PREPARED WITH THE COOPERATION OF
THE UNIVERSITY OF KENTUCKY AND
THE KENTUCKY GEOLOGICAL SURVEY

Base map by Topographic Division U. S. Geological Survey, 1916

FIGURE 4. MAP OF THE CORNETTSVILLE QUADRANGLE, KENTUCKY, SHOWING MINED AREAS AND THICKNESSES OF THE FIRE CLAY, HAZARD, AND HINDMAN COAL BEDS

Scale 1:62500

Contour interval 50 feet
Datum is mean sea level

EXPLANATION FOR FIGURE 4

Hazard coal
Thickness interval 14 inches.

Fire Clay coal
Thickness interval 7 inches.
Thickness lines are for coal above the first clay parting.

THICKNESS LINES
Thickness of coal beds in inches; dashed where control is weak.

Hindman coal

Abandoned strip mine in Hindman coal

Hazard coal

Fire Clay coal

MINED AREAS
Approximate extent of mined areas as of January 1, 1950.

Location and number of graphic coal section for Hazard coal and Hindman coal

Location and number of graphic coal section for Fire Clay coal

EXPLANATION FOR FIGURE 5

Hazard No. 7 coal

Leatherwood coal

THICKNESS LINES
Thickness of coal beds in inches; dashed where control is weak. Thickness intervals are 14 inches.

Hazard No. 7 coal

Leatherwood coal

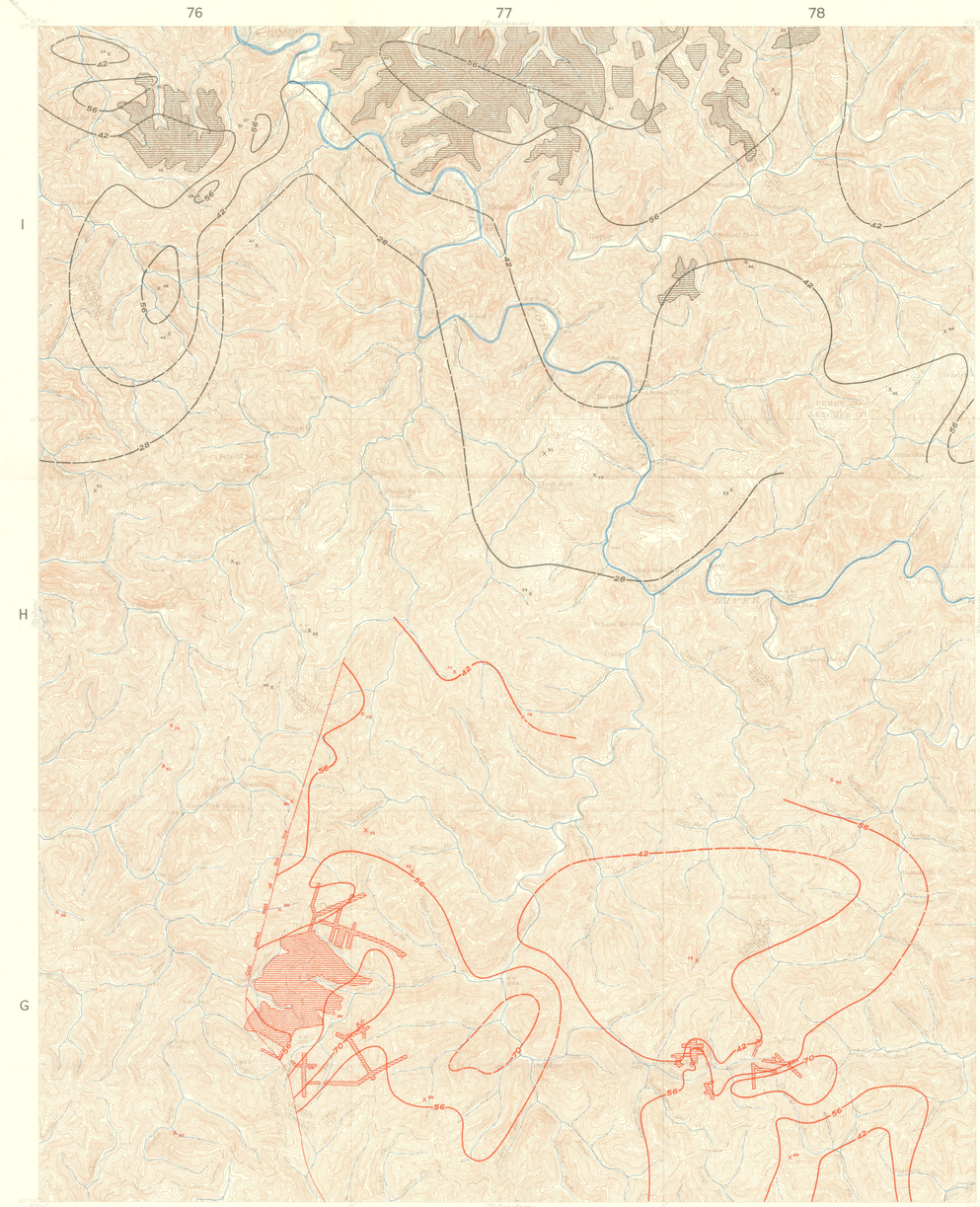
MINED AREAS
Approximate extent of mined areas as of January 1, 1950.

