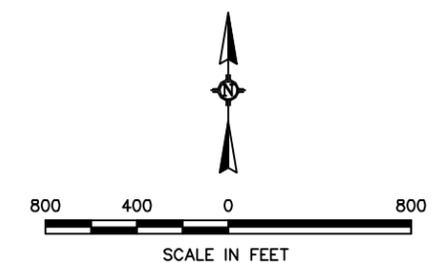


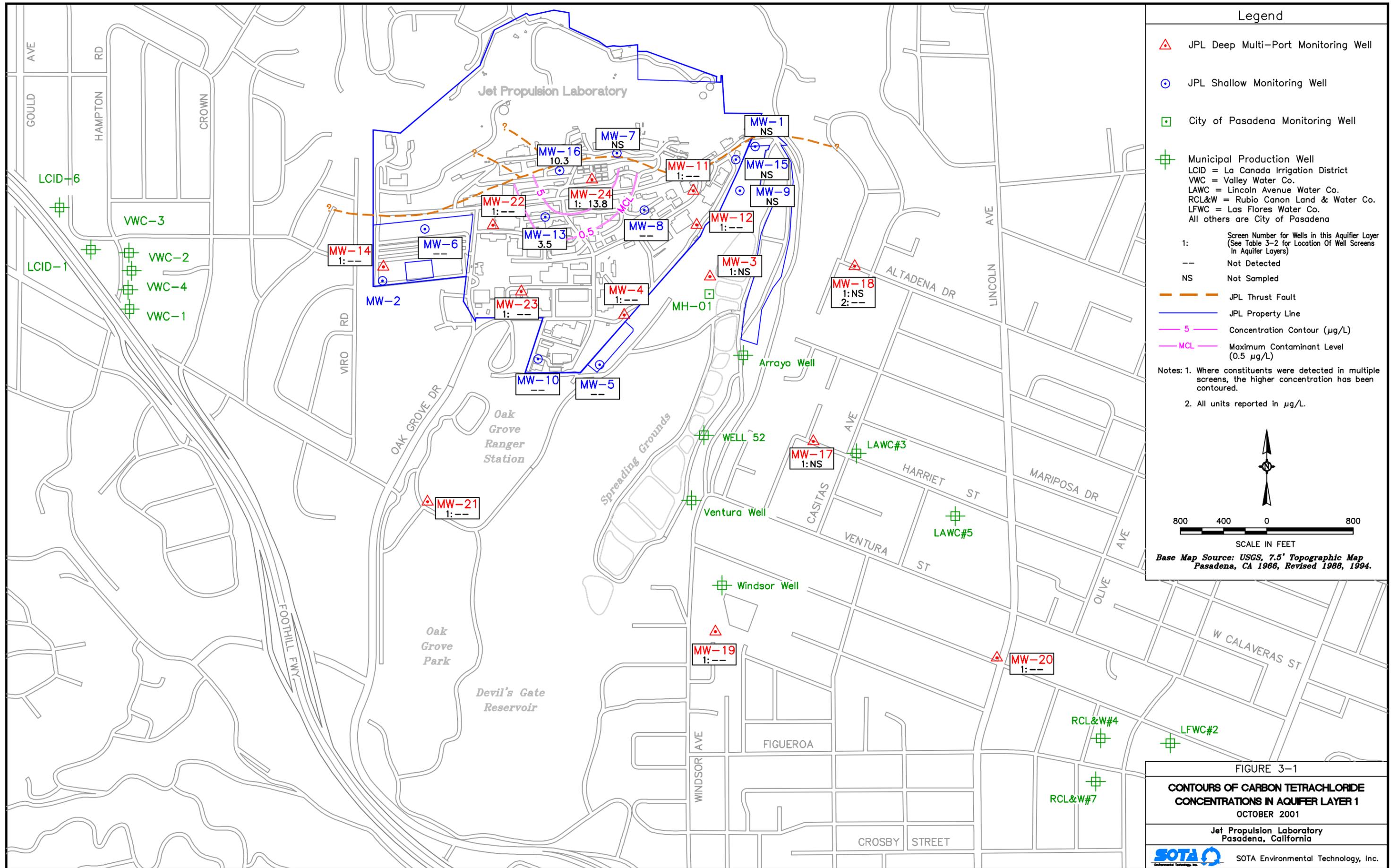
- Legend**
- ▲ JPL Deep Multi-Port Monitoring Well
 - JPL Shallow Monitoring Well
 - City of Pasadena Monitoring Well
 - ⊕ Municipal Production Well
 LCID = La Canada Irrigation District
 VWC = Valley Water Co.
 LAW = Lincoln Avenue Water Co.
 RCL&W = Rubio Canon Land & Water Co.
 LFWC = Las Flores Water Co.
 All others are City of Pasadena



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

FIGURE 1-1
LOCATIONS OF JPL GROUNDWATER MONITORING WELLS AND NEARBY MUNICIPAL PRODUCTION WELLS
 Jet Propulsion Laboratory
 Pasadena, California

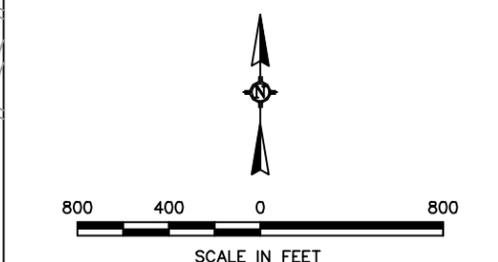
SOTA Environmental Technology, Inc.



