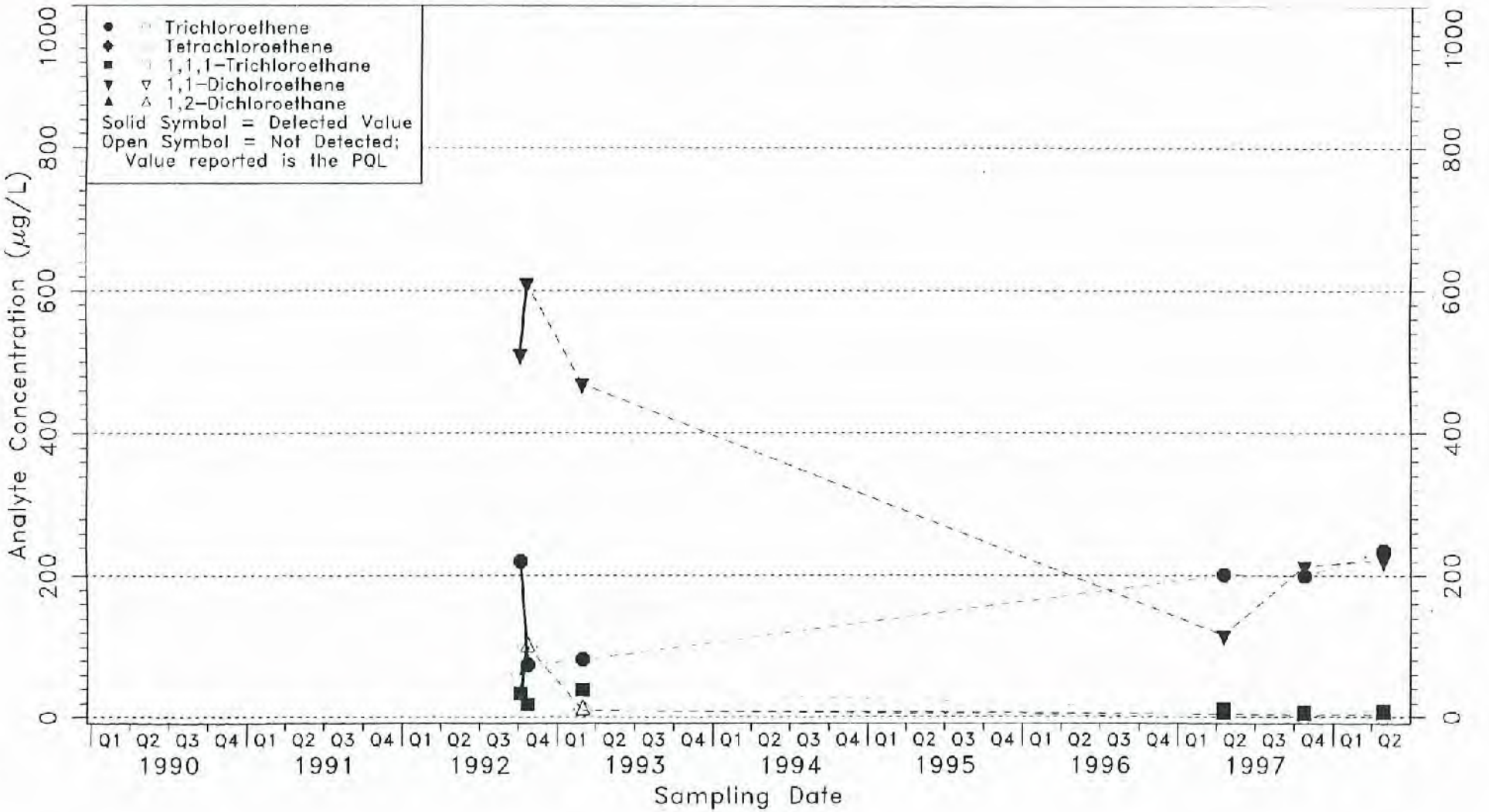
Analyte Concentrations MW-42

Lockheed Martin Corporation Beaumont Site No. 1



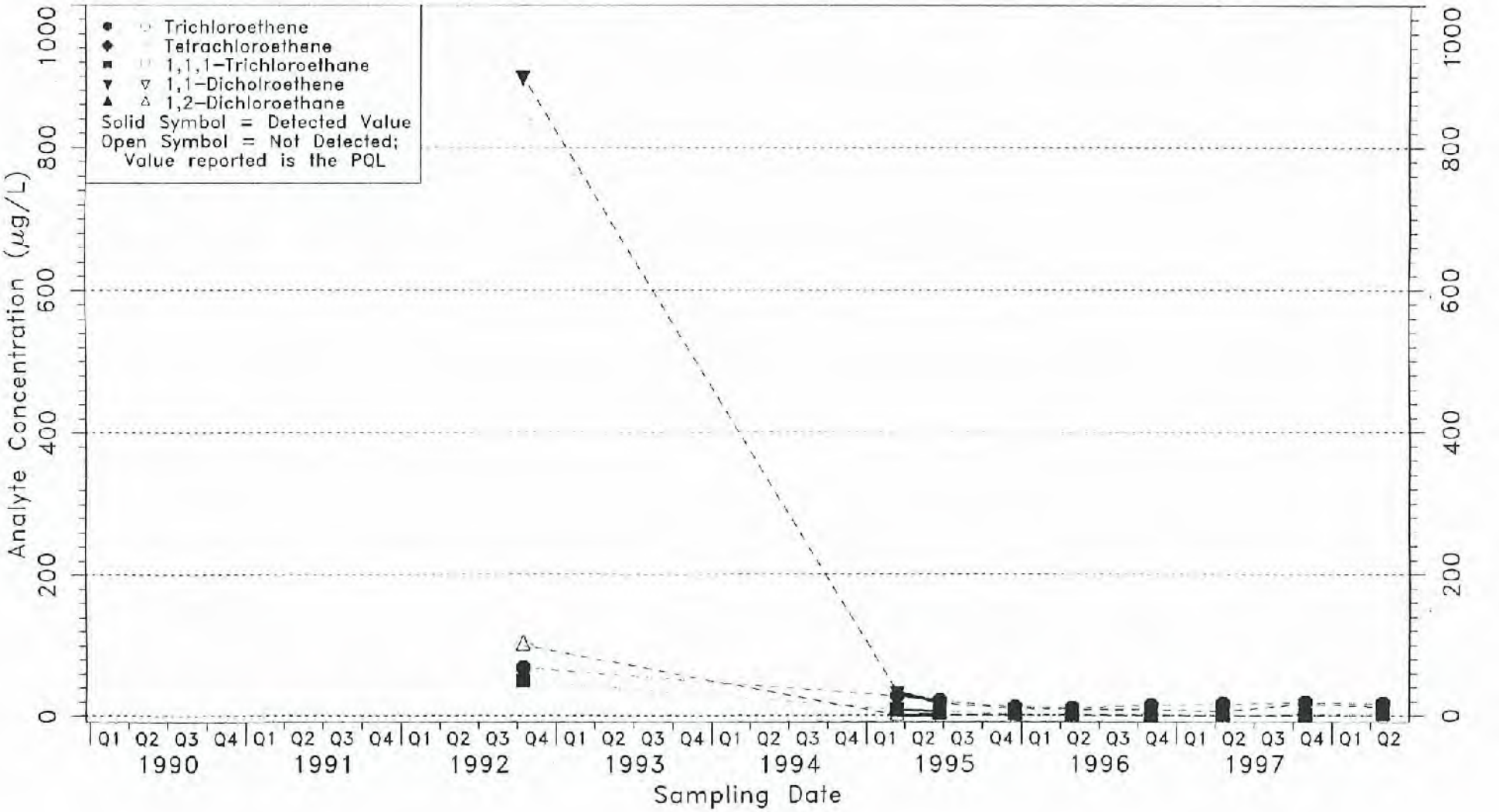
Analyte Concentrations MW-44

Lockheed Martin Corporation Beaumont Site No. 1



