



at last the Dart D600 has some serious competition

One of the most productive large front-end loaders ever built has been forced to yield its leadership position to an aggressive newcomer: the Dart 600C. With an SAE capacity of 45,000 pounds, the new Dart 600C **mechanical-drive front-end loader** offers mine operators numerous important advances—advances which have resulted from more than 13 years of in-the-field experience and more than 350 loaders.

There's no question about it: the new Dart 600C constitutes a major step forward in design technology for front-end loaders in the 45,000-lb. capacity classification. You can prove it to yourself simply by checking the specs.

There's a new single-piece, slab-steel rear frame, for example, that offers exceptional accessibility to the engine and other major components. This simplifies maintenance, provides better load distribution, and dramatically improves digging traction.

The 600C is also equipped with a totally new hydraulic system that includes a high-capacity, outboard-mounted reservoir with in-tank 10-micron filtration. The overall hydraulic system capacity is 316 gallons for better oil cooling—and operation pressures are a low 2,000 psi for longer hose, pump, and valve life.

The exclusive Dart offset operator cab has been significantly improved, too, with human-engineered redesigning, integral air conditioning, new instrumentation, simple controls, and hydrostatic steering. All of this adds up to improved ease-of-operation and more productivity.

And, of course, the 600C is equipped with Dart's exclusive "Balance Boom" system that increases the loader's productivity and efficiency; Dart's field proven triple-reduction mechanical-drive axles; and Dart's exclusive warranty—12 months or 2,500 hours—the best standard warranty in the industry.

To get the full story about the new Dart 600C front-end loader—and about how Dart intends to maintain its well-earned leadership position in a competitive industry—call 816/483-7679 today. And let's get things started!

Dart TRUCK COMPANY
A DIVISION OF PACCAR

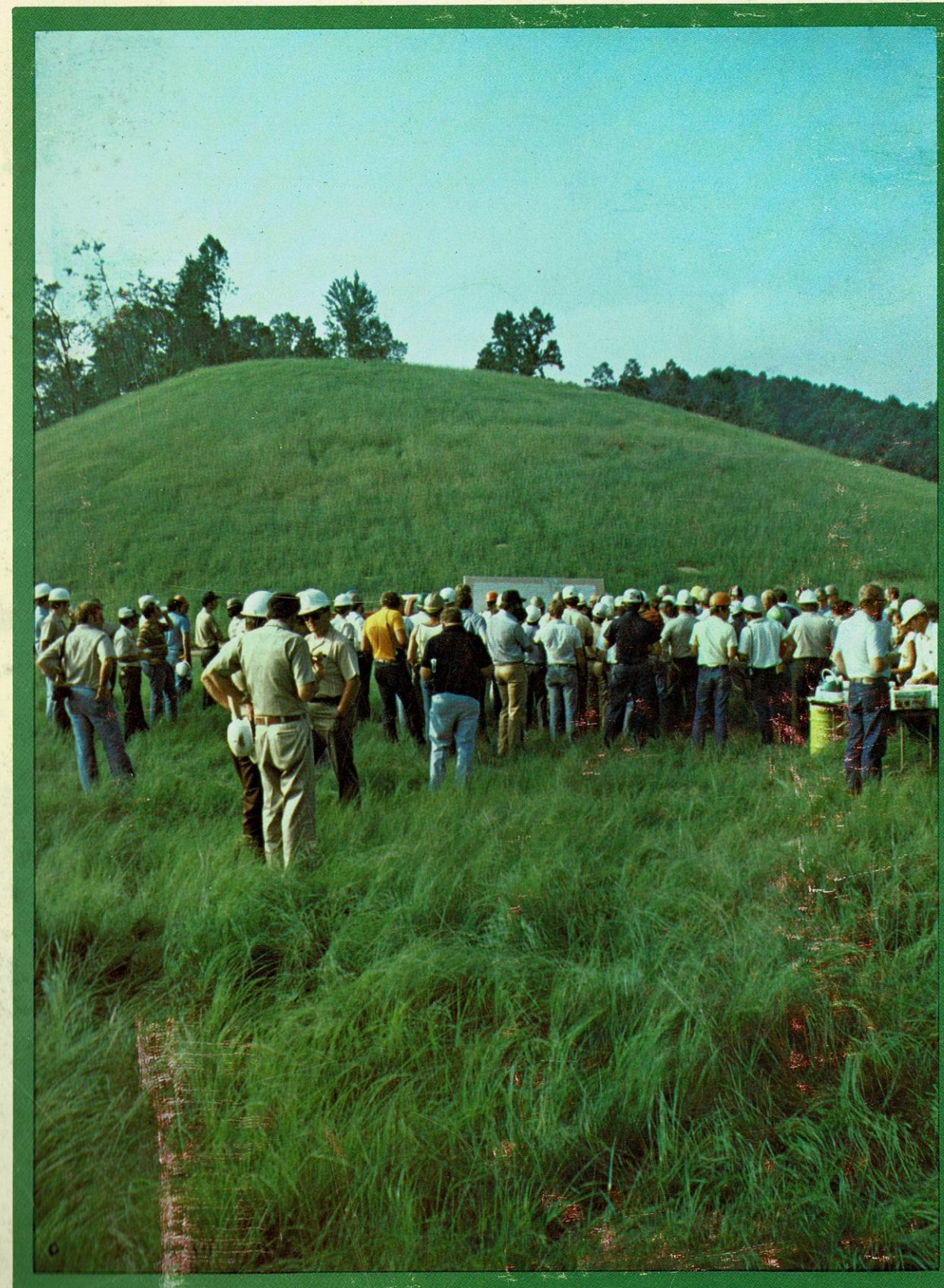
West Virginia Truck Sales, Inc.

P.O. Box 10238, Station C, Tupper Creek Road (located between I-77 north & Rt. 21)
Charleston, West Virginia 25312 (304) 984-0081

Fall 1979

Green

Lands Quarterly



ENGINEERING

AND EVALUATION

Additional Services From The Leader

One of several important reasons why Flat Top Insurance Agency is the leader in coal mining insurance is their Engineering and Evaluation Department. Staffed by highly-trained and qualified personnel, Flat Top's engineers personally view the operations and facilities of their customers.

Their engineering and evaluation services cover several areas. Two of the most important to our customers are: 1-To determine how conditions might be improved that would result in favorable rating considerations. 2-To assist the customer in determining insurable values on equipment and property. These steps are intended to aid

customers in obtaining the best coverage at an equitable premium cost.

Flat Top's engineers are often involved in the ground floor planning of new plants. They make suggestions as to what should be designed into the plant with consideration given to the "risk factor." When their suggestions are carried out, oftentimes considerable savings are realized.

Engineering services are an integral part of Flat Top Insurance Agency's full-service concept. Engineering is another service which has helped to make us number one in our field.

Circle 211 on Product Information Card

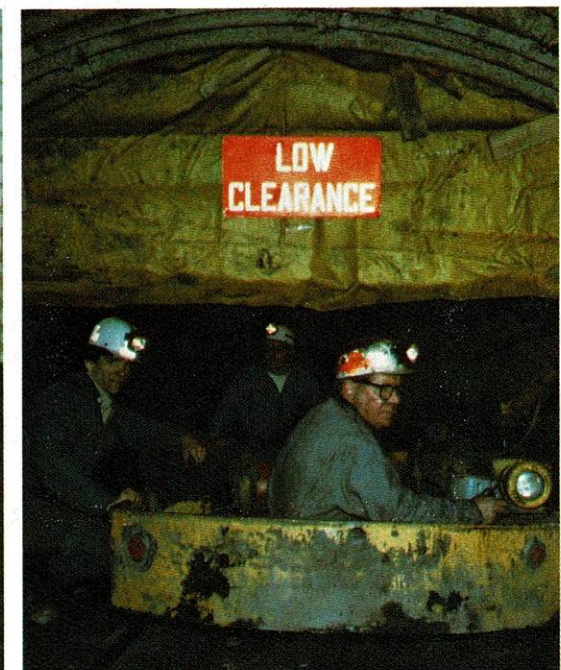
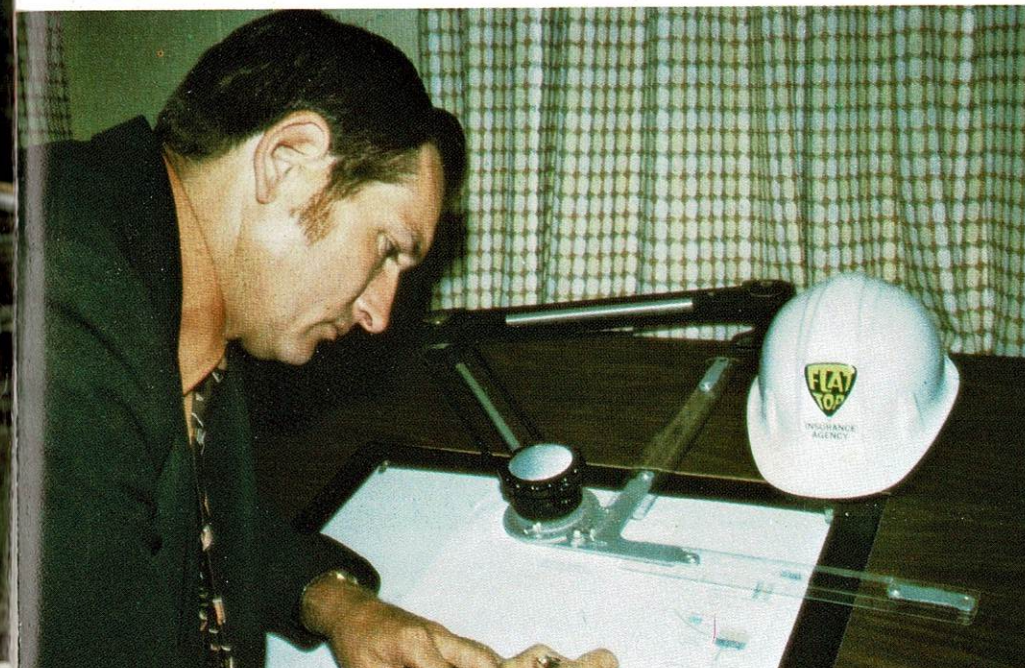


FLEXIBLE INSURANCE PROGRAMS FOR
THE TOTAL COAL MINING INDUSTRY

FLAT TOP INSURANCE AGENCY

P.O. BOX 439 BLUEFIELD, WEST VIRGINIA 24701

Charleston, West Virginia Grundy, Virginia Wise, Virginia
Pearisburg, Virginia Pikeville, Kentucky Lexington, Kentucky
Knoxville, Tennessee St. Clairsville, Ohio



Published Quarterly
by the WVSMRA
1624 Kanawha Blvd. E.
Charleston, WV 25311
Tel. (304) 346-5318

PRESIDENT
BENJAMIN C. GREENE

VICE-PRESIDENT
WILLIAM B. RANEY

ASST. TO PRESIDENT
PATTY BRUCE

CHAIRMAN OF THE BOARD

CHARLES T. JONES

1ST VICE-CHAIRMAN
LAWRENCE A. STREETS

2ND VICE-CHAIRMAN
WILLIAM C. M. BUTLER, III

**SECRETARY/
TREASURER**

FRANK D. JENNINGS

**CHAIRMAN-ASSOCIATE
DIVISION**

E. B. BASHAM

DIRECTORS

D. E. ADKINS

J. W. ANDERSON

W. E. CLINE

C. E. COMPTON

D. R. DONELL

T. L. DOTSON

J. J. FALTIS

G. B. FREDERICK

L. W. HAMILTON, JR.

J. H. HARLESS

T. L. HORN, JR.

T. W. HYLTON

R. H. JERAN

C. I. JOHNSTON

J. C. JUSTICE

D. M. KEATING

H. L. KENNEDY

R. C. LONG

C. J. MILLER

J. M. POINDEXTER

W. S. RITCHIE, JR.

G. R. SWANSON

F. W. VIGNEAULT

R. N. WELCH

J. R. WHITE

HONORARY MEMBER

F. B. NUTTER, SR.

EDITOR

R. DANIEL MILLER

BUSINESS MANAGER

MARY ANN STEELE

CIRCULATION

BRENDA GARNETT



Green Lands

INDEX TO ADVERTISERS

Ashland Gas Service	18
Beckwith Machinery	35
Caudill Seed	52
Cecil I. Walker Machinery	48
Chamberlaine & Flowers	8
Cline Truck Sales	9
Cody Equipment & Supply	Inside Cover
Cummins Engines	36
Dart Truck	Back Cover
D & D Reclamation	8
Delta Company	22
Ecolytic	22
Esmer & Associates	14
Fairchild	47
Flat Top Insurance	Inside Cover
Ingersoll-Rand	38
J. D. Hinkle & Sons	52
JHM Laboratories	53
Machinery	54
McDonough Caperton Shepherd Group	56
Mountaineer Euclid	19
Mountaineer Mack Sales	37
Northrup King	53
Patterson, Bell & Crane	18
Penn Line Service	52
Robins & Associates	4
Rish Equipment	13
Technical Testing Laboratories ..	49
Tire City	52
Water Reclamation Resources ..	4
West Virginia Coalition	5
West Virginia Tractor	46
Willco Reclamation	49
Worldwide Equipment	15
W. W. Williams	6



Volume 9 Number 3

Fall 1979

Rockefeller Amendment Would Help 7
Editorial

Sasol: The South African Genius 10
A report on synthetic fuels

OSM Update 16
Current events on the regulatory front

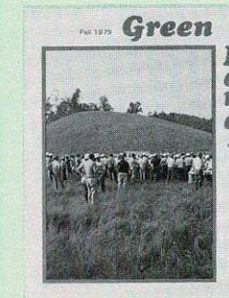
Excerpts 20
From the Governor's remarks to the
Annual Meeting of the WVSMRA

**Acceptable Ways to Hasten the
Substitution of Coal for Oil** 23
Interim report of the President's
Commission on Coal

**DNR's "Road Show"
Draws Diverse Crowd** 40
Annual Interagency Evaluation Tour

**Amherst's Charles T. Jones Becomes
Association Board Chairman** 50
Annual Meeting Report

Association Notebook 55
Once over briefly

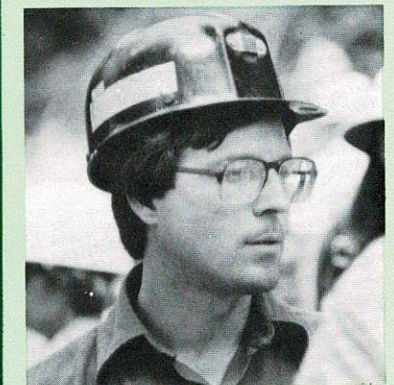


Our Cover

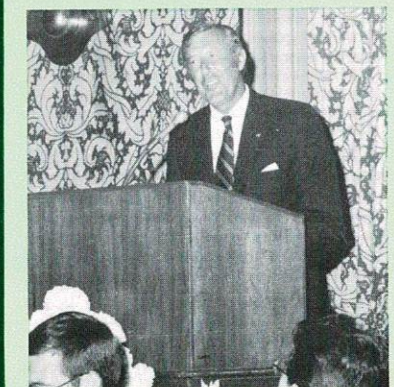
The personnel of Oscar Vecellio, Inc. were justifiably proud of the work they had to show this summer when DNR came calling with its 135 guests. See the story on page 40.



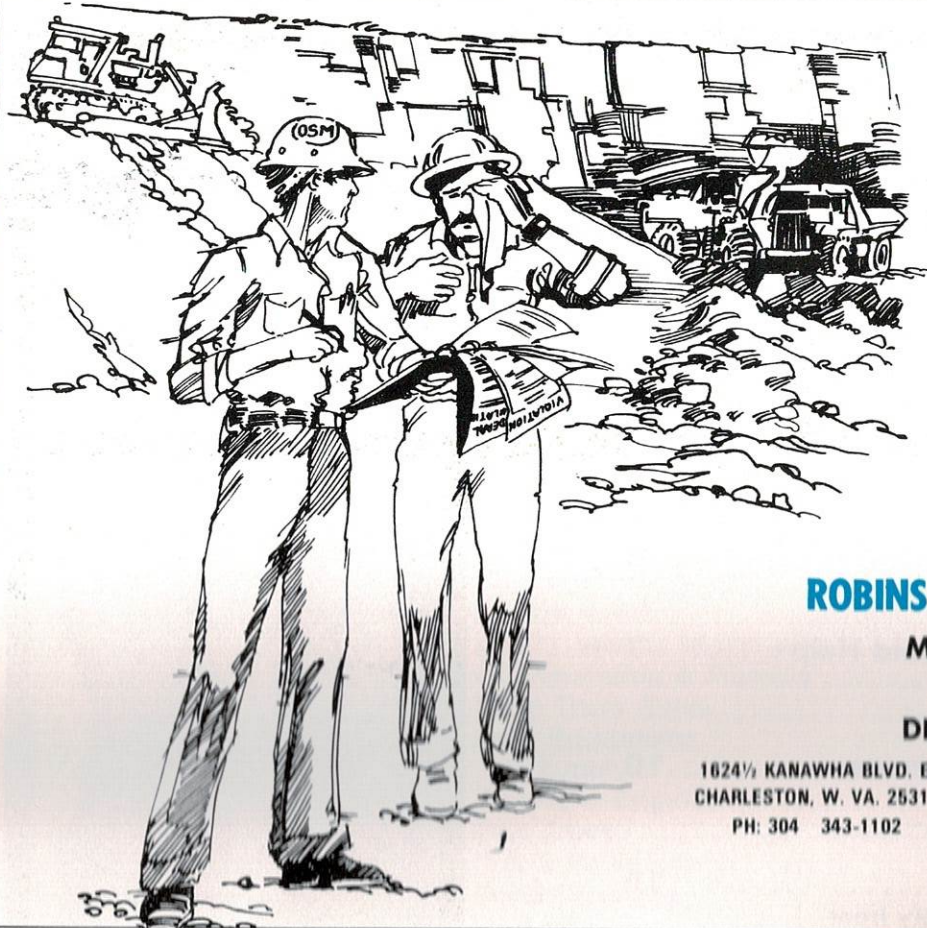
p-20



p-40



p-50



Avoid Needless
Construction and
Costly Violations. . .

