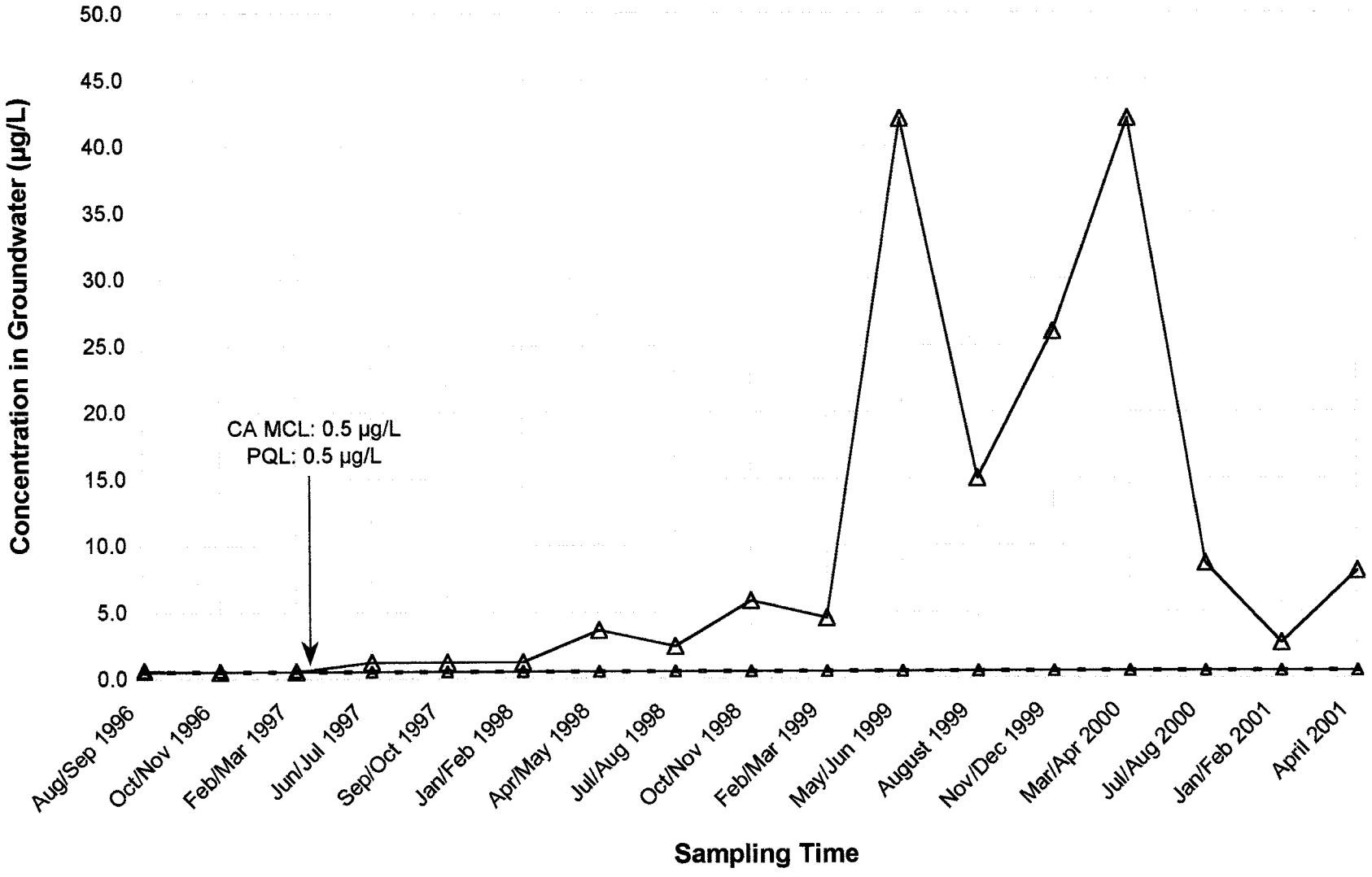


Legend

Screen 3 PQL CA MCL

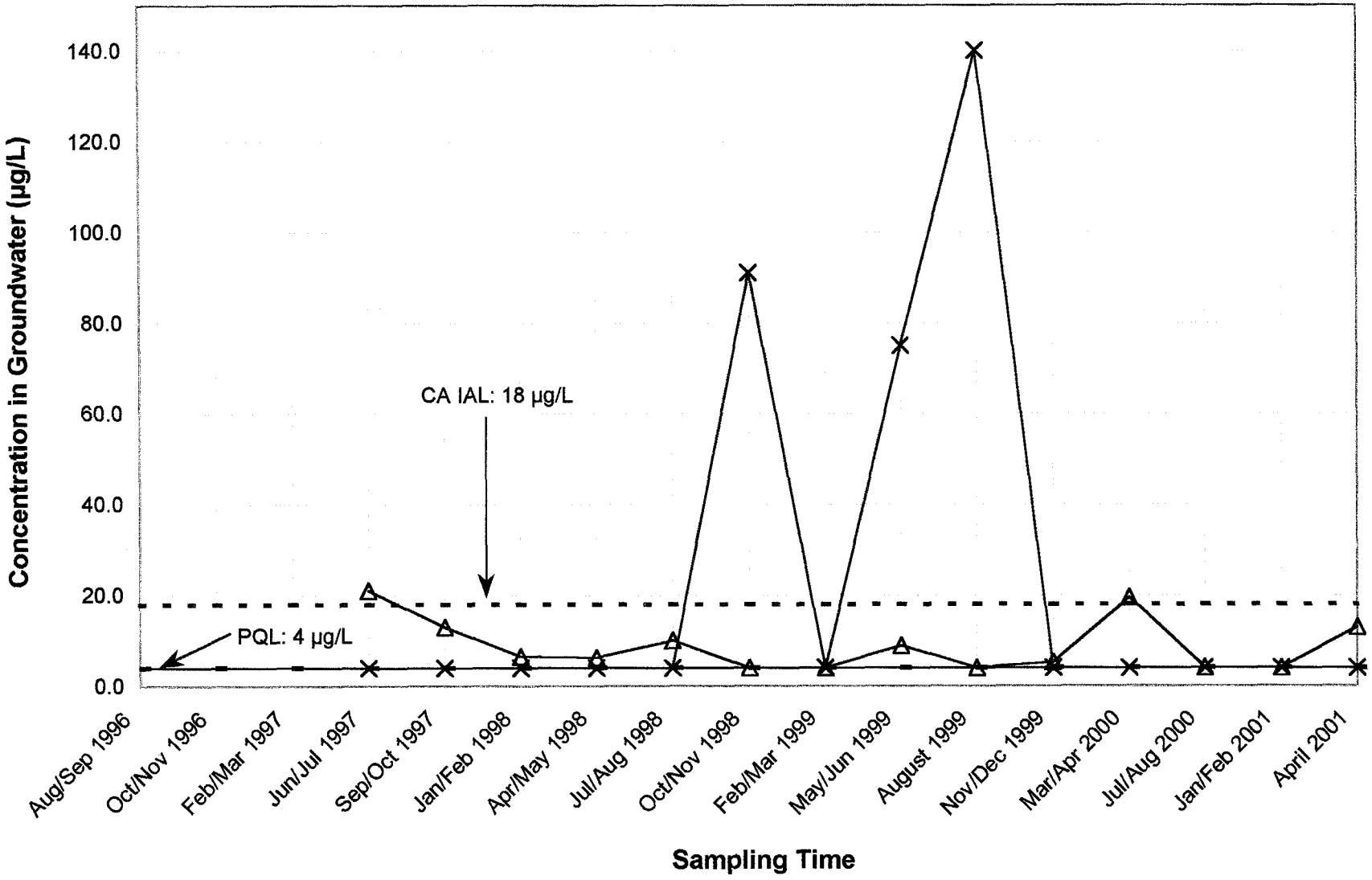
Only concentrations above PQL are plotted. Screens 1, 2, 4, and 5 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-13

CARBON TETRACHLORIDE DETECTED AT MW-3
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 3 — Screen 5 — PQL - - - CA IAL

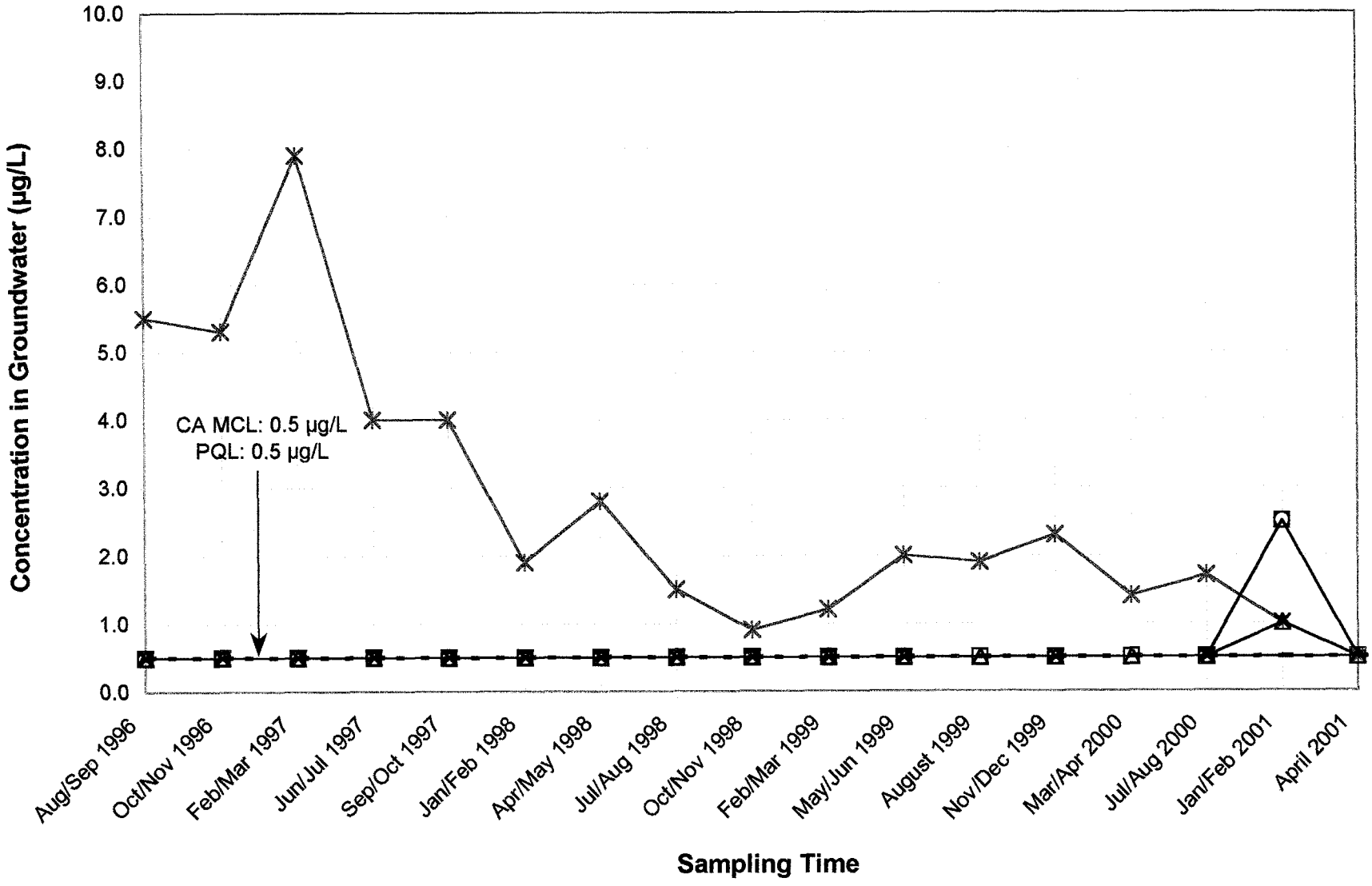
Only concentrations above PQL are plotted. Screens 1, 2, and 4 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-14

PERCHLORATE DETECTED AT MW-3
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 2 — Screen 3 — Screen 4

Screen 5 — PQL - - - CA MCL

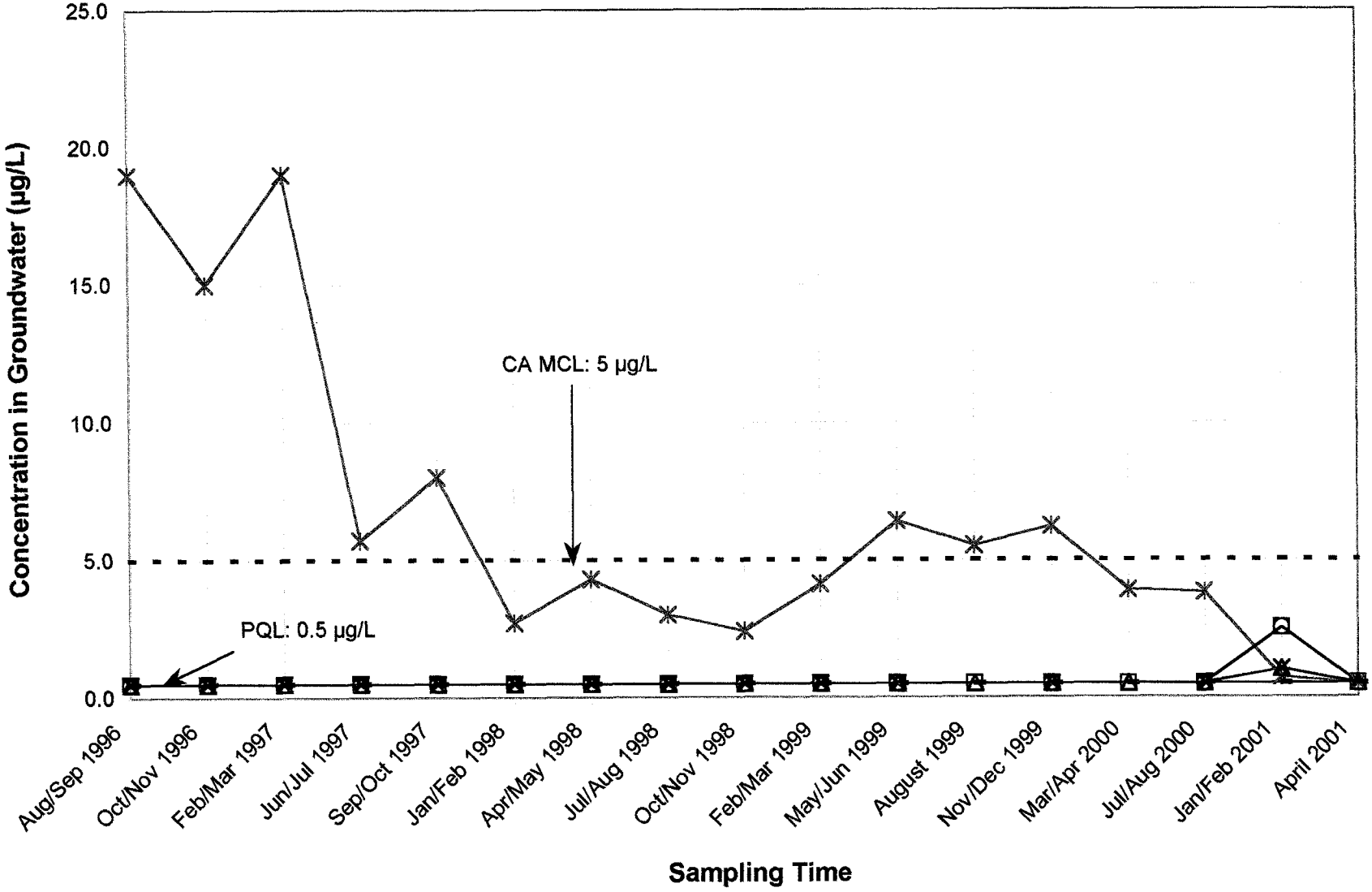
Only concentrations above PQL are plotted. Screens 1, 2, 4, and 5 concentrations at Jan/Feb 2001were below PQL (2.5 µg/L).
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-15

CARBON TETRACHLORIDE DETECTED AT MW-4 FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 2 — Screen 3 — Screen 4

Screen 5 — PQL - - - CA MCL

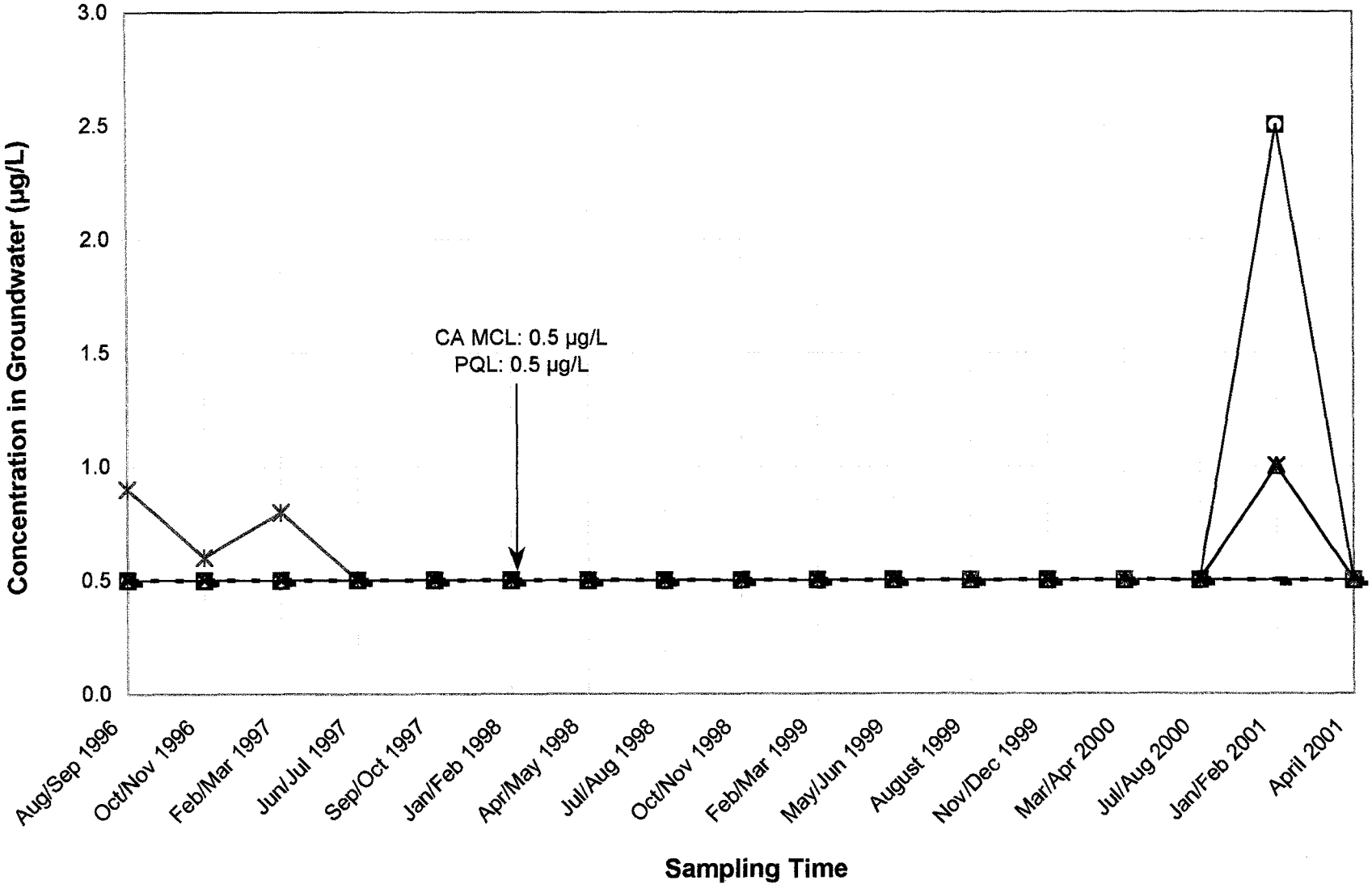
Only concentrations above PQL are plotted. Screens 1, 2, 3, 4, and 5 concentrations at Jan/Feb 2001 were below PQL (2.5 µg/L).
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-16

TRICHLOROETHENE DETECTED AT MW-4
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 2 — Screen 3 — Screen 4

Screen 5 — PQL - - - CA MCL

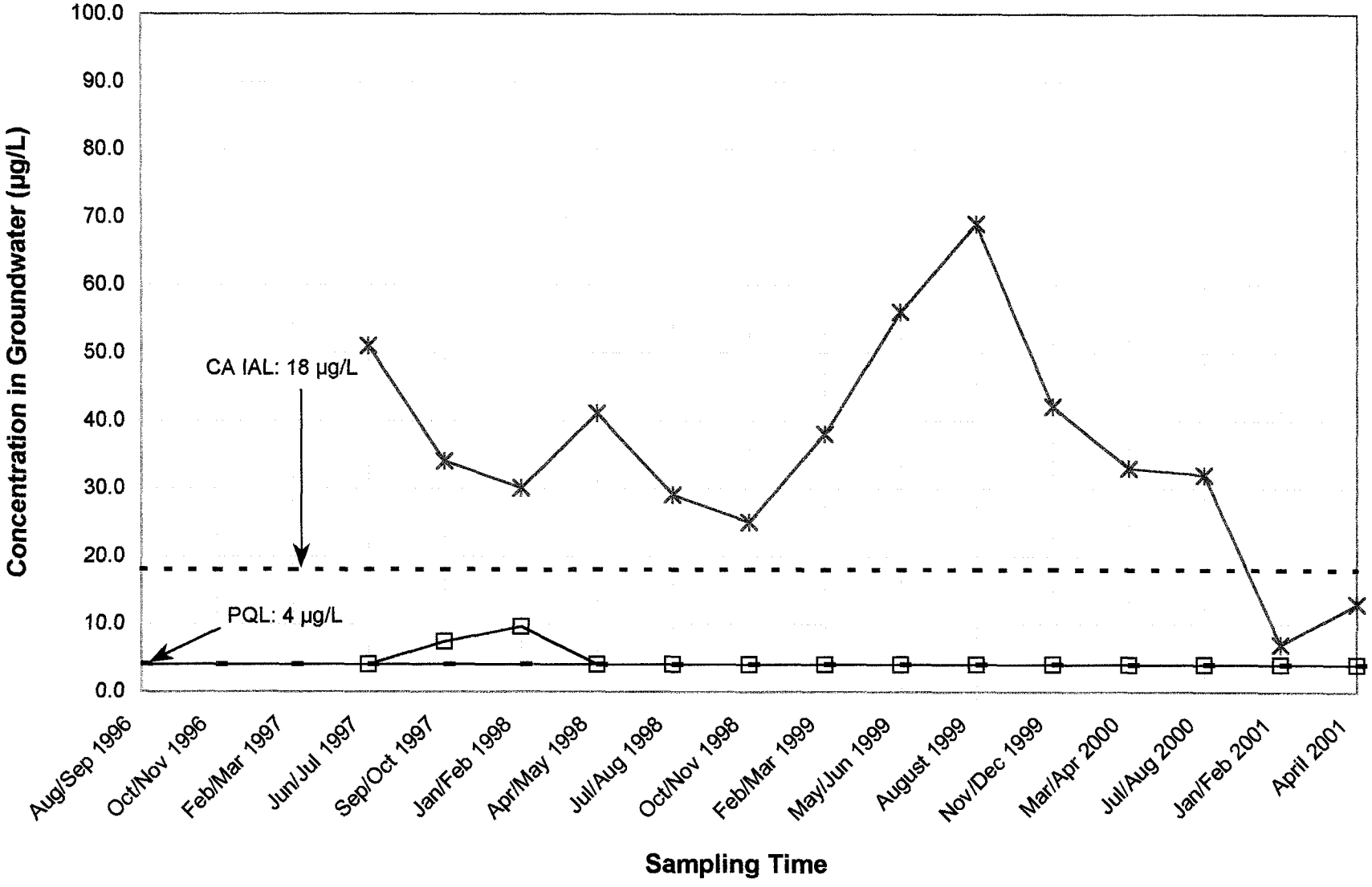
Only concentrations above PQL are plotted. Screens 1, 2, 3, 4, and 5 concentrations at Jan/Feb 2001 were below PQL (2.5 µg/L).
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-17

1, 2-DCA DETECTED AT MW-4
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 2 — PQL - - - CA IAL

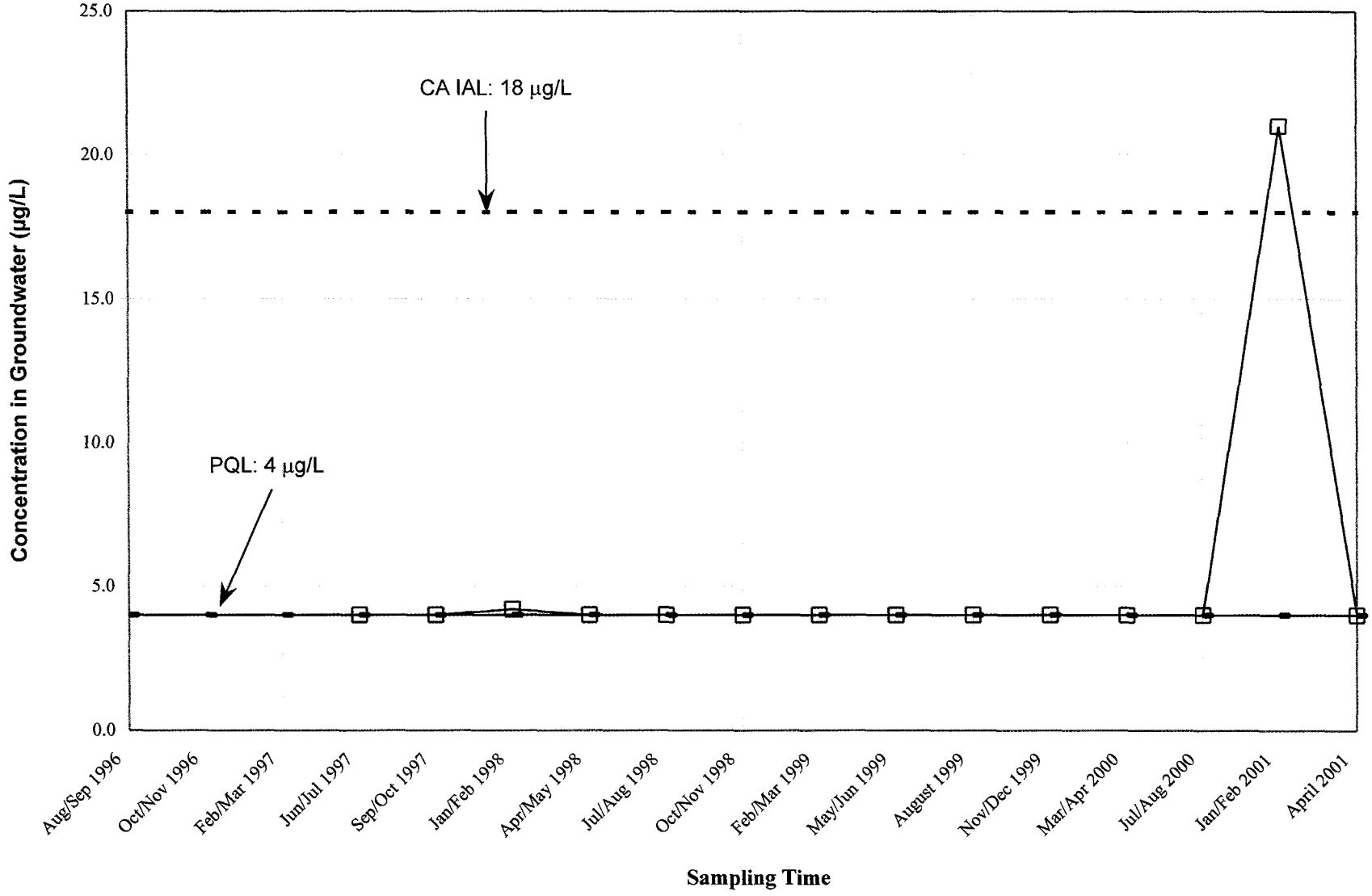
Only concentrations above PQL are plotted. Screens 3, 4, and 5 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-18

PERCHLORATE DETECTED AT MW-4
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - CA IAL

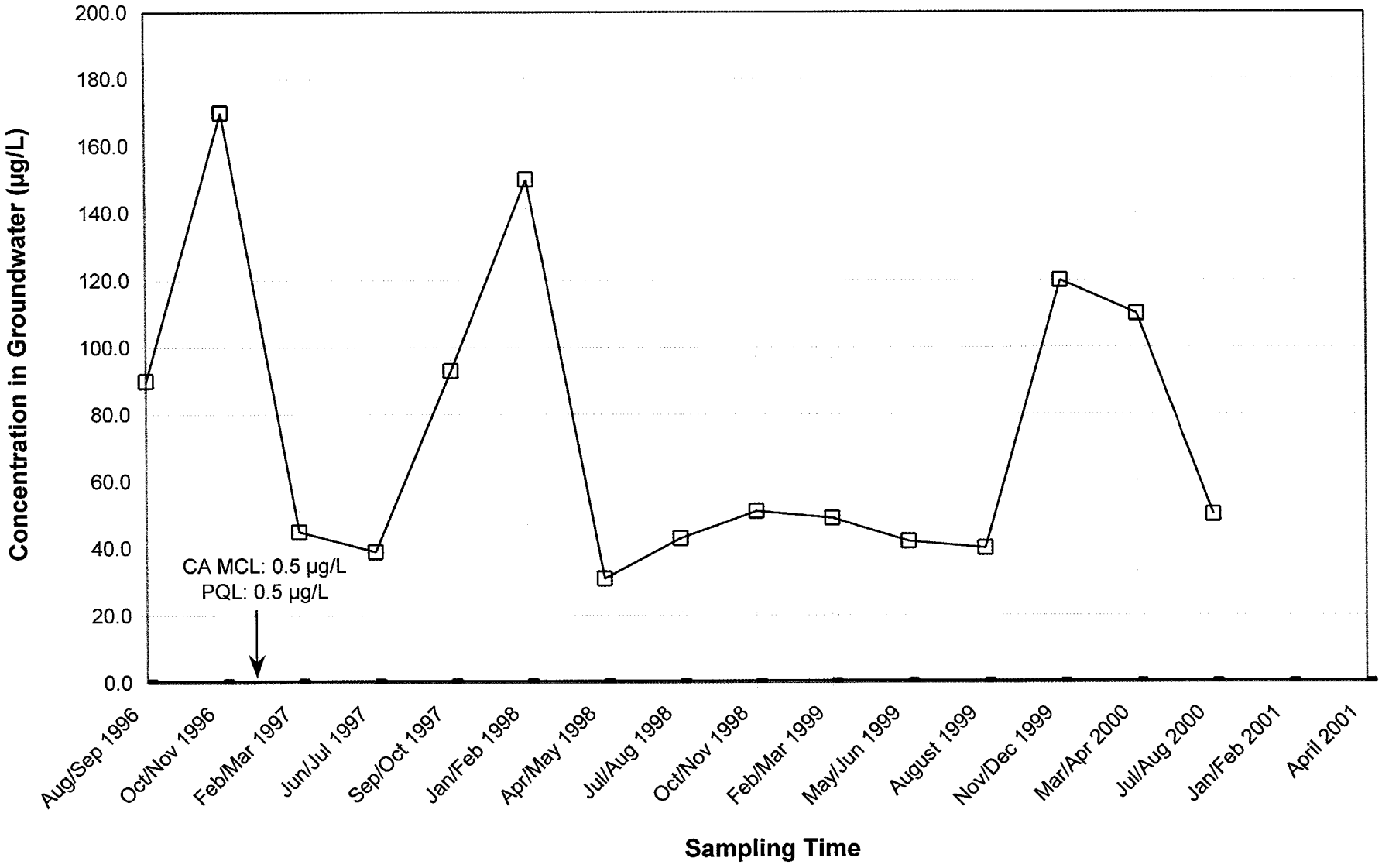
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-19

PERCHLORATE DETECTED AT MW-5
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA MCL

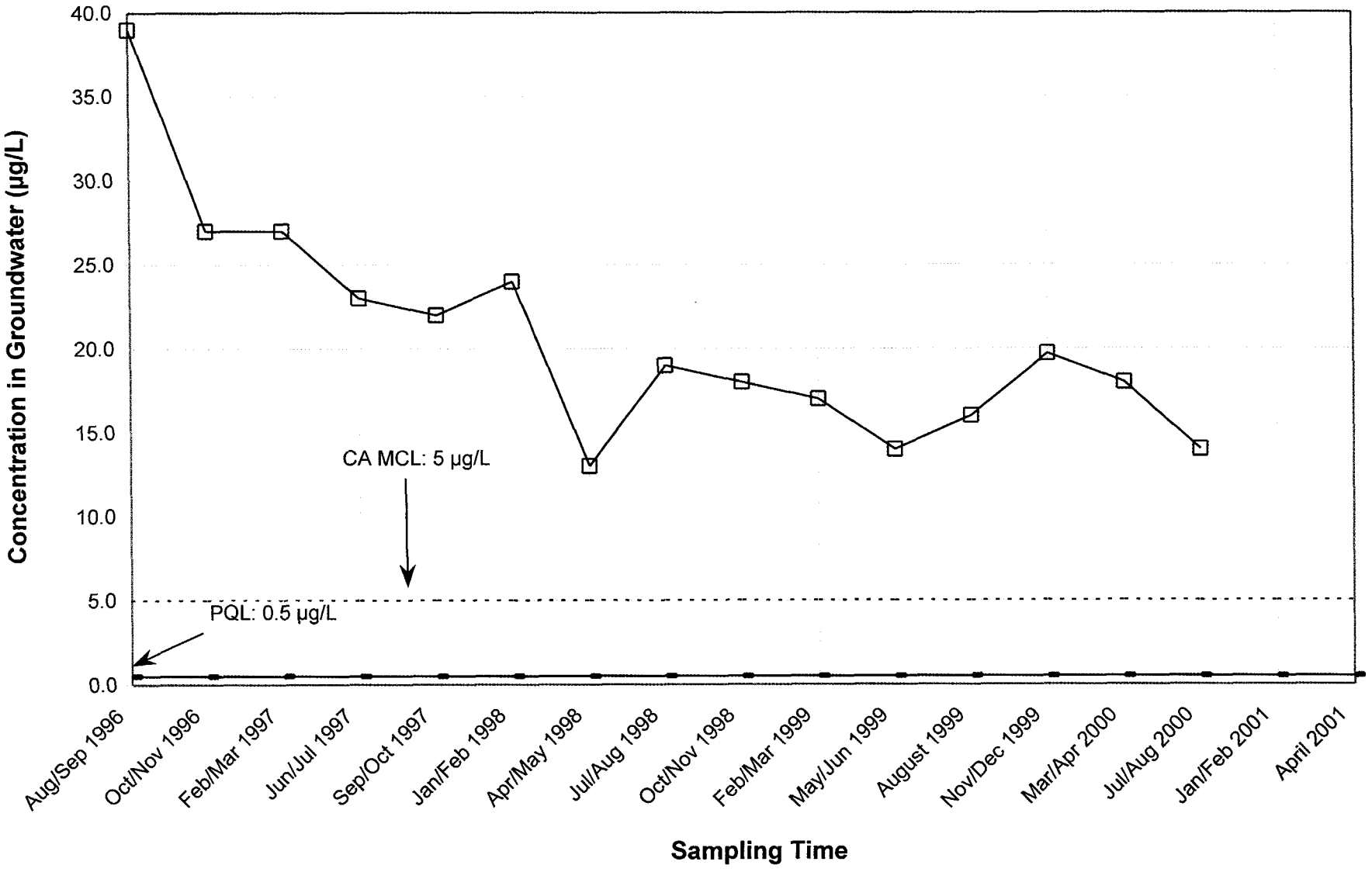
Only concentrations above PQL are plotted. No sample was collected during Jan/Feb 2001 and April 2001 events due to the ongoing Pilot Test at MW-7 (Reference US Filter Pliot Test Report for current water quality data).
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-20

