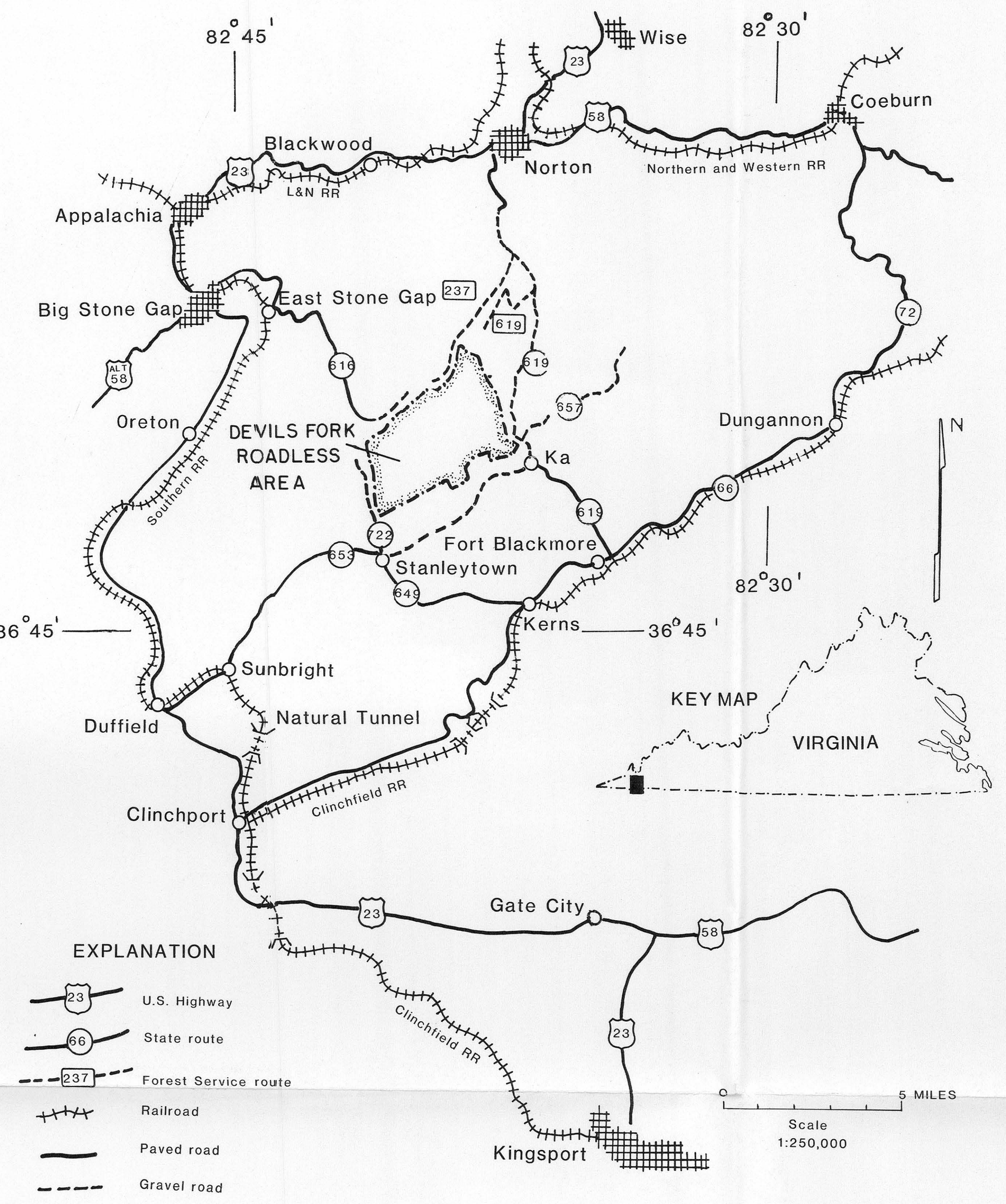

Figure 1.—Index map showing location of the Devils Fork Roadless Area.