Legend

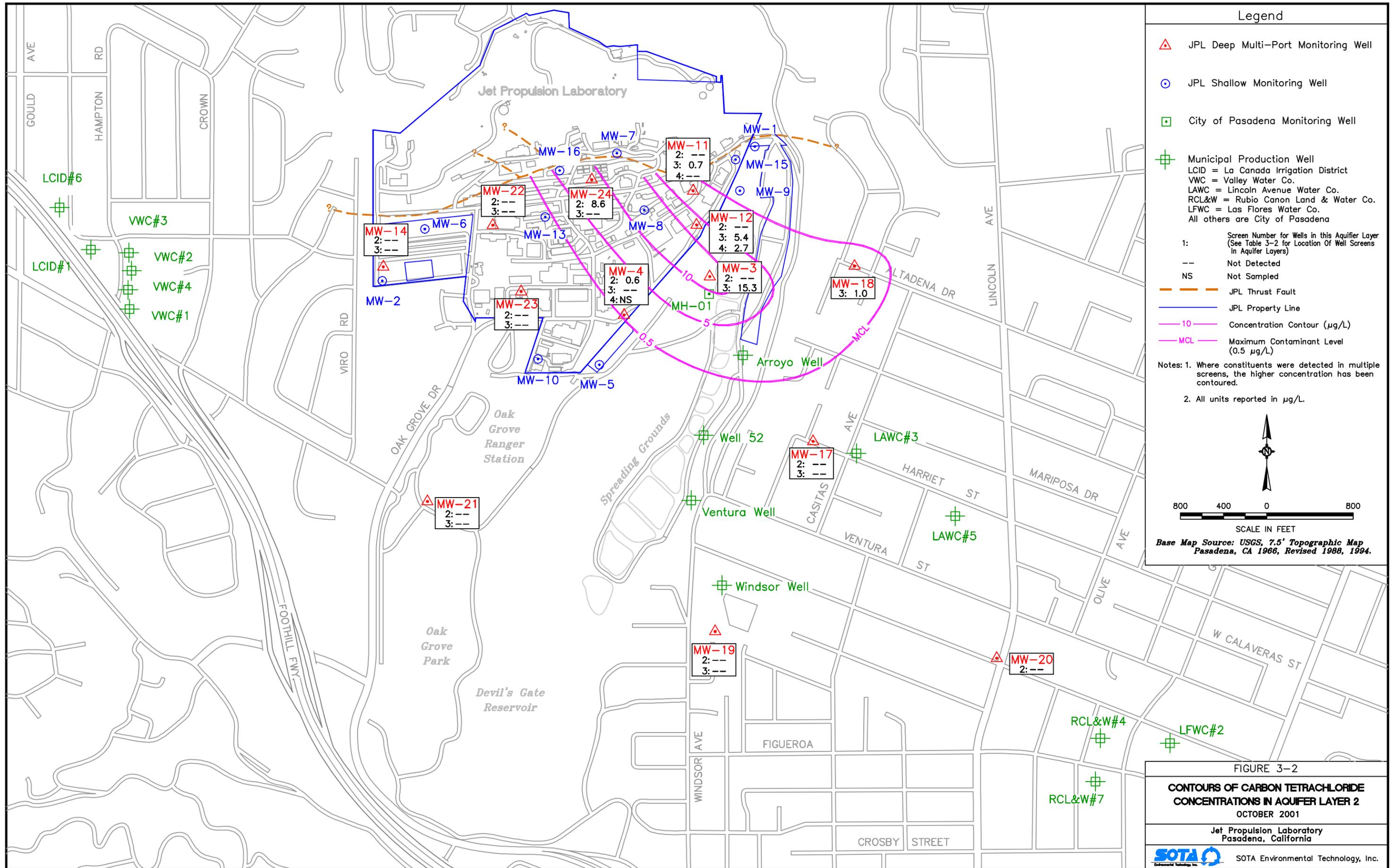
- △ JPL Deep Multi-Port Monitoring Well
- ⊙ JPL Shallow Monitoring Well
- ⊠ City of Pasadena Monitoring Well
- ⊠ Municipal Production Well
 LCID = La Canada Irrigation District
 VWC = Valley Water Co.
 LAWAC = Lincoln Avenue Water Co.
 RCL&W = Rubio Canon Land & Water Co.
 LFWC = Las Flores Water Co.
 All others are City of Pasadena
- 1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location Of Well Screens In Aquifer Layers)
- Not Detected
- NS Not Sampled
- JPL Thrust Fault
- JPL Property Line
- 5 Concentration Contour (µg/L)
- MCL Maximum Contaminant Level (0.5 µg/L)

Notes: 1. Where constituents were detected in multiple screens, the higher concentration has been contoured.
 2. All units reported in µg/L.



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

FIGURE 3-1
CONTOURS OF CARBON TETRACHLORIDE CONCENTRATIONS IN AQUIFER LAYER 1
 OCTOBER 2001
 Jet Propulsion Laboratory
 Pasadena, California
 SOTA Environmental Technology, Inc.



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.
 LAWLC = Lincoln Avenue Water Co.
 RCL&W = Rubio Canon Land & Water Co.
 LFWC = Las Flores Water Co.
 All others are City of Pasadena

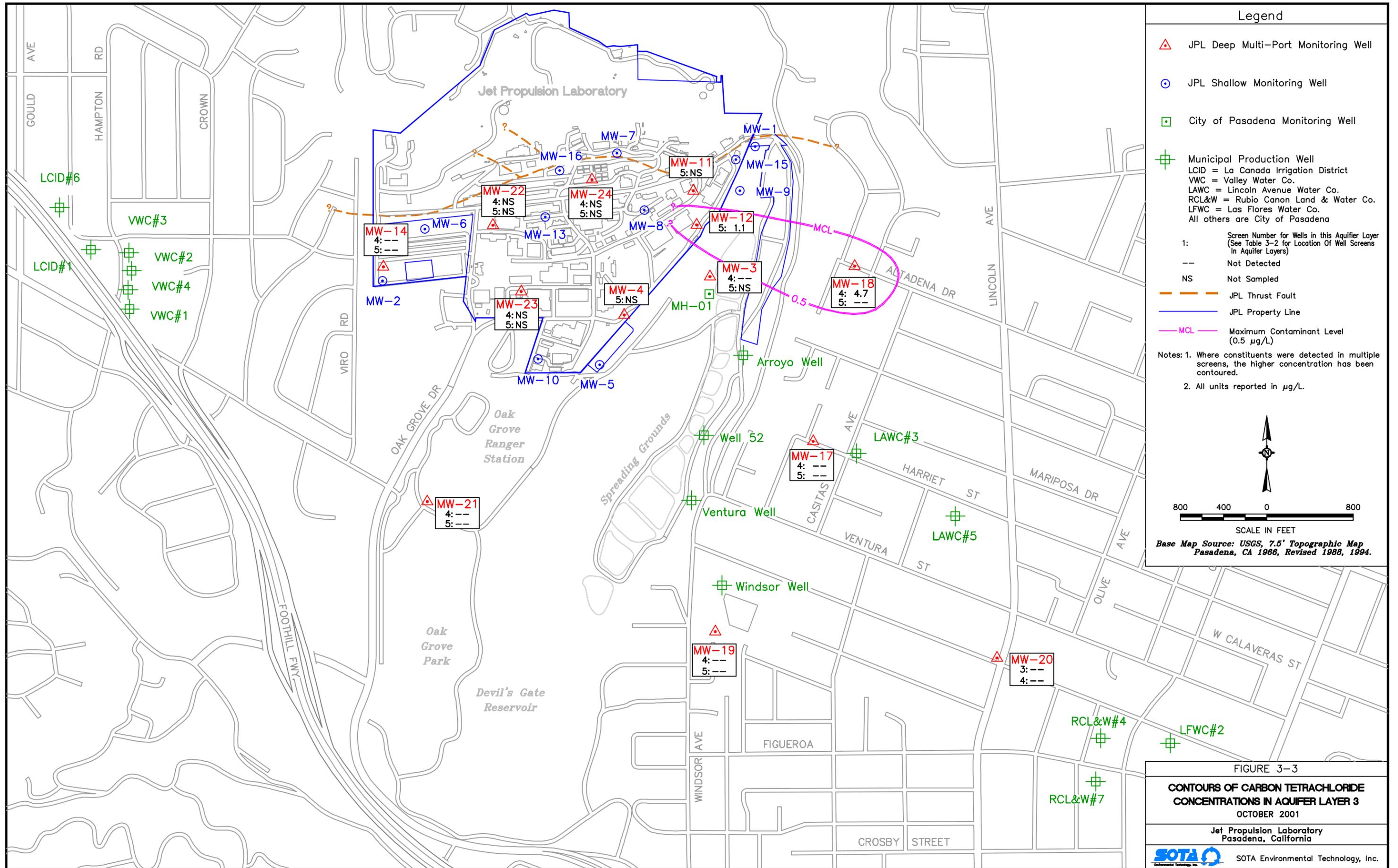
1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location Of Well Screens In Aquifer Layers)
 -- Not Detected
 NS Not Sampled