CARBON TETRACHLORIDE DETECTED AT MW-7 FROM AUG/SEP 1996 TO JUL/AUG 2000

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA MCL

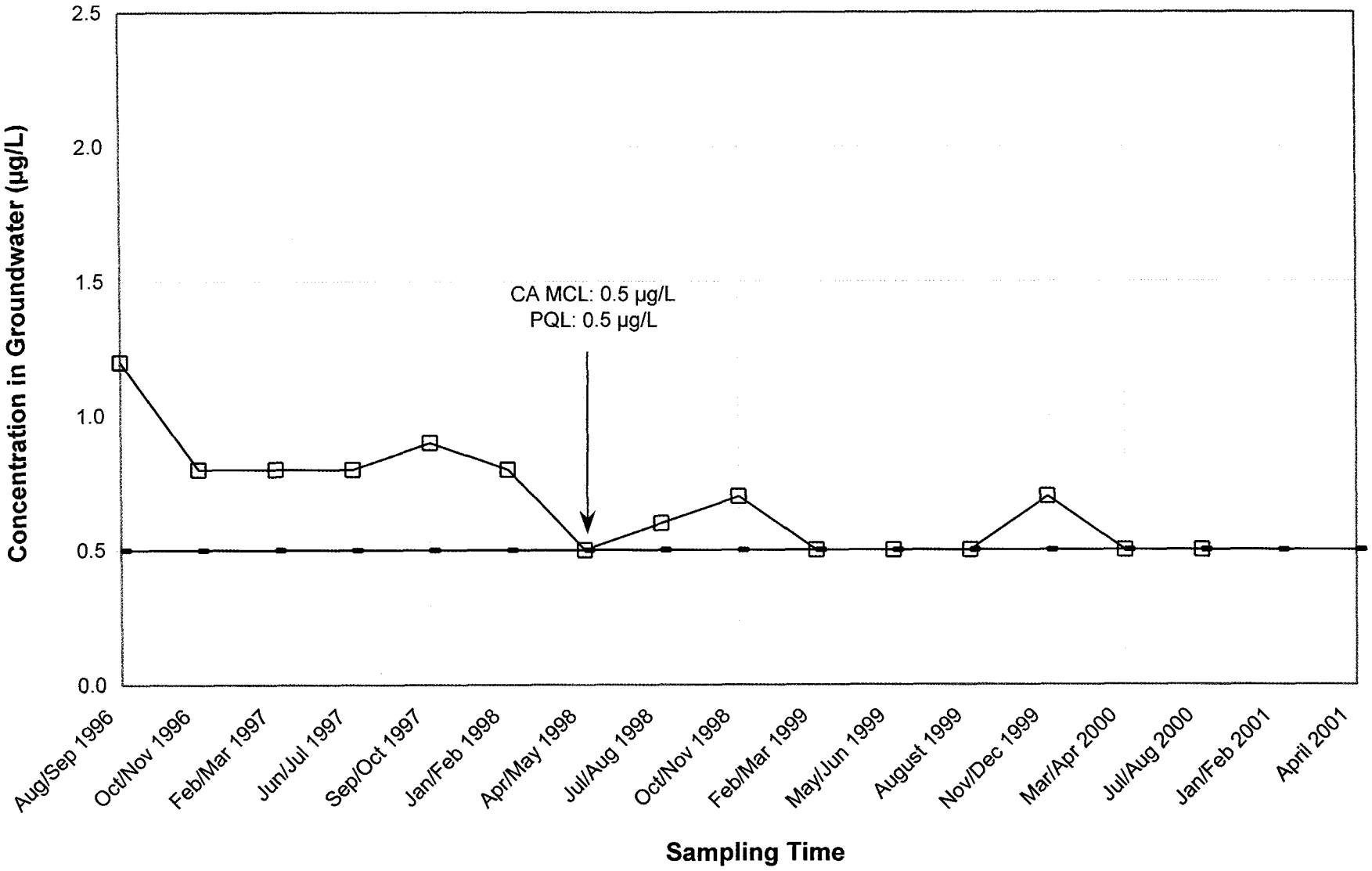
Only concentrations above PQL are plotted. No sample was collected during Jan/Feb 2001 and April 2001 events due to the ongoing Pilot Test at MW-7 (Reference US Filter Pliot Test Report for current water quality data).
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-21

TRICHLOROETHENE DETECTED AT MW-7
FROM AUG/SEP 1996 TO JUL/AUG 2000

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA MCL

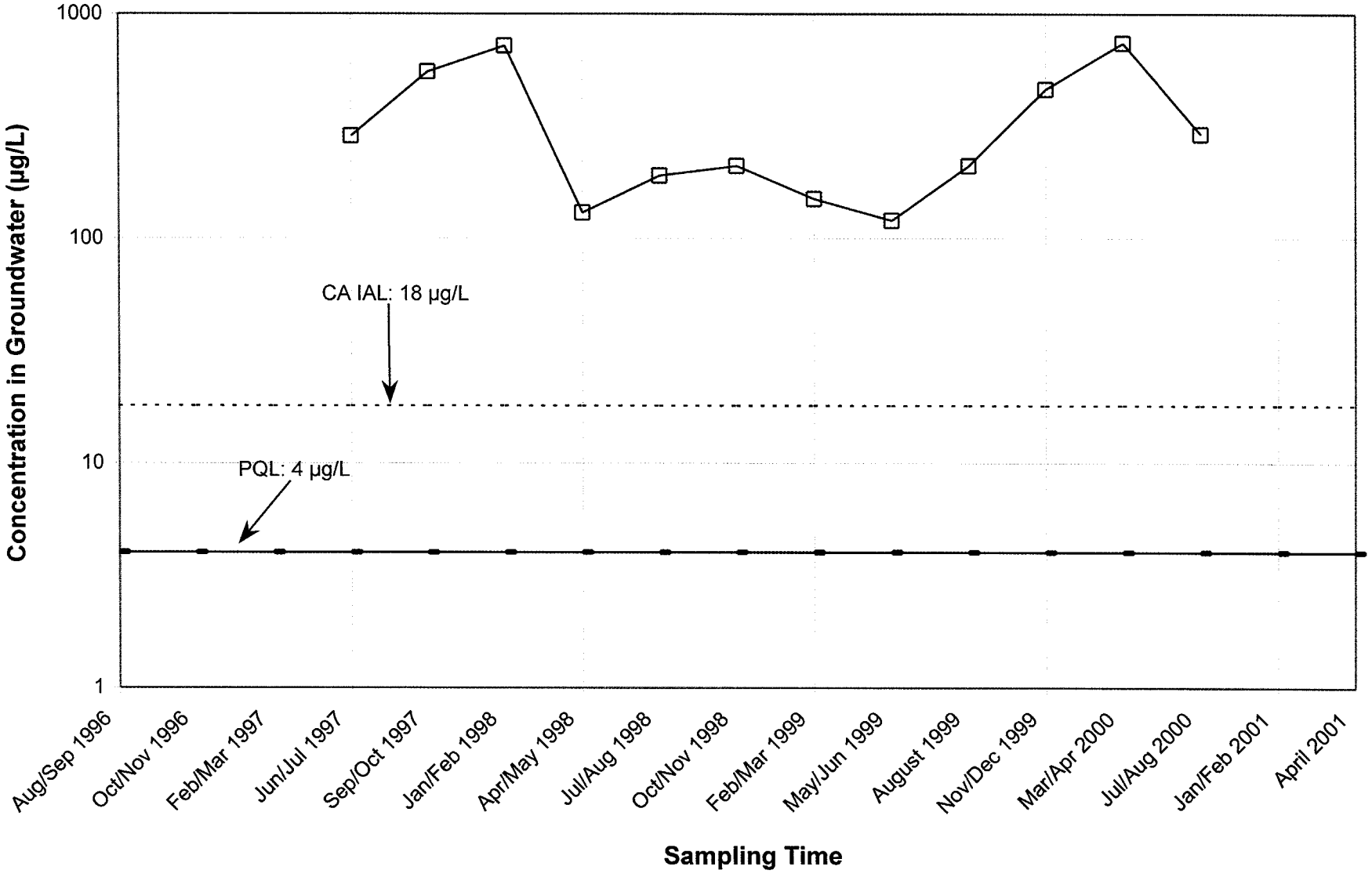
Only concentrations above PQL are plotted. No sample was collected during Jan/Feb 2001 and April 2001 events due to the ongoing Pilot Test at MW-7 (Reference US Filter Pliot Test Report for current water quality data).
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-22

1, 2-DCA DETECTED AT MW-7
FROM AUG/SEP 1996 TO JUL/AUG 2000

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA MCL

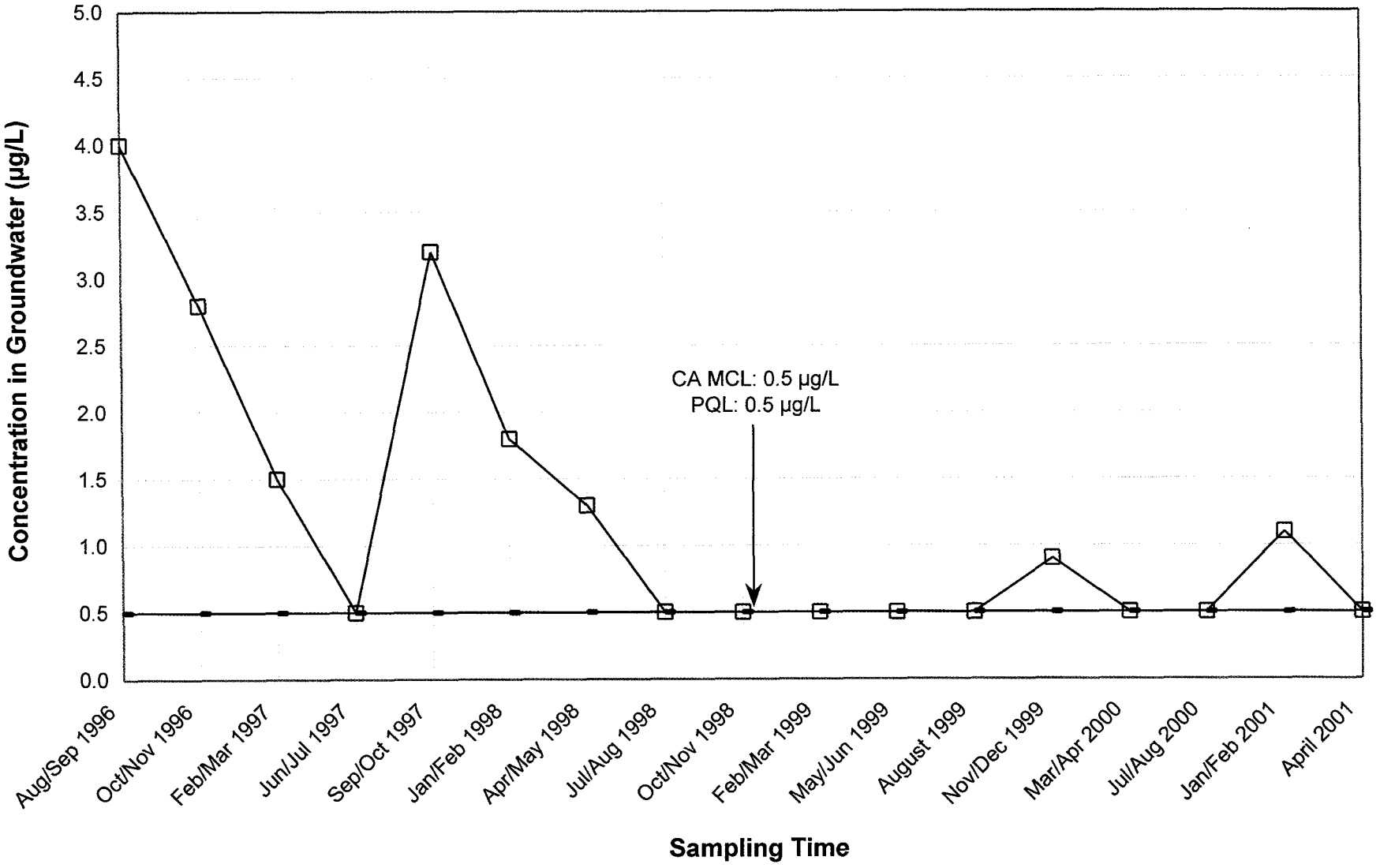
Only concentrations above PQL are plotted. No sample was collected during Jan/Feb 2001 and April 2001 events due to the ongoing Pilot Test at MW-7 (Reference US Filter Pliot Test Report for current water quality data).
Values in (Y) axis are represented in Logarithmic scale.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-23

PERCHLORATE DETECTED AT MW-7
FROM AUG/SEP 1996 TO JUL/AUG 2000

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA MCL

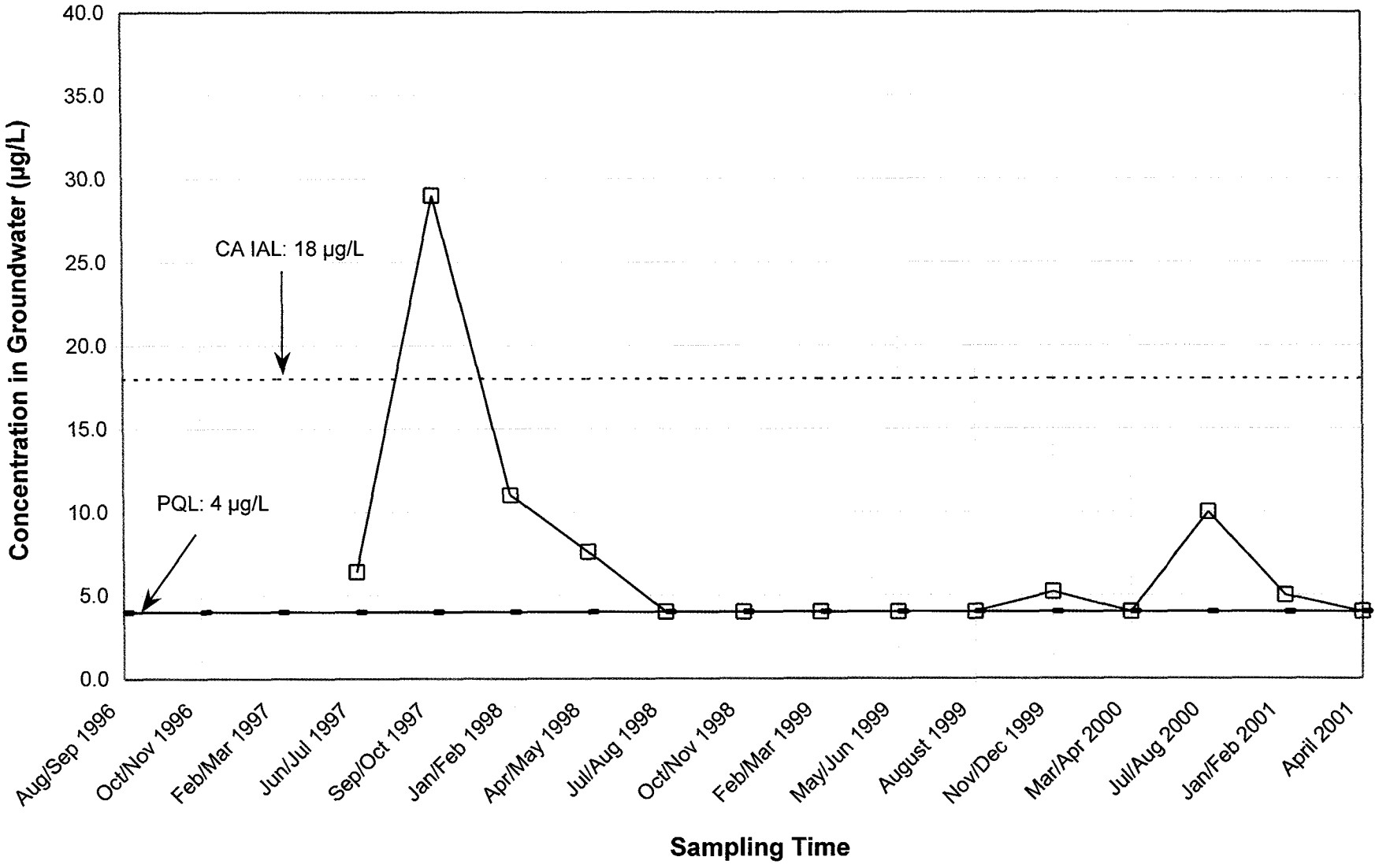
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-24

CARBON TETRACHLORIDE DETECTED AT MW-8 FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA IAL

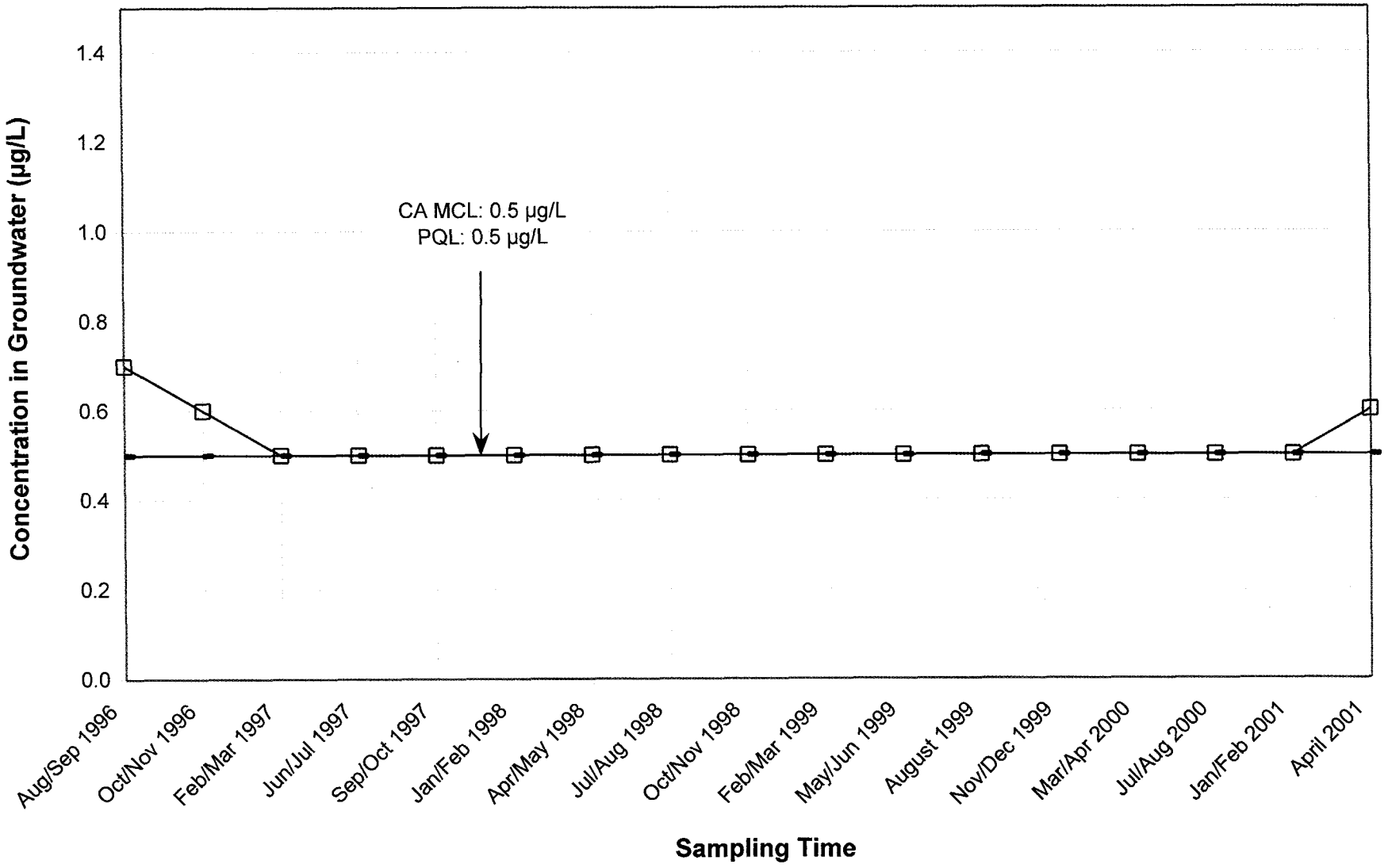
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-25

PERCHLORATE DETECTED AT MW-8
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA MCL

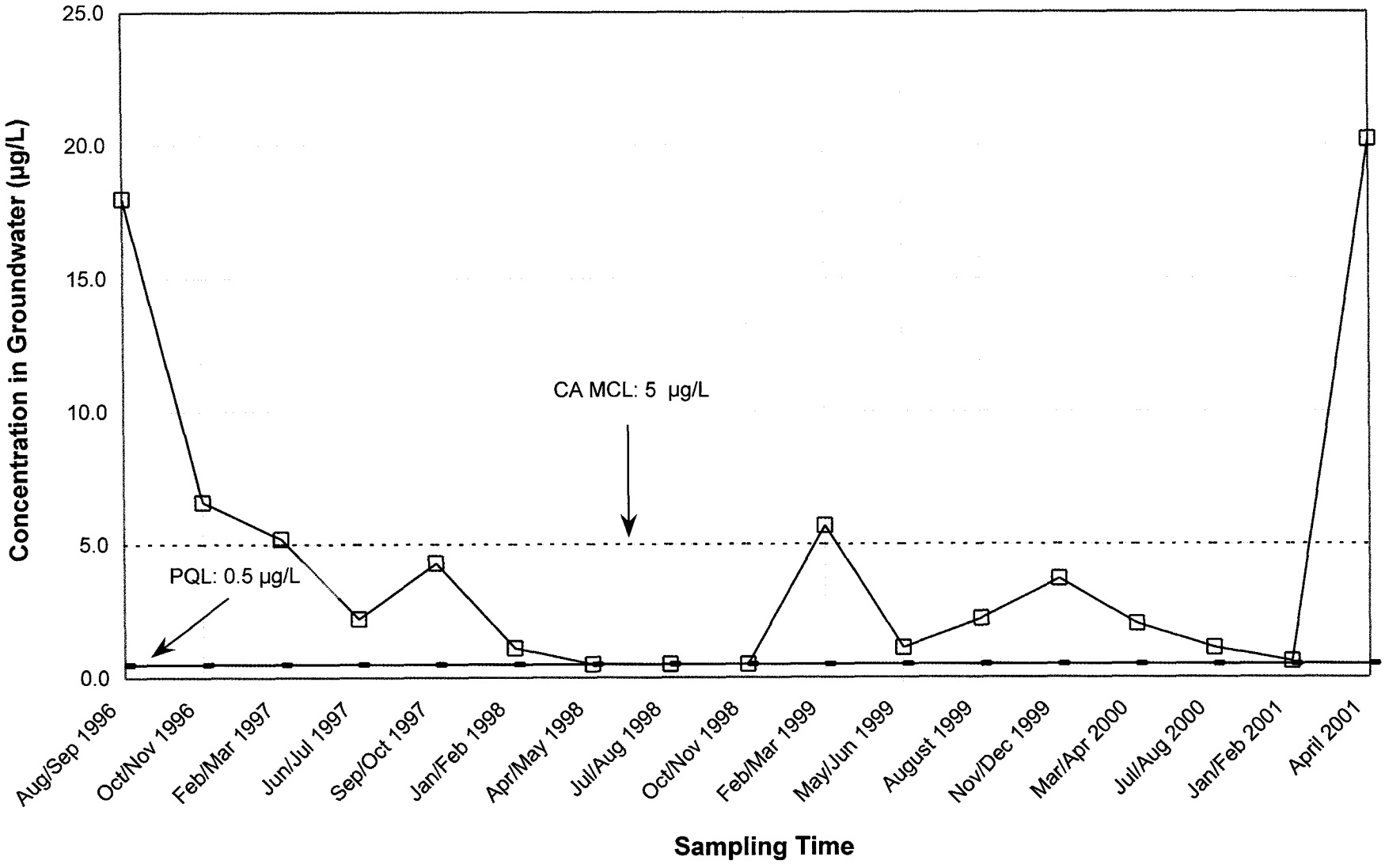
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-26

CARBON TETRACHLORIDE DETECTED AT MW-10
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

—⊟— Shallow Well —— PQL - - - - - - CA MCL

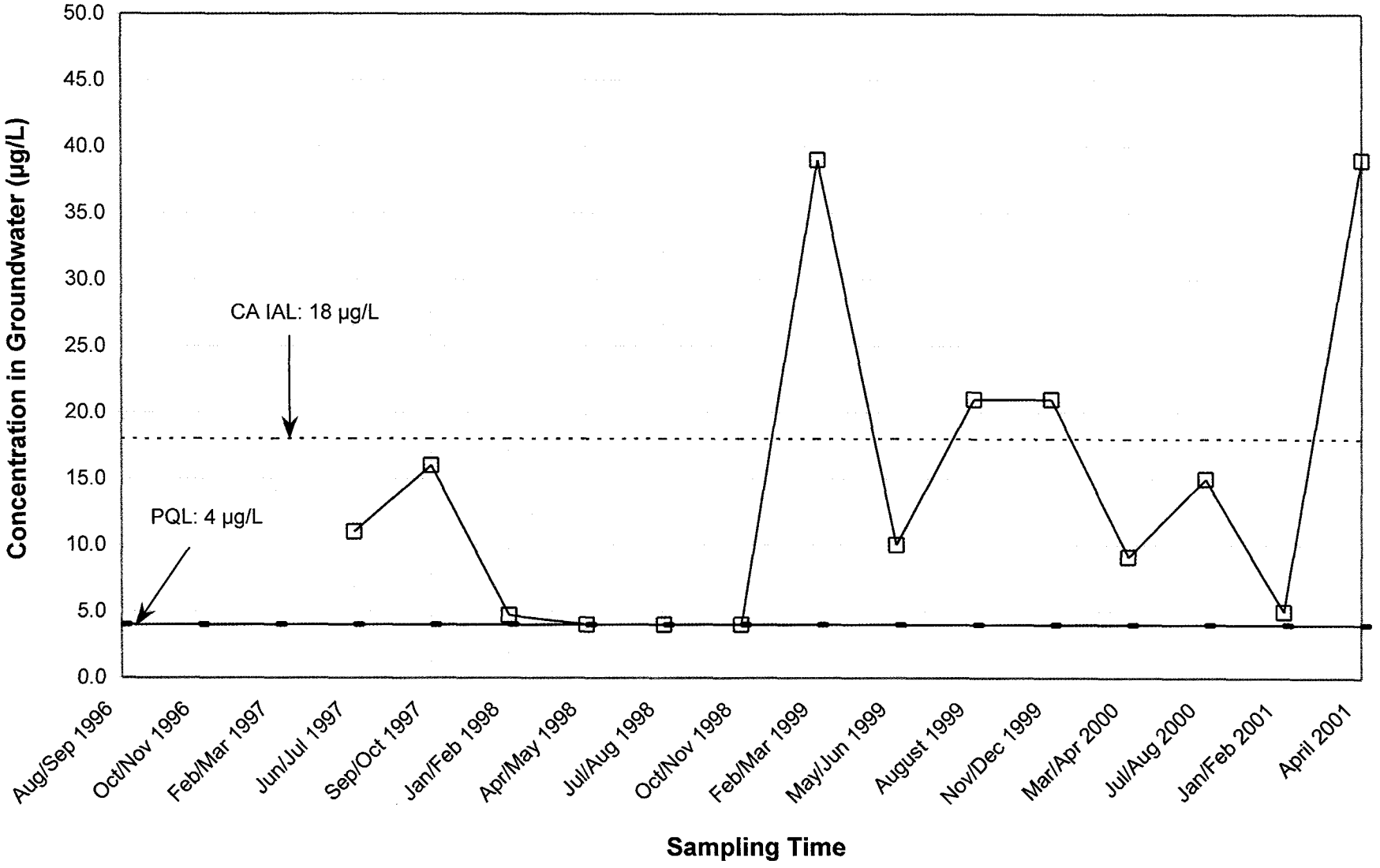
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-27

TRICHLOROETHENE DETECTED AT MW-10
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA IAL

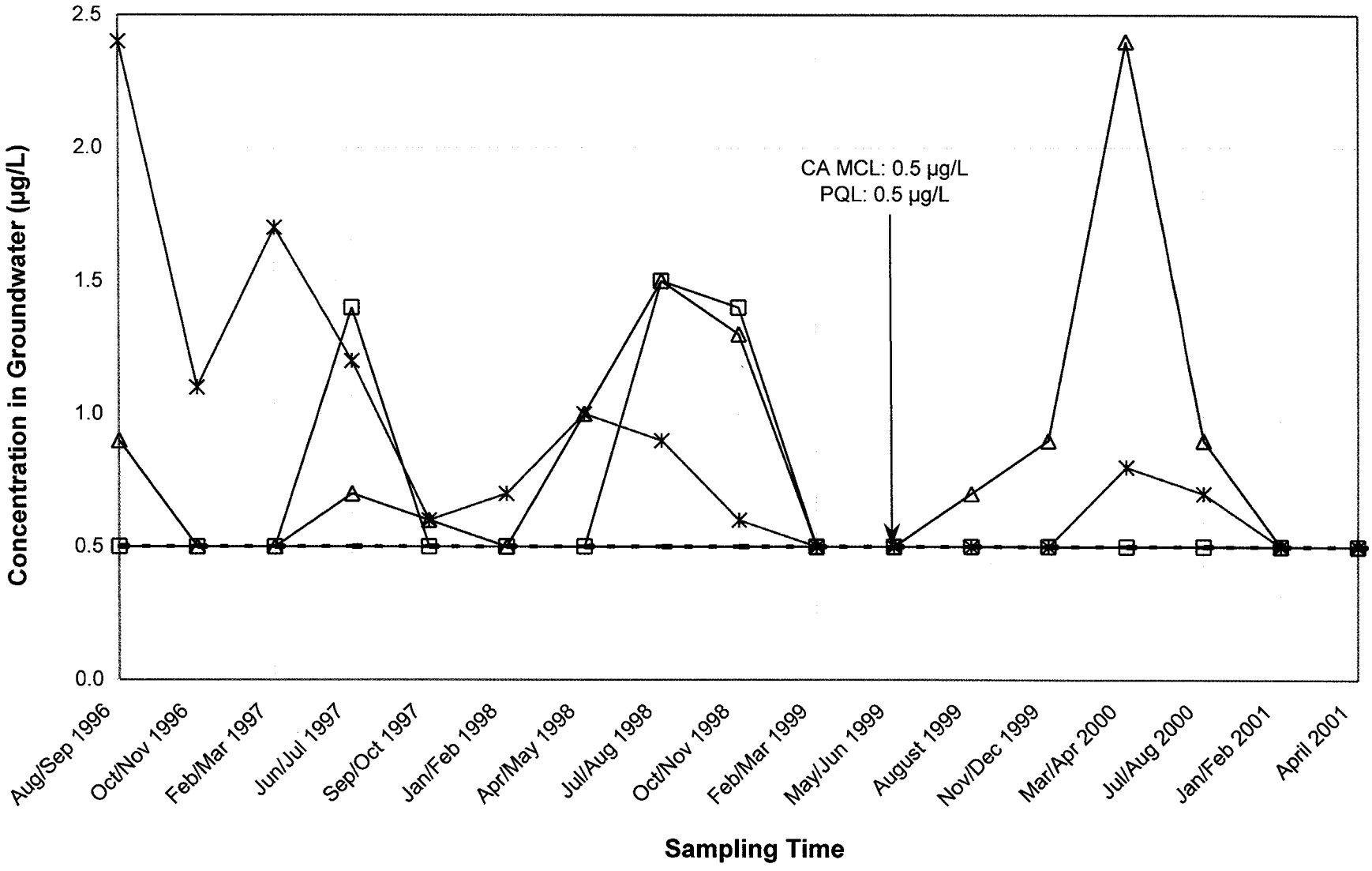
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-28

PERCHLORATE DETECTED AT MW-10
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 2 — Screen 3 — PQL - - - CA MCL

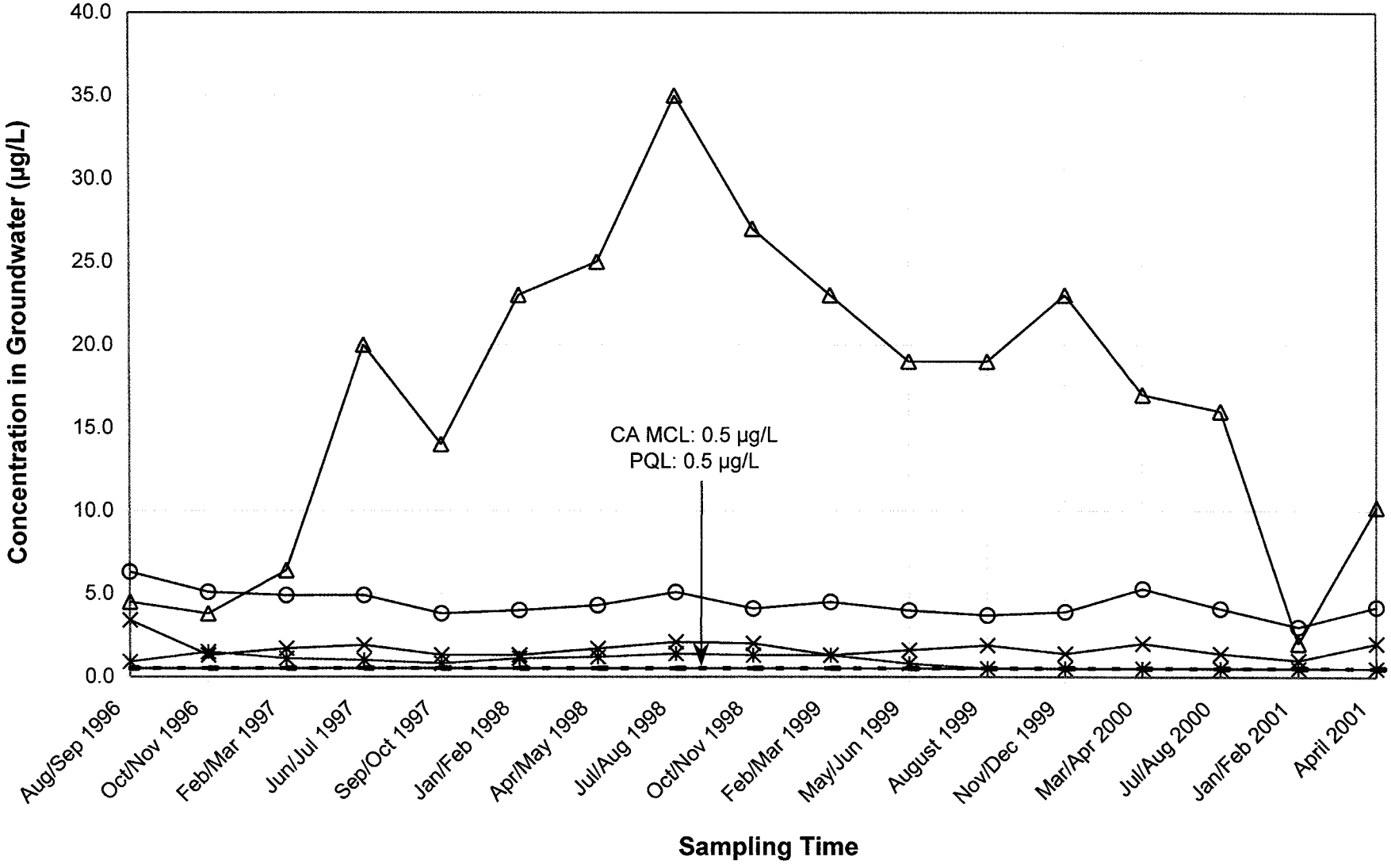
Only concentrations above PQL are plotted. Screens 4 and 5 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-29