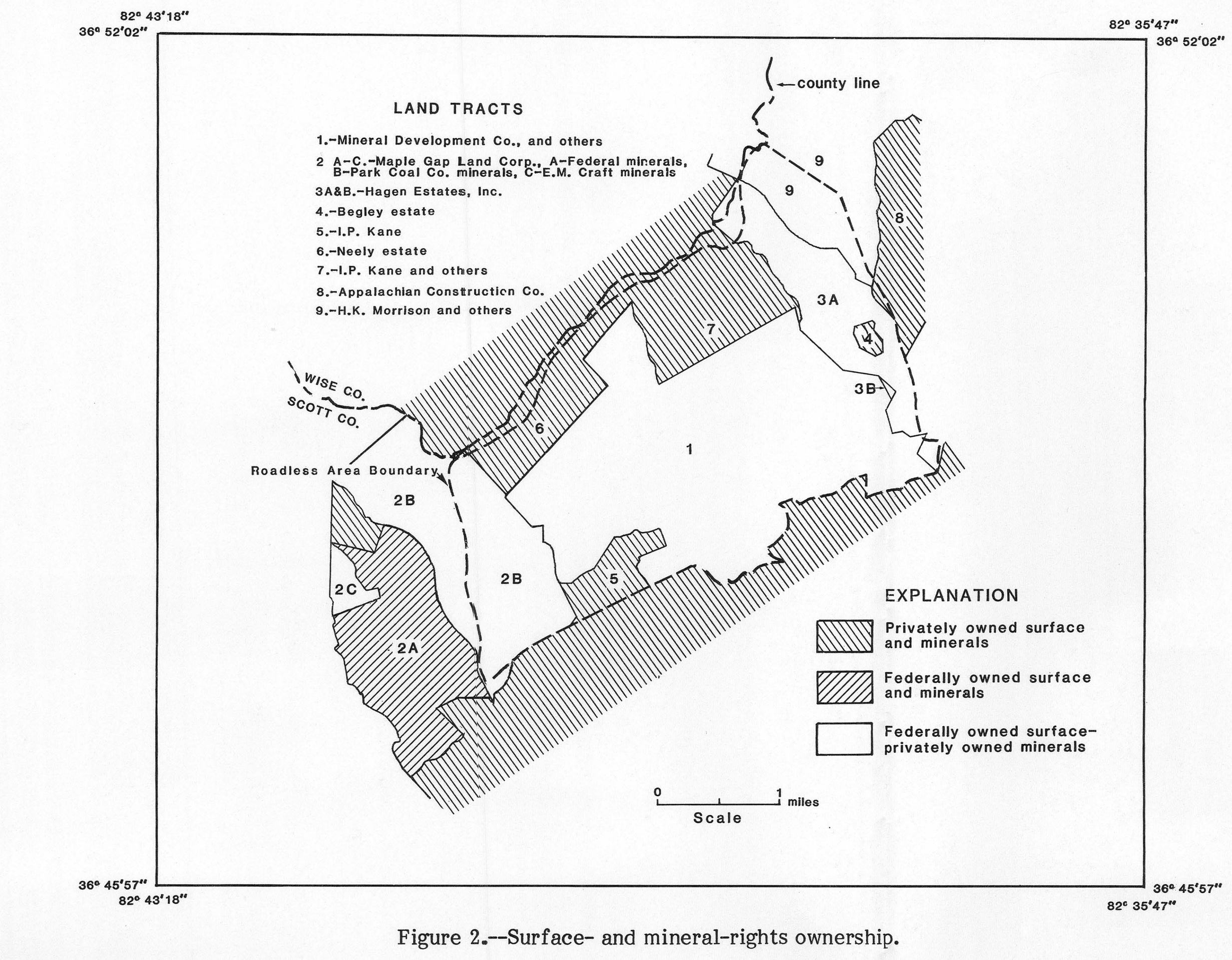

Figure 2.—Surface- and mineral-rights ownership.

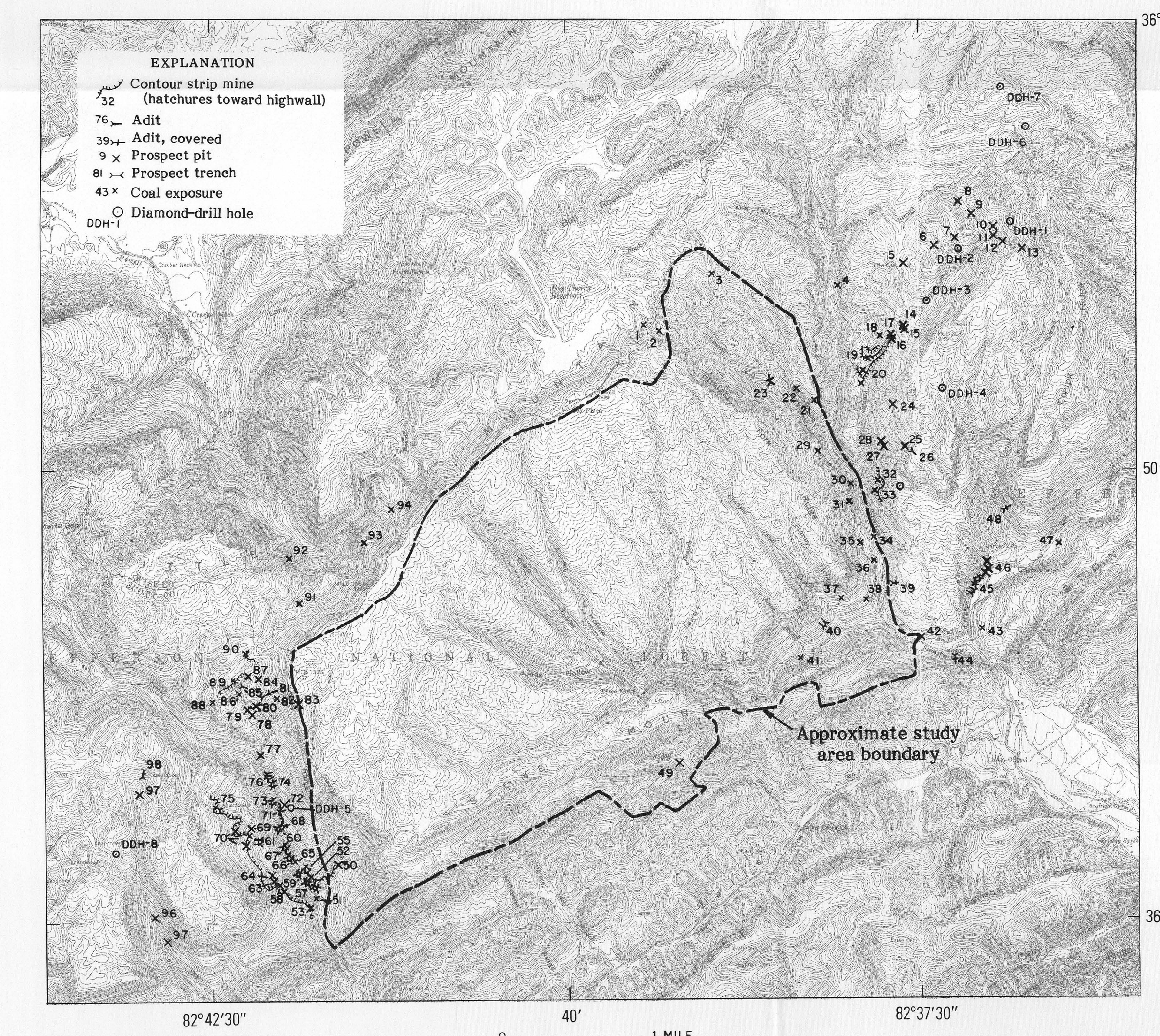

Figure 3.—Coal mine, prospect, and exposure localities.

