APPENDIX D

SOUTH COAST AIR QUALITY MANGEMENT DISTRICT LEAD (Pb) MONITORING NETWORK PLAN

JULY 2009

Prepared by

Rene M. Bermudez
Principal Air Quality Instrument Specialist

Philip M. Fine
Atmospheric Measurements Manager

Introduction

On November 12, 2008 the Environmental Protection Agency (EPA) issued final revisions to the National Ambient Air Quality Standards (NAAQS) for lead (Pb). EPA revised the level of the primary standard from 1.5 micrograms per cubic meter ($\mu g/m^3$) to 0.15 $\mu g/m^3$, measured as total suspended particulates (TSP), and revised the secondary standard to be identical in all respects to the primary standard. EPA also promulgated new monitoring requirements including new design requirements for the Pb NAAQS surveillance network. Monitoring is now required for all Pb sources (source oriented monitoring) that may contribute to violations of the Pb NAAQS and/or emit more than 1 ton/year of lead. Monitoring is also required in large urban areas for Pb as part of a non source-oriented surveillance network. According to 40 CFR Part 58 Appendix D, monitoring agencies are required to begin source-oriented monitoring by January 1st, 2010 and are required to identify Pb sources to be monitored and sampling locations in the annual network plan submitted by July 1st, 2009.

Public Comments

Pursuant to Federal regulations, this plan is to be made available for public inspection and comments for at least 30 days prior to submission to U.S. EPA. Hard copies of this document were made available on June 1, 2009 at the South Coast AQMD Public Information Desk in Diamond Bar, CA. The document was also posted to the public South Coast AQMD website at www.aqmd.gov on June 1, 2009, with links under the South Coast AQMD home page titled "Current Programs, Events and Topics." Links to the document are also provided in the "Air Quality" area of the website. The draft document will also be made available to U.S. EPA during this period for review.

Monitoring Objectives

The primary objective for the Pb monitoring network is to provide data on the ambient Pb air concentrations in areas where there is the potential for violation of the NAAQS. Revisions to the primary and secondary NAAQS for Pb provide requisite protection of public health and welfare respectively. Modifications made to the existing network design requirements for the Pb surveillance monitoring network will help to achieve better understanding of ambient Pb air concentrations near Pb emission sources and to provide better information on exposure to Pb in large urban areas.

Methodology

EPA has elected to continue use of current Pb-TSP Federal Reference Method (FRM, 40 CFR part 50 Appendix G), sampler with no substantive changes. The current method is based on the use of a high volume TSP FRM to collect a particulate matter (PM) filter sample and the use of EPA-approved Pb analysis methods. Upon data submission, monitoring agencies must now report the average pressure and temperature during the twenty four hour sample period, and report Pb concentrations using actual flow, rather than standard flow.

Monitoring Requirements

New network design requirements specify that monitoring agencies conduct ambient air Pb monitoring near sources that have the potential to cause Pb concentrations in ambient air in excess of the new NAAQS (0.15 $\mu g/m^3$, 3-month average). Agencies are required to have at a minimum, one source-oriented State and Local Air Monitoring Station (SLAMS) site located at

the maximum expected Pb concentration in ambient air resulting from each Pb source that emits 1.0 or more tons/year based on the latest EPA National Emissions Inventory (NEI) or other scientifically justifiable method or data. The monitoring location is to be determined based on the modeled the point of maximum impact, taking into consideration population exposure and logistical considerations. EPA requires at a minimum, one non source-oriented monitor in every Core Based Statistical Area (CBSA) with a population of 500,000 people or more with 15% collocation for all monitors. These monitors are to be placed in neighborhoods within urban areas impacted by re-entrained dust from roadways, closed industrial sources of Pb, or other fugitive dust sources of Pb. EPA is allowing monitoring agencies to stagger installation of newly required monitors over a two year period. Monitoring agencies are required to install and operate the required source-oriented monitors by January 1 2010. The non source monitors are required to be installed and operated by January 1 2011. The annual monitoring plan due July 1, 2009 must describe the planned monitoring that will begin by January 1, 2010 and the plan due July 1, 2010 must describe the planned monitoring to take place January 1, 2011. The minimum sampling frequency for the monitoring network remains at the current 1-in-6 day sampling frequency.

Background

South Coast AQMD currently collects TSP Pb measurements at 10 sites (with two sites collocated) as part of an ambient Pb network. This established network meets the EPA requirements for the non source-oriented monitoring network. The spatial distribution of these sites is shown in Figure 1.

In 1990, U.S. EPA requested that the South Coast AQMD collect ambient air particulate Pb samples near several large Pb handling (battery recycling) sources. Long-term source oriented monitoring began in 1991. Quemetco RSR in the City of Industry exceeded the previous federal ambient particulate Pb standard of 1.5 $\mu g/m^3$ during the second quarter of 1991. Lead monitoring ended at Martin Brass Foundry Inc. in the City of Torrance during 1993 when measurements were consistently below the ambient standard. Sampling also ended at Quenell Enterprises Inc. in the City of Commerce in 2006 when the monitoring site was redeveloped. The facility is now owned by Exide Inc, and has reported emissions of 0.03007 tons/yr.

South Coast AQMD currently conducts source-oriented monitoring at three facilities. At Exide Inc. in the city of Vernon, Pb emissions are reported as 1.998 tons/yr and sampling is currently conducted at two sites identified as “Rehrig” and “ATSF”. The Rehrig location began sampling in November 2007 in response to a request from AQMD compliance staff. The Rehrig site began monitoring on a 1-in-6 day schedule, but sampling frequency at Rehrig and ATSF was changed to either 1-in-2 or 1-in-3 day between February and May 2008, and the Rehrig site began daily sampling in May 2008. The monthly averages at Rehrig for December 2007 through April 2008 exceeded 1.5 $\mu g/m^3$. The results of sampling near Exide are summarized in Table 1. Monthly averages at Rehrig continue to exceed the new Pb NAAQS of 0.15 $\mu g/m^3$.

At Quemetco in the City of Industry, monitoring emissions are reported as 0.321 tons/yr and sampling is currently conducted at one site identified as “Closet World”. This location monitors on a 1-in-6 day sampling schedule and no exceedances of the previous 1.5 $\mu g/m^3$ Pb NAAQS have taken place since 1991. Monthly averages last exceeded the new standard of 0.15 $\mu g/m^3$ Pb

in 2005. In 2006, monthly averages ranged between 0.02 and 0.10 $\mu g/m^3$. Sampling did not take place in 2007 and most of 2008 due to the loss of access to our sampling location.

At Trojan Battery in Santa Fe Springs monitoring emissions are reported as 0.0145 tons/yr and sampling is conducted at one site identified as "UDDH". The UDDH site operates on a 1-in-6 day sampling schedule and no exceedances of the 1.5 $\mu g/m^3$ Pb NAAQS have taken place since 2006. The highest monthly average since 2006 was 0.23 $\mu g/m^3$ occurring in May 2007. Since September 2007, all monthly averages have been below the new Pb NAAQS of 0.15 $\mu g/m^3$.

Pb Sources and Emissions

EPA National Emission Inventory data from 2005 reports that there are three sources of Pb in South Coast AQMD that emit more than 1.0 ton/year (Table 2). In contrast, the most recent data from South Coast AQMD annual emissions reports (2006-2007) shows only one source greater than 1.0 ton/year (Table 3). The Quenell Enterprises facility in the City of Commerce, now owned by Exide has emissions of 0.03007 tons/year and Quemetco RSR has reported emissions of 0.321312 tons/yr. Based on these recent emissions reports, Exide is the only non-aviation source currently emitting over 1.0 ton/year. The new monitoring guidance also requires general aviation sources to be monitored if Pb emissions exceed 1.0 ton/yr. General aviation aircraft use leaded aviation fuel and have been identified as a source of Pb emissions. The EPA Technical Support Document, "Lead Emissions from the Use of Leaded Aviation Gasoline in the United States" reports Pb emissions estimates for the general aviation Pb sources across the country. Of these sources, one is located within South Coast AQMD boundaries; the top five airports above 1.0 tons/year are shown in Table 4. Estimates for airport emissions of Pb for Van Nuys Airport are given as 1.4 tons/year. Current plans are to find a suitable location on the grounds of Van Nuys Airport or adjacent property at which to monitor for Pb. The monitor will be sited as close as feasible to the blast fence where the majority of piston-driven aircraft begin their take-off. Talks are underway with airport management and surrounding businesses to secure a location, and monitoring is to begin before the end of 2009. The current and planned source-oriented Pb monitoring network site information is included in Table 5 and depicted in Figure 2. Even though Quemetco and Trojan Battery emit less than 1.0 ton/year Pb, and recent data does not suggest potential exceedances of the new Pb standard, AQMD will continue monitoring in the coming year to demonstrate compliance with the new Pb NAAQS at these sites.

Rule 1420 Monitoring

On September 11, 1992 South Coast AQMD adopted Rule 1420 in order to reduce emissions of lead from non-vehicular sources. The rule applies to all persons who own or operate facilities that use or process Pb containing materials such as primary or secondary Pb smelters, foundries, lead-acid battery manufacturers, or recyclers and lead-oxide, brass and bronze producers. Requirements include a provision that all facilities that process more than 10 tons of lead per year must install, maintain, and operate ambient air quality monitoring equipment. Any facility that processes more than 2 tons per year, but less than or equal to 10 tons of Pb per year must determine ambient Pb concentrations by either monitoring or dispersion modeling. Air quality samples must be collected using approved equipment from a minimum of two sampling sites at or beyond the property line of the facility where maximum ground level Pb concentrations are indicated by air dispersion modeling calculations. Samples are to be collected for 24 hours consecutively for 30 days, and thereafter every 6^{th} day. Continuous recording of wind speed and

direction is required during sampling periods using approved equipment. Samples are submitted to an approved laboratory for analysis. Results are reported to South Coast AQMD each calendar quarter and any exceedances are reported within 24 hours of the completed sample analysis.

Results of Rule 1420 sampling conducted by Exide show two occasions between December 2007 and May 2009 when monthly averages were greater than 1.5 $\mu g/m^3$ (Table 1). During January 2009 the North (N) site recorded a monthly average of 1.55 $\mu g/m^3$ and in March 2009 the monthly average was 2.08 $\mu g/m^3$.

Rule 1420 sampling conducted at Quemetco shows the highest monthly average value recorded between February 2007 and February 2009 was 0.76 $\mu g/m^3$ just inside the fence line. Monthly means of values taken on the property of Quemetco are given in Table 6.