CARBON TETRACHLORIDE DETECTED AT MW-11
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 2 — Screen 3 — Screen 4 — Screen 5

PQL — - - - CA MCL

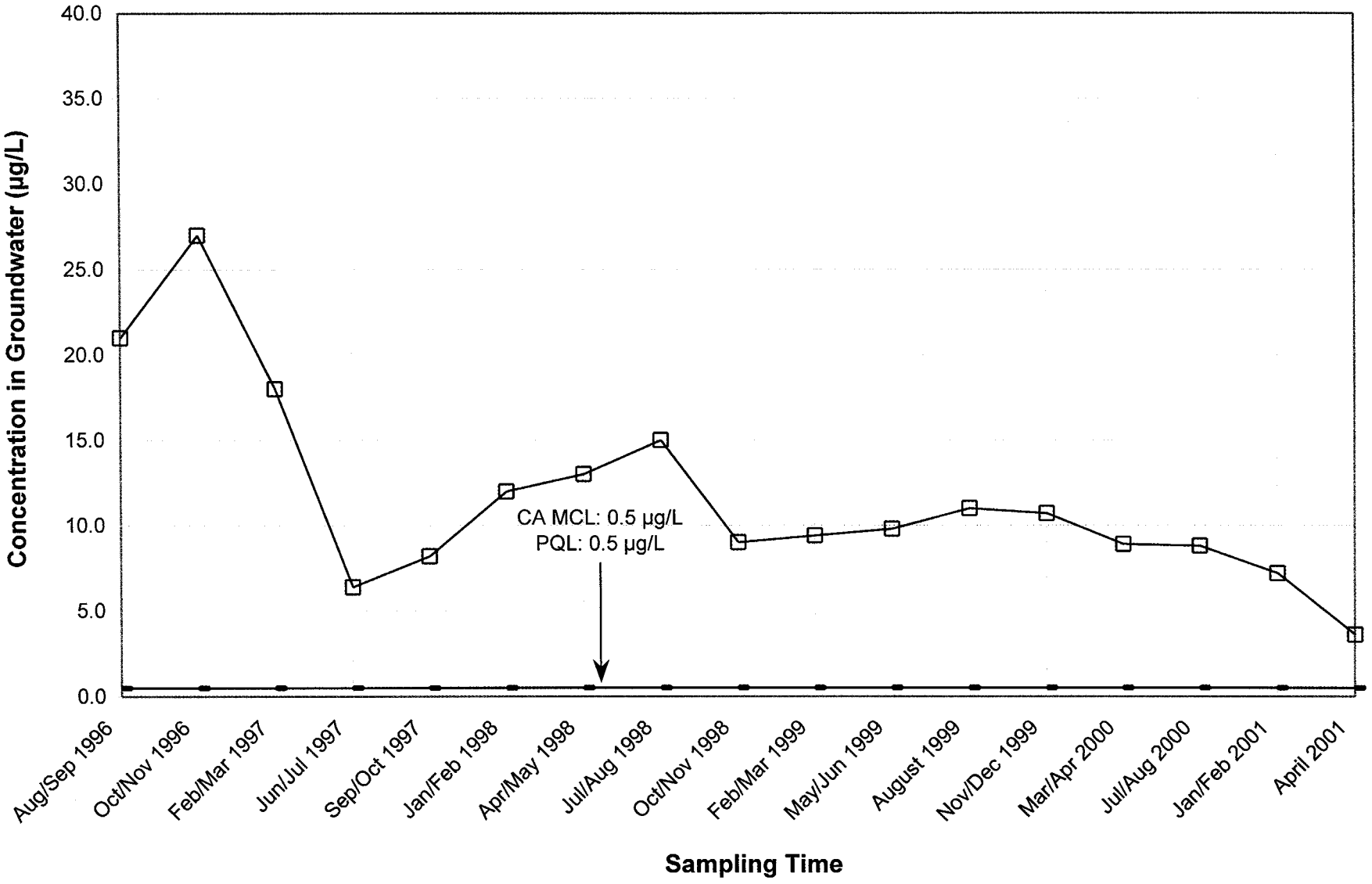
Only concentrations above PQL are plotted. Screens 1 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-30

CARBON TETRACHLORIDE DETECTED AT MW-12
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

—⊟— Shallow Well —▪— PQL - - - - - - CA MCL

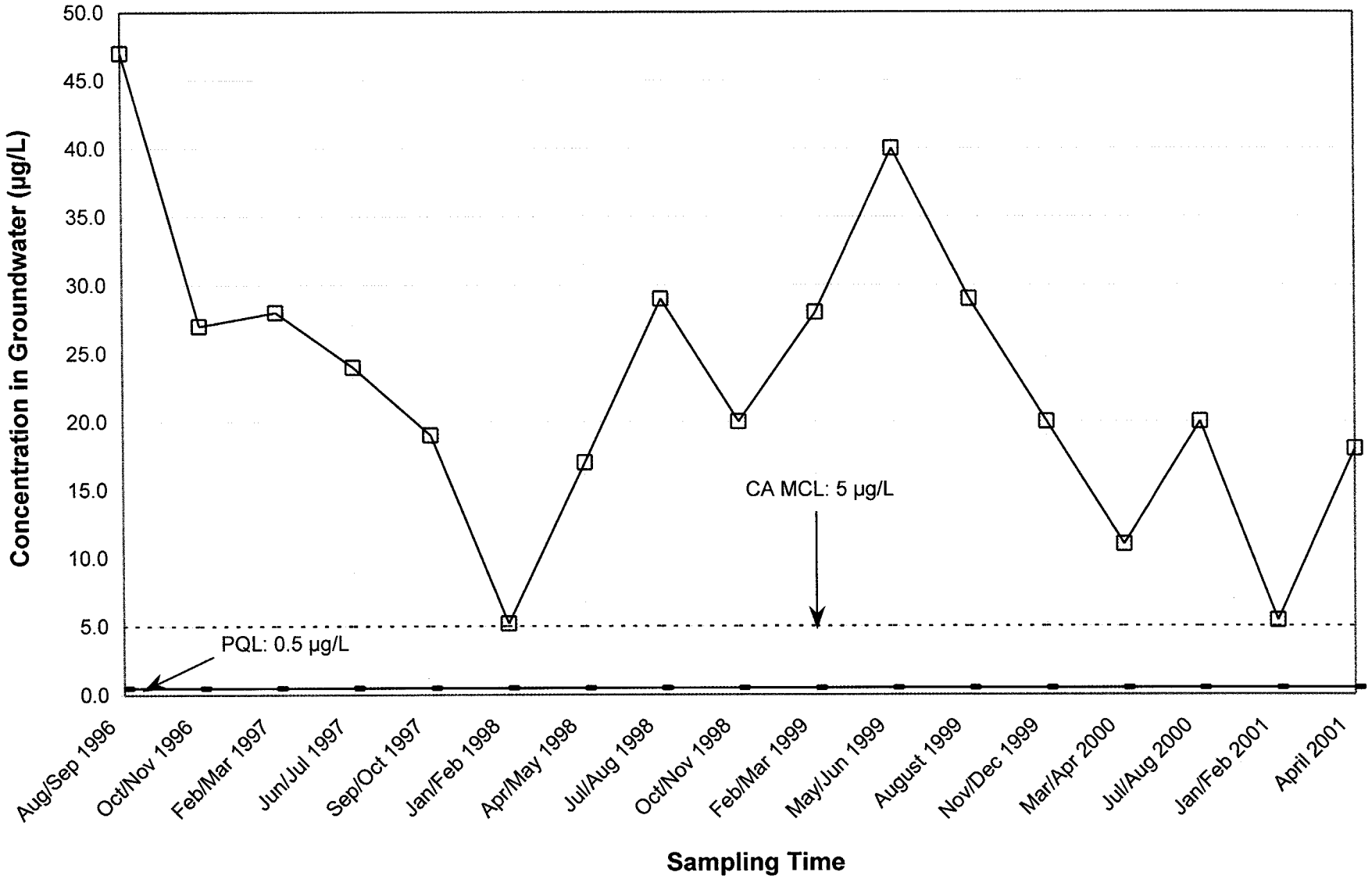
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-31

CARBON TETRACHLORIDE DETECTED AT MW-13 FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA MCL

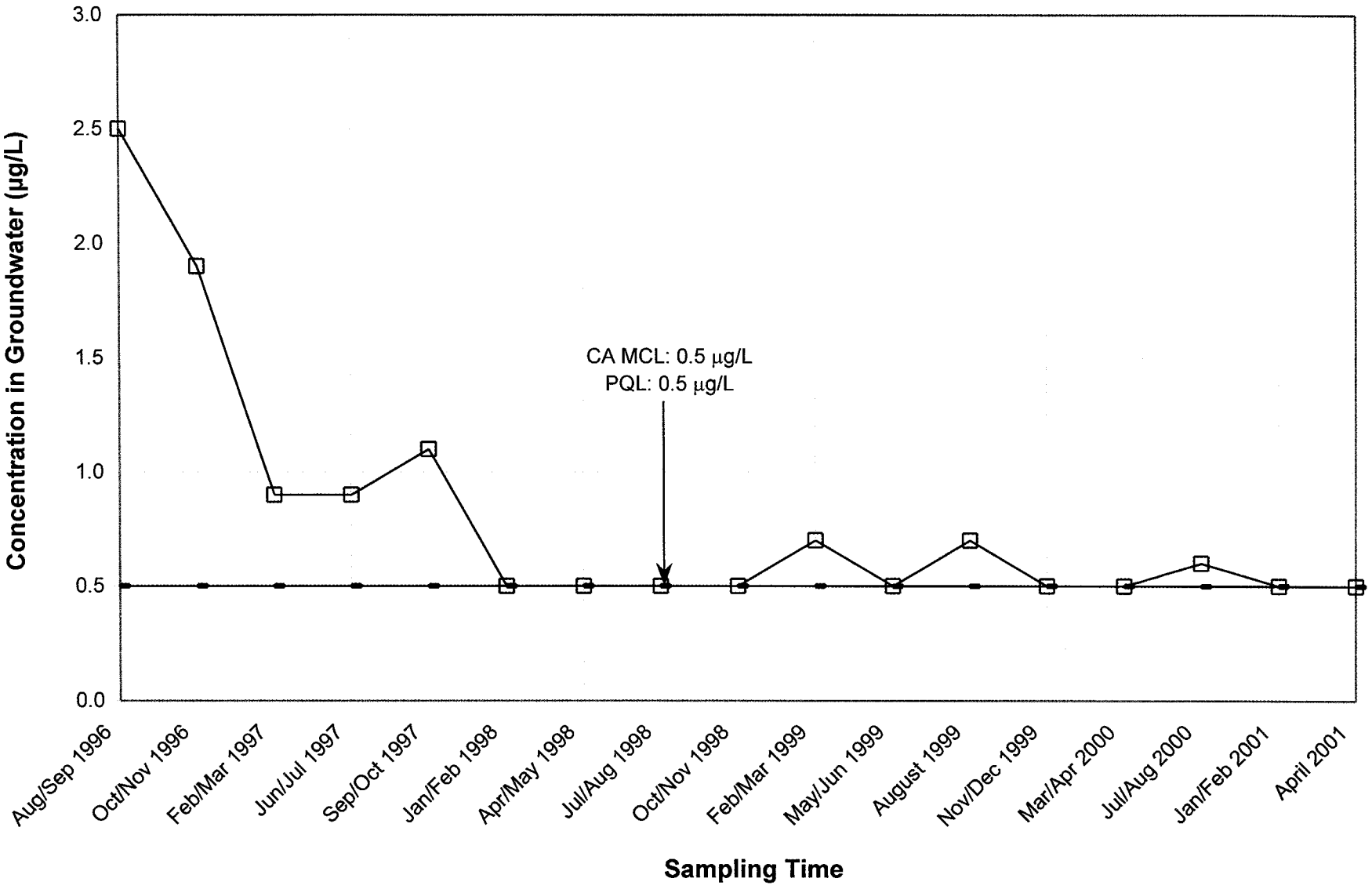
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-32

TRICHLOROETHENE DETECTED AT MW-13
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA MCL

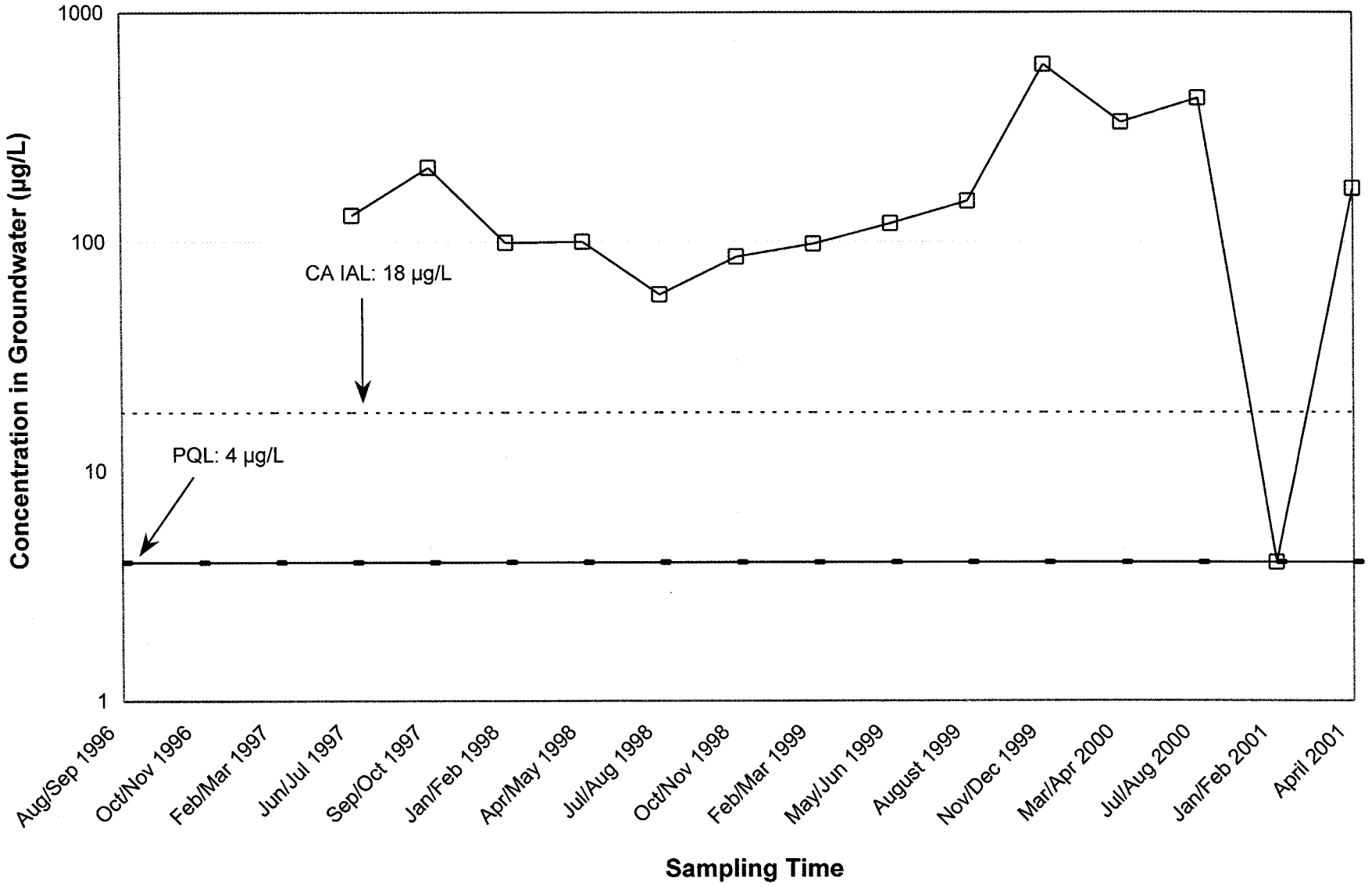
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-33

1,2-DCA DETECTED AT MW-13
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well PQL CA IAL

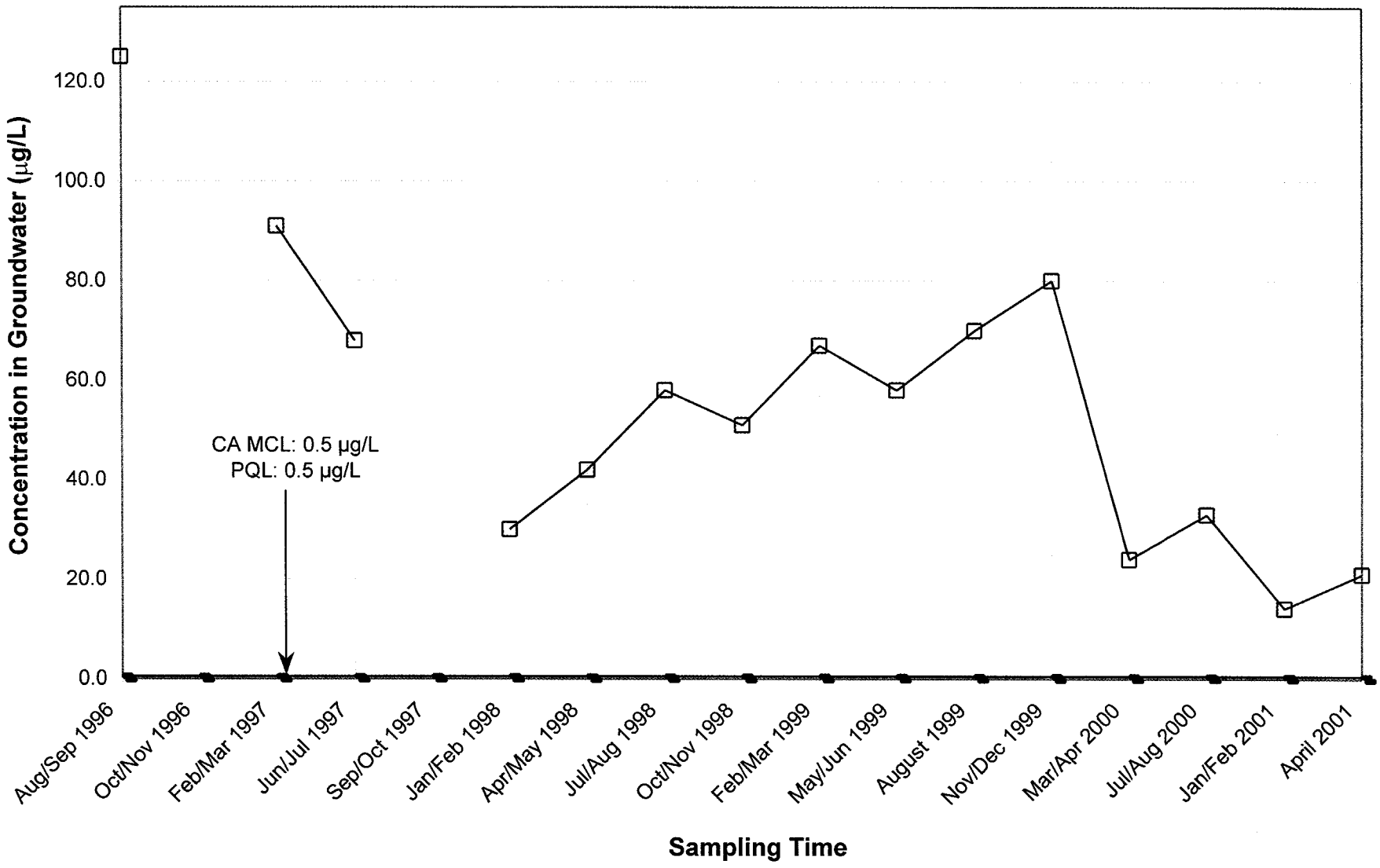
Only concentrations above PQL are plotted.
Values in (Y) axis are represented in Logarithmic scale.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-34

PERCHLORATE DETECTED AT MW-13
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA MCL

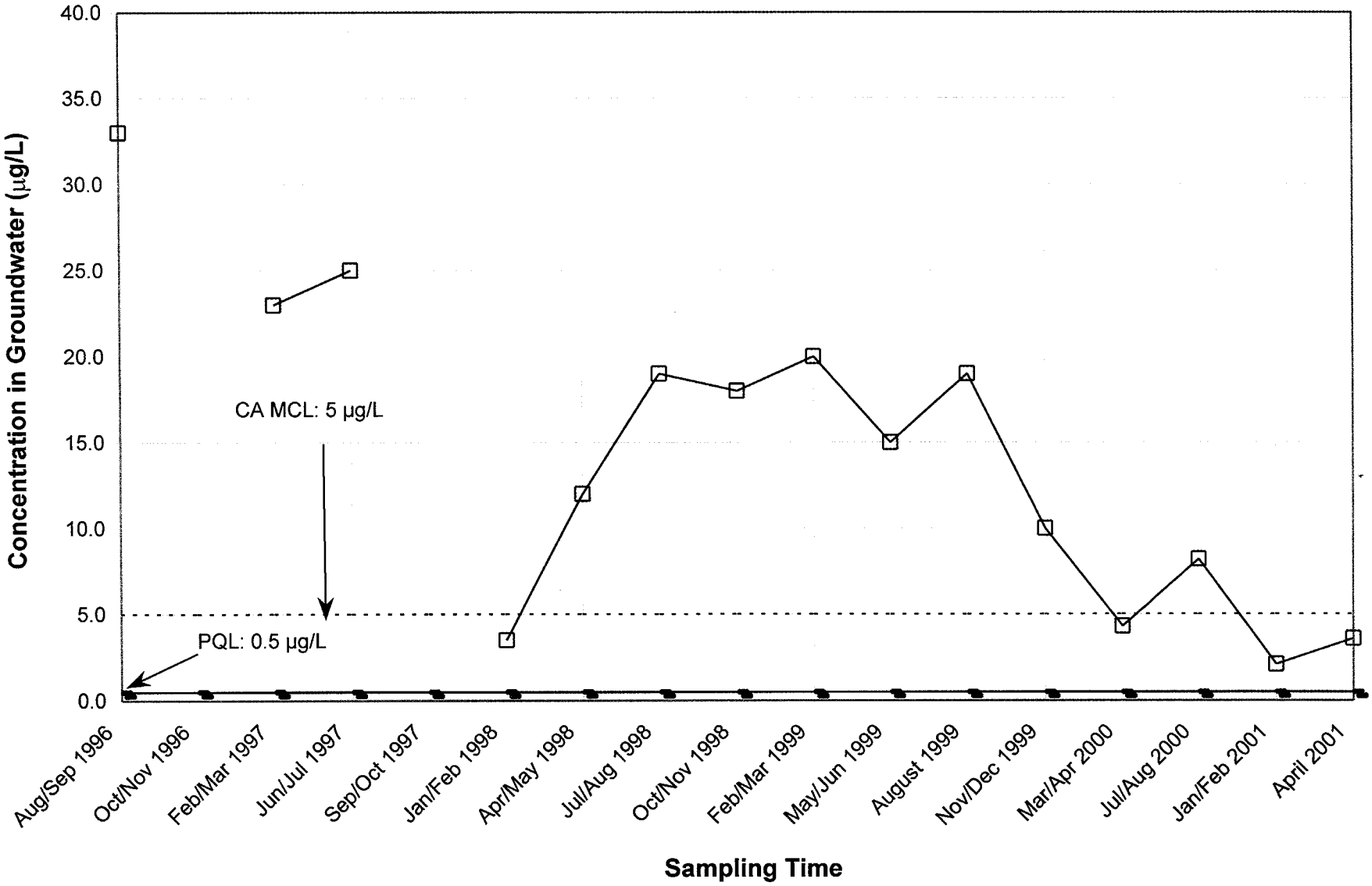
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-35

CARBON TETRACHLORIDE DETECTED AT MW-16 FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA MCL

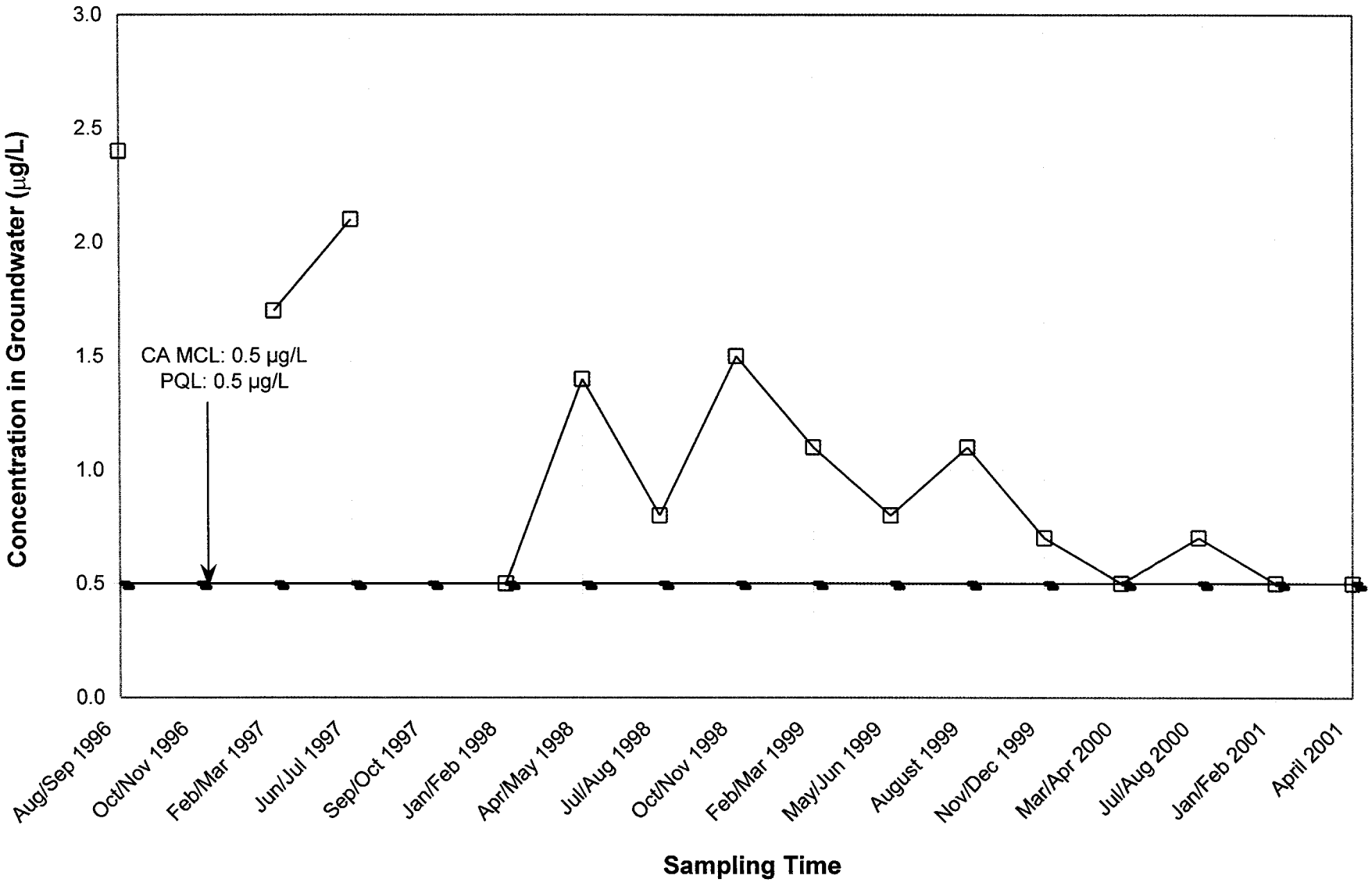
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-36

TRICHLOROETHENE DETECTED AT MW-16
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well — PQL - - - - - - CA MCL

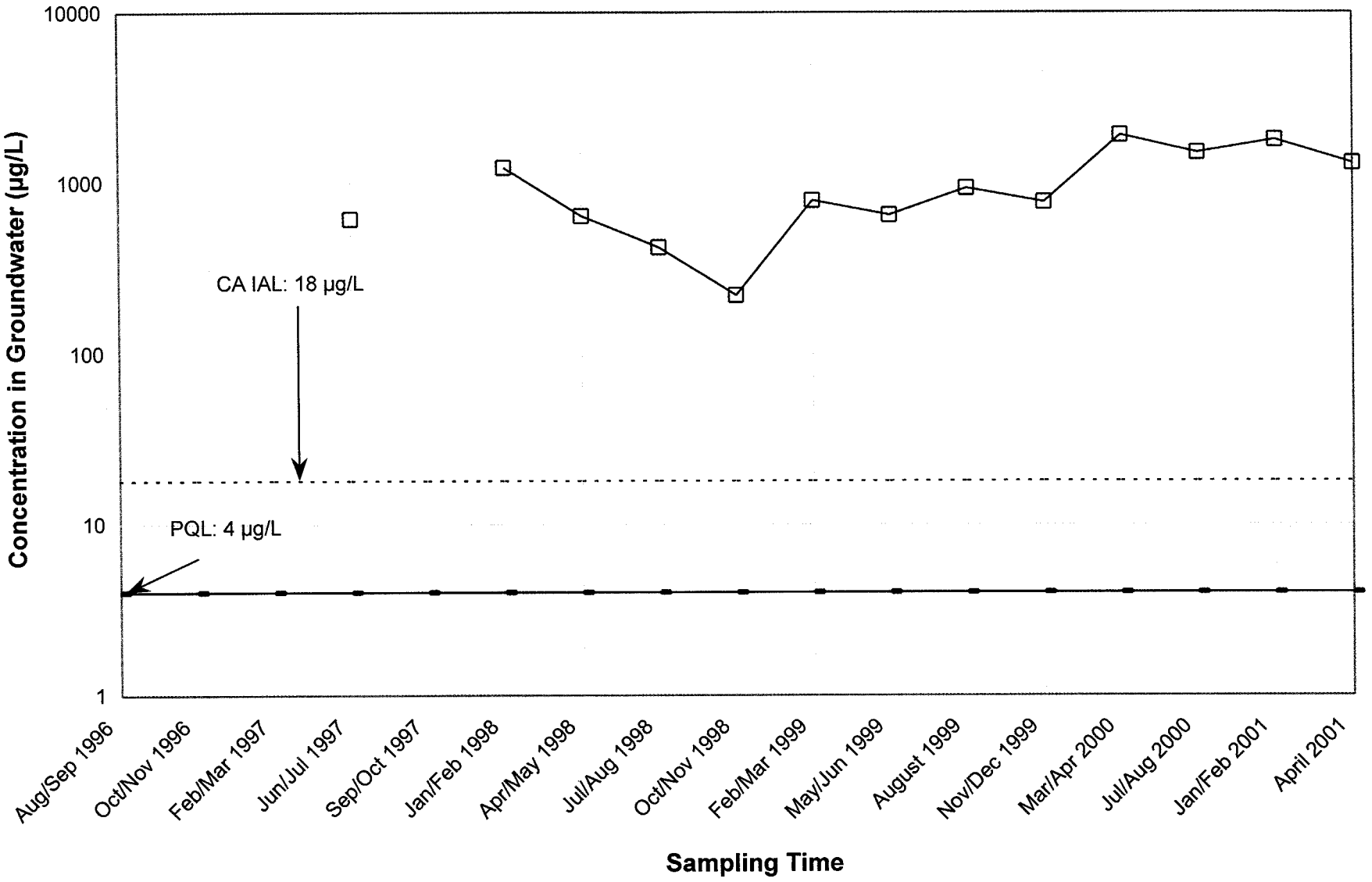
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-37

1, 2-DCA DETECTED AT MW-16
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Shallow Well PQL CA IAL

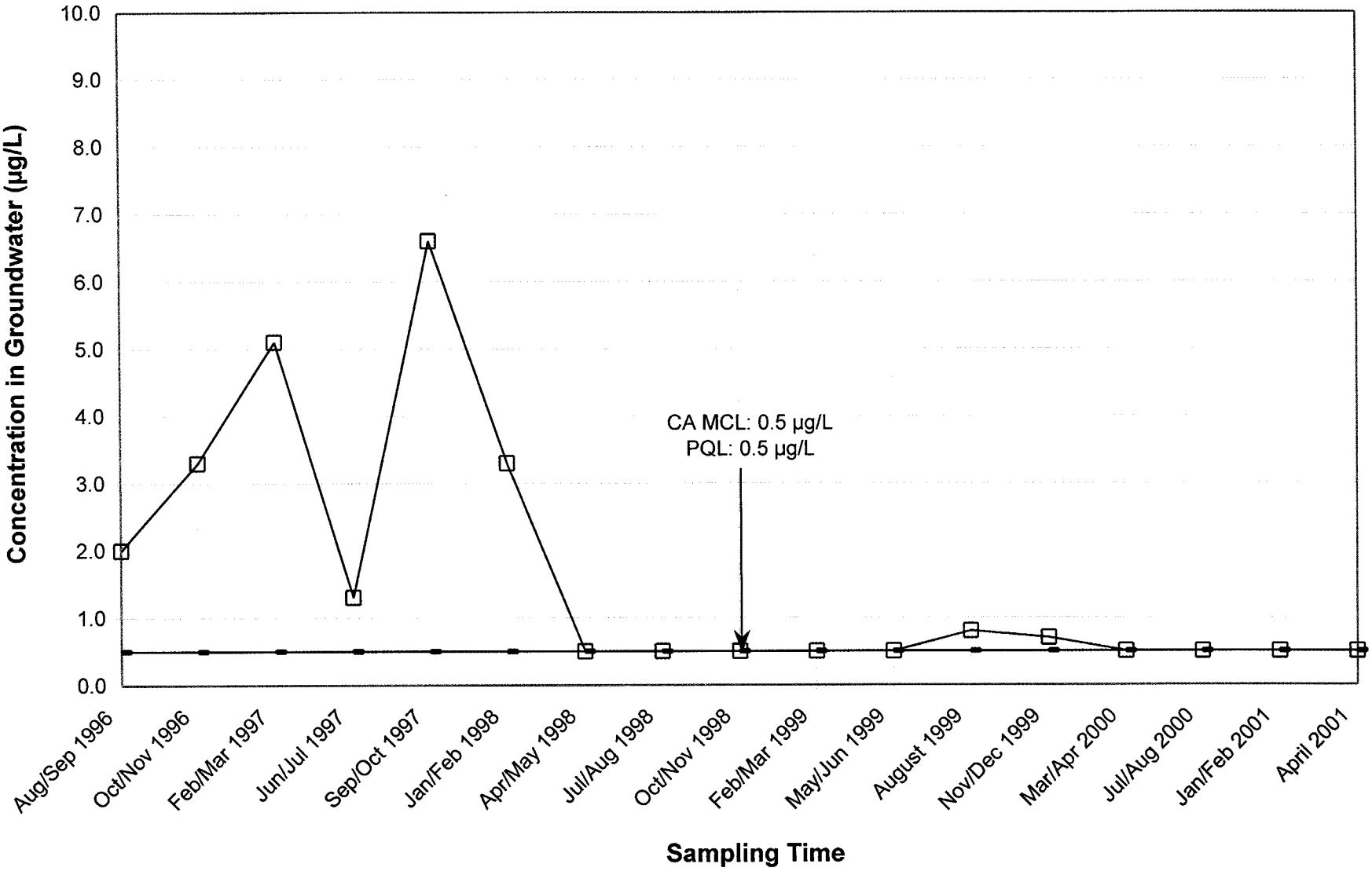
Only concentrations above PQL are plotted.
Values in (Y) axis are represented in Logarithmic scale.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-38

