

**STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION  
MONITORING AND REPORTING PROGRAM NO. CI-9236  
FOR  
AMERICAN GAS  
877 SOUTH VENTURA BOULEVARD, OXNARD  
(INORGANICS/NUTRIENTS INJECTION FOR GROUNDWATER CLEANUP)  
(ORDER NO. R4-2007-0019, SERIES NO. 005)**

**I. REPORTING REQUIREMENTS**

- A. Mr. Richard S. Coburn (hereinafter Discharger) shall implement this monitoring program on the effective date of Regional Board Order No. R4-2007-0019. The first monitoring report under this program, for April-June 2007, shall be received at the Regional Board by July 15, 2007. Subsequent monitoring reports shall be received at the Regional Board according to the following schedule:

<u>Monitoring Period</u>	<u>Report Due</u>
January – March	April 15
April – June	July 15
July – September	October 15
October – December	January 15

- B. If there is no discharge or injection during any reporting period, the report shall so state. Monitoring reports must be addressed to the Regional Board, Attention: Information Technology Unit.
- C. By March 1<sup>st</sup> of each year, the Discharger shall submit an annual summary report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous calendar year. In addition, the Discharger shall explain the compliance record and the corrective actions taken, or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements (WDRs).
- D. Laboratory analyses – all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP). A copy of the laboratory certification shall be provided each time a new and/or renewal certification is obtained from ELAP.

April 3, 2007

- E. The method limits (MLs) employed for effluent analyses shall be lower than the permit limits established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable and obtains approval for a higher ML from the Regional Board Executive Officer (Executive Officer). The Discharger shall submit a list of the analytical methods employed for each test and the associated laboratory quality assurance/quality control (QA/QC) procedures upon request by the Regional Board.
- F. Groundwater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136. All QA/QC samples must be run on the same dates when samples were actually analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff.
- G. Each monitoring report must affirm in writing that "All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services, and in accordance with current United States Environmental Protection Agency (USEPA) guideline procedures or as specified in this Monitoring Program." Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report.
- H. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with WDRs. This section shall be located at the front of the report and shall clearly list all non-compliance with WDRs, as well as all excursions of effluent limitations.
- I. The Discharger shall maintain all sampling and analytical results: date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- J. If the Discharger performs analyses on any groundwater samples more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the report.
- K. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements and, where applicable, shall include results of receiving water observations.

II. INORGANICS/NUTRIENTS INJECTION MONITORING REQUIREMENTS

The quarterly reports shall contain the following information regarding injection activities:

1. Location map showing injection points used for the hydrogen peroxide. Groundwater monitoring wells shall not be used as injection points to avoid reduction of groundwater monitoring network, data bias, well screen clogging and alternation. Up to seven injection points are proposed that can be referenced in the attached Plate 2. Plates 3 and 4 indicate the groundwater flow direction and TPHg plume, separately.
2. Written and tabular summary defining the quantity of hydrogen peroxide injected per month to the groundwater and a summary describing the days on which the injection system was in operation.

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Total hydrogen peroxide delivered per injection point	grams/day	--	• Quarterly

III. GROUNDWATER MONITORING PROGRAM

The Discharger shall conduct groundwater monitoring at the site. Groundwater samples shall be collected from groundwater monitoring wells MW-5 (up-gradient); MW-13 and -14 (source area); MW-12 and -17 (down-gradient); on a quarterly basis to monitor the effectiveness of the in-situ groundwater remediation. Hydrogen peroxide injection points shall not be used as monitoring points. Groundwater shall be monitored for the duration of the remediation in accordance with the following discharge monitoring program:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Total petroleum hydrocarbons as gasoline (TPHg) and as diesel (TPHd)	µg/L	Grab	• Bi-weekly/Quarterly <sup>1</sup>
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	µg/L	Grab	• Bi-weekly/Quarterly <sup>1</sup>