Since Rule 1420 monitors are operated by the facilities and are often located on facility property within the fence line, data collected may not meet the definition of "ambient" and siting may not conform to relevant EPA siting criteria. Therefore they are not designated as SLAMS sites at this time. However these sites will provide data to aid in the enforcement of regulations designed to meet the new Pb standard.

Source-oriented Monitor Siting

Source-oriented micro-scale sites are to be located at the site of maximum ambient impact, taking into account population exposure and logistical considerations. In practice, this generally equates to monitoring at the fence line or beyond at a site that is as close as feasible to point of highest modeled concentrations. Modeling was completed for each of source-oriented locations indicating the expected location of maximum impact for Pb. Dispersion modeling for each facility was performed using AERMOD (version 07026) to determine the monthly lead concentrations. The AERMOD default regulatory option was used and building downwash was included. AERMAP was used to determine the terrain base elevations for each receptor and source and a hill height scale value for each receptor. AERSURFACE was used to determine the surface albedo and surface roughness. A Bowen ratio of 1.0 was used, instead of the AERSURFACE output value. This was done because the National Land Cover Data (NLCD) 92 dataset does not include the recent land development projects that occurred within Southern California, which would result in a lower Bowen ratio. AERMET was used to develop the necessary meteorological data for each project using the meteorological data from the appropriate monitoring station and upper air sounding data collected at the Miramar Naval Air Station. A 100-meter by 100-meter receptor grid centered on the facility was used, as well as fenceline receptors placed using 25-meter intervals. All facility boundary, source parameters, and emission rates were obtained from the most recently submitted (Health Risk Assessment) HRA for each facility.

Using the U.S. EPA's post processor, the maximum 3-month rolling average lead concentration was calculated. The results are plotted in Figures 3, 4 and 5.

Exide

The most recent Health Risk Assessment (HRA) for Exide was prepared in June 2007 using the emission inventory for the 2005/2006 inventory year, which reports a total facility emission of 1.16 tons of lead per year from 18 on-site emission points. The meteorological data from the Lynnwood monitoring station was used. The maximum ground-level lead concentration is 0.88 $\mu g/m^3$ and is shown in Figure 3 along with current monitoring locations.

South Coast AQMD will continue to monitor at the Rehrig and ATSF locations. The current sampling schedule for Rehrig and ATSF are daily, and 1-in-3 respectively. These schedules may be changed over FY 2009-10 to 1-in-6 depending on compliance needs. South Coast AQMD may relocate the ATSF sampler in FY 2009-10 to a location closer to the facility where higher concentrations are expected.

Quemetco

The most recent HRA for Quemetco was prepared in January 2009 based on source tests performed in November 2008. The HRA reports total facility emissions of 0.15 tons of lead per year from 10 on-site emission points. Although the facility includes an on-site meteorological station, the data collected at the station is not sufficient to use in AERMET. Therefore, the meteorological data from the La Habra monitoring station was used. The maximum ground-level lead concentration is 0.03 $\mu g/m^3$. Using the post processor, the concentrations are rounded off to two decimal places. Therefore the maximum lead concentration is not identified at a particular point as there are five receptor locations with the same maximum concentration. Instead, the maximum lead concentration is represented by an area bounded by the 0.03 $\mu g/m^3$ isopleth in Figure 4.

South Coast AQMD will continue to monitor at the Closet World location downwind of Quemetco. The current sampling site is located within the maximum modeled isopleth and cannot be located closer to the fence line due to the proximity of a flood control channel. The Closet World location currently monitors on a 1-in-6 day schedule.

Trojan Battery

Modeling for Trojan Battery was based on the emissions reported for the 2006/2007 inventory year, which reports a total facility emission of 0.04 tons of lead per year from one on-site emission point. The meteorological data from the Lynnwood monitoring station was used. Since no stack parameters were available, the default parameters for SCC 31306505, obtained from the US EPA, were used. The maximum ground-level lead concentration is 0.04 $\mu g/m^3$. Using the post processor, the concentrations are rounded off to two decimal places. Therefore the maximum lead concentration is not identified at a particular point as there are two receptor locations with the same maximum concentration. Instead, the maximum lead concentration is represented by an area bounded by the 0.03 $\mu g/m^3$ isopleth in Figure 5.

South Coast AQMD currently monitors for Pb adjacent to Trojan Battery at a site designated as UDDH. The sampling location is as close to the highest modeled concentration area as possible given logistical siting constraints. Sampling will continue to confirm that Pb levels continue to remain below the new Pb NAAQS of 0.15 $\mu g/m^3$. Since emissions from this facility are much

lower than 1.0 ton/year, and two years of data show no exceedances, this site may be discontinued in FY2009-10.

Pb Non Source Monitors

Non source-oriented monitors are located in urban areas to gather information on general population Pb exposure. One non source-oriented monitor is required in each CBSA with a population > 500,000 as determined by the most recent census data. South Coast AQMD currently operates a non source-oriented monitoring network of 10 locations with three collocated sites detailed in Table 7 and depicted in Figure 1. South Coast AQMD's current Pb monitoring network exceeds the minimum required monitoring as part of the final revision to the NAAQS for Pb. Any redesign of this network will be addressed in the 2010 Annual Network Plan.

TABLE 1
Exide Monthly Average Pb Concentrations

Month	ATSF[1]	Rehrig[1]	ATSF[2]	SE[2]	SW[2]	NW[2]	NE[2]	N[2]
December, 2007	0.16	1.97	0.25	0.33	0.90			
January, 2008	0.17	2.88	0.20	0.42	1.14			
February, 2008	0.23	2.50	0.23	0.35	0.97			
March, 2008	0.25	2.09	0.33	0.17	0.28			
April, 2008	0.18	2.28	0.24	0.17	0.19			
May, 2008	0.13	0.90	0.22	0.16	0.18	0.77		
June, 2008	0.11	0.60	0.16	0.10	0.18	0.57		
July, 2008	0.14	0.61	0.19	0.14	0.31			
August, 2008	0.20	0.80	0.25	0.32	0.27			
September, 2008	0.17	0.95	0.24	0.18	0.34			
October, 2008	0.17	0.74	0.23	0.16	0.36			
November, 2008	0.13	0.70	0.24	0.19	0.28			
December, 2008	0.06	0.94	0.10	0.35	0.25			
January, 2009	0.07	0.35	0.11	0.34	0.32		1.15	1.55
February, 2009	0.08	0.32	0.10	0.10	0.15		1.08	1.21
March, 2009	0.08	0.59	0.12	0.07	0.17		1.07	2.08
April, 2009	0.09	0.54	0.09	0.07	0.15		0.83	1.31
May, 2009	0.05	0.16	0.12	0.12	0.23		0.75	0.86

[1] South Coast AQMD Monitor
[2] Rule 1420 Monitor
All values in $\mu g/m^3$

TABLE 2
2005 U.S. EPA National Emission Inventory Data

NEI SITE ID	NEI Facility Name	Category	2005 NEI v 2 Emissions (tons/yr)	City
NEI21201	QUEMETCO INC	Lead Compounds	1.935600987	CITY OF INDUSTRY
NEI21202	QUENELL ENTERPRISES INC	Lead Compounds	1.9334615	COMMERCE
NEI2CA124838	EXIDE CORPORATION	Lead Compounds	1.62809	VERNON
NEI20307	BP WEST COAST PRODUCTS LLC CARSON	Lead Compounds	0.78605	CARSON
NEI22117	JOHNSON CONTROLS BATTERY GROUP	Lead Compounds	0.4499375	FULLERTON

TABLE 3
South Coast AQMD
Lead Inventory 2006-07

Facility Id	Facility Name	Category	Emissions (lb/yr)	Emissions (tons/yr)	City
124838	EXIDE TECHNOLOGIES	Lead Compounds	3996.75	1.998375	Vernon
8547	Quemetco, Inc. An RSR Corporation	Lead Compounds	642.6247	0.321312	City of Industry
800436	Tesoro Corporation	Lead Compounds	309.5451	0.154773	Wilmington
800089	Exxon Mobil Oil Corporation	Lead Compounds	182.8288	0.091414	Torrance
11192	Hi-Shear Corp	Lead Compounds	170.2574	0.085129	Torrance

TABLE 4
Airport Specific Estimates of Pb Emissions[1]

FIPS[2]	Airport	State	County	Airport Name	Tons/yr
06037	VNY	CA	Los Angeles	Van Nuys	1.4
08005	APA	CO	Arapahoe	Centennial	1.2
04013	DVT	AZ	Maricopa	Phoenix Deer Valley	1.1
12117	SFB	FL	Seminole	Orlando Sanford	1.0
12127	DAB	FL	Volusia	Daytona Beach International	1.0

[1] Source: Lead Emissions from the Use of Leaded Aviation Gasoline in the United States, EPA420-R-08-020 (2008)
[2] Federal Information Processing Standards Code

TABLE 5
South Coast AQMD
Source-Oriented Monitoring Facilities

Source	Address	Facility ID	South Coast Inventory ton/yr	Start Date	Schedule
Exide Technologies	2700 S Indiana St. Vernon, CA 90058	124838	1.998375	4/91	1-in-6
Quemetco RSR	720 S 7th Ave. City of Industry, CA 91746	8547	0.321312	1991	1-in-6
Trojan Battery	9440 Ann St. Santa Fe Springs, CA 90670	21872	0.042768	11/92	1-in-6
Van Nuys Airport[1]	16461 Sherman Way. Van Nuys CA, 91406	12127[2]	1.4	Planned 2009	1-in-6

[1] Data Source: Lead Emissions from the Use of Leaded Aviation Gasoline in the United States; EPA420-R-08-020 October 2008
[2] Federal Information Processing Standards Code (FIPS)

TABLE 6
Quemetco Monthly Lead Concentrations for the Period Sept 2007 to Feb 2009

Statistics	Monitor #1	Monitor #2	Monitor #4	Monitor #5
Minimum ($\mu g/m^3$)	0.14	0.14	0.07	0.07
Mean ($\mu g/m^3$)	0.28	0.22	0.13	0.40
Maximum ($\mu g/m^3$)	0.51	0.33	0.20	0.76
Number of monthly means	16	16	16	16
Standard deviation ($\mu g/m^3$)	0.13	0.05	0.04	0.19
95% confidence interval ($\mu g/m^3$)	0.22-0.34	0.18-0.25	0.11-0.15	0.31-0.49

