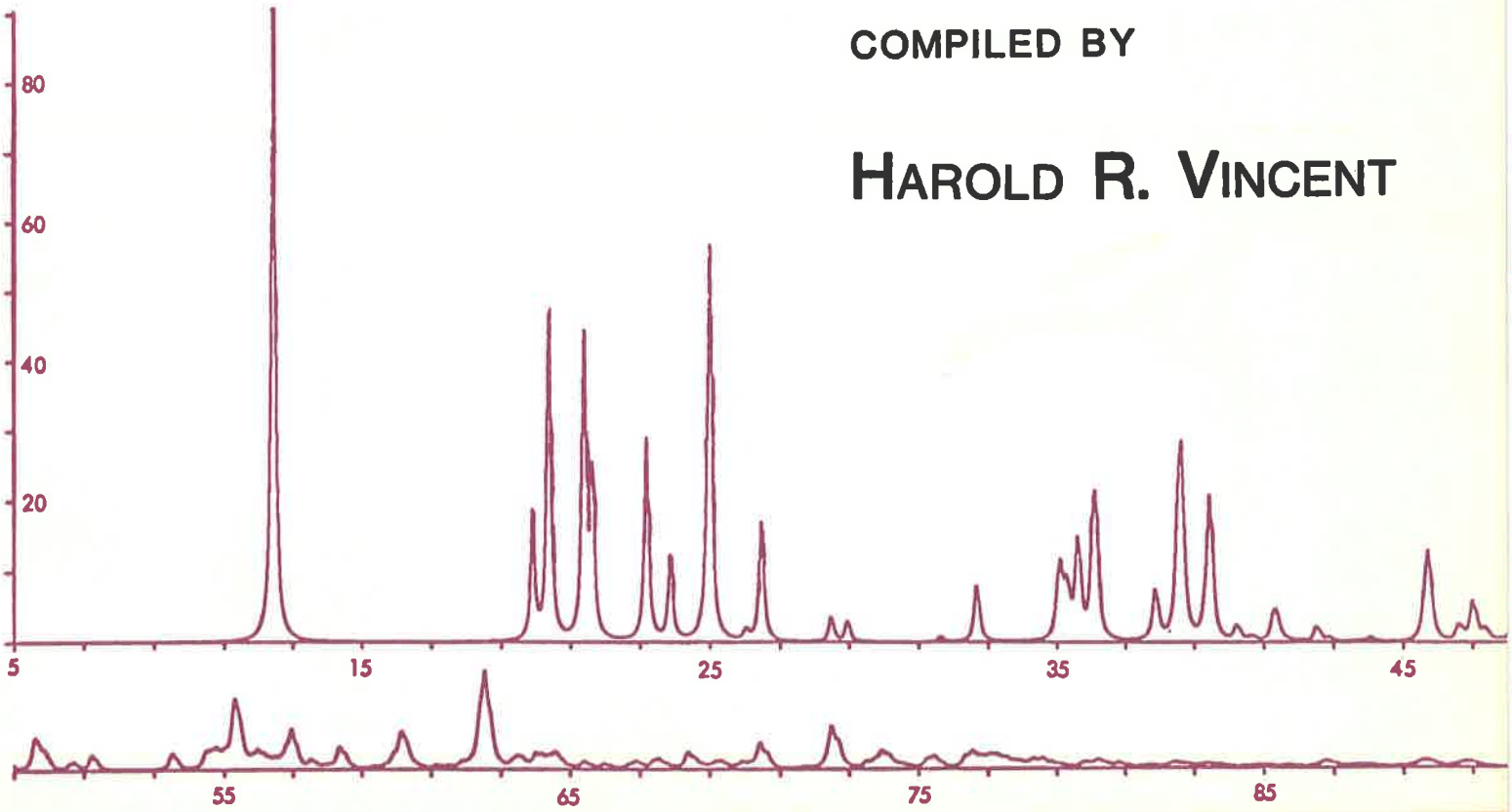
GEOSCIENCE TESTING FACILITIES IN GEORGIA, 1982

COMPILED BY

HAROLD R. VINCENT



CIRCULAR 7

Department of Natural Resources
Environmental Protection Division
Georgia Geologic Survey

GEOSCIENCE TESTING FACILITIES IN GEORGIA, 1982

Compiled By:

Harold R. Vincent

Circular 7

DEPARTMENT OF NATURAL RESOURCES
Joe. D. Tanner, Commissioner

ENVIRONMENTAL PROTECTION DIVISION
J. Leonard Ledbetter, Director

GEORGIA GEOLOGIC SURVEY
William H. McLemore, State Geologist

ATLANTA

1983

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INTRODUCTION

This publication is an attempt to group together, in a single document, the names and capabilities of firms, colleges, and universities in Georgia that can perform field and laboratory testing services for the mining industry. This document, in turn, can be used by mineral explorers and producers in identifying those organizations in Georgia that can assist in solving geologically related problems.