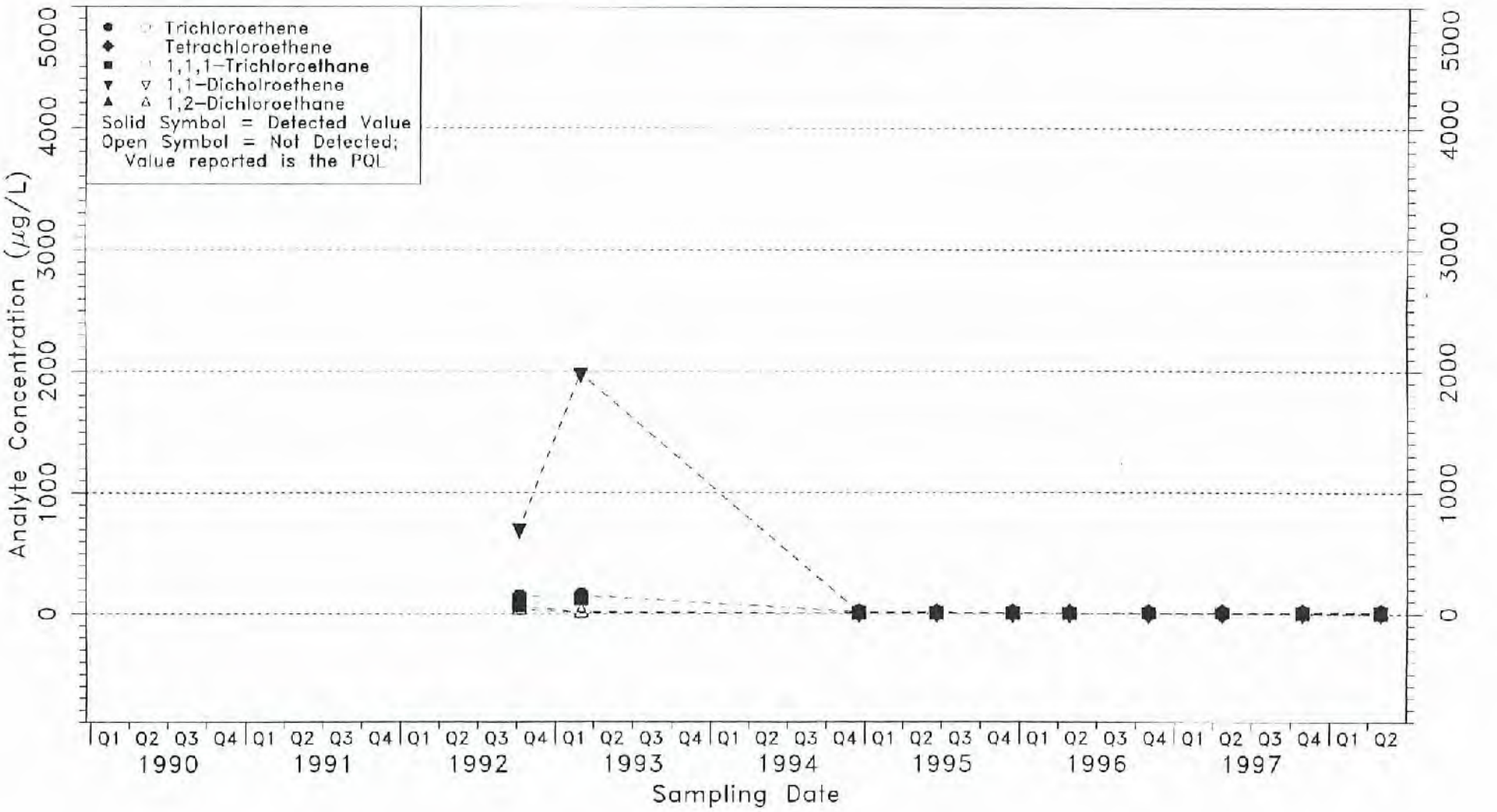
Analyte Concentrations MW-49

Lockheed Martin Corporation Beaumont Site No. 1



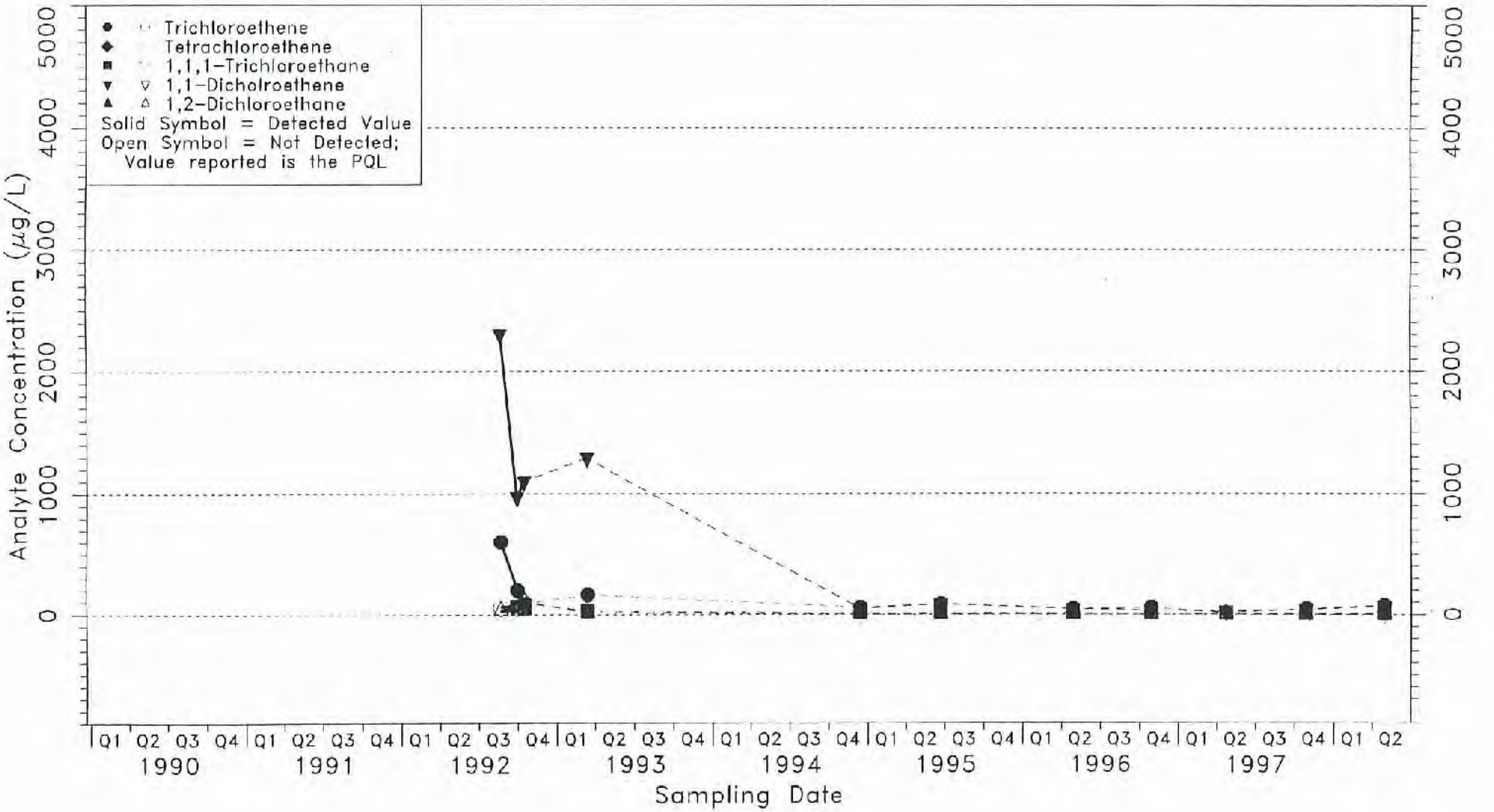
Analyte Concentrations MW-50

Lockheed Martin Corporation Beaumont Site No. 1



