



Arizona
Department of
Health Services

ENVIRONMENTAL LABORATORY LICENSE

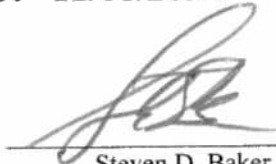
Issued to:

Laboratory Director: Kesavalu Bagawandoss, Ph.D
Owner/Representative: Joel Grice

Southern Petroleum Laboratories, Inc.
AZ0050

is in compliance with Environmental Laboratory's applicable standards for the State of Arizona and maintains on file a List of Parameters for which the laboratory is certified to perform analysis.

PERIOD OF LICENSURE FROM: 11/09/2010 TO: 11/08/2011



Steven D. Baker, Chief
Office of Laboratory Services
Bureau of State Laboratory Services

Wednesday, October 6 2010

AZ License: AZ0050

Lab Name: Southern Petroleum Laboratories, Inc.

Lab Director: Dr. Kesavalu Bagawandoss

Phone: (713) 660-0901

Fax: (713) 660-8975

| Program | | AIR | | |
|--|---------------|--------------|-----------|--|
| Parameter | EPA Method | Billing Code | Cert Date | |
| Volatile Organic Compounds | METHOD TO-15 | AIR17 | 07/21/06 | |
| Volatile Organic Compounds In Ambient Air | METHOD TO-14A | AIR17 | 11/18/08 | |
| Total Licensed Parameters in this Program: | | 2 | | |

| Program | | HW | | |
|---|------------|--------------|-----------|--|
| Parameter | EPA Method | Billing Code | Cert Date | |
| Acrylamide, Acrylonitrile, And Acrolein By Hplc | EPA 8316 | OC6 | 04/04/05 | |
| Alkaline Digestion For Hexavalent Chromium | EPA 3060A | PREP1 | 09/29/09 | |
| Aluminum | EPA 6010B | MTL3 | 06/08/98 | |
| Aluminum | EPA 6020 | MTL7 | 10/15/02 | |
| Aluminum | EPA 6020A | MTL7 | 08/30/10 | |
| Antimony | EPA 6010B | MTL3 | 06/08/98 | |
| Antimony | EPA 6020 | MTL7 | 10/15/02 | |
| Antimony | EPA 6020A | MTL7 | 08/30/10 | |
| Aromatic & Halogenated Vocs By Gc | EPA 8021B | OC8 | 01/15/03 | |
| Arsenic | EPA 6010B | MTL3 | 06/08/98 | |
| Arsenic | EPA 6020 | MTL7 | 10/15/02 | |
| Arsenic | EPA 6020A | MTL7 | 08/30/10 | |
| Barium | EPA 6010B | MTL3 | 06/08/98 | |
| Barium | EPA 6020 | MTL7 | 10/15/02 | |
| Barium | EPA 6020A | MTL7 | 08/30/10 | |
| Beryllium | EPA 6010B | MTL3 | 06/08/98 | |
| Beryllium | EPA 6020 | MTL7 | 10/15/02 | |
| Beryllium | EPA 6020A | MTL7 | 08/30/10 | |
| Boron | EPA 6010B | MTL3 | 10/15/07 | |
| Bromide | EPA 9056 | NIIIA1 | 09/12/05 | |
| C10-C32 Hydrocarbons | 8015AZ1 | OC4 | 01/28/99 | |
| Cadmium | EPA 6010B | MTL3 | 06/08/98 | |
| Cadmium | EPA 6020 | MTL7 | 10/15/02 | |
| Cadmium | EPA 6020A | MTL7 | 08/30/10 | |
| Calcium | EPA 6010B | MTL3 | 06/08/98 | |
| Chloride | EPA 9056 | NIIIA1 | 04/04/05 | |
| Chlorin. Herbs By Gc Methylation | EPA 8151A | OC9 | 06/08/98 | |
| Chromium | EPA 6020A | MTL7 | 08/30/10 | |
| Chromium, Hexavalent | EPA 7196A | MTL4 | 03/21/05 | |
| Chromium, Total | EPA 6010B | MTL3 | 06/08/98 | |
| Chromium, Total | EPA 6020 | MTL7 | 10/15/02 | |
| Closed System Purge And Trap Extract. Vocs | EPA 5035A | PREP2 | 12/05/06 | |
| Cobalt | EPA 6010B | MTL3 | 06/08/98 | |