Let us design an
effectively engineered
mining and reclamation
plan tailored to your
specific needs.

ROBINS AND ASSOCIATES

MINE PLANNING
and
DESIGN SERVICES

1624 1/2 KANAWHA BLVD. E.
CHARLESTON, W. VA. 25311
PH: 304 343-1102

P. O. BOX 170
MECHANICSBURG, PA. 17055
PH: 717 763-5651

Acid Water Problems?

We've got the water treatment system!

Acid Drainage

Approved: Department of Natural Resources, W. Va.
Approved: E.P.A.
Meets: Pennsylvania Discharge Requirements

Servicing a network of sodium hydroxide water
treatment systems throughout W. Va., Pa., and Md.

Inexpensive installation

Preparation Plants

Protect your investment. Acid water
can destroy your equipment.

FOR ADDITIONAL INFORMATION

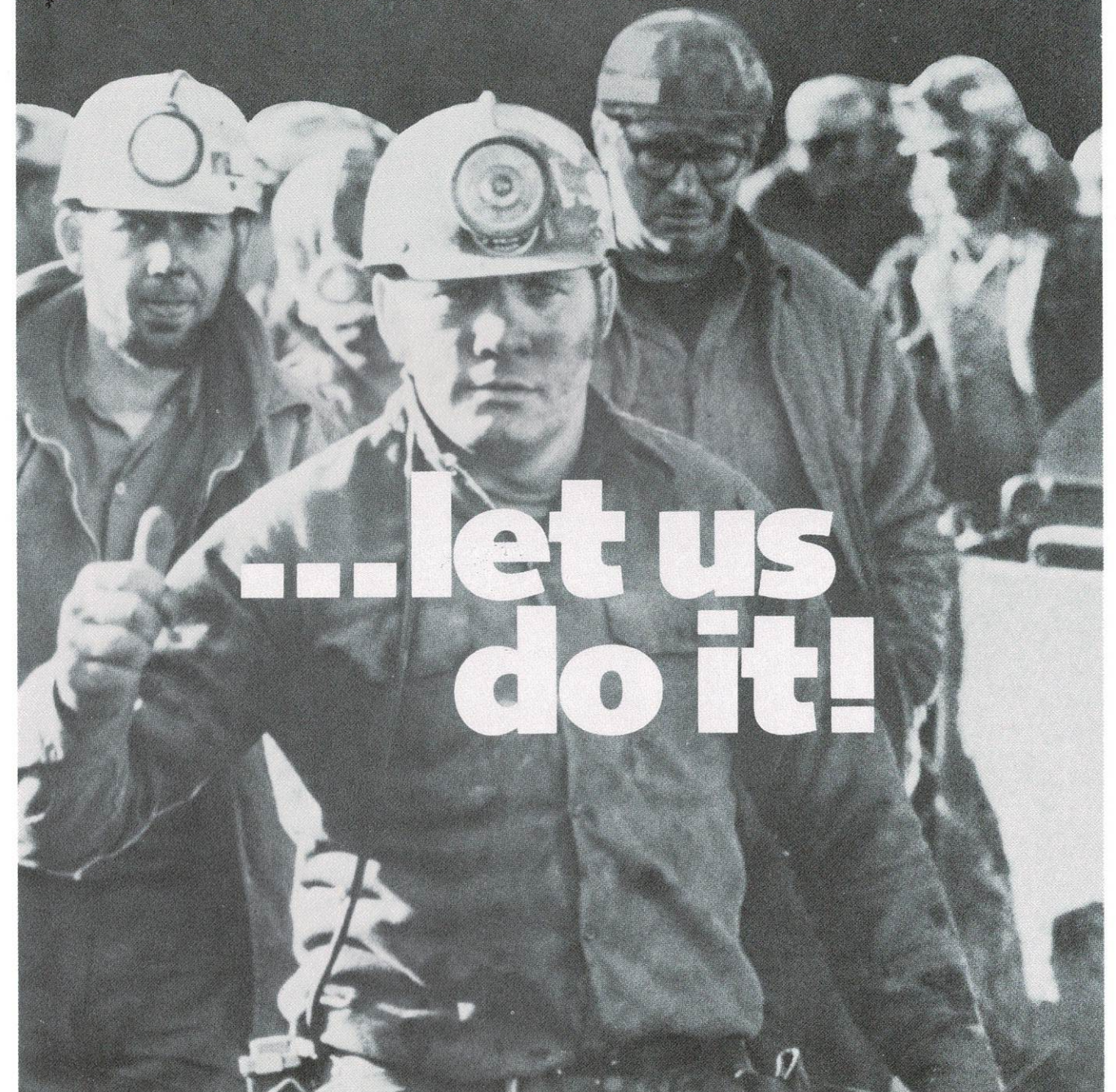
CALL/OR WRITE

Rick Cavallaro

Technical Representative

Water Reclamation Resources, Inc.
143 Driftwood Road, Bridgeport, WV 26330
(304) 842-5662

America can solve its energy problems...



...let us do it!

COAL IS READY!

West Virginia Coal Association • West Virginia Surface Mining & Reclamation Association

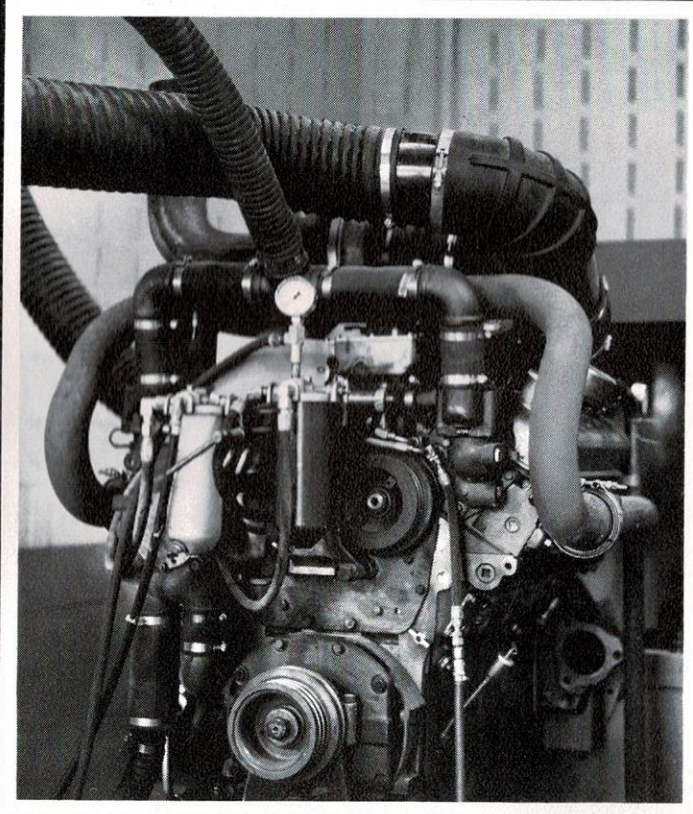
This message is also appearing in *The Washington Post* for the information of
our lawmakers and government officials.

W.W. Whiz-bang

In technical terms, this is a dynamometer, and at W. W. Williams it does a bang-up job of engine testing.

After Williams' expert servicemen have rebuilt an engine, the dynamometer gives it a thorough testing, simulating working conditions. The Williams test stand does the same for rebuilt Allison transmissions. Thorough testing in the shop means no unpleasant surprises on the job.

Rebuilt and exchange engines, transmissions and parts can save you money. Just ask your Williams man to put the whiz-bang to work for you.



The W. W. WILLIAMS Co.

Charleston (Nitro) 304/755-8361

Beckley 304/252-6571

Clarksburg 304/623-3747

Rockefeller Amendment Would Help

It is a principle of American democracy that government should govern with the consent of the governed.

In a practical sense, this means that if Americans must live within a set of rules, and of course they must, then they should have a hand in choosing who will make those rules.

The validity of this principle is seldom, if ever, questioned, but ironically, it is often completely overlooked when the rule making process is implemented.

No longer can the average American "give consent" by voting. An elected president appoints cabinet officers, who appoint department heads, who in turn appoint assistants, and somewhere down the line someone hires the people who actually set down on paper the guidelines by which Americans must conduct their personal and business lives.

An elected Congress now passes laws which are general in nature, thus forfeiting the real rule-making authority to the executive branch of government, the heart and home of the federal bureaucracy.

Theoretically, the Congress retains a right of review over regulatory agencies. In practice, the process has been much like trying to unscramble an egg.

One possible solution to this problem was suggested by former Congressman Del Clawson, who advocates giving Congress veto power over regulations which it considers to go beyond its legislative intent. Such a bill is now before the Senate.

Another bill, passed by the Senate and now in the House of Representatives, would provide some immediate relief. We refer to the "Rockefeller Amendment," more formally known as the Hatfield-Ford substitute for S. 1403.

This amendment, first suggested to Congress by West Virginia Governor John D. Rockefeller IV, would correct a major flaw in the Surface Mining Control and Reclamation Act of 1977, by returning the rule making authority where it belongs—to the states.

In passing the Act, Congress mandated 115 environmental standards which must be adhered to by mining companies and incorporated into state regulatory programs. This is enough.

It should be left to the states, where the experience and the technical expertise lie, to decide the most efficient method of achieving federal compliance based on that state's unique physical characteristics.

It is a doctrine which might usefully be applied to the entire body of the federal bureaucracy.

Chamberlaine & Flowers^{INC.}

128 South Second Street
Clarksburg, West Virginia 26301
304/623-3721

745 Chestnut Ridge Road
Morgantown, West Virginia 26505
304/599-8735

18 West Main Street
Buckhannon, West Virginia
304/472-2402



INSURANCE

COAL
OPERATORS
INSURANCE

"TOTAL SERVICE
is what we're all about."

"Let Us Evaluate and Bid Your Next Job.
You'll Be Glad You Did!"

Approved Private Contractor Since 1972.

"Land Stabilization Specialists"
Over 30 Years Combined Experienced

David J. Ozmina
President

Professional Fisheries Biologist
Certified Fisheries Scientist
Certified Wildlife Biologist

Water Sampling
Service

D & D
Reclamation, Inc.

Tree Planting
Hydroseeding

Charles E. Massie
Vice President
763-2134

Erosion and
Sediment Control

P. O. Box 1004

Tel. 304-253-8309

Beckley, W. Va. 25801

Cline 250C



Tough Truck Performance & Reliability

Low Loading Ht. . . 10'7 1/2"!

A 57 cubic yard Morgantown style body offers large loader target area. Permits full utilization of front-end loaders and faster loading time.

Low Center of Gravity!

Gives better stability, loaded or empty.

80-20 Load Distribution!

80% of the GVW is on the drive tires. Gives you more traction on upgrades and less front axle loading on downgrades. Compare that to the 66% to 33% load distribution on most single drive haulers.

Lower Tire Cost!

Steel Radial Tires are standard on the 250C. Yet, replacement cost of 10 tires is considerably less than 6 larger tires on single axle haulers.

Superior Control On Steepest Grades!

Jacobs Engine Brake and hydraulic retarders are standard on the Cline 250C. Stopping power is maximized by a total brake lining area of 1730 sq. inches.

Preserves Haul-Road Life!

The remarkable load distribution, combined with torque rod drive and 50-50 equalizer beams, reduces washboarding and other haul road damage.

In addition to the 250C, Cline also offers coal haulers in 40 and 65 ton capacities. Refuse and overburden haulers are available in 25, 35 and 45 ton models.



Shuttle Wagon Rail Car Mover

Lets You Control Rail Car Movement In Tipple Operations!

Why let your production efficiency depend on the availability of a railroad switch engine? With the Shuttle Wagon you can move 12 or more fully loaded coal cars anytime and anywhere you want. And, with its AAR rail car brake system as standard, the Shuttle Wagon can safely stop any load it can start . . . even on adverse grades.

Cline

T & J INDUSTRIES, INC. • 13850 Wyandotte, P. O. Box 8620 • Kansas City, Missouri 64114 • (816) 942-6200

SASOL: *The South African Genius*

By Carl DelSignore and Clyde M. See, Jr.

In the bushveld back-country of the Republic of South Africa, when they talk about coal being key to their nation's energy future, it's solid fact — not just political rhetoric. As the United States stares at the specter of yet another energy crisis, it and many other industrialized nations are turning attention to the South Africa's technological genius and political foresight in synthetic fuels development. While the United States still is floundering to develop a national energy program, South Africa has an enviable 30-year record in commercially successful coal-to-oil technology. Recognizing the vast comparative differences of the two nations, some observations are readily apparent in their respective approaches to energy problems:

South Africa has wisely invested time, capital and national commitment; the United States has not. South Africa immediately turned to its vast coal resources as a domestic energy answer; the United States has not. South Africa now has the time and capital to further develop its synthetic fuels program; in the United States, both time and capital are running out. Currently underway in South Africa is hard evidence of that nation's time and capital commitment: A multi-billion dollar expansion program to produce from coal almost 60 percent of their petroleum needs by 1982.

That will be a quantum leap for the state-owned South African Coal, Oil and Gas Corporation (abbreviated in Afrikaans as "Sasol"). The pioneering Sasol plant — on which work began in the 1950s — currently produces about 240,000 barrels of crude oil daily, or a little less than 10 percent of the nation's oil needs. With the planned addition of two larger syn-fuel facilities, South Africa is firmly — and impressively — pegging its future on coal. Itself devoid of crude

oil and facing boycotts by most of the OPEC producing nations, the new operations will enable South Africa to save an estimated \$400 million (U.S. dollars) annually in foreign trade payments.

The current political and economic concerns of the nation were not major factors in 1950 when South Africa entered the syn-fuel industry by bailing out the privately-owned Anglo Transvaal Consolidated Investment, Ltd. Firm. That company has conceived the original conversion facility to utilize the rich coal reserves along the Vaal River for petrochemical feedstocks. Crude oil was an unprofitable by-product; international oil prices and availability kept the synthetic crude out of economic competition.

However, it was readily recognized that market forces could eventually make the synthetic crude economically or politically competitive. To that end, subsidies kept the operation viable. In 1973, the state-owned facilities began showing a profit, and last year had net after-tax profits of approximately \$85 million.

The location of the plant, the emphasis on mechanization, lower labor costs and market demand for petrochemicals — plus highly-guarded technological innovations — have all contributed to that profitability. The Sasol I plant is located approximately 60 miles south of the major city of Johannesburg. The odyssey of synthetic gasoline begins at the rich coal seams underlying the area.

Approximately 1,700 miners utilizing long wall and conventional mining techniques supply sufficient coal from three seams to fuel the Sasol plant. About 18,000 tons of coal daily come from the seams, which average 9 to 10 feet thick. By U.S. Appalachian standards, the coal itself is not impressive:

Approximately 6,000-7,000 BTU's per ton, 35 percent ash, 20 percent moisture, and 1 percent sulfur. But its logistically favorable location to the plant — and literally miles of conveyored transportation — make the coal input price at roughly \$15 per ton. That's compared to a 1978 U.S. average price of coal of \$25 per ton FOB the mine. The five-day work week for the contracted mine work force supplies sufficient tonnage to keep the synthetic fuel facilities working around the clock, seven days a week.

The plant even has its own coal-fired electrical power plant using some 500 tons of coal daily, which supplies approximately 90 percent of its power needs currently.

Of all the Sasol facilities, electrical generation is the only one which would seemingly offend American environmental standards. There clearly is some air pollution from the complex. But, a former Sasol official recently was quoted as saying: "The oil supply situation shocked many of us into a new sense of reality." The entire operation is exempted from the nation's environmental regulations.

Coal, hydrogen and oxygen undergo the "Lurgi process" on the way to becoming synthetic fuel. The Lurgi process was developed in Germany during World War II when that nation's petroleum stocks were dwindling. Heated under high pressure in a vacuum vessel, the coal undergoes a basic hydrocarbon change, becoming ash and raw gas. At this basic gasification process, coal tars, gas liquors and gas naphthas are isolated for further processing into a myriad of petrochemical feedstocks, intermediates and finished products.

The raw gas remaining in the gasification chamber then undergoes a purification process where further chemical by-products are obtained and pure synthetic gas remains. Employing the benefit of yet another German technique known as the "Fischer-Tropsch" process — which has been expanded and improved by Sasol's own research and development — the synthetic gas is converted to oil. In simplified terms, the gas is brought into contact with an iron-based catalyst which alters its molecular composition producing a liquid hydrocarbon. That South African technological breakthrough is more highly guarded than an OPEC sheik's harem.