The author has attempted to include all the appropriate laboratory capabilities of each organization, not just what is available within the state. This means that if an organization does not have a testing laboratory within Georgia but does have an office within the state, the laboratory facilities of the firm are included in this document. Although it is beyond the scope of this publication to list and describe the entire range of capabilities of an organization, this document does provide a listing of the major mineral-related testing facilities of the respected firms. It should be kept in mind that the testing services listed in this document are restricted to those performed by equipment owned directly by the identified organizations; services provided by firms or private individuals with equipment that is leased or contracted out are not included here.

In addition, a national listing of professionally registered geologists that can perform consulting services in the State of Georgia may be obtained by contacting the State Board of Registered Geologists, Professional Examining Board, 166 Pryor Street, S.W., Atlanta, Georgia, 30303, (404) 656-2281.

The field and laboratory testing facilities are listed alphabetically and in a consistent format in order to avoid confusion and erroneous interpretations about an organization's testing capabilities. For example, a generally accepted term such as "Proctor tests" is used in place of "Soil density tests". This format eliminates problems in cases such as geotechnical and/or soils engineering where different firms may have different names for the same type of test.

This survey of mineral testing facilities was based on interviews with representatives of the various organizations. While we believe the information to be accurate, the possibility of omission or incorrect listings cannot be discounted. If omissions or errors are noted, please notify the Georgia Geologic Survey so that an errata sheet can be provided and subsequent editions of this circular revised. ANYONE WISHING TO UTILIZE MINERAL TESTING FACILITIES LISTED HEREIN SHOULD CAREFULLY CHECK WITH ALL CANDIDATE ORGANIZATIONS TO VERIFY EQUIPMENT AVAILABILITY AND CAPABILITY.

Unless otherwise noted, all organizations listed in this document are available for performing testing services for private industry and government agencies. For each organization listed, the appropriate fee is negotiable based upon the type of service provided.

COLLEGES AND UNIVERSITIES

Columbus College
Department of Chemistry and Geology
Columbus, Georgia 31993
(404) 568-2292 GIST: 251-2292

Dr. Paul J. Beyer, Chairman

Instrumentation:
- Arc emission spectroscope
- Atomic absorption spectrometer: flame
- Petrographic microscopes
- X-ray diffraction spectrometer

Geotechnical / Soils Engineering:
- Sieve analysis

Mineral Engineering / Sample Preparation:
- Rock crushers and pulverizers
- Thin section preparation equipment

Emory University
Department of Geology
Atlanta, Georgia 30322
(404) 329-6491

Dr. Arthur T. Allen, Chairman

Instrumentation:
- Atomic absorption spectrometer: flame
- Computer controlled petrographic image analyzer
- Geiger counters
- Petrographic microscopes (transmitted and reflected light)
- Scanning electron microscope with energy dispersive X-ray analyzer
- Seismic surveys: 6 channel portable seismograph
- X-ray diffraction spectrometer

Geotechnical / Soils Engineering:
- Sieve analysis

Mineral Engineering / Sample Preparation:
- Magnetic separator
- Rock crushers and pulverizers
- Thin section preparation equipment

Georgia Institute of Technology
Engineering Experiment Station
Energy and Materials Sciences Laboratory
Atlanta, Georgia 30332

Biomass Conversion Division
Thermal Process Branch
(404) 894-3635

Dr. J.A. Knight, Branch Director

Instrumentation:
- Atomic absorption spectrometers: flame and furnace
- Atomic emission spectrometer
- Calorimeter: differential scanning type with thermobalance
- Fiber optic scanner for thin layer chromatography
- Gas chromatograph
- Infra-red spectrometer
- Liquid chromatograph
- Ultra-violet spectrometer

Mineral Engineering / Sample Preparation:
- Mortar mill

Materials Sciences Division
Materials Characterization Branch

Mr. J.L. Brown, Branch Director
(404) 894-3460

Instrumentation:
- Arc emission spectrograph
- Asbestos analysis
- Electron diffraction analysis
- Electron microprobe
- Infra-red spectrometer
- Medical-type X-ray
- Optical microscopy and metallography
- Oxygen asher
- Scanning electron microscope with energy dispersive X-ray analyzer
- Transmission electron microscope
- X-ray diffraction spectrometer
- X-ray fluorescence spectrometer

Mineral Engineering / Sample Preparation:
- Ultra microtome: very fine thin section preparation

Georgia Institute of Technology
School of Ceramic Engineering
Atlanta, Georgia 30332
(404) 894-2850 GIST: 222-2852

Dr. Joseph L. Pentecost, Chairman

Instrumentation:

- Automatic thermal expansion apparatus
- Metallographic microscopes
- Particle size analyzer: Sedigraph
- Petrographic microscopes
- Reflectance spectrophotometer for brightness test and color measure
- Scanning electron microscope with energy dispersive X-ray analyzer
- Surface area analyzer: BET Ar adsorption
- Universal tester: mechanical properties
- X-ray diffraction spectrometer
- X-ray fluorescence spectrometer

Mineral Engineering / Sample Preparation:

- Extrusion, granulation, and compaction equipment
- Grinding and polishing equipment
- Kilns to 1600°C
- Tungsten carbide impact mill