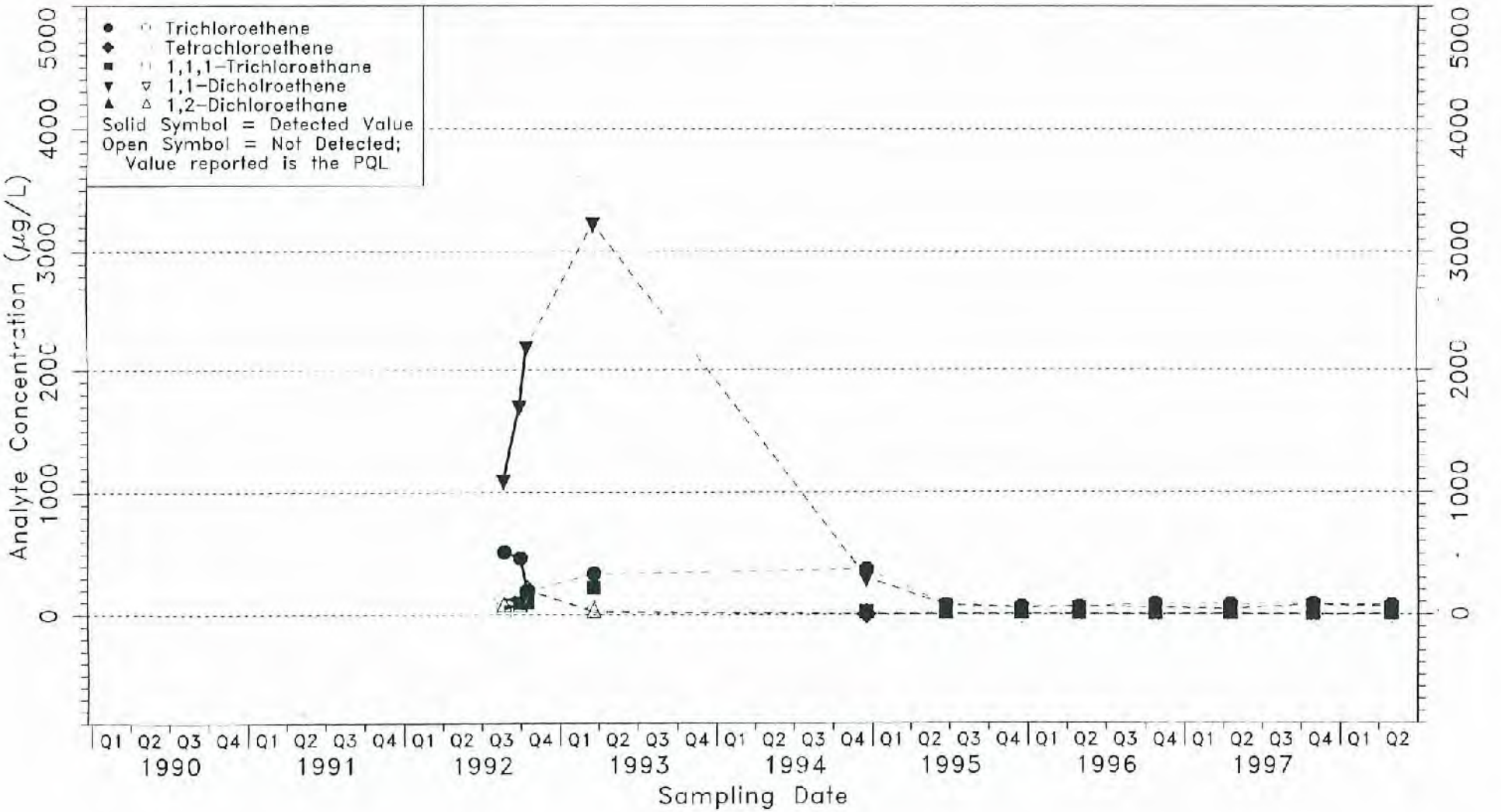
Analyte Concentrations MW-51

Lockheed Martin Corporation Beaumont Site No. 1



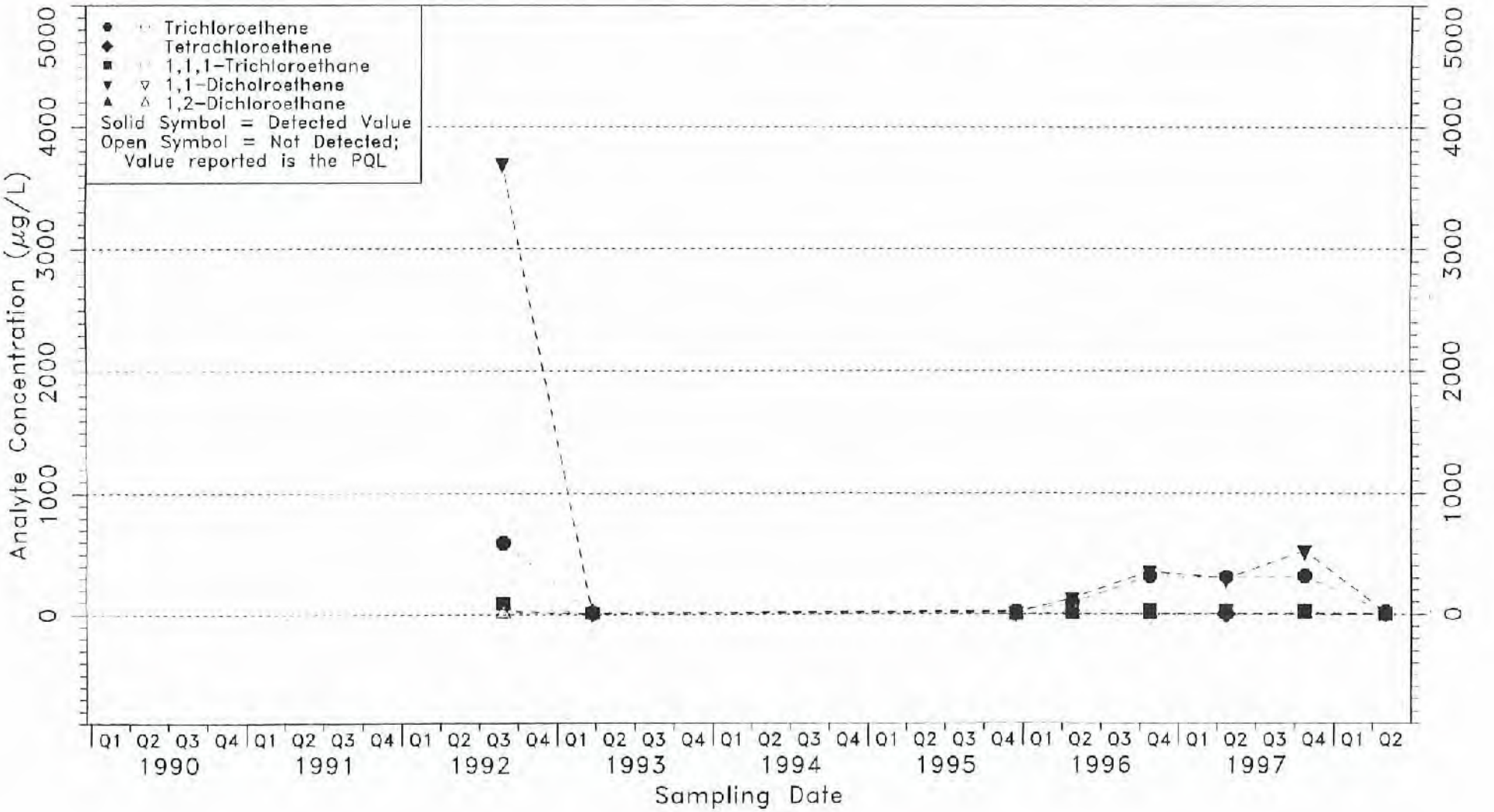
Analyte Concentrations MW-52