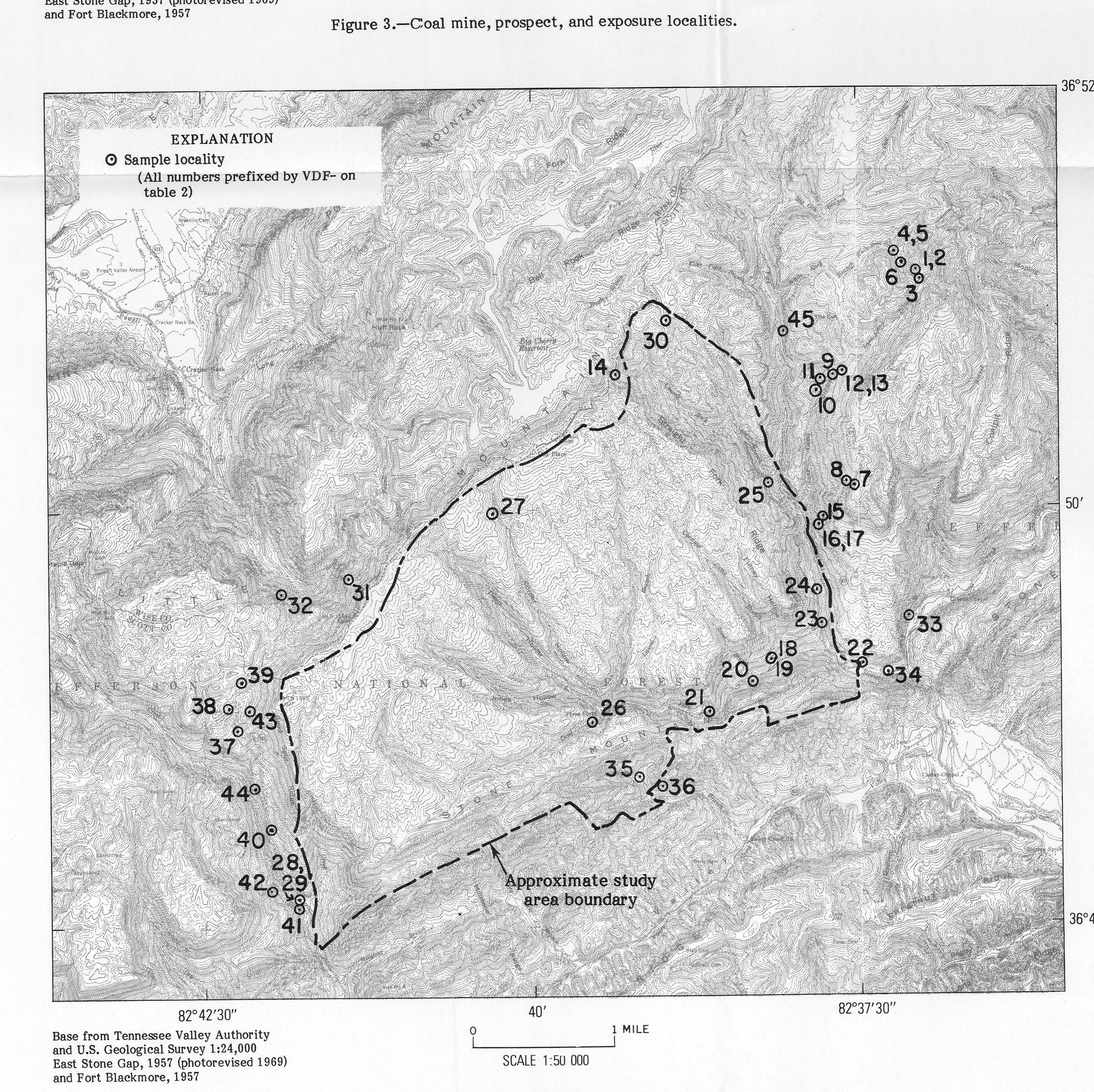

Figure 4.—Localities of coal and other rock samples collected by the U.S. Bureau of Mines.