Methyl tertiary butyl ether (MTBE), Tertiary butyl alcohol (TBA), Tertiary amyl methyl ether (TAME), Di-isopropyl ether (DIPE), ether (ETBE)	µg/L	Grab	• Bi-weekly/Quarterly <sup>1</sup>
Ethanol Formaldehyde Acetone	µg/L	Grab	• Bi-weekly/Quarterly <sup>1</sup>
Total dissolved solids Boron Chloride Sulfate	mg/L	Grab	• Bi-weekly/Quarterly <sup>1</sup>
Oxidation-reduction potential	milivolts		• Bi-weekly/Quarterly <sup>1</sup>
Dissolved Oxygen	µg/L	Grab	• Bi-weekly/Quarterly <sup>1</sup>
Dissolved ferrous iron	µg/L	Grab	• Bi-weekly/Quarterly <sup>1</sup>
Total Chromium and chromium six <sup>2</sup>	µg/L	Grab	• Bi-weekly/Quarterly <sup>1</sup>
PH	pH units	Grab	• Bi-weekly/Quarterly <sup>1</sup>
Temperature	<sup>0</sup> F/ <sup>0</sup> C	Grab	• Bi-weekly/Quarterly <sup>1</sup>
Groundwater Elevation	Feet, mean sea level and below ground surface	In situ	• Bi-weekly/Quarterly <sup>1</sup>

<sup>1</sup> One week before injection; Bi-weekly for the first month following injection; and Quarterly thereafter