- JPL Thrust Fault
- JPL Property Line
- 10 Concentration Contour (µg/L)
- MCL Maximum Contaminant Level (0.5 µg/L)

Notes: 1. Where constituents were detected in multiple screens, the higher concentration has been contoured.
 2. All units reported in µg/L.

800 400 0 800
 SCALE IN FEET
 Base Map Source: USGS, 7.5' Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 3-2
**CONTOURS OF CARBON TETRACHLORIDE
 CONCENTRATIONS IN AQUIFER LAYER 2**
 OCTOBER 2001
 Jet Propulsion Laboratory
 Pasadena, California
 SOTA Environmental Technology, Inc.



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

1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location Of Well Screens In Aquifer Layers)

-- Not Detected

NS Not Sampled

--- JPL Thrust Fault

--- JPL Property Line

--- MCL Maximum Contaminant Level (0.5 µg/L)

Notes: 1. Where constituents were detected in multiple screens, the higher concentration has been contoured.

2. All units reported in µg/L.

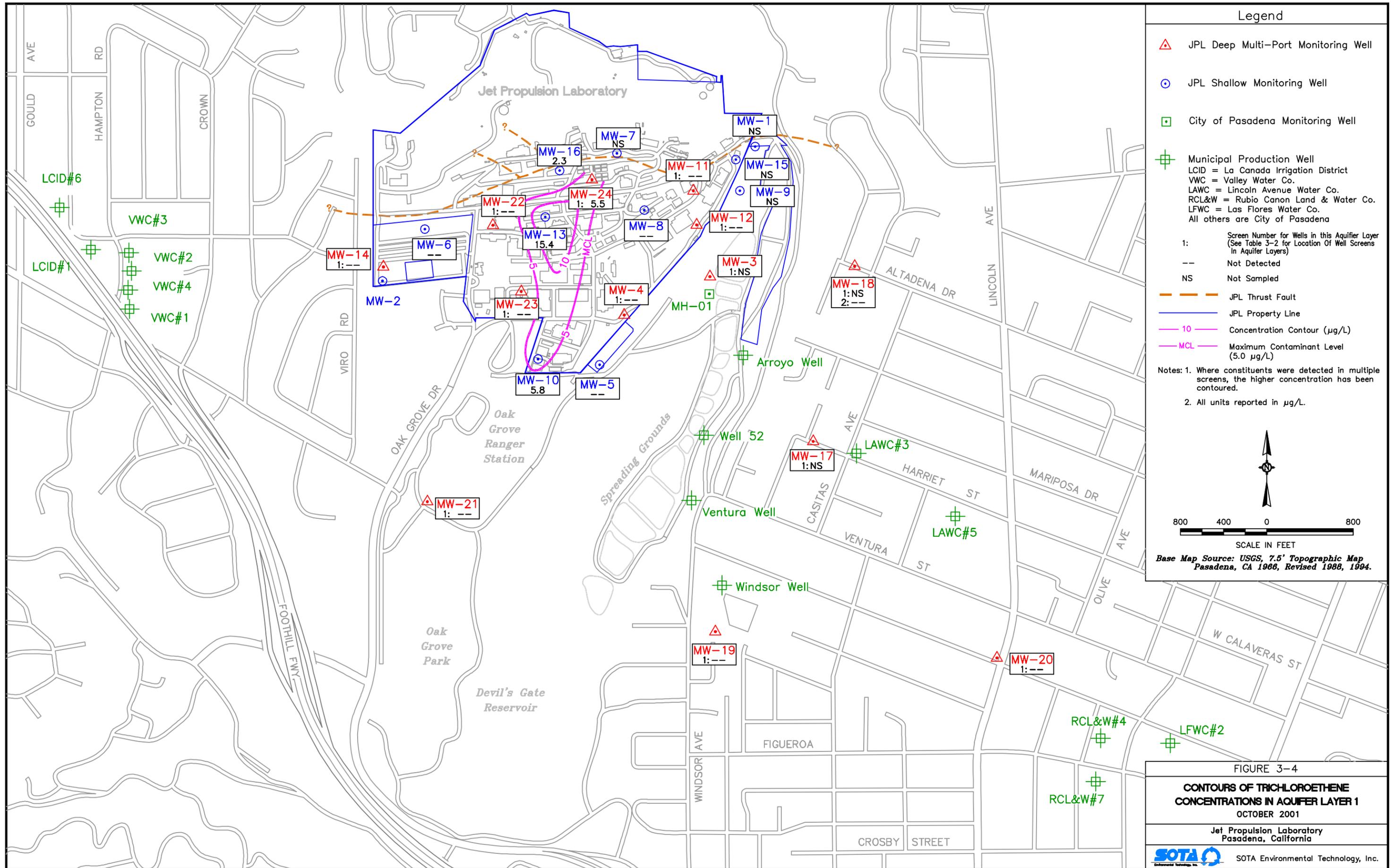
800 400 0 800
 SCALE IN FEET
 Base Map Source: USGS, 7.5' Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 3-3

