

**AMERICAN ANALYTICS**

**STATEMENT OF QUALIFICATIONS  
& ENVIRONMENTAL  
LABORATORY SERVICES**

**Revision 05**

**August 23, 2006**

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## **MISSION STATEMENT**

American Analytics is committed to providing the highest quality analytical services that meet or exceed our clients' project specific requirements. We are dedicated to total customer satisfaction by providing accurate results and a responsive, personalized service.

## **1.0 INTRODUCTION**

American Analytics (AA) was founded in 1980 by Mrs. Zvia Uziel. Our company has since grown into a high quality environmental services laboratory. We are a State of California Department of Health Services certified environmental laboratory. American Analytics is certified by the City of Los Angeles as a woman owned business and by the State of California as a small business. Our close communication with our clients and sensitivity to their project-specific needs has allowed us to not only maintain, but also to substantially grow our client base over the years.

In addition to our stationary laboratory, we provide field sampling and mobile laboratory services. The laboratory is staffed with experienced personnel comprised of chemists, engineers and scientists. Many of our staff members have advanced degrees, adding depth and diversity, and enabling our laboratory to provide services which extend beyond those normally available from conventional environmental laboratories.

State-of-the-art equipment is used for analysis in our stationary and mobile laboratories to provide considerable sample capacity and accurate defensible analytical results. AA places a large emphasis on quality and has implemented a Quality Assurance/Quality Control (QA/QC) program that provides our laboratory personnel with the information, tools and training required to generate a high quality product. This program is supported by a state-of-the-art Laboratory Information Management System (LIMS) that allows for effective management of sample flow through the laboratory, resulting in high through put, efficiency and quality.

Additional detailed information regarding laboratory capabilities and services is provided in the following pages.

## 2.0 CAPABILITIES AND SERVICES

With years of demonstrated performance, AA's diversified staff of chemists, engineers, biologists and field technicians consistently delivers reliable, high quality results. Our careful attention to **providing excellent service, professional project management, quality control, effective communication, cutting edge analytical and field services and use of innovative technology** has enabled us to continuously satisfy our clients' environmental needs. Our capabilities include:

- Stationary Laboratory Analysis- (CADHS Certified)
- Mobile Laboratory Services- (CADHS Certified)
- Field Services
- Specialty Services:
  - Soil Gas Investigations (LARWQCB and DTSC)
  - Methane Field Sampling and Chemical Analysis (DTSC and LADBS)
  - Support in Determining Conditions for Natural Contaminant Attenuation
  - Emergent Chemicals
  - Forensic Analysis of Chemical Spill Origins
  - Litigation Support
  - Leak Detection Tracer Studies of Underground Tanks and Pipes
  - LIMS System Evaluation and Implementation in Environmental Laboratories

**STATIONARY LABORATORY ANALYSES***Inorganics*

- Wet Chemistry
- Ion Chromatography (314.0 Perchlorate, 218.6/ 7199 Hexavalent Chromium)
- AA Flame Metals (200/ 7000 Series)
- AA Furnace Metals (200/ 7000 Series)
- AES/ICP (200.7/ 6010)

*Volatile Organics*

- GC (601/ 602, 8021, 8015M-gas, BTEX, MTBE, Alcohols)
- GC/MS (624, 524.2, 8260B/ 5035, TPH-Gas, Fuel Oxygenates)

*Semi-volatile Organics*

- GC (8015M-Diesel/ Carbon Chain Characterization, 8081, 8082)
- GC/MS (625/ 8270C)
- Infrared Spectroscopy (418.1 TRPH)
- HPLC (8310)

*Natural Attenuation Parameters*

- Nitrate, Nitrite, Sulfate, Sulfide, Chloride, Divalent Manganese, Ferric Iron, Ferrous Iron, Light Organic Acids, Dissolved Gases (Methane, Ethane, Ethene), Dissolved Oxygen, Dissolved Carbon Dioxide, TOC, Oxidation-Reduction Potential, pH, Alkalinity

*Emergent Chemicals*

- NDMA, 1,2,3-Trichloropropane, 1,4-Dioxane, Perchlorate, Hexavalent Chromium

*Air Toxics*

- GC, GC/MS (TO-14, TO-15)

**MOBILE LABORATORY SERVICES**Inorganics

- pH, Turbidity, Specific Conductance

Volatile Organics

- GC/MS (8260B/ Oxygenates/ TPH-Gas/ 5035)
- GC (C1- C6 n-alkanes)

Semi-volatile Organics

- GC (TPH-8015MD/ Carbon Chain Characterization)
- Infrared Spectroscopy (418.1 TRPH)

Air Toxics

- Organics in Ambient Air
- Soil Vapor Analysis (in accordance with RWQCB Interim Guidance for Active Soil Gas Investigations and DTSC Advisory for Active Soil Gas Investigations)

**FIELD SERVICES**

AA's field services are provided by a staff of full-time environmental professionals and technicians with years of experience sampling air, water and soil, using a variety of EPA and proprietary methods. Our staff includes degreed chemists who are trained to safely and reliably collect and analyze representative field samples. The field services AA offers include:

- Soil, Groundwater and Soil Vapor Sampling
- Methane Sampling and Monitoring (LADBS)
- Groundwater Sampling and Monitoring
- Wastewater Sampling and Monitoring
- Hazardous Waste Sampling and Monitoring

The sampling technique used by AA is a Geoprobe direct push subsurface sampling. This technique is used as an alternative to the use of conventional drilling rigs to obtain representative soil core, soil vapor and groundwater samples.

Our equipment is compact, highly mobile, and utilizes a small diameter probe to collect samples. This technique requires less time, and does not generate cuttings that require costly disposal.

In addition to providing the services listed above, AA can assist clients by setting up routine sampling and reporting schedules for required permit monitoring.

### **SPECIALTY SERVICES**

*It is in providing these services that we offer added value and take analytical services a step beyond to satisfy our clients' specialized project requirements.*

#### **Soil Gas Investigations**

AA pioneered soil gas investigations in Southern California in the early 1980's. Since then, AA has continued, through experience gained from numerous investigations, to help develop the technique into the sophisticated and powerful site investigation technique it is today.

Soil gas surveys, through the use of sophisticated sampling methods and analytical instrumentation, provide a quick and inexpensive way for preliminary assessment of sites potentially contaminated with volatile and semi-volatile organic compounds.

When the samples are collected, they are immediately analyzed in the field and the concentration data is mapped and used to identify potential sources of contamination. This method for preliminary site assessment is much less expensive than using the conventional drilling and soil sampling approach. The valuable information provided from the soil gas investigation allows for a more strategic positioning of borings during subsequent investigative phases, significantly reducing costs for expensive drilling equipment.

#### **Methane Sampling and Monitoring**

American Analytics provides complete turnkey Methane sampling and testing services to comply with requirements of the Los Angeles Department of Building and Safety (LADBS), other building and safety agencies and petroleum companies. We provide Methane field sampling by installing temporary and permanent monitoring well systems and field testing with portable instrumentation.