In addition to the crude production, approximately 125 other products are produced at Sasol I. Virtually everything from carbon dioxide to alcohol and other organic acids are produced, with each having a dozen by-products or derivatives. Petrochemicals such as methane, propane, acetone, and a variety of plastics can and are produced. Other potential products exist but the products actually produced are determined by the demand for them. It has always been and remains a primary goal of Sasol I to produce only products which can be marketed. Only ash is produced in greater quantities than can be sold. Approximately one-third of the ash is purchased for construction, concrete and masonry products, and the remainder is deposited in well maintained storage areas. Regardless of the market mix, all products are belted, piped, blown or otherwise mechanically conveyed to a nearby industrial park for further processing and distribution by the private sector, once again keeping transportation costs at a minimum.

The technological achievements of the Sasol complex is evenly matched by the social achievements of its companion city, Sasolburg. With the United States turning attention to synthetic plants in remote coal fields, energy planners should take special note of this planned community. Sasolburg could never be confused with a stereotyped "coal camp". Rather, its American counterparts are more likely Reston, Virginia, or Columbia, Maryland. Sasol I has created a labor force in excess of 7,000 employees who form the core of Sasolburg's current population of 30,000. It's a matter of community pride that all license plates issued to the city residents are prefixed with the letters "OIL".

Sasolburg epitomizes the true success in community development that can be achieved through careful planning and attention to the human environment. From the initial construction of the first homes and with each annex added, the town fathers methodically developed Sasolburg to assure inhabitants of modern residential areas with adequate "support" facilities. Schools and churches are of a caliber rarely witnessed in the United States cities of similar sizes. Substantial acres of land were wisely set aside during each stage of development for spacious parks, pools, auditori-

ums, and athletic and recreational facilities of all types.

All major streets and walkways are fully lighted to promote safety and deter crime with positive results proved by respective statistics. A point of residential pride is that no child under high school age need cross more than one street to and from school. Sasolburg is a social success scarcely without parallel in the United States.

Much debate has ensued in recent times as to whether Sasol I is quite the economic success that it seems. It is readily conceded in retrospect that Sasol's very existence in the first instance was primarily for the purpose of producing valuable chemical by-products from the coal with the hope that synthetic fuel could eventually be produced at some realistic cost. Interestingly, if there was a product initially of Sasol I which could be considered in the strictest sense as a by-product, it was undoubtedly synthetic crude. No other product could have been more cost-prohibitive and unjustifiable. Nevertheless, the crude was produced, turned to gasoline and sold to company employees at then current competitive prices.

However, as crude prices have spiraled upward and availability has become more scarce, the Sasol synthetic oil has clearly become a viable alternative. South African officials contend that the Sasol processes are now competitive with OPEC oil prices of more than \$20.00 a barrel. Just as the lack of technology made synthetic crude production difficult in the early going, the expanded emphasis on motor fuel which currently retails in south Africa at about \$2.50 per gallon will very likely alter Sasol's cost of production as well as its thermal efficiency.

The oil embargo of 1973 and subsequent crisis which paralyzed most of the western world prompted South Africa to accelerate its synthetic fuel program. While most U.S. officials were busy bending and bowing to shahs and kings and imposing more on both American pride and pocketbook, South Africa was quietly increasing its taxation on gasoline and committing an additional \$3 billion to the construction of Sasol II. This latter facility is scheduled to come on line by the end of 1979. A further commitment of \$4 billion to Sasol III which is under construction and scheduled for operation in

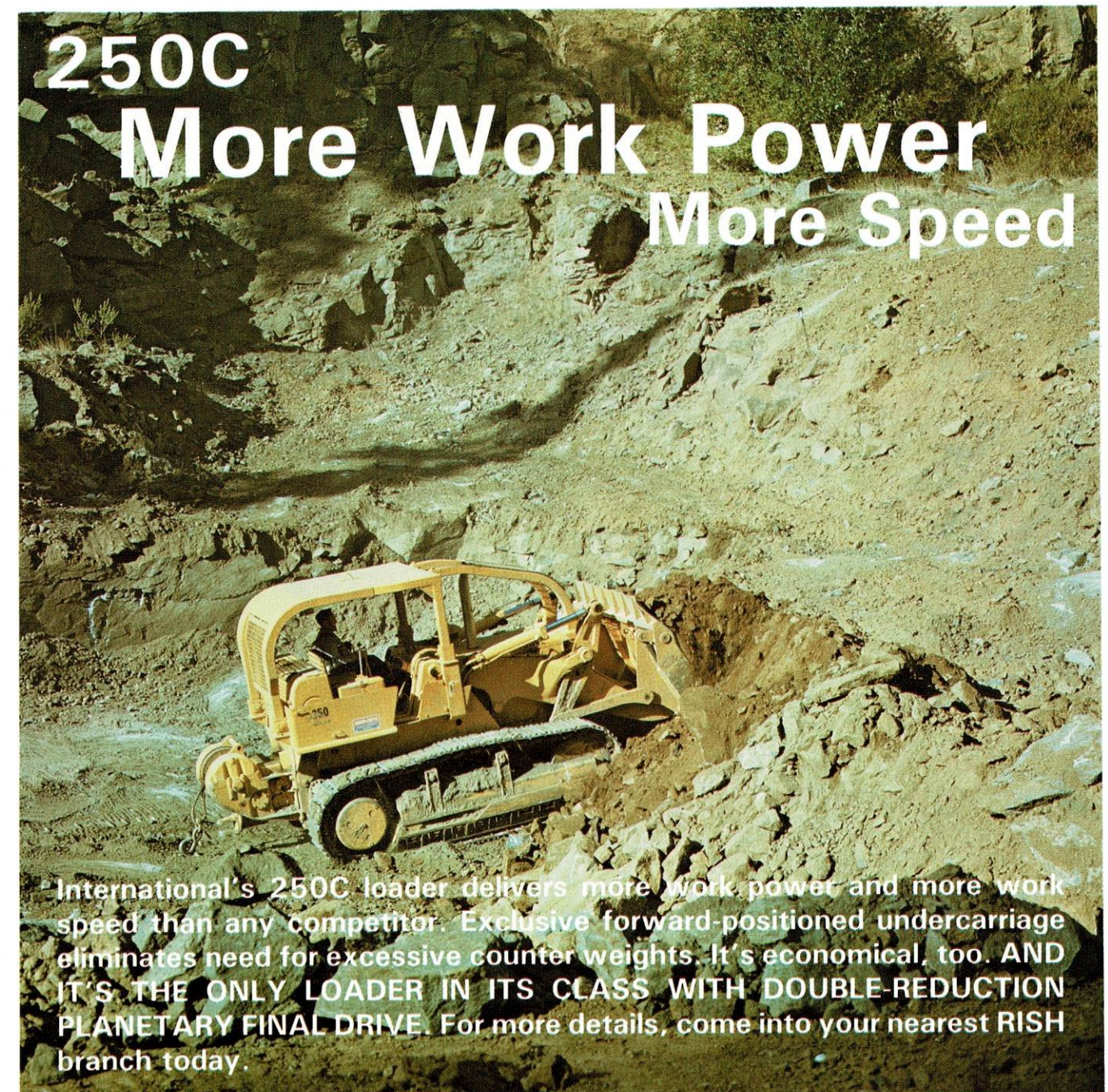
1984 will assure South Africa that its drive for self-sufficiency will be nearly realized within the next half dozen years. At the very least, South Africa will likely be the first western country without oil reserves to attain some degree of self-sufficiency.

The energy planners of South Africa wisely are allowing the citizens of that nation to participate in building their own energy security. A public offering of some 375 million shares in Sasol — the largest public stock offering ever made — will raise an estimated \$650 million toward capital expenses of the expansion program. Based on the after-tax profit picture of the venture last year, South African financial advisors view the issue as a sound investment.

It is often asserted by U.S. officials that we have more sophisticated synthetic fuel technology than anyone in the world. It is even stated that the technology employed by Sasol is primarily U.S. developed technology. But the one incomparable virtue of the South African technique which has made it seem so desirable to the U.S., is that the process has worked for large scale commercial production. More importantly, the Sasol advantage is their years of experience in operating. That experience provides an insight that the U.S. simply does not have. It is, of course, difficult to totally compare South Africa with the United States inasmuch as the U.S. population is 15 to 20 times greater than South Africa's, and our consumption of oil per capita is even more staggeringly lopsided.

In any event, the accomplishments of Sasol can hardly be denied. Through a continuous investment of capital, a substandard quality coal, by the use of an antiquated process and sheer determination has resulted in a viable synthetic fuel program which provides an alternative to Middle East oil addiction. Sasol has been good for industry, it has been good for labor, and it has been good for the country. It has and continues to be the South African genius.

NOTE: Mr. DeSignore, of Bayard, West Virginia, is president and principal owner of Buffalo Coal Company, with operations in West Virginia and Maryland. Mr. See is corporate counsel to Buffalo Coal Company and currently is speaker of the West Virginia House of Delegates. Their visit to South Africa was in June of this year.



250C More Work Power More Speed

International's 250C loader delivers more work power and more work speed than any competitor. Exclusive forward-positioned undercarriage eliminates need for excessive counter weights. It's economical, too. AND IT'S THE ONLY LOADER IN ITS CLASS WITH DOUBLE-REDUCTION PLANETARY FINAL DRIVE. For more details, come into your nearest RISH branch today.



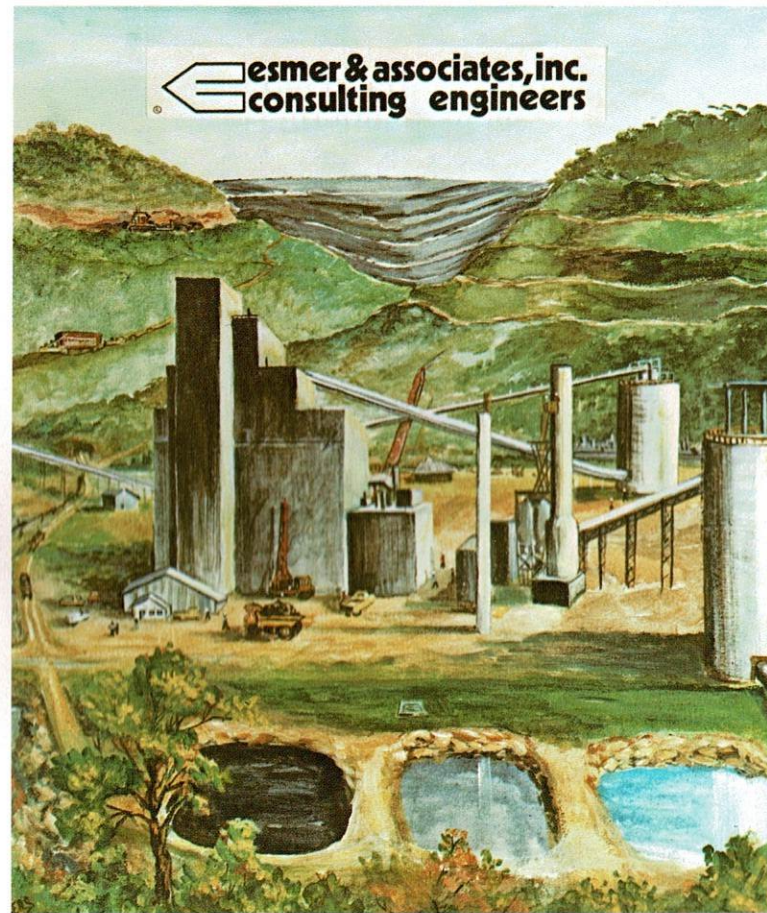
your International Harvester distributor
for PAY* products.



EQUIPMENT COMPANY

Beckley, W. VA. Bluefield, W. VA. Clarksburg, W. VA.
Parkersburg, W. VA. St. Albans, W. VA. Frostburg, MD.

Turnkey Engineering Services For The Coal Industry



Exploration Services

- *Shallow Holes For Overburden Analysis*
- *Deep Holes For Coal Exploration*
- *Geological Studies*
- *Reserve Analysis*
- *Property Evaluation*
- *Pressure Grouting*
- *Pressure Testing*

Testing Services

- *Overburden Analysis*
- *Water & Wastewater*
- *Soil*
- *Concrete*
- *Asphalt*
- *Rock*
- *Aggregates*

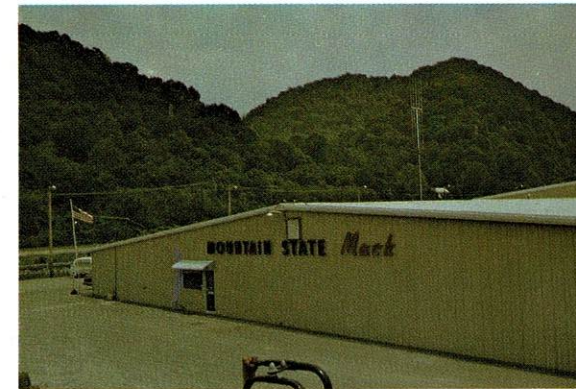
Engineering Services

- *Design Of Surface And Deep Mines*
- *Design Of Surface Facilities For Preparation Plants*
- *Design Of Coal Refuse Facilities*
- *Permit Acquisition DNR, APCC, EPA, MSHA, OSM*
- *Environmental Engineering For Mine Discharge*
- *Reclamation Of Mined Lands*
- *Field Engineering*
- *Consultation*

esmer & associates, inc.
consulting engineers

P. O. Box 397, Boomer, West Virginia 25031, Tel. (304) 779-9679 — 779-9767

**WHEREVER YOU ARE IN THE COALFIELDS . . .
WE'VE GOT A MACK TRUCK DEALERSHIP TO SERVE YOU**



MOUNTAIN STATE MACK — BELLE, WV



MID MOUNTAIN MACK — PRINCETON, WV



MOUNTAIN STATE MACK, NORTHERN
WESTON, WV

**WE
B
A
C
K**
**OUR
DEALERS
WITH A
500 TRUCK
INVENTORY**



EASTERN KY MACK — PRESTONSBURG, KY



MID SOUTH MACK — MIDDLESBORO, KY

**FOUR
MILLION
DOLLAR
PARTS
STOCK . . .**

**10 ROAD
SERVICE
TRUCKS**

**100
TRUCK
SERVICEMEN**

**REMEMBER!
IF
YOU AIN'T
TRUCKIN'
WITH A MACK
YOU AIN'T
TRUCKIN'!**



WORLDWIDE HEADQUARTERS INC.
PRESTONSBURG, KY



**Worldwide
Equipment, Inc.**

also authorized
parts distributor for



Cummins



Eastern Kentucky Mack
Highway 1428 East
Prestonsburg, KY 41653
(606) 874-2172

Mid-South Mack
17th St., Industrial Park
Middlesboro, KY 40965
(606) 248-5100

Mountain State Mack
U.S. Route 60
Belle, WV 25015
(304) 949-5190

Mountain State Mack of Northern
West Virginia
P.O. Box 1080
Weston, WV 26452
(304) 269-2101

Mid-Mountain Mack
P.O. Box 1433
Princeton, WV
(304) 425-7511

OSM UPDATE

State	1978 Tonnage	1979 OSM Inspections Thru June 15	Notices of Viola- tions
Kentucky.....	131,215,000	1244	300
Pennsylvania..	85,380,000	798	183
West Virginia..	84,700,000	1255	308
Wyoming.....	58,175,000	21	13
Illinois.....	48,865,000	208	38
Ohio.....	43,510,000	247	87
Virginia.....	29,750,000	133	49
Montana.....	26,680,000	5	4
Indiana.....	23,940,000	241	62
Texas.....	21,000,000	7	2

West Virginia Still Heads Inspections

The summer edition of **Green Lands Quarterly** carried a summary of OSM inspection activity for the period January 1-March 23, 1979. The agency has now updated its figures through June 15, but the story hasn't changed at all.

Region I (W. Va., Pa., Md., Va.) still leads the nation in inspections and notices of violation. One still finds fewer inspections as one moves west, despite that section's booming coal production of recent years.

Among the individual states, West Virginia, unanimously touted as being advanced in reclamation, continues to edge out neighboring Kentucky for the dubious title of most inspected. West Virginia also retained its lead in notices of violation, and Kentucky operators have once again received the most cessation orders.

In the earlier report, it was evident that three of the top ten producing states were subjected to very few inspections. The updated figures reveal that inspection activity in those states has picked up. Fourth ranking producer, Wyoming has now seen a total of 21 inspections this year, compared to eight for the first quarter. Montana, the number eight producer, jumped from zero to five inspections, and number 10 Texas increased from one to seven.

Operators in West Virginia have been inspected more times this year than all of the states in Regions III, IV, and V combined.

"Rockefeller Amendment" Moves to House

State and industry officials are hopeful that a Congressional amendment to the Surface Mining Control and Reclamation Act of 1977 will help alleviate bureaucratic headaches associated with that legislation for the past two years.

At press time, the Hatfield-Ford substitute for S. 1403 was under consideration by the U. S. House of Representatives, having been approved by the Senate last month.

Supporters of the amendment had been optimistic about Senate approval, but conceded that the bill faces stiff opposition in the House, where Morris Udall (D-Ariz.) is reportedly opposed to any substantive change in the Act.

Probably the most important and far reaching effect

of the proposed amendment would be to require state laws and regulations to be consistent only with the Act itself, and not with the regulations promulgated by the Office of Surface Mining.

An 11th hour addition to the amendment provides for the immediate return of full regulatory authority to the states during the interim period.

The measure is also known as the (W. Va. Governor John D.) "Rockefeller Amendment," after the man who suggested it during Congressional hearings last spring. The proposed amendment receives its impetus from the Act itself, the oft quoted Section 101 (f): Because of the diversity in terrain, climate, biologic, chemical, and other physical conditions in areas subject to mining operations, the primary governmental responsibility for developing, authorizing, issuing, and enforcing regulations for surface mining and reclamation operations subject to this Act should rest with the States."