Lockheed Martin Corporation Beaumont Site No. 1



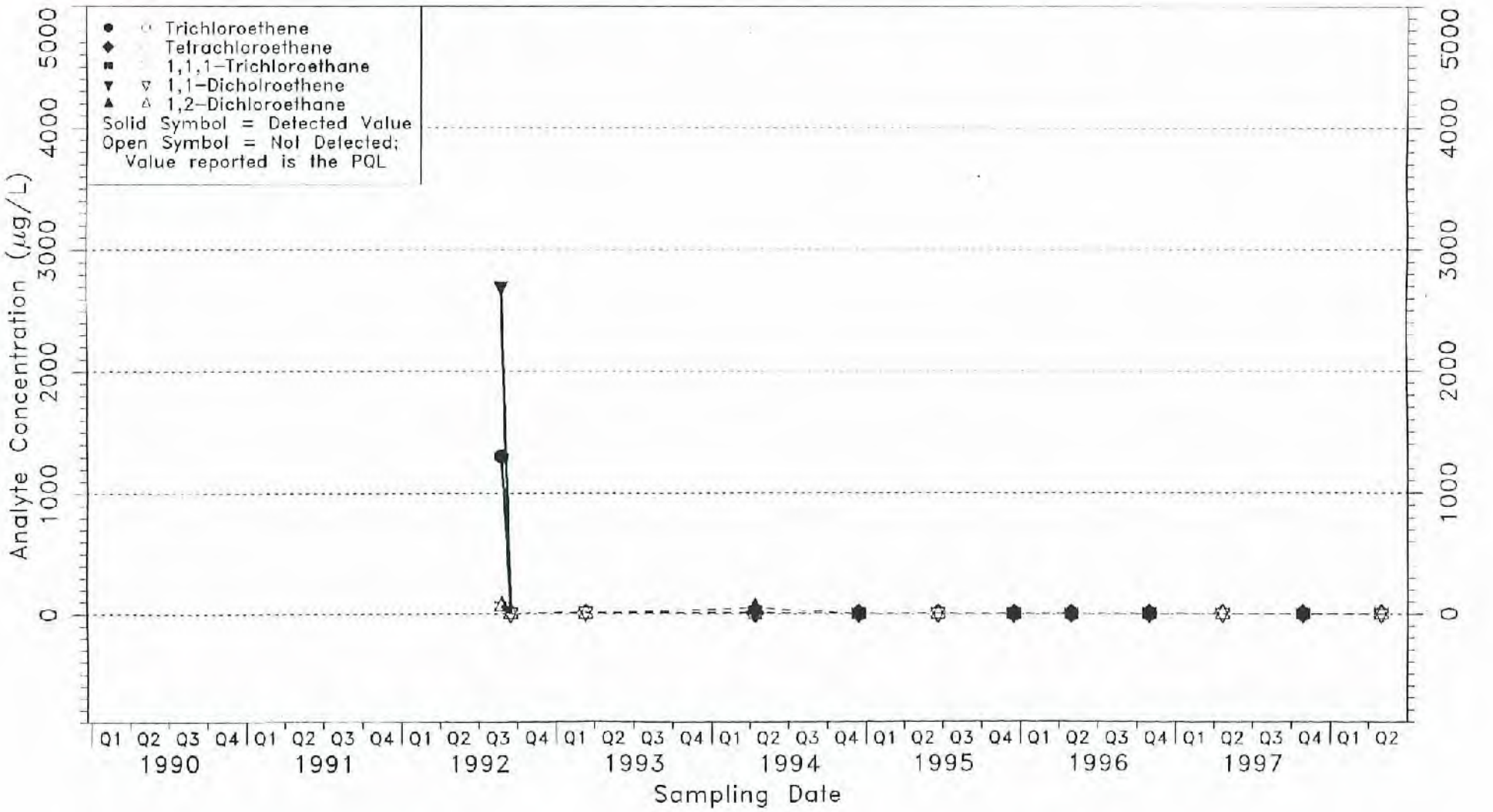
Analyte Concentrations MW-55

Lockheed Martin Corporation Beaumont Site No. 1



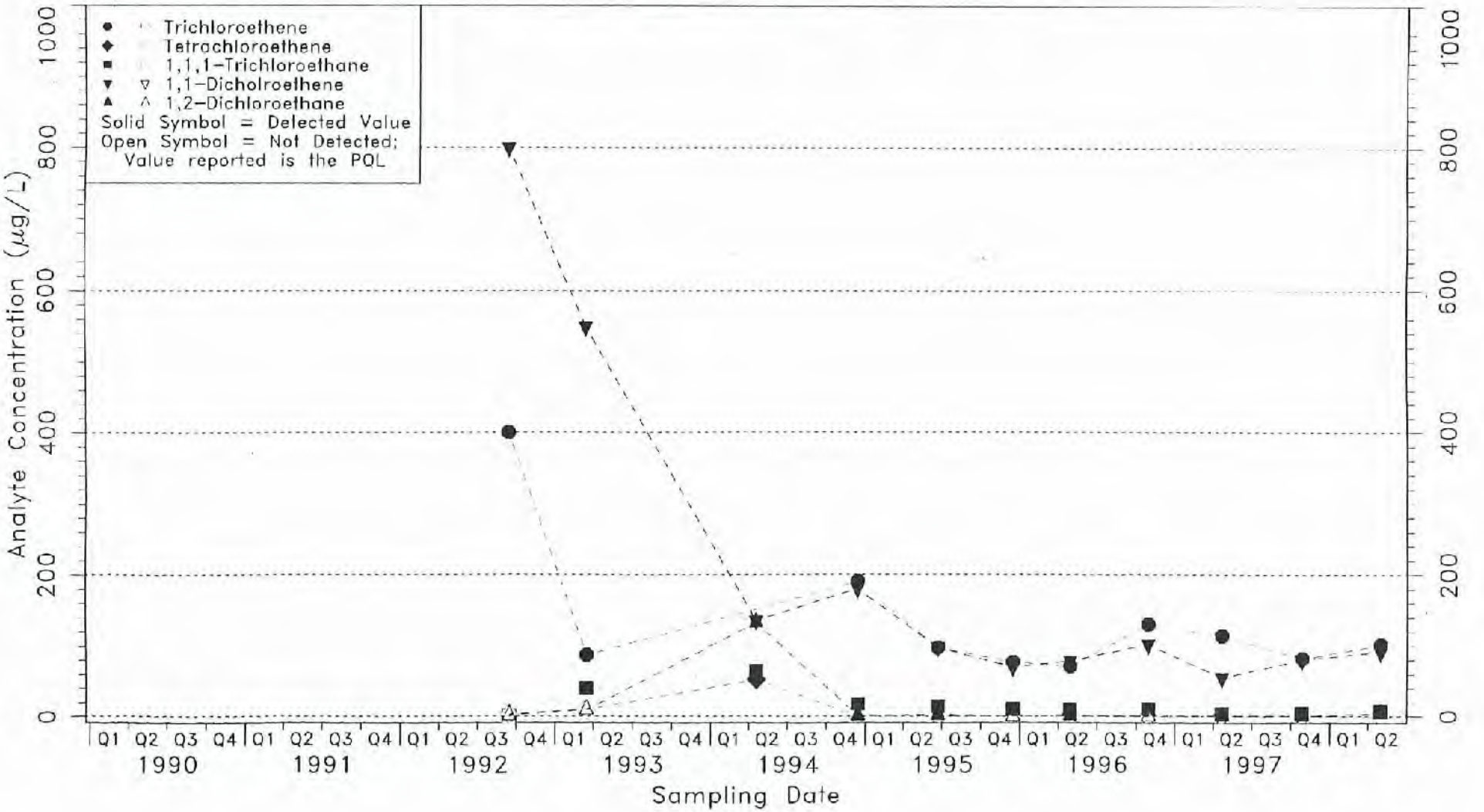
Analyte Concentrations MW-56A