#### **Support in Determining Conditions for Natural Contaminant Attenuation**

AA analyzes for the presence of chemical species that provide information regarding the biodegradation of contaminants in soil and groundwater. These chemical species include: Nitrate, Nitrite, Sulfate, Sulfide, Chloride, Divalent Manganese, Ferric Iron, Ferrous Iron, Light Organic Acids, Dissolved Gases (Methane, Ethane and Ethene), Dissolved Oxygen, Dissolved Carbon Dioxide, TOC, Oxidation-Reduction Potential, pH and Alkalinity. Long term monitoring of these chemical species can provide valuable information about the potential and actual occurrence of biodegradation of contaminants in the subsurface. The information can also be incorporated into existing modeling programs that can help predict the fate and transport of contaminants in the subsurface.

**Emergent Chemicals**

The following environmental contaminants referred to as “Emergent Chemicals” have recently become compounds of concern due to their detection in groundwater and surface water. These compounds are associated with military and industrial facilities, and all have acute to chronic health effects in humans. State governments have set varying limits for these compounds, with California having some of the lowest regulatory limits. American Analytics is using approved published analytical methods and has modified and developed methods to detect these analytes at or below most state regulatory levels. Listed below are the emergent chemicals, test methods and reporting limits for which American Analytics has capabilities:

- Perchlorate : EPA 314.0 : 2 ug/L
- Hexavalent Chromium : EPA 7199 : 3 ug/L
- 1,4-Dioxane : EPA 8270C : 1 ug/L
- 1,2,3-Trichloropropane : 524.2 : 0.005 ug/L
- N-Nitrosodimethylamine (NDMA) : EPA 8270C (Isotope Dilution) : 0.002 ug/L

**Forensic Analysis of Chemical Spill Origins**

AA's experienced staff, through the use of sophisticated analytical instrumentation, has developed a number of analytical procedures for the identification and quantitation of complex mixtures of hydrocarbons. The information obtained from the analytical procedures coupled with experienced interpretation through the use of a large database of information can help identify the following:

- Type of product that has been released
- Potential mixtures of different products
- Determine the elapsed time from the spill occurrence
- Assign probable responsibility for the sources of the pollutants

**Litigation Support**

AA offers a specialized service to the legal community, acting in the capacity of an objective third party we provide:

- Analytical chemistry, environmental investigations, reviews, interpretation and evaluation
- Forensic analysis of spill origin
- Expert research, studies and analysis
- Computer database research
- Expert witness testimony

**Leak Detection Tracer Studies of Underground Tanks and Pipes**

AA has developed field procedures and specialized analytical methods to detect potential leaks in underground tanks and pipes. The tracer is introduced into the contents of the tank or pipe and the soil vapor, in the surrounding formation, is extracted and tested for the presence of the tracer. If the tracer is found, this signifies a potential leak. The methods used are applicable for detection of the tracer even in heavily contaminated formations.

**LIMS System Evaluation and Implementation in Environmental Laboratories**

AA developed the logic process, programmed and implemented a sophisticated computerized Laboratory Information Management System (LIMS). This system handles all aspects of environmental laboratory operations with a high degree of automation resulting in increased production, efficiency and quality at reduced costs. The development and subsequent enhancements of this LIMS have taken place over a period of ten years, during which time AA has acquired significant knowledge and experience in the area of LIMS for analytical laboratories. In addition, AA has extensive experience in evaluating commercially available LIMS systems. We have a dedicated project team consisting of the Laboratory Director, Operations Research Engineer and an Environmental Engineer to evaluate and procure LIMS systems for environmental analytical laboratories.

Our team possesses in depth theoretical and hands on knowledge of LIMS available on the market, their advantages, disadvantages and the ability to decide what LIMS is a best fit for a laboratory from the laboratory point of view and its needs. We are capable of evaluating the specific needs of an environmental analytical laboratory, and, based on those needs, generate an extensive technical specification that encompasses a broad spectrum of LIMS functionality.

### **3.0 KEY LABORATORY PERSONNEL AND EMPLOYEE TRAINING**

AA's management carefully selects chemists and chemical engineers who have extensive knowledge and experience in environmental analysis. We train and cross-train our staff to ensure continuing awareness of current regulations and company's policies and procedures, to develop new capabilities and to ensure the availability of experienced environmental analytical chemists and support personnel to our clients. Our training procedures ensure that AA personnel provide high quality analytical data and products, are aware of present practices and trends in environmental analytical chemistry and are knowledgeable in federal, state and local analytical methodologies and QA/QC requirements.

AA provides training to its staff to achieve initial proficiency, maintain proficiency and rapidly adapt to changes in technology, methods or job responsibilities. We provide extensive company orientation for new employees, including QA/QC programs and practices, analytical methodologies and Safety and Health programs (sample and waste management, method specific procedures and business ethics, related topics).

#### **George Havalias**

*Vice President/ Laboratory Director*

George is a graduate of the University of Missouri at Rolla with a B.S. in Chemical Engineering. He has over fifteen years of experience in the area of environmental analyses at both the state and commercial laboratory levels. He has also served as a Process/ Project Engineer in the field of petrochemical refinery design for Jacobs Engineering, a major international engineering firm.

As laboratory director, George is responsible for leading and monitoring the technical and financial performance of the laboratory, including marketing, operations and support activities. He oversees the QA/QC program with the assistance of the QA/QC officer, and George is responsible for monitoring and improving the quality of the analytical data produced by the laboratory. He is responsible for the implementation and validation of procedures in the laboratory that improve efficiency and quality of work in compliance with federal, state regulations and the laboratory QA/QC program. George administers the implementation and maintenance of the employee-training program. Additionally, he utilizes his extensive experience in the acquisition and interpretation of data from various analytical instruments to oversee the development of new analytical methods that diversify and expand the capabilities of the laboratory.

#### **Viorel Vasile**

*Operations Manager/ Field Services Manager*

Viorel has a Master's degree in Chemical Engineering from the University of Bucharest. Viorel is currently responsible for overseeing the workflow process, ensuring that work is conducted in accordance with client specifications and applicable federal, state protocols and regulations. He assembles the final analytical reports and reviews them for completeness and conformance with applicable QA/QC requirements. Viorel is involved

with personnel recruitment, training and performance evaluations. He is responsible for equipment installation, technical training, method validation studies for Department of Health Services (DOHS) laboratory accreditation, client services and project, personnel management.