TABLE 7
Non-Source Lead Monitoring Locations

Location	Site Code	ARB No.	AQS No.	Start Date	Schedule
Compton[2]	COMP	70112	060371302	11/08	1-in-6
LAX Hastings	LAXH	70111	060375005	4/04	1-in-6
Long Beach [3] (North)	LGBH	70072	060374002	10/62	1-in-6
Los Angeles [3] (Main)	CELA	70087	060371103	9/79	1-in-6
Lynwood[1]	LYNN	70084	060371301	10/73	1-in-6
Pico Rivera #2	PICO	70185	060371602	9/05	1-in-6
Riverside [3]	RIVM	33146	060651003	10/72	1-in-6
Rubidoux	RIVR	33144	060658001	9/72	1-in-6
San Bernardino	SNBO	36203	060719004	5/86	1-in-6
South Long Beach	SLGB	70110	060374004	6/03	1-in-6
Upland	UPLA	36175	060711004	3/73	1-in-6

[1] Site Closed on 10/30/08
[2] Replaced Lynwood AMS on 11/05/08
[3] Collocated sites

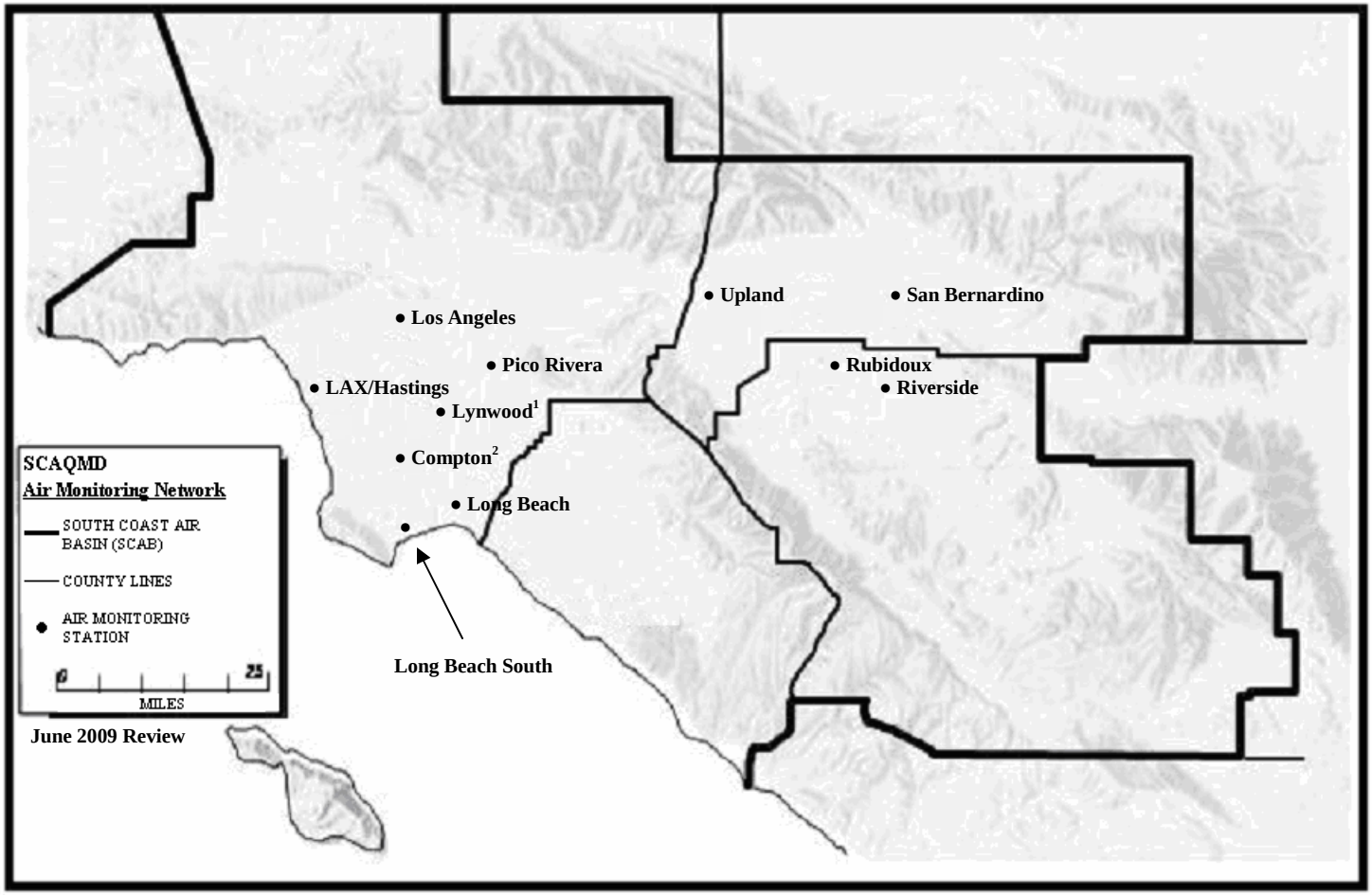


Figure 1 SCAQMD Non-Source Lead Monitoring Locations

[1] Site closed on 10/30/08
[2] Site replaced Lynwood 11/05/08

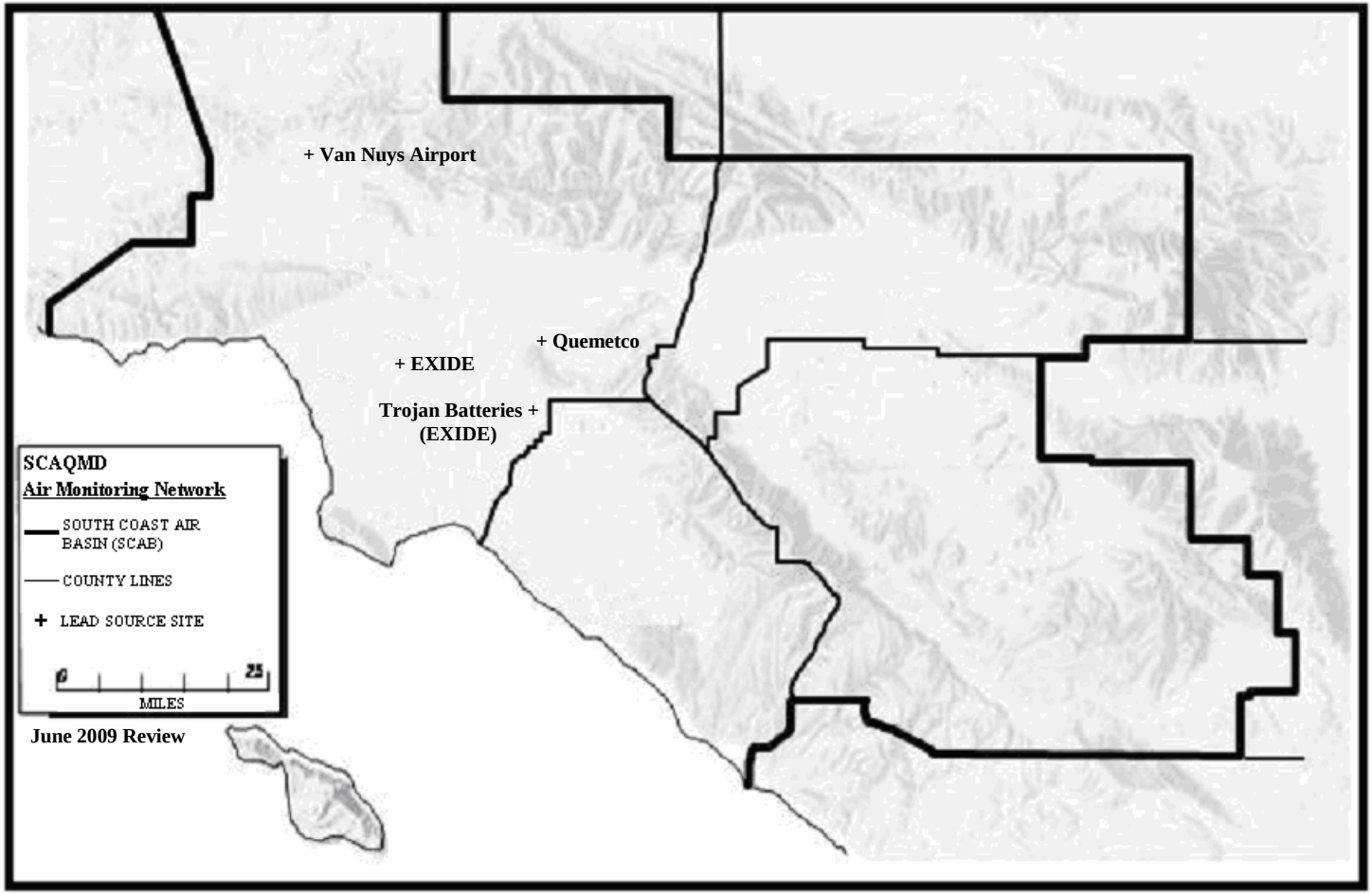


Figure 2 SCAQMD Lead Sources

EXIDE

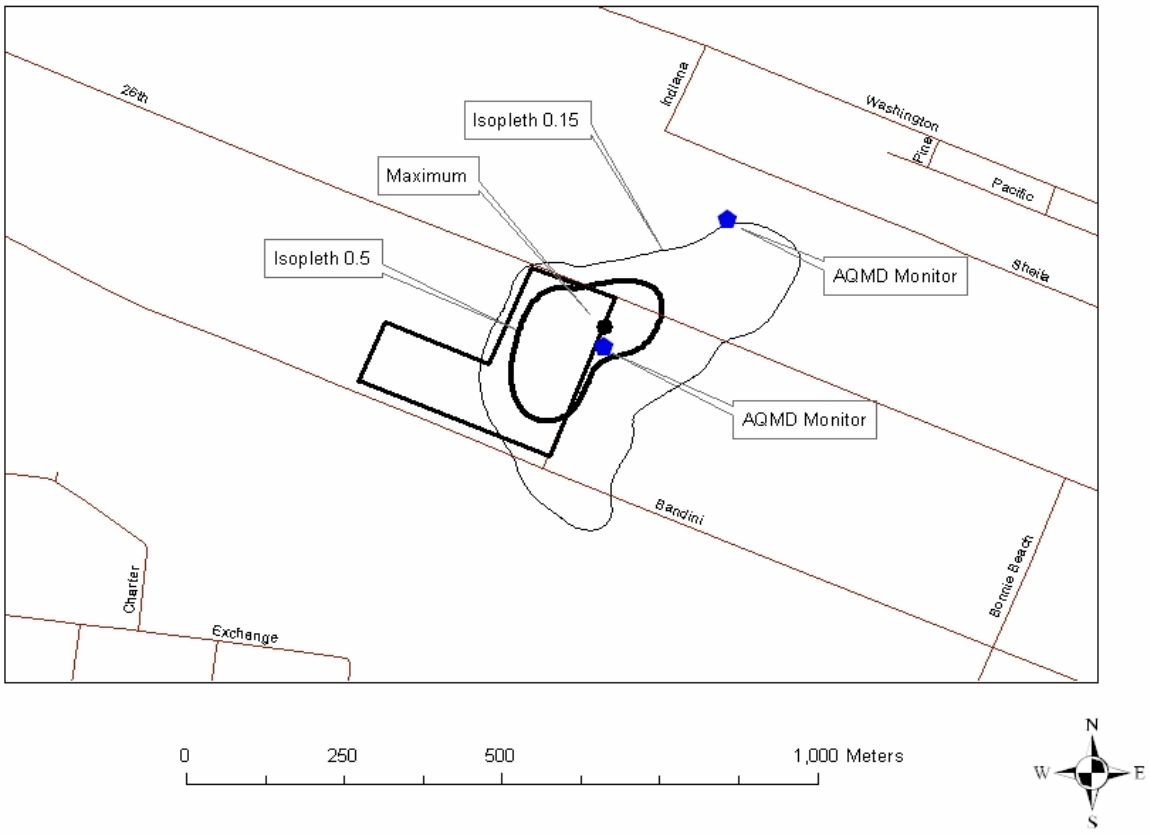


Figure 3 Exide Maximum Modeled Pb Locations

QUEMETCO

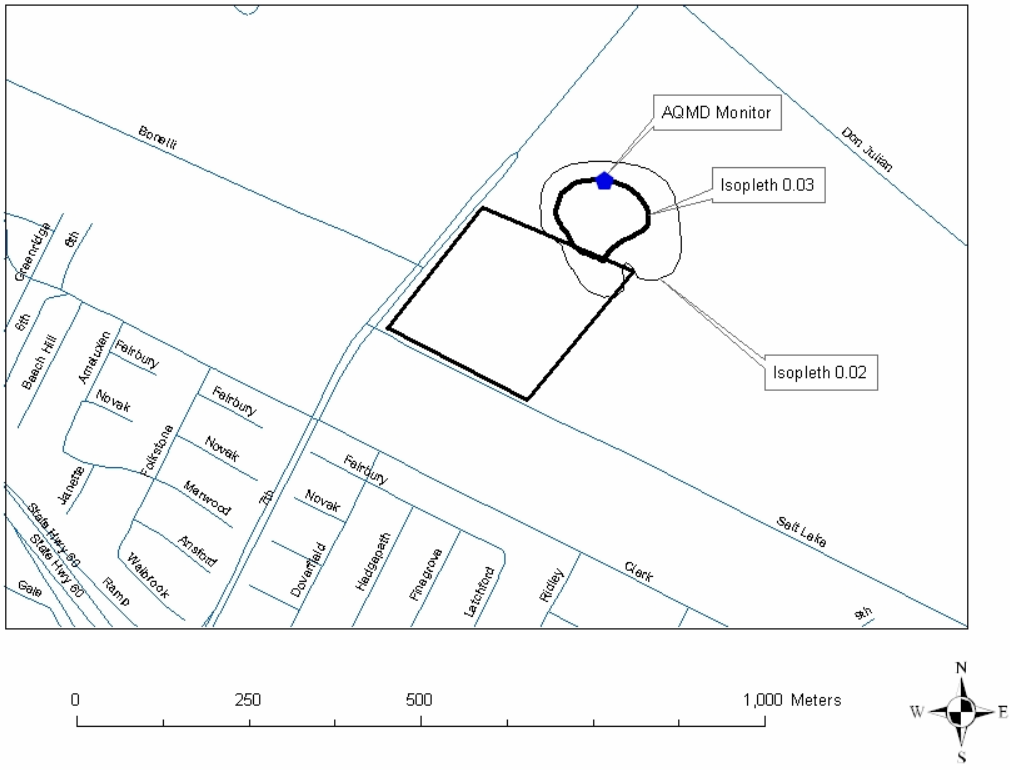


Figure 4 Quemetco Maximum Modeled Pb Locations

TROJAN

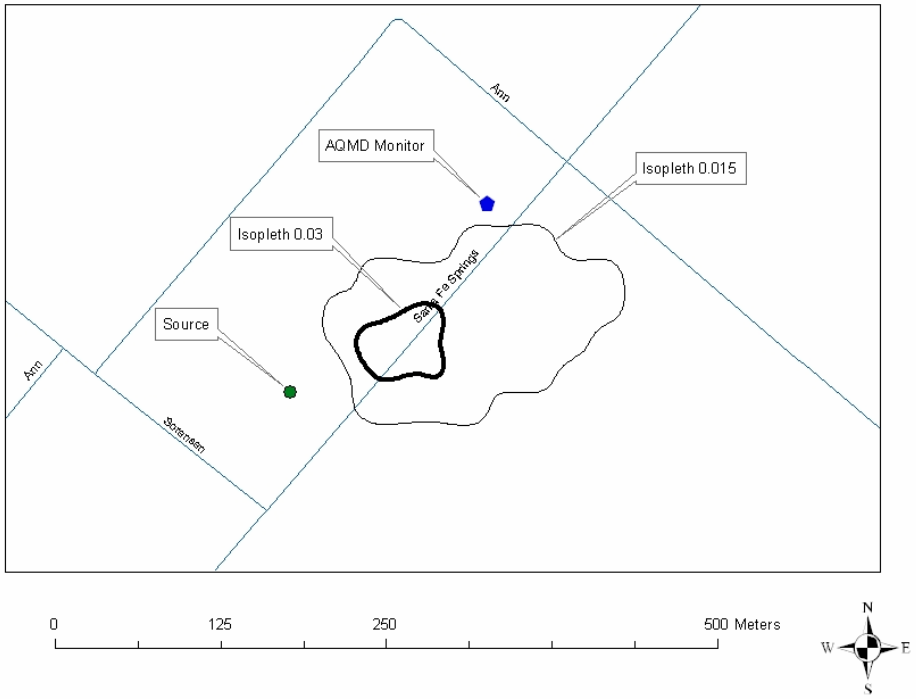
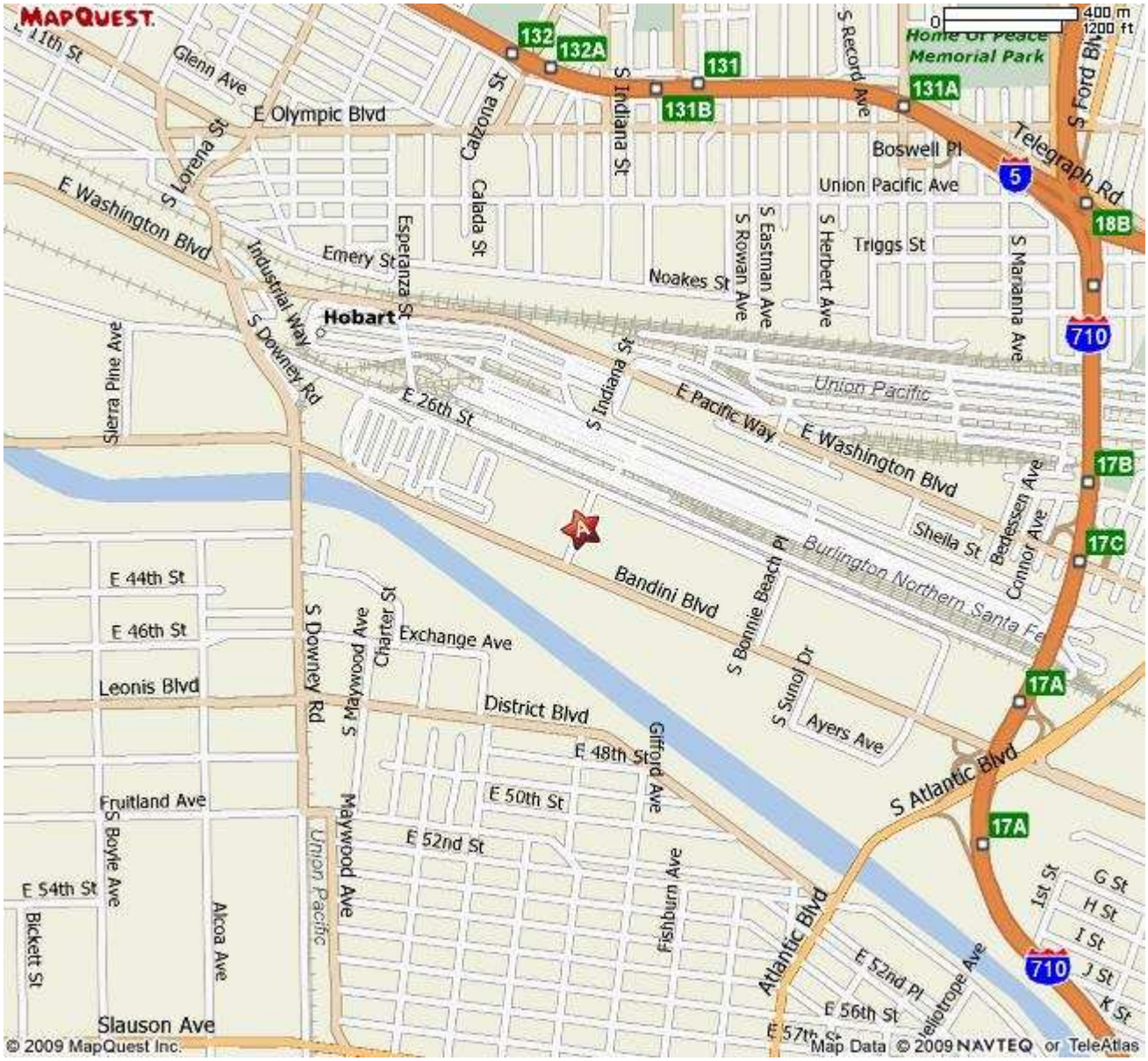