State Gets "Fractional Funding"

Two years ago, West Virginia Department of Natural Resources Reclamation Chief Pete Pitsenbarger related that he had "never yet heard of a single acre that was reclaimed by filling out forms."

Pitsenbarger could probably stand by that statement today. Fully two years have gone by since the federal Office of Surface Mining started collecting 35¢ a ton for surface mining, and 15¢ a ton for underground mining, from West Virginia coal operators. A lot of forms have been filled out, but not a single acre of West Virginia has been reclaimed under the federal program.

The problem is certainly not a lack of funding. A total of nearly \$24 million has flowed from the Mountain State to federal coffers during that time. Under terms of federal law, the State of West Virginia should be receiving more than \$12.7 million of that money for the purpose of reclaiming abandoned lands. The agency recently announced a "grant" to the State of \$413,497, the first significant funds earmarked for West Virginia since the program took effect in October of 1977.

The initial OSM reclamation project in West Virginia, once described by the agency as "an imminent danger," is still in the planning stages.

Meanwhile, West Virginia operators continue to pay the same Special Reclamation Tax to the State that they always have. The State, for its part, continues to reclaim orphan lands.



COAL & PBC

DYNAMIC DUO!

**PATTERSON BELL & CRANE
INSURANCE AND BONDS**



1110 ONE VALLEY SQUARE
TELEPHONE 304/344-4051



Ashland Gas Service, Inc.

P. O. Box 1754
Beckley, West Virginia 25801

Distributors for Ashland and Valvoline products. Serving the coal industry with diesel fuel, automotive and industrial oils and greases.

Distributor for Fram automotive and industrial filters. Automotive and industrial batteries.

Distributor for "Conwed" Hydro Mulch used in soil reclamation.

The above products are distributed by Ashland Gas Service, Inc. in the Beckley, Summersville and Montgomery areas. For service please contact:

Ashland Gas Service, Inc., Box 1754, Beckley, West Virginia 25801
Phone 255-2151

The worldwide force in mining and construction equipment comes to West Virginia.

Mountaineer Euclid Inc. joins O&K.

Mountaineer Euclid Inc. has joined forces with O & K, the worldwide force in mining and construction equipment, as the exclusive distributor of the O & K line of shovels and backhoes in West Virginia.

Mountaineer Euclid Inc. with headquarters in So. Charleston will sell and service the full line of O & K hydraulic excavators from their three locations.

There's never been a better time to discover the extraordinary production efficiency of the entire line of O & K hydraulic shovels. With bucket capacities from 3/4 to 16 cubic yards, O & K hydraulic shovels are being used in hundreds of demanding jobs throughout the U.S. and the world.

So, if you haven't heard the story of the O & K hydraulic revolution, call Mountaineer Euclid Inc. today and make an appointment to see the force in action.



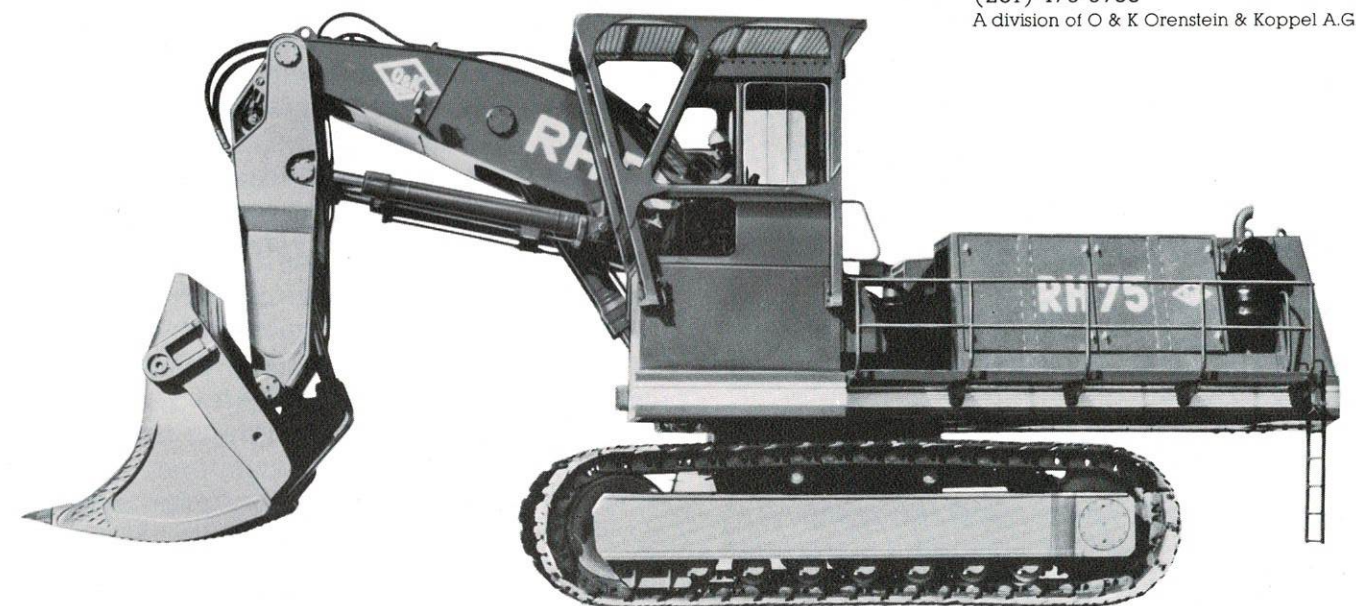
6406 Mac Corkle Avenue, S.W.
P.O. Box 8515
South Charlestown, WV 25303
(304) 768-0081

112 Harper Park Drive
P.O. Box 1733
Beckley, WV 25801
(304) 255-4133

179, Exit 105
Drawer O
Jane Lew, WV 26378
(304) 884-7457



O & K Orenstein & Koppel Inc.
700 Route 46
Clifton, New Jersey 07015
(201) 478-8900
A division of O & K Orenstein & Koppel A.G.



The worldwide force in mining equipment.



Excerpts—From the Governor's Remarks to the Annual Meeting of the West Virginia Surface Mining and Reclamation Association, August 11, 1979

Today in Washington, believe it or not, you hear talk about coal again. People are actually talking about it. Out loud. Because they've finally discovered what we've been saying all along: Coal is the only **viable** option America has to the OPEC cartel. Other energy sources may indeed be feasible in years to come. But in how many years? Our energy crisis is not something that's going to happen "in years to come." It's here now.

I've been fighting hard, over the past two-and-a-half years, to get Washington to look our way—to look at coal and its potential. And at long last, I can report to you, that there are indications Washington is beginning to come around to our way of thinking.

Last month, the Coal Commission sent its interim report to the President. I discussed its details with the President when I met with him at Camp David—during the afternoon, and again at dinner that night. We met still another time following his energy speech to the nation. And following that meeting, the President issued a statement in which he said the Coal Commission had made "bold and constructive recommendations." And he also said he agreed with our

view that "we can convert to coal without sacrificing our environment or the health and safety of coal workers." That interim report we submitted to the President contained very specific details on how our nation can decrease its oil imports by 1.3 million barrels a day, or 16%, by 1985... and 4½ million barrels a day, a full 50%, by 1990.

In essence, our report asked that immediate action be taken to deliberately mandate the substitution of coal for oil in many of the electrical utilities and large industrial boilers of this country. In fact, we were quite specific. We went so far as to present a list of 60 utility plants around the country—plants with oil-generating units which are short-term candidates for conversion to coal use.

And right now, the Environmental Protection Agency is reviewing that list to determine the requirements of each plant to meet air standards. The immediate purpose of that review is to help designate the plants that should—because of size, ease of conversion, or other factors—be given priority consideration for conversion from oil to coal.

But this Coal Commission report we sent to the President is not just confined to substituting coal for oil in those burners. We've

taken the position that the same course of action should be taken with those utilities and industrial boilers which burn natural gas. If we go that route, it will mean: —Oil being burned by electrical utilities and industrial boilers, in most instances, will be freed for **transportation** needs... and—natural gas now being burned by some utilities and industrial boilers will be freed for home heating and business heating purposes, in turn freeing the oil that is presently being used for these same purposes—again—for transportation needs.

As far as the Coal Commission is concerned, as far as those energy planners with whom we have consulted are concerned, this set of recommendations is not a panacea for our energy problems. They're sound. They're thoroughly researched. They're alternatives to our energy dilemma. And they're rooted in plain common sense. But there is much more to be done.

I come here tonight to simply let you know that I consider it my prime duty as the Governor of this coal-producing state to keep waging the fight for coal. And I pledge to you that I will do so—that I will continue to fight for West Virginia coal, day in and day out.

Now let's talk about where West Virginia stands, particularly in regard to the surface mining industry. As you know, I've suggested that Congress amend the Federal Surface Mining and Reclamation Control Act. If this amendment passes, it would—in effect—nullify the impact of that quagmire of regulations being imposed on our mining industry by the Federal Office of Surface Mining. And it's not an uncontroversial matter, I admit.

What is important, from a public policy standpoint, for you to know—and for the people of West Virginia to know—is that this so called "Rockefeller Amendment" does not—in any way—attempt to nullify the very specific mandates of the Act itself. That is not my intention. And those mandates, as you know, are quite specific—all 115 environmental performance standards.

What the amendment **does** propose is that West Virginia and all other mining states have the flexibility to write their own

set of regulations... regulations tailored to meet the specific needs of each state.

Ironically, this very concept was included by Congress in Section 101 of the Act. Congress said that was essential to carrying out the intent of the law. But the drafters of the OSM regulations, in my mind, have overlooked that concept, and tended to concentrate solely on Section 505... the section which requires a state to adopt regulations under state law which are consistent with the regulations promulgated under the Federal Act.

Therefore, it seems obvious that if we're to mine coal in West Virginia, an amendment is in order to eliminate that stalemate between those two provisions.

What I'm advocating is to amend Section 505 by changing the language to direct the states to develop regulations which are **consistent** with the Act, thereby removing any doubt as to the original intent of Congress. My amendment would also remove the threat of federal funding being terminated at the will and pleasure of OSM. And it provides that our regulations, once established, cannot be irresponsibly changed or amended ad infinitum.

To those who say the amendment will gut the federal law, I say the federal law is specific and strong in its insistence upon environmental performance standards—and my proposed amendment will not change that.

To those who don't trust the states to enforce their own laws, I say to them the State of West Virginia has an excellent reclamation program, and we have no desire to change that. In fact, we're proud of it.

To those who say the amendment will remove OSM from the enforcement process, I say the amendment will free OSM to do what it was **meant** to do—to oversee general compliance with the mandates of the law itself.

Make no mistake about it, we have a battle on our hands. But I realize the consequences if we don't fight that battle, and I'm not prepared to accept the consequences. I don't think you are either.

- Chemicals and Technology for
- Water Treatments
 - Land Reclamation
 - Haul Road Stabilization
 - Dust Control
 - Equipment Degreasing — Cleaning
 - Settling Ponds
 - Revegetation
 - Flocculants
 - Coal Cleaning



DIV. GENERAL CHEMICAL & COATING CORP.
616 BENDVIEW DRIVE

1334 HANSFORD STREET
CHARLESTON, WV 25314
346-9036

Ecolytic Inc.

P. O. Box 1103
Lee and Dickinson Sts.

Charleston, W. Va. 25324

Complete Water Quality Compliance Services
for State and Federal Permits

- 24 hr. Automatic Water Monitoring
 - Continuous Flow Recording
 - Storm Event Monitoring and Recording
 - Water Quality Analyses
 - Monthly Data Analysis Reports
 - Experienced Personnel in All Phases of Water Treatment
 - Complete Line of Water Monitoring Equipment

For Further Information Call:

In Charleston:
Jack Hutchins
304/768-5542

In Pittsburgh:
Bill Caputo
412/823-9326

ACCEPTABLE WAYS TO HASTEN THE SUBSTITUTION OF COAL FOR OIL

An Interim Report of The President's Commission on Coal

July 12, 1979

Dear Mr. President,

Pursuant to Executive Order 12103, and in my capacity as Chairman, I am honored to transmit an interim report of The President's Commission on Coal, entitled "Acceptable Ways to Hasten the Substitution of Coal for Oil."

The findings and recommendations contained in the report are based on staff analysis and on public hearings held at your request on May 29 and 30, 1979, in Washington, D. C.

Sincerely,

John D. Rockefeller IV

The President
The White House
Washington, D. C. 20500

America's growing reliance on imported oil has brought us to the verge of a national crisis. The Commission believes that our vast available coal reserves must be tapped to *dramatically reverse* this alarming trend.

At your request, the Commission held two days of hearings and undertook a thorough study of the means, costs and benefits of stemming oil imports through increased coal use. The report we deliver to you today contains our findings and recommendations based upon this effort.

The Commission believes that growing American reliance on imported oil threatens our security; constrains our foreign policy; and undermines our ability to manage the economy, to control our balance of payments, to keep the dollar sound worldwide, and to bring inflation under control at home. And the recessionary effect of escalating world oil prices will severely hamper your attempts to balance the budget.

Neither the exact causes, nor the specific responsibilities for our current energy situation are clear. However, we are certain that now is the time for government to act and to do so decisively.

Current policies, at best, will only slow the growth in oil imports so that by 1990 they will be at 9 million barrels per day. *We recommend a program of actions involving both the direct use of coal and the creation of a synthetic fuels industry to decrease oil imports 1.3 million barrels per day or 16 percent by 1985 and 4.5 million barrels per day or 50 percent by 1990.* This is shown graphically in Figure 1.

Coal will play this role with results in the near to mid-term, if aggressive actions are taken immediately, and deliberately, to mandate the direct use of coal to replace oil now being burned under electrical utility and large industrial boilers.

Actions must be taken now to develop a synthetic fuels industry that will further hasten the substitution of coal for oil over the longer term.

The direct use of coal and the development of synthetic fuels are the two key elements in a strategy of coal replacement of oil. Direct use of coal will replace oil more quickly at less cost and still

permit maintenance of clean air standards.

The recommended coal substitution program will require additional investment and budget outlays. Realistically, any program to reduce oil imports and provide appropriate environmental protection will impose added costs on our economy. We believe that the benefits of reducing our dependence on imported oil in terms of enhancing economic security, relaxing constraints on our foreign policy, and keeping the dollar sound worldwide outweigh the costs of reducing oil imports. Because we all benefit from decreased national reliance on imported oil, the cost of the coal substitution program we recommend should be shared by all Americans.

Current energy policy must be toughened. The reasonable, practicable objectives are clear:

1. COAL-CAPABLE ELECTRICAL UTILITY BOILERS NOW BURNING OIL AND GAS SHOULD BE RECONVERTED TO BURN COAL.

Approximately 60 electrical utility plants burn oil and gas to generate steam in boilers that once were fired by coal. These plants tend to be located in the Northeast.

Reconversion of these utility boilers to coal will save 400 thousand barrels of oil per day. This can all be accomplished by 1985.

2. OIL AND GAS FIRED UTILITY BOILERS NOT CAPABLE OF BURNING COAL SHOULD BE REPLACED BY NEW COAL FIRED UNITS.

Large quantities of oil and natural gas are burned under electrical utility boilers which cannot be converted to burn coal. These tend to be located in the South and Southwest. Because of the much lower cost of coal, the economics of replacing the existing generating units with new coal units are close. Over its useful life, the new coal plant generally will be cheaper to the consumer.

The new coal units must meet the New Source Performance Standards and will emit less sulfur dioxide particulates and nitrogen oxide than most existing oil

units. Replacing these oil and gas units with new coal units will hasten an inevitable process. The oil savings will be over half a million barrels per day by 1985 and one million barrels per day by 1990.

3. NEW LARGE INDUSTRIAL BOILERS SHOULD BE ABSOLUTELY PROHIBITED FROM BURNING OIL OR NATURAL GAS.

Under current policy, an estimated one million barrels of oil and natural gas will be burned per day under new industrial boilers in 1990. Prohibiting oil and natural gas in new industrial boilers larger than 5 megawatts will save approximately 400 thousand barrels of oil per day by 1985. By 1990 these savings will reach 800 thousand barrels per day.

These three actions to speed the direct use of coal in the utility and industrial sectors will save 1.3 million barrels of oil per day by 1985. By 1990 the savings will be 2.3 million barrels per day, representing a 25 percent reduction in oil imports.

4. IMMEDIATE ACTION MUST BE TAKEN TO DEVELOP A MAJOR, EFFICIENT SYNTHETIC FUELS INDUSTRY.

A synthetic fuels industry capable of producing 2.3 million barrels per day by 1990 must be developed. This will save 25 percent of oil imports by 1990. In combination with proposals for increased direct use of coal, a total 50 percent reduction in imported oil can be achieved by 1990.

The reasonable, practicable objectives are clear. The objectives call for specific, bold actions.

Only mandated conversion to coal—without administrative discretion—will work.

No exemptions, extensions, exceptions or waivers should be allowed. Penalties for non-compliance should be automatic and substantial. Incentives will be required. There are several options such as: allowing rapid tax depreciation for new equipment; offering additional tax credits; or directly paying for a share of the necessary equipment or operating costs. The

incentives need to be sufficient, but no more than necessary to cover the extra costs involved.

To achieve the synthetic fuels objective, the most promising technologies should be identified quickly and construction begun immediately. A market for the full production of the 2.3 million barrels per day of synthetic fuels must be guaranteed.

The creation of a U.S. synthetic fuels industry within ten years will be an extraordinary peacetime challenge. Forty to fifty plants each with a capacity of 50,000 barrels per day equivalent would be required. However, it can be done with industry and government cooperation and public understanding and support.