**Allen Aminian**

*Quality Assurance Manager*

Allen has a B.S. degree in Chemistry from the University of Kansas. He has over fifteen years of experience in the environmental industry with emphasis on organic analyses, including EPA methods 8260, 8270, 8081, 8021 and 8015. His main responsibilities include maintaining a current QA/QC manual, writing and updating standard operating procedures, conducting internal audits, establishing control limits and coordinating the performance evaluation sample program. In addition, Allen serves as a technical resource in method development. Responsibilities in more detail include:

- Generate and maintain laboratory Standard Operating Procedures (SOPs)
- Monitor and document laboratory adherence to specified protocols by observing results of QA/QC parameters
- Suggest and implement corrective action when deviations are encountered during data validation processes
- Participate in external quality evaluation programs such as the EPA Water Pollution Water Supply programs
- Maintain accreditation by State, Federal and other applicable agencies for work performed
- Monitor internal and external compliance to procedures and assessment of the performance of the analytical methods

**Eydie Schwartz**

*Inorganics Section Supervisor, Project Manager*

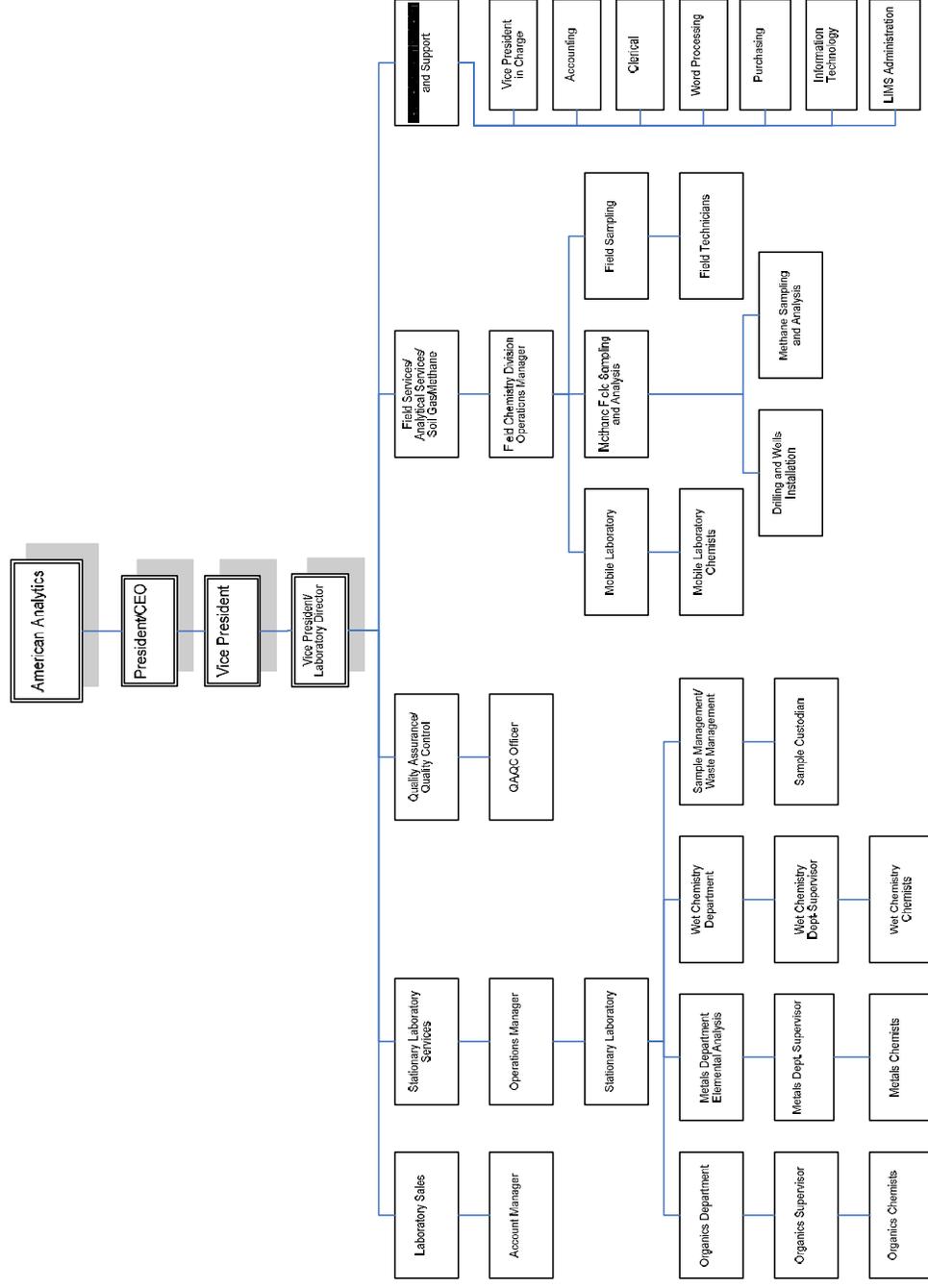
Eydie is a graduate of California State University, Long Beach, with a Master's degree in Microbiology. She has over fifteen years of experience in the field of environmental analytical chemistry, and Eydie has worked as both an analytical chemist and as a supervisor. As a supervisor, she is responsible for all aspects of the day to day operations of the inorganics division of the laboratory. She is accountable for scheduling analyses, data review and meeting turnaround time commitments for analytical results. Her duties also include overseeing instrument maintenance, method development and training of new personnel.

Eydie has worked as a project manager for over ten years. In this role, she interacts with the clients to coordinate field services and set-up technical requirements of individual projects. Additionally, her responsibilities include final assembly of all analytical data, including data packages and electronic data deliverables. She reviews all raw data for technical correctness and makes sure that the reports meet client specific requirements.

**Mark Bakhaya***Organics Division Supervisor*

Mark holds a BS degree in Civil Engineering which he received in 1984. Mark has extensive experience in managing all aspects of large projects, including the day to day work activities of project teams, meeting scheduled deadlines and projected budgets. Since joining American Analytics in 1998, Mark has acquired extensive experience in the chemical analyses procedures and other operations performed in his department. He is responsible for work scheduling, data review, report generation and sample analysis by GC, GC/MS and IR spectroscopy. Mark is also culpable for the training of new personnel, method development and implementation in his laboratory division. This knowledge coupled with his extensive management experience results in a department that operates with high efficiency and generates high quality work.

Figure A. American Analytics Organization Structure Chart



## **4.0 FACILITIES, EQUIPMENT AND MAINTENANCE**

*The American Analytics Laboratory was designed by chemists and built from the ground up as a state-of-the-art environmental analytical laboratory.*

### **Instruments & Equipment**

AA has invested in state-of-the-art equipment capable of meeting client turnaround time and accuracy needs for all projects. We continue to apply technological advances in the form of upgrades to equipment in our stationary laboratory as well as our mobile laboratories and field sampling services. Refer to Figure B for a detailed list of instrumentation and equipment.

### **Facilities**

AA is comprised of general chemistry, metals, organics, forensic and field chemistry divisions operating on more than 8,000 square feet of laboratory and administrative floor space.

### **Maintenance**

Our preventative maintenance program incorporates procedures such as periodic calibration, cleaning, changing oils and filters and monitoring known areas of wear and degradation. The scope and frequency of preventative maintenance is determined based upon manufacturer's recommendations, operator experience and historical data. This approach to laboratory instrument and systems service decreases costly repairs and significantly increases instrument up time.