PERCHLORATE DETECTED AT MW-16
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 3 PQL CA MCL

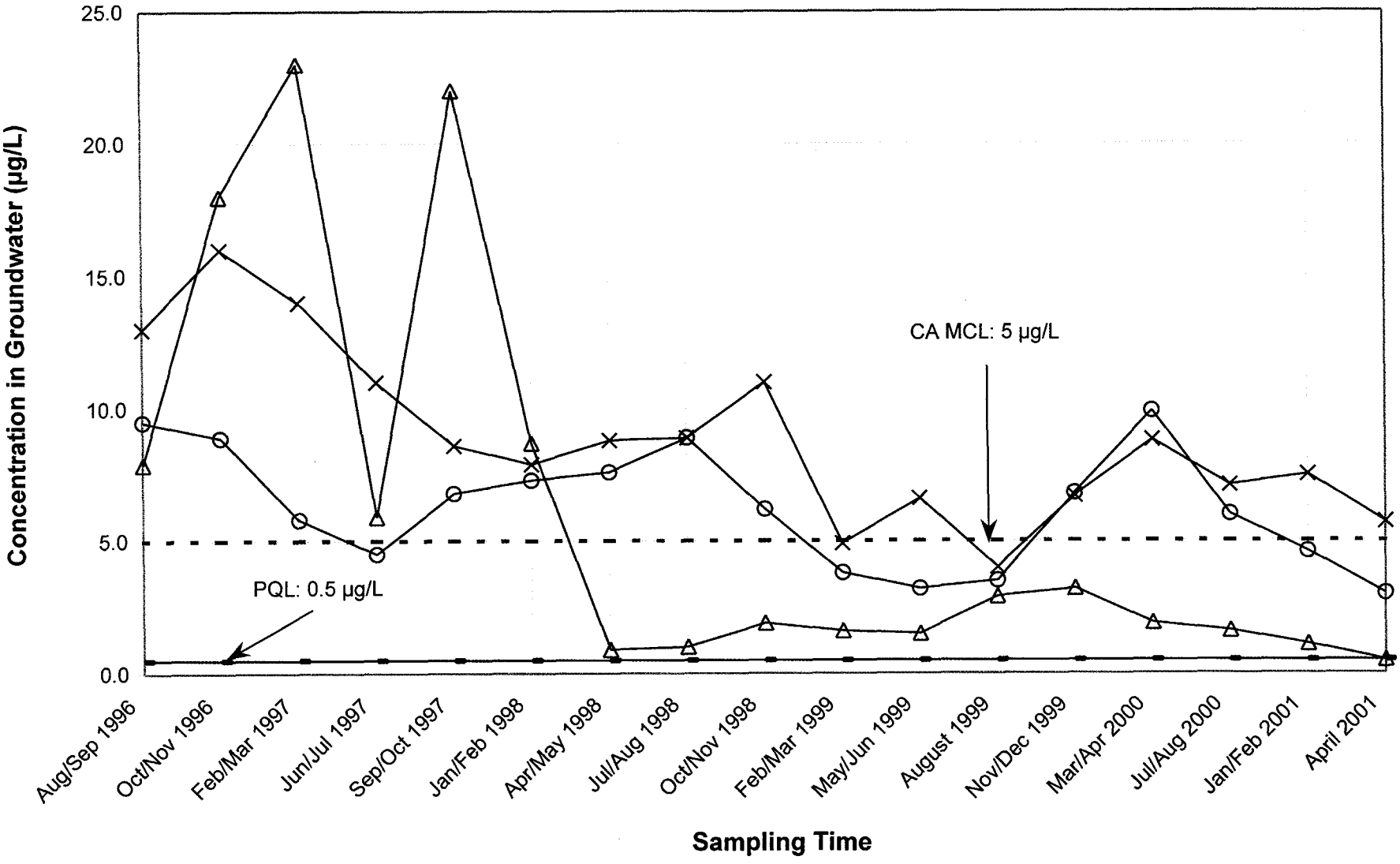
Only concentrations above PQL are plotted. Screens 1, 2, 4, and 5 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-39

CARBON TETRACHLORIDE DETECTED AT MW-17
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 3 — Screen 4 — Screen 5 — PQL - - - CA MCL

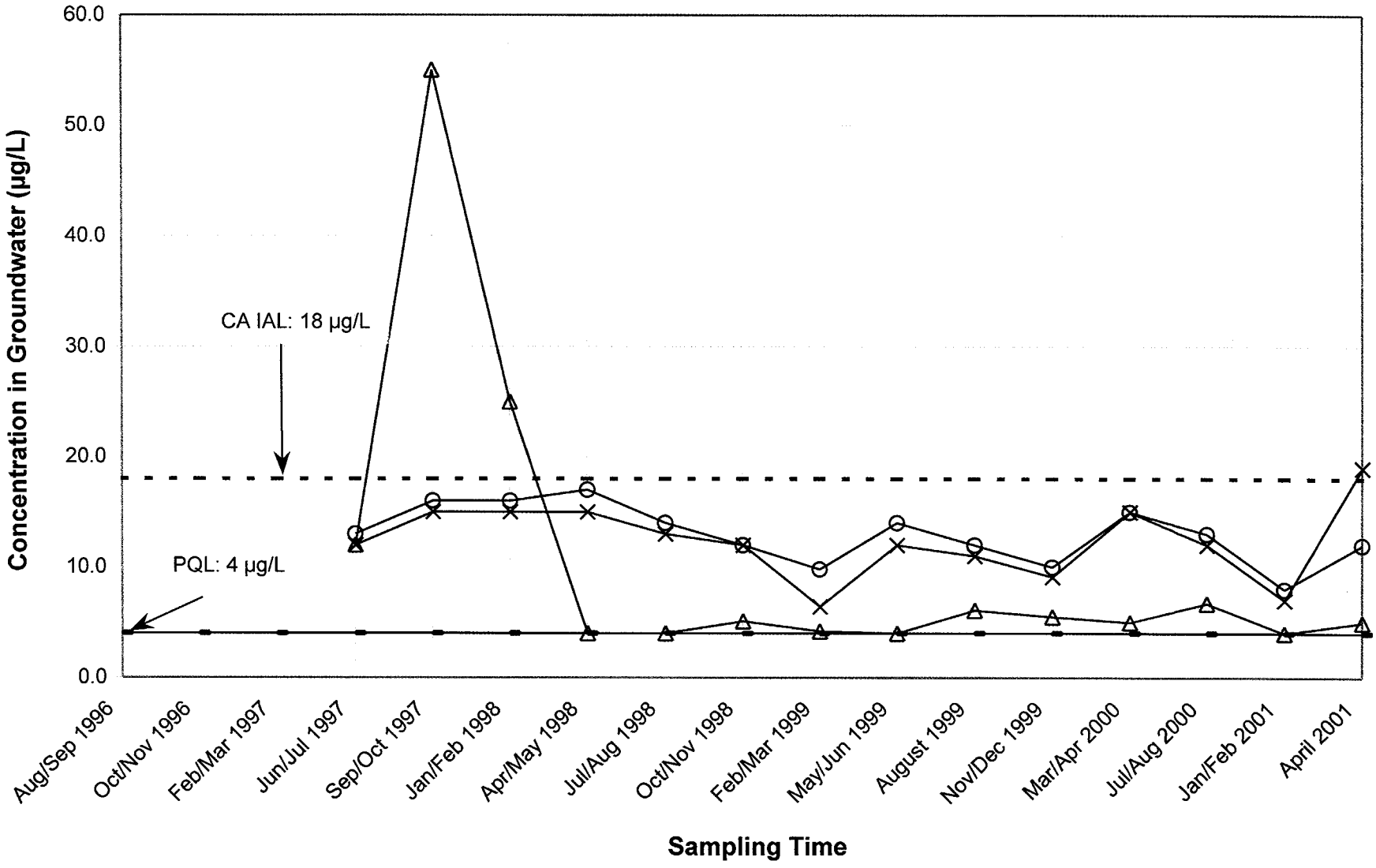
Only concentrations above PQL are plotted. Screens 1 and 2 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-40

TRICHLOROETHENE DETECTED AT MW-17
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 3 — Screen 4 — Screen 5 — PQL - - - CA IAL

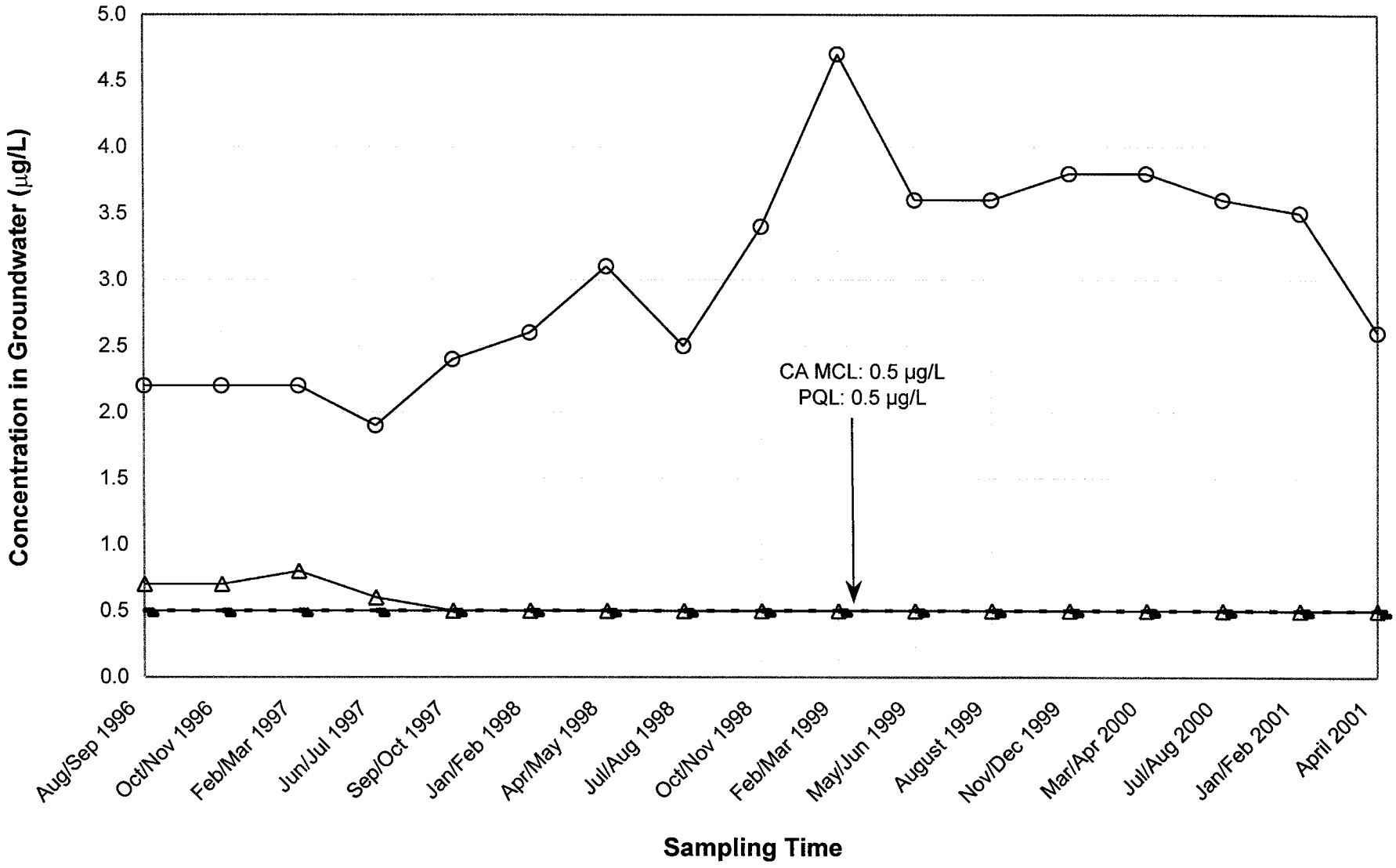
Only concentrations above PQL are plotted. Screens 1 and 2 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-41

PERCHLORATE DETECTED AT MW-17
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 3 — screen 4 — PQL - - - CA MCL

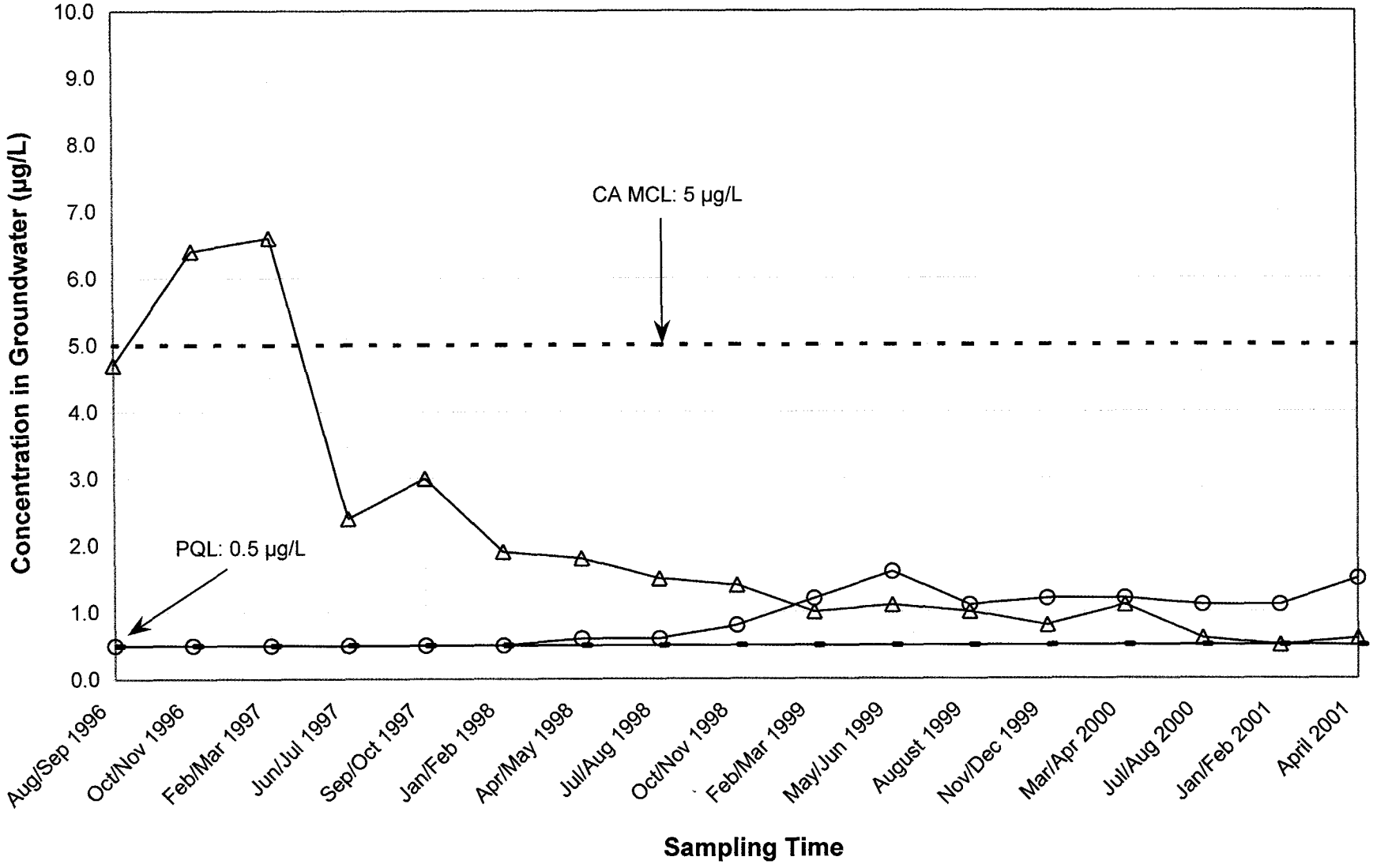
Only concentrations above PQL are plotted. Screens 1, 2, and 5 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-42

CARBON TETRACHLORIDE DETECTED AT MW-18
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 3 — Screen 4 — PQL - - - CA MCL

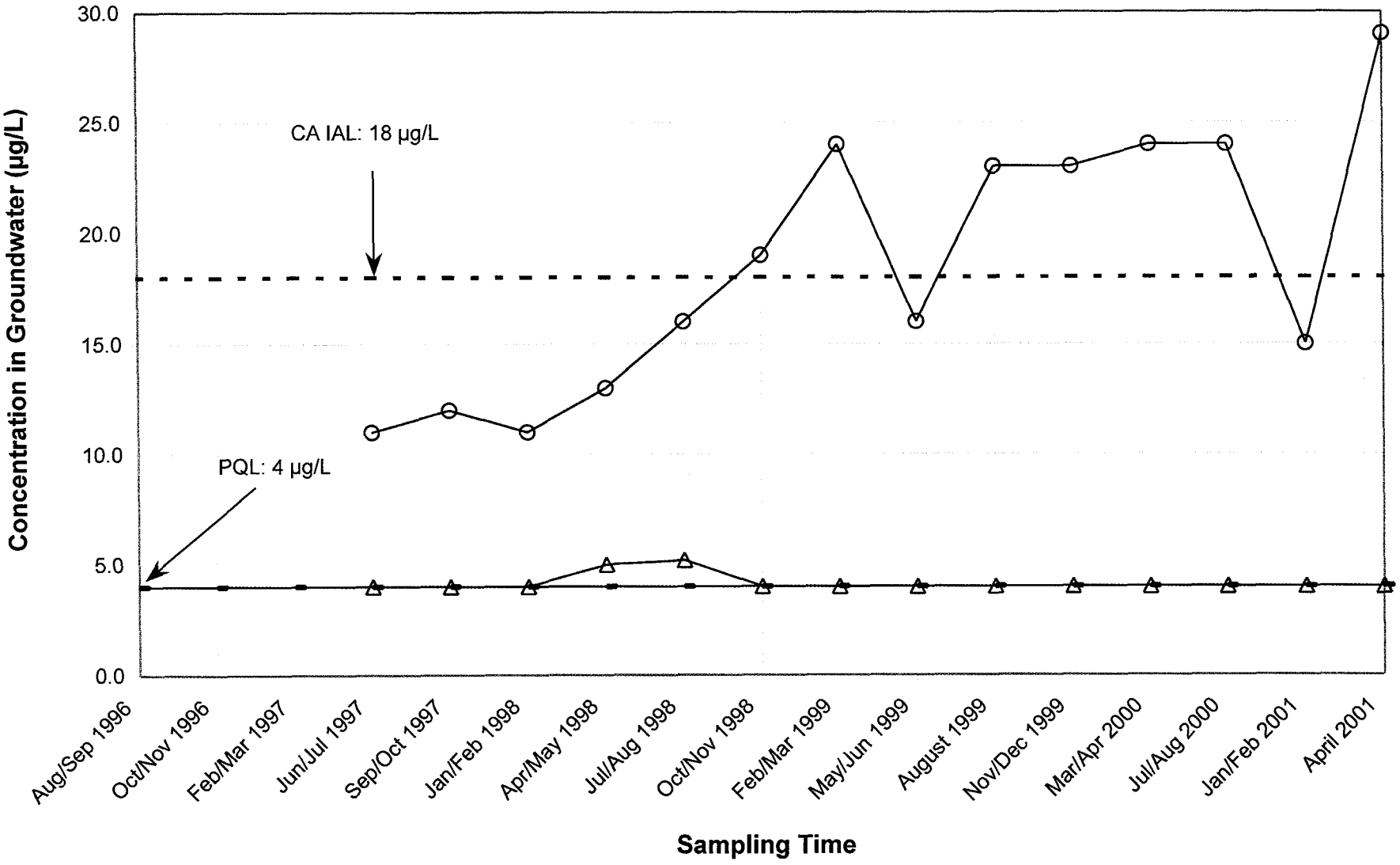
Only concentrations above PQL are plotted. Screens 1, 2, and 5 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-43

TRICHLOROETHENE DETECTED AT MW-18
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 3 — Screen 4 — PQL - - - CA IAL

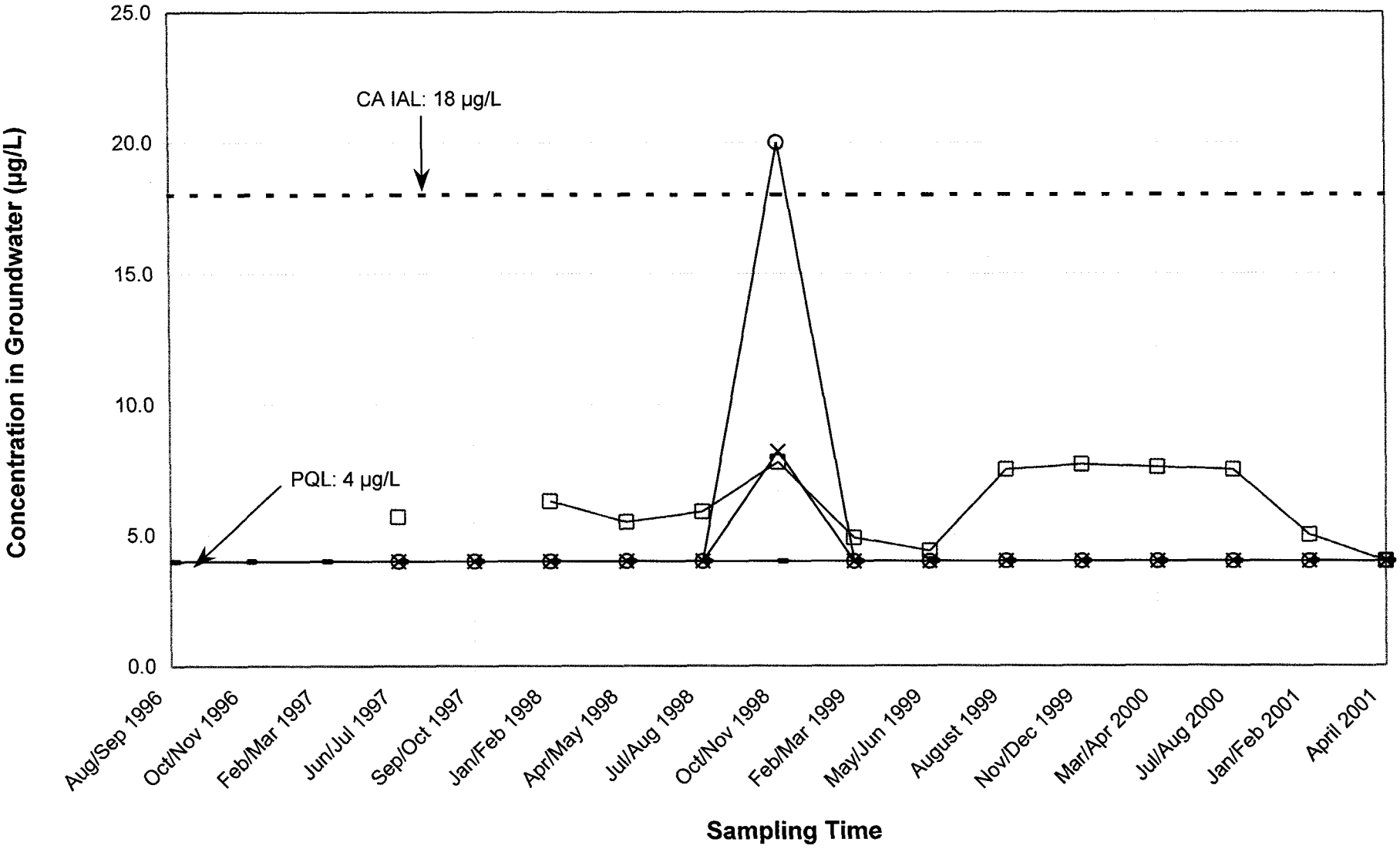
Only concentrations above PQL are plotted. Screens 1, 2, and 5 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-44

PERCHLORATE DETECTED AT MW-18
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 4 — Screen 5

PQL — CA IAL

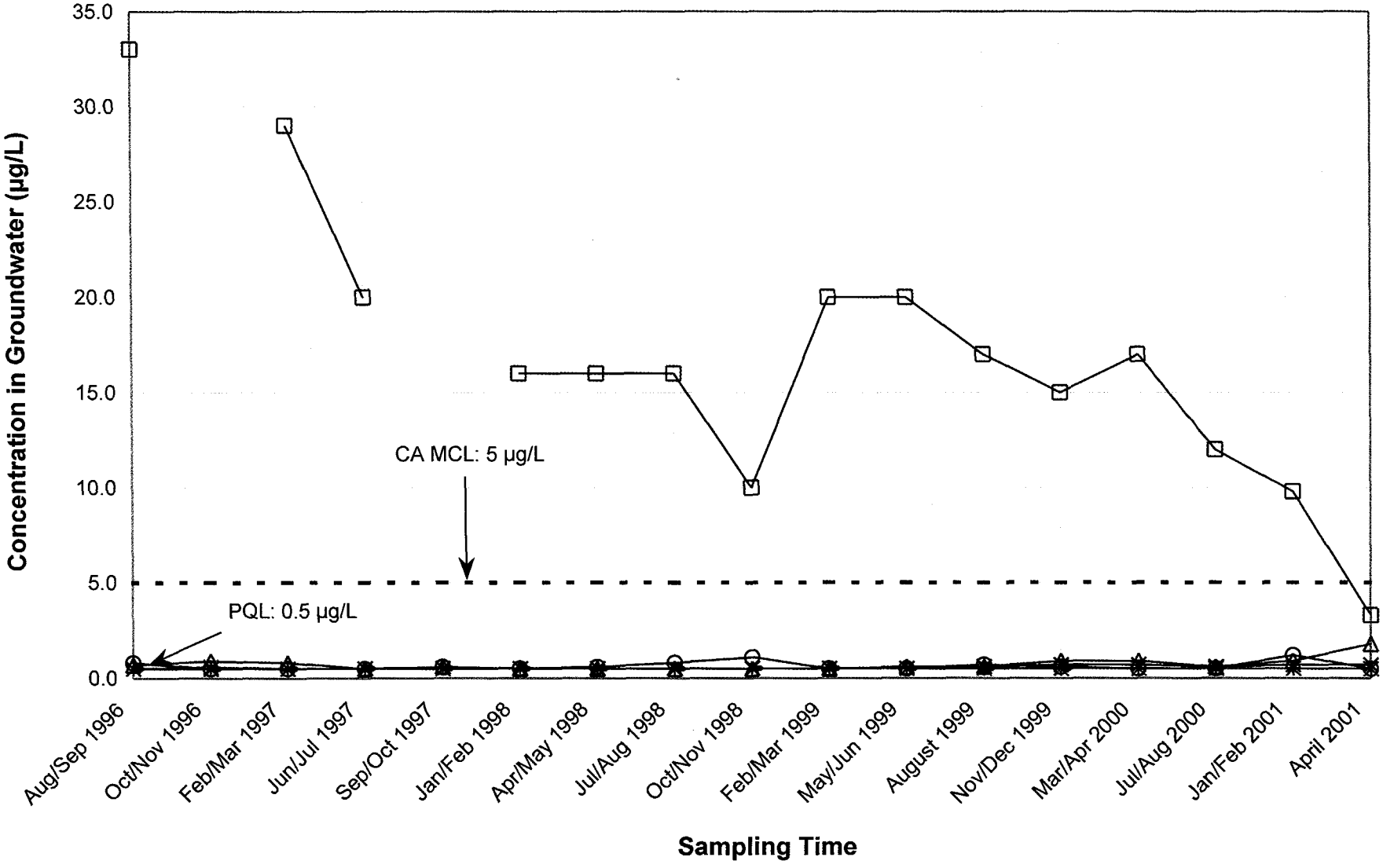
Only concentrations above PQL are plotted. Screens 2 and 3 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-45

PERCHLORATE DETECTED AT MW-20
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 2 — Screen 3 — Screen 4

Screen 5 — PQL - - - CA MCL

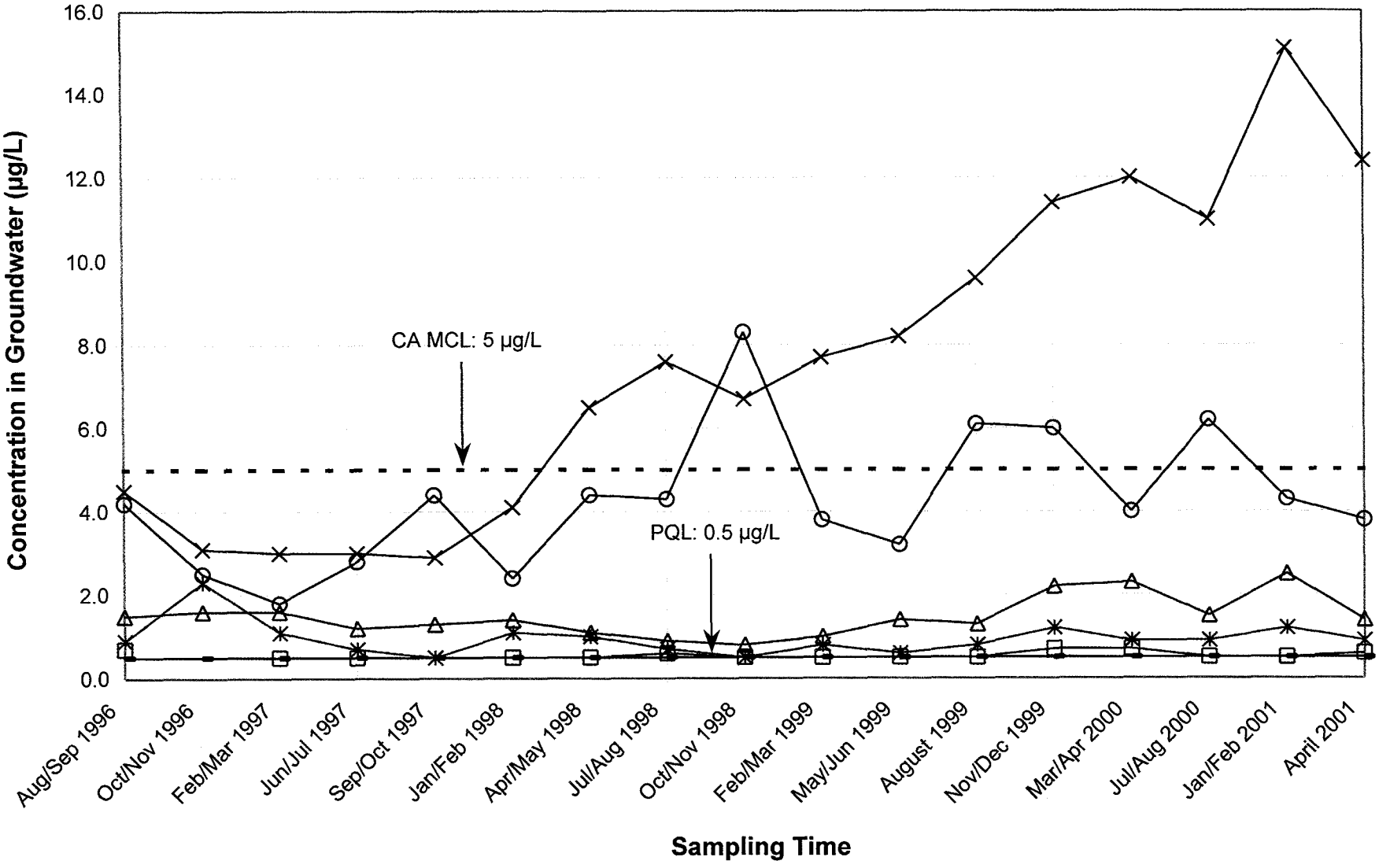
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-46

TRICHLOROETHENE DETECTED AT MW-21
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 2 — Sscreen 3 — Screen 4

Screen 5 — PQL - - - CA MCL

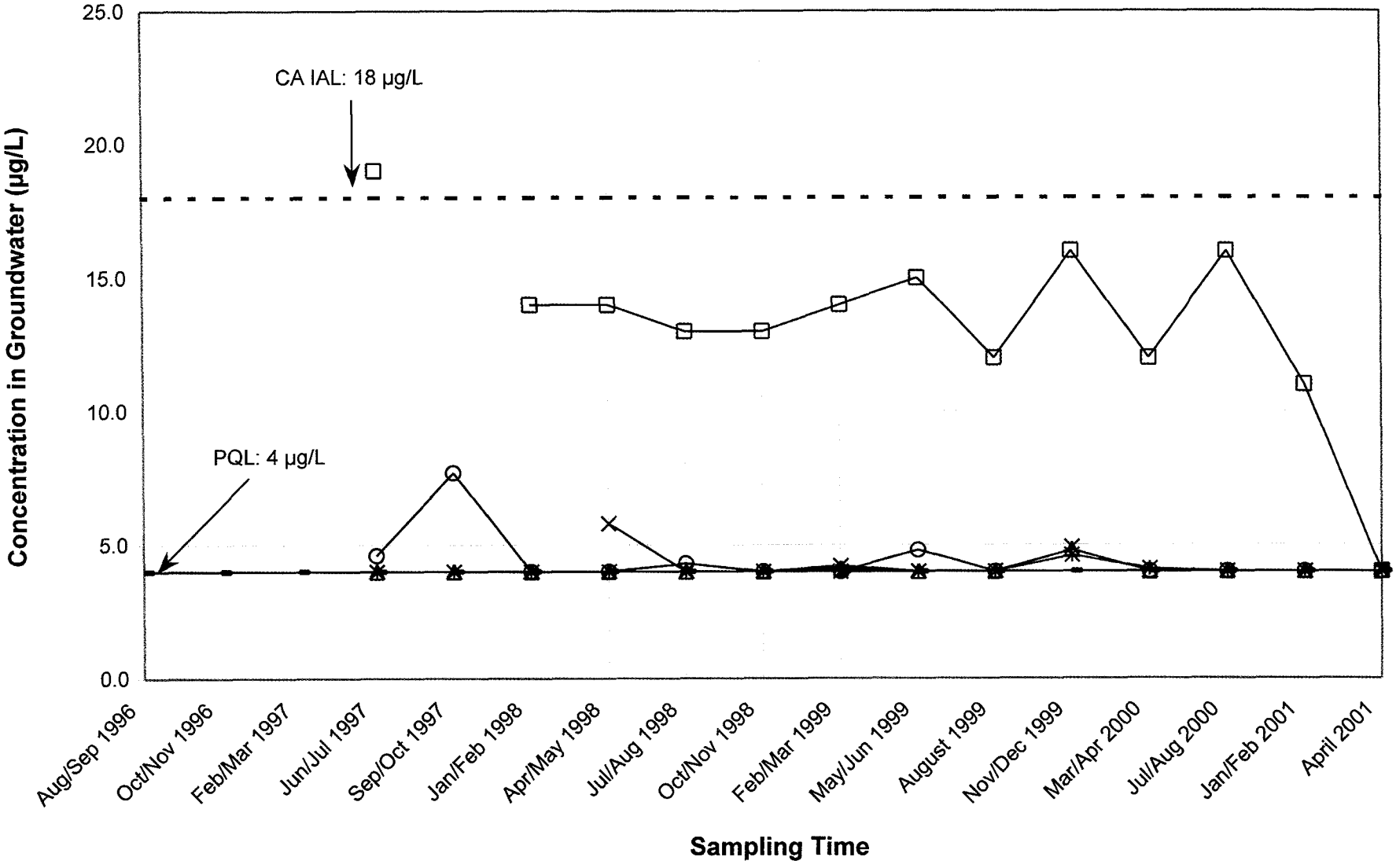
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-47