This program means a doubling of coal production by 1985-86. This kind of commitment requires a climate of certainty within both the public and the private sectors. It is a challenge to the coal industry and to government.

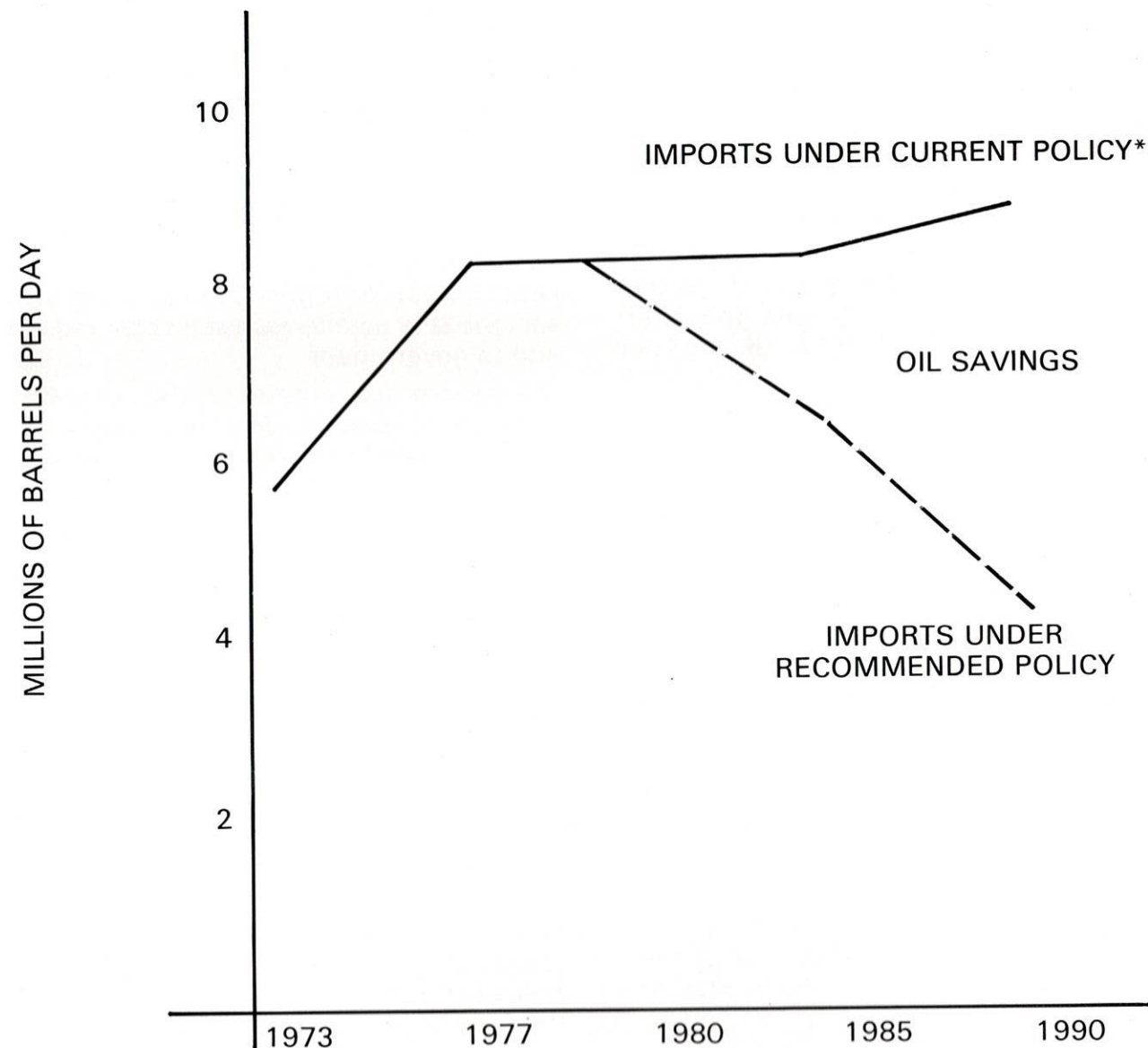
A national commitment of this magnitude depends on stability in this industry. The Commission is working with management and labor toward this end, and we see progress.

Federal energy and related policies must be molded to a clear, bold plan of action. The Commission is convinced that the primary obstacle to greater coal use is the lack of a strong, consistent federal coal policy and the framework of certainty such a policy would provide.

We are struck by the degree to which federal agencies—DOE, EPA, ICC, DOI, DOT and others—are pursuing uncoordinated, independent policies to the detriment of oil import reduction. We urge the establishment of a procedure to identify and resolve regional, state and local conflicts and reconcile competing interests within the federal government and between federal and state governments to enable this Nation to aggressively pursue a program of oil import reduction through increased reliance on domestic coal.

Mr. President, we submit this report to you in the certainty that the American people will respond to a challenge of this magnitude.

FIGURE 1
PROJECTED OIL IMPORT LEVELS UNDER
CURRENT AND PROJECTED POLICY
 (Millions of Barrels Per Day)



*Based on current policy including substantial conservation, increased domestic production of oil and gas, and provides for healthy growth in the economy.

TABLE 1
RECOMMENDED PROGRAM

Coal Substitution Actions	Imported Oil Savings (Millions of Barrels Per Day)	
	By 1985	By 1990
Reconversion of coal-capable utility boilers now using oil and natural gas.	0.4	0.4
Accelerated construction of new boilers fired by coal and other fuels to replace existing oil and gas utility boilers.	0.5	1.0
Prohibition of oil and natural gas in new industrial boilers.	0.4	0.8
Introduction of synthetic fuels.	0.5?	2.3
TOTAL	1.3-1.8	4.5

TABLE 2
AVERAGE COST PER BARREL SAVED
FOR EACH RECOMMENDED ACTION
 (1978 dollars)

Action	Cost Per Barrel Saved 1990
Reconversion of coal-capable utility boilers now using oil and natural gas.	\$2.00
Accelerated construction of new boilers fired by coal and other fuels to replace existing oil and gas utility boilers.	\$3.00
Prohibition of oil and natural gas in new industrial boilers.	\$3.00
Introduction of synthetic fuels. ¹	\$9.00

¹Synthetic fuels are assumed to cost \$30 per barrel (1978 dollars). The world oil price in 1978 dollars is assumed to be \$21 in 1990. This estimate reflects the difference between the synfuel and world oil price.

TABLE 3
ESTIMATED BUDGET IMPACTS
(in billions of 1978 dollars)

Action	In Year 1985	In Year 1990
Reconversion of coal-capable utility boilers now using oil and natural gas.	0.2	0.2
Accelerated construction of new boilers fired by coal and other fuels to replace existing oil and gas utility boilers.	1.0	1.0
Prohibition of oil and natural gas in new boilers for industry.	0.4	1.0
Introduction of synthetic fuels. ¹	2.2?	7.6
TOTAL	\$1.6-\$3.8	\$9.8

¹Synthetic fuels are assumed to cost \$30 per barrel (1978 dollars). The world oil price in 1978 dollars is assumed to be \$18 in 1985 and \$21 in 1990. These estimates reflect the difference between the synfuel and world oil price.

TABLE 4
**CUMULATIVE CAPITAL COSTS
OF RECOMMENDED PROGRAM**
(in billions of 1978 dollars)

Action	1985	1990
Reconversion of coal-capable utility boilers now using oil and natural gas.	5.2	5.2
Accelerated construction of new boilers fired by coal and other fuels to replace existing oil and gas utility boilers.	27.0	48.0 ¹
Prohibition of oil and natural gas in new boilers for industry.	6.3	14.0
Introduction of synthetic fuels. ²	20.0?	92.0
TOTAL	\$38.5-58.5	\$159.2

¹It's important to remember that the cost of this program falls to zero eventually, i.e. almost zero by 1995. This is because the action only accelerates an investment that would have happened anyway.

²Assumes 46 plants each producing 50,000 bpd in 1990. Each plant is assumed to cost \$2 billion to build.

TABLE 5
COAL PRODUCTION
(million tons/years)

	1977	1985	1990
Current Policy	673	1,025	1,405
Under Recommended Program	673	1,160	1,800

TABLE 6
**PROJECTED EMISSIONS OF SULFUR DIOXIDE
IN THE UTILITY SECTOR**
(million tons/year)

	1985	1990	1995
Emissions under Current Policy	19.8	20.3	20.7
Emissions under Recommended Program	19.8	19.1	19.6

TABLE 7
**PROJECTED EMISSIONS OF PARTICULATES
IN THE UTILITY SECTOR**
(million tons/year)

	1985	1990	1995
Emissions under Current Policy97	.99	1.03
Emissions under Recommended Program96	.88	.94

TABLE 8
**PROJECTED EMISSIONS OF NITROGEN OXIDES
IN THE UTILITY SECTOR**
(million tons/year)

	1985	1990	1995
Emissions under Current Policy	7.6	8.8	9.9
Emissions under Recommended Program	7.6	8.7	9.8

TABLE 9

PRELIMINARY LIST OF INITIAL RE-CONVERSION CANDIDATES

Company	Plant	Unit	MW	State	Estimated Oil Savings (bbl/day)**
Central Hudson Gas & Electric Company	Danskammer	3	147	New York	2,987
		4	239		4,857
Niagara Mohawk	Albany	1	100	New York	2,032
		2	100		2,032
		3	100		2,032
		4	100		2,032
Consolidated Edison	Arthur Kill	20	335	New York	6,808
		30	491		9,979
Consolidated Edison	Ravenswood	30	1,028	New York	20,892
Philadelphia Electric	Cromby	2	230	Pennsylvania	4,674
Virginia Electric Power Co.	Chesterfield	*2	69	Virginia	1,402
		*4	188		3,821
Baltimore Gas & Electric	C. P. Crane	1	190	Maryland	3,861
		2	209		4,247
Virginia Electric Power Co.	Portsmouth	3	185	Virginia	3,760
		*4	239		4,857
Virginia Electric Power Co.	Possum Point	3	114	Virginia	2,317
		4	239		4,857
Baltimore Gas & Electric	H. A. Wagner	1	133	Maryland	2,703
		2	136		2,764
United Illuminating Company	Bridgeport Harbor	1	82	Connecticut	1,666
		2	180		3,658
		3	400		8,129
New England Power Company	Salem Harbor	1	82	Massachusetts	1,666
		2	82		1,666
		3	156		3,170
		4	482		9,796

TABLE 9—(Continued)

PRELIMINARY LIST OF INITIAL RE-CONVERSION CANDIDATES

Company	Plant	Unit	MW	State	Estimated Oil Savings (bbl/day)**
Delmarva Power & Light Co.	Edge Moor	3	75	Delaware	1,524
		4	150		3,048
Public Service Electric & Gas	Bergen	1	325	New Jersey	6,605
		2	325		6,605
Public Service Electric & Gas	Hudson	1	454	New Jersey	9,227
Public Service Electric & Gas	Burlington	7	193	New Jersey	3,922
Public Service Electric & Gas	Kearny	7	147	New Jersey	2,987
		8	147		2,987
Public Service Electric & Gas	Sewaren	1	103	New Jersey	2,093
		2	100		2,032
		3	109		2,215
		4	119		2,418
Tampa Electric	F. J. Gannon	1	125	Florida	2,541
		2	125		2,541
Long Island Lighting Co.	Port Jefferson	3	188	New York	3,821
		4	188		3,821
Hartford Electric Light Co.	Middletown	2	114	Connecticut	2,317
		3	239		4,857
Hartford Electric Light Co.	Norwalk Harbor	1	163	Connecticut	3,313
		2	163		3,313
New England Power Co.	Brayton Point	*1	261	Massachusetts	5,304
		*2	261		5,304
		*3	640		13,007
		TOTAL	10,750		218,467

* These plants have already announced plans to convert from oil to coal.

** Estimated oil Savings were calculated by assuming an average capacity factor for the coal plant of 50 percent, an average heat rate of 10,500 BTU/Kwh, and an average of 6.2 million BTU's per barrel of oil.

TABLE 10

PRELIMINARY LIST OF FOLLOW-UP RE-CONVERSION CANDIDATES

Company	Plant	Unit	MW	State	Estimated Oil Savings (bbl/day)*
Public Service of Colorado	Zuni	2	75	Colorado	1,524
Northeast Utilities: Connecticut Power & Light Company	Devon	3	66	Connecticut	1,341
		7	104		2,114
		8	104		2,114
Hartford Electric Light Co.	Middle Town	1	69	Connecticut	1,402
Northeast Utilities: Connecticut Power & Light Company	Montville	5	75	Connecticut	1,524
Delmarva Power & Light Company	Delaware City	1	27	Delaware	549
		2	28		569
		3	75		1,524
		4	28		569
Delmarva Power & Light Company	Edge Moor	1	66	Delaware	1,341
		2	66		1,341
Potomac Electric Power Co.	Buzzard Point	2	35	Dist. of Columbia	711
Savannah Electric & Power Company	Port Wentworth	1	50	Georgia	1,016
		2	54		1,097
		3	103		2,093
		4	126		2,561
New England Gas & Electric	Kendall Square	3	30	Massachusetts	610
Northeast Utilities: Holyoke Water Power Co.	Mount Tom	1	136	Massachusetts	2,764
Northeast Utilities: Montaup Electric Co.	Somerset	6	122	Massachusetts	2,479
Northeast Utilities: Western Massachusetts Electric Co.	West Springfield	2	50	Massachusetts	1,016
		3	114		2,317
Detroit Edison Company	St. Clair	5	358	Michigan	7,276
Detroit Edison Company	River Rouge	1	283	Michigan	5,751
Omaha Public Power District	Jones Street	12	49	Nebraska	996

TABLE 10—(Continued)

PRELIMINARY LIST OF FOLLOW-UP RE-CONVERSION CANDIDATES

Company	Plant	Unit	MW	State	Estimated Oil Savings (bbl/day)*
Public Service of New Hampshire	Schiller	4	50	New Hampshire	1,016
		5	50		1,016
Deepwater Operating Co.	Deepwater	1	82	New Jersey	1,666
		6	74		1,504
GPU: Jersey Central Power & Light Company	Sayreville	4	123	New Jersey	2,500
		5	125		2,540
GPU: Jersey Central Power & Light Company	Werner	4	60	New Jersey	1,219
Consolidated Edison Co.	Astoria	1	180	New York	3,658
		2	180		3,658
		3	380		7,723
		4	380		7,723
		5	395		8,028
Central Hudson Gas & Electric Corporation	Danskammer	1	72	New York	1,463
		2	74		1,504
Consolidated Edison Co.	East River	5	156	New York	3,170
		6	156		3,170
		7	180		3,658
Long Island Lighting Co.	E. F. Barrett	1	188	New York	3,821
Long Island Lighting Co.	Far Rockaway	4	114	New York	2,317
Long Island Lighting Co.	Glenwood	4	114	New York	2,317
		5	114		2,317
Niagara Mohawk Power Corp.	Oswego	4	92	New York	1,870
Orange & Rickland Utilities	Lovett	3	69	New York	1,402
		4	180		3,658
		5	202		4,105
Georgia Power	McManus	1	50	Georgia	1,016
		2	94		1,910
Commonwealth Edison Co.	Ridgeland	1	173	Illinois	3,516
		2	173		3,516
		3	173		3,516
		4	173		3,516

TABLE 10—(Continued)

PRELIMINARY LIST OF FOLLOW-UP RE-CONVERSION CANDIDATES

Company	Plant	Unit	MW	State	Estimated Oil Savings (bbl/day)*
Kansas Power & Light Co.	Lawrence	2	38	Kansas	772
		3	49		996
Central Maine Power Co.	Mason	3	33	Maine	671
		4	33		671
Baltimore Gas & Electric Co.	Gould Street	3	104	Maryland	2,114
Baltimore Gas & Electric Co.	Riverside	4	72	Maryland	1,463
		5	81		1,646
Delmarva Power & Light Co.	Vienna	7	38	Maryland	772
Boston Edison Company	Mystic	4	125	Massachusetts	2,540
		5	125		2,540
		6	138		2,805
Boston Edison Company	Edgar	4	81	Massachusetts	1,646
		5	81		1,646
Oklahoma Gas & Electric Co.	Mustang	2	63	Oklahoma	1,280
Philadelphia Electric Co.	Delaware	7	156	Pennsylvania	3,170
		8	156		3,170
Virginia Electric Power Co.	Chesterfield	3	113	Virginia	2,296
Virginia Electric Power Co.	Portsmouth	1	113	Virginia	2,296
		2	113		2,296
Virginia Electric Power Co.	Yorktown	1	188	Virginia	3,821
		2	188		3,821
Virginia Electric Power	Possum Point	2	69	Virginia	1,402
Wisconsin Public Service Corp.	Weston	2	75	Wisconsin	1,524
TOTAL			9,151		185,970

*Estimated oil savings were calculated by assuming an average capacity factor for the coal plant of 50 percent, an average heat rate of 10,500 BTU/Kwh, and an average of 6.2 million BTU per barrel of oil.

Many West Virginia surface mining companies depend on

Driltech and Beckwith.