Figure B.

<b>AMERICAN ANALYTICS Laboratory Equipment List</b>		
<b>Stationary Laboratory</b>		
<b>Quantity</b>	<b>Description</b>	<b>Model</b>
<b>Organics Department</b>		
10	Hewlett Packard Gas Chromatographs	HP 5890
2	Screening Gas Chromatographs	SRI
3	Hewlett Packard Mass Spectrometer Detectors	HP 5970
4	Hewlett Packard Mass Spectrometer Detectors	HP 5971
1	Varian Ion Trap Mass Spectrometer	Saturn 4D
1	Infrared Spectrometer (IR)	
4	OI PID/FID Tandem Detectors	OI 4430
1	OI ELCD Detector	OI 4420
2	Hewlett Packard FID Detector	N/A
2	Hewlett Packard ECD Detector	N/A
5	Tekmar Purge and Trap Unit	LSC2000
5	Tekmar 16 Position Autosampler	ALS2016
1	Tekmar Purge and Trap Unit	LSC-2
1	Tekmar 10 Position Autosampler	ALS-10
2	OI Purge and Trap Unit	OI 4560
1	OI Purge and Trap Unit	OI 4460
2	OI 16 Position Autosamplers	OI MPM-16
3	Hewlett Packard Autoinjectors	HP 7673A
2	Foxboro Miran Infrared Spectrometers	1A
1	Tekmar Pulse Sonication Disruptor	TSD-375
<b>Inorganics / Metals</b>		
1	Varian Flame AA Spectrophotometer	Spectr AA-20
1	Varian Graphite Furnace AA Spectrophotometer	Spectr AA-400
1	Perkin Elmer (PE) Graphite Furnace	Zeeman AA4100 ZL
1	ICP Trace Atomic Emission Spectrophotometer	TJA 61 E Trace
1	ICP Atomic Emission Spectrophotometer	TJA Atomscan 25
1	Dionex Ion Chromatograph	DX-500
1	Dionex Ion Chromatograph	DX-100
1	Dionex Ion Chromatograph	DX-300
1	Multi-Parameter Instrument	WTW Multilab P4
1	HF Instruments Turbidimeter	DRT100B
2	pH Meters	N/A
<b>Data Management</b>		
7	Hewlett Packard GC/MS Data System	Enviroquant
2	Gas Chromatography Data Acquisition System	Turbochrom III
1	Laboratory Information Management System (LIMS)	Promium/ Element
20	IBM Compatible Computer Systems	Gateway / Pentium
8	Hewlett Packard Laser Jet Printers	4 Plus
<b>Mobile Laboratories</b>		
2	Tekmar Purge and Trap Unit	LSC 2000
2	Tekmar 16 Position Autosampler	ALS-16
1	Gas Chromatography Data Acquisition System	Turbochrom III
2	Hewlett Packard Mass Spectrometer Detector	HP 5971
3	Hewlett Packard Gas Chromatographs	HP 5890
1	Hewlett Packard FID Detector	
1	Infrared Spectrometer (IR)	

## 5.0 QUALITY ASSURANCE PROGRAM

***Our comprehensive QA/QC program focuses on the generation of high quality data that is on-time and responsive to the client's needs, and is also in compliance with applicable regulatory requirements.***

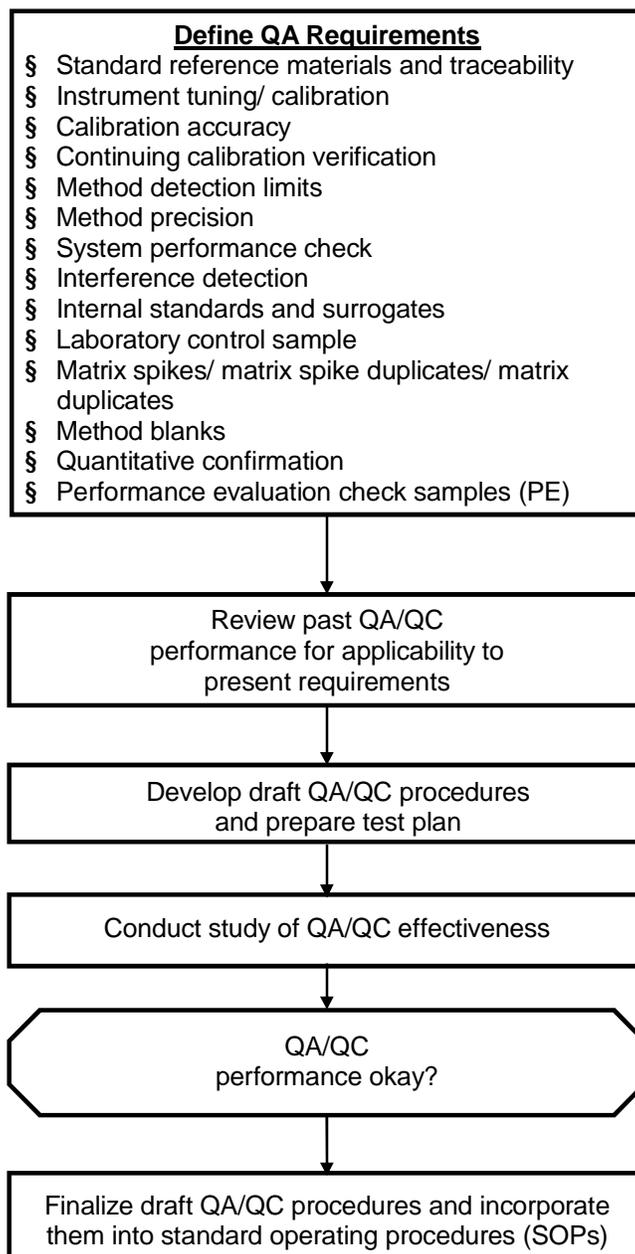
AA utilizes a Quality Assurance/ Quality Control (QA/QC) program that provides both the stationary and mobile laboratory personnel with the information, tools and training required to generate a high quality product. The AA QA/QC Manual provides the policies, procedures and organization, objectives and QA/QC activities incorporated in all AA operations to achieve established data quality objectives. The manual incorporates information pertaining to:

- Sample collection, preservation, custody and handling
- Standard Operating Procedures (SOPs)
- Instrument calibration procedures
- Internal quality control checks
- Data recording, reduction, validation and reporting
- Performance and systems audits
- Corrective action
- Instrument maintenance and repair
- Employee training
- Safety

The QA/QC procedures specific to methods of analyses are detailed in the AA method-specific SOPs. For a description of the process used to develop and validate QA/QC procedures for analytical methods, refer to figure C.

We ensure that sample integrity is maintained throughout the laboratory by following EPA protocols, good laboratory practices and proper handling, preparation and analysis of the environmental samples. To ensure sample integrity, chemical and physical determinations of environmental samples are performed in a contaminant free work environment.