CONTOURS OF CARBON TETRACHLORIDE CONCENTRATIONS IN AQUIFER LAYER 3
OCTOBER 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



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.
 LAWAC = Lincoln Avenue Water Co.
 RCL&W = Rubio Canon Land & Water Co.
 LFWC = Las Flores Water Co.
 All others are City of Pasadena
- 1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location Of Well Screens In Aquifer Layers)
- Not Detected
- NS Not Sampled
- - - - JPL Thrust Fault
- JPL Property Line
- 10 Concentration Contour (µg/L)
- MCL Maximum Contaminant Level (5.0 µg/L)

Notes: 1. Where constituents were detected in multiple screens, the higher concentration has been contoured.
 2. All units reported in µg/L.

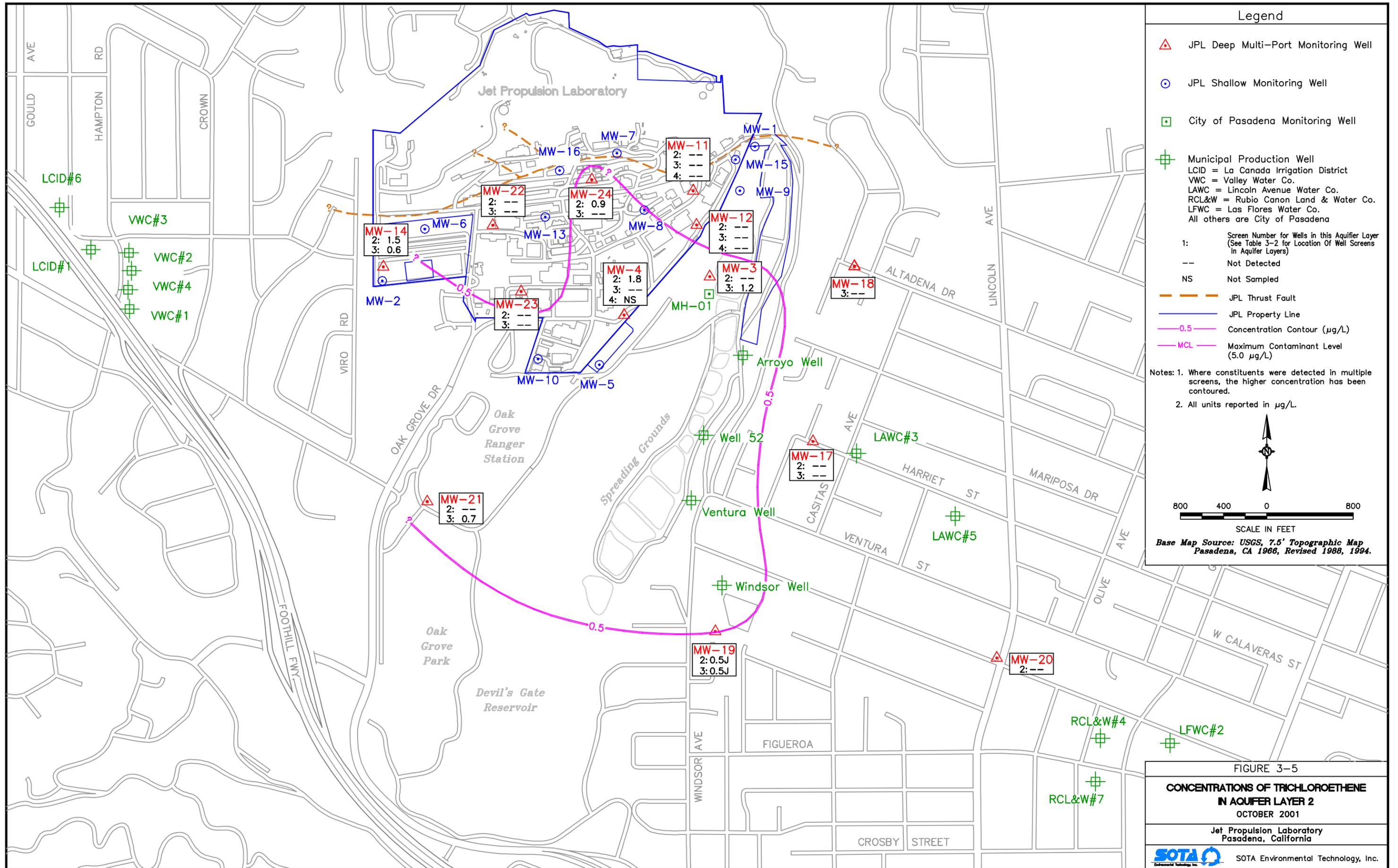
800 400 0 800
 SCALE IN FEET
 Base Map Source: USGS, 7.5' Topographic Map Pasadena, CA 1968, Revised 1988, 1994.

FIGURE 3-4

CONTOURS OF TRICHLOROETHENE CONCENTRATIONS IN AQUIFER LAYER 1
 OCTOBER 2001

Jet Propulsion Laboratory
 Pasadena, California

SOTA Environmental Technology, Inc.



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.
 LAWLC = Lincoln Avenue Water Co.
 RCL&W = Rubio Canon Land & Water Co.
 LFWC = Las Flores Water Co.
 All others are City of Pasadena

1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location Of Well Screens In Aquifer Layers)
 -- Not Detected
 NS Not Sampled