TETRACHLOROETHENE DETECTED AT MW-21
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 2 — Screen 3 — Screen 4

Screen 5 — PQL — CA IAL

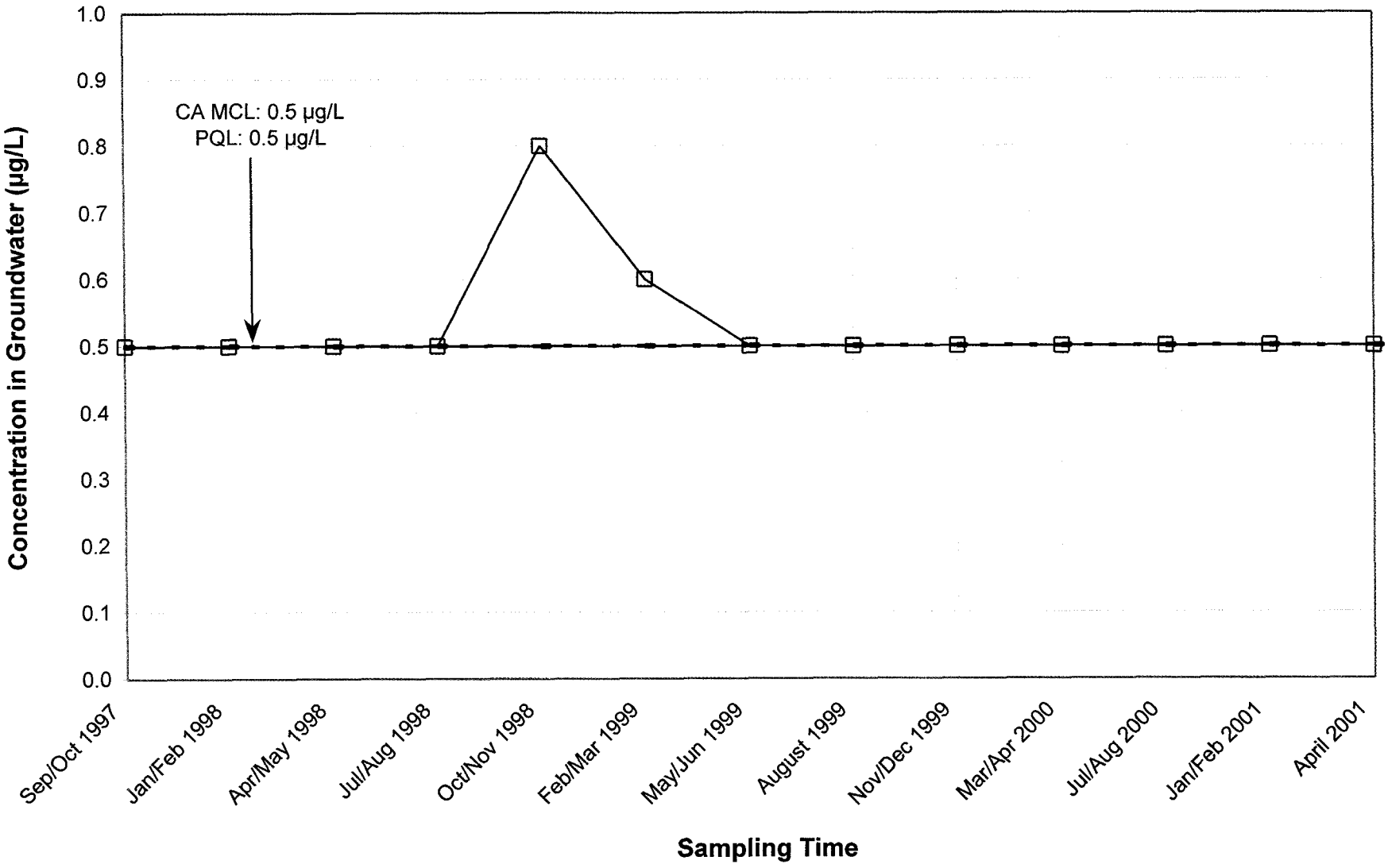
Only concentrations above PQL are plotted.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-48

PERCHLORATE DETECTED AT MW-21
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 PQL CA MCL

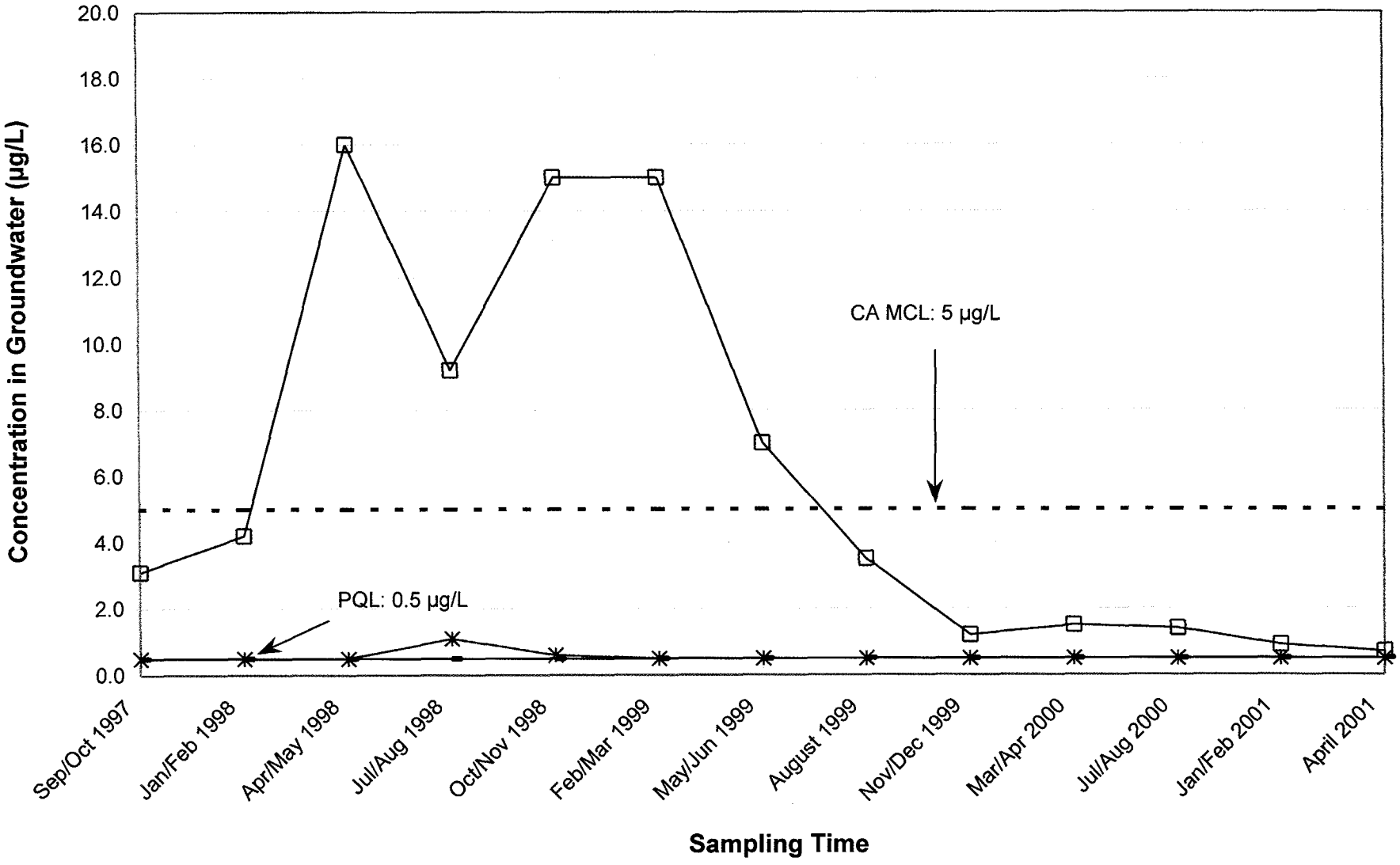
Only concentrations above PQL are plotted. Screens 2, 3, 4, and 5 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-49

CARBON TETRACHLORIDE DETECTED AT MW-23
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 2 — PQL - - - CA MCL

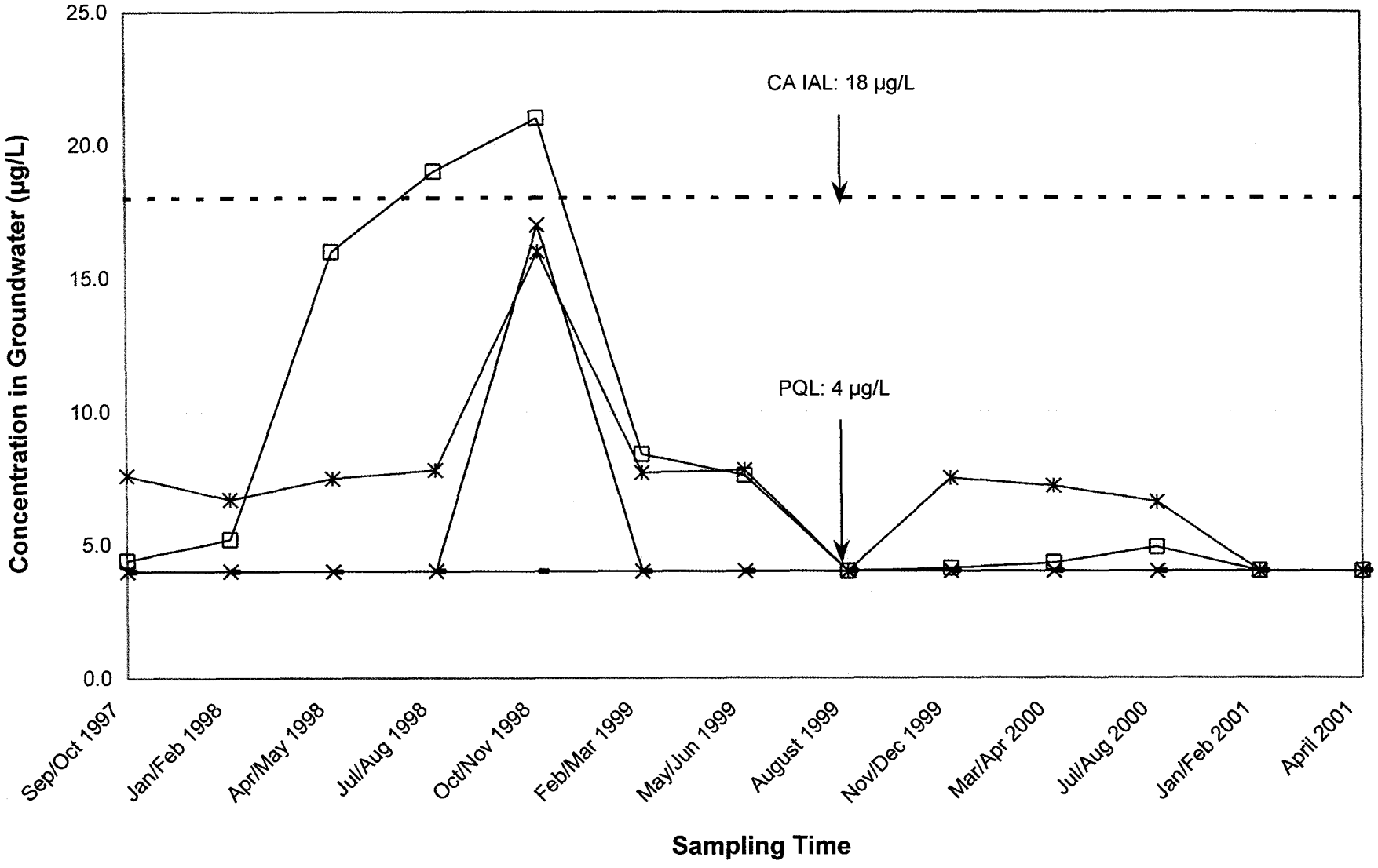
Only concentrations above PQL are plotted. Screens 3, 4, and 5 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-50

TRICHLOROETHENE DETECTED AT MW-23
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 2 — Screen 5 — PQL - - - CAIAL

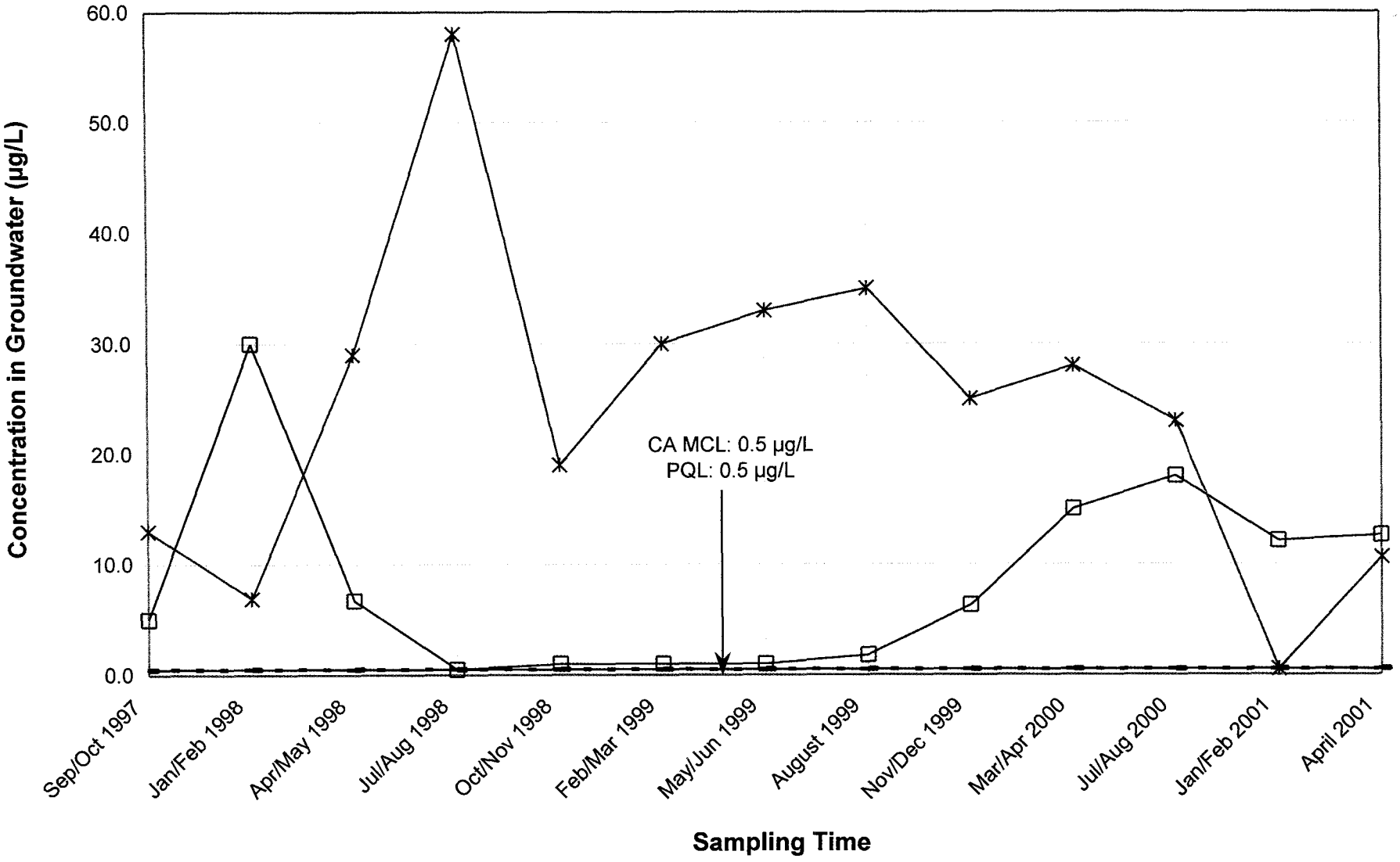
Only concentrations above PQL are plotted. Screens 2 and 4 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-51

PERCHLORATE DETECTED AT MW-23
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 2 — PQL - - - CA MCL — Screen 1

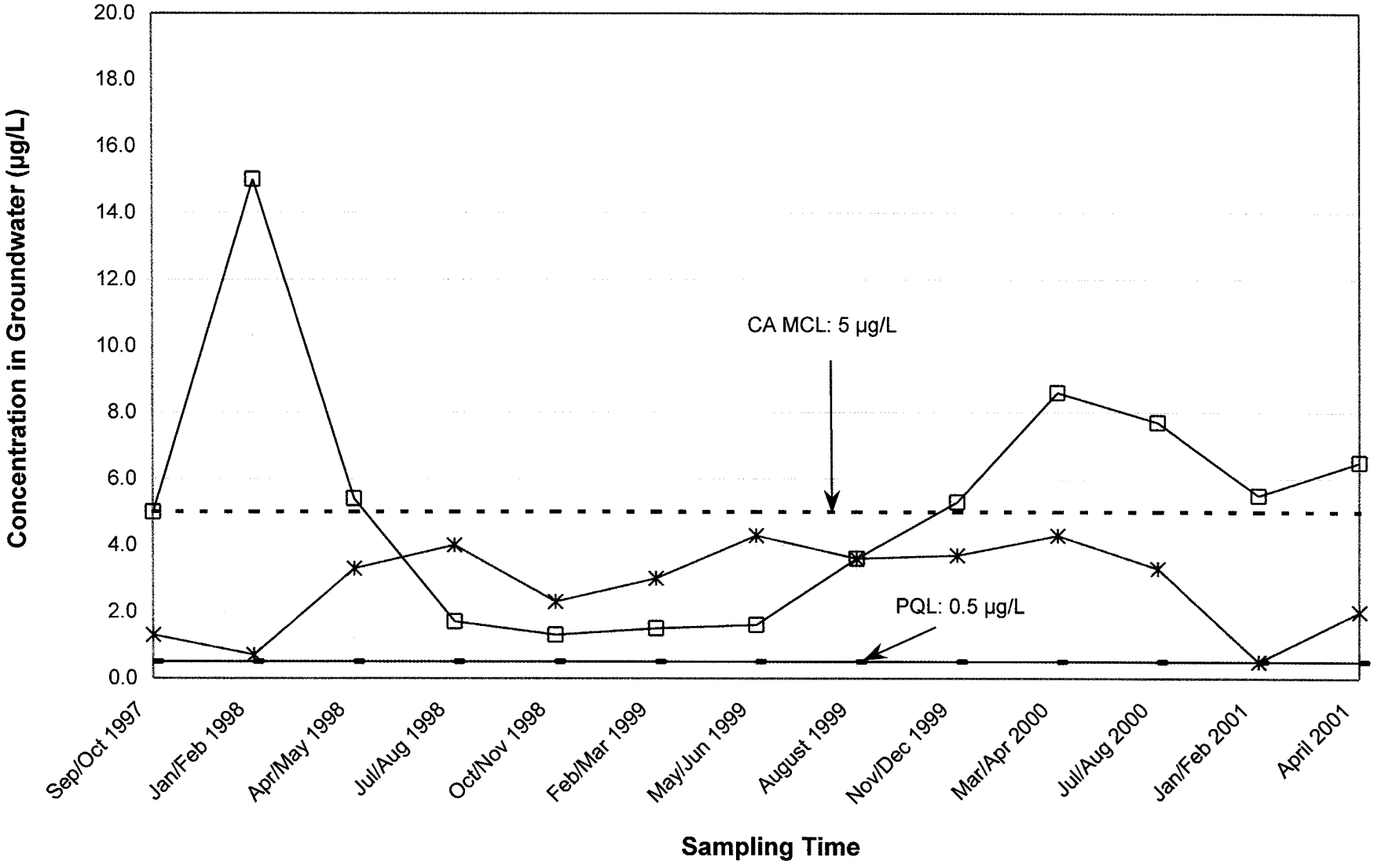
Only concentrations above PQL are plotted. Screens 3, 4, and 5 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-52

CARBON TETRACHLORIDE DETECTED AT MW-24
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 2 — PQL - - - CA MCL

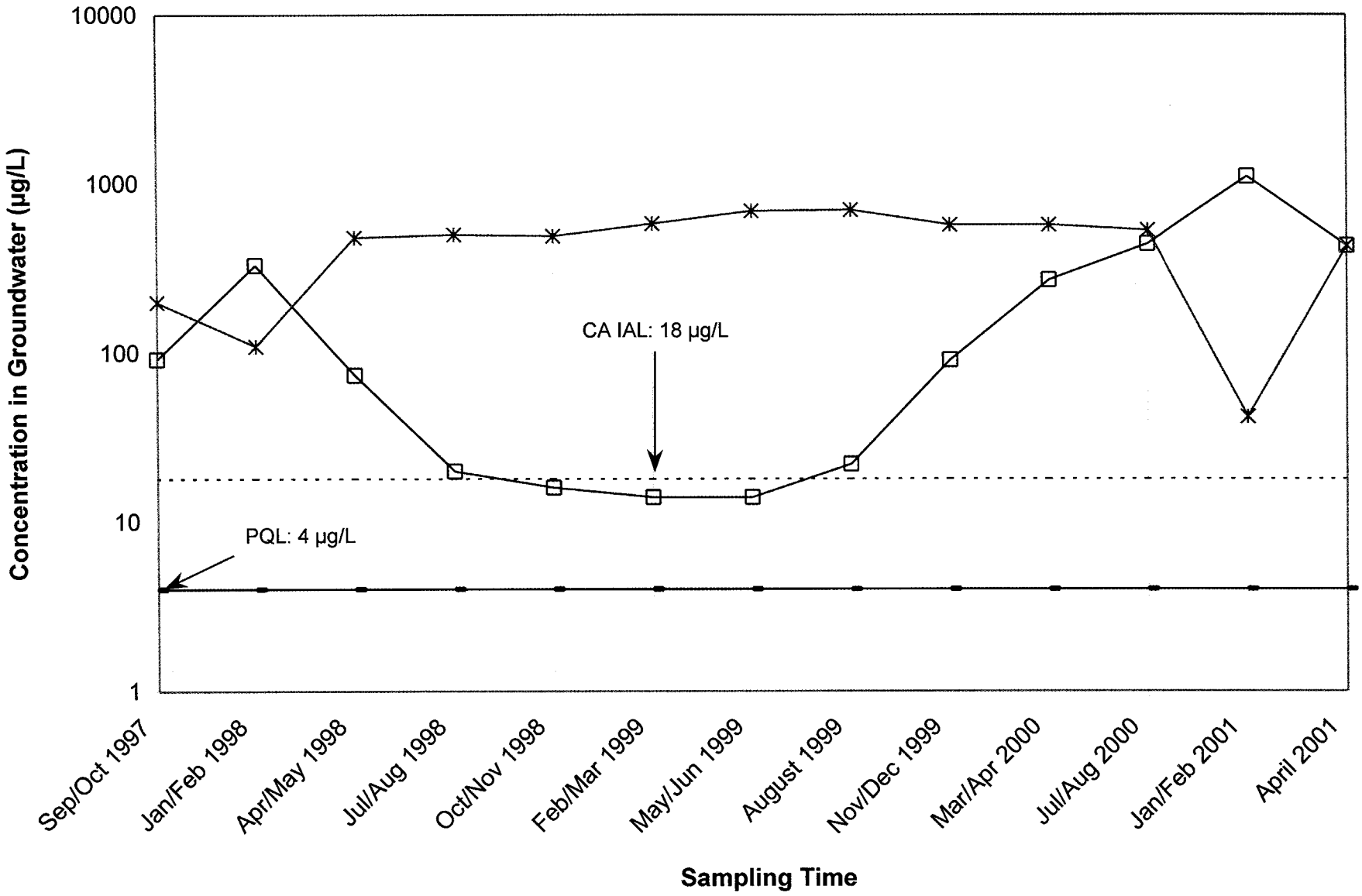
Only concentrations above PQL are plotted. Screens 3, 4, and 5 concentrations were below PQL.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-53

TRICHLOROETHENE DETECTED AT MW-24
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



Legend

Screen 1 — Screen 2 — PQL - - - - - CA IAL

Only concentrations above PQL are plotted. Screens 3, 4, and 5 concentrations were below PQL.
Values in (Y) axis are represented in Logarithmic scale.
Data before Jan/Feb 2001 were obtained from Foster Wheeler Reports.

FIGURE 3-54

PERCHLORATE DETECTED AT MW-24
FROM AUG/SEP 1996 TO APRIL 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.

Jet Propulsion Laboratory

MW-1 1094.40
MW-7
MW-9 1087.36
MW-11 1031.71
MW-15 1091.87
MW-16 1007.79
MW-3 1006.05
MW-4 1014.22
MW-5 1011.71
MW-6 1006.71
MW-8 1012.59
MW-10 1006.63
MW-12 1021.75
MW-13 1007.87
MW-14 1007.67
MW-18 989.05
MW-22 1005.98
MW-23 1006.15
MW-24 1009.73
MW-2
MH-01
MW-17 942.72
MW-19 986.89
MW-20 966.88
MW-21 1001.38

1080
1060
1040
1020
1000
980
960
950
970
990
1000

LCID#6
LCID#1
VWC#3
VWC#2
VWC#4
VWC#1
LAWC#3
LAWC#5
RCL&W#4
RCL&W#7
LFWC#2
Arroyo Well
Well 52
Ventura Well
Windsor Well

GOULD AVE
HAMPTON RD
CROWN
VIRO RD
OAK GROVE DR
FOOTHILL FWY
ALTADENA DR
LINCOLN AVE
CASITAS AVE
HARRIET ST
MARIPOSA DR
VENTURA ST
OLIVE AVE
GLENROSE
W CALAVERAS ST
FIGUEROA
WINDSOR AVE
CROSBY STREET

Oak Grove Ranger Station
Oak Grove Park
Devil's Gate Reservoir
Spreading Grounds

Legend

- JPL Deep Multi-Port Monitoring Well
- JPL Shallow Monitoring Well
- City of Pasadena Monitoring Well
- Municipal Production Well
  LCID = La Canada Irrigation District
  VWC = Valley Water Co.
  LAWC = Lincoln Avenue Water Co.
  RCL&W = Rubio Canon Land & Water Co.
  LFWC = Las Flores Water Co.
  All others are City of Pasadena
- JPL Thrust Fault
- Direction of Groundwater Flow

Note: Contours Represent Water Table Elevation in Feet Above Mean Sea Level

N

800 400 0 800

SCALE IN FEET

Base Map Source: USGS, 7.5' Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 5-1

WATER TABLE ELEVATION CONTOUR MAP

APRIL 3, 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.

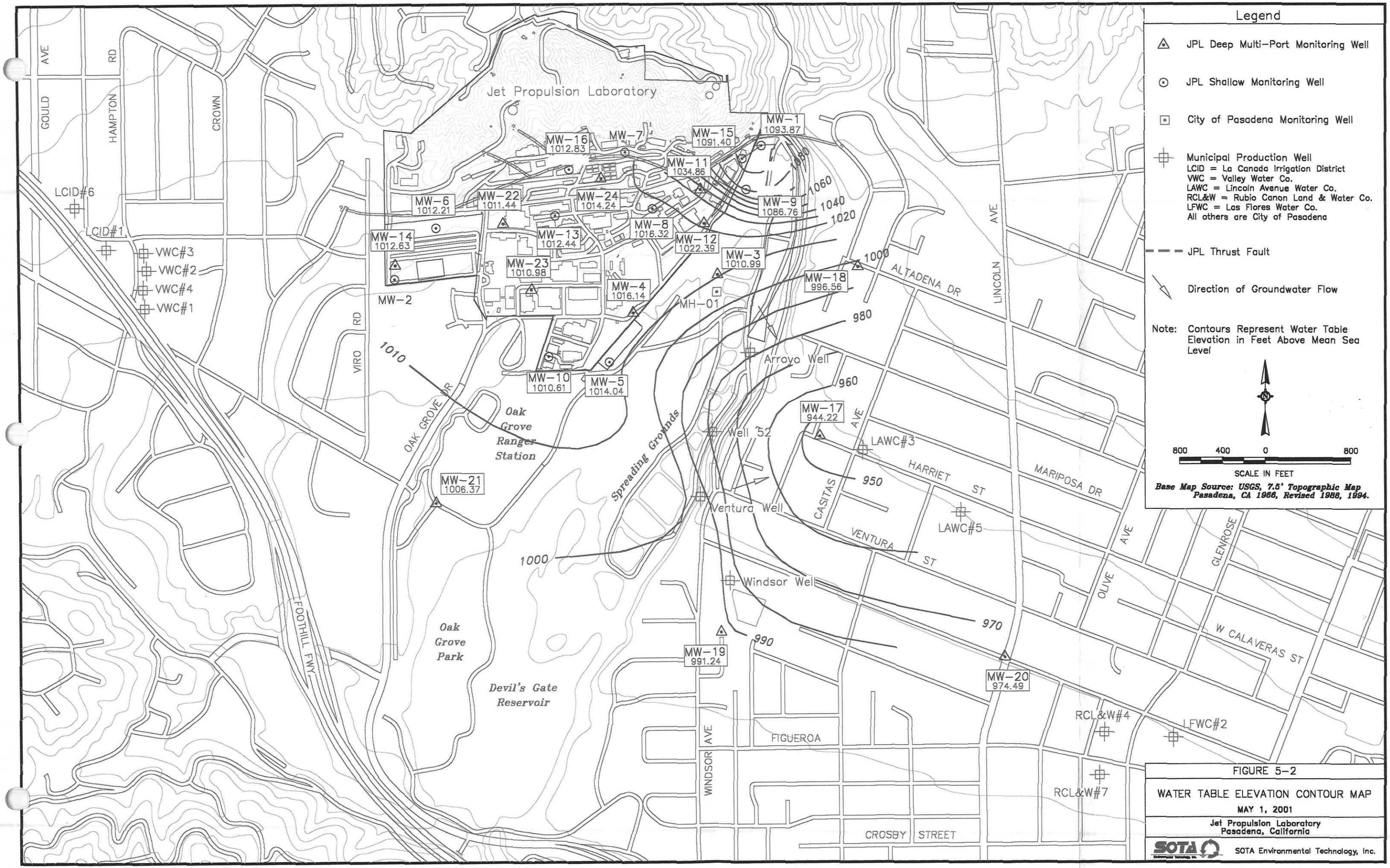


FIGURE 5-2

WATER TABLE ELEVATION CONTOUR MAP

MAY 1, 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.

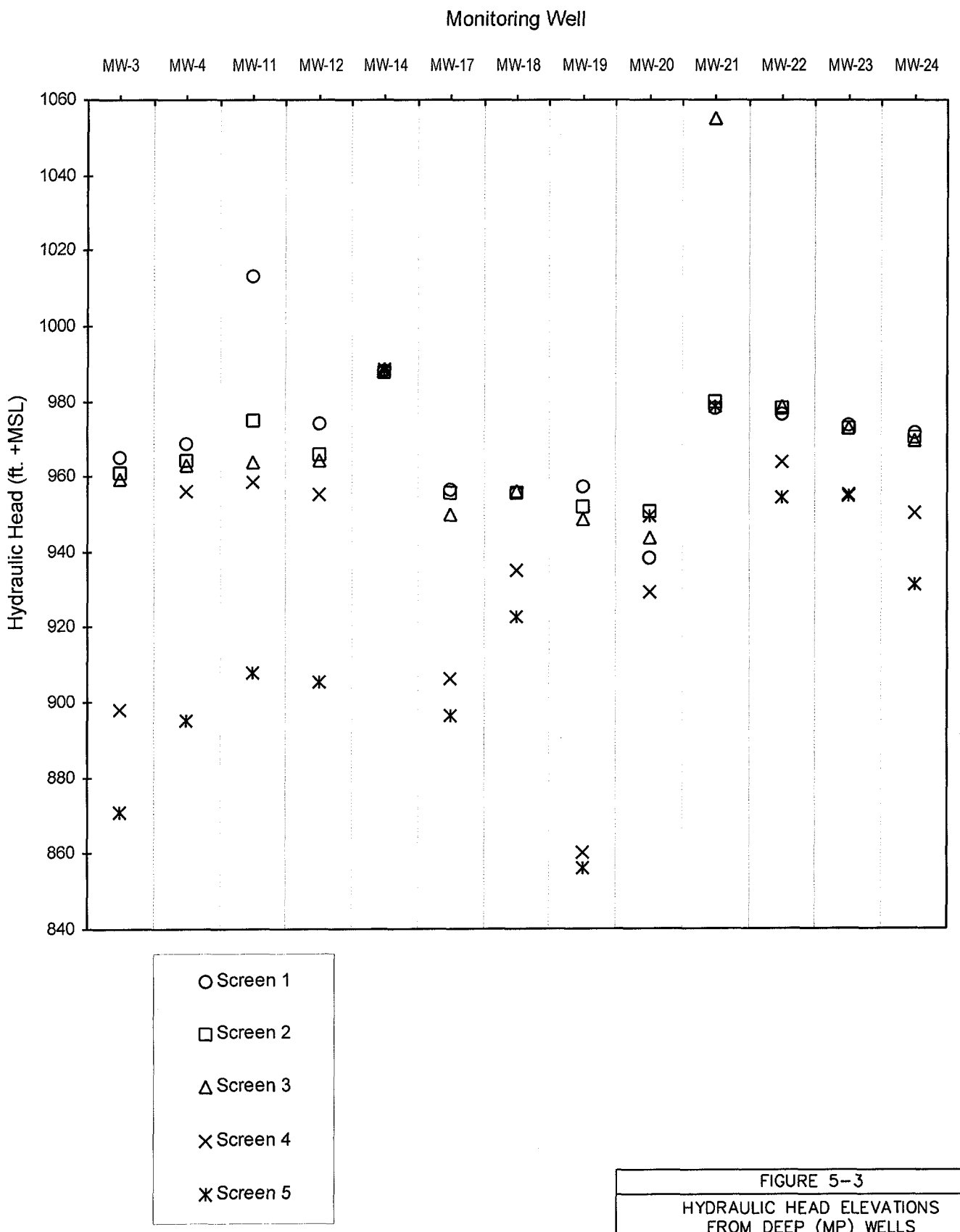


FIGURE 5-3

HYDRAULIC HEAD ELEVATIONS
FROM DEEP (MP) WELLS

APRIL 3, 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.