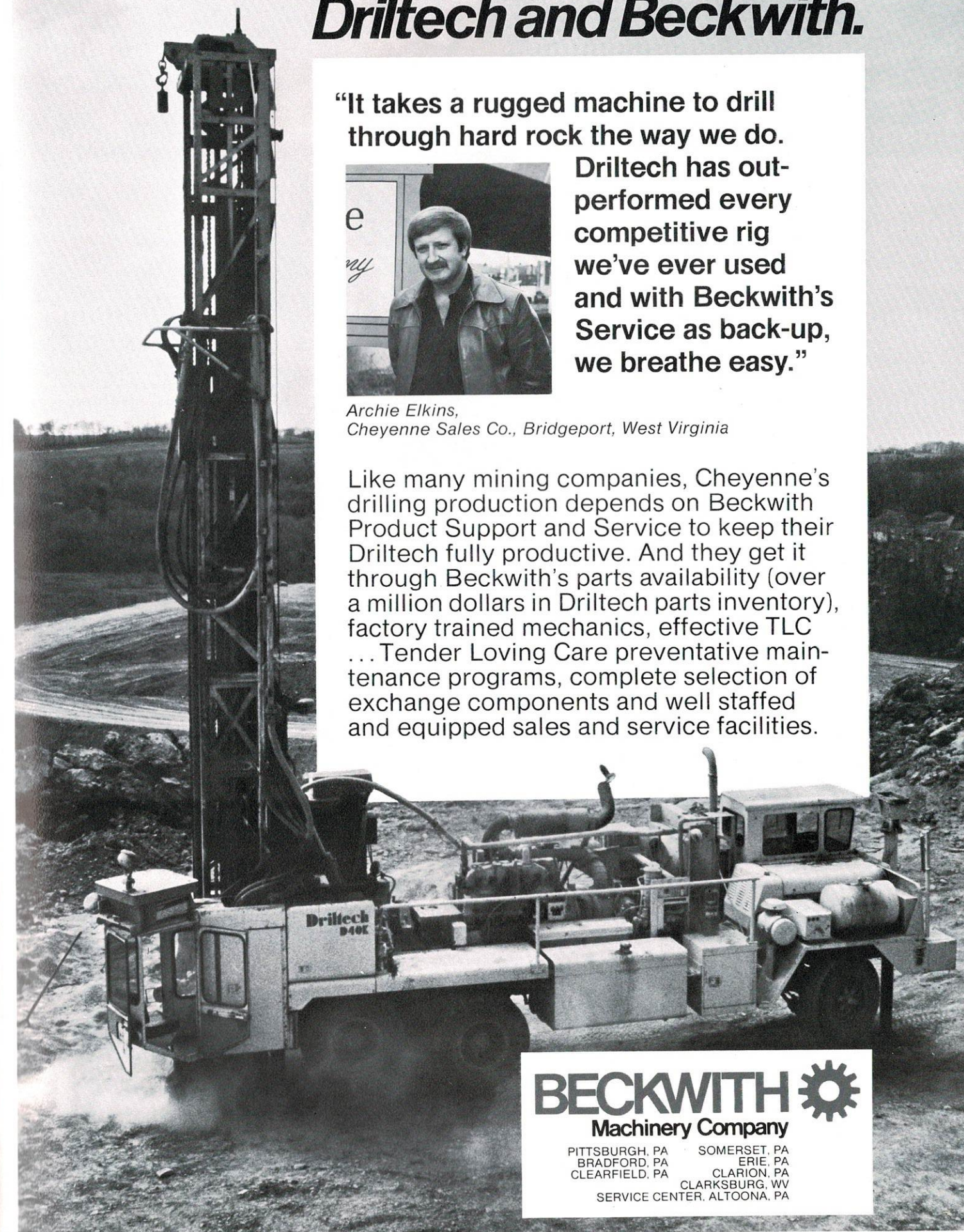
"It takes a rugged machine to drill through hard rock the way we do.



Archie Elkins,
Cheyenne Sales Co., Bridgeport, West Virginia

Driltech has out-performed every competitive rig we've ever used and with Beckwith's Service as back-up, we breathe easy."

Like many mining companies, Cheyenne's drilling production depends on Beckwith Product Support and Service to keep their Driltech fully productive. And they get it through Beckwith's parts availability (over a million dollars in Driltech parts inventory), factory trained mechanics, effective TLC ... Tender Loving Care preventative maintenance programs, complete selection of exchange components and well staffed and equipped sales and service facilities.



BECKWITH 
Machinery Company

PITTSBURGH, PA SOMERSET, PA
BRADFORD, PA ERIE, PA
CLEARFIELD, PA CLARION, PA
CLARKSBURG, WV
SERVICE CENTER, ALTOONA, PA

Cummins Service



Rely on Cummins Experts

As the owner of a Cummins diesel, you've got one of the most reliable engines you can buy. But if something does go wrong, we'll get you turned around fast with trained Cummins technicians and a complete inventory of Genuine Cummins Parts and ReCon® rebuilt assemblies. We're on call 24 hours

a day, and if you can't get to us, we'll get to you with a service truck and a diesel technician.

We also have the maintenance programs and diagnostic equipment to spot trouble before it strikes. And service training courses are available for your mechanics.

Cummins service is just a phone call away... we're in the Yellow Pages under "Engines—Diesel". Cummins Service. Why gamble on anything else?

Cummins Engines of West Virginia, Inc.

Charleston
Fairmont

304-744-6373
304-367-0196

Yes,
There are
some things
prettier than a Mack...
But not in the truck line!



**—POWER—
—WASHER, Inc.—**

P.O. Box 5407
Huntington, WV 25703
304/736-3401
Lowmansville, KY
606/297-6401



Mountaineer Mack Sales
Rt. 60 East, Near I-64
Huntington, WV
304/736-3401

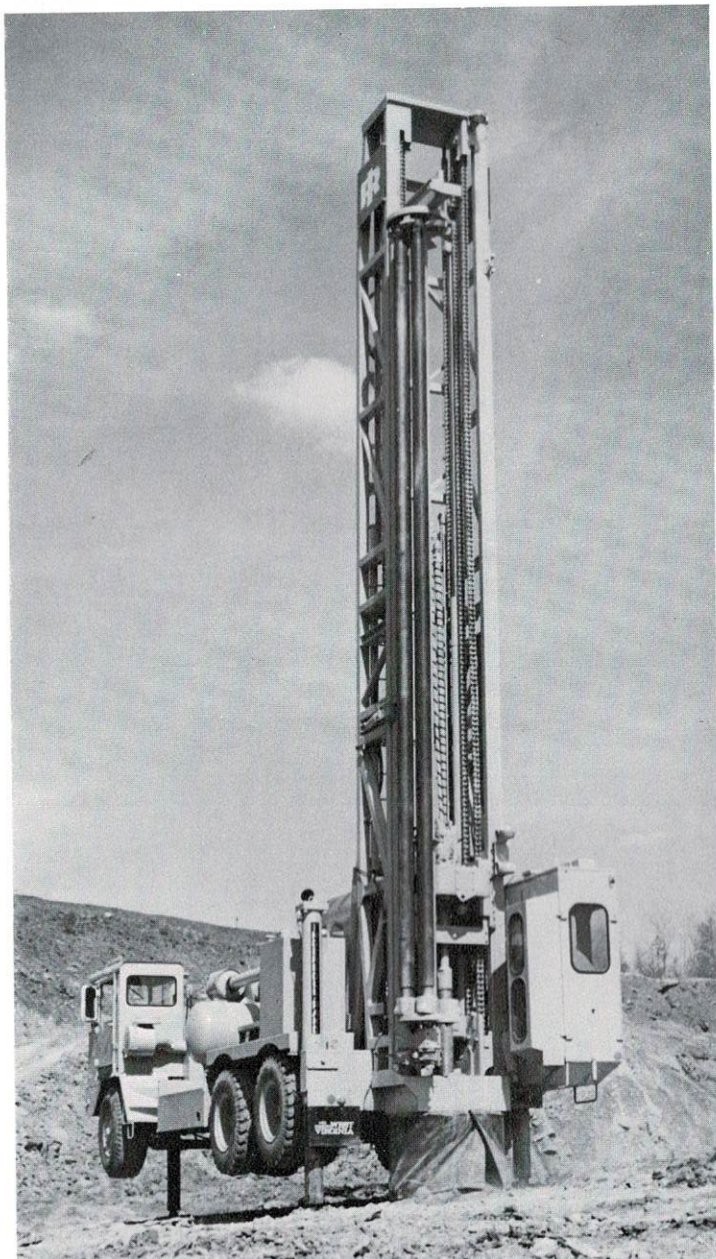
Serving You At
Two Big Locations!

MOUNTAINEER
HUNTINGTON, WV LOWMANSVILLE, KY

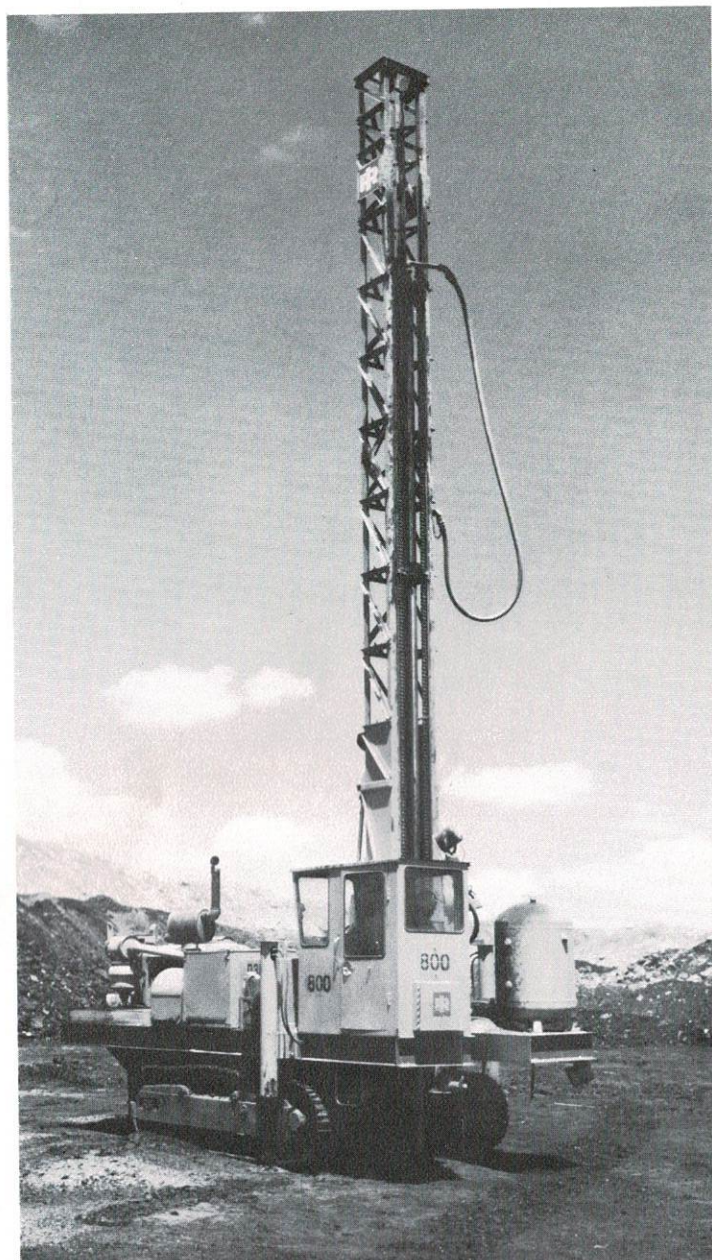


Mountaineer Mack Sales
U.S. Rt. 23
Lowmansville, KY
606/297-6401

New Hours in Lowmansville
7:30 AM to 9 PM Mon-Fri.
7:30 AM to Noon- Saturday
(Parts Only)



Top-head drive T4 Drillmaster



Rotary table DM25-SP Drillmaster

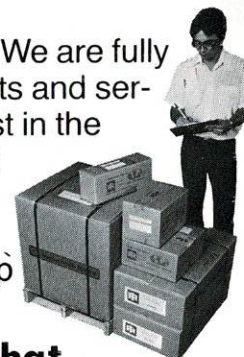
Top-head or rotary table drive, you get a little more than you asked for.

With an I-R Drillmaster rig on the job, there are a lot of things you can be sure of. Higher productivity, greater service-proved dependability, more safety, better parts service, and the industry's best financing.

T4 and DM-50 Drillmasters. For deep blastholes to 9 $\frac{7}{8}$ " in diameter, these top-head rigs will take on all contenders in total cost per foot of hole. Rugged tower withstands high torque loads. Massive, powerful rotary head provides infinitely variable speeds to 200 rpm, with torque to 50,000 in-lb. Truck-mounted T4 has 37,000 lb. of pulldown; Crawler-mounted DM-50 has 50,000 lb. pulldown. Hydraulic system cooling permits operation at high temperatures without overheating. And their 60-second rod changer is the safest on the market!

DM25-SP Drillmaster. A top-performer that makes short work of single-pass holes to 50' deep and 6 $\frac{3}{4}$ " in diameter. Pulldown of 26,000 lb., rotary table speeds of 60-375 rpm, and compressor options to 600 cfm at 125 psig make this rig hard to beat. Features include strong, light-weight welded steel tower, simple mechanical-drive table, and hydraulic propulsion with spring-applied brakes. Other Drillmaster sizes also available.

Better parts availability. We are fully committed to a replacement parts and service program that will be the best in the industry. Most parts are stocked by your local distributor. Where factory orders are required, we're geared up to give them top priority to expedite shipment.



Service that never stops. Your I-R distributor is no novice in the rock drilling business. He knows drill operation and servicing not only from in-plant training, but from years of on-the-job experience too. When you need him, he'll be there!

And the best financing available.

We can speed up and simplify your Drillmaster purchase by arranging a financing package that meets your needs, through Ingersoll-Rand Financial Corporation or your I-R distributor. Take your choice of skip payment plans, seasonal payment plans, conditional sales plans, lease or rental.



Let us show you what a Drillmaster can do, and which of our many models would suit your job best. Call your I-R distributor today. Or write to Ingersoll-Rand, Dept. A-957, Washington, N.J. 07882.

Ingersoll-Rand takes the gamble out of buying blasthole drills.

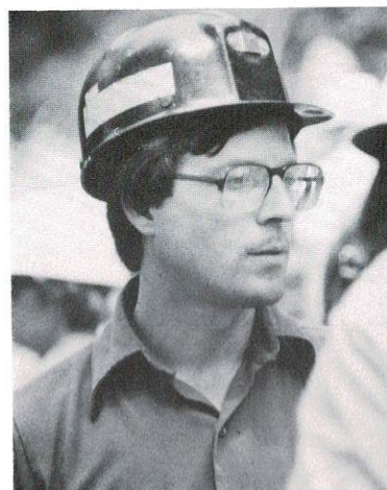
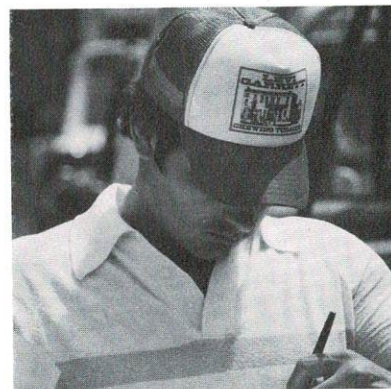
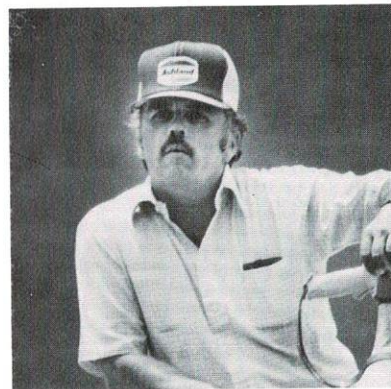
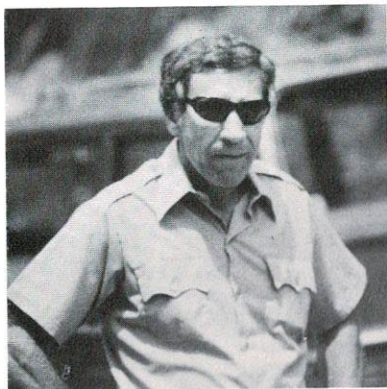
Two sure things: equipment from Ingersoll-Rand, and service from your local distributor.

The W.W. Williams Co.

Charleston, Beckley
and Clarksburg, W. Va.



Ingersoll-Rand®



Faces in the tour — Clockwise from above: Randy Burke, Pratt Mining Co.; DNR Director Dave Callaghan; Phil Weber, Energy Enterprises; Committee member John Sturm.