Figure 5 Trojan Battery Maximum Modeled Pb Location

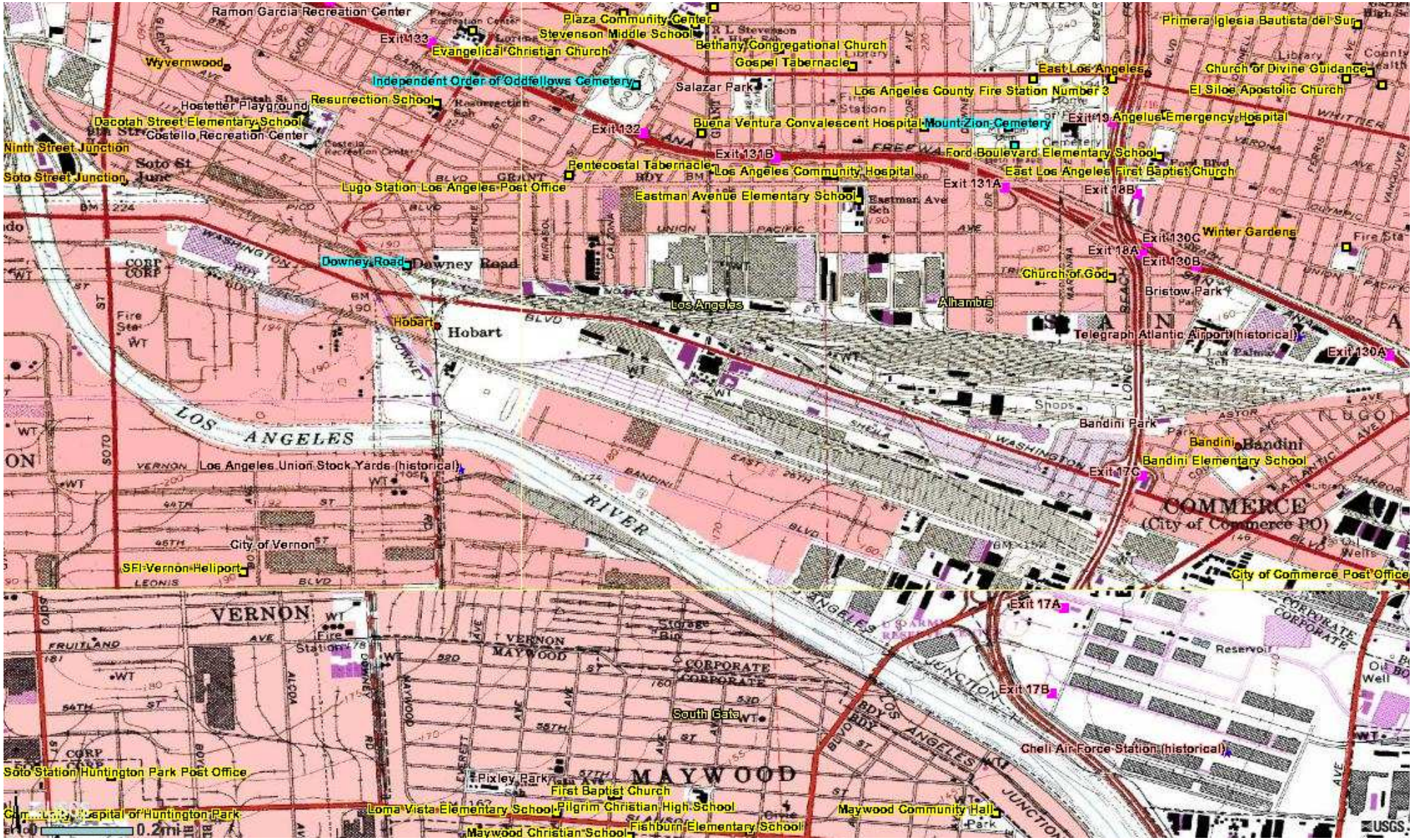
Site Survey Report for Exide

Last updated June, 2009



AIRS Number	ARB Number	Site Start Date	Reporting Agency and Agency Code
NA	NA	4/1991	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
2700 S Indiana St. Vernon, CA 90058	Los Angeles	South Coast	34° 00' 28"	-118° 11' 32"	55 m


Ramon Garcia Recreation Center
Plaza Community Center
Primera Iglesia Bautista del Sur
Exit 133
Stevenson Middle School
Bethany Congregational Church
Evangelical Christian Church
Gospel Tabernacle
East Los Angeles
Church of Divine Guidance
Wyvernwood
Independent Order of Oddfellows Cemetery
Salazar Park
Los Angeles County Fire Station Number 3
El Siloe Apostolic Church
Resurrection School
Hostetter Playground
Dacotah Street Elementary School
Costello Recreation Center
Buena Ventura Convalescent Hospital
Mount Zion Cemetery
Exit 19
Angelus Emergency Hospital
Exit 132
Ninth Street Junction
Soto St Junc
Soto Street Junction
Exit 131B
Pentecostal Tabernacle
Los Angeles Community Hospital
Ford Boulevard Elementary School
East Los Angeles First Baptist Church
Lugo Station Los Angeles Post Office
Eastman Avenue Elementary School
Exit 131A
Exit 18B
Exit 130C
Winter Gardens
Exit 18A
Exit 130B
Downey Road
Church of God
Bristow Park
Los Angeles
Alhambra
Hobart
Telegraph Atlantic Airport (historical)
Exit 130A
LOS ANGELES
Bandini Park
Bandini
Bandini Elementary School
Exit 17C
Los Angeles Union Stock Yards (historical)
RIVER
COMMERCE
(City of Commerce PO)
City of Vernon
SEI-Vernon Heliport
City of Commerce Post Office
Exit 17A
VERNON
Reservoir
Exit 17B
South Gate
Cheli Air Force Station (historical)
Soto Station Huntington Park Post Office
MAYWOOD
Pixley Park
First Baptist Church
Loma Vista Elementary School
Pilgrim Christian High School
Maywood Community Hall
Maywood Christian School
Fishburn Elementary School
0.2mi
USGS

Site Survey Report

Siting Information

Site Name: Exide	Date: 6/30/2009	State Code: NA	AIRS Number: NA
Address: 2700 S Indiana St. Vernon, CA 90058	Latitude: 34° 00' 28"	Longitude: -118° 11' 32"	Elevation (m): 55
	Senior AQIS: Albert Dietrich	Site Technician: TBD	Site Phone: N/A
Operating Agency: South Coast AQMD			

General Siting Conditions

Station Temperature	**Traffic**	**Topography**	Predominant Wind Direction: SW
Controlled: No	Description: Residential	Site: Level	Arc Air Flow (Deg): 360
Recorded: No	Distance: 30 m	Region: Level	Probe Last Cleaned Date: N/A
	Count (Veh/Day):	**QA Manual**	Manifold Clean: N/A
Meteorology	**Non-vehicular Local Sources**	Approved: Yes	Cleaning Schedule: N/A
Located With Instruments: No	Description: Train	Agency: South Coast AQMD	Autocalibrator Type: N/A
	Distance: 5 m	Urbanization: Suburban	Site Survey Complete: Yes
	Direction: surrounding	Ground Cover: Asphalt / Gravel	Logbook Up To Date: Yes

Action Items

Comments

Detailed Site Information

Site Name	Exide			
AQS ID (AIRS #)	N/A			
GIS coordinates	Latitude: 34° 00' 28"' Longitude: -118° 11' 32"			
Location	Train yard			
Address	2700 S Indiana St. Vernon, CA 90058			
County	Los Angeles			
Dist. to road	30 m			
Traffic count				
Groundcover	Asphalt/Gravel			
PEP audit?	N/A			
NPAP audit?	N/A			
Flow audit?	N/A			
Representative Area	31100-Los Angeles-Long Beach-Santa Ana			
Pollutant	TSP- A Rehrig	TSP- B Rehrig	TSP- C Rehrig	TSP- ATSF
Monitor obj	REPRESENTATIVE CONCENTRATION	REPRESENTATIVE CONCENTRATION	REPRESENTATIVE CONCENTRATION	REPRESENTATIVE CONCENTRATION
Spatial scale	Microscale	Microscale	Microscale	Microscale
Sampling method	GMW TSP	GMW TSP	GMW TSP	GMW TSP
Serial #	NA	NA	NA	NA
Property #	1563	1553	1581	1545
Last Calibration Date	4/2/09	4/24/09	6/11/09	6/11/09
Analysis method	Weighed by SCAQMD lab	Weighed by SCAQMD lab	Weighed by SCAQMD lab	Weighed by SCAQMD lab
Start date	4/1991	4/1991	4/1991	4/1991
Operation schedule	1:6	1:6	1:6	1:6
Sampling season	All Year	All Year	All Year	All Year
Probe height	2.6	2.6	2.6	2.6
Distance from supporting structure	N/A	N/A	N/A	N/A
Distance from obstructions on roof	N/A	N/A	N/A	N/A
Distance from obstructions not on roof	N/A	N/A	N/A	N/A
Distance from trees	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue	N/A	N/A	N/A	N/A
Distance between collocated monitors	N/A	N/A	N/A	N/A
Unrestricted airflow	Yes	Yes	Yes	Yes
Probe material	N/A	N/A	N/A	N/A
Residence time	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months?	No	No	No	No
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A

Frequency of flow rate verification for manual PM samplers audit	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers audit	N/A	N/A	N/A	N/A
Frequency of one-point QC check (gaseous)	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation (gaseous)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A

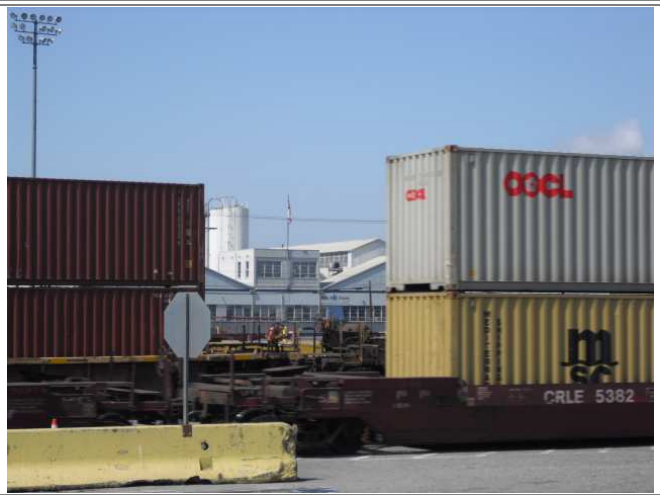
Exide - Rehrig
Site Photos

	
Looking North	**Looking East from the probe.**
	
Looking South from the probe.	**Looking West from the probe**

Exide - ATSF
Site Photos (Cont.)