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| Program | HW | Parameter | EPA Method | Billing Code | Cert Date |
|---------|----|--|------------|--------------|-----------|
| | | Cobalt | EPA 6020 | MTL7 | 10/15/02 |
| | | Cobalt | EPA 6020A | MTL7 | 08/30/10 |
| | | Copper | EPA 6010B | MTL3 | 06/08/98 |
| | | Copper | EPA 6020 | MTL7 | 10/15/02 |
| | | Copper | EPA 6020A | MTL7 | 08/30/10 |
| | | Corrosivity Ph Determination | EPA 9040C | HAZ1 | 12/05/06 |
| | | Cyanide | EPA 9010C | PREP2 | 12/05/06 |
| | | Cyanide | EPA 9014 | MISC10 | 10/24/08 |
| | | Dissolved In Water | EPA 3005A | PREP1 | 09/23/04 |
| | | Edb And DbcP By Microextraction And Gc | EPA 8011 | OC4 | 04/04/05 |
| | | Florisil Cleanup | EPA 3620B | PREP2 | 09/12/05 |
| | | Fluoride | EPA 9056 | NIIIA1 | 09/12/05 |
| | | Hem For Aqueous Samples | EPA 9070A | MISC6 | 12/05/06 |
| | | Hem For Sludge, Sediment And Solid Samples | EPA 9071B | MISC6 | 12/05/06 |
| | | Ignitability (Flash Point) | EPA 1010A | HAZ2 | 12/05/06 |
| | | Iron | EPA 6010B | MTL3 | 06/08/98 |
| | | Lead | EPA 6010B | MTL3 | 06/08/98 |
| | | Lead | EPA 6020 | MTL7 | 10/15/02 |
| | | Lead | EPA 6020A | MTL7 | 08/30/10 |
| | | Magnesium | EPA 6010B | MTL3 | 06/08/98 |
| | | Manganese | EPA 6010B | MTL3 | 06/08/98 |
| | | Manganese | EPA 6020 | MTL7 | 10/15/02 |
| | | Manganese | EPA 6020A | MTL7 | 08/30/10 |
| | | Mercury | EPA 7470A | MTL5 | 09/02/97 |
| | | Mercury | EPA 7471A | MTL5 | 09/02/97 |
| | | Molybdenum | EPA 6010B | MTL3 | 06/08/98 |
| | | N-Hexane By 8260b | EPA 8260B | MIC15 | 09/29/09 |
| | | Nickel | EPA 6010B | MTL3 | 06/08/98 |
| | | Nickel | EPA 6020 | MTL7 | 10/15/02 |
| | | Nickel | EPA 6020A | MTL7 | 08/30/10 |
| | | Nitrate | EPA 9056 | NIIIA1 | 04/04/05 |
| | | Nitrite | EPA 9056 | NIIIA1 | 04/04/05 |
| | | Nonhalogenated Organics Using Gc/Fid | EPA 8015D | OC4 | 06/08/98 |
| | | Oil & Grease & Petroleum Hydrocarbons | EPA 1664A | MISC6 | 12/05/06 |
| | | Organochlorine Pesticides | EPA 8081A | OC9 | 06/08/98 |
| | | Ortho-Phosphate | EPA 9056 | NIIIA1 | 04/04/05 |
| | | Pahs | EPA 8310 | OC13 | 10/11/95 |
| | | Paint Filter Liquids Test | EPA 9095B | MISC17 | 12/05/06 |
| | | Pcbs By Gc | EPA 8082 | OC9 | 06/08/98 |
| | | Ph (Hydrogen Ion) | EPA 9045D | NIA6 | 09/29/09 |
| | | Phenolics | EPA 9065 | MISC4 | 10/15/92 |