Lockheed Martin Corporation Beaumont Site No. 1



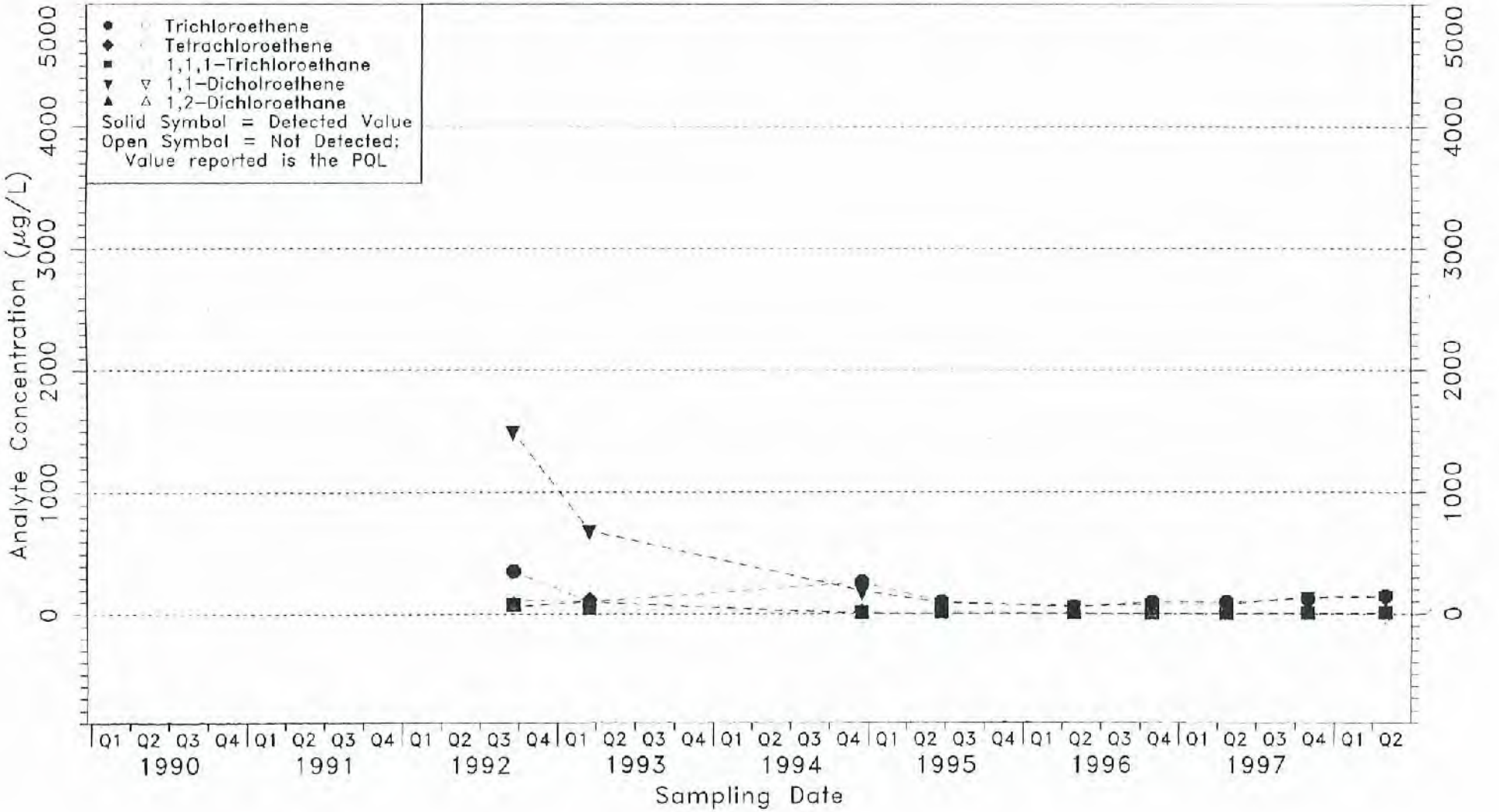
Analyte Concentrations MW-56C

Lockheed Martin Corporation Beaumont Site No. 1



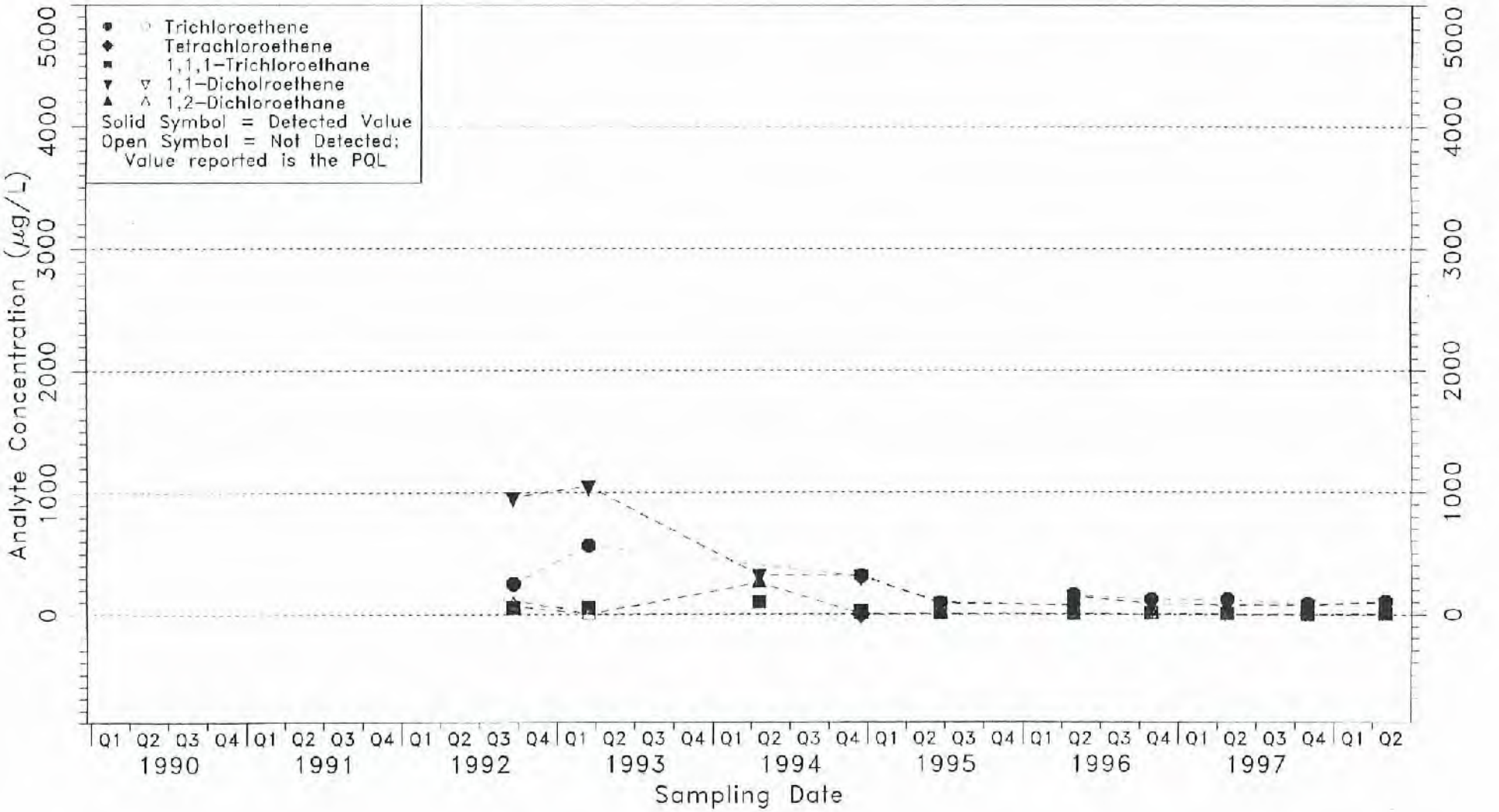
Analyte Concentrations MW-57A

