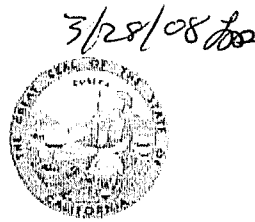




MARK B HORTON, MD, MSPH  
Director

State of California—Health and Human Services Agency  
California Department of Public Health



ARNOLD SCHWARZENEGGER  
Governor

March 21, 2008

LEE FRIELL  
UNIVERSITY (STATE) HYGIENIC LABORATORY  
2220 SOUTH ANKENY BLVD.  
ANKENY, IA 50023

Dear LEE FRIELL:

Certificate No. 01121CA

Enclosed is an updated copy of your certificate.

If you have any questions, please contact our office at (510) 620-3155.

Sincerely,

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

Enclosure



**CALIFORNIA DEPARTMENT OF PUBLIC HEALTH**  
**ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM - NELAP RECOGNIZED**  
**NELAP Fields of Accreditation**



**UNIVERSITY (STATE) HYGIENIC LABORATORY**

**Lab Phone (515) 725-1600**

2220 SOUTH ANKENY BLVD.  
 ANKENY, IA 50023

**Certificate No: 01121CA Renew Date: 1/31/2009**

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**101 - Microbiology of Drinking Water**

101.010	001	SM9215B	Heterotrophic Bacteria
101.060	002	SM9223	Total Coliform
101.060	003	SM9223	E. coli

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**102 - Inorganic Chemistry of Drinking Water**

102.020	001	EPA 180.1	Turbidity
102.022	001	SM2130B	Turbidity
102.030	001	EPA 300.0	Bromide
102.030	002	EPA 300.0	Chlorate
102.030	003	EPA 300.0	Chloride
102.030	004	EPA 300.0	Chlorite
102.030	006	EPA 300.0	Nitrate
102.030	007	EPA 300.0	Nitrite
102.030	010	EPA 300.0	Sulfate
102.040	002	EPA 300.1	Chlorite
102.040	004	EPA 300.1	Bromate
102.045	001	EPA 314.0	Perchlorate
102.060	001	EPA 353.2	Nitrate calc.
102.061	001	EPA 353.2	Nitrite
102.100	001	SM2320B	Alkalinity
102.120	001	SM2340B	Hardness
102.130	001	SM2510B	Conductivity
102.140	001	SM2540C	Total Dissolved Solids
102.190	001	SM4500-CN E	Cyanide, Total
102.200	001	SM4500-F C	Fluoride
102.210	001	SM4500-H+ B	pH
102.212	001	EPA 150.1	pH
102.240	001	SM4500-P E	Phosphate, Ortho
102.260	001	SM5310B	Total Organic Carbon
102.261	001	SM5310B	DOC
102.261	002	SM5310B	TOC/DOC
102.270	001	SM5540C	Surfactants
102.520	001	EPA 200.7	Calcium
102.520	002	EPA 200.7	Magnesium

As of 3/21/2008 , this list supersedes all previous lists for this certificate number.  
 Customers: Please verify the current accreditation standing with the State.

102.520	003	EPA 200.7	Potassium
102.520	005	EPA 200.7	Sodium
102.530	001	SM3500-Ca D (18th/19th)	Calcium
102.533	001	SM4500-Si D (18th/19th)	Silica

**103 - Toxic Chemical Elements of Drinking Water**

103.010	002	SM3111B	Copper
103.130	001	EPA 200.7	Aluminum
103.130	003	EPA 200.7	Barium
103.130	004	EPA 200.7	Beryllium
103.130	005	EPA 200.7	Cadmium
103.130	007	EPA 200.7	Chromium
103.130	008	EPA 200.7	Copper
103.130	009	EPA 200.7	Iron
103.130	011	EPA 200.7	Manganese
103.130	012	EPA 200.7	Nickel
103.130	017	EPA 200.7	Zinc
103.140	001	EPA 200.8	Aluminum
103.140	002	EPA 200.8	Antimony
103.140	003	EPA 200.8	Arsenic
103.140	004	EPA 200.8	Barium
103.140	005	EPA 200.8	Beryllium
103.140	006	EPA 200.8	Cadmium
103.140	007	EPA 200.8	Chromium
103.140	008	EPA 200.8	Copper
103.140	009	EPA 200.8	Lead
103.140	010	EPA 200.8	Manganese
103.140	011	EPA 200.8	Mercury
103.140	012	EPA 200.8	Nickel
103.140	013	EPA 200.8	Selenium
103.140	014	EPA 200.8	Silver
103.140	015	EPA 200.8	Thallium
103.140	016	EPA 200.8	Zinc
103.161	001	EPA 245.2	Mercury

**106 - Radiochemistry of Drinking Water**

106.092	001	EPA 200.8	Uranium
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**108 - Inorganic Chemistry of Wastewater**

108.090	001	EPA 160.4	Residue, Volatile
108.112	001	EPA 200.7	Boron
108.112	002	EPA 200.7	Calcium
108.112	004	EPA 200.7	Magnesium
108.112	005	EPA 200.7	Potassium