**Figure C.**  
**AA's Process for Developing QA/QC Procedures for Analytical Methods**



AA maintains well-documented systems for maintenance and calibration of all analytical instrumentation and support equipment throughout the laboratory. The performance of analytical balances, reagent-water systems, refrigerators, freezers and thermometers are verified and documented on a regular basis.

Analytical instrumentation requires more frequent and in-depth performance verification. Laboratory personnel run daily calibration check samples for all organic and inorganic parameters. The initial calibrations are verified by use of continuing calibration check samples, independent laboratory control samples, method blanks, matrix spike and spike duplicate samples.

In addition to the above mentioned internal quality control items, external reference quality control check standards are purchased from a credible and approved vendor and analyzed by the laboratory on an annual basis.

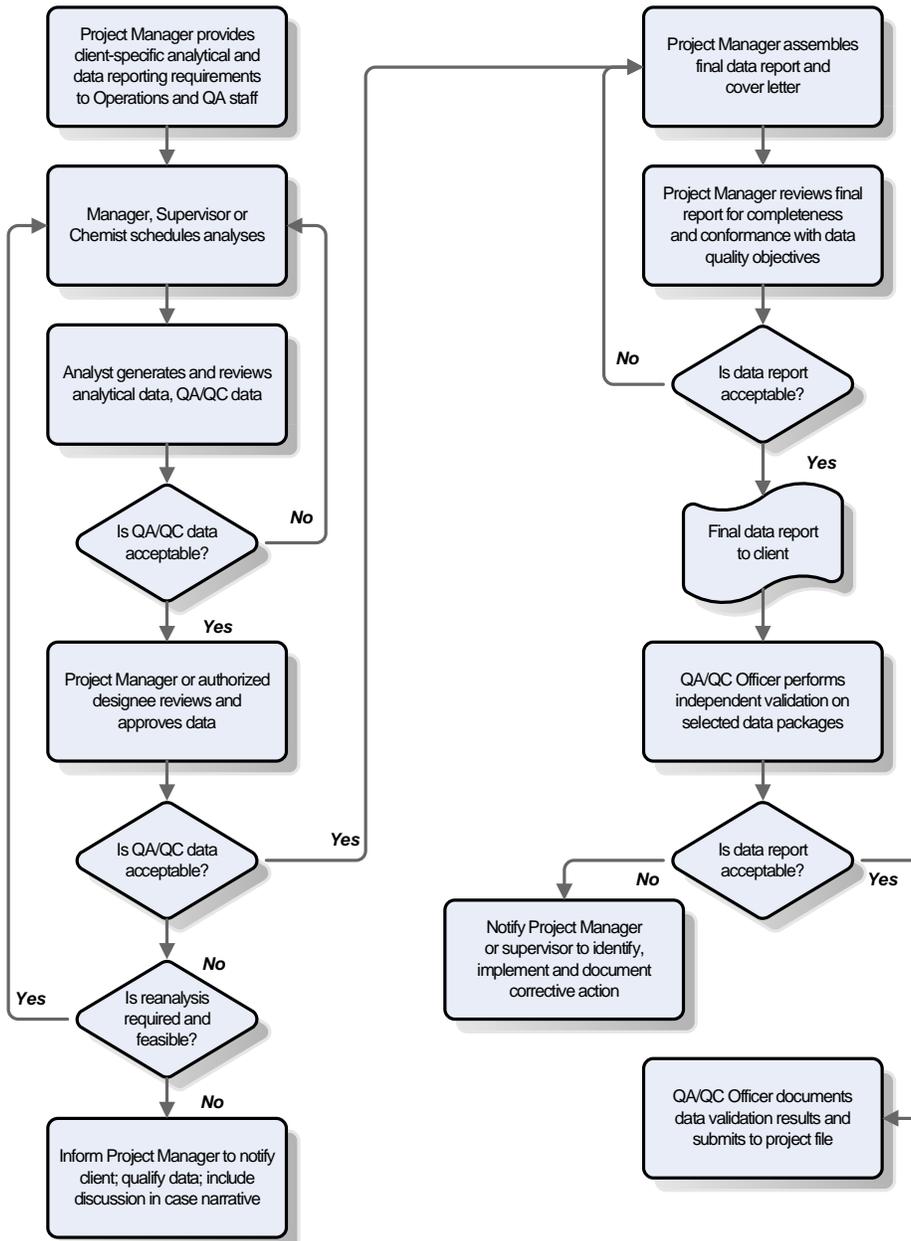
Reporting detection limits are established in-house statistically by performing a seven replicate study on samples spiked with the analytes of interest at levels near the expected reporting detection limit.

If analytical systems fail to meet the established criteria on the basis of internal or external systems or performance audits, routine monitoring of laboratory support equipment or QA/QC sample analysis results, the problem is identified and an appropriate corrective action is implemented. The corrective action employed may be formal or informal and depends on the nature of the problem. In either case, occurrence of the problem, the corrective action employed and verification that the problem has been eliminated is thoroughly documented.

All information associated with a specific task performed on a sample is documented in the appropriate logbook and computer database for future reference.

The analytical data is always subjected to second party review by qualified personnel. Results are not released to the client until this review is completed (refer to Figure D).

Figure D. Data Review Process



## **6.0 ENVIRONMENTAL LABORATORY CERTIFICATIONS**

**STATIONARY LABORATORY CERTIFICATIONS  
STATE OF CALIFORNIA (Cert. # 1471)**

**MOBILE LABORATORY CERTIFICATIONS  
STATE OF CALIFORNIA (Cert. #s 1894 & 2621)**

**WOMEN BUSINESS ENTERPRISE (WBE) CERTIFICATION  
CITY OF LOS ANGELES (File # 8889)**

**SMALL BUSINESS CERTIFICATION  
STATE OF CALIFORNIA (DGS Ref. # 22695)**



STATE OF CALIFORNIA  
DEPARTMENT OF HEALTH SERVICES  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**ENVIRONMENTAL LABORATORY CERTIFICATION**

Is hereby granted to

**AMERICAN ANALYTICS**

**9765 ETON AVENUE**

**CHATSWORTH, CA 91311**

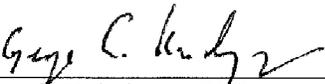
Scope of certification is limited to the  
"List of Approved Fields of Testing and Analytes"  
which accompanies this Certificate.

Continued certification status depends on successful completion of site visit,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No: 1471  
Expiration Date: 03/31/2007  
Effective Date: 03/01/2005

Berkeley, California  
subject to forfeiture or revocation.