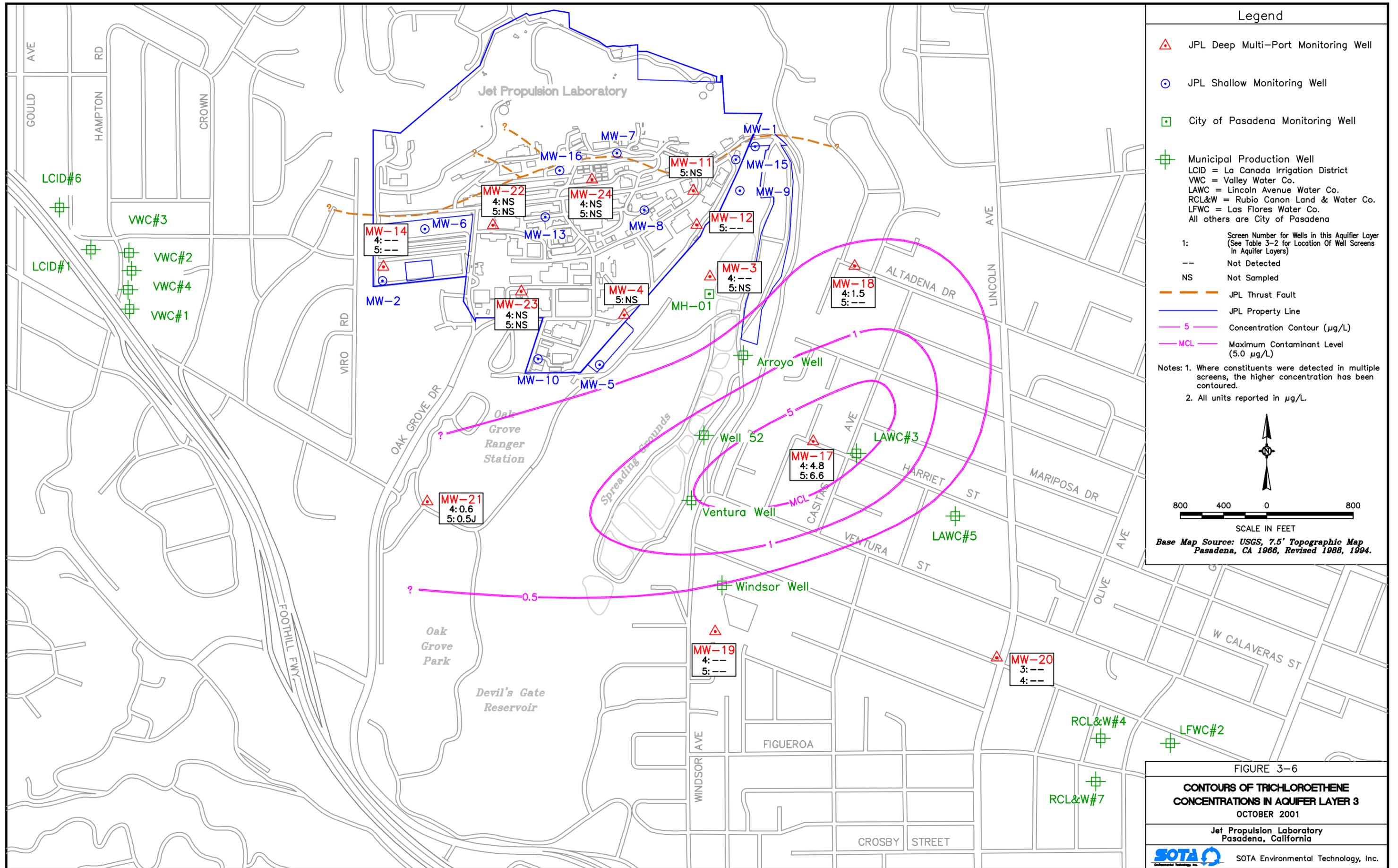
- JPL Thrust Fault
- JPL Property Line
- 0.5 Concentration Contour (µg/L)
- MCL Maximum Contaminant Level (5.0 µg/L)

Notes: 1. Where constituents were detected in multiple screens, the higher concentration has been contoured.
 2. All units reported in µg/L.

800 400 0 800
 SCALE IN FEET
 Base Map Source: USGS, 7.5' Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 3-5
**CONCENTRATIONS OF TRICHLOROETHENE
 IN AQUIFER LAYER 2**
 OCTOBER 2001
 Jet Propulsion Laboratory
 Pasadena, California

SOTA Environmental Technology, Inc.



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

1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location Of Well Screens In Aquifer Layers)

-- Not Detected

NS Not Sampled

— JPL Thrust Fault

— JPL Property Line

— 5 Concentration Contour (µg/L)

— MCL Maximum Contaminant Level (5.0 µg/L)

Notes: 1. Where constituents were detected in multiple screens, the higher concentration has been contoured.