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| Program | HW | Parameter | EPA Method | Billing Code | Cert Date |
|---------|----|--|------------|--------------|-----------|
| | | Potassium | EPA 6010B | MTL3 | 06/08/98 |
| | | Purge And Trap For Aqueous Samples | EPA 5030C | PREP2 | 12/05/06 |
| | | Sediments, Sludges And Soils | EPA 3050B | PREP1 | 09/23/04 |
| | | Selenium | EPA 6010B | MTL3 | 06/08/98 |
| | | Selenium | EPA 6020A | MTL7 | 08/30/10 |
| | | Semivolatile Organics | EPA 8270C | OC16 | 06/08/98 |
| | | Separatory Funnel Liquid-Liquid Extraction | EPA 3510C | PREP2 | 09/23/04 |
| | | Silica Gel Cleanup | EPA 3630C | PREP2 | 04/04/05 |
| | | Silver | EPA 6010B | MTL3 | 06/08/98 |
| | | Silver | EPA 6020 | MTL7 | 10/15/02 |
| | | Silver | EPA 6020A | MTL7 | 08/30/10 |
| | | Sodium | EPA 6010B | MTL3 | 06/08/98 |
| | | Soxhlet Extraction | EPA 3540C | PREP2 | 09/12/05 |
| | | Specific Conductance | EPA 9050A | NIA7 | 06/08/98 |
| | | Splp | EPA 1312 | HAZ6 | 04/04/05 |
| | | Strontium | EPA 6010B | MTL3 | 04/04/05 |
| | | Sulfate | EPA 9038 | NIB2 | 10/15/92 |
| | | Sulfides | EPA 9030B | MISC11 | 06/08/98 |
| | | Sulfur Cleanup | EPA 3660B | PREP2 | 04/04/05 |
| | | Sulfuric Acid/Permanganate Cleanup | EPA 3665A | PREP2 | 11/18/08 |
| | | Tclp | EPA 1311 | HAZ5 | 10/15/92 |
| | | Thallium | EPA 6010B | MTL3 | 06/08/98 |
| | | Thallium | EPA 6020 | MTL7 | 10/15/02 |
| | | Thallium | EPA 6020A | MTL7 | 08/30/10 |
| | | Tin | EPA 6010B | MTL3 | 04/04/05 |
| | | Titanium | EPA 6010B | MTL3 | 10/24/08 |
| | | Tocs | EPA 9060A | MISC2 | 10/15/92 |
| | | Total Metals | EPA 3010A | PREP1 | 09/23/04 |
| | | Total Recoverable In Water | EPA 3005A | PREP1 | 04/04/05 |
| | | Ultrasonic Extraction | EPA 3550B | PREP2 | 09/23/04 |
| | | Vanadium | EPA 6010B | MTL3 | 06/08/98 |
| | | Vanadium | EPA 6020A | MTL7 | 08/30/10 |
| | | Vocs By Gc/Ms | EPA 8260B | OC8 | 09/02/97 |
| | | Waste Dilution | EPA 3580A | PREP2 | 04/04/05 |
| | | Zinc | EPA 6010B | MTL3 | 06/08/98 |
| | | Zinc | EPA 6020 | MTL7 | 10/15/02 |
| | | Zinc | EPA 6020A | MTL7 | 08/30/10 |

Total Licensed Parameters in this Program: 111

| Program | SDW | Parameter | EPA Method | Billing Code | Cert Date |
|---------|-----|-----------|------------|--------------|-----------|
|---------|-----|-----------|------------|--------------|-----------|

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Lab Name: Southern Petroleum Laboratories, Inc.

| Program | | SDW | | |
|--|-----------------|--------------|-----------|--|
| Parameter | EPA Method | Billing Code | Cert Date | |
| Edb/Dhcp | EPA 504.1 (1.1) | OC4 | 12/05/06 | |
| Total Licensed Parameters in this Program: | | 1 | | |