  
George C. Kulasingam, Ph.D.  
Program Chief  
Environmental Laboratory Accreditation Program

**CALIFORNIA DEPARTMENT OF HEALTH SERVICES  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Accredited Fields of Testing**

**AMERICAN ANALYTICS  
STATIONARY LABORATORY  
9765 ETON AVENUE  
CHATSWORTH, CA 91311**

**Lab Phone (818) 998-5547**

**Certificate No: 1471 Renew Date: 3/31/2007**

<b>Field of Testing: 102 - Inorganic Chemistry of Drinking Water</b>	
102.030 001 Bromide	EPA 300.0
102.030 003 Chloride	EPA 300.0
102.030 006 Nitrate	EPA 300.0
102.030 007 Nitrite	EPA 300.0
102.030 008 Phosphate, Ortho	EPA 300.0
102.030 010 Sulfate	EPA 300.0
102.045 001 Perchlorate	EPA 314.0
102.100 001 Alkalinity	SM2320B
102.120 001 Hardness	SM2340B
102.121 001 Hardness	SM2340C
102.130 001 Conductivity	SM2510B
102.140 001 Total Dissolved Solids	SM2540C
102.145 001 Total Dissolved Solids	EPA 160.1
102.190 001 Cyanide, Total	SM4500-CN E
102.192 001 Cyanide, amenable	SM4500-CN G
102.200 001 Fluoride	SM4500-F C
102.220 001 Nitrite	SM4500-NO2 B
102.231 001 Nitrate calc.	SM4500-NO3 E
102.251 001 Sulfate	SM4500-SO4 E
102.500 001 Calcium	SM3111B
102.500 002 Magnesium	SM3111B
102.500 003 Potassium	SM3111B
102.500 004 Sodium	SM3111B
102.500 005 Hardness (calc.)	SM3111B
102.510 001 Calcium	SM3120B
102.510 002 Magnesium	SM3120B
102.510 003 Potassium	SM3120B
102.510 004 Silica	SM3120B
102.510 005 Sodium	SM3120B
102.510 006 Hardness (calc.)	SM3120B
102.520 001 Calcium	EPA 200.7
102.520 002 Magnesium	EPA 200.7
102.520 003 Potassium	EPA 200.7
102.520 004 Silica	EPA 200.7
102.520 005 Sodium	EPA 200.7
102.520 006 Hardness (calc.)	EPA 200.7
102.530 001 Calcium	SM3500-Ca D
102.531 001 Magnesium	SM3500-Mg E
<b>Field of Testing: 103 - Toxic Chemical Elements of Drinking Water</b>	
103.030 001 Mercury	SM3112B
103.040 002 Antimony	SM3113B
103.040 003 Arsenic	SM3113B
103.040 005 Beryllium	SM3113B

As of 3/8/2006 , this list supersedes all previous lists for this certificate number.  
Customers: Please verify the current accreditation standing with the State.

AMERICAN ANALYTICS

Certificate No: 1471  
Renew Date: 3/31/2007

103.040 006 Cadmium	SM3113B
103.040 007 Chromium	SM3113B
103.040 010 Lead	SM3113B
103.040 013 Selenium	SM3113B
103.060 001 Aluminum	SM3120B
103.060 003 Barium	SM3120B
103.060 004 Beryllium	SM3120B
103.060 005 Cadmium	SM3120B
103.060 007 Chromium	SM3120B
103.060 008 Copper	SM3120B
103.060 009 Iron	SM3120B
103.060 011 Manganese	SM3120B
103.060 012 Nickel	SM3120B
103.060 015 Silver	SM3120B
103.060 017 Zinc	SM3120B
103.130 001 Aluminum	EPA 200.7
103.130 002 Arsenic	EPA 200.7
103.130 003 Barium	EPA 200.7
103.130 004 Beryllium	EPA 200.7
103.130 005 Cadmium	EPA 200.7
103.130 007 Chromium	EPA 200.7
103.130 008 Copper	EPA 200.7
103.130 009 Iron	EPA 200.7
103.130 011 Manganese	EPA 200.7
103.130 012 Nickel	EPA 200.7
103.130 015 Silver	EPA 200.7
103.130 017 Zinc	EPA 200.7
103.130 018 Boron	EPA 200.9
103.150 014 Thallium	EPA 200.9
103.160 001 Mercury	EPA 245.1
103.310 001 Chromium (VI)	EPA 218.6
<b>Field of Testing: 104 - Volatile Organic Chemistry of Drinking Water</b>	
104.035 001 1,2,3-Trichloropropane	SRL 524M-TCP
104.040 000 Volatile Organic Compounds	EPA 524.2
<b>Field of Testing: 108 - Inorganic Chemistry of Wastewater</b>	
108.020 001 Conductivity	EPA 120.1
108.040 001 Hardness	EPA 130.2
108.050 001 pH	EPA 150.1
108.060 001 Residue, Filterable	EPA 160.1
108.070 001 Residue, Non-filterable	EPA 160.2
108.080 001 Residue, Total	EPA 160.3
108.100 001 Residue, Settleable	EPA 160.5
108.110 001 Turbidity	EPA 180.1
108.112 001 Boron	EPA 200.7
108.112 002 Calcium	EPA 200.7
108.112 003 Hardness (calc.)	EPA 200.7
108.112 004 Magnesium	EPA 200.7
108.112 005 Potassium	EPA 200.7
108.112 006 Silica	EPA 200.7
108.112 007 Sodium	EPA 200.7
108.115 001 Calcium	EPA 215.1
108.117 001 Magnesium	EPA 242.1
108.118 001 Potassium	EPA 258.1

As of 3/8/2006, this list supersedes all previous lists for this certificate number.  
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AMERICAN ANALYTICS

Certificate No: 1471  
Renew Date: 3/31/2007

108.119	001	Sodium	EPA 273.1
108.120	001	Bromide	EPA 300.0
108.120	002	Chloride	EPA 300.0
108.120	003	Fluoride	EPA 300.0
108.120	004	Nitrate	EPA 300.0
108.120	005	Nitrite	EPA 300.0
108.120	006	Nitrate-nitrite, Total	EPA 300.0
108.120	007	Phosphate, Ortho	EPA 300.0
108.120	008	Sulfate	EPA 300.0
108.162	001	Chloride	EPA 325.3
108.172	001	Chlorine Residual, Total	EPA 330.3
108.181	001	Cyanide, Total	EPA 335.2
108.191	001	Fluoride	EPA 340.2
108.202	001	Ammonia	EPA 350.3
108.235	001	Nitrate calc.	EPA 353.3
108.240	001	Nitrite	EPA 354.1
108.250	001	Dissolved Oxygen	EPA 360.1
108.262	001	Phosphate, Ortho	EPA 365.2
108.263	001	Phosphorus, Total	EPA 365.2
108.282	001	Sulfate	EPA 375.4
108.291	001	Sulfide	EPA 376.2
108.310	001	Biochemical Oxygen Demand	EPA 405.1
108.323	001	Chemical Oxygen Demand	EPA 410.4
108.330	001	Oil and Grease	EPA 413.1
108.340	001	Total Organic Carbon	EPA 415.1
108.350	001	Total Recoverable Petroleum Hydrocarbons	EPA 418.1
108.380	001	Oil and Grease	EPA 1664
108.390	001	Turbidity	SM2130B
108.410	001	Alkalinity	SM2320B
108.421	001	Hardness	SM2340C
108.430	001	Conductivity	SM2510B
108.440	001	Residue, Total	SM2540B
108.441	001	Residue, Filterable	SM2540C
108.442	001	Residue, Non-filterable	SM2540D
108.443	001	Residue, Settleable	SM2540F
108.445	001	Calcium	SM3111B
108.445	002	Hardness (calc.)	SM3111B
108.445	003	Magnesium	SM3111B
108.445	004	Potassium	SM3111B
108.445	005	Sodium	SM3111B
108.447	001	Boron	SM3120B
108.447	002	Calcium	SM3120B
108.447	003	Hardness (calc.)	SM3120B
108.447	004	Magnesium	SM3120B
108.447	005	Potassium	SM3120B
108.447	006	Silica	SM3120B
108.447	007	Sodium	SM3120B
108.450	001	Chloride	SM4500-Cl- B
108.504	001	Ammonia	SM4500-NH3 F
108.506	001	Ammonia	SM4500-NH3 G
108.510	001	Nitrite	SM4500-NO2 B
108.520	001	Nitrate-nitrite, Total	SM4500-NO3 E
108.521	001	Nitrate calc.	SM4500-NO3 E
108.531	001	Dissolved Oxygen	SM4500-O G
108.540	001	Phosphate, Ortho	SM4500-P E