Georgia Institute of Technology
School of Chemical Engineering
Atlanta, Georgia 30332

Georgia Mining and Mineral Resources Institute:
(404) 894-2893 GIST: 222-2893

Dr. John E. Husted, Director

Instrumentation:

- Binocular microscopes
- Microscopes with micrometer eyepiece
- Petrographic research microscopes

Mineral Engineering / Sample Preparation:

- Ball mill: batch
- Cone crusher
- Double deck vibrating screens
- Double roll crusher
- Electrostatic separator: high intensity
- Flotation cells
- Gyratory crusher
- Humphrey spiral
- Jaw crusher
- Jig (Hartz type)
- Magnetic scalper
- Magnetic separator (high intensity dry roll-type): up to 18,000 gauss
- Magnetic separator (high intensity dry lift-type): up to 16,000 gauss
- Magnetic separator (high intensity wet-type): <21,000 gauss
- Pulverizer
- Rod mill: batch
- Sieve analysis
- Solvent extraction unit
- Triple deck screen: 18"
- Wifley table with two decks: coal and mineral

Georgia Institute of Technology
School of Geophysical Sciences
Atlanta, Georgia 30332
(404) 894-2857 GIST: 222-3896

Dr. Chia S. Kiang, Chairman

Instrumentation:
- Atomic absorption spectrometers: flame and furnace
- Electron microprobe
- Gas chromatograph
- Gravity meters
- Magnetometers
- Mass spectrometer
- Petrographic microscopes
- Potassium-argon dating laboratory
- Scanning electron microscope
- Seismic surveys: 12 channel portable seismographs
- X-ray diffraction spectrometer
- X-ray fluorescence spectrometer

Geotechnical / Soils Engineering:
- Sieve analysis

Mineral Engineering / Sample Preparation:
- Rock crushers and pulverizers
- Thin section preparation equipment

Georgia Southern College
Department of Geology
Statesboro, Georgia 30458
(912) 681-5361 GIST: 364-5361

Dr. H. Stanley Hanson, Chairman

Instrumentation:
- Differential thermal analysis
- Earth resistivity meter
- Petrographic microscopes
- Scanning electron microscope
- Seismic surveys: 6 channel portable seismograph

Geotechnical / Soils Engineering:
- Hydrometers
- Sieve analysis

Mineral Engineering / Sample Preparation:
- Thin section preparation equipment

Georgia Southwestern College
Department of Geology and Physics
Americus, Georgia 31709
(912) 928-1252 GIST: 345-1252

Dr. John P. Manker, Acting Chairman, Department of Geology and Physics
Dr. H.E. Cofer, Jr., Director of Contract Research

Instrumentation:
- Earth resistivity meter (Soiltest)
- Gas chromatograph
- Gravity meters (Prospector models)
- Magnetometers (portable and base)
- Petrographic microscopes
- Portable induction salimeter
- Scanning electron microscope
- Seismic surveys: 4 channel portable seismograph
- Seismograph stations: 3 long period, 1 short period
- Underwater sediment samplers
- X-ray diffraction spectrometer
- X-ray fluorescence spectrometer

Geotechnical / Soils Engineering:
- Hydrometers
- Power soil augers
- Sieve analysis

Mineral Engineering / Sample Preparation:
- Gravity separator
- Magnetic separator
- Rock crushers and pulverizers
- Thin section preparation equipment

Miscellaneous / Hydrologic:
- Electric water-level recorder
- Monitor-well-sampling pumps (two inches in diameter)
- Water chemistry field testing equipment

Georgia State University
Department of Geology
Atlanta, Georgia 30303
(404) 658-2272 GIST: 223-2272

Dr. V.J. Henry, Chairman

Instrumentation:
- Binocular microscopes
- Geiger counters
- Magnetometer
- Petrographic microscopes
- X-ray diffraction spectrometer
- X-ray fluorescence spectrometer

Geotechnical / Soils Engineering:
- Centrifuge
- Sieve analysis

Mineral Engineering / Sample Preparation:
- Magnetic separator
- Rock crushers and pulverizers
- Thin section preparation equipment

The University of Georgia
Department of Geology
Athens, Georgia 30602
(404) 542-2652 GIST: 241-2652

Dr. J. Hatten Howard III, Chairman (Acting)

Instrumentation:

- Atomic absorption spectrometer
- Atomic emission spectrometer
- Autoclaves: high pressure-temperature
- Carbon 14 dating laboratory
- Earth resistivity meters
- Electron microprobe
- Geiger counters
- Magnetometers
- Mass spectrometer
- NBS tetrahedral anvil
- Neutron activation laboratory
- Paleomagnetism analysis
- Petrographic microscopes (transmitted and reflected light)
- Phase transformation analysis
- Potassium-argon dating laboratory
- Scanning electron microscope
- Seismic surveys: 6 channel portable seismograph
- Stable isotope laboratory
- Stress analysis: triaxial
- X-ray diffraction spectrometer
- X-ray fluorescence spectrometer

Geotechnical / Soils Engineering:

- Hydrometers
- Sieve analysis

Mineral Engineering / Sample Preparation:

- Magnetic separators
- Rock crushers and pulverizers
- Thin section preparation equipment

West Georgia College
Department of Geology
Carrollton, Georgia 30118
(404) 834-1250 GIST: 232-1250

Dr. Sumner Long, Chairman

Instrumentation:
- Atomic absorption spectrometer: flame
- Petrographic microscopes
- X-ray diffraction spectrometer

Geotechnical / Soils Engineering:
- Centrifuges
- Sieve analysis

Mineral Engineering / Sample Preparation:
- Magnetic separator
- Rock crushers and pulverizers
- Thin section preparation equipment

CONSULTING FIRMS

Applied Biology, Inc.
641 DeKalb Industrial Way
Decatur, Georgia 30033
(404) 296-3900

Dr. Steve N. Tsoukalas, Director of Chemistry Division

Instrumentation:

- Atomic absorption spectrometer: furnace
- Carbon analysis: trace and total
- Gas chromatograph
- Gas chromatograph with mass spectrometer
- Organic and microbiology laboratory
- Ultra-violet spectrometer
- Wet chemistry laboratory

Applied Technical Services, Inc.
1990 Delk Industrial Blvd.
Marietta, Georgia 30067
(404) 952-8705

Mr. Bob Dunning, Director

Instrumentation:

- Arc emission spectrograph
- Atomic absoption spectrometers: flame and furnace
- Gas chromatograph
- Infra-red spectrometer
- Wet chemistry laboratory

The Aquafine Corporation
157 Darien Highway
Brunswick, Georgia 31520
(912) 265-2000

Dr. Joseph Iannicelli, Owner

Mineral Engineering / Sample Preparation:

- Blungers
- Centrifuges
- Filter press
- Magnetic separator (high intensity mobile small production model): 20,000 gauss
- Magnetic separator (high intensity pilot plant model): 20,000 gauss
- Pellitizer
- Screens: 18"
- Spray dryers: conversion of slurry to powder

Miscellaneous:

- Water chemistry analysis and purification facilities

Armstrong Research Institute
P.O. Box 23022
Savannah, Georgia 31403
(912) 238-4176

Dr. Cedric Stratton, Director

Armstrong Research Institute consists of several faculty members of the Department of Chemistry at Armstrong State College who perform independent testing services.

Instrumentation:

- Biological microscopes
- Gas chromatograph
- Infra-red spectrometer
- Ultra-violet spectrometer
- Wet chemistry laboratory

Atec Associates Inc. of Georgia
1190 Hayes Industrial Drive, N.E.
Marietta, Georgia 30062
(404) 427-9456

Mr. Larry D. Mullins, Senior Project Engineer

Instrumentation:
Seismic surveys: 12 channel portable seismographs

Geotechnical / Soils Engineering:
Aggregate testing
Asphalt testing
Atterberg limits
California Bearing Ratio: field and laboratory
Concrete testing
Consolidation tests
Drilling rigs: continuous coring, augers, split spoon samplers
Field density tests
Hydrometer
Permeability: constant and falling heads
Plate load tests
Proctor tests
Shear tests: triaxial
Sieve analysis

Atlanta Testing and Engineering Consultants, Inc.
105 Technology Parkway
Norcross, Georgia 30092
(404) 448-0242

Mr. W.J. van Reenen, President

Instrumentation:
- Earth resistivity meters
- Seismic surveys: 6 channel portable seismograph

Geotechnical / Soils Engineering:
- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Consolidation tests
- Drilling rigs: all-terrain rigs, continuous coring, augers
- Field density tests
- Hydrometer
- Los Angeles abrasion tests
- Permeability: constant and falling heads
- Plate load tests
- Proctor tests
- Shear tests: triaxial
- Sieve analysis
- Unconfined compression tests

Betz Converse Murdoch, Inc.
306 Flint Avenue
Albany, Georgia 31701
(404) 432-7191

Laboratory Divisions:

521 W. Germantown Pike
Norristown, PA 19401
(215) 825-0447

Ms. Sharon A. Nordstrom

325 Thirteenth Street
Dunbar, WV 25064
(304) 766-6283

Ms. Pamela G. Villers

Instrumentation:
- Atomic absorption spectrometers: flame and furnace
- Calorimeters
- Carbon analysis: organic and total
- Gas chromatograph
- Infra-red spectrometer
- Ion chromatograph
- Sulphur analysis
- Trinocular polarizing microscopes
- Ultra-violet to visible spectrometer
- Wet chemistry laboratory

Geotechnical / Soils Engineering:
- Sieve analysis

Mineral Engineering / Sample Prepration:
- Ash fusion furnace
- Grindability tester
- Mill crusher
- Muffle furnace
- Riffles and splitters
- Rock crushers and pulverizers

Miscellaneous:
- Biological laboratory: bioassay

Brown and Caldwell Consulting Engineers
30 Perimeter Center - East
Suite 117
Atlanta, Georgia 30346
(404) 394-2997