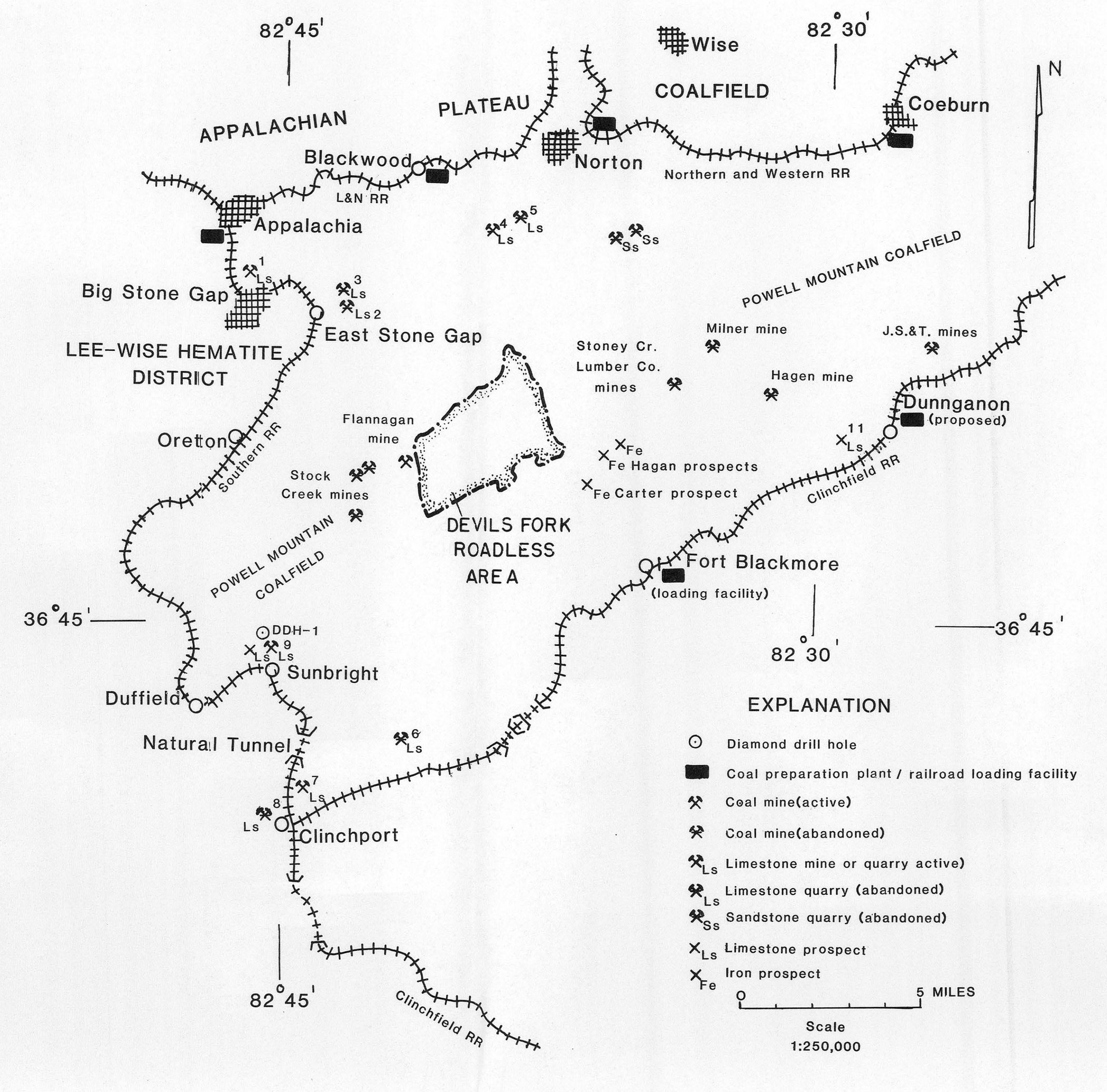

Figure 5.— Selected mines, prospects, and processing facilities in the Powell Mountain coal field and vicinity.

Studies Related To Wilderness

The Wilderness Act (Public Law 88-577, September 3, 1964) and related acts require the U.S. Geological Survey and the U.S. Bureau of Mines to survey certain areas on Federal lands to determine their mineral resource potential. Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of a survey of mines, quarries, prospects, and coal exposures in the vicinity of Devils Fork Roadless Area in the Jefferson National Forest, Scott County, Va. Devils Fork Roadless Area was classified as a Further Planning Area during the Second Roadless Area Review and Evaluation (RARE II) by the U.S. Forest Service, January 1979.

INTRODUCTION

The Devils Fork Roadless Area is in the Clinch Ranger district of the Jefferson National Forest, southwestern Virginia. It is located in Scott County, about 5 mi southeast of Big Stone Gap, Va., and is accessible from there via U.S. 23 to Duffield, Va., and then northeastward along State Route 653 (fig. 1). Access from the north is provided by State Routes 616, 619, and Forest Route 237. Southern access is provided by State Routes 619 and 649. The interior is accessible by foot along overgrown logging railroad grades and abandoned forest roads on the lower portions of Devil Fork, Straight Fork, and Roddy Branch.

The Devils Fork Roadless Area is located at the eastern edge of the Appalachian coal region and is within the Cumberland Mountain section of the Appalachian Plateau physiographic province. Most of the area is drained by Devil Fork and its tributaries. Clinch Rock Branch of Straight Creek, Roddy Branch of Valley Creek, and Stinking Creek, all tributary to the Clinch River, drain small fringe tracts. Altitudes range from about 1,550 ft on the lower part of Straight Fork to about 3,490 ft at Cox Place on Little Mountain. Vegetation varies from mixed hardwoods in the uplands to thickets of conifer, rhododendron, and laurel in moist protected areas, as in coves along drainage courses.

SURFACE- AND MINERAL-RIGHTS OWNERSHIP

Surface rights for about 80 percent of the Devils Fork Roadless Area are in Federal ownership. The remaining surface acreage and all of the mineral rights are in private ownership (fig. 2).

The largest land tract in Federal surface ownership (2,977 acres) was purchased in 1938 from the Mineral Development Company and others (fig. 2). Two road rights-of-way and all coal, oil, gas, and other minerals were retained, along with the right to mine, prospect, and drill for these minerals, subject to rules and regulations of the Secretary of Agriculture. These mineral rights were leased to P. C. Southworth, who subsequently applied for a special-use permit from the U.S. Forest Service to improve a portion of an abandoned road to serve as a service area for mining and to face up an exposed coal bed.

Mineral rights were retained on acreage at the west edge of the area by Maple Gap Coal Corporation (fig. 2). Maple Gap had leased mineral rights in this area continuously since about 1933. These mineral rights were subsequently sold in 1977 to Park Coal Company, Inc., of Kingsport, Tenn., which in 1983 leased the right to mine the Cove Creek coal bed and all overlying coal beds to Flannagan Energy, Ltd., of Bristol, Va.

Surface rights of two tracts on the eastern edge of the study area were purchased from the Hagen Estates, Inc., which retained all of the mineral rights in perpetuity. No leasing is known to have occurred on these tracts. Another tract was purchased from H. K. Morrison and others, with minerals also retained (fig. 2).

Surface-rights ownership of private tracts within the roadless area is in dispute and is uncertain. However, from information gathered during interviews with local landowners conducted at the time of the study, the ownership is approximately as shown in figure 2. No oil and gas leases were held in the study area in 1983, but an active lease was held on a nearby tract (2A, fig. 2) by George E. Howard of Gate City, Va.

PRESENT STUDIES

A U.S. Bureau of Mines (USBM) field reconnaissance was conducted by Paul T. Behum and Lyle E. Harris in the fall of 1979 and by Behum and Richard W. Hammack in the spring of 1981. Abandoned and active coal mines, prospects, and exposures were examined and sampled where possible and present and former mine owners were interviewed. Forty-five channel, chip, and grab samples were taken in or near the study area. All samples were analyzed spectrographically for 40 elements by the USBM Reno Research Center, Reno, Nev. Atomic absorption, X-ray fluorescence, radiometric, and chemical analyses were performed on selected samples. Clay and shale samples were evaluated for ceramic properties and lightweight aggregate potential by the USBM Tuscloosa Research Center, Tuscaloosa, Ala. The results of the Bureau study appears in Behum (1984). Other studies include a joint U.S. Bureau of Mines-U.S. Geological Survey mineral resource potential report (Englund and others, 1983), a geologic map (Englund and others, in press), and a geochemical survey (Grosz and others, in press).

MINING ACTIVITY

Mining and prospecting in and near the study area has been primarily for coal. Iron, limestone, and sandstone have been produced in nearby areas.

Coal

The earliest reported coal mining and prospecting in the vicinity of the Devils Fork Roadless Area were on Stock Creek (Campbell, 1893; Eby, 1923), and on Stoney Creek and Coalpit Branch (localities 43, 44, 46-48, fig. 3; Campbell and Woodruff, 1909). Mining and prospecting activities are outlined in table 1 and localities are shown on figure 3. Numerous natural and roadcut exposures are also indicated on figure 3.