Location and number of graphic coal section for Hazard No. 7 coal

Location and number of graphic coal section for Leatherwood coal

H
Carter coordinate system designations
See figure 7.

APPROXIMATE MEAN DECLINATION, 1955



Base map by Topographic Division U. S. Geological Survey, 1916

FIGURE 5. MAP OF THE CORNETTSVILLE QUADRANGLE, KENTUCKY, SHOWING MINED AREAS AND THICKNESSES OF THE HAZARD NO. 7 AND LEATHERWOOD COAL BEDS

Scale 1:62500

Contour interval 50 feet
Datum is mean sea level

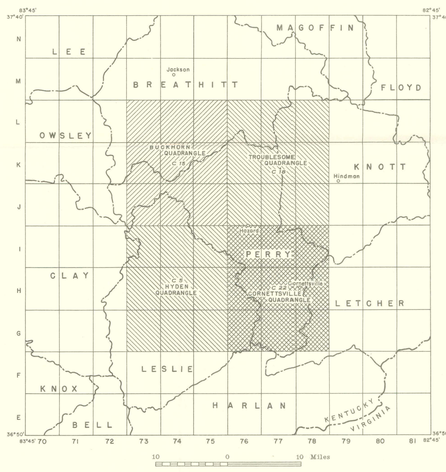


FIGURE 7. INDEX MAP SHOWING THE LOCATION OF THE HYDEN, BUCKHORN, TROUBLESOME, AND CORNETTSVILLE QUADRANGLES

Marginal letters and numbers are those of the Carter coordinate system.

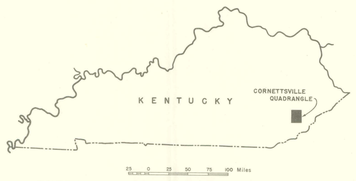


FIGURE 6. INDEX MAP OF KENTUCKY SHOWING LOCATION OF THE CORNETTSVILLE QUADRANGLE

TABLE 1 ANALYSES OF FIRE CLAY, HAZARD NO. 7, AND HINDMAN COAL BEDS, IN THE CORNETTSVILLE QUADRANGLE, KENTUCKY

Coal sampled by U. S. Geological Survey, 1950. Analyses by U. S. Bureau of Mines

Location on map	Bureau of Mines laboratory sample number	Coal bed	Form of analysis	Proximate analysis (percent)				Ultimate analysis (percent)					Air drying loss	Heating value B.t.u. per lb.	Free swelling index
				Moisture	Volatile matter	Fixed carbon	Ash	Sulfur	Hydrogen	Carbon	Nitrogen	Oxygen			
A	D-54495	Fire Clay	A	4.6	33.5	52.5	9.5	0.7	5.1	72.2	1.5	11.0	2.8	12880	5
			B		39.0	61.0		0.9	5.4	83.9	1.8	8.0		14970	
B	D-54489	Fire Clay	A	3.0	37.0	55.4	4.6	0.8	5.4	77.5	1.8	9.9	1.5	13840	5½
			B		40.0	60.0		0.8	5.5	83.9	1.9	7.9		14980	
C	D-54490	Fire Clay	A	3.2	35.6	54.8	6.4	0.9	5.3	76.1	1.7	9.6	1.7	13590	5
			B		39.4	60.6		1.0	5.5	84.2	1.9	7.4		14630	
D	D-54491	Fire Clay	A	3.2	35.8	54.1	6.9	0.8	5.4	75.5	1.6	9.8	1.6	13450	5½
			B		39.8	60.2		0.9	5.6	84.0	1.8	7.7		14860	
E	D-54487	Fire Clay	A	3.7	34.9	54.8	6.6	0.7	5.3	75.4	1.6	10.4	2.1	13480	5
			B		38.9	61.1		0.8	5.5	84.0	1.8	7.9		15020	
F	D-49809	Fire Clay	A	3.6	36.4	56.6	3.4	0.6	5.5	77.3	1.8	11.4	0.9	13730	3
			B		39.1	60.9		0.6	5.5	83.2	1.9	8.8		14770	
G	D-49806	Fire Clay	A	3.2	37.4	55.0	4.4	0.8	5.5	76.9	1.7	10.7	0.8	13700	4½
			B		40.4	59.6		0.8	5.5	83.2	1.8	8.7		14810	
H	D-54492	Hazard #7	A	4.2	35.0	54.3	6.5	0.6	5.3	74.8	1.6	11.3	2.3	13280	3
			B		39.1	60.9		0.6	5.4	83.8	1.7	8.5		14890	
I	D-49810	Hazard #7	A	4.7	35.2	54.7	5.4	0.6	5.3	75.0	1.5	12.2	2.0	13290	2½
			B		39.1	60.9		0.7	5.3	83.3	1.7	9.0		14770	
J	D-49807	Hazard #7	A	4.7	36.9	52.2	6.2	0.6	5.4	74.2	1.5	12.1	1.9	13170	4
			B		41.5	58.5		0.6	5.5	83.4	1.7	8.8		14790	
K	D-54488	Hindman	A	3.1	36.8	51.7	8.4	2.5	5.2	72.6	1.3	10.0	1.3	13130	5½
			B		41.6	58.4		2.8	5.5	81.9	1.5	8.3		14830	
L	D-49808	Hindman	A	3.9	37.2	53.4	5.5	1.8	5.4	75.3	1.4	10.6	1.8	13350	5½
			B		41.1	58.9		2.0	5.5	83.2	1.6	7.7		14740	