Mr. James Smith, Office Manager

Instrumentation:

Atomic absorption spectrometer: flame
Gas chromatograph with mass spectrometer
Wet chemistry laboratory

CH_2M Hill
401 West Peachtree Street NE
Suite 1640
Atlanta, Georgia, 30308
(404) 588-1990

Dr. John Charles Nemeth
Director of Environmental Sciences
Eastern Division

Instrumentation:
- Analog recording truck
- Atomic absorption spectrometer: furnace
- Borehole logging tools: resistivity, gamma-ray, caliper, temperature, fluid-conductivity, fluid-velocity, sidewall core gun
- Carbon analysis: organic
- Cation exchange coefficient
- Earth conductivity meters
- Earth resistivity meters
- Gas chromatograph
- Gas chromatograph with mass spectrometer
- Liquid chromatograph
- Magnetometer
- Ultra-violet to visible spectrometer
- Wet chemistry laboratory

Geotechnical / Soils Engineering:
- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Centrifuge
- Concrete testing
- Consolidation tests
- Field density tests
- Hydrometer
- Permeability: falling and constant heads
- Plate load tests
- Proctor tests
- Shear tests: direct and triaxial
- Sieve analysis

Miscellaneous:
- Biological laboratory: bioassays
- Centrifugal surface pumps for aquifer tests
- Water chemistry field test equipment

Clayton Environmental Consultants, Inc.
2141 Kingston Center - N.E.
Marietta, Georgia
(404) 952-3064

Mr. Charles Blake, Branch Manager

Instrumentation:
- Atomic absorption spectrometers: flame and furnace
- Atomic emission spectrometer
- Gas chromatograph
- Infra-red spectrometer
- Scanning electron microscope
- X-ray diffraction spectrometer
- X-ray fluorescence spectrometer

Geotechnical / Soils Engineering:
- Sieve analysis

Mineral Engineering / Sample Preparation:
- Ball mill

CSRA Testing Laboratories, Inc.
1005 Emmett Street
Augusta, Georgia 30904
(404) 733-6960

Mr. Jim Pope, President

Geotechnical / Soils Engineering:

- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Consolidation tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Field density tests
- Hydrometers
- Permeability: constant and falling heads
- Plate load tests
- Procter tests
- Shear tests: direct and triaxial
- Sieve analysis

Coleman Engineering Laboratory, Inc.
721 Bohler Avenue
Augusta, Georgia 30904
(404) 733-3663

Mr. Chuck Rushing, Branch Manager

Coleman Engineering Laboratories, Inc. is a subsidiary of Soil Systems, Inc. (see listing). All equipment is utilized through the Marietta office.

Dames and Moore
455 E. Paces Ferry Rd. N.E.
Atlanta, Georgia 30305
(404) 262-2915

Mr. William Smith, Chief Geotechnical Engineer

Instrumentation:
- Analog recording trucks
- Atomic absorption spectrometers: flame and furnace
- Borehole logging tools: self-potential, resistivity, gamma-ray, neutron, high resolution density, compensated density, differential temperature, acoustic velocity, caliper, sidewall core gun
- Downhole shockwave inducers
- Earth deformation recorders
- Earth resistivity meters
- Gas chromatographs
- Magnetometers
- Marine sight scan sonar
- Metal and subsurface density anomaly locator
- Petrographic microscopes
- Remote sensing image enhancer
- Seismic surveys: 12 channel portable refraction seismograph

Geotechnical / Soils Engineering:
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Complete rock mechanics laboratory
- Consolidation tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Field density tests
- Permeability: falling and constant head
- Plate load tests
- Proctor tests
- Shear tests: direct and triaxial
- Sieve analysis

Mineral Engineering / Sample Preparation:
- Thin section preparation equipment

Environmental Science and Engineering, Inc.
2200 Northlake Parkway, N.E.
Atlanta, Georgia 30345
(404) 458-9700

Mr. Kenneth Rosaski, Office Manager

Laboratory:

P.O. Box ESE
Gainesville, Florida 32602
1-800-874-8496

Mr. Stuart A. Whitlock; Manager, Chemistry Department

Instrumentation:

Alpha spectrometer
Atomic absorption spectrometer: furnance
Carbon analysis: organic
Colorimeter
Gamma-ray spectrometer
Gas chromatograph
Gas chromatography / fourier transform infra-red spectroscopy
Gas chromatograph with mass spectrometer
Geiger counters
Hydrocarbon analyzer
Inductively coupled argon plasma spectrometer
Infra-red spectrometer
Liquid chromatograph
NDIR spectrometers
Radon gas counting system
Thermoluminescent dosimetry system
Ultra-violet to visible spectrometer
Visible spectrometer

Federer-Sailors and Associates
1732 Pleasant Hill Road
Duluth, Georgia 30136
(404) 923-4044

Mr. James Sailors, Vice President

Geotechnical / Soils Engineering:

- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Consolidation tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Field density tests
- Hydrometer
- Permeability: constant and falling heads
- Plate load tests
- Proctor tests
- Shear tests: triaxial
- Sieve analysis