<sup>2</sup> The Discharger is required to monitor for total chromium and chromium six only when they are detected in the baseline test.

All groundwater monitoring reports must include, at a minimum, the following:

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification;
- c. Quarterly observation of groundwater levels, recorded to 0.01 feet mean sea level and groundwater flow direction.

#### IV. MONITORING FREQUENCIES

Monitoring frequencies may be adjusted to a less frequent basis or parameters dropped by the Executive Officer if the Discharger makes a request and the Executive Officer determines that the request is adequately supported by statistical trends of monitoring data submitted.

V. CERTIFICATION STATEMENT

Each report shall contain the following declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

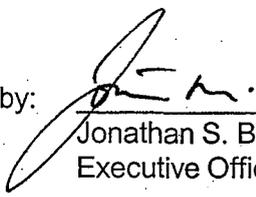
\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)"

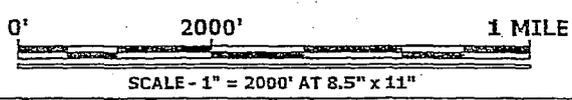
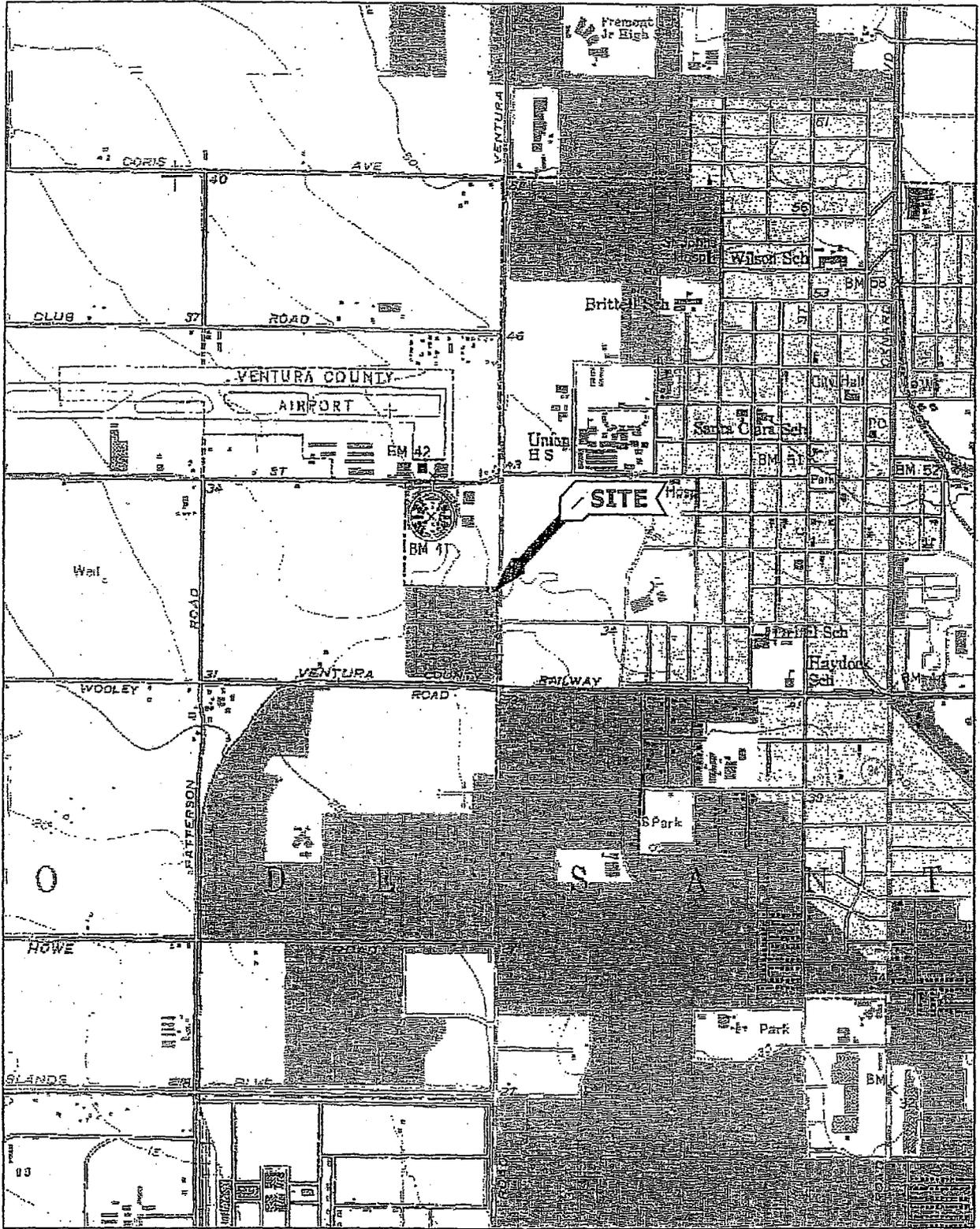
VI. PUBLIC DOCUMENTS