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## AMERICAN ANALYTICS

Certificate No: 1471  
Renew Date: 3/31/2007

108.580	001	Sulfide	SM4500-S= D
108.590	001	Biochemical Oxygen Demand	SM5210B
108.602	001	Chemical Oxygen Demand	SM5220D
108.630	001	Oil and Grease	SM5520B
<b>Field of Testing: 109 - Toxic Chemical Elements of Wastewater</b>			
109.010	001	Aluminum	EPA 200.7
109.010	002	Antimony	EPA 200.7
109.010	003	Arsenic	EPA 200.7
109.010	004	Barium	EPA 200.7
109.010	005	Beryllium	EPA 200.7
109.010	007	Cadmium	EPA 200.7
109.010	009	Chromium	EPA 200.7
109.010	010	Cobalt	EPA 200.7
109.010	011	Copper	EPA 200.7
109.010	012	Iron	EPA 200.7
109.010	013	Lead	EPA 200.7
109.010	015	Manganese	EPA 200.7
109.010	016	Molybdenum	EPA 200.7
109.010	017	Nickel	EPA 200.7
109.010	019	Selenium	EPA 200.7
109.010	021	Silver	EPA 200.7
109.010	023	Thallium	EPA 200.7
109.010	024	Tin	EPA 200.7
109.010	027	Zinc	EPA 200.7
109.030	001	Aluminum	EPA 202.1
109.040	001	Antimony	EPA 204.1
109.050	001	Arsenic	EPA 206.2
109.060	001	Barium	EPA 208.1
109.070	001	Beryllium	EPA 210.1
109.080	001	Cadmium	EPA 213.1
109.100	001	Chromium	EPA 218.1
109.101	001	Chromium	EPA 218.2
109.104	001	Chromium (VI)	EPA 218.6
109.110	001	Cobalt	EPA 219.1
109.120	001	Copper	EPA 220.1
109.150	001	Iron	EPA 236.1
109.160	001	Lead	EPA 239.1
109.161	001	Lead	EPA 239.2
109.180	001	Manganese	EPA 243.1
109.190	001	Mercury	EPA 245.1
109.200	001	Molybdenum	EPA 246.1
109.210	001	Nickel	EPA 249.1
109.280	001	Selenium	EPA 270.2
109.290	001	Silver	EPA 272.1
109.310	001	Thallium	EPA 279.1
109.311	001	Thallium	EPA 279.2
109.320	001	Tin	EPA 282.1
109.340	001	Vanadium	EPA 286.1
109.350	001	Zinc	EPA 289.1
109.370	001	Antimony	SM3111B
109.370	002	Cadmium	SM3111B
109.370	004	Chromium	SM3111B
109.370	005	Cobalt	SM3111B
109.370	006	Copper	SM3111B

As of 3/8/2006, this list supersedes all previous lists for this certificate number.  
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## AMERICAN ANALYTICS

Certificate No: 1471  
Renew Date: 3/31/2007

109.370 009 Iron	SM3111B
109.370 010 Lead	SM3111B
109.370 012 Manganese	SM3111B
109.370 013 Nickel	SM3111B
109.370 019 Silver	SM3111B
109.370 021 Thallium	SM3111B
109.370 022 Tin	SM3111B
109.370 023 Zinc	SM3111B
109.390 001 Aluminum	SM3111D
109.390 002 Barium	SM3111D
109.390 003 Beryllium	SM3111D
109.390 005 Molybdenum	SM3111D
109.390 008 Vanadium	SM3111D
109.400 001 Mercury	SM3112B
109.410 003 Arsenic	SM3113B
109.410 007 Chromium	SM3113B
109.410 011 Lead	SM3113B
109.410 015 Selenium	SM3113B
109.430 001 Aluminum	SM3120B
109.430 002 Antimony	SM3120B
109.430 003 Arsenic	SM3120B
109.430 004 Barium	SM3120B
109.430 005 Beryllium	SM3120B
109.430 007 Cadmium	SM3120B
109.430 009 Chromium	SM3120B
109.430 010 Cobalt	SM3120B
109.430 011 Copper	SM3120B
109.430 012 Iron	SM3120B
109.430 013 Lead	SM3120B
109.430 015 Manganese	SM3120B
109.430 016 Molybdenum	SM3120B
109.430 017 Nickel	SM3120B
109.430 019 Selenium	SM3120B
109.430 021 Silver	SM3120B
109.430 023 Thallium	SM3120B
109.430 024 Vanadium	SM3120B
109.430 025 Zinc	SM3120B
109.811 001 Chromium (VI)	SM3500-Cr D
109.825 001 Iron	SM3500-Fe D
109.831 001 Manganese	SM3500-Mn D

**Field of Testing: 110 - Volatile Organic Chemistry of Wastewater**

110.020 000 Aromatic Volatiles	EPA 602
110.040 040 Halogenated Hydrocarbons	EPA 624
110.040 041 Aromatic Compounds	EPA 624
110.040 042 Oxygenates	EPA 624
110.040 043 Other Volatile Organics	EPA 624

**Field of Testing: 111 - Semi-volatile Organic Chemistry of Wastewater**

111.101 032 Polynuclear Aromatic Hydrocarbons	EPA 625
111.101 034 Phthalates	EPA 625
111.101 036 Other Extractables	EPA 625
111.170 030 Organochlorine Pesticides	EPA 608
111.170 031 PCBs	EPA 608

As of 3/8/2006, this list supersedes all previous lists for this certificate number.  
Customers: Please verify the current accreditation standing with the State.

**Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste**

114.010 001 Antimony	EPA 6010B
114.010 002 Arsenic	EPA 6010B
114.010 003 Barium	EPA 6010B
114.010 004 Beryllium	EPA 6010B
114.010 005 Cadmium	EPA 6010B
114.010 006 Chromium	EPA 6010B
114.010 007 Cobalt	EPA 6010B
114.010 008 Copper	EPA 6010B
114.010 009 Lead	EPA 6010B
114.010 010 Molybdenum	EPA 6010B
114.010 011 Nickel	EPA 6010B
114.010 012 Selenium	EPA 6010B
114.010 013 Silver	EPA 6010B
114.010 014 Thallium	EPA 6010B
114.010 015 Vanadium	EPA 6010B
114.010 016 Zinc	EPA 6010B
114.030 001 Antimony	EPA 7040
114.040 001 Arsenic	EPA 7060A
114.060 001 Barium	EPA 7080A
114.070 001 Beryllium	EPA 7090
114.080 001 Cadmium	EPA 7130
114.090 001 Chromium	EPA 7190
114.091 001 Chromium	EPA 7191
114.103 001 Chromium (VI)	EPA 7196A
114.106 001 Chromium (VI)	EPA 7199
114.110 001 Cobalt	EPA 7200
114.120 001 Copper	EPA 7210
114.130 001 Lead	EPA 7420
114.131 001 Lead	EPA 7421
114.140 001 Mercury	EPA 7470A
114.150 001 Molybdenum	EPA 7480
114.160 001 Nickel	EPA 7520
114.170 001 Selenium	EPA 7740
114.180 001 Silver	EPA 7760A
114.190 001 Thallium	EPA 7840
114.191 001 Thallium	EPA 7841
114.200 001 Vanadium	EPA 7910
114.210 001 Zinc	EPA 7950
114.241 001 pH	EPA 9045

**Field of Testing: 115 - Extraction Test of Hazardous Waste**

115.020 001 Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311
115.021 001 TCLP Inorganics	EPA 1311
115.022 001 TCLP Extractables	EPA 1311
115.023 001 TCLP Volatiles	EPA 1311
115.030 001 Waste Extraction Test (WET)	CCR Chapter 11, Article 5, Appendix II
115.040 001 Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312

**Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste**

116.020 030 Nonhalogenated Volatiles	EPA 8015B
116.020 031 Ethanol and Methanol	EPA 8015B
116.040 041 Methyl tert-butyl Ether (MTBE)	EPA 8021B
116.040 060 Halogenated Volatiles	EPA 8021B
116.040 061 Aromatic Volatiles	EPA 8021B

116.040	062	BTEX	EPA 8021B
116.080	000	Volatile Organic Compounds	EPA 8260B
116.080	120	Oxygenates	EPA 8260B
116.100	001	Total Petroleum Hydrocarbons - Gasoline	LUFT GC/MS
116.100	010	BTEX and MTBE	LUFT GC/MS
116.110	001	Total Petroleum Hydrocarbons - Gasoline	LUFT
<b>Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste</b>			
117.015	001	Diesel-range Total Petroleum Hydrocarbons	LUFT GC/MS
117.016	001	Diesel-range Total Petroleum Hydrocarbons	LUFT
117.017	001	TRPH Screening	EPA 418.1
117.110	000	Extractable Organics	EPA 8270C
117.140	000	Polynuclear Aromatic Hydrocarbons	EPA 8310
117.210	000	Organochlorine Pesticides	EPA 8081A
117.220	000	PCBs	EPA 8082



STATE OF CALIFORNIA  
DEPARTMENT OF HEALTH SERVICES  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**ENVIRONMENTAL LABORATORY CERTIFICATION**

Is hereby granted to

**AMERICAN ANALYTICS**  
**MOBILE LABORATORY - 4K86567**  
**9765 ETON AVENUE**  
**CHATSWORTH, CA 91311**

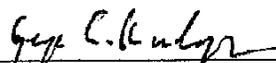
Scope of certification is limited to the  
"List of Approved Fields of Testing and Analytes"  
which accompanies this Certificate.

Continued certification status depends on successful completion of site visit,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No: **1894**  
Expiration Date: **06/30/2007**  
Effective Date: **06/01/2005**

Berkeley, California  
subject to forfeiture or revocation.

  
George C. Kulasingam, Ph.D.  
Program Chief  
Environmental Laboratory Accreditation Program

**CALIFORNIA DEPARTMENT OF HEALTH SERVICES  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM**

**Accredited Fields of Testing**

**AMERICAN ANALYTICS**  
MOBILE LABORATORY - 4K86567  
9765 ETON AVENUE  
CHATSWORTH, CA 91311

**Lab Phone** (818) 998-5547  
**Vehicle ID:** 1GDKC34NONJ50290  
**License Plate:** 4K86567  
**License State:** CA

**Certificate No:** 1894    **Renew Date:** 06/30/2007

**Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste**

116.080	000	Volatile Organic Compounds	EPA 8260B
116.080	120	Oxygenates	EPA 8260B
116.100	001	Total Petroleum Hydrocarbons - Gasoline	LUFT GC/MS
116.100	010	BTEX and MTBE	LUFT GC/MS

**Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste**

117.016	001	Diesel-range Total Petroleum Hydrocarbons	LUFT
117.017	001	TRPH Screening	EPA 418.1



California  
Department of  
Health Services



STATE OF CALIFORNIA  
DEPARTMENT OF HEALTH SERVICES  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**ENVIRONMENTAL LABORATORY CERTIFICATION**

Is hereby granted to

**AMERICAN ANALYTICS**  
**MOBILE LABORATORY - 5A21187**  
**9765 ETON AVENUE**  
**CHATSWORTH, CA 91311**

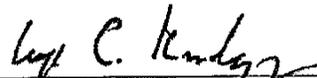
Scope of certification is limited to the  
"Accredited Fields of Testing"  
which accompanies this Certificate.

Continued certification status depends on successful completion of site visit,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No: **2621**  
Expiration Date: **05/31/2007**  
Effective Date: **05/01/2005**

Berkeley, California  
subject to forfeiture or revocation.

  
\_\_\_\_\_  
George C. Kulasingam, Ph.D.  
Program Chief  
Environmental Laboratory Accreditation Program

**CALIFORNIA DEPARTMENT OF HEALTH SERVICES  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Accredited Fields of Testing**

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**AMERICAN ANALYTICS**  
MOBILE LABORATORY - 5A21187  
9765 ETON AVENUE  
CHATSWORTH, CA 91311

**Lab Phone** 818-998-5547  
Vehicle ID: 2B7KB31Z1SK502163  
License Plate: 5A21187  
License State: CA

**Certificate No: 2621      Renew Date: 05/30/2007**

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<b>Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste</b>			
116.080	000	Volatile Organic Compounds	EPA 8260B
116.080	120	Oxygenates	EPA 8260B
116.100	001	Total Petroleum Hydrocarbons - Gasoline	LUFT GC/MS
116.100	010	BTEX and MTBE	LUFT GC/MS

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<b>Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste</b>			
117.017	001	TRPH Screening	EPA 418.1

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