DNR's 'Road Show' Draws Diverse Crowd

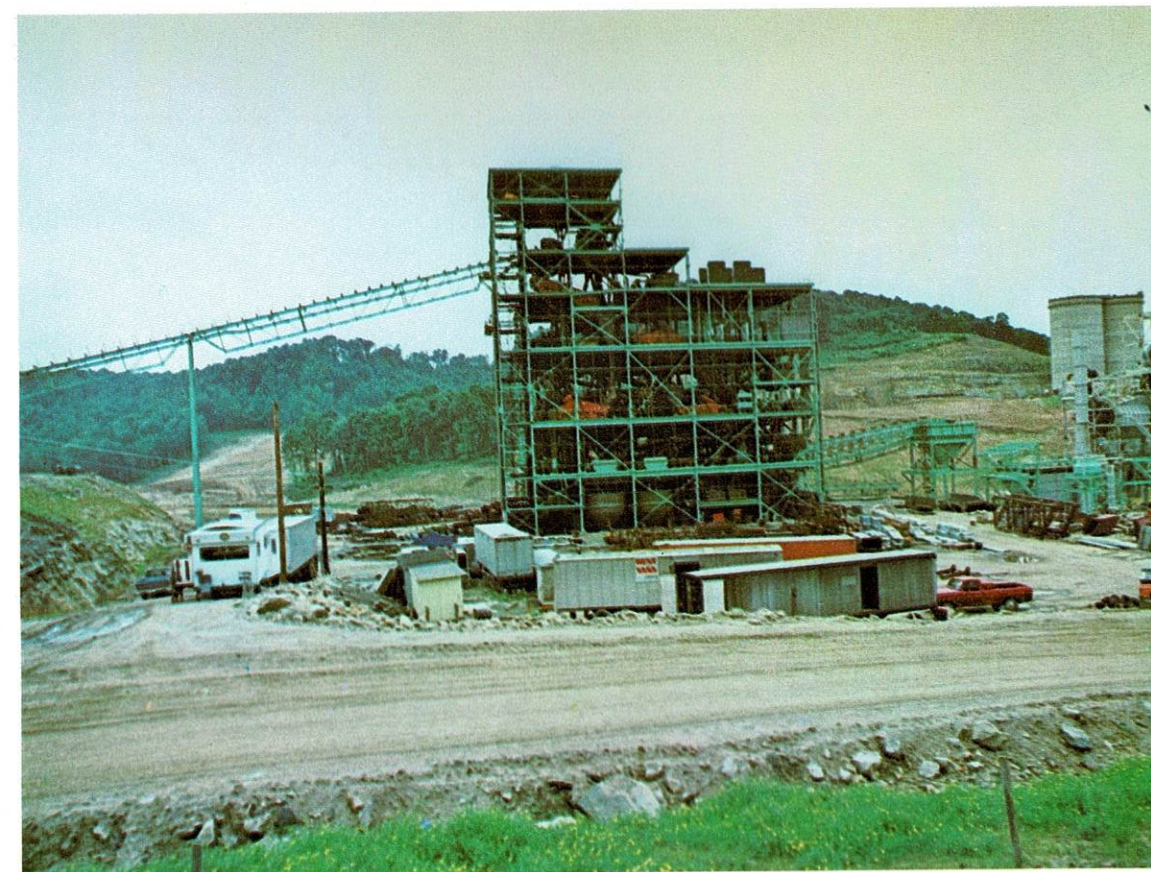
West Virginia's Department of Natural Resources took its 12th Annual "road show" to 13 mining operations this summer, and, once again, the agency's organizational powers proved a match for a near overflow crowd.

Officially billed as the Interagency Evaluation Tour, the week long trek has become something of a tourist attraction to those in and around West Virginia's surface mining industry.

The original participating agencies are still well represented, and these people, many of whom have been around for all 12 trips, still do their workmanlike job of observing, evaluating, and critiquing what they see. But in recent years, the tour has become something more. For many, it represents a rare opportunity to see first hand what it is they've been regulating, protesting, and/or writing about.

As the name implies, the object of the tour is to pick the brains of experts from various related fields in an effort to improve reclamation techniques, and to disseminate the collective wisdom. In keeping with this purpose, DNR puts as many of its guests to work as possible, through committees which are assigned to evaluate and report on various specific aspects of the mining and reclamation process.

A consolidated report of the committees' findings on this year's tour will be published by DNR sometime this winter.



Island Creek Coal Co. has made a major financial commitment to the area it serves, with construction of this preparation plant on a mine site in Upshur County.



The Galloway Co., Inc., also working in Upshur County, is returning this land to its original contour with an intended post mining use as pasture.

This Pratt Mining Co. site in Fayette County exemplifies the haulback method, used to achieve highwall elimination in the steep slopes of southern West Virginia.



By contrast, completed reclamation in northern West Virginia assumes a farm-like aspect as shown on this Pierce Coal & Construction site in Upshur County.



Perry & Hylton, Inc. is re-mining this Fayette County site. Both pictures were taken from the same spot. The scene at top shows where the operation is headed. The bottom picture shows where it's been.





La Rosa Fuel Co., Inc. uses rip-rap drainage (foreground) and a canvass "baffle" to aid in sediment control.



Oscar Vecellio, Inc.'s work on this Raleigh County site demonstrates both the beauty and practicality of complete revegetation.

More machine for your money... to manhandle tough terrain.



Choose from five crawler tractor models, with power choices from 88 to 300 fwhp. With a combination of features ideally suited to land development—such as rugged, reinforced undercarriage components to withstand punishing service in pioneering, terracing, tree and stump clearing. Excellent machine balance to handle steep side slopes and good flotation characteristics for work in soft footing, building dams or irrigation ponds. Versatile power to handle specialized attachments—root rakes, rippers, landclearing blades, disc harrows. Easy, responsive controls, operator comfort, and a full line of protective attachments such as brush screens, sweeps and perforated engine side panels.

Get more machine for your money!



**WEST VIRGINIA
TRACTOR &
EQUIPMENT CO.**

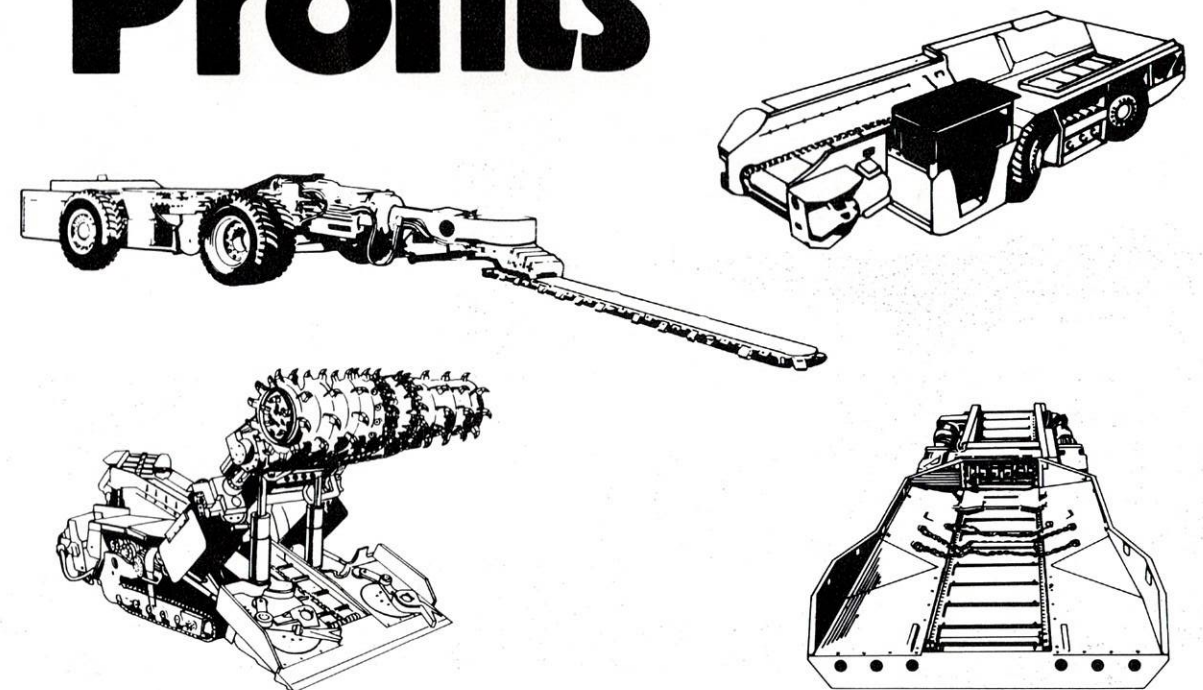
CONSTRUCTION, MINING & INDUSTRIAL EQUIPMENT
CHARLESTON 346-5301 CALL TOLL FREE 800-642-8245
CLARKSBURG 624-7511 / BECKLEY 255-2155

FIAT-ALLIS

HARD FACTS

- 88, 122, 150, 195, 300 fwhp direct-injection diesels for fuel economy
- Working weights from 20,500 to 72,725 lb.
- Fully protected power train and undercarriage
- Comfortable walk-through operator's compartment, adjustable seat, open shift pattern
- Choice of transmissions on the four smaller models; 3 x 3 power shift on 21-C

A Used Method of Building Profits



Saving money on mining equipment can mean the difference between profit and loss.



Fairchild Equipment Division offers one of the world's largest inventories of used and rebuilt mining equipment. A division of Fairchild Incorporated. 304/255-2131
TWX 710-938-8463

Equipment for tomorrow's energy

*When dependability is essential,
there's no substitute for quality.*



Picture shot on location, courtesy of The Greenbrier, White Sulphur Springs, WV. Rolls-Royce provided by Tag Galyean Chevrolet, Inc., Charleston, WV.
The name Rolls-Royce, the mascot, badge and radiator grille are all Rolls-Royce trademarks. Rolls-Royce Motors Inc. 1979.

The TM6
Series B
Portadrill.



Call Walker today for more information.

CHARLESTON, WV
304/949-6400
PARKERSBURG, WV
304/485-4547
BECKLEY, WV
304/253-2706
SUMMERSVILLE, WV
304/872-4303

If you want it green

Call Willco

Reclamation and Hydroseeding • Landscape Seeding
Erosion Control



Ed Williams, President

WILLCO RECLAMATION, INC.

619 Open Rocks Rd. – Summersville – 304 / 872-2287

Analysis of

- Coal
- Overburden
- Water & Wastewater
- Engineering Properties of Soils

TECHNICAL TESTING LABORATORIES, INC.
1263 GREENBRIER ST.
Charleston, WV 25311
304-346-0725

- Coal Preparation Plant Permit
- Surface & Deep Mining Permit
- Discharge Mining Report



*Outgoing Board Chairman
John J. Faltis*



*New Chairman of the Board
Charles T. Jones*



*Banquet Speaker—
West Virginia Governor
John D. Rockefeller, IV*

Amherst's Charles Jones Becomes Association Board Chairman

Charles T. Jones of Amherst Coal Co., Charleston, W. Va., is the new Chairman of the Board of Directors of the Association. He has served the Association as First Vice-Chairman during the past year.

Replacing Jones as First Vice-Chairman will be Lawrence A. Streets of Allegheny Mining Corp., Mt. Storm, W. Va. William C. M. Butler, III, of Princess Susan Coal Co., Charleston, W. Va., will serve as Second Vice-Chairman for the coming year.

Also elected as officers for 1979-80 were Frank D. Jennings of Big Mountain Coals, Inc., Preter, W. Va., as Secretary-Treasurer, and E. B. Basham of West Virginia Tractor and Equipment Co., Charleston, W. Va., as Chairman-Associate Division.

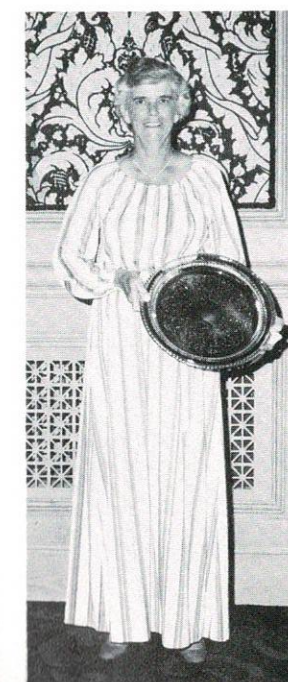
Five members were elected to the Board of Directors. These include Donald E. Adkins of Independent Explosives Co. of West Virginia, Marmet, W. Va.; Winston Cline of Winston Coal Co., Inc., Gilbert, W. Va.; Terry

L. Dotson of Mountain State Mack, Prestonsburg, Ky.; Charles J. Miller of LaRosa Fuel Co., Inc., Clarksburg, W. Va.; and J. M. Poindexter of Mountaineer Euclid, Inc., South Charleston, W. Va.

In addition to Butler, four men were re-elected to their positions on the Board, including James C. Justice, Sr., of Blue-stone Coal Corp., Beckley, W. Va.; William S. Ritchie, Jr. of Gobet Mining & Construction Co., Inc., Charleston, W. Va.; H. L. Kennedy of H. L. Kennedy Coal Co., Swanton, Md.; and G. R. Swanson of the Pittston Co. Coal Group, Lebanon, Va.

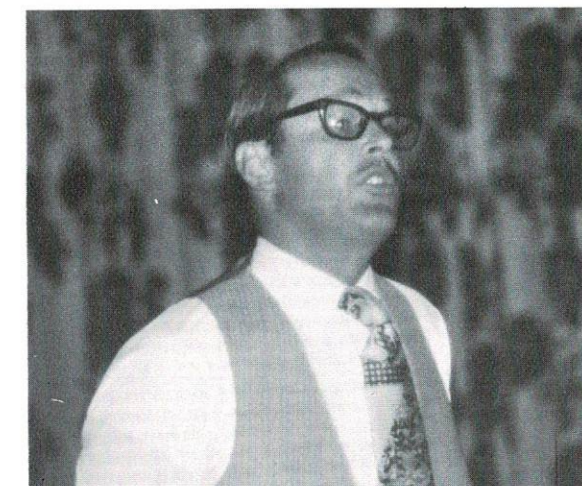
The election of officers and board members was part of the Association's Annual Meeting at the Greenbrier Hotel in White Sulphur Springs, W. Va. The meeting agenda also included a tax seminar, a panel discussion featuring members of the West Virginia State Legislature, and a closing banquet address by West Virginia Governor John D. Rockefeller, IV.

Tennis champions Liz Hatfield (women's singles) and Frank Jennings (men's singles).



Golf champions (l-r) Helen Rose Swango (women's low gross), Jim Justice, Sr. (men's low gross), Butch Bryan (men's low net).

Members of the West Virginia State Legislature joined a panel discussion of regulatory problems facing the industry. Shown l-r are State Senators Carl Gainer, Bob Rogers, and J. D. Hinkle, Jr.



Tax consultant Don Thomas of Denver conducts a seminar in Saturday morning's technical session.

CAUDILL SEED COMPANY

1201 STORY AVENUE
Louisville, KY 40206

We Carry A Complete Line Of Grasses,
Clovers, Alfalfas, Lespedezas, and
Many Other Items.

CALL US FOR DELIVERED PRICES.
1-800-626-5357
Ask for Pat, Ken, or Forrest.

From air or ground,
Penn Lines can do that
hydroseeding job

—For helicopter seeding CALL—
Dub Bailey

—For truck hydroseeding CALL—
Ron Hill

Call our toll-free number
800-245-6800



PENN LINE SERVICE, INC.

SCOTSDALE, PENNSYLVANIA
15683

ENVIRONMENTAL PROBLEMS?

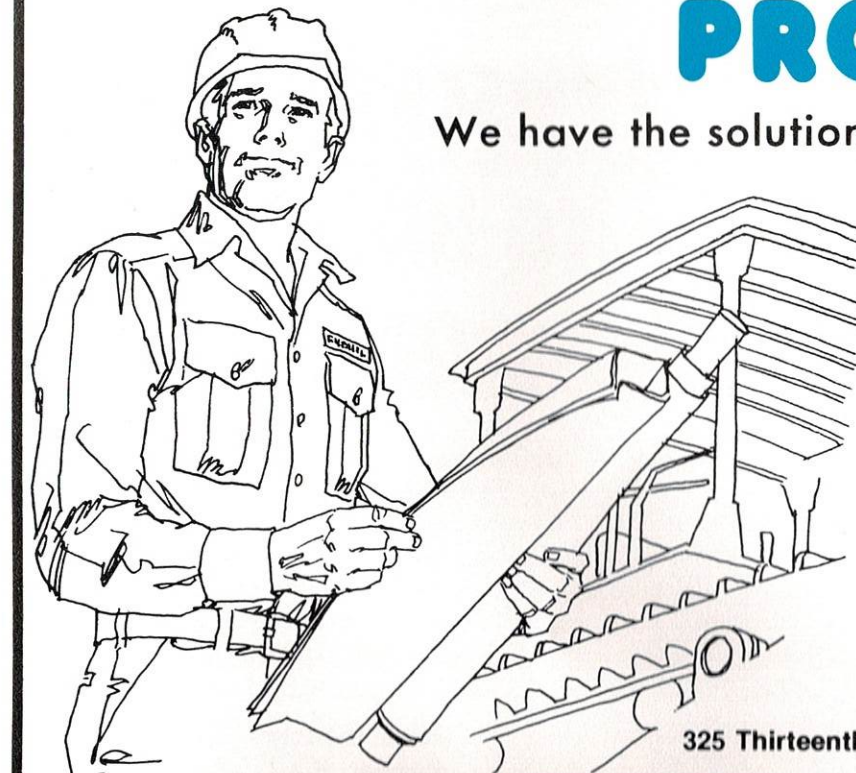
We have the solution for your specific needs.

- ° PLANNING
- ° CONSULTING & DESIGN
- ° PERMIT APPLICATIONS
- ° ANALYSIS & MONITORING

LET US HELP ON YOUR NEXT PROJECT.
CALL US.

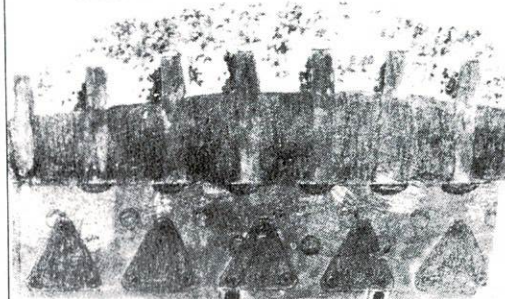


325 Thirteenth Street Dunbar, WV 25064 304/766-6283



Firestone

Heavy Duty Off the Road Tires



Tire City is
your complete
sales and ser-
vice center
for Firestone
heavy duty, off
the road tires
that give you
heavy hauls at
a low cost per
hour. Give us a
call today.
Statewide, you
just can't beat
Tire City for
expert service

TC TIRE CITY

Spring Street,
Buckhannon
Call 472-1312

We Can Handle It!