Localities of coal and other rock samples collected by the USBM for this study are shown on figure 4. Coal analyses of selected samples is described in table 2.

Iron

Small residual iron and manganese oxide deposits are scattered throughout the Clinch Valley in carbonates of Cambrian and Ordovician age; the closest is located immediately south of the study area (Carter prospect, fig. 5; U.S. Bureau of Mines, 1944). Clinton Formation iron deposits of Silurian age were mined between 1982 and 1920 in the Lee-Wise hematite district immediately south of Big Stone Gap (fig. 5). Clinton Formation iron prospects were also developed on Buckner Ridge southeast of the study area by Patrick Hagen prior to 1920 (fig. 5; U.S. Bureau of Mines, 1944).

Limestone

Limestone has been quarried throughout the region for fluxstone, railroad ballast, concrete aggregate, roadstone, and agricultural limestone (fig. 5, localities 2, 3, 6, 7, and 8; Cooper, 1945; Brent, 1963). However, all of these quarries are in Cambrian and Ordovician formations which are not exposed in the study area. The Mississippian-age Greenbrier Limestone has been quarried north of the area (fig. 5, localities 1, 4, 5, and 6) for concrete aggregate, roadstone, and railroad ballast, and southwest of the study area for chemical use (fig. 5, locality 9; Eby, 1923, Evans and Eilertsen, 1957).

Sandstone

Sandstone has not been quarried extensively in the area except for limited use of an Early Mississippian age sandstone mined in Big Stone Gap for dimension stone (Eby, 1923). Small quarries, now abandoned, were developed west of the study area in the Lee Formation conglomerate along a Forest Service road.

REFERENCES CITED

Behum, P.T., 1984, Mineral investigations of the Devils Fork Roadless Area, Scott County, Virginia: U.S. Bureau of Mines Open-File Report 13-84.

Brent, W. B., 1963, Geology of the Clinchport quadrangle, Virginia: Virginia Division of Mineral Resources, Report of Investigation 5, 47 p.

Campbell, M. R., 1893, Geology of the Big Stone Gap coalfield of Virginia and Kentucky: U.S. Geological Survey Bulletin 111, 106 p.

Campbell, M. R. and Woodruff, E. G., 1909, The Powell Mountain coalfield, Scott and Wise Counties, Virginia, *in* Contributions to economic geology, 1909, Part II: U.S. Geological Survey Bulletin 431.

Cooper, B. N., 1945, Industrial limestones and dolomites in Virginia (Clinch Valley District): Virginia Geological Survey Bulletin 66, 269 p.

Eby, J. B., 1923, The geology and mineral resources of Wise County and the coal-bearing portion of Scott County, Virginia: Virginia Geologic Survey Bulletin 24, 617 p.

Englund, K. J., McKibben, T. M., and Sigleo, W. R., in press, Geologic map of the Devils Fork Roadless Area, Scott County, Virginia: U.S. Geological Survey Miscellaneous Field Studies Map MF-1611-A.

Englund, K. J., Sigleo, W. R., and Behum, P. T., 1983, Mineral resource potential map of the Devils Fork Roadless Area, Scott County, Virginia: U.S. Geological Survey Miscellaneous Field Studies Map MF-1611-C.

Evans, T. B., and Eilersten, N. A., 1957, Mining methods and costs at the Sunbright limestone mine, Foote Mineral Co., Sunbright, Virginia: U.S. Bureau of Mines Information Circular 7793, 44 p.

Grosz, A. E., Cooley, E. F., and McCollough, W. F., in press, Geochemical survey of the Devils Fork Roadless Area, Scott County, Virginia: U.S. Geological Survey Miscellaneous Field Studies Map MF-1611-B

U.S. Bureau of Mines, 1944, Fulton mineral lands, Scott County, Virginia: unpublished U.S. Bureau of Mines War Minerals Report on file at the USBM Intermountain Field Operations Center, Federal Center, Denver, Colo., 12 p.

Table 1.—*Coal mining and prospecting activity, Devils Fork Roadless Area*

Date	Locations[1]	Operator/mine	Remarks
Cove Creek Basin			
pre-1921	50, 63, 64, 66-69, 75, 77, 86, 87, 95, 99	Maple Gap Land Corp.	G. A. Kent, unpublished consultant report, courtesy Flannagan Energy, Ltd.; surface and underground prospects.
1934	66	Victor Coal Co., Inc. No. 1 mine	Hand-loaded carts with pony haulage, developed 3,000 feet along strike.
1934-1948	39, 59, 66, 67	Victor Coal Co., Inc. Nos. 2, 3, and 4 mines	Height of activity was 1939 to 1946.
1952-1953	54	Scott County Coal Co. No. 1 mine	Electric haulage; terminated because of decrease in quality and thickness of coal and increase in dip of the bed.
1955-1956	53, 58, 62, 75, 78-81, 83, 84, 89	Emit and Jack Blair	Surface and underground mining with rail-motor haulage; probably developed prospect trenches in vicinity.
1956-1958	90	Estell and Wayne Browning	Small surface mine.
1958-1963	60, 61	Rye Cove Coal Co. Nos. 1(A) and 2 mines	No. 1A mine development limited by roll in sandstone roof.
1961-1963	52, 56, 71, DDH-9	Mullins Coal Co.	Small surface and underground operations, core drilling.
1963-1964	52, 71, 73	Robin Coal Co.	Small underground operation, reopened surface mines.
1964-1974	74	Rye Cove Coal Co., No. 1(B) mine	Intermittent production.
1974	74	Wynn Energy, Ltd., No. 1 mine	Continuous miner with shuttle car face haulage, belt main haulage.
1975-1977	74	Scott Mining Co., No. 1 mine	Do.
1978-1981	74	J & M Coal Co. No. 1 mine	Conventional mining with conveyor main haulage, battery load-haul-dump face haulage.
1981	74	Flannagan Energy, Ltd. No. 1 mine	Conventional mining, presently about 300 tons per day production from one section and one shift.
Straight Fork-Devils Fork Basin			
1920's	23, 29	Stoney Creek Lumber Co. ?	Supplied a lumber railroad (Eby, 1923).
1960	45	Begley and Dooley	Small "punch" mines, supplied domestic fuel; may also have operated in 1940's and 1950's.
1960's	32, 33	Unknown	Contour strip and auger operation.
1960's	40	Mineral Development Co.	Two prospect adits developed.
1970's	8-17, 24-28, DDH 1-4	Cardinal Mining, Ltd.	Prospecting activities.
1977	19, 20	Cardinal Mining, Ltd.	Surface mining of four coalbeds.
1978	19, 20	Habco, Inc.	Reopened surface mine.
Late 1970's	DDH 5-7	Unknown Hagen Estates, Inc. leaseholder	Exploratory drilling.