Looking at the probe to the West.

Looking from the probe to the East.

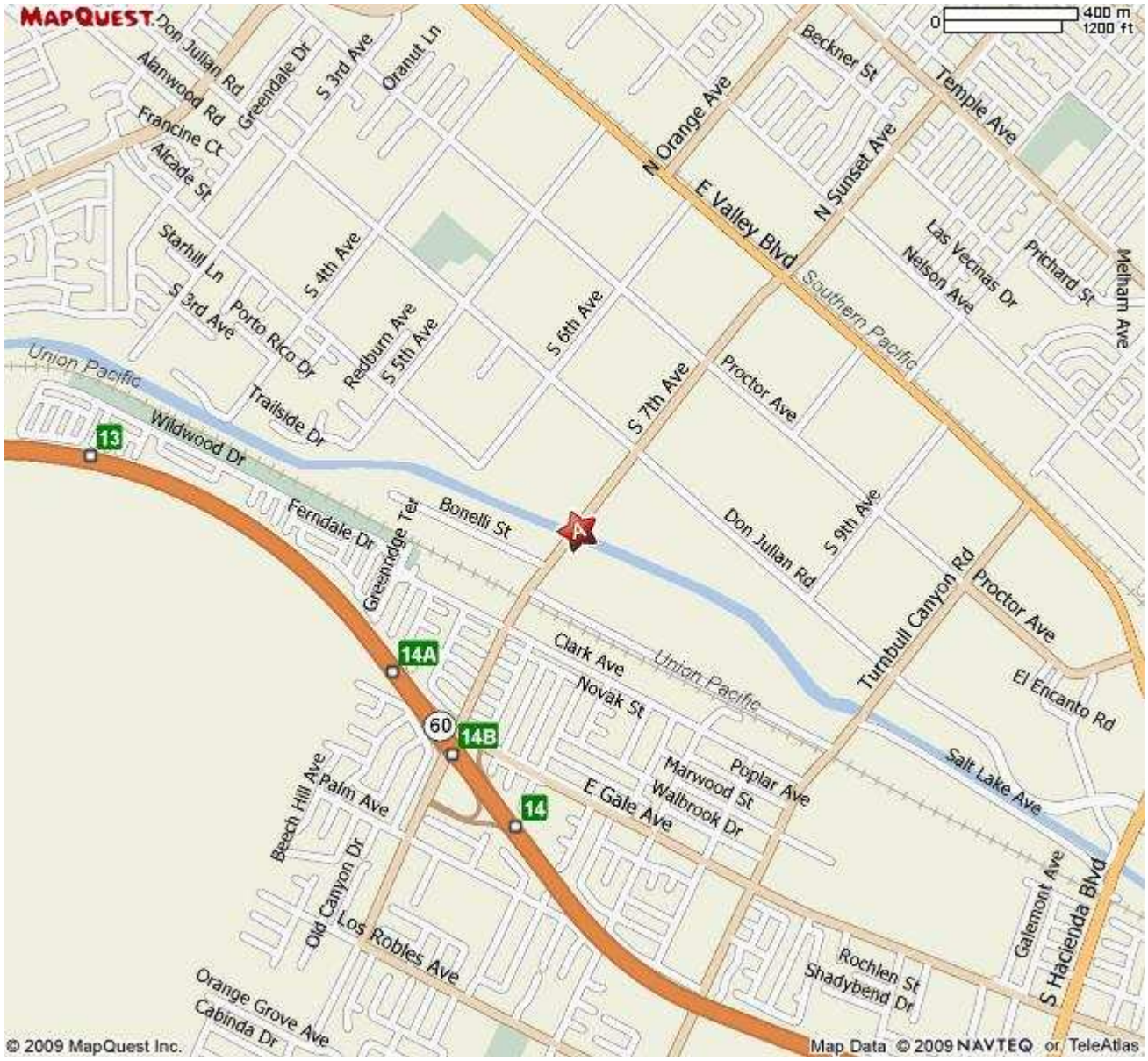


Looking from the probe to the South.

Looking from the probe to the North.

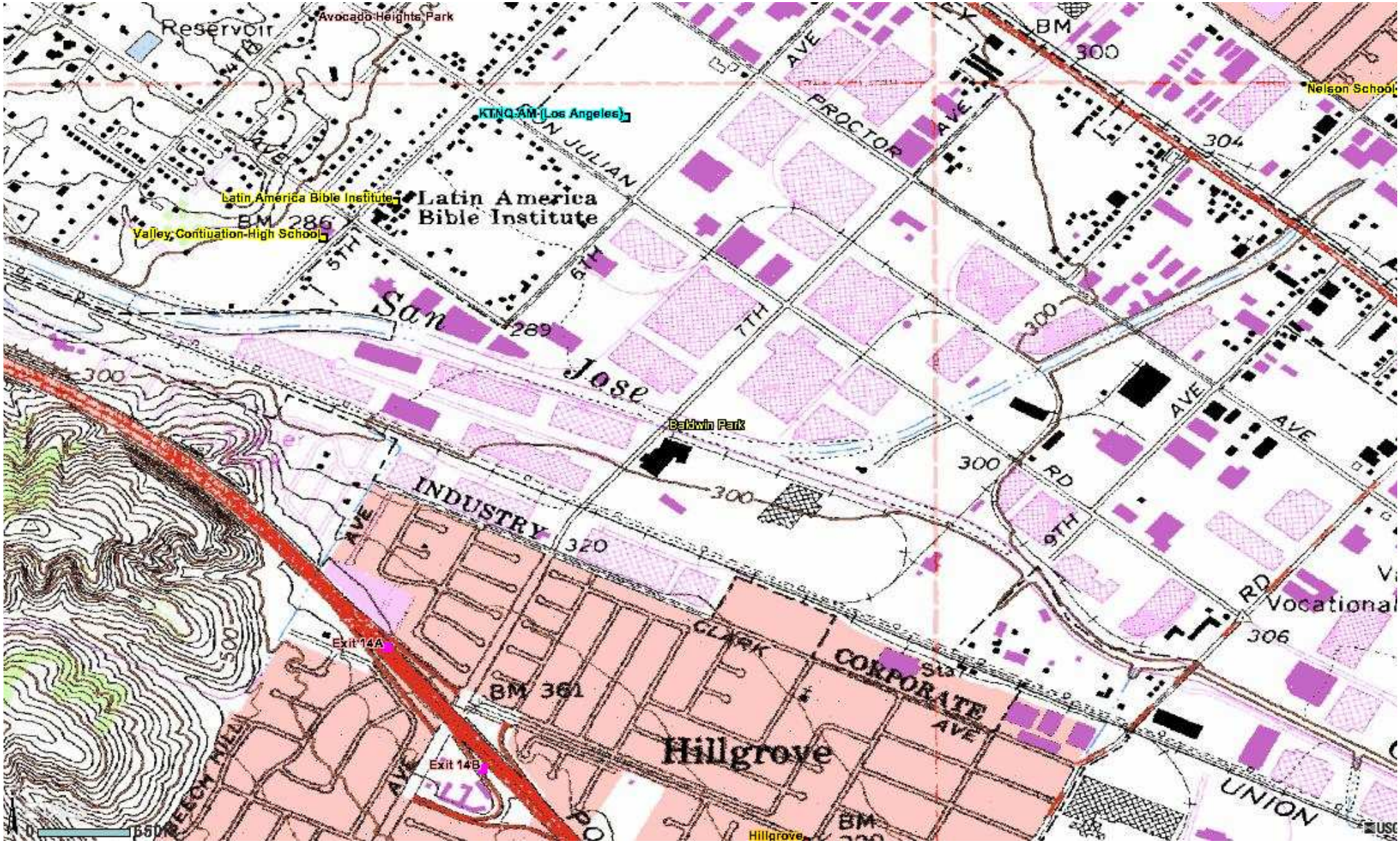
Site Survey Report for Quemetco

Last updated June, 2009



AIRS Number	ARB Number	Site Start Date	Reporting Agency and Agency Code
NA	NA	1991	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
720 S 7th Ave. City of Industry, CA 91746	Los Angeles	South Coast	34° 01' 35"	-117° 58' 57"	89 m


Reservoir
Avocado Heights Park
KTNQ-AM (Los Angeles)
Latin America Bible Institute
Latin America Bible Institute
Valley Contiuation High School
BM 286
San
Jose
289
Baldwin Park
INDUSTRY
BM 361
Hillgrove
Exit 14A
Exit 14B
CLARK
CORPORATE
PROCTOR
BM
300
304
306
320
Nelson School
Vocational
UNION
5TH
6TH
7TH
9TH
AVE
RD

Site Survey Report

Siting Information

Site Name: Quemetco	Date: 6/30/2009	State Code: NA	AIRS Number: NA
Address: 720 S 7th Ave. City of Industry, CA 91746	Latitude: 34° 01' 35"	Longitude: -117° 58' 57"	Elevation (m): 89
	Senior AQIS: Albert Dietrich	Site Technician: TBD	Site Phone: N/A
Operating Agency: South Coast AQMD			

General Siting Conditions

Station Temperature	**Traffic**	**Topography**	Predominant Wind Direction: SW
Controlled: No	Description: Suburban	Site: Level	Arc Air Flow (Deg): 360
Recorded: No	Distance: 20	Region: Level	Probe Last Cleaned Date: N/A
	Count (Veh/Day): 20,000	**QA Manual**	Manifold Clean: N/A
Meteorology	**Non-vehicular Local Sources**	Approved: Yes	Cleaning Schedule: N/A
Located With Instruments: No	Description: None	Agency: South Coast AQMD	Autocalibrator Type: N/A
	Distance: N/A	Urbanization: Suburban	Site Survey Complete: Yes
	Direction: N/A	Ground Cover: Asphalt	Logbook Up To Date: Yes