2. All units reported in µg/L.

800 400 0 800

SCALE IN FEET

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

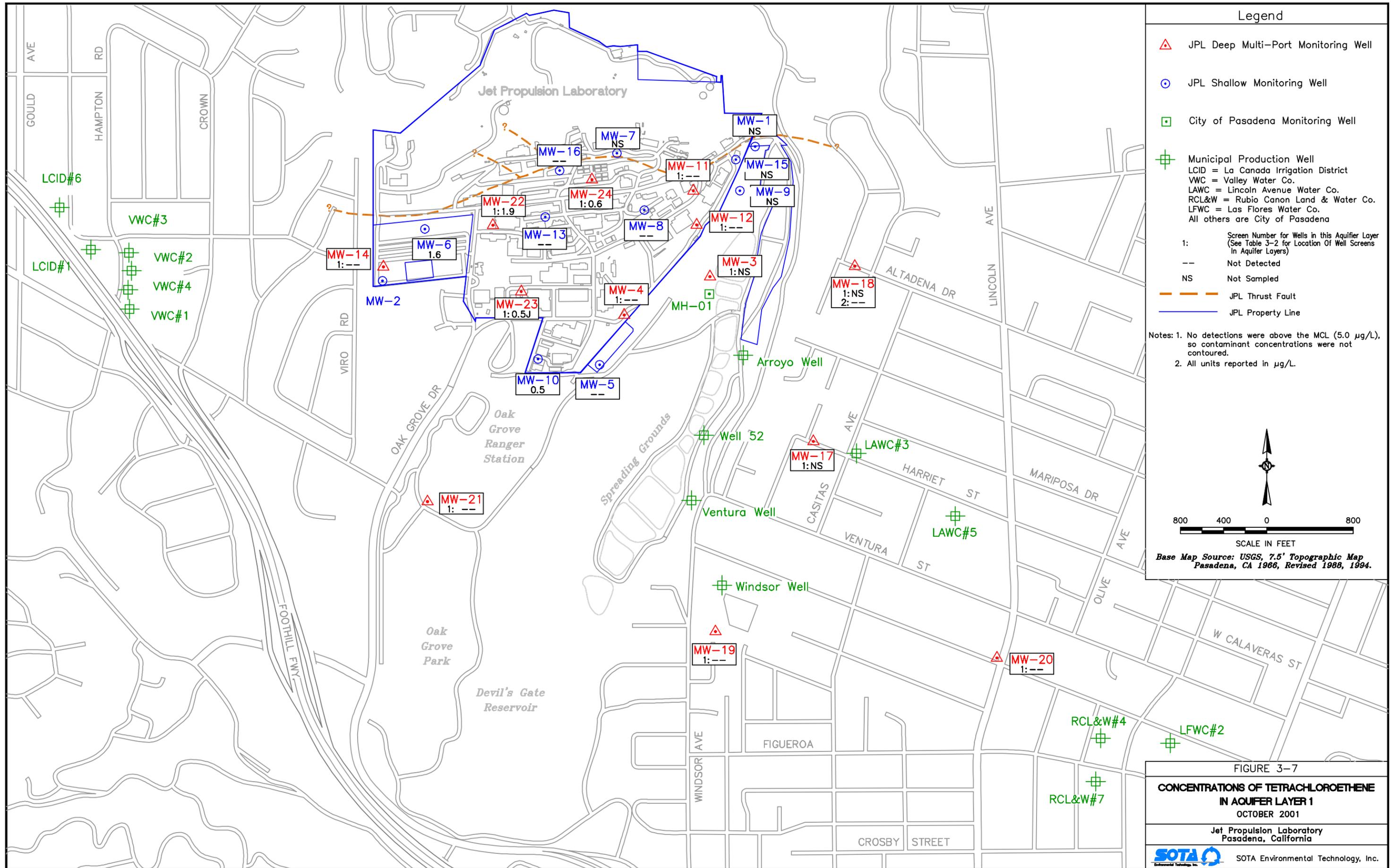
FIGURE 3-6

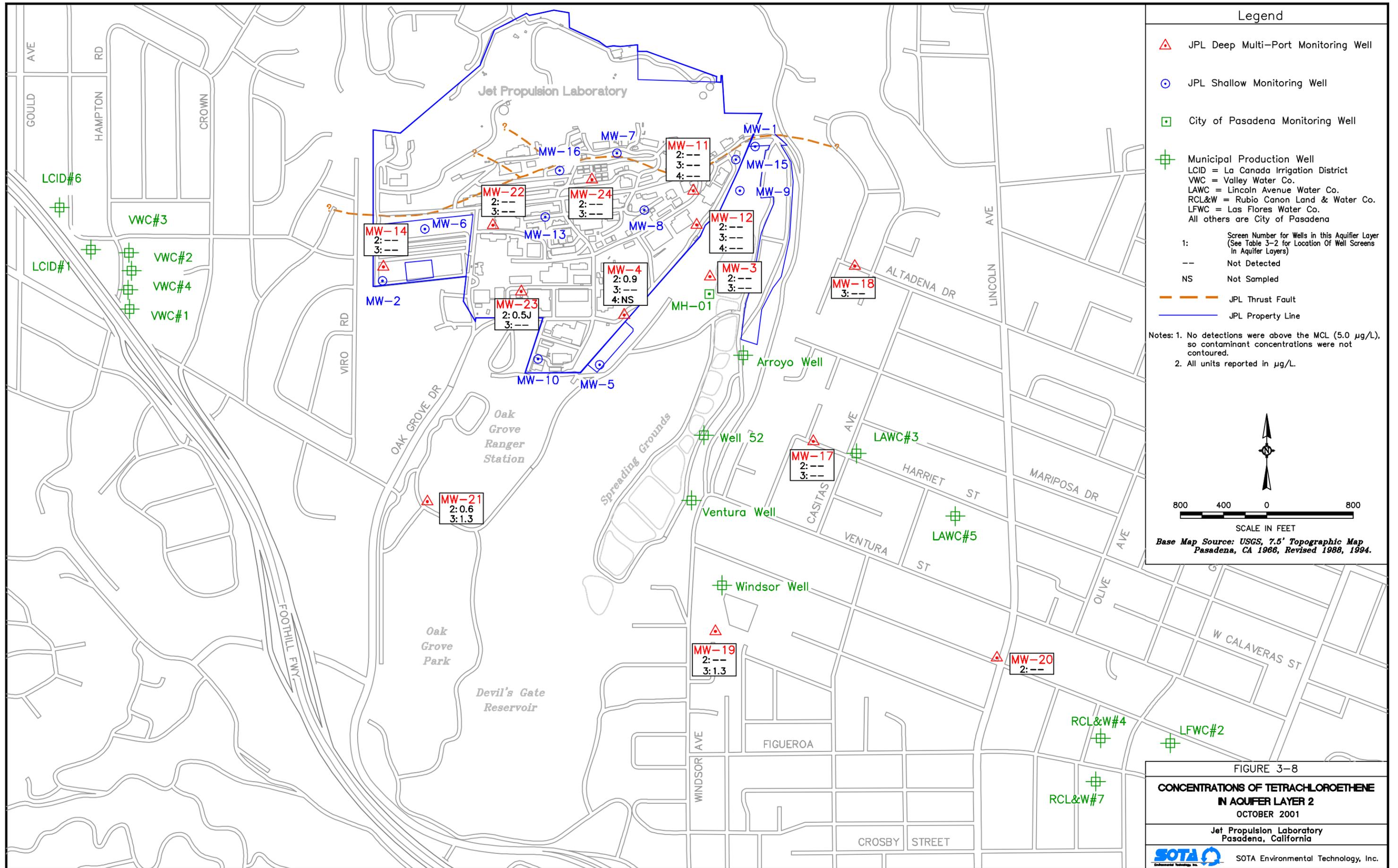
CONTOURS OF TRICHLOROETHENE CONCENTRATIONS IN AQUIFER LAYER 3

OCTOBER 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.