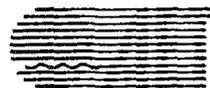
These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by:

  
\_\_\_\_\_  
Jonathan S. Bishop  
Executive Officer

Date: April 3, 2007




**Applied Environmental Technologies, Inc.**  
 4561 Market Street, Suite B • Ventura, California 93003  
 Phone (805)650-1400 Fax (805)650-1576

**SITE LOCATION MAP**  
 877 SOUTH VENTURA ROAD  
 OXNARD, CALIFORNIA

PLATE REFERENCE 139901A1A      PROJECT NUMBER 1399-01

**PLATE**  
**1**

4861 Market Street, Suite B • Ventura, California 93003  
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**Applied Environmental Technologies, Inc.**

FILE NUMBER 139901A0X

MARCH 20, 2007

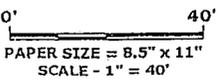
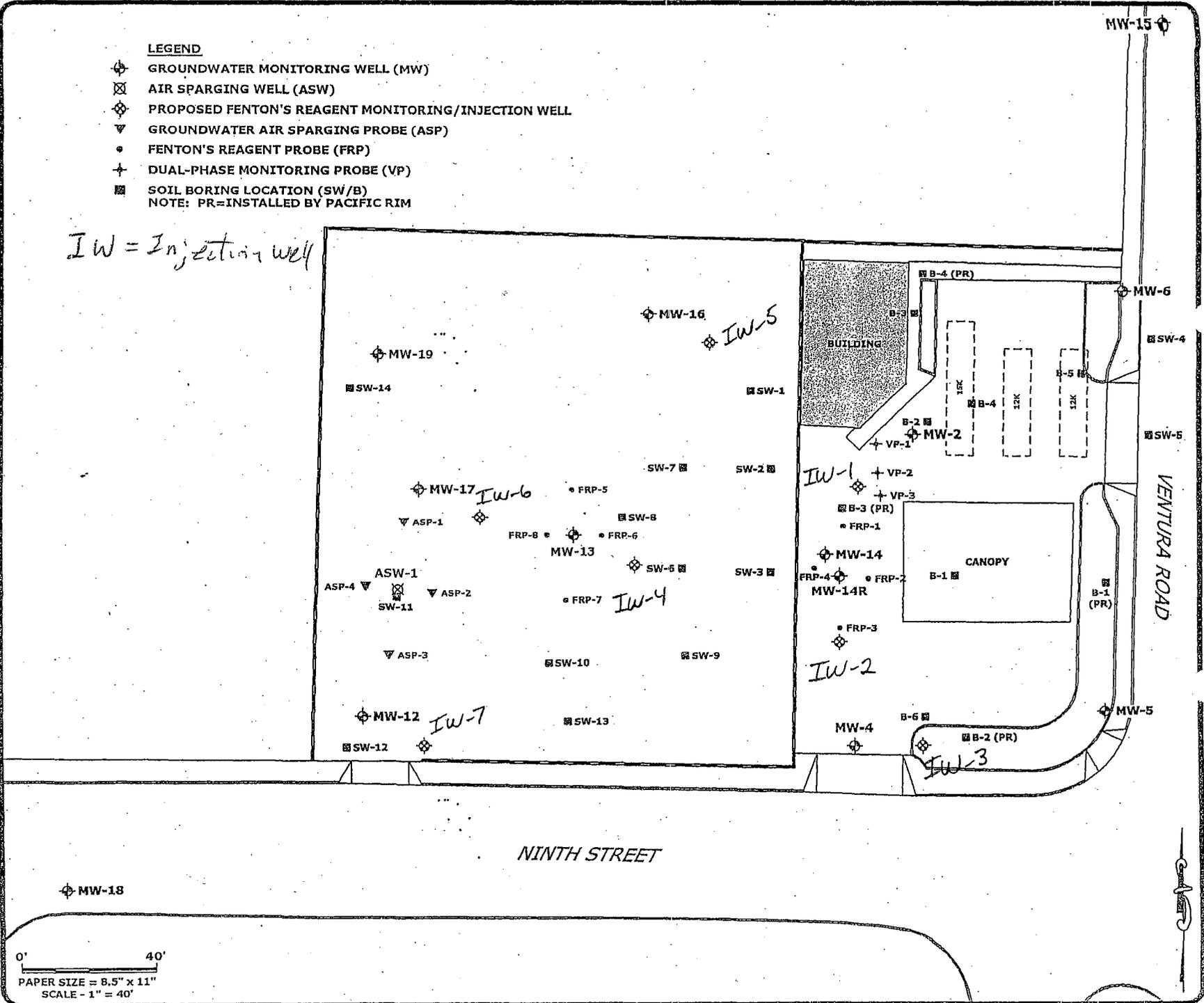
**SITE PLAN SHOWING FENTON'S REAGENT INJECTION AND MONITORING WELLS**  
 877 SOUTH VENTURA ROAD  
 OXNARD, CALIFORNIA