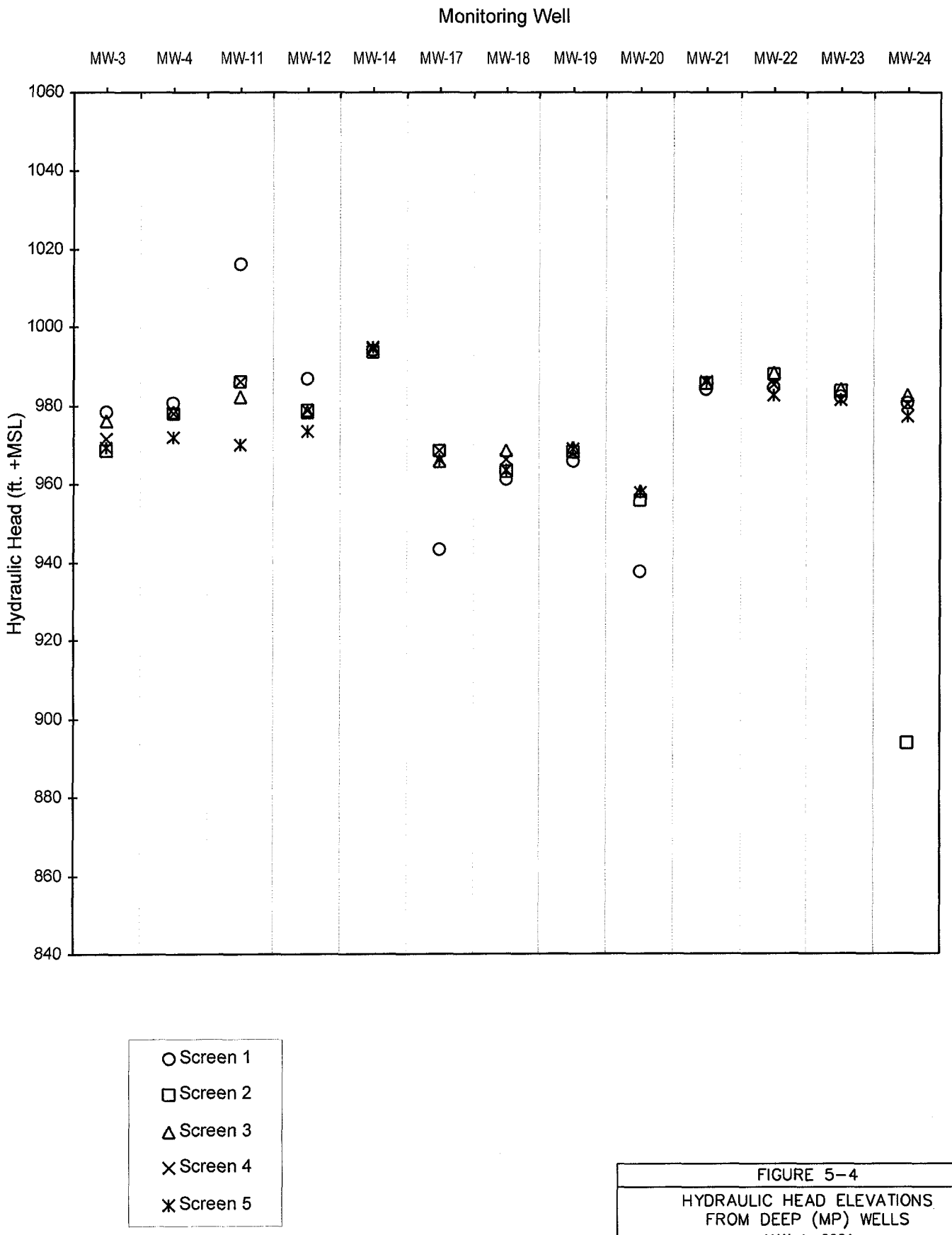


FIGURE 5-4

HYDRAULIC HEAD ELEVATIONS FROM DEEP (MP) WELLS

MAY 1, 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.

Well Development Logs

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 4/27/01
Personnel: PRS / JNT

Well ID: MW-8
Equipment: 2" DEDICATED SUB. PUMP
Contractor: NA

	Before	Reference Point	After
Depth to Water (ft.)	123.29	TOC	123.26
Depth to Sediment (ft.)	205	TOC	205
Thickness of Sediment (ft.)	0	TOC	0

Depth of Well (ft.) 205'
Diameter of Casing (ft.) ~~4~~ .333
Water Column Height (ft.) 81.71
Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 53.35
Casing Volumes Purged 3
Total Volume Purged (gal.) 160

Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (µmhos)	Pump Rate (gpm)	Comments
1015	8.25	31	18.9	.411	2.5	PUMP ON @ 340 Hz
1020	8.23	5	18.5	.399	2.5	SLIGHTLY CLOUDY
1025	8.13	5	18.5	.400	2.5	CLEAR
1030	8.09	5	18.5	.400	2.5	CLEAR
1035	7.94	18	18.9	.399	2.5	CLEAR
1040	7.93	5	18.7	.399	2.5	CLEAR
1045	7.99	5	19.0	.399	2.5	CLEAR
1050	7.95	21	19.0	.396	2.5	CLEAR
1055	7.86	5	19.0	.400	2.5	CLEAR
1100	7.90	18	19.1	.395	2.5	CLEAR
1105	7.79	4	19.1	.398	2.5	CLEAR
1110	7.87	20	19.1	.396	2.5	CLEAR
1115	7.91	29	19.1	.397	2.5	REDUCED FLOW TO A TRICKLE FOR SAMPLING

Notes: MS/MSD SAMPLE NO ODOR WHILE PURGING

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 4/27/01
Personnel: PRS/JNT

Well ID: MW-13
Equipment: 2" SUBMERSIBLE PUMP (DEDICATED)
Contractor: NA

	Before	Reference Point	After
Depth to Water (ft.)	171.07	TOC	171.02
Depth to Sediment (ft.)	235	TOC	235
Thickness of Sediment (ft.)	0	TOC	0

Depth of Well (ft.) 235
Diameter of Casing (ft.) .333
Water Column Height (ft.) 63.93

Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 41.74
Casing Volumes Purged 3

Total Volume Purged (gal.) 126

Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (µmhos)	Pump Rate (gpm)	Comments
1205	8.05	5	22.3	.485	2.5	PUMP ON @ 30 HZ
1210	7.94	4	21.9	.486	2.5	CLEAR
1215	7.73	4	22.4	.488	2.5	CLEAR
1220	7.67	5	23.0	.487	2.5	CLEAR
1225	7.75	5	22.4	.493	2.5	CLEAR
1230	7.76	86	22.5	.496	2.5	CLEAR
1235	7.73	11	22.6	.497	2.5	CLEAR
1240	7.73	6	22.4	.497	2.5	CLEAR
1245	7.70	4	22.3	.496	2.5	CLEAR
1250	7.72	1	22.5	.497	2.5	CLEAR
1255	7.71	2	22.4	.495	2.5	REDUCED FLOW TO TRICKLE FOR SAMPLING

Notes:

MS/MSD sample

NO ODOR DURING PURGING

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 4/30/01
Personnel: PRJ / JNT

Well ID: MW-6
Equipment: 2" DEDICATED Submersible Pump
Contractor: NA

	Before	Reference Point	After
Depth to Water (ft.)	176.31	TOC	176.25
Depth to Sediment (ft.)	245	TOC	245
Thickness of Sediment (ft.)	0	TOC	0

Depth of Well (ft.) 245
Diameter of Casing (ft.) .333
Water Column Height (ft.) 68.69

Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 44.85
Casing Volumes Purged 3

Total Volume Purged (gal.) 135

Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (µmhos)	Pump Rate (gpm)	Comments
1130	7.52	30	21.4	1.22	2.5	Pump on @ 350 Hz
1135	7.49	3	20.8	1.23	2.5	Clear
1140	7.34	5	20.7	1.23	2.5	Clear
1145	7.39	7	20.7	1.22	2.5	Clear
1150	7.33	8	20.8	1.21	2.5	Clear
1155	7.39	6	20.7	1.21	2.5	Clear
1200	7.31	29	20.8	1.20	2.5	Clear
1205	7.36	25	20.8	1.20	2.5	Clear
1210	7.38	28	20.8	1.19	2.5	Clear
1215	7.35	8	20.9	1.18	2.5	Clear
1220	7.37	6	21.0	1.17	2.5	Clear
1225	7.34	12	21.3	1.18	2.5	Clear - Reduced Flow to a Trickle for Sampling

Notes:

MW-6-D is a field duplicate, collected after regular sample (MW-6)

No odor during purging

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 4/30/01
Personnel: PEJ/JNT

Well ID: MW-10
Equipment: 2" DEDICATED SUBMERSIBLE PUMP (GRUNDFOS)
Contractor:

	Before	Reference Point	After
Depth to Water (ft.)	77.17	TOC	77.08
Depth to Sediment (ft.)	155	TOC	155
Thickness of Sediment (ft.)	0	TOC	0

Depth of Well (ft.) 155
Diameter of Casing (ft.) .333
Water Column Height (ft.) 77.83

Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 50.82

Casing Volumes Purged 3

Total Volume Purged (gal.) 153

Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (µmhos)	Pump Rate (gpm)	Comments
1325	7.41	49	22.1	.684	2.5	PUMP ON @ 26.1 Hz
1330	7.44	37	21.9	.665	2.5	CLEAR
1335	7.41	3	21.1	.667	2.5	CLEAR
1340	7.38	38	21.1	.669	2.5	CLEAR
1345	7.35	36	21.1	.677	2.5	CLEAR
1350	7.46	1	21.1	.683	2.5	CLEAR
1355	7.42	0	20.8	.685	2.5	CLEAR
1400	7.35	2	21.0	.691	2.5	CLEAR
1405	7.35	0	20.7	.691	2.5	CLEAR
1410	7.37	1	20.8	.692	2.5	CLEAR
1415	7.38	3	20.9	.691	2.5	CLEAR
1420	7.38	1	21.0	.690	2.5	CLEAR
1425	7.36	2	20.7	.692	2.5	CLEAR - REDUCED FLOW TO A TRICKLE FOR SAMPLING.

Notes:

MW-10-D IS A FIELD DUPLICATE, TAKEN AFTER REGULAR SAMPLE (MW-10)

NO ODOR DURING PURGING

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 4/30/01
Personnel: PRJ / SNT

Well ID: MW-5
Equipment: 2" GRUNDFOS DEDICATED SUBMERSIBLE PUMP
Contractor: NA

	Before	Reference Point	After
Depth to Water (ft.)	57.59	TOC	57.57
Depth to Sediment (ft.)	140	TOC	140
Thickness of Sediment (ft.)	0	TOC	0

Depth of Well (ft.) 140
Diameter of Casing (ft.) .333
Water Column Height (ft.) 82.41

Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 53.81
Casing Volumes Purged 3

Total Volume Purged (gal.) 162

Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (µmhos)	Pump Rate (gpm)	Comments
1445	7.56	32	19.1	.364	3	PUMP ON @ 30 HZ
1450	7.51	26	18.0	.342	3	ORANGISH COLOR
1455	7.43	42	17.9	.342	3	SLIGHT ORANGE COLOR
1500	7.43	34	18.0	.338	3	CLEAR
1505	7.50	30	17.8	.343	3	CLEAR
1510	7.43	19	17.4	.344	3	CLEAR
1515	7.45	22	17.2	.342	3	CLEAR
1520	7.36	3	17.6	.348	3	CLEAR
1525	7.39	6	17.5	.347	3	CLEAR
1530	7.33	5	17.1	.345	3	CLEAR
1535	7.35	3	17.3	.345	3	CLEAR
1540	7.37	4	17.1	.346	3	CLEAR- REDUCED
						FLOW TO A TRICKLE
						FOR SAMPLING

Notes:
MS/MSD Sample

NO ODOR while purging

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 4/30/01
Personnel: PES/JNT

Well ID: MW-16
Equipment: 2" GRUNDFOS DEDICATED SUBMERSIBLE PUMP
Contractor: NA

	Before	Reference Point	After
Depth to Water (ft.)	223.49	TOC	223.38
Depth to Sediment (ft.)	285	TOC	285
Thickness of Sediment (ft.)	0	TOC	0

Depth of Well (ft.) 285
Diameter of Casing (ft.) .333
Water Column Height (ft.) 61.51

Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 40.16
Casing Volumes Purged 3

Total Volume Purged (gal.) 120

Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (µmhos)	Pump Rate (gpm)	Comments
1615	7.95	2	23.4	.451	3	PUMP ON @ 400 Hz
1620	7.91	4	23.0	.448	3	CLEAR
1625	7.96	6	22.8	.450	3	CLEAR
1630	7.85	6	22.9	.446	3	CLEAR
1635	7.92	17	22.6	.448	3	CLEAR
1640	7.87	6	23.7	.443	3	CLEAR
1645	7.94	6	22.6	.446	3	CLEAR
1650	7.95	6	22.5	.446	3	CLEAR
1655	7.97	5	22.5	.444	3	CLEAR - REDUCED
						FLOW TO A TRICKLE
						WHILE SAMPLING

Notes:
MW-16-D IS A FIELD DUPLICATE, TAKEN AFTER REGULAR SAMPLE (MW-16)

NO ODOR WHILE PURGING

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRS / JNT

Well ID: MW-4
Sampling Zone No.: 5
Starting Time: 1130

Depth (ft.): 513
Finishing Time: 1202

Date: 4/4/01

Water Pressure Inside MP Casing - Beginning of Session: 134.61
End of Session: 134.68

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	134.61	✓	172.52	✓	172.51	✓	✓	134.68	1200	9.29	45	17.9	.369
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER HAD A SLIGHT AMBER COLOR TO IT, (NO ODOR)

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JNT | PRT

Well ID: MW-4
Depth (ft.): 392
Sampling Zone No.: 4
Starting Time: 1211
Finishing Time: 1240

Date: 4/4/01

Water Pressure Inside MP Casing - Beginning of Session: 82.00
End of Session: 82.05

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe in	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	82.00	✓	142.26	✓	142.26	✓	✓	82.05	1235	9.14	28	18.1	.374
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER HAD A SLIGHT AMBER COLOR TO IT. (NO ODOR)

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/4/01

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ | JNT

Well ID: MW-4
Sampling Zone No.: 3
Starting Time: 1245

Depth (ft.): 322
Finishing Time: 1310

Water Pressure Inside MP Casing - Beginning of Session: 52.09
End of Session: 52.14

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	52.09	✓	114.93	✓	114.14	✓	✓	52.14	1305	8.72	22	18.7	.391
2																			
3																			
4																			
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8																			
9																			
10																			
11																			
12																			

Notes: WATER HAD A SLIGHT YELLOW COLOR TO IT (NO ODOR)

Total Volume: 2 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRS / JNT

Well ID: MW-4 Depth (ft.): 240
Sampling Zone No.: 2
Starting Time: 1315 Finishing Time: 1345

Date: 4/4/01

Water Pressure Inside MP Casing - Beginning of Session: 16.45
End of Session: 16.48

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	16.45	✓	80.82	✓	80.79	✓	✓	16.48	1340	8.48	32	17.7	0.96
2																			
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9																			
10																			
11																			
12																			

Notes: WATER IS SLIGHTLY CLOUDY (NO ODOR)

Total Volume: 2 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ | JWT

Well ID: MW-4
Sampling Zone No.: 1
Starting Time: 1352

Depth (ft.): 150
Finishing Time: 1420

Date: 4/4/01

Water Pressure Inside MP Casing - Beginning of Session: 14.31
End of Session: 14.37

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.31	✓	49.62	✓	49.62	✓	✓	14.37	1415	8.78	31	15.2	.403
2																			
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12																			

Notes: WATER WAS SLIGHTLY CLOUDY (NO ODOR)

Total Volume: 2 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRS / SJT

Well ID: MW-17
Sampling Zone No.: 5
Starting Time: 1005

Depth (ft.): 726
Finishing Time: 1030

Date: 4/5/01

Water Pressure Inside MP Casing - Beginning of Session: 170.80
End of Session: 170.83

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	170.80	✓	216.97	✓	176.83	✓	✓	170.83	1025	8.78	31	15.2	.403
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11																			
12																			

Notes: WATER WAS SLIGHTLY CLOUDY (NO ODOR)

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-17 4
Sampling Zone No.: 4
Starting Time: 1055

Depth (ft.): 582
Finishing Time: 1141

Date: 4/5/01

Water Pressure Inside MP Casing - Beginning of Session: 109.22
End of Session: 109.28

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	109.22	✓	158.01	✓	157.97	✓	✓	109.28	1135	9.16	31	17.0	.365
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10																			
11																			
12																			

Notes: WATER WAS CLEAR (NO ODOR)

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-17
Sampling Zone No.: 3
Starting Time: 1156

Depth (ft.): 468
Finishing Time: 1430

Date: 4/5/01

Water Pressure Inside MP Casing - Beginning of Session: 59.71
End of Session: 58.98

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	59.71	✓	120.63	✓	120.60	✓	✓	59.74	1225	9.04	32	16.1	.369
2	✓	✓	✓	✓	✓	✓	58.96	✓	120.39	✓	120.36	✓	✓	58.98					
3																			
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11																			
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Notes: WATER IS CLEAR (NO ODOR)
MS/MSD Sample

Total Volume: 3 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PLT | SNT

Well ID: MW-17 2
Sampling Zone No.:
Starting Time: 1438

Depth (ft.): 370
Finishing Time: 1320

Date: 4/5/01

Water Pressure Inside MP Casing - Beginning of Session: 17.03
End of Session: 17.10

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	17.03	✓	84.50	✓	84.50	✓	✓	17.09	1500	9.64	31	16.4	.310
2	✓	✓	✓	✓	✓	✓	17.08	✓	84.52	✓	84.48	✓	✓	17.10					
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11																			
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Notes: MW-17-2D IS A FIELD DUPLICATE TAKEN AFTER REGULAR SAMPLE (MW-17-2) WATER IS CLEAR (NO ODOR)

Total Volume: 3 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ | JNT

Well ID: MW-3
Sampling Zone No.: 5
Starting Time: 1015

Depth (ft.): 653
Finishing Time: 1044

Date: 4/6/01

Water Pressure Inside MP Casing - Beginning of Session: 174.12
End of Session: 174.11

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	174.12	✓	232.14	✓	232.10	✓	✓	174.11	1040	10.87	24	18.7	.306
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Notes: WATER IS CLOUDY (GRAYISH TINT) SLIGHT SULFUR ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ/JNT

Well ID: MW-3
Sampling Zone No.: 4
Starting Time: 1046

Depth (ft.): 558
Finishing Time: 1120

Date: 4/6/01

Water Pressure Inside MP Casing - Beginning of Session: 134.39
End of Session: 134.39

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	134.39	✓	196.02	✓	196.00	✓	✓	134.39	1115	9.78	32	19.1	.311
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9																			
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11																			
12																			

Notes: WATER IS SLIGHTLY CLOUDY (NO ODOR)

Total Volume: 2.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRS/JNT

Well ID: MW-3
Sampling Zone No.: 3
Starting Time: 1124

Depth (ft.): 346
Finishing Time: 1150

Date: 4/6/01

Water Pressure Inside MP Casing - Beginning of Session: 42.35
End of Session: 42.36

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	42.35	✓	118.60	✓	118.57	✓	✓	42.36	1145	9.39	32	18.9	.358
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11																			
12																			

Notes: WATER IS CLEAR (NO ODOR)

Total Volume: 2.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-3
Sampling Zone No.: 2
Starting Time: 1156

Depth (ft.): 252
Finishing Time: 1215

Date: 4/6/01

Water Pressure Inside MP Casing - Beginning of Session: 14.38
End of Session: 14.45

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.38	✓	78.84	✓	78.81	✓	✓	14.45	1210	9.08	26	17.2	.425
2																			
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6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER WAS CLOUDY (YELLOW TINT), NO ODOR

Total Volume: 2.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRS/JNT

Well ID: MW-19
Sampling Zone No.: 5
Starting Time: 0851

Depth (ft.): 498
Finishing Time: 1015

Date: 4/12/01

Water Pressure Inside MP Casing - Beginning of Session: 78.08
End of Session: 78.05

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	78.08	✓	142.37	✓	142.33	✓	✓	78.05	1010	9.15	32	17.8	.776
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10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ JNT

Well ID: MW-19 4
Sampling Zone No.: 4
Starting Time: 1030

Depth (ft.): 444
Finishing Time: 1135

Date: 4/12/01

Water Pressure Inside MP Casing - Beginning of Session: 54.60
End of Session: 54.62

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	54.60	✓	120.50	✓	120.52	✓	✓	54.62	1130	9.10	40	17.6	.437
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9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ | JNT

Well ID: MW-19
Sampling Zone No.: 3
Starting Time: 1210

Depth (ft.): 392
Finishing Time: 1245

Date: 4/12/01

Water Pressure Inside MP Casing - Beginning of Session: 31.95
End of Session: 31.98

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	31.95	✓	115.22	✓	~~115.22~~ 115.22 PS	✓	✓	31.98	1240	8.39	21	18.2	1.03
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10																			
11																			
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ/JNT

Well ID: MW-19
Sampling Zone No.: 2
Starting Time: 1250
Depth (ft.): 314
Finishing Time: 1305
Date: 4/12/01

Water Pressure Inside MP Casing - Beginning of Session: 14.45
End of Session: 14.47

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.45	✓	81.79	✓	81.78	✓	✓	14.47	1300	8.27	35	17.5	.750
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5																			
6																			
7																			
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9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-19
Sampling Zone No.: 1
Starting Time: 1310

Depth (ft.): 242
Finishing Time: 1345

Date: 4/12/01

Water Pressure Inside MP Casing - Beginning of Session: 14.49
End of Session: 14.48

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.49	✓	53.12	✓	53.05	✓	✓	14.48	1340	8.55	35	18.8	.382
2																			
3																			
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7																			
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10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-18
Depth (ft.): 684
Sampling Zone No.: 5
Starting Time: 1020
Finishing Time: 1045

Date: 4/13/01

Water Pressure Inside MP Casing - Beginning of Session: 148.18
End of Session: 148.20

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	148.18	✓	200.54	✓	200.51	✓	✓	148.20	1040	9.74	35	18.2	.279
2																			
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4																			
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10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PBS/JNT

Well ID: MW-18
Sampling Zone No.: 4
Starting Time: 1050

Depth (ft.): 564
Finishing Time: 1123

Date: 4/13/01

Water Pressure Inside MP Casing - Beginning of Session: 97.04
End of Session: 97.06

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	97.04	✓	152.41	✓	152.41	✓	✓	97.06	1120	9.37	31	19.6	.337
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9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ | JNT

Well ID: MW-18
Sampling Zone No.: 3
Starting Time: 1126

Depth (ft.): 424
Finishing Time: 1200

Date: 4/13/01

Water Pressure Inside MP Casing - Beginning of Session: 36.35
End of Session: 36.24

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	36.35	✓	97.58	✓	97.56	✓	✓	36.24	1155	9.10	35	22.2	.405
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4																			
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10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PLS/JNT

Well ID: MW-18
Sampling Zone No.: 2
Starting Time: 1205

Depth (ft.): 330
Finishing Time: 1230

Date: 4/13/01

Water Pressure Inside MP Casing - Beginning of Session: 14.38
End of Session: 14.45

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.38	✓	56.51	✓	56.37	✓	✓	14.45	1225	9.11	31	21.0	.398
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9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-14
Depth (ft.): 540
Sampling Zone No.: 5
Starting Time: 1330
Finishing Time: 1359

Date: 4/17/01

Water Pressure Inside MP Casing - Beginning of Session: 134.45
End of Session: 134.39

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	134.45	✓	178.05	✓	178.01	✓	✓	134.39	1352	9.78	31	21.8	.307
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11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ | JNT

Well ID: MW-14
Sampling Zone No.: 4
Starting Time: 1400

Depth (ft.): 456
Finishing Time: 1423

Date: 4/17/01

Water Pressure Inside MP Casing - Beginning of Session: 98.86
End of Session: 98.91

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	98.86	✓	141.67	✓	141.60	✓	✓	98.91	1420	9.17	33	21.8	.485
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10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 & LITERS
PJ 4/17/01

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-14
Sampling Zone No.: 3
Starting Time: 1433

Depth (ft.): 382
Finishing Time: 1500

Date: 4/17/01

Water Pressure Inside MP Casing - Beginning of Session: 66.68
End of Session: 66.77

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	66.68	✓	109.63	✓	109.61	✓	✓	66.77	1455	8.93	13	21.7	1.03
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10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: DRJ | JNT

Well ID: MW-14
Sampling Zone No.: 2
Starting Time: 1506
Depth (ft.): 277
Finishing Time: 1605
Date: 4/17/01

Water Pressure Inside MP Casing - Beginning of Session: 22.00
End of Session: 21.33

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	22.00	✓	64.15	✓	64.16	✓	✓	21.33	1520	9.05	32	21.5	1.17
2	✓	✓	✓	✓	✓	✓	22.03	✓	64.17	✓	64.13	✓	✓	21.33					
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Notes: MS | MSD SAMPLE, WATER IS CLEAR, NO ODOR

Total Volume: 3 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PEJ/JNT

Well ID: MW-14
Sampling Zone No.: 1
Starting Time: 1615

Depth (ft.): 207
Finishing Time: 1655

Date: 4/17/01

Water Pressure Inside MP Casing - Beginning of Session: 14.41
End of Session: 14.36

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.41	✓	33.57	✓	33.55	✓	✓	14.37	1630	8.40	32	25.9	1.30
2	✓	✓	✓	✓	✓	✓	14.39	✓	33.55	✓	33.52	✓	✓	14.36					
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Notes: MW-14-1D IS A FIELD DUPLICATE. TAKEN AFTER REGULAR SAMPLE (MW-14-1) WATER IS CLEAR, NO ODOR

Total Volume: 3 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PLJ / JNT

Well ID: MW-22 4
Sampling Zone No.: 4
Starting Time: 1234

Depth (ft.): 467
Finishing Time: 1320

Date: 4/18/01

Water Pressure Inside MP Casing - Beginning of Session: 81.55
End of Session: 81.53

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	81.55	✓	141.11	✓	141.10	✓	✓	81.53	1315	9.28	39	21.2	.332
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ | SNT

Well ID: MW-22
Sampling Zone No.: 3
Starting Time: 1325

Depth (ft.): 389
Finishing Time: 1355

Date: 4/18/01

Water Pressure Inside MP Casing - Beginning of Session: 48.24
End of Session: 48.30

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	48.24	✓	110.26	✓	110.23	✓	✓	48.30	1350	9.17	32	21.2	.457
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11																			
12																			

Notes: WATER WAS SLIGHTLY CLOUDY, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ/SNT

Well ID: MW-22 Depth (ft.): 329
Sampling Zone No.: 2
Starting Time: 1402 PS Finishing Time: 1615

Date: 4/18/01

Water Pressure Inside MP Casing - Beginning of Session: ~~84.21~~ 24.04
End of Session: 22.57

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	24.04	✓	84.21	✓	84.20	✓	✓	24.08	1505	9.24	32	21.3	.485
2	✓	✓	✓	✓	✓	✓	22.60	✓	84.22	✓	84.21	✓	✓	22.57					
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12																			

Notes: WATER IS CLEAR, NO ODOR
MS/MSD Sample

Total Volume: 3 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PEJ / JNT

Well ID: MW-22
Sampling Zone No.: 1
Starting Time: 1617

Depth (ft.): 245
Finishing Time: 1650

Date: 4/18/01

Water Pressure Inside MP Casing - Beginning of Session: 14.37
End of Session: 14.39

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.37	✓	47.93	✓	47.94	✓	✓	14.40	1630	8.87	32	20.8	1.17
2	✓	✓	✓	✓	✓	✓	14.38	✓	47.90	✓	47.87	✓	✓	14.39					
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Notes: MW-22-1D IS A FIELD DUPLICATE, TAKEN AFTER REGULAR SAMPLE (MW-22-1)
WATER WAS ORANGE, NO ODOR

Total Volume: 3 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PEST JNT

Well ID: MW-20
Depth (ft.): 900
Sampling Zone No.: 5
Starting Time: 1050
Finishing Time: 1135

Date: 4/19/01

Water Pressure Inside MP Casing - Beginning of Session: 266.01
End of Session: 266.40

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	266.01	✓	321.26	✓	307.13	✓	✓	266.40	1130	10.31	31	17.7	.222
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12																			

Notes: WATER IS CLEAR, ROTTEN EGG SMELL

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ | JNT

Well ID: MW-20
Sampling Zone No.: 4
Starting Time: 1137

Depth (ft.): 700
Finishing Time: 1220

Date: 4/19/01

Water Pressure Inside MP Casing - Beginning of Session: 180.01
End of Session: 180.52

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP PJ	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	180.01	✓	232.37	✓	225.32	✓	✓	~~180.50~~	1215	10.22	32	17.8	.287
2														180.52					
3																			
4																			
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Notes: WATER IS SLIGHTLY CLOUDY, SLIGHT ROTTEN EGG SMELL

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ | JNT

Well ID: MW-20
Sampling Zone No.: 3
Starting Time: 1223

Depth (ft.): 562
Finishing Time: 1305

Date: 4/19/01

Water Pressure Inside MP Casing - Beginning of Session: 120.82
End of Session: 120.97

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	120.82	✓	174.34	✓	155.20	✓	✓	120.97	1300	9.66	32	18.2	.423
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ | JNT

Well ID: MW-20
Depth (ft.): 392
Sampling Zone No.: 2
Starting Time: 1313
Finishing Time: 1430

Date: 4/19/01

Water Pressure Inside MP Casing - Beginning of Session: 47.80
End of Session: 49.12

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	47.80	✓	101.22	✓	101.20	✓	✓	49.12	1425	9.39	7	17.7	.316
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10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ | JNT

Well ID: MW-20
Sampling Zone No.: 1
Starting Time: 1434

Depth (ft.): 230
Finishing Time: 1505

Date: 4/19/01

Water Pressure Inside MP Casing - Beginning of Session: 14.40
End of Session: 14.40

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	√	√	√	√	√	√	14.40	√	30.10	√	30.09	√	√	14.40	1500	8.82	32	17.9	.565
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10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ/JNT

Well ID: MW-21
Depth (ft.): 372
Sampling Zone No.: 5
Starting Time: 1010
Finishing Time: 1045

Date: 4/20/01

Water Pressure Inside MP Casing - Beginning of Session: 130.51
End of Session: 130.50

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	130.51	✓	152.26	✓	152.21	✓	✓	130.50	1040	5.88	8	17.9	.771
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10																			
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12																			

Notes: WATER WAS SLIGHTLY CLOUDY, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-21
Depth (ft.): 310
Sampling Zone No.: 4
Starting Time: 1048
Finishing Time: 1115

Date: 4/20/01

Water Pressure Inside MP Casing - Beginning of Session: 103.50
End of Session: 103.53

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	~~104.49~~	✓	125.41	✓	125.44	✓	✓	103.53	1110	8.50	0	18.4	.578
2						PS	103.50												
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10																			
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12																			

Notes: WATER WAS SLIGHTLY CLOUDY, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-21
Sampling Zone No.: 3
Depth (ft.): 240
Starting Time: 1120
Finishing Time: 1145
Date: 4/20/01

Water Pressure Inside MP Casing - Beginning of Session: 73.50
End of Session: 73.50

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	73.50	✓	95.52	✓	95.55	✓	✓	73.50	1140	8.67	4	19.1	1.08
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Notes: WATER WAS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ | JNT

Well ID: MW-21
Sampling Zone No.: 2
Starting Time: 1150

Depth (ft.): 161
Finishing Time: 1205

Date: 4/20/01

Water Pressure Inside MP Casing - Beginning of Session: 39.19
End of Session: 39.20

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	39.19	✓	61.34	✓	61.35	✓	✓	39.20	1200	8.49	24	19.6	1.31
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Notes: WATER WAS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-21
Sampling Zone No.: 1
Starting Time: 1210
Depth (ft.): 90
Finishing Time: 1225
Date: 4/20/01

Water Pressure Inside MP Casing - Beginning of Session: 14.47
End of Session: 14.44

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.47	✓	29.97	✓	29.88	✓	✓	14.44	1220	8.13	31	20.1	1.02
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Notes: WATER WAS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRS / JNT

Well ID: MW-24 4
Sampling Zone No.: 4
Starting Time: 1235

Depth (ft.): 554
Finishing Time: 1320

Date: 4/23/01

Water Pressure Inside MP Casing - Beginning of Session: 117.11
End of Session: 116.46

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	117.11	✓	165.90	✓	165.92	✓	✓	116.46	1315	10.23	6	22.4	.305
2																			
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JWT

Well ID: MW-24
Sampling Zone No.: 3
Starting Time: 1324
Depth (ft.): 435
Finishing Time: 1405
Date: 4/23/01

Water Pressure Inside MP Casing - Beginning of Session: 64.65
End of Session: 64.76

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	64.65	✓	118.24	✓	118.31	✓	✓	64.76	1400	9.52	22	22.9	.381
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNJ

Well ID: MW-24
Depth (ft.): 373
Sampling Zone No.: 2
Starting Time: 1412
Finishing Time: 1450

Date: 4/23/01

Water Pressure Inside MP Casing - Beginning of Session: 37.64
End of Session: 37.86

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	37.64	✓	92.00	✓	92.18	✓	✓	37.86	1445	9.70	131	22.6	.331
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JWT

Well ID: MW-24
Sampling Zone No.: 1
Starting Time: 1453
Depth (ft.): 279
Finishing Time: 1535
Date: 4/23/01

Water Pressure Inside MP Casing - Beginning of Session: 14.32
End of Session: 14.55

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.32	✓	53.90	✓	54.04	✓	✓	1455	1530	9.09	31	23.2	.404
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Notes: WATER WAS SLIGHTLY CLOUDY, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-23 Depth (ft.): 542
Sampling Zone No.: 5
Starting Time: 1110 Finishing Time: 1140

Date: 4/24/01

Water Pressure Inside MP Casing - Beginning of Session: 159.93
End of Session: 160.47

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	√	√	√	√	√	√	159.93	√	201.24	√	201.28	√	√	160.47	1135	10.68	473	24.7	.417
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ/JWT

Well ID: MW-23
Depth (ft.): 445
Sampling Zone No.: 4
Starting Time: 1145
Finishing Time: 1230

Date: 4/24/01

Water Pressure Inside MP Casing - Beginning of Session: 119.86
End of Session: 120.06

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	119.86	✓	159.66	✓	156.83	✓	✓	120.06	1225	9.55	31	24.8	.332
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12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ/JNT

Well ID: MW-23
Sampling Zone No.: 3
Starting Time: 1233

Depth (ft.): 319
Finishing Time: 1310

Date: 4/24/01

Water Pressure Inside MP Casing - Beginning of Session: 65.14
End of Session: 66.03

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	65.14	✓	108.71	✓	110.26	✓	✓	66.03	1305	9.04	30	24.4	.416
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/24/01

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRT/JNT

Well ID: MW-23
Sampling Zone No.: 2
Starting Time: 1315
Depth (ft.): 254
Finishing Time: 1400

Water Pressure Inside MP Casing - Beginning of Session: 36.86
End of Session: 37.01

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	36.86	✓	~~80.28~~ PS	✓	80.25	✓	✓	3701	1355	8.79	31	24.1	1.02
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12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JWT

Well ID: MW-23
Depth (ft.): 174
Sampling Zone No.: 1
Starting Time: 1403
Finishing Time: 1420

Date: 4/24/01

Water Pressure Inside MP Casing - Beginning of Session: 14.37
End of Session: 14.32

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.37	✓	47.03	✓	47.01	✓	✓	14.32	1415	8.33	35	27.0	1.23
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ/JNT

Well ID: MW-11
Depth (ft.): 524
Sampling Zone No.: 4
Starting Time: 1030
Finishing Time: 1130

Date: 4/25/01

Water Pressure Inside MP Casing - Beginning of Session: 120.80
End of Session: 122.31

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	120.80	✓	181.99	✓	125.26	✓	✓	122.31	1125	9.40	29	21.2	.236
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-11
Sampling Zone No.: 3
Starting Time: 1135
Depth (ft.): 429
Finishing Time: 1243
Date: 4/25/01

Water Pressure Inside MP Casing - Beginning of Session: 81.82
End of Session: 82.99

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	81.82	✓	141.37	✓	82.24	✓	✓	82.99	1240	9.40	24	21.9	.325
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Notes: WATER IS CLEAR, SLIGHT ROTTEN EGG ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PAT / SNT

Well ID: MW-11
Sampling Zone No.: 2
Starting Time: 1245

Depth (ft.): 259
Finishing Time: 1305

Date: 4/25/01

Water Pressure Inside MP Casing - Beginning of Session: 14.36
End of Session: 14.58

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.36	✓	71.63	✓	71.64	✓	✓	14.58	1300	9.06	48	22.3	.395
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / SNT

Well ID: MW-17
Sampling Zone No.: 1
Starting Time: 1310

Depth (ft.): 149
Finishing Time: 1340

Date: 4/25/01

Water Pressure Inside MP Casing - Beginning of Session: 14.37
End of Session: 14.42

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.37	✓	33.59	✓	33.62	✓	✓	14.42	1330	9.00	104	23.2	.472
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRS/JNT

Well ID: MW-12
Depth (ft.): 548
Sampling Zone No.: 5
Starting Time: 1055
Finishing Time: 1135

Date: 4/26/01

Water Pressure Inside MP Casing -
Beginning of Session: 134.984
End of Session: 134.94

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	134.94	✓	198.57	✓	198.50	✓	✓	134.97	1130	8.46	30	19.8	.388
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Notes: WATER IS SLIGHTLY CLOUDY, NO ODOR

Total Volume: 1 2 LITER

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PLS/JNT

Well ID: MW-12
Sampling Zone No.: 4
Starting Time: 1140
Depth (ft.): 436
Finishing Time: 1200
Date: 4/26/01

Water Pressure Inside MP Casing - Beginning of Session: 86.32
End of Session: 86.28

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	86.32	✓	158.75	✓	158.67	✓	✓	86.28	1155	9.03	30	19.5	.424
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1 LITER

SOTA Environmental Technology, Inc.