Lockheed Martin Corporation Beaumont Site No. 1



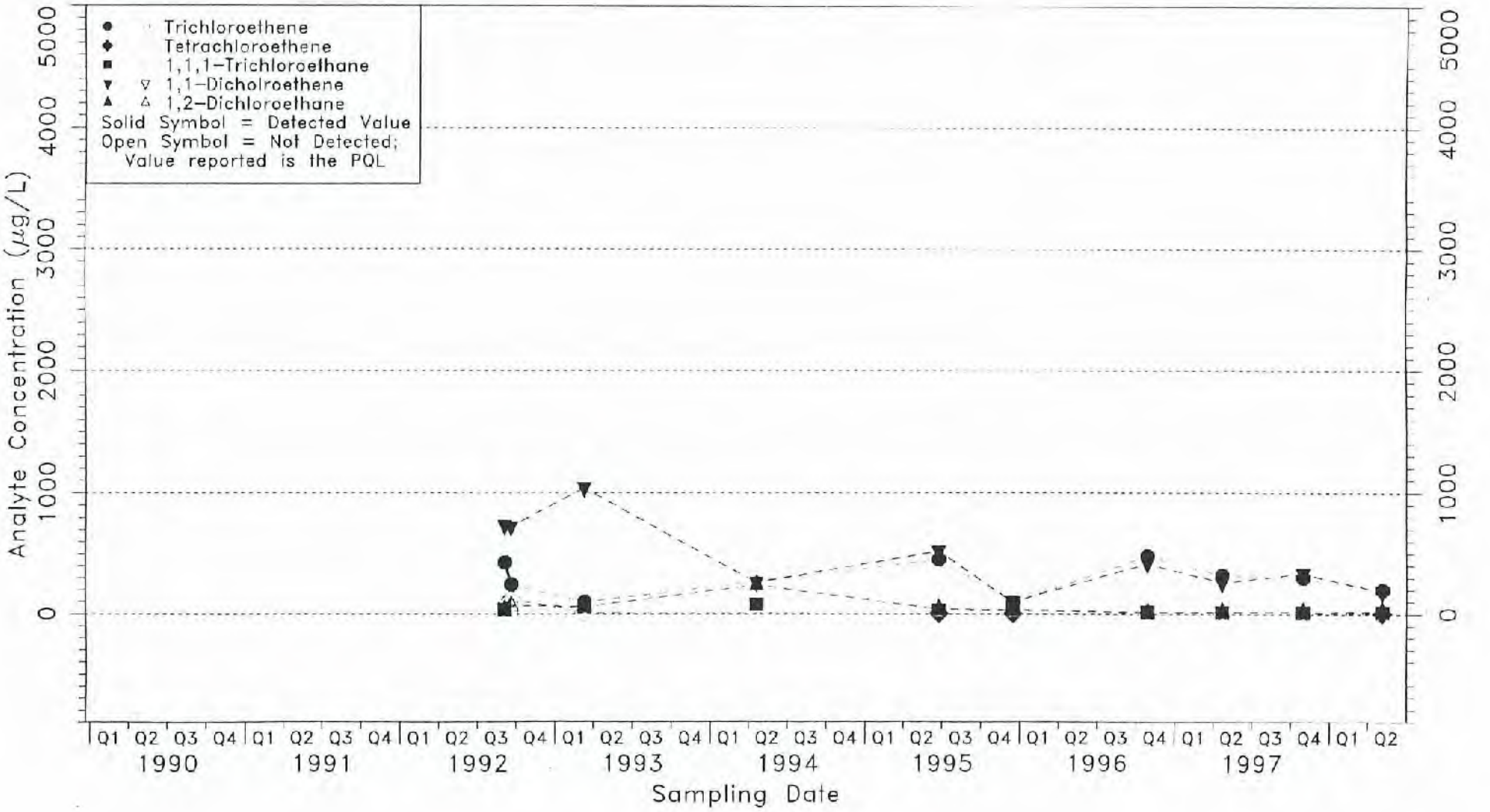
Analyte Concentrations MW-58D

Lockheed Martin Corporation Beaumont Site No. 1



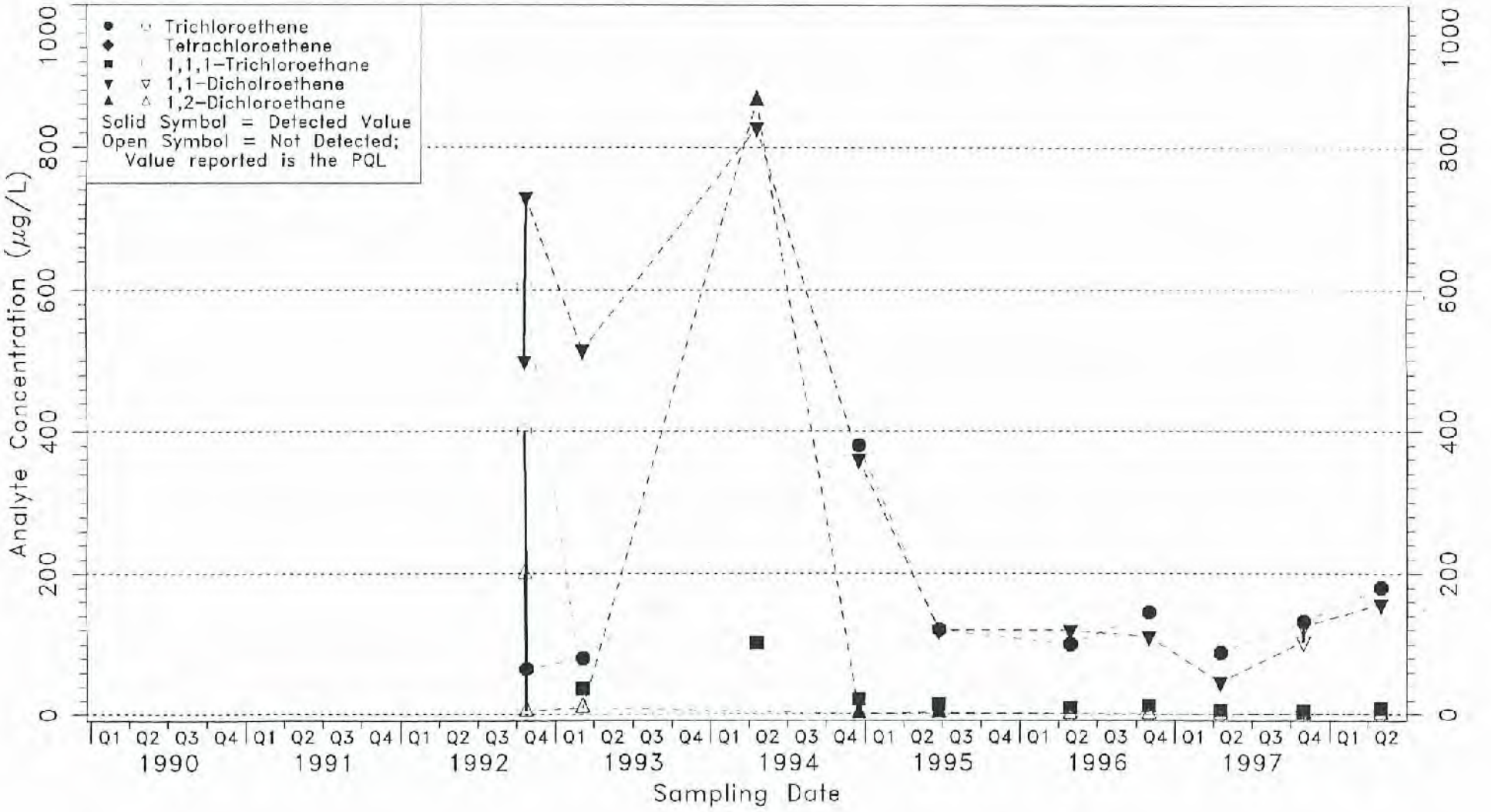
Analyte Concentrations MW-59B