1 Referenced locations are shown on figure 3.

TABLE 2.-- *Coal analyses, Devils Fork Roadless Area*

(Analyses by Division of Solid Fuel Mining and Preparation, Department of Energy, Pittsburgh, Pa. All are channel samples of weathered coal except where VDF-44, which was collected from a fresh-cut underground mine face. An attempt was made to penetrate the coal bed at least one foot to minimumize the effect of weathering. Abbreviations used: A.R., as recieved; M.F., moisture free; M.A.F., moisture and ash free; I.D.T., initial deformation temperature; S.T., softening temperature; F.T., fluid temperature; sulfur analyses by atomic absorption methods; other analyses by standard ASTM coat testing methods.

Sample number	Coal bed	Sample interval (inches)	Condition of sample	Proximate (percent) Moisture	Proximate Volatile matter	Proximate Fixed carbon	Proximate Ash	Ultimate (percent) Hydrogen	Ultimate Carbon	Ultimate Nitrogen	Ultimate Oxygen	Ultimate Sulfur	Calorific value (Btu)	Fusibility of ash (°F)	Free swelling index	Specific gravity (g/cc)	Sulfur forms (percent) Sulfate	Sulfur forms Pyritic	Sulfur forms Organic
VDF-7	C-6	27.0	A.R.	18.7	27.6	51.3	2.4	--	--	--	--	0.4	9,797	2,300 IDT	--	1.34	0.01	0.15	0.21
			M.F.	--	34.0	63.0	3.0	--	--	--	--	.5	12,058	2,430 ST			.01	.18	.26
			M.A.F.	--	35.0	65.0	--	--	--	--	--	.5	12,428	2,510 FT			.01	.19	.27
VDF-14	C-4	56.0	A.R.	7.0	24.8	35.9	32.3	--	--	--	--	.7	8,562	2,770 IDT	--	1.57	.02	.30	.41
			M.F.	--	26.7	38.5	34.8	--	--	--	--	.8	9,206	2,800 ST			.02	.32	.44
			M.A.F.	--	40.9	59.1	--	--	--	--	--	1.2	14,112	2,800 FT			.03	.50	.68
VDF-3	C-2	--[1]	A.R.	2.5	36.0	49.6	11.9	--	--	--	--	2.3	12,738	2,400 IDT	--	1.44	.01	1.37	.92
			M.F.	--	36.9	50.9	12.2	--	--	--	--	2.4	13,060	2,510 ST			.01	1.40	.94
			M.A.F.	--	42.0	58.0	--	--	--	--	--	2.7	14,868	2,640 FT			.01	1.59	1.07
VDF-8	do.	27.5	A.R.	29.1	21.4	30.0	19.5	--	--	--	--	0.5	5,923	2,560 IDT	--	1.57	.01	0.11	0.38
			M.F.	--	30.2	42.3	27.5	--	--	--	--	.7	8,354	2,650 ST			.01	.15	.53
			M.A.F.	--	41.6	58.4	--	--	--	--	--	1.0	11,515	2,730 FT			.01	.21	.73
VDF-43	do.	21.0	A.R.	8.07	29.63	55.19	7.11	--	--	--	--	1.08	12,289	2,010 IDT	--	--	.01	.31	.75
			M.F.	--	32.24	60.02	7.74	--	--	--	--	1.17	13,369	2,120 ST			--	--	--
			M.A.F.	--	34.94	65.06	--	--	--	--	--	1.27	14,490	2,240 FT			--	--	--
VDF-1	C-1[2]	24.0	A.R.	6.6	28.8	46.7	17.9	4.8	63.0	1.2	12.3	0.8	11,149	2,530 IDT	2.0	1.56	.01	.31	.48
			M.F.	--	30.8	50.1	19.1	4.4	67.4	1.3	6.9	.9	11,931	2,620 ST			.01	.34	.51
			M.A.F.	--	38.1	61.9	--	5.4	83.3	1.6	8.6	1.1	14,749	2,730 FT			.01	.41	.63
VDF-2	do.[3]	7.0	A.R.	4.0	24.6	27.3	44.1	--	--	--	--	0.4	7,628	2,620 IDT	--	1.42	.01	.21	.20
			M.F.	--	25.6	28.5	45.9	--	--	--	--	.4	7,944	2,740 ST			.01	.22	.21
			M.A.F.	--	47.4	52.6	--	--	--	--	--	.8	14,684	2,800 FT			.02	.41	.39
VDF-11	do.	15.0	A.R.	18.3	24.9	43.2	13.6	--	--	--	--	.6	8,457	2,430 IDT	--	1.42	.01	.15	.49
			M.F.	--	30.4	53.0	16.6	--	--	--	--	.8	10,353	2,510 ST			.01	.18	.60
			M.A.F.	--	36.5	63.5	--	--	--	--	--	1.0	12,416	2,620 FT			.01	.22	.72
VDF-18	do.	29.0	A.R.	4.2	33.2	56.4	6.2	5.3	75.2	1.7	--	0.7	13,313	2,100 IDT	1.5	1.30	.01	.13	.53
			M.F.	--	34.7	58.8	6.5	5.1	78.5	1.8	--	.7	13,898	2,230 ST			.01	.13	.56
			M.A.F.	--	37.1	62.9	--	5.4	83.9	1.9	--	.8	14,860	2,320 FT			.01	.14	.60
VDF-20	do.	12.5	A.R.	5.8	32.2	50.1	11.9	5.2	68.8	1.4	10.9	1.9	12,355	1,980 IDT	4.5	1.38	.01	.83	1.04