| Program | | WW | | |
|--|----------------|--------------|-----------|--|
| Parameter | EPA Method | Billing Code | Cert Date | |
| Acidity | SM 2310B | NIIA1 | 12/05/06 | |
| Alkalinity, Total | SM 2320B | NIA1 | 09/21/05 | |
| Aluminum | EPA 200.7 | MTL3 | 04/04/05 | |
| Aluminum | EPA 200.8 | MTL7 | 10/15/02 | |
| Ammonia | SM 4500-NH3B | NIIB1 | 12/05/06 | |
| Ammonia | SM 4500-NH3C | NIIB1 | 12/05/06 | |
| Antimony | EPA 200.7 | MTL3 | 10/15/92 | |
| Antimony | EPA 200.8 | MTL7 | 10/15/02 | |
| Arsenic | EPA 200.7 | MTL3 | 10/15/92 | |
| Arsenic | EPA 200.8 | MTL7 | 10/15/02 | |
| Barium | EPA 200.7 | MTL3 | 10/15/92 | |
| Barium | EPA 200.8 | MTL7 | 10/15/02 | |
| Base/Neutrals And Acids Excluding Pesticides | EPA 625 | OC16 | 10/15/92 | |
| Beryllium | EPA 200.7 | MTL3 | 10/15/92 | |
| Beryllium | EPA 200.8 | MTL7 | 10/15/02 | |
| Boron | EPA 200.7 | MTL3 | 10/15/92 | |
| Bromide | EPA 300.0 | NIIIA1 | 09/02/97 | |
| Cadmium | EPA 200.7 | MTL3 | 10/15/92 | |
| Cadmium | EPA 200.8 | MTL7 | 10/15/02 | |
| Calcium | EPA 200.7 | MTL3 | 10/15/92 | |
| Calcium | EPA 200.8 | MTL7 | 09/29/09 | |
| Carbon, Total Organic (Toc) | SM 5310B | MISC1 | 10/15/92 | |
| Chemical Oxygen Demand | SM 5220C | DEM2 | 12/05/06 | |
| Chloride | EPA 300.0 | NIIIA1 | 09/21/05 | |
| Chlorine Residual Total | SM 4500-CL G | NIA3 | 10/24/08 | |
| Chromium Total | EPA 200.7 | MTL3 | 10/22/93 | |
| Chromium Total | EPA 200.8 | MTL7 | 10/15/02 | |
| Chromium, Hexavalent | SM 3500-CR D | MTL8 | 09/21/05 | |
| Cobalt | EPA 200.7 | MTL3 | 10/15/92 | |
| Cobalt | EPA 200.8 | MTL7 | 10/15/02 | |
| Color | SM 2120B | NIA4 | 12/05/06 | |
| Copper | EPA 200.7 | MTL3 | 10/15/92 | |
| Copper | EPA 200.8 | MTL7 | 10/15/02 | |
| Cyanide Amenable To Chlorination | SM 4500-CN G | MISC7 | 12/05/06 | |
| Cyanide, Total | SM 4500-CN BCE | MISC34 | 12/05/06 | |
| Fluoride | EPA 300.0 | NIIIA1 | 04/04/05 | |

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| Program | WW | Parameter | EPA Method | Billing Code | Cert Date |
|---------|----|--|----------------|--------------|-----------|
| | | Hardness | EPA 200.7 | MTL3 | 10/24/08 |
| | | Hardness | SM 2340B | MTL8 | 09/29/09 |
| | | Hardness | SM 2340C | NIA5 | 12/05/06 |
| | | Hydrogen Ion (Ph) | SM 4500-H B | NIA6 | 03/13/07 |
| | | Iron | EPA 200.7 | MTL3 | 10/15/92 |
| | | Iron | EPA 200.8 | MTL7 | 09/29/09 |
| | | Kjeldahl Nitrogen | SM 4500-NH3 C | NIIB3 | 10/24/08 |
| | | Kjeldahl Nitrogen | SM 4500-NORG B | NIIB3 | 10/15/07 |
| | | Lead | EPA 200.7 | MTL3 | 10/15/92 |
| | | Lead | EPA 200.8 | MTL7 | 10/15/02 |
| | | Magnesium | EPA 200.7 | MTL3 | 10/15/92 |
| | | Magnesium | EPA 200.8 | MTL7 | 09/29/09 |
| | | Manganese | EPA 200.7 | MTL3 | 10/15/92 |
| | | Manganese | EPA 200.8 | MTL7 | 10/15/02 |
| | | Mercury | EPA 245.1 | MTL5 | 10/15/92 |
| | | Molybdenum | EPA 200.7 | MTL3 | 10/15/92 |
| | | Molybdenum | EPA 200.8 | MTL7 | 04/04/05 |
| | | Nickel | EPA 200.7 | MTL3 | 10/15/92 |
| | | Nickel | EPA 200.8 | MTL7 | 10/15/02 |
| | | Nitrate (As N) | EPA 300.0 | NIIA1 | 03/13/07 |
| | | Nitrate-Nitrite (As N) | EPA 353.2 | NIB1 | 09/29/09 |
| | | Nitrate-Nitrite (As N) | SM 4500-N03 F | NIB1 | 12/05/06 |
| | | Nitrite | EPA 353.2 | NIIB4 | 09/29/09 |
| | | Nitrite (As N) | EPA 300.0 | NIIA1 | 04/04/05 |
| | | Nitrite (As N) | SM 4500-NO2 B | NIIB4 | 12/05/06 |
| | | Oil And Grease, Total Petroleum Hydrocarbons | EPA 1664A | MISC6 | 12/05/06 |
| | | Oil And Grease, Total Petroleum Hydrocarbons | SM 5520B | MISC6 | 09/04/03 |
| | | Organochlorine Pesticides And Pcb | EPA 608 | OC9 | 10/15/92 |
| | | Orthophosphate | EPA 300.0 | NIIA1 | 04/04/05 |
| | | Orthophosphate | SM 4500-P E | NIIB5 | 12/05/06 |
| | | Phenols | EPA 420.1 | MISC8 | 04/04/05 |
| | | Phosphorus, Total | SM 4500-P E | NIIB6 | 12/05/06 |
| | | Polynuclear Aromatic Hydrocarbons | EPA 610 | OC12 | 10/22/93 |
| | | Potassium | EPA 200.7 | MTL3 | 10/15/92 |
| | | Purgeable Aromatics | EPA 602 | OC3 | 09/29/09 |
| | | Purgeables | EPA 624 | OC8 | 10/24/08 |
| | | Residue Filterable | SM 2540 C | NIA8 | 12/05/06 |
| | | Residue Nonfilterable | SM 2540D | NIA5 | 12/05/06 |
| | | Residue Total | SM 2540B | NIA4 | 12/05/06 |
| | | Residue Volatile | EPA 160.4 | NIA7 | 09/12/05 |
| | | Residue, Settleable Solids | SM 2540F | NIA6 | 09/12/05 |