Geo/Hydro Engineers, Inc.
3002 Kingston Ct.
Marietta, Georgia 30067
(404)427-5050

Mr. Lee Squier, President

Geotechnical / Soils Engineering:
- Atterberg limits
- Concrete testing
- Consolidation tests
- Field density tests
- Hydrometer
- Proctor tests
- Sieve analysis

Georgia Kaolin Company
Deepstep, Georgia 31082
(912) 552-5225

Mr. Sam Pickering, Assistant Director

Instrumentation:
- Electron microprobe
- Reflectance spectrophotometer: brightness test
- Scanning electron microscope
- X-ray diffraction spectrometer
- X-ray fluorescence spectrometer

Geotechnical / Soils Engineering:
- Drilling rigs: continuous coring, augers, split spoon samplers
- Sieve analysis

Mineral Engineering / Sample Preparation (kaolin):
- Abrasion tests
- Adsorption tests
- Cation exchange coefficient
- Chemical leaching and bleaching properties
- Delamination
- Fractionation
- Grit and insoluble residue tests
- High and low shear viscosity

Golder Associates
5125 Peachtree Road, N.E.
Atlanta, Georgia 30341
(404) 458-9686

Mr. William F. Brumund, Principal

Geotechnical / Soils Engineering:

- Aggregate testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Consolidation tests
- Field density tests
- Hydrometer
- Permeability: constant and falling heads
- Plate load tests
- Proctor tests
- Shear tests: direct and triaxial
- Sieve analysis

Ground Water and Soil Services
Route 2 - Whitesville Road
LaGrange, Georgia 30240
(404) 882-2657

Mr. Don A. Watson, President

Instrumentation:
Earth resistivity meter

Geotechnical / Soils Engineering:
Drilling rigs: rock coring, augers, split spoon and thin wall tube samplers
Sieve analysis

Hill - Fister Engineers, Inc.
1804 Montreal Ct.
Tucker, Georgia 30084
(404) 939-7720

Mr. D.E. Hill, President

Marketing Office:

Hill-Staton Engineers, Inc.
6201 Hamilton Road
Columbus, Georgia 31904
(404) 322-0664

Mr. Lance Hartman, Office Marketing Representative

Instrumentation:
- Blast and vibration monitoring equipment
- Earth resistivity meter

Geotechnical / Soils Engineering:
- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Consolidation tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Field density tests
- Hydrometer
- Permeability: constant and falling heads
- Plate load tests
- Proctor tests
- Shear tests: direct and triaxial
- Sieve Analysis

Jay Evans Testing Laboratories
216 Society Avenue
Albany, Georgia 31701
(912) 436-7761

Ms. Mary Summerville, Branch Manager

Instrumentation:

- Atomic absorption spectrometer: flame
- Gas chromatograph with mass spectrometer
- Infra-red spectrometer
- Magnetometers
- Seismic surveys: 12 channel portable seismograph
- X-ray diffraction spectrometer
- X-ray fluorescence spectrometer

Geotechnical / Soils Engineering:

- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Consolidation tests
- Hydrometer
- Permeability tests: constant and falling heads
- Plate load tests
- Proctor tests
- Shear tests: direct and triaxial
- Sieve analysis

Law Engineering Testing Company
2749 Delk Road
Marietta, Georgia 30067
(404) 952-9005

Mr. David E. Pauls, Division Engineer

Instrumentation:
- Analog recording truck
- Atomic absorption spectrometers: flame and furnance
- Borehole logging tools: self potential, resistivity gamma-ray, neutron, high resolution density, compensated density, caliper, acoustic velocity, differential temperature, sidewall core gun
- Calorimeter
- Carbon-sulphur ionization
- Colorimeter
- Earth resistivity meters
- Gravity meter
- Magnetometers
- Seismic surveys: 24 channel refraction seismograph and 12 channel reflection seismograph
- Wet chemistry laboratory

Geotechnical / Soils Engineering:
- Hydrometer
- Permeability: constant and falling heads
- Sieve analysis

Mineral Engineering / Sample Preparation:
- Muffle furnance for sample digestion
- Rock crushers and pulverizers

Miscellaneous:
- Microbiology laboratory

Law Engineering Testing Company
396 Plasters Avenue, N.E.
Atlanta, Georgia 30324
(404) 873-4761

Mr. Joe C. Drumheller, Senior Geologist

Instrumentation:
- Biological-type microscopes
- Metallographic microscopes

Geotechnical / Soils Engineering:
- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Consolidation tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Field density tests
- Plate load tests
- Proctor tests
- Shear tests: direct and triaxial
- Sieve analyis

Mineral Engineering / Sample Preparation:
- Thin section preparation equipment

MacMillan Research
1221 Barclay Circle S.W.
Marietta, Georgia 30060
(404) 427-3101

Dr. J.E. MacMillan, Owner

Instrumentation:
- Arc emission spectrograph
- Atomic absorption spectrometers: flame and furnace
- Gas chromatograph
- Geiger counters
- Infra-red spectrometer
- Scanning electron microscope
- X-ray diffraction spectrometer
- X-ray fluorescence spectrometer