Action Items

Comments

Detailed Site Information

Site Name	Quemetco			
AQS ID (AIRS #)	N/A			
GIS coordinates	Latitude: 34° 01' 35" Longitude: -117° 58' 57"			
Location	Parking lot			
Address	720 S 7th Ave. City of Industry, CA 91746			
County	Los Angeles			
Dist. to road	10			
Traffic count	20,000			
Groundcover	Asphalt			
PEP audit?	N/A			
NPAP audit?	N/A			
Flow audit?	N/A			
Representative Area	31100-Los Angeles-Long Beach-Santa Ana			
Pollutant	TSP			
Monitor obj	REPRESENTATIVE CONCENTRATION			
Spatial scale	Microscale			
Sampling method	GMW TSP			
Serial #	NA			
Property #	1577			
Last Calibration Date	4/3/09			
Analysis method	Weighed by SCAQMD lab			
Start date	1991			
Operation schedule	1:6			
Sampling season	All Year			
Probe height	2.6			
Distance from supporting structure	N/A			
Distance from obstructions on roof	N/A			
Distance from obstructions not on roof	N/A			
Distance from trees	N/A			
Distance to furnace or incinerator flue	N/A			
Distance between collocated monitors	N/A			
Unrestricted airflow	Yes			
Probe material	N/A			
Residence time	N/A			
Will there be changes within the next 18 months?	No			
Is it suitable for comparison against the annual PM2.5?	N/A			

Frequency of flow rate verification for manual PM samplers audit	N/A			
Frequency of flow rate verification for automated PM analyzers audit	N/A			
Frequency of one-point QC check (gaseous)	N/A			
Last Annual Performance Evaluation (gaseous)	N/A			
Last two semi-annual flow rate audits for PM monitors	N/A			

Quemetco – Closet World
Site Photos

Looking North from the probe

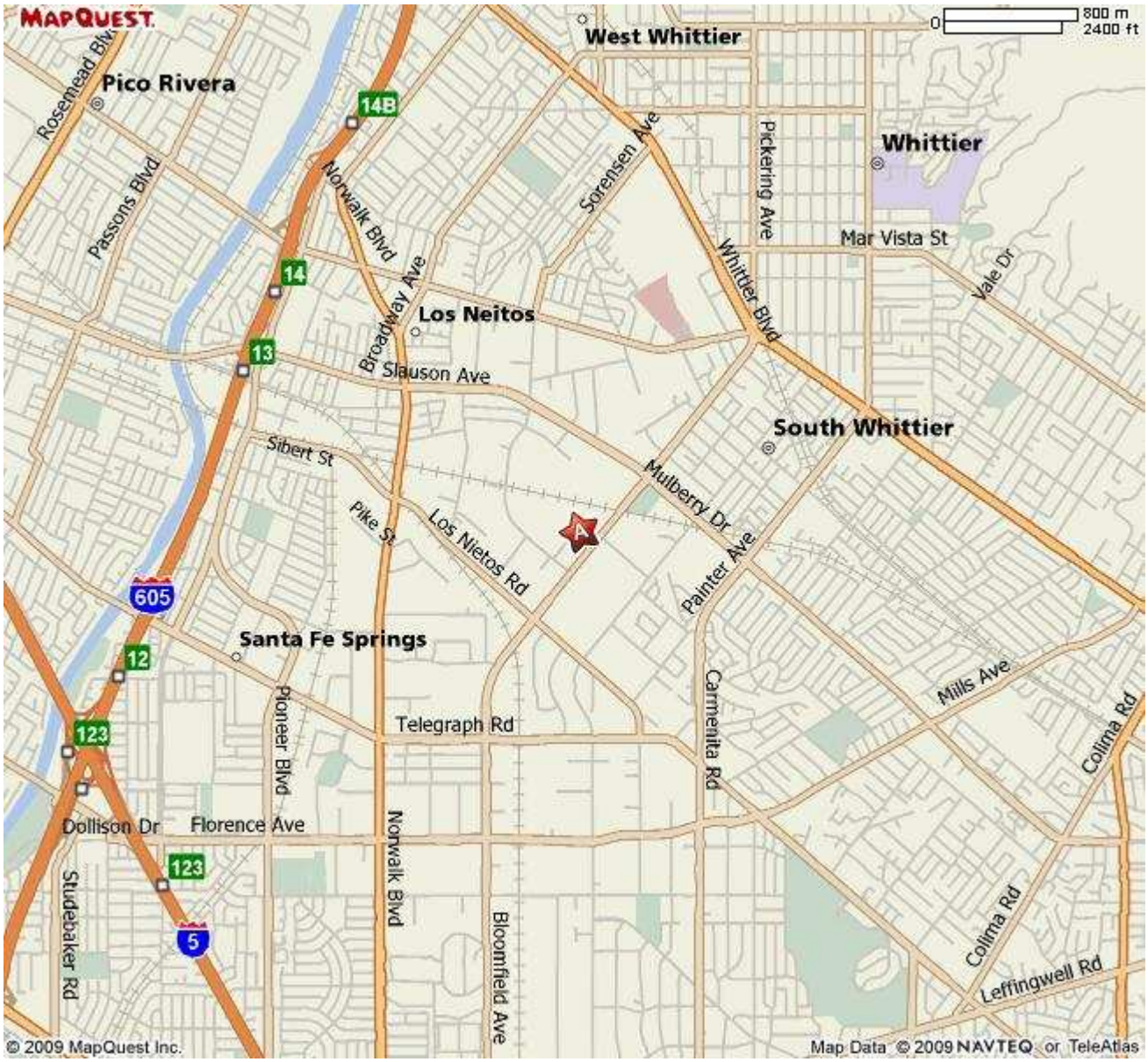
Looking East from the probe.

Looking South toward the probe.

Looking West from the probe

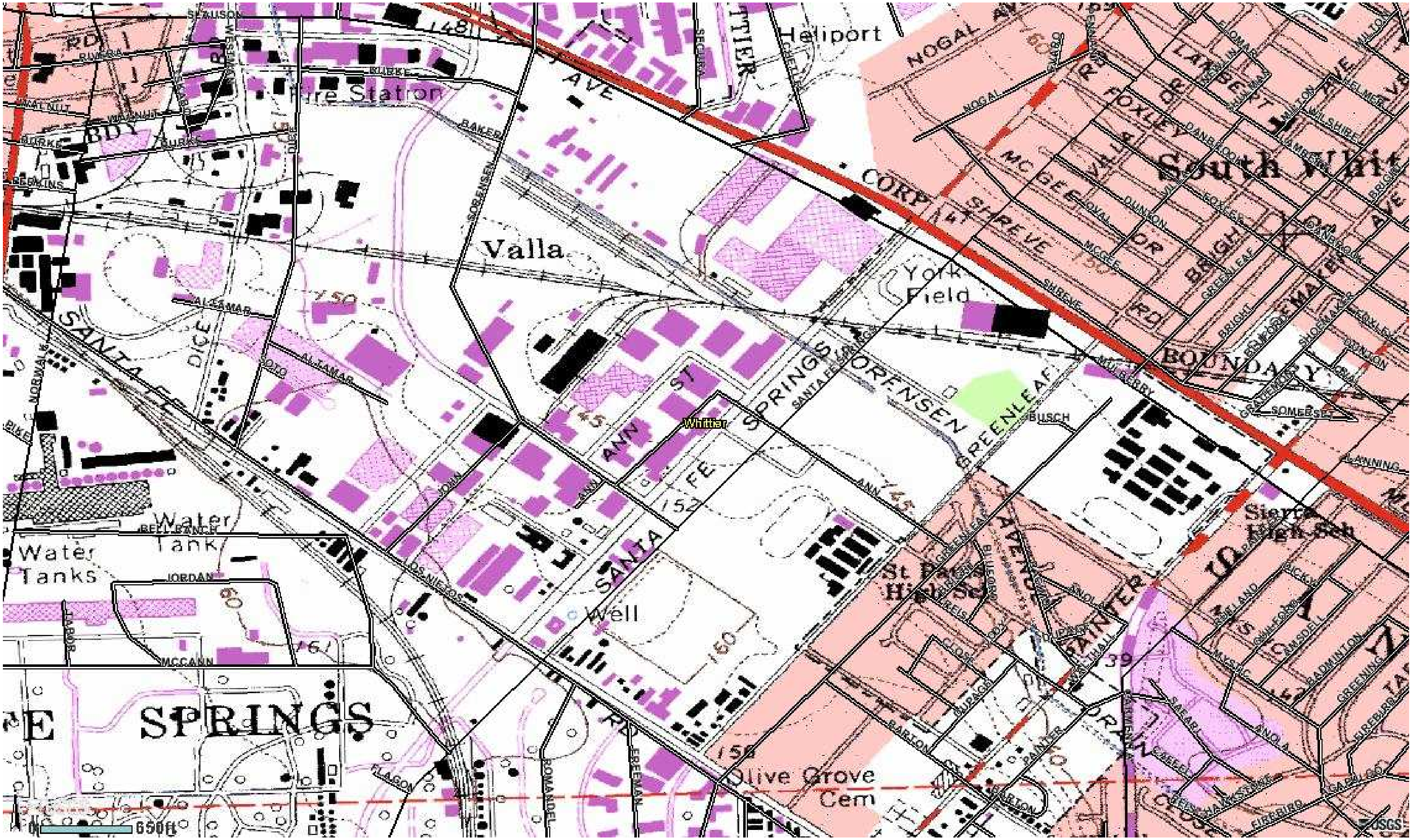
Site Survey Report for Trojan Battery

Last updated June, 2009



AIRS Number	ARB Number	Site Start Date	Reporting Agency and Agency Code
NA	NA	11/26/92	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
9440 Ann St. Santa Fe Springs, CA 90670	Los Angeles	South Coast	33° 57' 18"	-118° 03' 23"	44 m


Heliport
Fire Station
Valla
York Field
Whittier
Water Tank
Water Tanks
Well
SPRINGS
St Pauls High Sch
Sierra High Sch
Olive Grove Cem
South Whit
SANTA FE SPRINGS RD
SORENSEN
GREENLEAF
BOUNDARY
NOGAL AVE
CORP
SHREVE
650ft
USGS

Site Survey Report

Siting Information

Site Name: Trojan Battery	Date: 6/30/2009	State Code: NA	AIRS Number: NA
Address: 9440 Ann St. Santa Fe Springs, CA 90670	Latitude: 33° 55' 17"	Longitude: 117° 34' 20"	Elevation (m): 197
	Senior AQIS: Albert Dietrich	Site Technician: TBD	Site Phone: N/A
Operating Agency: South Coast AQMD			

General Siting Conditions

Station Temperature	**Traffic**	**Topography**	Predominant Wind Direction: SW
Controlled: No	Description: Suburban	Site: Level	Arc Air Flow (Deg): 360
Recorded: No	Distance: 10	Region: Level	Probe Last Cleaned Date: N/A
	Count (Veh/Day): 5,000	**QA Manual**	Manifold Clean: N/A
Meteorology	**Non-vehicular Local Sources**	Approved: Yes	Cleaning Schedule: N/A
Located With Instruments: No	Description: None	Agency: South Coast AQMD	Autocalibrator Type: N/A
	Distance: N/A	Urbanization: Suburban	Site Survey Complete: Yes
	Direction: N/A	Ground Cover: Asphalt	Logbook Up To Date: Yes