Jet Propulsion Laboratory

Oak Grove Ranger Station

Spreading Grounds

Oak Grove Park
 Devil's Gate Reservoir

FIGUEROA

CROSBY STREET

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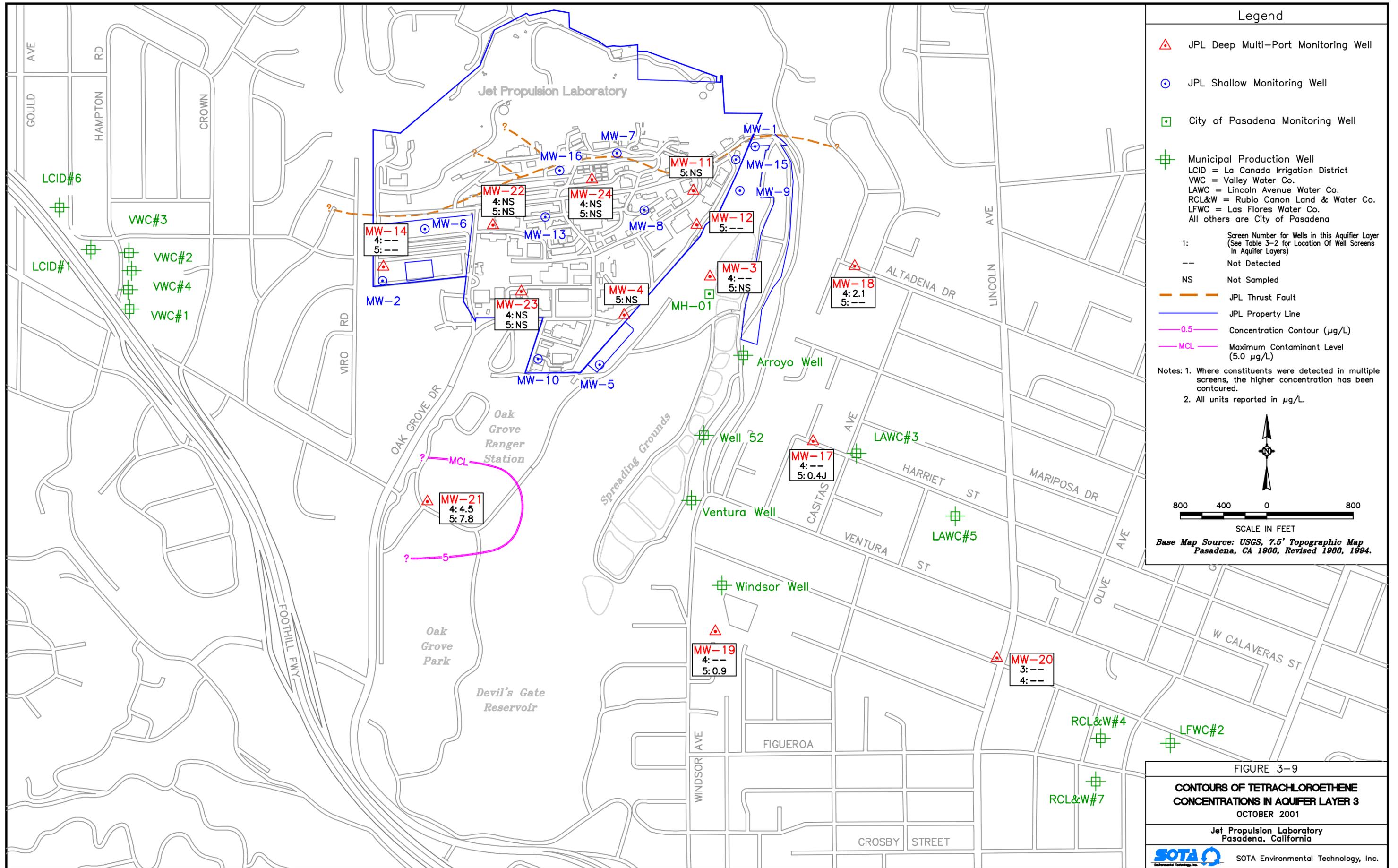
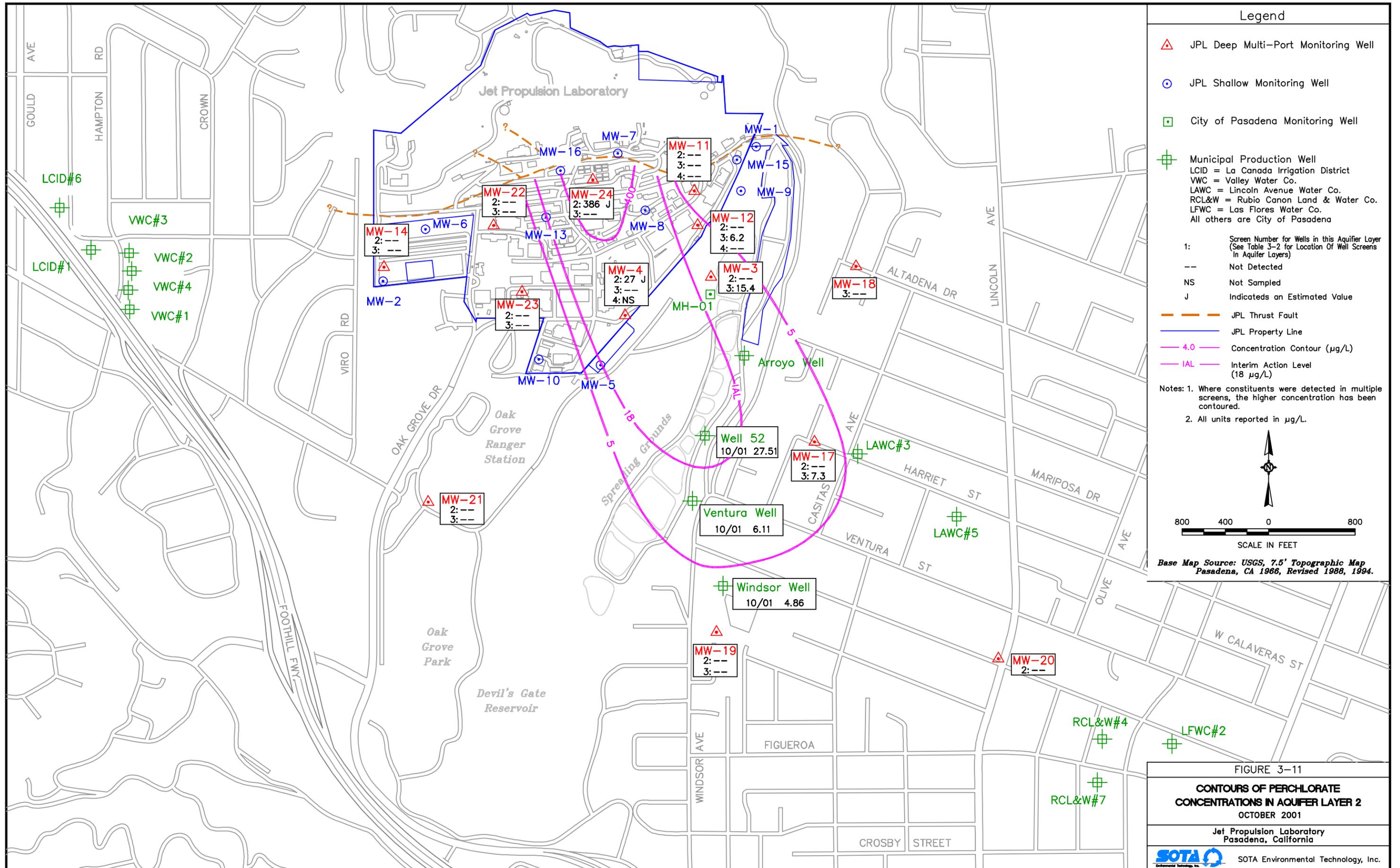


FIGURE 3-9
CONTOURS OF TETRACHLOROETHENE CONCENTRATIONS IN AQUIFER LAYER 3
 OCTOBER 2001
 Jet Propulsion Laboratory
 Pasadena, California
 SOTA Environmental Technology, Inc.