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108.112	007	EPA 200.7	Sodium
108.120	002	EPA 300.0	Chloride
108.120	008	EPA 300.0	Sulfate
108.211	001	EPA 351.2	Kjeldahl Nitrogen
108.232	001	EPA 353.2	Nitrate-nitrite, Total
108.232	002	EPA 353.2	Nitrite
108.360	001	EPA 420.1	Phenols, Total
108.362	001	EPA 420.4	Phenols, Total
108.386	001	SM2120C	Color
108.410	001	SM2320B	Alkalinity
108.420	001	SM2340B	Hardness (calc.)
108.421	001	SM2340C	Hardness
108.430	001	SM2510B	Conductivity
108.440	001	SM2540B	Residue, Total
108.441	001	SM2540C	Residue, Filterable
108.443	001	SM2540F	Residue, Settleable
108.472	001	SM4500-CN E	Cyanide, Total
108.480	001	SM4500-F C	Fluoride
108.490	001	SM4500-H+ B	pH
108.498	001	SM4500-NH3 H (18th)	Ammonia
108.510	001	SM4500-NO2 B	Nitrite
108.522	001	SM4500-NO3 F	Nitrate-nitrite, Total
108.540	001	SM4500-P E	Phosphate, Ortho
108.542	001	SM4500-P F	Phosphate, Ortho
108.543	001	SM4500-P F	Phosphorus, Total
108.590	001	SM5210B	Biochemical Oxygen Demand
108.591	001	SM5210B	Carbonaceous BOD
108.602	001	SM5220D	Chemical Oxygen Demand
108.610	001	SM5310B	Total Organic Carbon
108.640	001	SM5540C	Surfactants
108.882	001	USGS I-4540-85	Nitrite
108.899	001	USGS I-3765-85	Residue, Non-filterable

**109 - Toxic Chemical Elements of Wastewater**

109.010	001	EPA 200.7	Aluminum
109.010	004	EPA 200.7	Barium
109.010	005	EPA 200.7	Beryllium
109.010	007	EPA 200.7	Cadmium
109.010	009	EPA 200.7	Chromium
109.010	010	EPA 200.7	Cobalt
109.010	011	EPA 200.7	Copper
109.010	012	EPA 200.7	Iron

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109.010	013	EPA 200.7	Lead
109.010	015	EPA 200.7	Manganese
109.010	016	EPA 200.7	Molybdenum
109.010	017	EPA 200.7	Nickel
109.010	026	EPA 200.7	Vanadium
109.010	027	EPA 200.7	Zinc
109.020	001	EPA 200.8	Aluminum
109.020	002	EPA 200.8	Antimony
109.020	003	EPA 200.8	Arsenic
109.020	004	EPA 200.8	Barium
109.020	005	EPA 200.8	Beryllium
109.020	006	EPA 200.8	Cadmium
109.020	007	EPA 200.8	Chromium
109.020	008	EPA 200.8	Cobalt
109.020	009	EPA 200.8	Copper
109.020	010	EPA 200.8	Lead
109.020	011	EPA 200.8	Manganese
109.020	012	EPA 200.8	Molybdenum
109.020	013	EPA 200.8	Nickel
109.020	014	EPA 200.8	Selenium
109.020	015	EPA 200.8	Silver
109.020	016	EPA 200.8	Thallium
109.020	017	EPA 200.8	Vanadium
109.020	018	EPA 200.8	Zinc
109.191	001	EPA 245.2	Mercury
109.370	002	SM3111B	Cadmium
109.370	004	SM3111B	Chromium
109.370	006	SM3111B	Copper
109.370	009	SM3111B	Iron
109.370	010	SM3111B	Lead
109.370	012	SM3111B	Manganese
109.370	013	SM3111B	Nickel
109.370	019	SM3111B	Silver
109.370	023	SM3111B	Zinc

**113 - Whole Effluent Toxicity of Wastewater**

113.010	001	EPA 600/4-90/027F	Fathead Minnow (P. promelas)
113.010	005	EPA 600/4-90/027F	Daphnid (C. dubia)
113.021	001	EPA-821-R-02-012	Fathead Minnow (P. promelas)
113.023	005	EPA-821-R-02-012	Daphnid (C. dubia)

**114 - Inorganic Chemistry of Hazardous Waste**

114.010	003	EPA 6010B	Barium
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114.010	004	EPA 6010B	Beryllium
114.010	005	EPA 6010B	Cadmium
114.010	006	EPA 6010B	Chromium
114.010	007	EPA 6010B	Cobalt
114.010	008	EPA 6010B	Copper
114.010	009	EPA 6010B	Lead
114.010	010	EPA 6010B	Molybdenum
114.010	011	EPA 6010B	Nickel
114.010	015	EPA 6010B	Vanadium
114.010	016	EPA 6010B	Zinc
114.020	001	EPA 6020	Antimony
114.020	002	EPA 6020	Arsenic
114.020	003	EPA 6020	Barium
114.020	004	EPA 6020	Beryllium
114.020	005	EPA 6020	Cadmium
114.020	006	EPA 6020	Chromium
114.020	007	EPA 6020	Cobalt
114.020	008	EPA 6020	Copper
114.020	009	EPA 6020	Lead
114.020	010	EPA 6020	Molybdenum
114.020	011	EPA 6020	Nickel
114.020	012	EPA 6020	Selenium
114.020	013	EPA 6020	Silver
114.020	014	EPA 6020	Thallium
114.020	015	EPA 6020	Vanadium
114.020	016	EPA 6020	Zinc
114.140	001	EPA 7470A	Mercury
114.141	001	EPA 7471A	Mercury