Page 1 of 1

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PLS / JNT

Well ID: MW-12
Sampling Zone No.: 3
Starting Time: 1205

Depth (ft.): 323
Finishing Time: 1225

Date: 4/26/01

Water Pressure Inside MP Casing - Beginning of Session: 38.27
End of Session: 38.21

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	38.27	✓	112.16	✓	112.10	✓	✓	38.21	1220	9.09	2	19.4	.439
2																			
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ / JNT

Well ID: MW-12 Depth (ft.): 243
Sampling Zone No.: 2
Starting Time: 1230 Finishing Time: 1255

Date: 4/26/01

Water Pressure Inside MP Casing - Beginning of Session: 14.33
End of Session: 14.51

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.33	✓	78.37	✓	78.51	✓	✓	14.51	1250	8.77	25	22.4	,442
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: PRJ/JNT

Well ID: MW-12
Sampling Zone No.: 1
Starting Time: 1300

Depth (ft.): 140
Finishing Time: 1315

Date: 4/26/01

Water Pressure Inside MP Casing - Beginning of Session: 14.30
End of Session: 14.36

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP	Shoe out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.30	✓	40.69	✓	40.58	✓	✓	14.36	1310	8.80	39	25.3	.179
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Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.5 LITERS

Piezometric Pressures

SOTA Environmental Technology, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Well ID: MW-3
Project No: 00HW019
Probe Type: Westbay
Date: 4/3/01
Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1100.34
Weather: cloudy, cool

Ambient Readings	Start	Finish
Time	1034	1050
Pressure (psia)	14.18	14.21
Temperature (°C)	15.50	19.00

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	653	172.63						
			213.62					
			213.64					
			213.65		19.33	1039	192.85	907.49
				172.68				
4	558	131.43						
			184.94					
			184.92					
			184.94		21.31	1042	164.07	936.27
				131.41				
3	346	39.40						
			116.43					
			116.40					
			116.45		21.02	1046	110.12	990.22
				39.38				
2	252	14.33						
			77.22					
			77.25					
			77.19		20.25	1048	106.57	993.77
				14.38				
1	172	14.28						
			47.86					
			47.84					
			47.89		19.53	1049	94.29	1006.05
				14.28				

SOTA Environmental Technology, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-4
Project No: 00HW019 Probe Type: Westbay
Date: 4/3/01 Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1082.84
Weather: cloudy, cold

Ambient Readings	Start	Finish
Time	1648	1705
Pressure (psia)	14.30	14.26
Temperature (°C)	16.74	19.13

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	513	132.14						
			172.48					
			172.50					
			172.48		20.83	1653	148.06	934.78
				132.14				
4	392	80.98						
			142.05					
			142.08					
			142.05		21.26	1657	97.26	985.58
				79.57				
3	322	49.13						
			114.57					
			114.62					
			114.60		21.14	1659	90.62	992.22
				49.13				
2	240	14.43						
			80.48					
			80.46					
			80.48		20.71	1700	87.34	995.50
				14.43				
1	150	14.35						
			49.58					
			49.56					
			49.58		19.66	1702	68.62	1014.22
				14.39				

SOTA Environmental Technology, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Well ID: MW-11
Project No: 00HW019
Probe Type: Westbay
Date: 4/3/01
Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1139.30
Weather: cloudy, cold

Ambient Readings	Start	Finish
Time	1719	1740
Pressure (psia)	14.22	14.24
Temperature (°C)	16.79	18.49

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	639	168.22						
			206.33					
			206.36					
			206.33		20.44	1727	195.78	943.52
				168.21				
4	524	118.75						
			175.70					
			175.72					
			175.70		20.83	1729	151.45	987.85
				118.73				
3	429	77.79						
			136.55					
			136.52					
			136.58		19.71	1734	146.78	992.52
				77.82				
2	259	14.39						
			68.84					
			68.81					
			68.84		19.24	1736	133.01	1006.29
				14.36				
1	149	14.26						
			32.19					
			32.17					
			32.15		18.74	1738	107.59	1031.71
				14.31				

SOTA Environmental Technology, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-12
Project No: 00HW019 Probe Type: Westbay
Date: 4/3/01 Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1102.14
Weather: cloudy, cold

Ambient Readings	Start	Finish
Time	1630	1642
Pressure (psia)	14.22	14.28
Temperature (°C)	17.34	18.30

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	548	133.61						
			182.74					
			182.77					
			182.74		18.92	1633	159.20	942.94
				133.62				
4	436	84.97						
			152.32					
			152.35					
			152.38		19.98	1635	117.33	984.81
				85.00				
3	323	35.84						
			108.06					
			107.98					
			108.01		19.47	1637	106.61	995.53
				35.87				
2	243	14.41						
			74.95					
			74.92					
			74.97		18.83	1639	102.90	999.24
				14.39				
1	140	14.31						
			40.09					
			40.02					
			40.07		18.49	1641	80.39	1021.75
				14.37				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena — Well ID: MW-14
Project No: 00HW019 — Probe Type: Westbay
Date: 4/3/01 — Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC — Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1173.47
Weather: cloudy, cold

Ambient Readings	Start	Finish
Time	1510	1516
Pressure (psia)	14.23	14.28
Temperature (°C)	15.74	19.26

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	540	132.40						
			176.29					
			176.32					
			176.30		18.30	1513	166.10	1007.37
				132.47				
4	456	95.91						
			140.11					
			140.08					
			140.11		19.56	1515	165.62	1007.85
				95.94				
3	382	63.75						
			108.04					
			108.06					
			108.04		19.68	1516	165.56	1007.91
				63.75				
2	277	18.11						
			62.47					
			62.50					
			62.53		19.41	1518	165.64	1007.83
				18.15				
1	207	14.33						
			32.06					
			32.11					
			32.09		19.26	1520	165.80	1007.67
				14.36				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Well ID: MW-17
Project No: 00HW019
Probe Type: Westbay
Date: 4/3/01
Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1191.21
Weather: cloudy, cool

Ambient Readings	Start	Finish
Time	1100	1115
Pressure (psia)	14.15	14.17
Temperature (°C)	15.55	16.21

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	726	168.91						
			216.20					
			216.23					
			216.18		18.58	1105	259.86	931.35
				168.99				
4	582	106.42						
			157.08					
			157.05					
			157.08		19.07	1107	252.28	938.93
				106.39				
3	468	56.84						
			119.86					
			119.84					
			119.86		17.92	1109	224.14	967.07
				56.87				
2	370	14.35						
			84.26					
			84.29					
			84.26		17.09	1111	208.23	982.98
				14.33				
1	250	14.28						
			14.80					
			14.82					
			14.80		16.42	1113	248.49	942.72
				14.28				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena — Well ID: MW-18
Project No: 00HW019 — Probe Type: Westbay
Date: 4/3/01 — Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC — Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1225.41
Weather: cloudy, cool

Ambient Readings	Start	Finish
Time	1127	1142
Pressure (psia)	14.15	14.17
Temperature (°C)	15.58	17.17

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	684	146.23						
			191.95					
			191.92					
			191.93		18.90	1132	273.85	951.56
				146.22				
4	564	94.11						
			144.35					
			144.37					
			144.32		20.15	1134	263.64	961.77
				94.09				
3	424	33.31						
			93.59					
			93.62					
			93.56		19.41	1136	240.73	984.68
				33.34				
2	330	14.36						
			54.10					
			54.07					
			54.13		18.53	1138	237.84	987.57
				14.29				
1	270	14.29						
			28.73					
			28.76					
			28.71		17.72	1141	236.36	989.05
				14.27				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena — Well ID: MW-19
Project No: 00HW019 — Probe Type: Westbay
Date: 4/3/01 — Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC — Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1142.94
Weather: cloudy, cool

Ambient Readings	Start	Finish
Time	1231	1322
Pressure (psia)	14.26	14.28
Temperature (°C)	15.53	17.52

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	498	76.07						
			126.91					
			126.93					
			126.88		16.69	1235	238.12	904.82
				76.09				
4	444	52.56						
			105.08					
			105.10					
			105.13		18.02	1237	234.42	908.52
				52.55				
3	392	29.98						
			110.88					
			110.93					
			110.85		17.78	1239	169.08	973.86
				29.97				
2	314	14.39						
			78.16					
			78.18					
			78.21		18.16	1244	166.53	976.41
				14.38				
1	242	14.32						
			51.49					
			51.52					
			51.54		18.06	1321	156.05	986.89
				14.30				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena — Well ID: MW-20
Project No: 00HW019 — Probe Type: Westbay
Date: 4/3/01 — Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC — Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1165.05
Weather: cloudy, cool

Ambient Readings	Start	Finish
Time	1151	1211
Pressure (psia)	14.20	14.22
Temperature (°C)	16.74	17.65

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	900	260.82						
			319.13					
			319.16					
			319.14		20.26	1155	196.50	968.55
				260.78				
4	700	173.90						
			226.76					
			226.68					
			226.65		21.56	1159	209.77	955.28
				173.90				
3	562	114.76						
			170.15					
			170.12					
			170.15		20.54	1204	202.25	962.80
				113.87				
2	392	40.09						
			98.81					
			98.84					
			98.81		19.49	1207	196.78	968.27
				40.07				
1	230	14.29						
			28.00					
			28.02					
			27.97		18.11	1209	198.17	966.88
				14.32				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena — Well ID: MW-21
Project No: 00HW019 — Probe Type: Westbay
Date: 4/3/01 — Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC — Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1059.10
Weather: cloudy, cold

Ambient Readings	Start	Finish
Time	1420	1452
Pressure (psia)	14.34	14.32
Temperature (°C)	15.40	19.08

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	372	128.42						
			150.43					
			150.49					
			150.48		19.19	1424	57.96	1001.14
				128.52				
4	310	101.56						
			123.64					
			123.61					
			123.64		19.86	1446	57.87	1001.23
				101.53				
3	241	71.50						
			93.77					
			93.80					
			93.77		19.72	1448	57.73	1001.37
				71.53				
2	162	37.25						
			59.73					
			59.71					
			59.68		19.39	1450	57.34	1001.76
				37.22				
1	90	14.36						
			28.33					
			28.31					
			28.36		19.17	1451	57.72	1001.38
				14.39				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena — Well ID: MW-22
Project No: 00HW019 — Probe Type: Westbay
Date: 4/3/01 — Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC — Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1176.98
Weather: cloudy, cool

Ambient Readings	Start	Finish
Time	1532	1547
Pressure (psia)	14.19	14.25
Temperature (°C)	17.47	20.42

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	588	133.41						
			185.04					
			185.02					
			185.07		20.88	1537	193.84	983.14
				132.56				
4	467	80.09						
			135.98					
			136.04					
			136.01		21.41	1539	185.96	991.02
				80.01				
3	389	46.19						
			107.67					
			107.73					
			107.75		21.27	1542	173.23	1003.75
				46.21				
2	329	20.13						
			81.68					
			81.74					
			81.71		20.92	1544	173.23	1003.75
				20.16				
1	245	14.38						
			46.27					
			46.24					
			46.29		20.56	1545	171.00	1005.98
				14.35				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Well ID: MW-23
Project No: 00HW019
Probe Type: Westbay
Date: 4/3/01
Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1108.84
Weather: cloudy, cold

Ambient Readings	Start	Finish
Time	1810	1827
Pressure (psia)	14.26	14.25
Temperature (°C)	15.47	19.62

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	542	158.66						
			194.91					
			194.89					
			194.91		18.71	1814	125.26	983.58
				158.65				
4	445	116.58						
			153.03					
			153.06					
			153.03		20.03	1816	124.83	984.01
				116.50				
3	319	61.85						
			105.22					
			105.19					
			105.22		20.27	1819	109.18	999.66
				61.82				
2	254	33.62						
			77.40					
			77.40					
			77.38		19.97	1821	108.35	1000.49
				33.62				
1	174	14.36						
			45.18					
			45.15					
			45.18		19.60	1826	102.69	1006.15
				14.36				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Well ID: MW-24
Project No: 00HW019
Probe Type: Westbay
Date: 4/3/01
Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1200.94
Weather: cloudy, cold

Ambient Readings	Start	Finish
Time	1558	1614
Pressure (psia)	14.16	14.32
Temperature (°C)	17.91	21.09

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	678	167.18						
			205.51					
			205.54					
			205.51		19.82	1602	236.53	964.41
				167.18				
4	554	113.34						
			158.53					
			158.51					
			158.53		21.54	1607	220.95	979.99
				113.32				
3	435	61.66						
			114.63					
			114.65					
			114.60		21.55	1609	203.22	997.72
				61.66				
2	373	34.79						
			89.18					
			89.15					
			89.20		21.56	1610	199.94	1001.00
				34.76				
1	279	14.37						
			52.24					
			52.21					
			52.19		21.33	1612	191.21	1009.73
				14.37				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena — Well ID: MW-3
Project No: 00HW019 — Probe Type: Westbay
Date: 5/1/01 — Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC — Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1100.34
Weather: Sunny, warm

Ambient Readings	Start	Finish
Time	1132	1145
Pressure (psia)	14.38	14.31
Temperature (°C)	21.32	19.31

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	653	173.69						
			241.86					
			241.84					
			241.86		22.04	1135	128.22	972.12
				173.72				
4	558	133.51						
			202.34					
			202.37					
			202.31		21.56	1137	124.38	975.96
				133.48				
3	346	40.55						
			121.37					
			121.40					
			121.34		21.78	1140	99.17	1001.17
				40.55				
2	252	14.45						
			81.47					
			81.45					
			81.42		20.82	1141	97.28	1003.06
				14.43				
1	172	14.38						
			50.18					
			50.21					
			50.23		20.02	1143	89.35	1010.99
				14.36				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Well ID: MW-4
Project No: 00HW019
Probe Type: Westbay
Date: 5/1/01
Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1082.84
Weather: Sunny, warm

Ambient Readings	Start	Finish
Time	1037	1052
Pressure (psia)	14.39	14.36
Temperature (°C)	22.67	19.55

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	513	134.94						
			190.00					
			189.97					
			189.98		22.51	1042	107.91	974.93
				134.97				
4	392	82.36						
			147.99					
			148.02					
			147.97		22.28	1044	83.78	999.06
				82.39				
3	322	51.98						
			119.02					
			119.04					
			118.99		21.78	1046	80.63	1002.21
				51.99				
2	240	16.38						
			84.29					
			84.32					
			84.27		21.05	1048	78.73	1004.11
				16.36				
1	150	14.40						
			50.49					
			50.52					
			50.48		20.18	1050	66.70	1016.14
				14.43				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 00HW019
Date: 5/1/01
Personnel: PRJ/JNT
Datum: TOC
Elevation of Datum (ft. +MSL): 1139.30
Weather: Sunny, warm

Well ID: MW-11
Probe Type: Westbay
Serial No.: 1058
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	825	840
Pressure (psia)	14.36	14.23
Temperature (°C)	17.13	18.77

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	639	170.77						
			221.16					
			221.17					
			221.14		18.60	831	161.92	977.38
				170.80				
4	524	121.29						
			182.27					
			182.24					
			182.30		21.01	833	136.63	1002.67
				121.32				
3	429	81.63						
			141.50					
			141.47					
			141.44		20.15	835	135.76	1003.54
				80.43				
2	259	14.38						
			71.74					
			71.71					
			71.76		19.55	837	126.63	1012.67
				14.33				
1	149	14.28						
			33.70					
			33.68					
			33.65		19.00	838	104.44	1034.86
				14.34				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-12
Project No: 00HW019 Probe Type: Westbay
Date: 5/1/01 Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1102.14
Weather: Sunny, warm

Ambient Readings	Start	Finish
Time	1103	1121
Pressure (psia)	14.37	14.26
Temperature (°C)	21.55	18.46

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	548	132.85						
			198.67					
			198.68					
			198.72		21.70	1109	122.77	979.37
				132.87				
4	436	84.21						
			158.85					
			158.87					
			158.82		21.51	1111	102.69	999.45
				84.19				
3	323	35.08						
			112.09					
			112.11					
			112.06		20.30	1113	97.57	1004.57
				35.11				
2	243	14.41						
			78.42					
			78.47					
			78.45		18.99	1117	95.18	1006.96
				14.52				
1	140	14.31						
			40.46					
			40.48					
			40.52		18.70	1119	79.75	1022.39
				14.34				

SOTA Environmental Technology, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena — Well ID: MW-14
Project No: 00HW019 — Probe Type: Westbay
Date: 5/1/01 — Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC — Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1173.47
Weather: Sunny, warm

Ambient Readings	Start	Finish
Time	913	928
Pressure (psia)	14.30	14.28
Temperature (°C)	20.19	19.68

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	540	142.21						
			178.65					
			178.63					
			178.68		20.85	916	160.84	1012.63
				142.23				
4	456	105.71						
			142.23					
			142.21					
			142.18		21.10	919	160.92	1012.55
				105.71				
3	382	73.51						
			110.07					
			110.10					
			110.07		19.73	925	161.04	1012.43
				73.49				
2	277	27.93						
			64.58					
			64.66					
			64.64		20.55	921	160.90	1012.57
				27.91				
1	207	14.38						
			34.32					
			34.33					
			34.27		19.85	923	160.84	1012.63
				14.38				

SOTA Environmental Technology, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Well ID: MW-17
Project No: 00HW019
Probe Type: Westbay
Date: 5/1/01
Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1191.21
Weather: Sunny, warm

Ambient Readings	Start	Finish
Time	1242	1256
Pressure (psia)	14.32	14.22
Temperature (°C)	21.42	16.61

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	726	168.13						
			232.75					
			232.80					
			232.83		20.92	1246	221.98	969.23
				168.19				
4	582	105.66						
			172.01					
			171.98					
			171.95		20.54	1248	218.28	972.93
				105.66				
3	468	56.13						
			129.23					
			129.25					
			129.28		18.50	1251	202.85	988.36
				56.16				
2	370	14.37						
			90.01					
			90.03					
			89.98		17.59	1253	195.39	995.82
				14.40				
1	250	14.32						
			15.63					
			15.65					
			15.60		16.90	1255	246.99	944.22
				14.61				

SOTA Environmental Technology, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Well ID: MW-18
Project No: 00HW019
Probe Type: Westbay
Date: 5/1/01
Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1225.41
Weather: Sunny, warm

Ambient Readings	Start	Finish
Time	1215	1232
Pressure (psia)	14.28	14.19
Temperature (°C)	23.15	18.12

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	684	146.02						
			202.37					
			202.39					
			202.34		22.33	1221	250.08	975.33
				146.13				
4	564	94.06						
			153.59					
			153.62					
			153.64		21.87	1224	242.55	982.86
				94.04				
3	424	33.28						
			98.63					
			98.61					
			98.66		20.57	1226	229.40	996.01
				33.36				
2	330	14.33						
			57.85					
			57.83					
			57.80		19.28	1228	229.54	995.87
				14.36				
1	270	14.29						
			32.09					
			32.14					
			32.12		18.51	1229	228.85	996.56
				14.29				

SOTA Environmental Technology, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Well ID: MW-19
Project No: 00HW019
Probe Type: Westbay
Date: 5/1/01
Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1142.94
Weather: Sunny, warm

Ambient Readings	Start	Finish
Time	1335	1347
Pressure (psia)	14.32	14.29
Temperature (°C)	21.50	18.30

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	498	76.04						
			142.39					
			142.42					
			142.41		20.77	1337	202.50	940.44
				76.06				
4	444	52.66						
			120.61					
			120.65					
			120.58		20.02	1339	198.78	944.16
				52.66				
3	392	30.13						
			116.16					
			116.13					
			116.08		19.22	1341	157.14	985.80
				30.08				
2	314	14.42						
			82.75					
			82.70					
			82.73		18.89	1344	156.19	986.75
				14.39				
1	242	14.39						
			53.50					
			53.47					
			53.42		18.66	1346	151.70	991.24
				14.39				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-20
Project No: 00HW019 Probe Type: Westbay
Date: 5/1/01 Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1165.05
Weather: Sunny, warm

Ambient Readings	Start	Finish
Time	1306	1322
Pressure (psia)	14.28	14.24
Temperature (°C)	20.29	17.86

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	900	318.15						
			322.28					
			322.29					
			322.26		21.48	1310	189.45	975.60
				318.14				
4	700	231.45						
			234.00					
			233.97					
			233.98		22.15	1314	193.14	971.91
				231.45				
3	562	171.54						
			175.49					
			175.54					
			175.52		21.49	1316	190.03	975.02
				171.56				
2	392	97.90						
			102.45					
			102.47					
			102.50		19.78	1318	188.54	976.51
				97.87				
1	230	27.68						
			31.39					
			31.33					
			31.41		18.24	1320	190.56	974.49
				27.69				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Well ID: MW-21
Project No: 00HW019
Probe Type: Westbay
Date: 5/1/01
Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1059.10
Weather: Sunny, hot

Ambient Readings	Start	Finish
Time	1403	1416
Pressure (psia)	14.39	14.33
Temperature (°C)	22.11	19.47

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	372	128.43						
			152.25					
			152.28					
			152.31		21.67	1405	53.89	1005.21
				128.40				
4	310	101.46						
			125.47					
			125.45					
			125.42		21.30	1407	53.79	1005.31
				101.48				
3	240	72.34						
			95.60					
			95.66					
			95.63		20.24	1410	52.58	1006.52
				71.48				
2	161	37.17						
			61.56					
			61.61					
			61.59		19.80	1412	52.12	1006.98
				37.15				
1	90	14.38						
			30.55					
			30.52					
			30.57		19.51	1415	52.73	1006.37
				14.36				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena — Well ID: MW-22
Project No: 00HW019 — Probe Type: Westbay
Date: 5/1/01 — Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC — Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1176.98
Weather: Sunny, warm

Ambient Readings	Start	Finish
Time	937	947
Pressure (psia)	14.30	14.27
Temperature (°C)	20.73	20.70

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	588	132.43						
			192.22					
			192.25					
			192.22		21.36	940	177.52	999.46
				132.38				
4	467	79.88						
			141.61					
			141.63					
			141.66		21.71	941	173.24	1003.74
				79.93				
3	389	45.98						
			110.65					
			110.63					
			110.60		21.55	943	166.77	1010.21
				46.05				
2	329	20.03						
			84.66					
			84.63					
			84.69		21.28	945	166.68	1010.30
				20.03				
1	245	14.40						
			48.72					
			48.77					
			48.74		20.94	946	165.54	1011.44
				14.40				

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-23
Project No: 00HW019 Probe Type: Westbay
Date: 5/1/01 Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1108.84
Weather: Sunny, warm

Ambient Readings	Start	Finish
Time	852	902
Pressure (psia)	14.31	14.33
Temperature (°C)	18.49	19.99

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	542	158.86						
			201.66					
			201.64					
			201.61		20.06	855	109.84	999.00
				158.89				
4	445	116.79						
			159.78					
			159.73					
			159.76		20.77	856	109.45	999.39
				116.77				
3	319	62.05						
			108.54					
			108.56					
			108.59		20.73	858	101.56	1007.28
				62.05				
2	254	33.85						
			80.56					
			80.59					
			80.53		20.51	859	101.16	1007.68
				33.88				
1	174	14.38						
			47.34					
			47.29					
			47.31		20.15	901	97.86	1010.98
				14.41				

SOTA Environmental Technology, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Well ID: MW-24
Project No: 00HW019
Probe Type: Westbay
Date: 5/1/01
Serial No.: 1058
Personnel: PRJ/JNT
Datum: TOC
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. +MSL): 1200.94
Weather: Sunny, warm

Ambient Readings	Start	Finish
Time	1005	1021
Pressure (psia)	14.32	14.29
Temperature (°C)	21.96	21.14

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings: Inside Casing (psia)	Fluid Pressure Readings: Outside Casing (psia)	Fluid Pressure Readings: Inside Casing (psia)	Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
5	678	167.01						
			216.59					
			216.62					
			216.59		22.15	1009	211.34	989.60
				167.07				
4	554	113.24						
			166.15					
			166.18					
			166.12		22.10	1011	203.73	997.21
				113.24				
3	435	61.63						
			118.34					
			118.36					
			118.34		21.96	1014	195.01	1005.93
				61.61				
2	373	34.73						
			92.39					
			92.34					
			92.36		21.87	1016	192.95	1007.99
				34.71				
1	279	14.42						
			54.33					
			54.35					
			54.30		21.54	1018	186.70	1014.24
				14.42				

Laboratory Reports

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

April 23, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-2898 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-012898
Collected by:
Collected on: 04/06/01

Received: 04/06/01
Extracted: N/A
Tested: 04/06-11/01
Reported: 04/12/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-3 01-02898-1	MW-3-2 01-02898-2	MW-3-3 01-02898-3
Dilution Factor				1	1	1
Perchlorate	314	µg/L	4	<4	<4	13
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Butanone	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	8.0
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	<0.5	17.0
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-3 01-02898-1	MW-3-2 01-02898-2	MW-3-3 01-02898-3
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	0.5	0.5J	0.4J
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	0.3J
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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Component Analyzed	Method	Unit	PQL	Analysis Result MW-3-4 01-02898-4	MW-3-5 01-02898-5	Trip Blank 01-02898-6
Dilution Factor				1	1	1
Perchlorate	314	µg/L	4	<4	<4	-
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	-	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	-	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	-	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	-	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	-	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
2-Butanone	524.2	µg/L	0.5	<0.5	-	<0.5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	-	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	-	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	-	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	-	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	-	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	-	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	-	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	-	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	-	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	-	<0.5

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Component Analyzed	Method	Unit	PQL	Analysis Result MW-3-4 01-02898-4	MW-3-5 01-02898-5	Trip Blank 01-02898-6
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	-	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	-	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	-	1.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	-	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	-	<5
Naphthalene	524.2	µg/L	0.5	<0.5	-	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Styrene	524.2	µg/L	0.5	<0.5	-	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
Toluene	524.2	µg/L	0.5	<0.5	-	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	-	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	-	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	-	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result ER-3 01-02898-1	MW-3-2 01-02898-2	MW-3-3 01-02898-3	MW-3-4 01-02898-4
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	<0.01

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

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Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-0810 Fax #: 858 485-0812

Address: 16835 W. BERNARDO DR. 212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job #00HW019 P.O. #

Project Address APCL Quotation #

Due Date: [X] Regular [ ] rush: ____ days ____ hours Sampled by:

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	Analysis Items: VOL 524.2	TOTAL Cr 200.8	Cr VI 7196	PERCHLORATE EPA 314	Remarks
	MW-3-5	4/6	1040	H_2O	PER LAB	1				X	
	MW-3-4	4/6	1100	H_2O	PER LAB	5	X	X	X	X	QA/QC
	MW-3-3	4/6	1145	H_2O	PER LAB	5	X	X	X	X	REQUIREMENT
	MW-3-2	4/6	1210	H_2O	PER LAB	5	X	X	X	X	EPA LEVEL
	ER-3	4/6	1230	H_2O	PER LAB	5	X	X	X	X	IV (D)
	TRIP BLANK	4/6	—	H_2O	HCl	2	X				

2898

QC Requirement: [ ] Regular; [ ] QA/QC Report; [ ] WIP; [ ] Raw Data; [ ] Extended Raw Data [ ] CLP; [ ] ACE [ ] AFCEE [ ] NEESA ___ (E, C or D); [ ] Other _____ (Please specify)

Sample Disposal: [ ] Return [ ] Disposal by APCL [ ] Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: [X] Intact; [ ] Broken. Cooler Seal: [ ] Intact; [ ] Broken; [ ] None . Tag # _____ Temperature: [ ] Room [ ] Cold (_____ °C).

Relinquished by [signature] Date/Time 4/6/01 / 1450 Received by [signature] Date/Time 4/6/01 /1450

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Applied P & Ch Laboratory
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APCL Analytical Report

April 23, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-2877 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-012877
Collected by:
Collected on: 04/04/01

Received: 04/04/01
Extracted: N/A
Tested: 04/05-11/01
Reported: 04/12/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-4 01-02877-1	Analysis Result MW-4-1 01-02877-2
Dilution Factor				1	1
Perchlorate	314	µg/L	4	<4	<4
Volatile Organic Compounds					
Dilution Factor				1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	0.5	<0.5	<0.5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	0.3J	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-4 01-02877-1	Analysis Result MW-4-1 01-02877-2
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-4-2 01-02877-3	MW-4-3 01-02877-4	Trip Blank 01-02877-7
Dilution Factor				1	1	1
Perchlorate	314	µg/L	4	13	<4	-
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	524.2	µg/L	0.5	0.3J	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	0.6	<0.5	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	0.5J	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-4-2 01-02877-3	MW-4-3 01-02877-4	Trip Blank 01-02877-7
Ethylbenzene	524.2	µg/L	0.5	<0.5	0.6	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	0.4J	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	1.1	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result ER-4 01-02877-1	MW-4-1 01-02877-2	MW-4-2 01-02877-3
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-4-3 01-02877-4	MW-4-4 01-02877-5	MW-4-5 01-02877-6
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-8100 Fax #: 858 485-0812

Address: 16835 W. BERNARDO #212 City: SAN DIEGO State: CA. Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job #00HW019 P.O. #

Project Address APCL Quotation #

Due Date: [X] regular [ ] rush: ___ days ___ hours Sampled by:

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	Analysis Items: VOC 524.2	TOTAL Cr 200.8	Cr VI 7196	PESTICIDES EPA 3511	Remarks
	MW-4-5	4/4	1150	H_2O	PER LAB	2		X	X		
	MW-4-4	4/4	1230	H_2O	PER LAB	2		X	X		QA/QC
	MW-4-3	4/4	1310	H_2O	PER LAB	5	X	X	X	X	REQUIREMENT
	MW-4-2	4/4	1330	H_2O	PER LAB	5	X	X	X	X	EPA LEVEL
	MW-4-1	4/4	1415	H_2O	PER LAB	5	X	X	X	X	IV (D)
	ER-4	4/4	1300	H_2O	PER LAB	5	X	X	X	X	
	TRIP BLANK	4/4	—	H_2O	HCl	2	X				

2877

White – With report
Yellow – Lab copy
Pink – Originator

QC Requirement: [ ] Regular; [ ] QA/QC Report; [ ] WIP; [ ] Raw Data; [ ] Extended Raw Data [ ] CLP; [ ] ACE [ ] AFCEE [ ] NEESA ___ (E, C or D); [ ] Other _____ (Please specify)

Sample Disposal: [ ] Return [ ] Disposal by APCL [ ] Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: [ ] Intact; [X] Broken. Cooler Seal: [ ] Intact; [ ] Broken; [ ] None. Tag # _____ Temperature: [ ] Room [ ] Cold (_____ °C).

Relinquished by Paul Jeffers Date/Time 4/4/01 / 1700 Received by Roy Aguilo 4/4/01 Date/Time 17:00 /

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right [illegible] delivery of any reports. In APCL's sole discretion the terms of the project have been broken.

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

May 10, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-3206 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-013206
Collected by:
Collected on: 04/25/01

Received: 04/25/01
Extracted: N/A
Tested: 04/26-05/03/01
Reported: 05/07/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-11 01-03206-1	MW-11-1 01-03206-2	MW-11-2 01-03206-3
Dilution Factor				1	1	1
Perchlorate	314	µg/L	4	<4	<4	<4
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	5	3J	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	0.4J
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	<0.5	0.6
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-11 01-03206-1	MW-11-1 01-03206-2	MW-11-2 01-03206-3
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	0.5	0.6
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	2.7	1.2
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	0.4J	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result MW-11-3 01-03206-4	MW-11-4 01-03206-5	Trip Blank 01-03206-6
Dilution Factor				1	1	1
Perchlorate	314	µg/L	4	<4	<4	-
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	5	<5	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Applied P & Ch Laboratory
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Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-11-3 01-03206-4	MW-11-4 01-03206-5	Trip Blank 01-03206-6
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	1.3	1.2	2.8
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result ER-11 01-03206-1	MW-11-1 01-03206-2	MW-11-2 01-03206-3	MW-11-3 01-03206-4
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	<0.01

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
† All results are reported on dry basis for soil samples.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-8100 Fax #: 858 485-0812

Address: 16835 W. BERNARDO #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job # 00HW019 P.O. #

Project Address APCL Quotation #

Due Date: [X] regular [ ] rush: ___ days ___ hours Sampled by:

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	Analysis Items: VOC 524.2	TOTAL Cr 200.8	Cr VI 7196	PERCHLORATE EPA 314	Remarks
	MW-11-4	4/25	1125	H_2O	PER LAB	4	X			X	QA/QC
	MW-11-3	4/25	1145	H_2O	PER LAB	5	X	X	X	X	REQUIREMENT
	MW-11-2	4/25	1300	H_2O	PER LAB	5	X	X	X	X	EPA LEVEL
	MW-11-1	4/25	1330	H_2O	PER LAB	5	X	X	X	X	IV (D)
	ER-11	4/25	1200	H_2O	PER LAB	5	X	X	X	X	
	TRIP BLANK	4/25	—	H_2O	HCl	2	X				

3206

White – With report
Yellow – Lab copy
Pink – Originator

QC Requirement: [ ] Regular; [ ] QA/QC Report; [ ] WIP; [ ] Raw Data; [ ] Extended Raw Data [ ] CLP; [ ] ACE [ ] AFCEE [ ] NEESA ___ (E, C or D); [ ] Other _____ (Please specify)

Sample Disposal: [ ] Return [ ] Disposal by APCL [ ] Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: [ ] Intact; [ ] Broken. Cooler Seal: [ ] Intact; [ ] Broken; [ ] None. Tag # _____ Temperature: [ ] Room [ ] Cold (_____ °C).

Relinquished by Paul Jeffers Date/Time 4/25/01/1600 Received by Roy Agatep Date/Time 4-25-01/4:00

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

... proposals, quotations for this project, and/or th... ...eral terms provided in the current APCL price schedules will be followed. APCL reserves the right ... terms of the project have been broken.