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

1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location Of Well Screens In Aquifer Layers)
 -- Not Detected
 NS Not Sampled
 J Indicates an Estimated Value

- JPL Thrust Fault
- JPL Property Line
- 4.0 Concentration Contour (µg/L)
- IAL Interim Action Level (18 µg/L)

Notes: 1. Where constituents were detected in multiple screens, the higher concentration has been contoured.
 2. All units reported in µg/L.

800 400 0 800
SCALE IN FEET

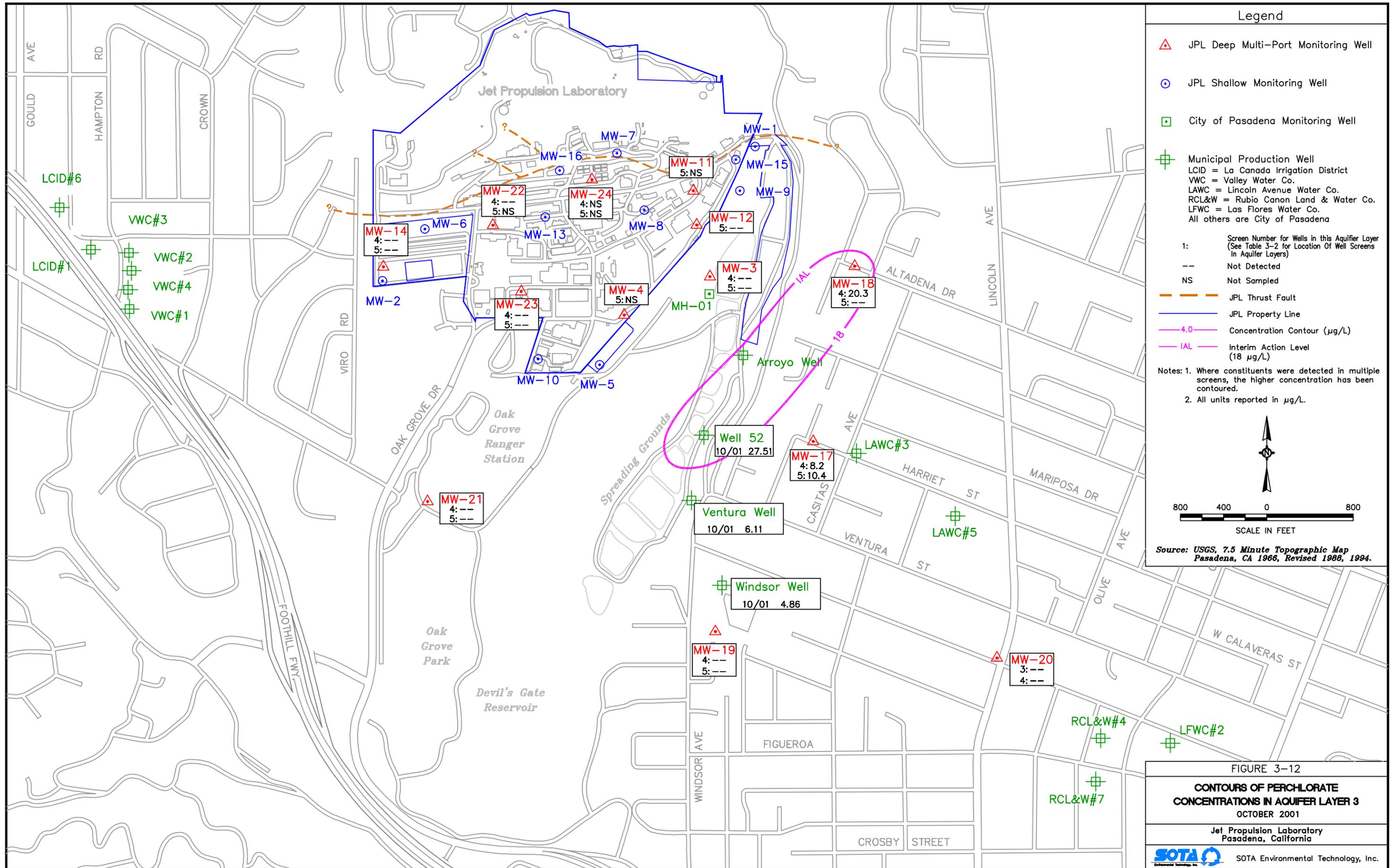
Base Map Source: USGS, 7.5' Topographic Map Pasadena, CA 1966, Revised 1988, 1994.

FIGURE 3-11

CONTOURS OF PERCHLORATE CONCENTRATIONS IN AQUIFER LAYER 2
OCTOBER 2001

Jet Propulsion Laboratory
Pasadena, California

SOTA Environmental Technology, Inc.



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.
 LAWG = Lincoln Avenue Water Co.
 RCL&W = Rubio Canon Land & Water Co.
 LFWC = Las Flores Water Co.
 All others are City of Pasadena

1: Screen Number for Wells in this Aquifer Layer (See Table 3-2 for Location Of Well Screens In Aquifer Layers)
 -- Not Detected
 NS Not Sampled

- JPL Thrust Fault
- JPL Property Line
- 4.0 Concentration Contour (µg/L)
- IAL Interim Action Level (18 µg/L)

Notes: 1. Where constituents were detected in multiple screens, the higher concentration has been contoured.
 2. All units reported in µg/L.

800 400 0 800
SCALE IN FEET

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

FIGURE 3-12

CONTOURS OF PERCHLORATE CONCENTRATIONS IN AQUIFER LAYER 3
 OCTOBER 2001

Jet Propulsion Laboratory
 Pasadena, California

SOTA Environmental Technology, Inc.