



STANDARD LABORATORIES, INC.



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STANDARD LABORATORIES, INC.

Standard Laboratories, Inc. is one of the largest established coal testing groups of laboratories in America. The company provides complete, independent sampling, testing and consulting services to both coal consumers and producers throughout the nation.

Since the company's founding in eastern Kentucky in 1954 by Gladys B. (Stallard) Berchtold, it has been dedicated to providing accurate, prompt and economical lab testing services.

Through memberships in professional organizations—including ASTM and ACIL—the firm maintains up-to-date expertise to support clients with the best service available. A competent technical staff is prepared to handle major analytical problems. Another division of the company designs, manufactures, services and sells special coal testing equipment and provides in-house maintenance services for existing labs.

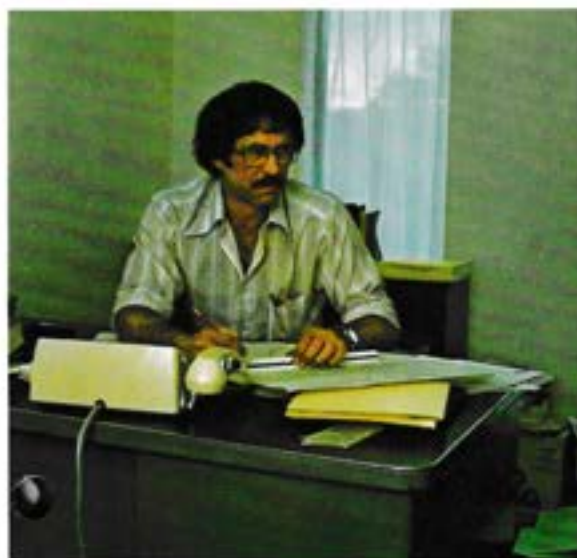
Testing capabilities range from daily mine control work to large washability studies. Soil and water labs operate at several locations to support coal mining needs.

For coal companies which recognize the need for growth and control, Standard offers a contract laboratory which can include facility design and construction, equipment purchase,

personnel selection and training, and day-to-day operational control.

Accuracy and integrity are the hallmark of growth at Standard. The coal industry can continue to expect this same kind of service as this company expands to meet national needs.





SAMPLING and PREPARATION

Trained and experienced sampling crews are immediately available to sample all kinds of coal handling jobs—from a few railroad cars to export shipments involving shiploads. A fleet of sampling trucks, manned by these samplers, can satisfy the customer's specific sampling needs.

Consulting on special sampling problems or large, involved jobs is always available. Standard also provides referee analysis or expert witness service.

WATER/SOIL TESTING

Standard Laboratories maintains well-equipped water and soil testing labs at most locations. These labs routinely determine over 50 water parameters and offer soil testing in support of surface mining requirements.





WASHABILITY STUDIES

Standard Laboratories has extensive capabilities in the performance of washability studies. Washabilities are handled by experienced personnel—from the sampling and preparation through the simulation of the coal washing process in the preparation plant. Reports are generated in easily readable form by computer.

Comprehensive sampling capabilities enable Standard Labs to handle preparation plant performance testing on any size plant at any geographic location. Consultation is available with regard to the specific sampling criteria so as to produce the most meaningful data.

Complete core drill analysis programs are also offered at Standard. These programs include visual inspection of the core and the measurement and separation of the core into its characteristic strata. Gravimetric separation and analysis are then performed on the various portions according to the client's needs.





QUALITY CONTROL

Through continuous quality control programs, Standard Laboratories is assured of accurate analyses. Rigid programs, both in-house and with other testing laboratories, provide timely knowledge of the laboratory's reproducibility and repeatability at any given time.

An internal round robin testing program is performed daily among the laboratories. Daily, the technical director has computer-generated data on the status of each laboratory.

Standard also participates in a similar round robin testing program with other laboratories nationwide. This data insures that Standard Laboratories compares well with other reputable, independent testing firms.

Detailed training programs, controlled hands-on experience, and proficiency testing assure competent performance from qualified technicians. These programs provide the organization with well-trained technicians before they are assigned to routine work.