Lockheed Martin Corporation Beaumont Site No. 1



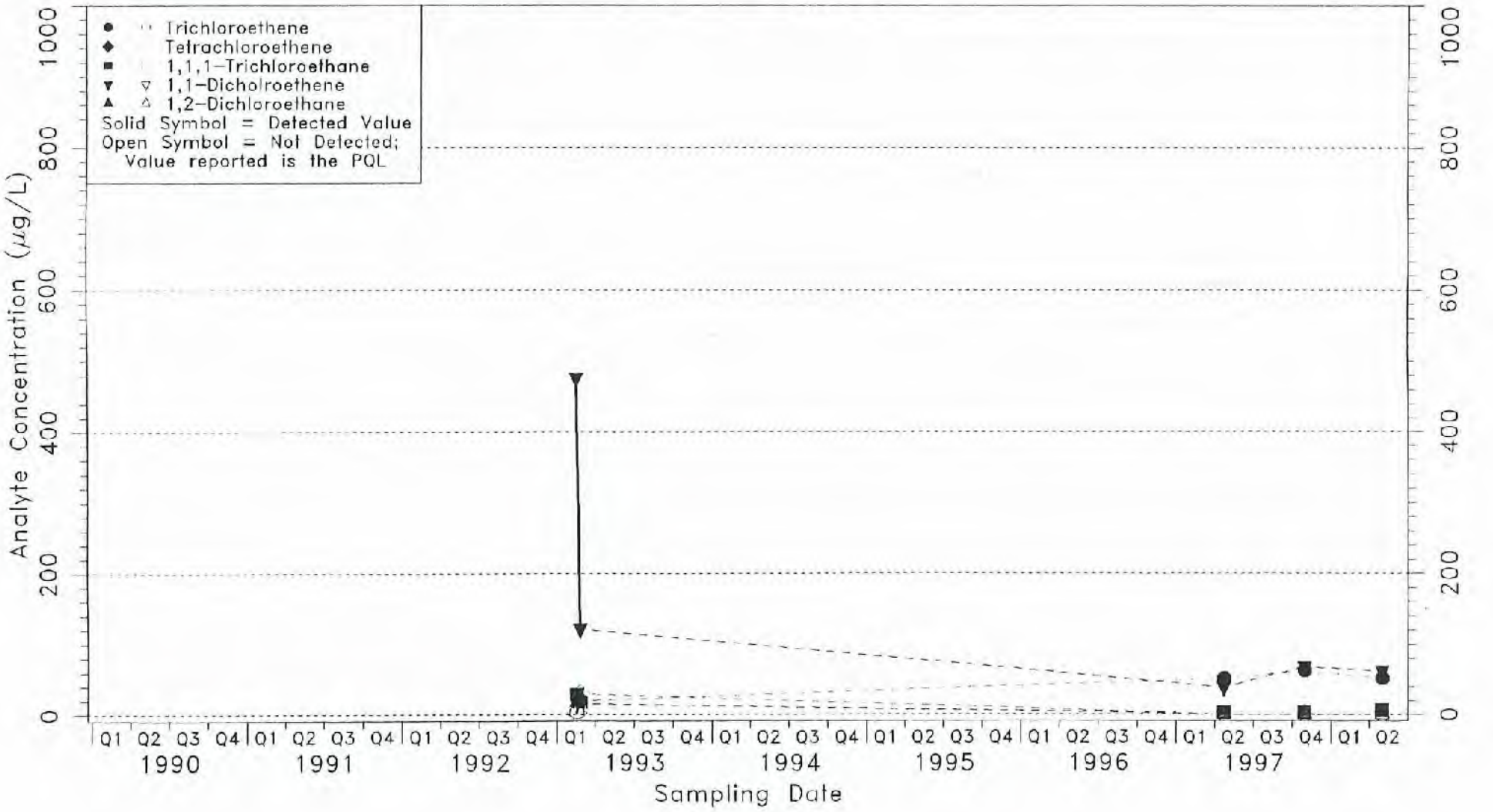
Analyte Concentrations MW-62A

Lockheed Martin Corporation Beaumont Site No. 1



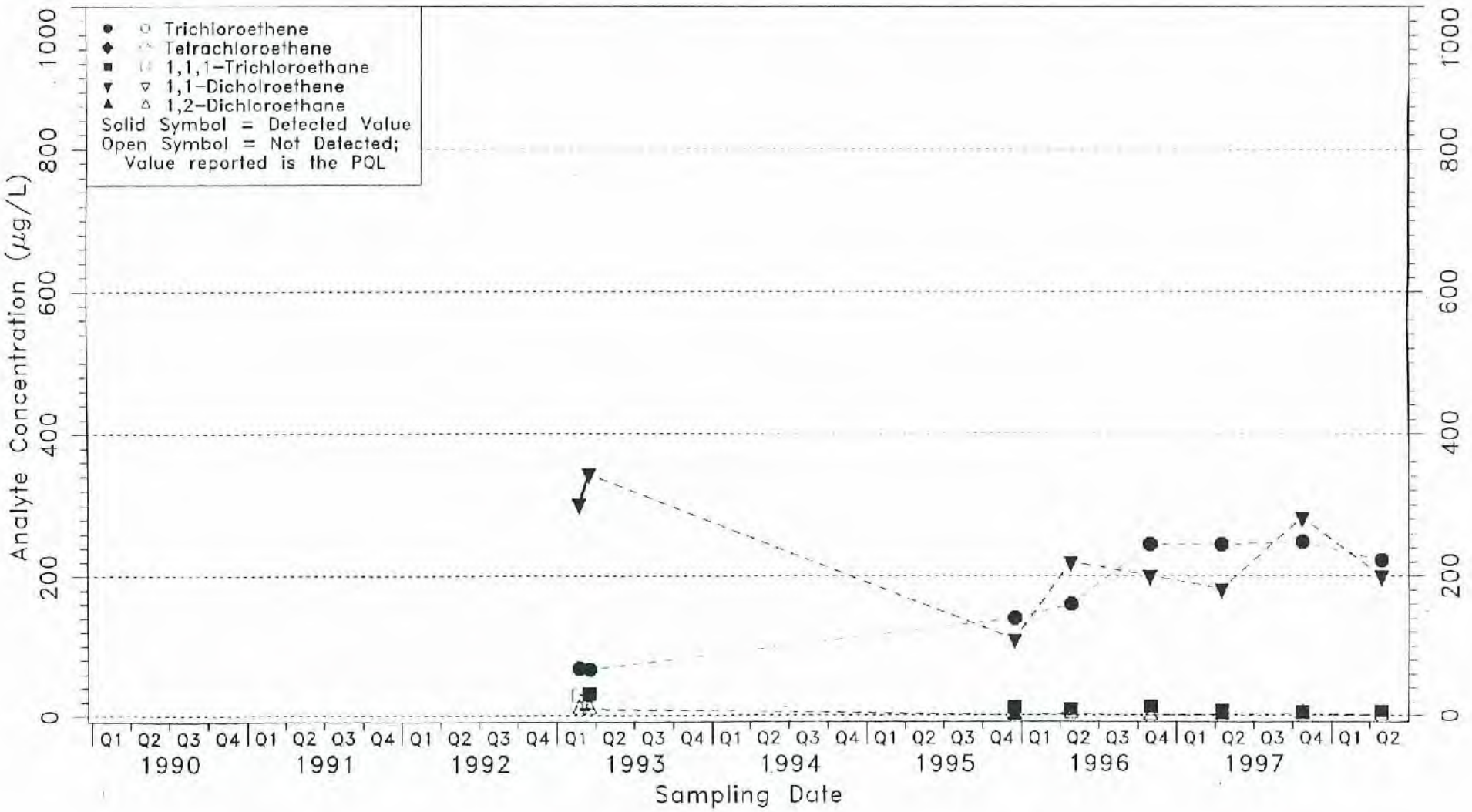
Analyte Concentrations MW-63

Lockheed Martin Corporation Beaumont Site No. 1



Analyte Concentrations MW-66

Lockheed Martin Corporation Beaumont Site No. 1



Analyte Concentrations OW-03

Lockheed Martin Corporation Beaumont Site No. 1