Geotechnical / Soils Engineering:
- Centrifuges
- Sieve analysis

Mineral Engineering / Sample Preparation:
- Rock crushers and pulverizers

Preston Testing and Engineering Company, Inc.
3243 Vineville Avenue
Macon, Georgia 31204
(912) 475-2941

Mr. Ray Preston, President

Geotechnical / Soils Engineering:

- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Consolidation tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Field density tests
- Hydrometers
- Permeability: constant and falling heads
- Plate load tests
- Proctor tests
- Shear tests: direct and triaxial
- Sieve analysis

R & D, Inc.
2731 Waters Road, S.W.
Atlanta, Georgia 30354
(404) 768-1580

Mr. Samuel J. Rowe, President

Geotechnical / Soils Engineering:
- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Consolidation tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Field density tests
- Hydrometers
- Permeability: constant and falling heads
- Plate load tests
- Proctor tests
- Shear tests: direct and triaxial
- Sieve analysis

Savannah Laboratories and Environmental Services, Inc.
P.O. Box 13842
Savannah, Georgia 31406
(912) 354-7858

Dr. James W. Andrews, Director

Instrumentation:
- Atomic absorption spectrometers: flame and furnace
- Carbon analysis
- Gas chromatograph
- Wet chemistry laboratory

Mineral Engineering / Sample Preparation:
- Filtered air cleanroom for trace metals sample preparation

Miscellaneous:
- Biological laboratory: bioassays
- Water chemistry field test equipment

Soil Consultants, Inc.
P.O. Box 1907
Savannah, Georgia 31401
(912) 236-5022

Mr. Thomas A. Ferrara, Manager

Instrumentation:
- Seismic surveys: blasting seismographs

Geotechnical / Soils Engineering:
- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Consolidation tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Field density tests
- Harvard miniature compraction tests
- Hydrometers
- Permeability: constant and falling heads
- Plate load tests
- Proctor tests
- Shear tests: direct and triaxial
- Sieve analysis
- Truss tests
- Unconfined compression tests

Miscellaneous:
- Non-destructive testing: radiography, ultrasonic, magnetic particle inspection, liquid penetration inspection

Soil and Material Engineers, Inc.
3300 Marjan Drive, N.E.
Atlanta, Georgia 30340
(404) 451-5772

Mr. Jack T. Parker, Manager

Instrumentation:
- Earth resistivity meters
- Gas chromatograph
- Seismic surveys: portable refraction seismographs

Geotechnical / Soils Engineering:
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Consolidation tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Hydrometers
- Permeability: constant and falling heads
- Plate load tests
- Proctor tests
- Shear tests: triaxial
- Sieve analysis

Miscellaneous:
- Non-destructive testing: radiography, ultrasonic, magnetic particle inspection, dye penetrant inspection.

Soil Systems, Inc.
525 Webb Industrial Drive
Marietta, Georgia 30062
(404) 424-6200

Mr. Dale Todd, Office Manager

Instrumentation:

- Atomic absorption spectrometers: flame and furnace
- Atomic emission spectrometers
- Earth resistivity meters
- Gas chromatograph
- Gas chromatograph with mass spectrometer
- Infra-red spectrometer
- Seismic surveys: 6 channel portable seismographs
- Ultra-violet spectrometer

Geotechnical / Soils Engineering:

- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Consolidation tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Field density tests
- Hydrometers
- Non-linear stress dependent modulus tests
- Permeability: falling and constant heads
- Plate load tests
- Proctor tests
- Shear tests: triaxial
- Sieve analysis

Wapora, Inc.
5980 Unity Drive, N.E.
Suite F
Atlanta, Georgia 30071
(404) 447-4433

Mr. Jerry Hitzemann, Branch Manager

Instrumentation:
- Atomic absorption spectrometers: flame and furnance
- Gas chromatograph
- Infra-red spectrometer
- Wet chemistry laboratory

Geotechnical / Soils Engineering:
- Hydrometers
- Sieve analysis

Miscellaneous / Hydrologic:
- Centrifugal surface pump for aquifer tests
- Water chemistry field testing equipment

Ward Engineering
196 15th Street N.W.
Atlanta, Georgia 30318
(404) 872-1132

Mr. Steven Ward, Vice President

Geotechnical / Soils Engineering:

- Aggregate tests
- Asphalt tests
- Atterberg limits
- Concrete tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Field density tests
- Hydrometer
- Proctor tests
- Sieve analysis

Weston Designers and Consultants
4329 Memorial Drive
Suite C
Decatur, Georgia 30032
(404) 294-7575

Mr. Dan A. Nickens, Senior Project Geologist

Instrumentation:

- Analog recording truck
- Atomic absorption spectrometers: flame and furnace
- Borehole logging tools: gamma, self-potential, fluid resistivity, conductivity
- Calorimeter
- Carbon analysis: total and organic
- Earth conductivity meters
- Earth resistivity meters
- Gas chromatograph
- Gas chromatograph with mass spectrometer
- Geiger counters
- Ground penetrating radar scanner
- Inductively coupled plasma spectrometer
- Infra-red spectrometer
- Ion chromatograph
- Liquid chromatograph
- Magnetometer
- Organic-halide analyzer
- Seismic surveys: 6 channel portable refraction seismograph
- Surface tensiometer
- Survey altimeter
- Ultra-violet to visible spectrometer
- Wet chemistry laboratory

Geotechnical / Soils Engineering:

- Drilling rigs: continuous coring, augers, split spoon samplers
- Hydrometers
- Lysimeters
- Permeability: constant and falling heads
- Sieve analysis

Miscellaneous:

- Biological reactors
- Ozone generators

Whitaker Laboratory, Inc.
2500 Tremont Road
Savannah, Georgia 31405
(912) 234-0696

Mr. Joe Whitaker, Owner

Geotechnical / Soils Engineering:

- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Consolidation tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Field density tests
- Hydrometers
- Permeability: falling and constant heads
- Plate load tests
- Proctor tests
- Shear tests: direct and triaxial
- Sieve analysis

GOVERNMENT AGENCIES

Georgia Department of Natural Resources
Environmental Protection Division
Georgia Geologic Survey
19 Martin L. King, Jr., Drive, SW
Atlanta, Georgia 30334
(404) 656-3214 GIST: 221-3214

Dr. William H. McLemore, State Geologist

Available for performing some limited testing services for the mining industry.

Instrumentation:
- Analog recording truck
- Borehole logging tools: self-potential, resistivity, gamma-ray, acoustic velocity
- Petrographic microscopes
- Wet chemistry laboratory
- X-ray diffraction spectrometer

Geotechnical / Soils Engineering:
- Centrifuge
- Drilling rigs: continuous coring to 1500 ft., augers

Mineral Engineering / Sample Preparation:
- Magnetic separator
- Muffle furnace
- Rock crusher
- Rock saws
- Ultra-sonic dismembrator

Georgia Department of Transportation
Geotechnical Engineering Bureau
15 Kennedy Drive
Forest Park, Georgia 30050
(404) 363-7546 GIST: 227-7546

Mr. David Mitchell, Director

Generally not available for performing testing services for private industry, but can do hand sampling and limited testing for potential sources of aggregate maintenance for use by Transportation Construction or Maintenance subject to approval of State Materials and Research Engineer.

Instrumentation:

- Arc emission spectrograph
- Atomic absorption spectrometer: flame
- Colorimeter
- Infra-red spectrometer
- Liquid chromatograph
- Weather-ometer: accelerated weathering analysis
- Wet chemistry laboratory

Geotechnical / Soils Engineering:

- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Concrete testing
- Confined compressive strength test
- Consolidation test
- Drilling rigs: continuous coring, augers, split spoon samplers
- Permeability: constant and falling heads
- Proctor tests
- Sand equivalency tests
- Shear tests: direct and triaxial
- Sieve analysis

U.S. Army Corps of Engineers
South Atlantic Division Laboratory
611 S. Cobb Drive
Marietta, Ga. 30060
(404) 424-8811, Ext. 2346

Mr. Robert J. Stephenson, Laboratory Director

Generally not available for performing testing services for private industry except in special cases, but will perform such services for other government agencies.

Instrumentation:

- Atomic absorption spectrometer: flame
- Gas chromatograph
- Infra-red spectrometer
- Monochromatic spectrometer
- Petrographic microscopes
- Wet chemistry laboratory
- X-ray diffraction spectrometer

Geotechnical / Soils Engineering:

- Aggregate testing
- Asphalt testing
- Atterberg limits
- California Bearing Ratio: field and laboratory
- Compaction tests
- Concrete testing
- Consolidation tests
- Drilling rigs: continuous coring, augers, split spoon samplers
- Dynamic design analysis: shear, compression, and extension tests
- Field density tests
- Permeability test: constant and falling heads
- Plate load tests
- Shear tests: direct and triaxial
- Sieve analysis

Mineral Engineering / Sample Preparation:

- Rock crushers and pulverizers
- Thin section preparation equipment

U.S. Environmental Protection Agency
Southeastern Regional Laboratory
College Station Road
Athens, Georgia 30613
(404) 546-3136

Mr. James Finger, Laboratory Director

Not available for performing testing services for private industry but will perform a limited amount for other government agencies.

Instrumentation:

- Atomic absorption spectrometers: flame and furnace
- Gas chromatograph
- Gas chromatograph with mass spectrometer
- Inductively coupled plasma spectrometer
- Wet chemistry laboratory

Geotechnical / Soils Engineering:

- Hydrometer

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they are color-key

For convenience in selecting our reports from your bookshelves, they are color-keyed across the spine by subject as follows:

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Maroon	Coastal Plain mapping and stratigraphy
Lt. Green	Paleontology
Lt. Blue	Coastal Zone studies
Dk. Green	Geochemical and geophysical studies
Olive	Economic geology Mining directory
Dk. Blue	Hydrology
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Editor: Eleanore Morrow

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