Standard has established procedures for comprehensive technical audits at least once a year for each lab within its system. This audit covers equipment maintenance and calibration, information systems and accuracy, traceability of sample data, direct observation of practices, and pro-

iciency testing of personnel.

A research and development laboratory is available solely for special problem investigations and off-line training purposes.





CONTRACT LABS

Standard Laboratories offers a contract laboratory package. For a negotiated monthly fee, the proper equipment will be identified and purchased, personnel will be selected and trained, and a coal/water/soil testing laboratory will be installed and operated for a client.

This special service for coal producers, brokers, and end users has the advantages of quick installation, managerial relief from administrative problems, available technical expertise, equipment back-up and repair capabilities, third-party objectivity and Standard's own reputation and quality control programs.

The contract lab staff at Standard can perform this service at a cost level that in most cases would be equal to or less than the cost a client would incur by operating the laboratory himself. To satisfy a client's desire for a turn-key approach, complete contract laboratory services are offered, including the layout, design and construction of the laboratory and preparation buildings.

Standard Laboratories has much to offer in assisting the client in identifying and developing the many available alternatives in meeting analytical needs:

- nationwide reputation for integrity and efficiency
- Extensive quality control

- programs
- A central technical staff
- Detailed training programs and procedures
- Back-up laboratories
- In-house equipment repair
- Extensive experience in laboratory equipment purchase and installation





STANDARD INSTRUMENTATION INC.

Standard Instrumentation, Inc. is a division of Standard Laboratories which support the design, manufacture, service and sale of specialty coal testing equipment.

Emphasis is placed on innovation and adaptations of the most modern technologies available. Instruments are designed for ease of operation and minimum operator attention. To assure compliance with appropriate standards and quality guarantee, rigid testing programs are implemented for each instrument produced.

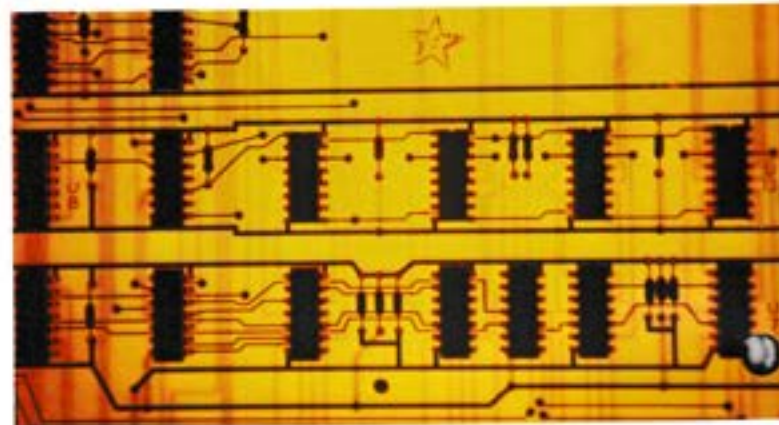
Standard Instrumentation products on the market include plastometers, dilatometers, sole heated ovens, drop shatter testers, manual plastometer packages, control systems for moveable wall ovens, torque monitoring devices for plastometers, furnace controllers, and specialty calibration equipment.

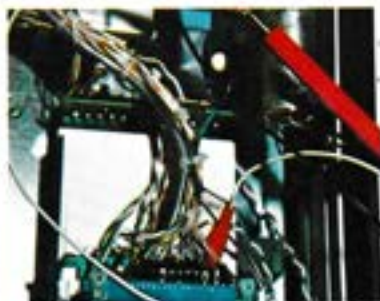
Standard Instrumentation also offers a completely computer-controlled laboratory, including hardware, software, and maintenance. This system manages work flow and automatically operates balances, calorimeters, furnaces, ovens and sulfur analyzers, minimizing operator input requirements. Lab data is collected, calculated and reports are generated entirely by the computer system.

This division operates a re-

search and development laboratory which is available for special problem investigations and off-line training purposes. A projects department handles custom designs for individual customer requirements. The highly specialized staff is expert in electronic design, computer technology, mechanical efficiencies and thermodynamics.

Standard Instrumentation continues to grow and expand in tune with the needs of the coal industry by designing and manufacturing new instrumentation.







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