... DATA_LAB\CHAIN_ROOT.TEX File:[CUST.DATA.L...CHAIN4.TEX

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

May 10, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-3252 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-013252
Collected by:
Collected on: 04/26/01

Received: 04/26/01
Extracted: N/A
Tested: 04/27-05/04/01
Reported: 05/07/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-12 01-03252-1	Field Blank 01-03252-2	MW-12-1 01-03252-3	MW-12-2 01-03252-4
Dilution Factor				1	1	1	1
Perchlorate	314	µg/L	4	<4	-	<4	<4
Volatile Organic Compounds							
Dilution Factor				1	1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Butanone	524.2	µg/L	5	4J	<5	<5	<5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	0.3J
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

Applied P & Ch Laboratory
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Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-12 01-03252-1	Field Blank 01-03252-2	MW-12-1 01-03252-3	MW-12-2 01-03252-4
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.69 [a]	<0.69	3.6	4.0	3.8
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-12-3 01-03252-5	MW-12-4 01-03252-6	MW-12-5 01-03252-7	Trip Blank 01-03252-8
Dilution Factor				1	1	1	1
Perchlorate	314	µg/L	4	4	6	<4	-
Volatile Organic Compounds							
Dilution Factor				1	1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Butanone	524.2	µg/L	5	<5	<5	<5	6
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	524.2	µg/L	0.5	10.2	4.2	2.0	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	2.1	1.5	0.8	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-12-3 01-03252-5	MW-12-4 01-03252-6	MW-12-5 01-03252-7	Trip Blank 01-03252-8
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.69 (a)	3.6	3.1	3.0	6.2
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	0.6	0.9	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result ER-12 01-03252-1	MW-12-1 01-03252-3	MW-12-2 01-03252-4	MW-12-3 01-03252-5
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	<0.01

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
† All results are reported on dry basis for soil samples.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0
(a) MDL reported.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-8100 Fax #: 858 485-0812

Address: 16835 W. BERNARDO DR. #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job #001W019 P.O. #

Project Address APCL Quotation #

Due Date: [X] regular [ ] rush: ____ days ____ hours Sampled by:

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOC 524.2	TOTAL Cr 200.8	Cr VI 7196	Perchlorate EPA 314	Remarks
	MW-12-5	4/26	1130	H_2O	PER LAB	4	X			X	QA/QC
	MW-12-4	4/26	1155	H_2O	PER LAB	4	X			X	REQUIREMENT
	MW-12-3	4/26	1220	H_2O	PER LAB	5	X	X	X	X	EPA LEVEL
	MW-12-2	4/26	1250	H_2O	PER LAB	5	X	X	X	X	IV (D)
	MW-12-1	4/26	1310	H_2O	PER LAB	5	X	X	X	X	
	ER-12	4/26	1305	H_2O	PER LAB	5	X	X	X	X	
	TRIP BLANK	4/26	—	H_2O	HCl	2	X				
	FIELD BLANK	4/26	1320	H_2O	HCl	2	X				

Analysis Items

White – With report
Yellow – Lab copy
Pink – Originator

3252

QC Requirement: [ ] Regular; [ ] QA/QC Report; [ ] WIP; [ ] Raw Data; [ ] Extended Raw Data [ ] CLP; [ ] ACE [ ] AFCEE [ ] NEESA ___ (E, C or D); [ ] Other _____ (Please specify)

Sample Disposal: [ ] Return [ ] Disposal by APCL [ ] Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: [ ] Intact; [ ] Broken. Cooler Seal: [ ] Intact; [ ] Broken; [ ] None. Tag # _____ Temperature: [ ] Room [ ] Cold (_____ °C).

Relinquished by [signature] Date/Time 4/26/01 / 1706 Received by [signature] Date/Time 4/26/01 / 1705

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients under that all terms described in the proposals, quotations for this project, and/or the l terms provided in the current APCL price schedules will be followed. APCL res the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of t roject have been broken.

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

April 30, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-3059 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-013059
Collected by:
Collected on: 04/17/01

Received: 04/17/01
Extracted: N/A
Tested: 04/18-24/01
Reported: 04/26/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-14 01-03059-1	MW-14-1 01-03059-2	MW-14-2 01-03059-3	MW-14-3 01-03059-4
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	<0.01
Dilution Factor				1	1	1	1
Perchlorate	314	µg/L	4	<4	<4	<4	<4
Volatile Organic Compounds							
Dilution Factor				1	1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Butanone	524.2	µg/L	5	<5	<5	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	0.4J	0.5	0.4J
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	0.7	0.7	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

Applied P & Ch Laboratory
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Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-14 01-03059-1	MW-14-1 01-03059-2	MW-14-2 01-03059-3	MW-14-3 01-03059-4
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	0.7	0.9	0.3J
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5	4.2	0.7
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-14-4 01-03059-5	MW-14-5 01-03059-6	MW-14-1D 01-03059-7	Trip Blank 01-03059-8
Chromium (VI)	7196	mg/L	0.01	<0.01	-	<0.01	-
Dilution Factor				1	1	1	1
Perchlorate	314	µg/L	4	<4	<4	<4	-
Volatile Organic Compounds							
Dilution Factor				1	1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Butanone	524.2	µg/L	5	<5	<5	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	<0.5	0.4J	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	0.6	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-14-4 01-03059-5	MW-14-5 01-03059-6	MW-14-1D 01-03059-7	Trip Blank 01-03059-8
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	0.6	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-8100 Fax #: 858 485-0812

Address: 16835 W. BERNARDO #212 City: SAN DIEGO State: CA. Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job #00WN019 P.O. #

Project Address APCL Quotation #

Due Date: X regular ☐ rush: ___ days ___ hours Sampled by:

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOC 524.2	Total O 200.8	O III 7196	Perchlorate EPA 314	MS/MSD	Remarks
	MW-14-5	4/17	1352	H_2O	PEELAB	4	X			X		QA/QC
	MW-14-4	4/17	1420	H_2O	PEELAB	5	X	X	X	X		REQUIREMENT
	MW-14-3	4/17	1455	H_2O	PEELAB	5	X	X	X	X		EPA LEVEL
	MW-14-2	4/17	1520	H_2O	PEELAB	10	X	X	X	X	X	IV (D)
	MW-14-1	4/17	1630	H_2O	PEELAB	5	X	X	X	X		
	MW-14-10	4/17	1645	H_2O	PEELAB	5	X	X	X	X		
	ER-14	4/17	1530	H_2O	PEELAB	5	X	X	X	X		
	TRIP BLANK	4/17	—	H_2O	HCl	2	X					

3059

White – With report
Yellow – Lab copy
Pink – Originator

QC Requirement: ☐Regular; ☐QA/QC Report; ☐WIP; ☐Raw Data; ☐Extended Raw Data ☐CLP; ☐ACE ☐AFCEE ☐NEESA ___ (E, C or D); ☐Other _____ (Please specify)

Sample Disposal: ☐Return ☐Disposal by APCL ☐Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐Intact; ☒Broken. Cooler Seal: ☐Intact; ☐Broken; ☐None. Tag # _____ Temperature: ☐Room ☐Cold (_____ °C).

Relinquished by [signature] Date/Time 4/17/01 / 1730 Received by [signature] Date/Time 4-17-01/1730

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients und[illegible]d that all terms described in the proposals, quotations for this project, and/or th[illegible]eral terms provided in the current APCL price schedules will be followed. APCL r[illegible]s the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms o[illegible] project have been broken.

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

April 23, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-2883 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-012883
Collected by:
Collected on: 04/05/01

Received: 04/05/01
Extracted: N/A
Tested: 04/06-11/01
Reported: 04/12/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-17 01-02883-1	MW-17-2 01-02883-2	MW-17-3 01-02883-3
Dilution Factor				1	1	1
Perchlorate	314	µg/L	4	<4	<4	5
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	0.4J
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	0.4J	2.3
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-17 01-02883-1	MW-17-2 01-02883-2	MW-17-3 01-02883-3
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Pentanone (MIBK)	524.2	µg/L	5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-17-4 01-02883-4	MW-17-5 01-02883-5	MW-17-2D 01-02883-6	Trip Blank 01-02883-7
Dilution Factor				1	1	1	1
Perchlorate	314	µg/L	4	12	19	<4	-
Volatile Organic Compounds							
Dilution Factor				1	1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	0.8	1.2	0.4J	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-17-4 01-02883-4	MW-17-5 01-02883-5	MW-17-2D 01-02883-6	Trip Blank 01-02883-7
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	0.4J	0.4J	<0.5	0.8
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1	<1
4-Methyl-2-Pentanone (MIBK)	524.2	µg/L	5	<5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	0.4J	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	3.0	5.7	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result ER-17 01-02883-1	MW-17-2 01-02883-2
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-17-3 01-02883-3	MW-17-4 01-02883-4	MW-17-2D 01-02883-6
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

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Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-8100 Fax #: 858 485-0812

Address: 16835 W. BERNARDO #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job # P.O. #

Project Address APCL Quotation #

Due Date: [X] regular [ ] rush: ___ days ___ hours Sampled by:

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	Analysis Items: VOC 524.2	Total Cr 200.8	Cr VI 7196	Perchlorate EPA 314	MS / MSD	Remarks
	MW-17-5	4/5	1025	H_2O	PERLAB	4	X			X		QA/QC
	MW-17-4	4/5	1135	H_2O	PERLAB	5	X	X	X	X		REQUIREMENT
	MW-17-3	4/5	1225	H_2O	PERLAB	10	X	X	X	X	X	EPA LEVEL
	MW-17-2	4/5	1500	H_2O	PERLAB	5	X	X	X	X		IV (D)
	MW-17-2D	4/5	1515	H_2O	PERLAB	5	X	X	X	X		
	ER-17	4/5	1210	H_2O	PERLAB	5	X	X	X	X		
	TRIP BLANK	4/5	—	H_2O	HCl	2	X					

2883

White – With report
Yellow – Lab copy
Pink – Originator

QC Requirement: [ ] Regular; [ ] QA/QC Report; [ ] WIP; [ ] Raw Data; [ ] Extended Raw Data [ ] CLP; [ ] ACE [ ] AFCEE [ ] NEESA ___ (E, C or D); [ ] Other _____ (Please specify)

Sample Disposal: [ ] Return [ ] Disposal by APCL [ ] Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: [X] Intact; [ ] Broken. Cooler Seal: [ ] Intact; [ ] Broken; [ ] None. Tag # _____ Temperature: [ ] Room [ ] Cold (____ °C).

Relinquished by [signature] Date/Time 4/5/01 / 1600 Received by [signature] Date/Time 4/5/01 1600

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

April 20, 2001

SCTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-3025 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
Q.A/Q.C Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-013025
Collected by:
Collected on: 04/13/01

Received: 04/13/01
Extracted: N/A
Tested: 04/13-16/01
Reported: 04/17/01

Sample Description: Water
Project Description: OOHW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-18 01-03025-1	MW-18-2 01-03025-2	MW-18-3 01-03025-3
Perchlorate	314	µg/L	4	< 4	< 4	< 4
Chromium (VI)	7196	mg/L	0.01	< 0.01	< 0.01	< 0.01
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
Bromobenzene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	524.2	µg/L	0.5	< 0.5	0.4J	< 0.5
Bromoform	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
Bromomethane	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
tert-Butylbenzene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
Carbon tetrachloride	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
Chlorodibromomethane	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
Chloroethane	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
Chloroform	524.2	µg/L	0.5	< 0.5	1.2	1.9
Chloromethane	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethane	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	< 0.5	< 0.5	< 0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-18 01-03025-1	MW-18-2 01-03025-2	MW-18-3 01-03025-3
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5	0.6
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-18-4 01-03025-4	MW-18-5 01-03025-5	Trip Blank 01-03025-6
Perchlorate	314	µg/L	4	29	<4	-
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	-
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	524.2	µg/L	0.5	2.6	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	1	<0.5	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-18-4 01-03025-4	MW-18-5 01-03025-5	Trip Blank 01-03025-6
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	1.9	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	1.5	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

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Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-8100 Fax #: 858 485-0812

Address: 16835 W. BERNARDO #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job #00NW019 P.O. #

Project Address APCL Quotation #

Due Date: [X] regular [ ] rush: ___ days ___ hours Sampled by:

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	Analysis Items: VOC 524.2	TOTAL Cr 200.8	Cr VI 7196	Perchlorate EPA 314	Remarks
	MW-18-5	4/13	1040	H_2O	PER LAB	4	X			X	QA/QC
	MW-18-4	4/13	1120	H_2O	PER LAB	5	X	X	X	X	REQUIREMENT
	MW-18-3	4/13	1155	H_2O	PER LAB	5	X	X	X	X	EPA LEVEL
	MW-18-2	4/13		H_2O	PER LAB	5	X	X	X	X	IV (D)
	ER-18	4/13	1130	H_2O	PER LAB	5	X	X	X	X	
	TRIP BLANK	4/13	—	H_2O	HCl	2	X				

White – With report
Yellow – Lab copy
Pink – Originator

3025

QC Requirement: [ ] Regular; [ ] QA/QC Report; [ ] WIP; [ ] Raw Data; [ ] Extended Raw Data [ ] CLP; [ ] ACE [ ] AFCEE [ ] NEESA ___ (E, C or D); [ ] Other _____ (Please specify)

Sample Disposal: [ ] Return [ ] Disposal by APCL [ ] Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: [ ] Intact; [ ] Broken. Cooler Seal: [ ] Intact; [ ] Broken; [ ] None. Tag # _____ Temperature: [ ] Room [ ] Cold (_____ °C).

Relinquished by Paul [signature] Date/Time 4/13/01 / 1425 Received by Mark A. [signature] Date/Time 4/13/01 / 1425

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the [illegible] al terms provided in the current APCL price schedules will be followed. APCL re[illegible] the right [illegible] delivery of any reports if in APCL's sole discretion the terms of the project have been broken.

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

April 20, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-3000 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-013000
Collected by:
Collected on: 04/12/01

Received: 04/12/01
Extracted: N/A
Tested: 04/13/01
Reported: 04/17/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-19 01-03000-1	MW-19-1 01-03000-2	MW-19-2 01-03000-3
Perchlorate	314	µg/L	4	<4	<4	<4
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	<0.5	0.4J
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-19 01-03000-1	MW-19-1 01-03000-2	MW-19-2 01-03000-3
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	0.5J
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5	1.2
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-19-3 01-03000-4	MW-19-4 01-03000-5	MW-19-5 01-03000-6	Trip Blank 01-03000-7
Perchlorate	314	µg/L	4	<4	<4	<4	-
Volatile Organic Compounds							
Dilution Factor				1	1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	0.3J	2.0	<0.5	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	0.3J	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	0.3J	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-19-3 01-03000-4	MW-19-4 01-03000-5	MW-19-5 01-03000-6	Trip Blank 01-03000-7
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	1.2	<0.5	2.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	0.5	<0.5	0.4J	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-8100 Fax #: 858 485-8812

Address: 16835 N. BERNARDO DR. City: SAN DIEGO State: CA. Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job # 00HW019 P.O. #

Project Address APCL Quotation #

Due Date: [X] Regular [ ] rush: ___ days ___ hours Sampled by:

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	Analysis Items: VOC 524.2	Analysis Items: PERCHLORATE EPA 314	Remarks
	MW-19-5	4/12	1010	H_2O	PER LAB	4	X	X	QA/QC
	MW-19-4	4/12	1130	H_2O	PER LAB	4	X	X	REQUIREMENT
	MW-19-3	4/12	1240	H_2O	PER LAB	4	X	X	EPA LEVEL
	MW-19-2	4/12	1300	H_2O	PER LAB	4	X	X	IV (D)
	MW-19-1	4/12	1340	H_2O	PER LAB	4	X	X	
	ER-19	4/12	1245	H_2O	PER LAB	4	X	X	
	TRIP BLANK	4/12	—	H_2O	HCl	2	X		

3000

QC Requirement: [ ] Regular; [ ] QA/QC Report; [ ] WIP; [ ] Raw Data; [ ] Extended Raw Data [ ] CLP; [ ] ACE [ ] AFCEE [ ] NEESA ___ (E, C or D); [ ] Other _____ (Please specify)

Sample Disposal: [ ] Return [ ] Disposal by APCL [ ] Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: [ ] Intact; [ ] Broken Cooler Seal: [ ] Intact; [ ] Broken; [ ] None. Tag # _____ Temperature: [ ] Room [ ] Cold (____ °C).

Relinquished by [signature] Date/Time 4/12/01 / 1725 Received by [signature] Date/Time 4-12-01 / 1725

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or general terms provided in the current APCL price schedules will be followed. APCL reserves the right to withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

[CUST.DATA.LAB]CHAIN-ROOT.TEX File:[CUST.DATA.LAB]CHAIN4.TEX

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

May 02, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-3176 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-013111
Collected by:
Collected on: 04/19/01

Received: 04/19/01
Extracted: N/A
Tested: 04/20-25/01
Reported: 04/27/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-20 01-03111-1	MW-20-1 01-03111-2	MW-20-2 01-03111-3
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01
Dilution Factor				1	1	1
Perchlorate	314	µg/L	4	<4	<4	<4
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	0.4J
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	5	<5	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	0.9	2.9
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-20 01-03111-1	MW-20-1 01-03111-2	MW-20-2 01-03111-3
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Butanone	524.2	µg/L	5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-20-3 01-03111-4	MW-20-4 01-03111-5	MW-20-5 01-03111-6	Trip Blank 01-03111-7
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	-
Dilution Factor				1	1	1	1
Perchlorate	314	µg/L	4	<4	<4	<4	-
Volatile Organic Compounds							
Dilution Factor				1	1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	5	<5	<5	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

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13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-20-3 01-03111-4	MW-20-4 01-03111-5	MW-20-5 01-03111-6	Trip Blank 01-03111-7
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	0.9
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1	<1
4-Methyl-2-Butanone	524.2	µg/L	5	<5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
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Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-8100 Fax #: 858 485-0812

Address: 16835 N. BERNARDO #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job #001W019 P.O. #

Project Address APCL Quotation #

Due Date: [X] Regular [ ] rush: ___ days ___ hours Sampled by:

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOC 524.2	Total Cr 200.8	Cr VI 7196	Pesticides/PCB's EPA 3111	Remarks
	MW-20-5	4/19	1130	H_2O	PER LAB	5	X	X	X	X	QA/QC
	MW-20-4	4/19	1215	H_2O	PER LAB	5	X	X	X	X	REQUIREMENT
	MW-20-3	4/19	1300	H_2O	PER LAB	5	X	X	X	X	EPA LEVEL
	MW-20-2	4/19	1425	H_2O	PER LAB	5	X	X	X	X	IV (D)
	MW-20-1	4/19	1500	H_2O	PER LAB	5	X	X	X	X	
	ER-20	4/19	1200	H_2O	PER LAB	5	X	X	X	X	
	TRIP BLANK	4/19	—	H_2O	HCl	2	X				

3111

White – With report
Yellow – Lab copy
Pink – Originator

QC Requirement: [ ] Regular; [ ] QA/QC Report; [ ] WIP; [ ] Raw Data; [ ] Extended Raw Data [ ] CLP; [ ] ACE [ ] AFCEE [ ] NEESA ___ (E, C or D); [ ] Other _____ (Please specify)

Sample Disposal: [ ] Return [ ] Disposal by APCL [ ] Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: [ ] Intact; [ ] Broken. Cooler Seal: [ ] Intact; [ ] Broken; [ ] None. Tag # _____ Temperature: [ ] Room [ ] Cold (_____ °C).

Relinquished by [signature] Date/Time 4/19/01 / 1700 Received by [signature] Date/Time 4-19-01 / 1700

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients u[illegible] and that all terms described in the proposals, quotations for this project, and/or [illegible]neral terms provided in the current APCL price schedules will be followed. APCL [illegible]es the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms o[illegible]ne project have been broken.

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

May 02, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-3129 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-013129
Collected by:
Collected on: 04/20/01

Received: 04/20/01
Extracted: N/A
Tested: 04/24/01
Reported: 04/26/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-21 01-03129-1	MW-21-1 01-03129-2	MW-21-2 01-03129-3
Dilution Factor				1	1	1
Perchlorate	314	µg/L	4	<4	<4	<4
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	5	<5	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	1.2	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	0.7	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Applied P & Ch Laboratory
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Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-21-3 01-03129-4	MW-21-4 01-03129-5	MW-21-5 01-03129-6	Trip Blank 01-03129-7
Dilution Factor				1	1	1	1
Perchlorate	314	µg/L	4	<4	<4	<4	-
Volatile Organic Compounds							
Dilution Factor				1	1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	0.4J	<0.5	0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	5	<5	<5	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	0.4J	<0.5	0.4J	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	0.8	1.0	1.4	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	0.7	2.3	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	0.7	2.3	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	0.3J	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-21 01-03129-1	MW-21-1 01-03129-2	MW-21-2 01-03129-3
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	0.3J	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Butanone	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	0.6	0.9
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	3.3	0.3J
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-21-3 01-03129-4	MW-21-4 01-03129-5	MW-21-5 01-03129-6	Trip Blank 01-03129-7
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	0.6	0.4J	0.8
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1	<1
4-Methyl-2-Butanone	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	1.4	3.8	12.4	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	1.8	<0.5	0.7	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-8100 Fax #: 858 485-0812

Address: 16835 W BERNARDO #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job # 00NW019 P.O. #

Project Address APCL Quotation #

Due Date: [X] regular [ ] rush: ___ days ___ hours Sampled by:

Field Sample ID No.	Sample Description	Date Collected	Time	Sample Matrix	Preservation	# of Containers	Analysis Items: VOC 524.2	Analysis Items: PERCHLORATE EPA 314
	MW-21-5	4/20	1040	N_2O	PER LAB	4	X	X
	MW-21-4	4/20	1110	N_2O	PER LAB	4	X	X
	MW-21-3	4/20	1140	N_2O	PER LAB	4	X	X
	MW-21-2	4/20	1200	N_2O	PER LAB	4	X	X
	MW-21-1	4/20	1220	N_2O	PER LAB	4	X	X
	ER-21	4/20	1230	N_2O	PER LAB	4	X	X
	TRIP BLANK	4/20	—	N_2O	HCl	2	X	

3129

White – With report
Yellow – Lab copy
Pink – Originator

Remarks: QA/QC REQUIREMENT EPA LEVEL IV (D)

QC Requirement: [ ] Regular; [ ] QA/QC Report; [ ] WIP; [ ] Raw Data; [ ] Extended Raw Data [ ] CLP; [ ] ACE [ ] AFCEE [ ] NEESA ___ (E, C or D); [ ] Other _____ (Please specify)

Sample Disposal: [ ] Return [ ] Disposal by APCL [ ] Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: [ ] Intact; [ ] Broken. Cooler Seal: [ ] Intact; [ ] Broken; [ ] None. Tag # _____ Temperature: [ ] Room [ ] Cold (_____ °C).

Relinquished by Paul Jeffers Date/Time 4/20/01 / 1405 Received by Paul C Date/Time 4/20/01 / 1405

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or general terms provided in the current APCL price schedules will be followed. APCL reserves the right ... of any reports, if in APCL's sole discretion the terms of the project have been broken.

File:[CUST.DATA.LAB]CHAIN-ROOT.TEX File:[CUST.DATA.LAB]CHAIN4.TEX

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

April 30, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-3086 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-013086
Collected by:
Collected on: 04/18/01

Received: 04/18/01
Extracted: N/A
Tested: 04/19-23/01
Reported: 04/24/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-22 01-03086-1	MW-22-1 01-03086-2	MW-22-2 01-03086-3
Dilution Factor				1	1	1
Perchlorate	314	µg/L	4	<4	<4	<4
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	5	<5	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	0.4J	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-22 01-03086-1	MW-22-1 01-03086-2	MW-22-2 01-03086-3
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	1	<1	<1	<1
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	4.0	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-22-3 01-03086-4	MW-22-4 01-03086-5	MW-22-1D 01-03086-6	Trip Blank 01-03086-7
Dilution Factor				1	1	1	1
Perchlorate	314	µg/L	4	<4	<4	<4	-
Volatile Organic Compounds							
Dilution Factor				1	1	1	1
Benzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	5	<5	-	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,2-Dibromo-3-chloropropane (DB	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	-	0.3J	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-22-3 01-03086-4	MW-22-4 01-03086-5	MW-22-1D 01-03086-6	Trip Blank 01-03086-7
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	-	<0.5	0.7
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	-	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	1	<1	-	<1	<1
Naphthalene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	-	1.8	<0.5
Toluene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	-	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result ER-22 01-03086-1	MW-22-1 01-03086-2	MW-22-2 01-03086-3	MW-22-1D 01-03086-6
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	<0.01

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

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Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-8100 Fax #: 858 485-0812

Address: 16835 W. BERNARDO #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job #00JW019 P.O. #

Project Address APCL Quotation #

Due Date: [X] regular [ ] rush: ___ days ___ hours Sampled by:

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	Analysis Items: VOC 524.2	TOTAL Cr 200.8	Cr VI 7196	PERCHLORATE EPA 314	MS/MSD	Remarks
	MW-22-4	4/18	1315	H_2O	PER LAB	1				X		
	MW-22-3	4/18	1350	H_2O	PER LAB	4	X			X		QA/QC
	MW-22-2	4/18	1550	H_2O	PER LAB	10	X	X	X	X	X	REQUIREMENT
	MW-22-1	4/18	1630	H_2O	PER LAB	5	X	X	X	X		EPA LEVEL
	MW-22-1D	4/18	1645	H_2O	PER LAB	PJS 3*	X	X	X	X		IV (D)
	ER-22	4/18	1430	H_2O	PER LAB	5	X	X	X	X		
	TRIP BLANK	4/18	—	H_2O	HCl	2	X					*2 VOA'S
												BROKE, ONLY
												1 VOA FOR
												VOC'S.
												(MW-22-1D)

3086

White – With report
Yellow – Lab copy
Pink – Originator

QC Requirement: [ ] Regular; [ ] QA/QC Report; [ ] WIP; [ ] Raw Data; [ ] Extended Raw Data [ ] CLP; [ ] ACE [ ] AFCEE [ ] NEESA ___ (E, C or D); [ ] Other _____ (Please specify)

Sample Disposal: [ ] Return [ ] Disposal by APCL [ ] Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: [X] Intact; [ ] Broken. Cooler Seal: [ ] Intact; [ ] Broken; [ ] None. Tag # _____ Temperature: [ ] Room [ ] Cold (_____ °C).

Relinquished by Paul Jeffers Date/Time 4/18/01 / 1735 Received by [signature] Date/Time 4-18-01 / 1735

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients und[illegible]id that all terms described in the proposals, quotations for this project, and/or th[illegible]ral terms provided in the current APCL price schedules will be followed. APCL r[illegible]s the right to terminate [illegible]s service or withhold delivery of any reports, if in APCL's sole discretion the terms o[illegible] project have been broken.

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-23 01-03176-1	MW-23-1 01-03176-2	MW-23-2 01-03176-3
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	0.7	0.4J
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-23-3 01-03176-4	MW-23-4 01-03176-5	Trip Blank 01-03176-7
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	-
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	-	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	-	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	-	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	-	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	-	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
2-Butanone (MEK)	524.2	µg/L	5	<5	-	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	-	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	-	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	-	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	-	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	-	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	-	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	-	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	-	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	-	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-23-3 01-03176-4	MW-23-4 01-03176-5	Trip Blank 01-03176-7
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	-	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	-	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	-	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	-	1.9
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	-	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	-	<5
Naphthalene	524.2	µg/L	0.5	<0.5	-	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Styrene	524.2	µg/L	0.5	<0.5	-	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
Tolnene	524.2	µg/L	0.5	<0.5	-	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	-	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	-	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	-	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

May 03, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-3150 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-013150
Collected by:
Collected on: 04/23/01

Received: 04/23/01
Extracted: N/A
Tested: 04/24-26/01
Reported: 04/30/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-24 01-03150-1	MW-24-1 01-03150-2	MW-24-2 01-03150-3	MW-24-3 01-03150-4
Dilution Factor				1	10	10	1
Perchlorate	314	µg/L	4	<4	430	430	<4

Component Analyzed	Method	Unit	PQL	Analysis Result ER-24 01-03150-1	MW-24-1 01-03150-2	MW-24-2 01-03150-3
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Butanone	524.2	µg/L	5	<5	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	12.6	10.6
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	6.0	6.2
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-24 01-03150-1	MW-24-1 01-03150-2	MW-24-2 01-03150-3
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	0.4J	0.4J
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	0.6
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	6.5	2.0
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-24-3 01-03150-4	MW-24-4 01-03150-5	Trip Blank 01-03150-6
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	-
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	-	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	-	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	-	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	-	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	-	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
2-Butanone	524.2	µg/L	5	<5	-	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	-	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	-	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	-	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	-	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	-	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	-	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	-	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	-	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	-	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	-	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-24-3 01-03150-4	MW-24-4 01-03150-5	Trip Blank 01-03150-6
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	-	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	-	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	-	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	-	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	-	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	-	<5
Naphthalene	524.2	µg/L	0.5	<0.5	-	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Styrene	524.2	µg/L	0.5	<0.5	-	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
Toluene	524.2	µg/L	0.5	<0.5	-	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	-	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	-	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	-	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	-	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	-	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	-	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	-	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-8100 Fax #: 858 485-0812

Address: 16835 W. BERNARDO #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job #00NW019 P.O. #

Project Address APCL Quotation #

Due Date: [X] regular [ ] rush: ___ days ___ hours Sampled by:

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOC 524.2	Total Cr 200.7	Cr VI 7196	PETROLEATE EPA 3511	Remarks
	MW-24-4	4/23	1315	H_2O	PERLAB	2		X	X		QA/QC
	MW-24-3	4/23	1400	H_2O	PERLAB	5	X	X	X	X	REQUIREMENT
	MW-24-2	4/23	1445	H_2O	PERLAB	5	X	X	X	X	EPA LEVEL
	MW-24-1	4/23	1530	H_2O	PERLAB	5	X	X	X	X	IV (D)
	ER-24	4/23	1425	H_2O	PERLAB	5	X	X	X	X	
	TRIP BLANK	4/23	—	H_2O	HCl	2	X				

3150

White – With report
Yellow – Lab copy
Pink – Originator

QC Requirement: [ ] Regular; [ ] QA/QC Report; [ ] WIP; [ ] Raw Data; [ ] Extended Raw Data [ ] CLP; [ ] ACE [ ] AFCEE [ ] NEESA ___ (E, C or D); [ ] Other _____ (Please specify)

Sample Disposal: [ ] Return [ ] Disposal by APCL [ ] Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: [ ] Intact; [ ] Broken. Cooler Seal: [ ] Intact; [ ] Broken; [ ] None. Tag # _____ Temperature: [ ] Room [ ] Cold (_____ °C).

Relinquished by [signature] Date/Time 4/23/01 / 1615 Received by [signature] Date/Time 4-23-01 / 16:5

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the standard terms provided in the current APCL price schedules will be followed. APCL reserves the right [illegible] of any reports, if in APCL's sole discretion the terms of the project have been broken.

F:\QUST\DATA\LAB\CHAIN4.TEX

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

May 10, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-3268 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-013268
Collected by:
Collected on: 04/27/01

Received: 04/27/01
Extracted: N/A
Tested: 04/27-05/04/01
Reported: 05/04/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result MW-8 01-03268-1	MW-13 01-03268-2
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01
Dilution Factor				1	10
Perchlorate	314	µg/L	4	5	170

Component Analyzed	Method	Unit	PQL	Analysis Result MW-8 01-03268-1	MW-13 01-03268-2	Trip Blank 01-03268-3
Volatile Organic Compounds						
Dilution Factor				1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	5	<5	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	3.6	<0.5
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	4.9	<0.5
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-8 01-03268-1	MW-13 01-03268-2	Trip Blank 01-03268-3
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	5.2	3.8	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	18.0	<0.5
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
† All results are reported on dry basis for soil samples.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

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Chain of Custody

Please Print in pen Page 1 of 1

Client: SOTA ENVIRONMENTAL Contact: PAUL JEFFERS Tel #: 858 485-8100 Fax #: 858 485-0812

Address: 16835 W. BERNARDO DR #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SAME

Project Name/Code JPL Job # 00NW0019 P.O. #

Project Address APCL Quotation #

Due Date: [X] regular [ ] rush: ___ days ___ hours Sampled by:

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	Analysis Items: VOC 524.2	Total Cr 200.8	Cr VI 7196	Perchlorate EPA 314	Cam/Sol	Remarks
	MW-8	4/27	1120	H_2O	PERLAB	10	X	X	X	X	X	QA/QC
4/27/01	MW-13	4/27	1300	H_2O	PERLAB	10	X	X	X	X	X	REQUIREMENT
PRJ	~~MW-16~~	~~4/27~~		~~H_2O~~	~~PERLAB~~	~~5~~	~~X~~	~~X~~	~~X~~	~~X~~		EPA LEVEL
PRJ	~~MW-16 D~~	~~4/27~~		~~H_2O~~	~~PERLAB~~	~~5~~	~~X~~	~~X~~	~~X~~	~~X~~		IV (D)
4/27/01	TRIP BLANK	4/27	—	H_2O	HCl	2	X					

3268

White – With report
Yellow – Lab copy
Pink – Originator

QC Requirement: [ ] Regular; [ ] QA/QC Report; [ ] WIP; [ ] Raw Data; [ ] Extended Raw Data [ ] CLP; [ ] ACE [ ] AFCEE [ ] NEESA ___ (E, C or D); [ ] Other _____ (Please specify)

Sample Disposal: [ ] Return [ ] Disposal by APCL [ ] Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: [X] Intact; [ ] Broken. Cooler Seal: [ ] Intact; [ ] Broken; [ ] None. Tag # _____ Temperature: [ ] Room [ ] Cold (_____ °C).

Relinquished by Paul Jeffers Date/Time 4/27/01 1430 Received by Mark A. Heck Date/Time 4/27/01 1430

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients under that all terms described in the proposals, quotations for this project, and/or the l terms provided in the current APCL price schedules will be followed. APCL res he right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of t roject have been broken.

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
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May 15, 2001

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 01-3296 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original and One Copy of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-013296
Collected by:
Collected on: 04/30/01

Received: 04/30/01
Extracted: N/A
Tested: 05/01-08/01
Reported: 05/09/01

Sample Description: Water
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result MW-5 01-03296-1	MW-6 01-03296-2	MW-10 01-03296-3	MW-16 01-03296-4
Chromium (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	<0.01
Dilution Factor				1	1	1	50
Perchlorate	314	µg/L	4	<4	<4	36	1,300
Volatile Organic Compounds							
Dilution Factor				1	1	1	1
Benzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Butanone (MEK)	524.2	µg/L	5	<5	<5	<5	<5
Carbon tetrachloride	524.2	µg/L	0.5	<0.5	<0.5	0.6	21.0
Chlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	524.2	µg/L	0.5	<0.5	0.5	1.9	15.3
Chloromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (EDB)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	524.2	µg/L	0.5	<0.5	1.0	0.4J	<0.5
1,2-Dichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	1.6
cis-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-5 01-03296-1	MW-6 01-03296-2	MW-10 01-03296-3	MW-16 01-03296-4
trans-1,2-Dichloroethene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene (Cumene)	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Methyl-t-Butyl ether (MTBE)	524.2	µg/L	1	<1	<1	<1	<1
4-Methyl-2-Pentanone	524.2	µg/L	5	<5	<5	<5	<5
Naphthalene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Styrene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	524.2	µg/L	0.5	<0.5	2.1	<0.5	<0.5
Toluene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	524.2	µg/L	0.5	<0.5	0.3J	20.2	3.6
Trichlorofluoromethane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5