**PROJECT 1399-01**  
**PLATE 2**

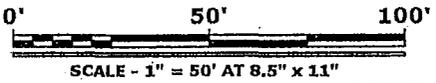
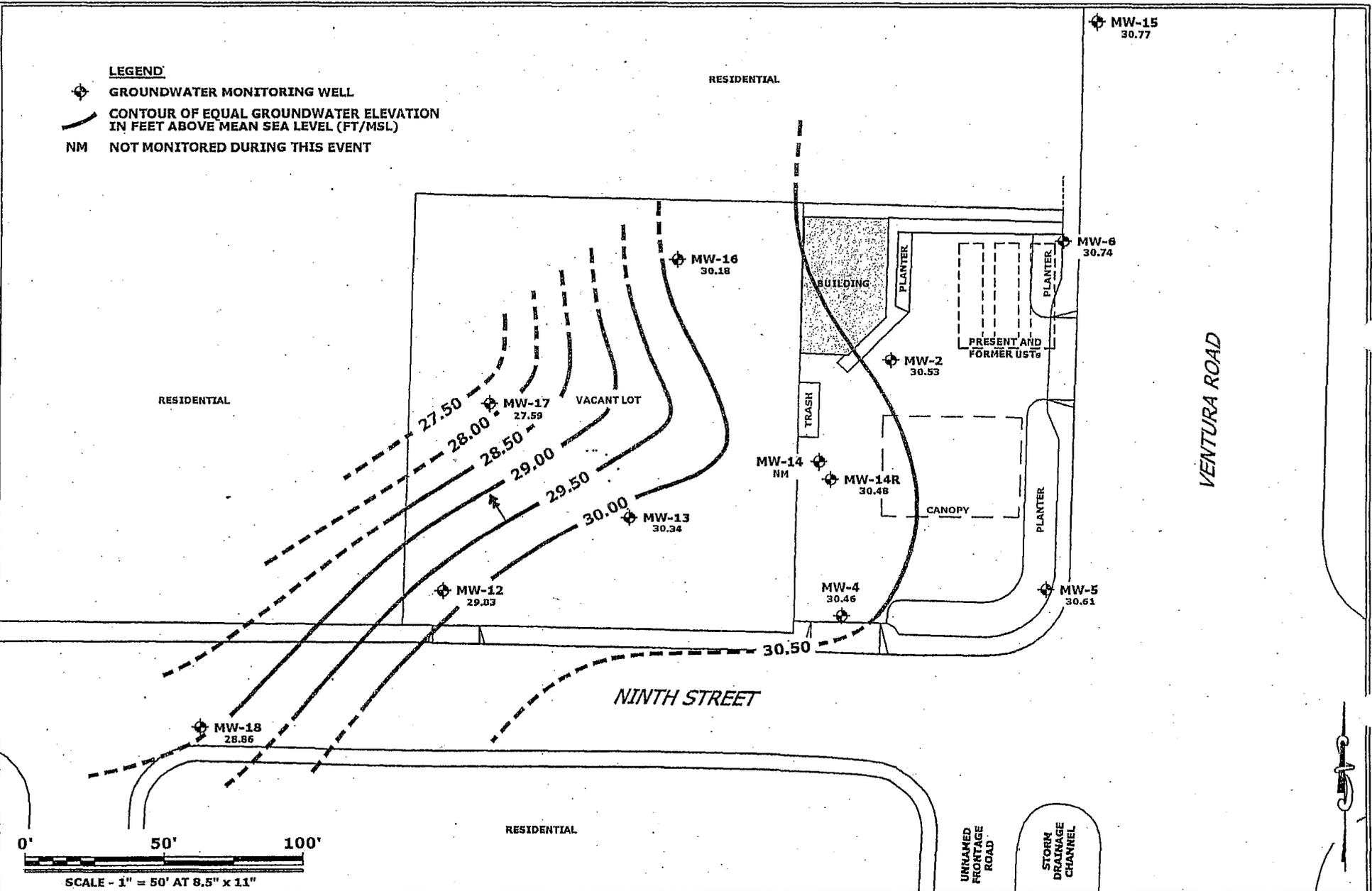
**LEGEND**

- ◆ GROUNDWATER MONITORING WELL (MW)
  - ⊠ AIR SPARGING WELL (ASW)
  - ◇ PROPOSED FENTON'S REAGENT MONITORING/INJECTION WELL
  - ▽ GROUNDWATER AIR SPARGING PROBE (ASP)
  - FENTON'S REAGENT PROBE (FRP)
  - + DUAL-PHASE MONITORING PROBE (VP)
  - SOIL BORING LOCATION (SW/B)
- NOTE: PR=INSTALLED BY PACIFIC RIM

*IW = Injection well*



- LEGEND**
- ⊕ GROUNDWATER MONITORING WELL
  - CONTOUR OF EQUAL GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (FT/MSL)
  - NM NOT MONITORED DURING THIS EVENT