Action Items

Comments

Detailed Site Information

Site Name	Trojan Battery			
AQS ID (AIRS #)	N/A			
GIS coordinates	Latitude: 34° 01’ 34” Longitude: 117° 58’54”			
Location	Parking lot			
Address	9440 Ann St. Santa Fe Springs, CA 90670			
County	Los Angeles			
Dist. to road	10			
Traffic count	5,000			
Groundcover	Asphalt			
PEP audit?	N/A			
NPAP audit?	N/A			
Flow audit?	N/A			
Representative Area	31100-Los Angeles-Long Beach-Santa Ana			
Pollutant	TSP			
Monitor obj	REPRESENTATIVE CONCENTRATION			
Spatial scale	Microscale			
Sampling method	GMW TSP			
Serial #	NA			
Property #	4903			
Last Calibration Date	12/30/08			
Analysis method	Weighed by SCAQMD lab			
Start date	11/26/92			
Operation schedule	1:6			
Sampling season	All Year			
Probe height	2.6			
Distance from supporting structure	N/A			
Distance from obstructions on roof	N/A			
Distance from obstructions not on roof	N/A			
Distance from trees	N/A			
Distance to furnace or incinerator flue	N/A			
Distance between collocated monitors	N/A			
Unrestricted airflow	Yes			
Probe material	N/A			
Residence time	N/A			
Will there be changes within the next 18 months?	No			
Is it suitable for comparison against the annual PM2.5?	N/A			

Frequency of flow rate verification for manual PM samplers audit	N/A			
Frequency of flow rate verification for automated PM analyzers audit	N/A			
Frequency of one-point QC check (gaseous)	N/A			
Last Annual Performance Evaluation (gaseous)	N/A			
Last two semi-annual flow rate audits for PM monitors	N/A			

Trojan Battery - UDDH
Site Photos

Looking North from the probe

Looking East from the probe.

Looking South toward the probe.

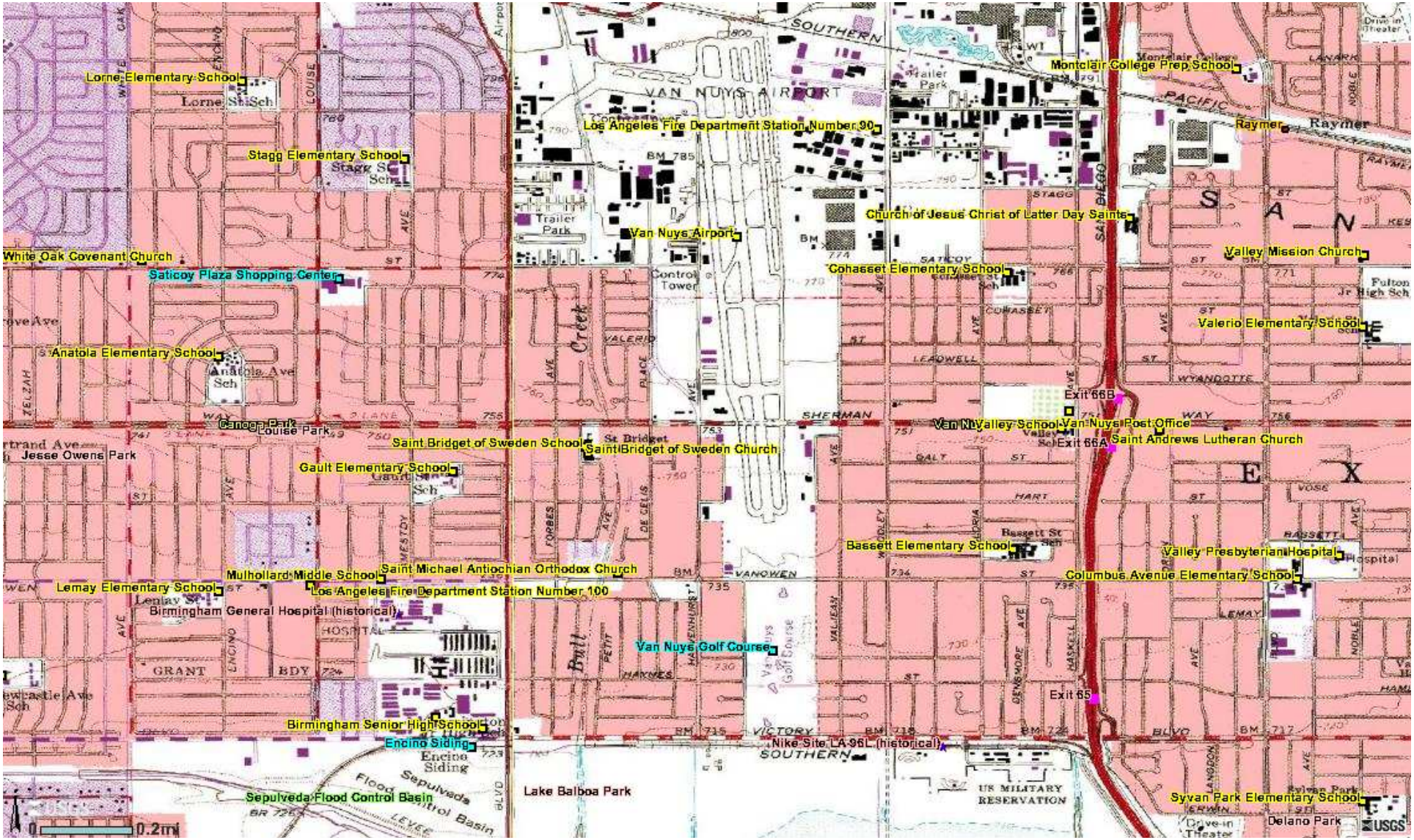
Looking West from the probe

Site Survey Report for Van Nuys Airport

Last updated June, 2009

AIRS Number	ARB Number	Site Start Date	Reporting Agency and Agency Code
NA	NA	TBD	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
16461 Sherman Way. Van Nuys CA, 91406	Los Angeles	South Coast	34° 12' 29"	-118° 29' 31"	236 m


Lorne Elementary School
Stagg Elementary School
White Oak Covenant Church
Saticoy Plaza Shopping Center
Anatola Elementary School
Canoga Park
Louise Park
Jesse Owens Park
Saint Bridget of Sweden School
Saint Bridget of Sweden Church
Gault Elementary School
Mulholland Middle School
Saint Michael Antiochian Orthodox Church
Lemay Elementary School
Los Angeles Fire Department Station Number 100
Birmingham General Hospital (historical)
Birmingham Senior High School
Encino Siding
Sepulveda Flood Control Basin
Lake Balboa Park
Van Nuys Golf Course
Nike Site LA-96L (historical)
US MILITARY RESERVATION
Los Angeles Fire Department Station Number 90
Van Nuys Airport
Cohasset Elementary School
Church of Jesus Christ of Latter Day Saints
Montclair College Prep School
Raymer
Valley Mission Church
Valerio Elementary School
Exit 66B
Van Nuys Valley School
Van Nuys Post Office
Exit 66A
Saint Andrews Lutheran Church
Bassett Elementary School
Valley Presbyterian Hospital
Columbus Avenue Elementary School
Exit 65
Syvan Park Elementary School
Delano Park
0.2mi
USGS

Site Survey Report

Siting Information

Site Name: Van Nuys A.P.	Date: 6/30/2009	State Code: NA	AIRS Number: NA
Address: 16461 Sherman Way. Van Nuys CA, 91406	Latitude: 34° 12' 29"	Longitude: -118° 29' 31"	Elevation (m): 236 m
	Senior AQIS: Albert Dietrich	Site Technician: TBD	Site Phone: N/A
Operating Agency: South Coast AQMD			

General Siting Conditions

Station Temperature	**Traffic**	**Topography**	Predominant Wind Direction:
Controlled: No	Description: TBD	Site: Level	Arc Air Flow (Deg): 360
Recorded: No	Distance: TBD	Region: Level	Probe Last Cleaned Date: N/A
	Count (Veh/Day):	**QA Manual**	Manifold Clean: N/A
Meteorology	**Non-vehicular Local Sources**	Approved: Yes	Cleaning Schedule: N/A
Located With Instruments: No	Description: Airplane	Agency: South Coast AQMD	Autocalibrator Type: N/A
	Distance: TBD	Urbanization: Suburban	Site Survey Complete: Yes
	Direction: TBD	Ground Cover: Asphalt / Gravel	Logbook Up To Date:

Action Items

Comments

Detailed Site Information

Site Name	Van Nuys Airport			
AQS ID (AIRS #)	N/A			
GIS coordinates	Latitude: 34° 12' 29"' Longitude: -118° 29' 31"			
Location	Airport			
Address	16461 Sherman Way. Van Nuys CA, 91406			
County	Los Angeles			
Dist. to road	TBD			
Traffic count	TBD			
Groundcover	Asphalt			
PEP audit?	N/A			
NPAP audit?	N/A			
Flow audit?	N/A			
Representative Area	31100-Los Angeles-Long Beach-Santa Ana			
Pollutant	TSP			
Monitor obj	REPRESENTATIVE CONCENTRATION			
Spatial scale	Microscale			
Sampling method	GMW TSP			
Serial #	TBD			
Property #	TBD			
Last Calibration Date	TBD			
Analysis method	Weighed by SCAQMD lab			
Start date	TBD			
Operation schedule	1:6			
Sampling season	All Year			
Probe height	2.6			
Distance from supporting structure	N/A			
Distance from obstructions on roof	N/A			
Distance from obstructions not on roof	N/A			
Distance from trees	N/A			
Distance to furnace or incinerator flue	N/A			
Distance between collocated monitors	N/A			
Unrestricted airflow	Yes			
Probe material	N/A			
Residence time	N/A			
Will there be changes within the next 18 months?	No			
Is it suitable for comparison against the annual PM2.5?	N/A			

Frequency of flow rate verification for manual PM samplers audit	N/A			
Frequency of flow rate verification for automated PM analyzers audit	N/A			
Frequency of one-point QC check (gaseous)	N/A			
Last Annual Performance Evaluation (gaseous)	N/A			
Last two semi-annual flow rate audits for PM monitors	N/A			