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| Program | WW | Parameter | EPA Method | Billing Code | Cert Date |
|--|----|-----------------------------|---------------|--------------|-----------|
| | | Selenium | EPA 200.7 | MTL3 | 10/15/92 |
| | | Selenium | EPA 200.8 | MTL7 | 10/15/02 |
| | | Silver | EPA 200.7 | MTL3 | 10/15/92 |
| | | Silver | EPA 200.8 | MTL7 | 10/15/02 |
| | | Sodium | EPA 200.7 | MTL3 | 10/15/92 |
| | | Sodium | EPA 200.8 | MTL7 | 09/29/09 |
| | | Specific Conductance | EPA 120.1 | NIA7 | 10/15/92 |
| | | Specific Conductance | SM 2510B | NIA7 | 10/15/92 |
| | | Strontium | EPA 200.7 | MTL3 | 10/15/92 |
| | | Sulfate | EPA 300.0 | NIIIA1 | 04/04/05 |
| | | Sulfide | SM 4500-S D | MISC11 | 12/05/06 |
| | | Sulfite | SM 4500-SO3 B | MISC12 | 12/05/06 |
| | | Surfactants (Mbas) | SM 5540C | NIIA3 | 12/05/06 |
| | | Temperature Degrees Celcius | SM 2550B | NIA18 | 03/13/07 |
| | | Thallium | EPA 200.7 | MTL3 | 10/15/92 |
| | | Thallium | EPA 200.8 | MTL7 | 10/15/02 |
| | | Tin | EPA 200.7 | MTL3 | 10/15/92 |
| | | Titanium | EPA 200.7 | MTL3 | 09/29/09 |
| | | Turbidity, Ntu | EPA 180.1 | NIA9 | 10/15/92 |
| | | Turbidity, Ntu | SM 2130B | NIA9 | 10/24/08 |
| | | Vanadium | EPA 200.7 | MTL3 | 10/15/92 |
| | | Vanadium | EPA 200.8 | MTL7 | 10/15/02 |
| | | Zinc | EPA 200.7 | MTL3 | 10/15/92 |
| | | Zinc | EPA 200.8 | MTL7 | 10/15/02 |
| Total Licensed Parameters in this Program: | | 101 | | | |

| Instruments | Quantity | Date |
|--|----------|----------|
| GAS CHROMATOGRAPH | 6 | 11/26/08 |
| GAS CHROMATOGRAPH/MASS SPECTROMETER | 5 | 08/30/10 |
| HIGH PERFORMANCE LIQUID CHROMATOGRAPH | 2 | 09/29/08 |
| INDUCTIVELY COUPLED PLASMA/MASS SPECTROMETER | 2 | 09/29/08 |
| MERCURY ANALYZER | 2 | 11/26/08 |
| ION CHROMATOGRAPH | 2 | 11/07/05 |
| INDUCTIVELY COUPLED PLASMA SPECTROMETER | 1 | 10/15/92 |
| AUTOMATED AUTOANALYZER | 1 | 09/03/09 |

| Softwares |
|-----------------------|
| TARGET - GC/MS |
| TURBOCHROM - GC |
| PEAKNET (DIONEX) - IC |

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CHEM STATION-ICP/MS

EZ CHROM - IC

CHROMELEON (DIONEX) - IC

ENVIROQUANT/CHEMSTATION GC/MS

LEEMAN-HYDRA - MA

EUROGLAS (TOX)

CHEMSTATION - HPLC

WinHG

ITREA - ICP