			M.F.	--	34.2	53.2	12.6	4.8	73.0	1.5	6.1	2.0	13,112	2,060 ST			.01	.88	1.10
			M.A.F.	--	39.2	60.8	--	5.5	83.6	1.7	7.0	2.3	15,006	2,130 FT			.01	1.01	1.26
VDF-24	do.	12.0	A.R.	19.7	27.3	43.5	9.5	5.4	52.3	1.4	30.7	0.8	8,880	2,110 IDT	--	1.38	.01	0.14	0.62
			M.F.	--	34.0	54.1	11.9	3.9	65.1	1.7	16.5	1.0	11,060	2,220 ST			.01	.17	.77
			M.A.F.	--	38.6	61.4	--	4.5	73.8	1.9	18.7	1.1	12,548	2,310 FT			.01	.19	.87
VDF-42	do.	20.0	A.R.	5.6	30.0	55.7	8.7	5.3	72.3	1.6	11.6	0.5	12,794	2,500 IDT	4.5	1.36	0.01	0.05	0.48
			M.F.	--	31.8	59.0	9.2	4.9	76.5	1.7	7.1	.6	13,551	2,610 ST			.01	.05	.51
			M.A.F.	--	35.0	65.0	--	5.4	84.3	1.9	7.8	.6	14,925	2,700 FT			.01	.06	.56
Average	do.	18.75	A.R.	10.0	29.4	49.3	11.3	5.2	66.3	1.5	16.4	.87	11,158	--	--	1.40	.01	.27	.55
VDF-6	Stock Creek	37.0	A.R.	7.5	29.0	51.6	11.9	5.0	66.1	1.5	14.7	.8	11,698	2,630 IDT	1.0	1.29	.01	.20	.55
			M.F.	--	31.4	55.9	12.3	4.5	71.5	1.6	8.7	.8	12,649	2,770 ST			.01	.21	.60
			M.A.F.	--	35.9	64.1	--	5.1	82.0	1.9	10.0	.9	14,512	2,880 FT			.01	.25	.70
VDF-9	do.	29.0	A.R.	4.7	33.6	54.6	7.1	5.3	73.8	1.5	10.5	1.9	13,204	1,990 IDT	5.0	1.37	.01	1.16	.73
			M.F.	--	35.3	57.3	7.4	5.0	77.5	1.5	6.6	2.0	13,862	2,070 ST			.02	1.22	.79
			M.A.F.	--	38.1	61.9	--	5.4	83.7	1.7	7.1	2.1	14,977	2,200 FT			.02	1.32	.85
VDF-15	do.	22.0	A.R.	6.8	32.7	54.1	6.4	--	--	--	--	1.3	12,707	2,080 IDT	1.0	1.38	.01	0.40	.91
			M.F.	--	35.1	58.0	6.8	--	--	--	--	1.4	13,638	2,170 ST			.01	.43	.98
			M.A.F.	--	37.7	62.3	--	--	--	--	--	1.5	14,650	2,260 FT			.01	.46	1.04
VDF-25	do.	14.5	A.R.	12.9	29.9	50.0	7.2	5.5	62.8	1.1	22.5	0.8	11,222	1,950 IDT	--	1.25	.01	.09	0.69
			M.F.	--	33.3	57.4	8.3	4.7	72.0	1.3	12.8	.9	12,878	2,040 ST			.01	.10	.79
			M.A.F.	--	37.4	62.6	--	5.1	78.6	1.4	8.3	1.0	14,041	2,120 FT			.01	.11	.86
VDF-31	do.	15.0	A.R.	17.2	23.5	42.4	16.9	--	--	--	--	0.5	8,265	2,650 IDT	--	1.48	.01	.19	.33
			M.F.	--	28.4	51.2	20.4	--	--	--	--	.6	9,986	2,750 ST			.01	.23	.39
			M.A.F.	--	35.7	64.2	--	--	--	--	--	.8	12,542	2,800 FT			.01	.29	.49
VDF-37	do.	15.0	A.R.	23.6	25.7	43.5	7.2	--	--	--	--	.6	8,840	2,230 IDT	--	1.44	.01	.21	.33
			M.F.	--	33.7	56.9	9.4	--	--	--	--	.7	11,577	2,310 ST			.01	.27	.43
			M.A.F.	--	37.2	62.8	--	--	--	--	--	.8	12,779	2,400 FT			.02	.30	.48
VDF-39	do.	10.5	A.R.	18.8	26.2	42.3	12.7	--	--	--	--	.6	8,831	2,000 IDT	--	1.46	.02	.31	.24
			M.F.	--	32.3	52.1	15.6	--	--	--	--	.7	10,881	2,100 ST			.02	.39	.39
			M.A.F.	--	38.2	61.8	--	--	--	--	--	.8	12,897	2,190 FT			.02	.46	.46
VDF-41	do.	42.0	A.R.	6.2	29.3	49.9	14.6	4.9	63.8	1.4	14.8	.5	11,669	2,800 IDT	1.5	1.36	.01	.07	.42
			M.F.	--	31.3	53.2	15.5	4.5	68.1	1.5	9.8	.5	12,443	2,800 ST			.02	.07	.45
			M.A.F.	--	37.0	63.0	--	5.4	80.6	1.8	11.6	.6	14,730	2,800 FT			.02	.08	.53
Average	do.	23.1	A.R.	12.8	28.8	48.6	10.5	5.2	66.6	1.4	15.6	.88	10,805	--	--	1.38	.01	.33	.53
VDF-4	Cove Creek, upper split[2]	32.0	A.R.	3.3	36.6	54.4	5.7	5.4	76.3	1.7	10.0	1.0	13,708	2,210 IDT	--	1.32	.01	.23	.76
			M.F.	--	37.8	56.3	5.9	5.2	78.9	1.7	7.3	1.0	14,175	2,320 ST			.01	.23	.78
			M.A.F.	--	40.2	59.8	--	5.6	83.8	1.9	7.7	1.1	15,063	2,410 FT			.02	.25	.83
VDF-5	do. lower split[3]	3.0	A.R.	2.6	20.4	27.0	48.0	--	--	--	--	0.9	7,097	2,650 IDT	--	1.81	.02	.56	.35
			M.F.	--	23.0	27.7	49.3	--	--	--	--	1.0	7,288	2,770 ST			.02	.58	.36
			M.A.F.	--	45.3	54.7	--	--	--	--	--	1.9	14,369	2,800 FT			.04	1.13	.71