J.D.Hinkle and Sons, Inc.
supplies fuel and lubri-
cants to the mining in-
dustry. Quality Union 76 products
with a reputation for efficient
service and competitive prices
mean that we can supply your
needs. Consider us also for bulk
fuel storage tanks, 2,000 to 12,000
gallon capacity and skids for
mobile or permanent installation.
J.D.Hinkle and Sons, we CAN
Handle it!

**j.d.HINKLE
& sons, inc.**

P.O. Box 70 • Buckhannon, WV 26201
(304) 472-3367

Northrup King offers On-site reclamation assistance

Including:

- Soil and Water Testing
 - Fertilizer and Liming Recommendations
 - Land Use Management Ideas
 - Direct Help in Meeting Reclamation Requirements
 - Products and Service
- Northrup King's reclamation staff includes agronomists, soil scientists, plant material specialists, and field technicians.



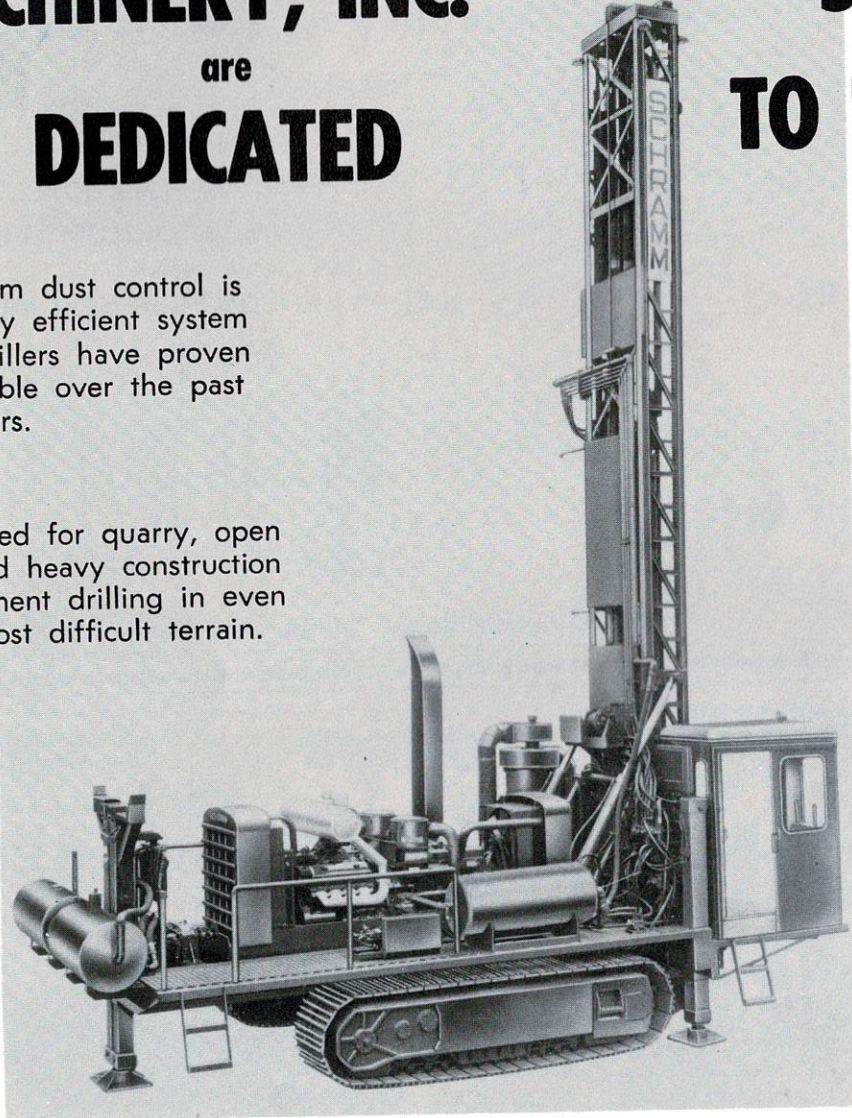
NORTHROP KING CO.
P.O. BOX 1261
LOUISVILLE, KENTUCKY 40201
1-606-987-4433

DRILL WITH DEPENDABILITY

MACHINERY, INC. and SCHRAMM are DEDICATED TO UNEXCELLED QUALITY

Rotafoam dust control is a highly efficient system that drillers have proven invaluable over the past 18 years.

Designed for quarry, open pit and heavy construction equipment drilling in even the most difficult terrain.



SCHRAMM Air Compressors are the most advanced piston, positive displacement design in operation and will provide you with years of excellent operation.

Nine models — Crawler & Rubber tired, all completely self contained for complete mobility in any terrain.

PARTS ★ SALES ★ SERVICE



Machinery
inc.
Dedicated to those who are
keeping the Tri-State foremost

5800 McCorkle Ave., S.E.
Charleston, W. Va. 25330
(304) 925-4741

5638 U.S. Rte. 60E
Huntington, W. Va. 25705
(304) 736-5244

U.S. Rte. #23
Allen, Ky. 41601
(606) 874-9288

ASSOCIATION NOTEBOOK

West Virginia Loses Mike Starvaggi

One of the mainstays of our industry is gone with the recent passing of Mike Starvaggi of Weirton, W. Va.

Mr. Starvaggi's biography reads a bit like a Hollywood script. He came to this country as a young man, and made his start peddling ice and coal through the streets of Weirton.

He ended his long and fruitful life as the retired chairman of Starvaggi Industries, Inc., one of West Virginia's largest and most respected coal companies. His name is as well known in Weirton as the governor's is in Charleston. Much of the town is built on land that Mike Starvaggi mined and reclaimed to higher use, years before the law required it of him.

He was a pioneer in the field of reclamation, and a primary factor in West Virginia's industry-wide reputation for innovation and responsibility.

Fittingly, Mike Starvaggi was honored by West Virginia University last year as "The Father of Reclamation." This year, he's gone, and the industry and the state are poorer for the loss.

Association Adds 21 Members

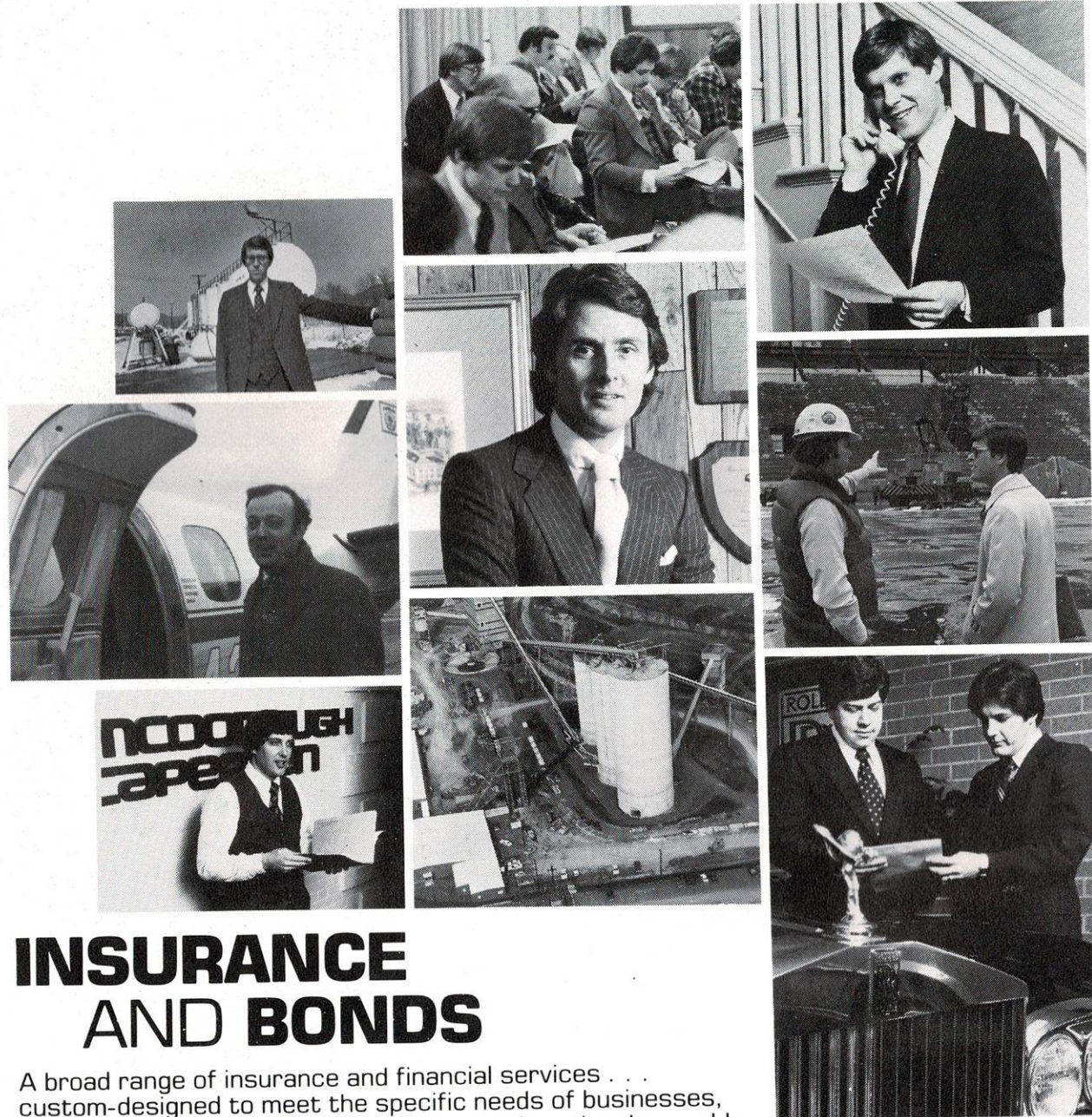
The WVSMRA has welcomed 21 new members into its ranks.

The following companies were approved for membership at the Association's Annual Meeting in August: General—B A Coal Company, Summersville; Craig Contractors, Inc., Greensboro, N.C.; L. H. & J. Coal Co., Inc., Greensboro, Pa.; Tom B. Coals, Inc., Elkins; Triple A Coals, Inc., Summersville; Associate—Atlas Powder Co., Beckley; Betz-Converse-Murdoch-Inc., Pittsburgh, Pa.; Citizens Insurance Agency, Bluefield; Coal Industry Services Co., Pounding Mill, Va.; The Dominion Coal Companies, Charlottesville, Va.; Ecolytic, Inc., Charleston; Edwin B. Hutchinson & Son, Charleston; Energy Impact Associates, Inc., Pittsburgh, Pa.; Environmental Quality Control Labs & Consulting Service, Crab Orchard; Euclid, Inc., Cleveland, Oh.; ITT Industrial Credit Co., Richmond, Va.; Mechanical Maintenance Parts Corp., Charleston; P. M. Charles Coal Co., Rawl; Shelton-Witt Equipment Corp., Salem, Va.; Shireton Co., Henlawson; Sturm Environmental Services, Bridgeport; West Virginia Crane Service, Inc., Charleston.

Innisbrook Meeting

Members are reminded that the 1980 Semi-Annual Meeting is scheduled for February 14-17, at Innisbrook resort, Tarpon Springs, Fla. Pre-registration materials will be sent to all members when the program is completed.





INSURANCE AND BONDS

A broad range of insurance and financial services . . . custom-designed to meet the specific needs of businesses, associations, institutions, and individuals, by uniquely capable and professionally competent people.

Uniquely capable...
professionally competent

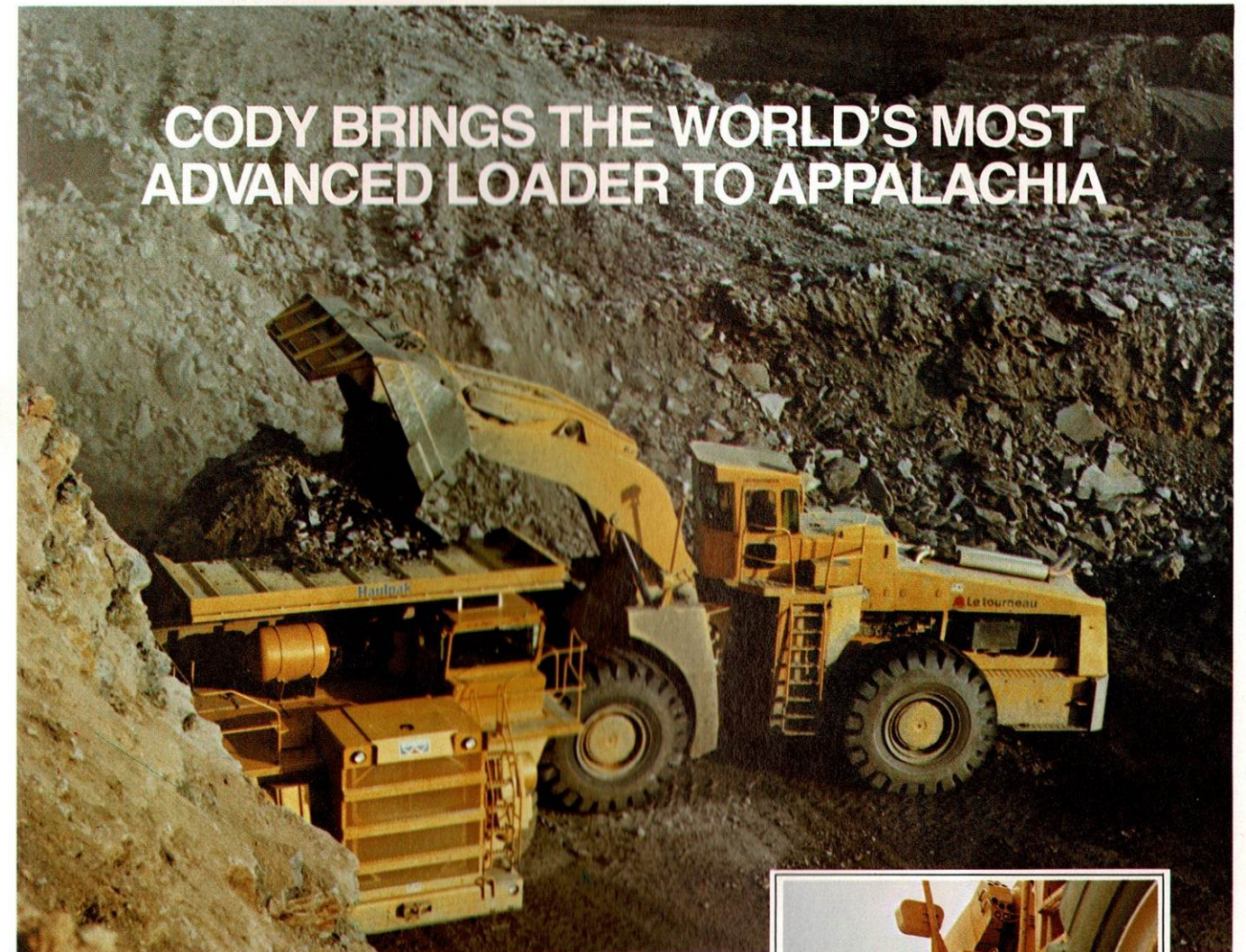


**MCDONOUGH
CAPERTON
SHEPHERD
GROUP**

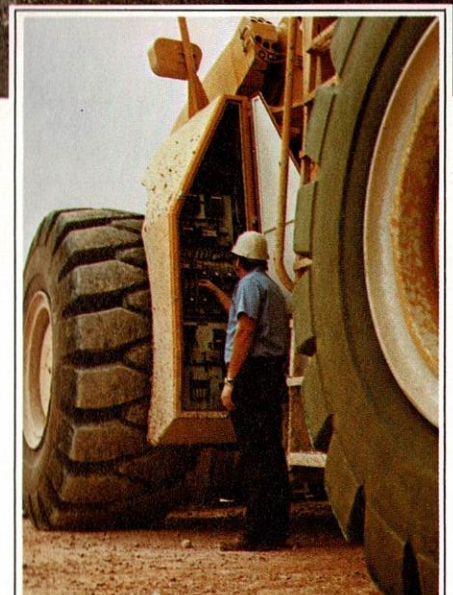
1014 Kanawha Blvd. E.
Charleston, W. Va. 25326

Offices In: Charleston, Beckley, Parkersburg, Wheeling, Fairmont, Huntington, Morgantown
and Princeton, W. Va. • Lynchburg, Va. • Washington, D.C. • Hamilton, Bermuda, BWI

CODY BRINGS THE WORLD'S MOST ADVANCED LOADER TO APPALACHIA



Mining, reclamation, and construction projects are more efficient and profitable when you use the Marathon LeTourneau LeTro-Loader. This front-end loader has the most advanced design features in the business: Powerful electric motors *in each wheel*, computer controls, solid-state circuitry, constant speed hydraulics. A traction control system and a 90° steering angle contribute to the loader's efficient operation. A built-in diagnostic meter simplifies servicing. For more information about the world's most advanced loader, contact Cody Equipment & Supply Co., Inc., Route 16 South, Beckley, West Virginia (Phone 304/255-1411), or Route 23, Wise, Virginia (Phone 703/679-5250), an authorized Marathon LeTourneau sales and service representative.



Compare these advantages:

- Peak performance
- Optimum maneuverability
- Shorter cycle time
- Longer tire life
- Traction control
- Constant speed hydraulics
- Faster service