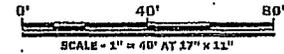
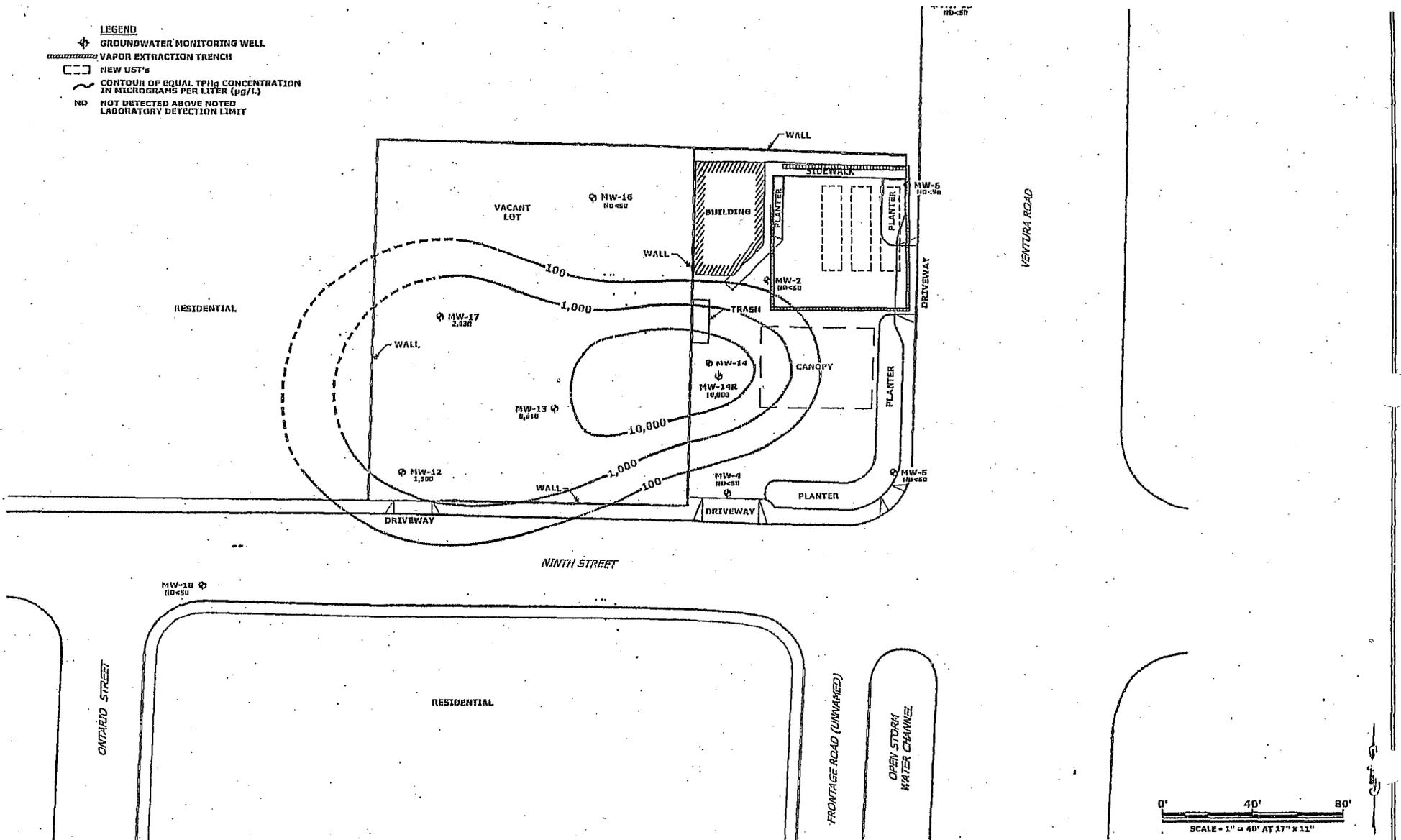
**Applied Environmental Technologies, Inc.**  
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**GROUNDWATER ELEVATION CONTOUR MAP**  
**MARCH, 2006**  
 877 SOUTH VENTURA ROAD  
 OXNARD, CALIFORNIA

PLATE REFERENCE 139901Q1B      MAY 22, 2006      PROJECT NUMBER 1399-01

**PLATE**  
**3**

- LEGEND**
- ⊕ GROUNDWATER MONITORING WELL
  - ▬ VAPOR EXTRACTION TRENCH
  - NEW LOT'S
  - ~ CONTOUR OF EQUAL TPHg CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
  - ND NOT DETECTED ABOVE NOTED LABORATORY DETECTION LIMIT



**ISO-CONCENTRATION CONTOUR MAP OF TPHg IN GROUNDWATER (µg/L) - SEPTEMBER, 2005**

**FORMER PUNJAB  
877 SOUTH VENTURA ROAD  
OXNARD, CALIFORNIA**

**PLATE  
4**

**Applied  
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PLATE REFERENCE 139901A2C

NOVEMBER 3, 2005

PROJECT NUMBER 1399-01