VDF-16	do.[2]	22.0	A.R.	4.8	32.7	53.8	8.7	--	--	--	--	0.9	13,037	2,160 IDT	6.0	1.41	.02	.29	.64
			M.F.	--	34.3	56.5	9.2	--	--	--	--	1.1	13,691	2,310 ST			.02	.30	.67
			M.A.F.	--	37.8	62.2	--	--	--	--	--	1.1	15,071	2,430 FT			.02	.34	.74
VDF-17	do.[3]	6.0	A.R.	19.0	24.6	38.7	17.7	--	--	--	--	0.7	7,625	2,590 IDT	--	1.41	.01	.28	.38
			M.F.	--	30.4	47.7	21.9	--	--	--	--	.8	9,418	2,670 ST			.01	.35	.48
			M.A.F.	--	38.4	61.1	--	--	--	--	--	1.1	12,057	2,770 FT			.02	.45	.61
VDF-22	do.	15.0	A.R.	25.8	25.4	40.2	8.2	--	--	--	--	.6	7,780	2,170 IDT	--	1.38	0.01	0.14	0.62
			M.F.	--	34.2	54.2	11.6	--	--	--	--	.6	10,485	2,250 ST			.01	.17	.77
			M.A.F.	--	38.8	61.2	--	--	--	--	--	.8	11,867	2,350 FT			.01	.19	.87
VDF-28	do.[2]	22.5	A.R.	10.2	27.1	48.0	14.7	--	--	--	--	.7	10,649	2,510 IDT	3.0	1.39	.01	.09	.38
			M.F.	--	30.2	53.5	16.3	--	--	--	--	.8	11,853	2,600 ST			.01	.09	.39
			M.A.F.	--	36.1	63.9	--	--	--	--	--	1.0	14,162	2,720 FT			.01	.11	.47
VDF-29	do.[3]	10.0	A.R.	22.9	22.8	37.0	17.3	--	--	--	--	0.5	7,057	2,800 IDT	--	1.38	.01	.10	.44
			M.F.	--	29.6	48.0	22.4	--	--	--	--	.7	9,159	2,800 ST			.01	.14	.60
			M.A.F.	--	38.2	61.8	--	--	--	--	--	.9	11,802	2,800 FT			.01	.16	.68
VDF-33	do.	29.0	A.R.	9.9	27.6	52.3	10.2	--	--	--	--	.6	11,334	2,620 IDT	--	1.34	.01	.07	.54
			M.F.	--	30.7	58.0	11.2	--	--	--	--	.7	12,582	2,740 ST			.01	.08	.60
			M.A.F.	--	34.6	65.4	--	--	--	--	--	.8	14,183	2,800 FT			.01	.09	.67
VDF-38	do.	34.5	A.R.	3.9	33.1	48.0	15.0	5.1	67.8	1.2	10.2	.5	12,200	2,570 IDT	3.0	1.38	.01	.09	.38
			M.F.	--	34.5	49.8	15.7	4.9	70.6	1.3	7.1	.5	12,694	2,700 ST			.01	.09	.39
			M.A.F.	--	40.9	59.1	--	5.8	83.7	1.5	8.4	.6	15,049	2,790 FT			.01	.11	.47
VDF-44	do.	45.6	A.R.	1.78	35.64	50.17	12.41	5.37	71.76	1.43	8.40	.63	12,917	2,770 IDT	4.5	--	.02	.15	.46
			M.F.	--	36.29	51.07	12.64	5.27	73.06	1.46	6.94	.64	13,150	2,870 ST			.02	.15	.47
			M.A.F.	--	41.54	58.46	--	6.03	83.62	1.67	7.95	.73	15,052	2,910 FT			.02	.17	.54
Average	do.	31.0	A.R.	10.4	29.4	47.0	12.2	5.3	72.0	1.4	9.5	.70	10,700	--	--	1.38	.01	.16	.50
VDF-13	Cove Creek, lower split[2]	10.0	A.R.	3.3	17.9	21.9	56.9	--	--	--	--	1.2	5,153	2,790 IDT	--	1.72	.01	.90	.29
			M.F.	--	18.5	22.6	58.9	--	--	--	--	1.2	5,331	2,800 ST			.01	.93	.30
			M.A.F.	--	45.0	55.0	--	--	--	--	--	3.0	12,969	2,800 FT			.03	2.26	.72
VDF-12	do.[3]	20.5	A.R.	5.4	31.0	49.2	14.4	5.1	66.7	1.5	11.6	0.7	11,955	2,800 IDT	4.5	1.29	.01	0.15	.56
			M.F.	--	32.8	52.0	15.2	4.7	70.5	1.6	7.2	.8	12,643	2,800 ST			.01	.16	.59
			M.A.F.	--	38.7	61.3	--	5.6	83.2	1.9	8.5	1.9	14,918	2,800 FT			.02	.19	.69
VDF-32	Squire Jim	20.0	A.R.	38.2	23.8	32.7	5.4	--	--	--	--	0.3	6,207	2,490 IDT	--	1.40	.01	.15	.14
			M.F.	--	38.4	52.9	8.7	--	--	--	--	.5	10,052	2,590 ST			.01	.24	.23
			M.A.F.	--	42.1	57.9	--	--	--	--	--	.5	11,052	2,680 FT			.01	.26	.25
VDF-45	do.	23.0	A.R.	12.44	25.40	41.48	20.68	--	--	--	--	.45	9,262	2,910 IDT	--	--	.01	.12	.33
			M.F.	--	29.01	47.37	23.62	--	--	--	--	.52	10,578	2,910 ST			.01	.13	.37
			M.A.F.	--	37.99	62.01	--	--	--	--	--	.68	13,850	2,910 FT			.01	.17	.49

1 Grab sample from prospect stockpile.
2 Upper bench of coal bed.
3 Lower bench of coal bed.

MAPS SHOWING MINES, QUARRIES, PROSPECTS, AND EXPOSURES IN THE DEVILS FORK ROADLESS AREA, SCOTT COUNTY, VIRGINIA

By
Paul T. Behum, U.S. Bureau of Mines
1984

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