A, As received; B, Moisture and ash free.

TABLE 2. ESTIMATED ORIGINAL AND REMAINING RESERVES IN THE HINDMAN, HAZARD NO. 7, HAZARD, LEATHERWOOD, AND FIRE CLAY COAL BEDS
CORNETTSVILLE QUADRANGLE, KENTUCKY
(Thousands of short tons)
(All covered by less than 1,500 feet of overburden)

Areas by Carter coordinates	ORIGINAL RESERVES												Mined and lost in mining (estimated) to Jan. 1, 1950	REMAINING RESERVES as of January 1, 1950				
	Measured and indicated reserves undifferentiated				Inferred reserves				Total original reserves in all categories					Measured and indicated reserves undifferentiated				Total remaining reserves measured and indicated, undifferentiated and inferred.
	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total		In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	
HINDMAN																		
76 H			3,236	3,236			2,868	2,868			6,104	6,104				3,236	3,236	6,104
76 I			19,384	19,384			3,575	3,575			22,959	22,959	6,024			13,360	13,360	16,935
77 H			1,469	1,469			216	216			1,685	1,685				1,469	1,469	1,685
77 I			18,934	18,934			1,655	1,655			20,589	20,589	7,342			11,592	11,592	13,249
78 I			7,555	7,555			3,054	3,054			10,609	10,609	3,572			3,983	3,983	7,037
Total			50,578	50,578			11,368	11,368			61,946	61,946	16,938			33,640	33,640	45,008
HAZARD NO. 7																		
76 G	6,596			6,596	10,080	2,532		12,612	16,676	2,532		19,208		6,596			6,596	19,208
76 H	6,407	4,595	3,791	14,793	1,134	1,380	316	2,830	7,541	5,975	4,107	17,623		6,407	4,595	3,791	14,793	17,623
76 I	6,725	18,022	17,656	42,403	1,622	248		1,870	8,347	18,270	17,656	44,273	3,662	6,725	16,779	15,237	38,741	40,611
77 G	2,583	1,460	1,904	5,947	5,437	18,207	1,453	25,097	8,020	19,667	3,357	31,044		2,583	1,460	1,904	5,947	31,044
77 H	2,632	7,400	2,200	12,232	631	417	6,972	8,020	3,263	7,817	9,172	20,252		2,632	7,400	2,200	12,232	20,252
77 I	2,216	4,210	36,908	43,334	941	2,037		2,978	3,157	6,247	36,908	46,312	11,008	2,216	4,074	26,036	32,326	35,304
78 G	1,228	4,119	11,712	17,059	1,593	1,980	1,600	5,173	2,821	6,099	13,312	22,223		1,228	4,119	11,712	17,059	22,223
78 H	477	4,225	4,061	8,763			1,475	1,475	477	4,225	5,536	10,238		477	4,225	4,061	8,763	10,238
78 I	276	6,175	27,490	33,941		3,442	1,919	5,361	276	9,617	29,409	39,302	4,921	276	5,653	23,091	29,020	34,381
Total	29,140	50,197	105,722	185,059	21,438	30,243	13,732	65,416	50,678	80,440	119,457	250,475	19,591	29,140	48,296	88,032	165,468	230,884
HAZARD																		
76 H	8,796	6,685	2,422	17,903	4,759	875		5,634	13,555	7,560	2,422	23,537		8,796	6,685	2,422	17,903	23,537
76 I	1,236	23,898	43,553	67,687			115	115	1,236	22,898	43,668	67,802	1,353	1,236	21,545	43,553	66,334	66,449
77 H	6,374	5,677	333	12,384	301	761	105	1,187	6,675	6,438	438	13,571		6,374	5,677	333	12,384	13,571
77 I	5,446	10,629	5,597	21,672	1,679	682	64	2,425	7,125	11,311	5,661	24,097	155	5,446	10,474	5,597	21,517	22,942
78 H	1,675	7,474		9,149		1,463	178	1,641	1,675	8,937	178	10,790		1,675	7,474		9,149	10,790
78 I	8,086	4,588		12,674	3,232	3,100		6,332	11,318	7,688		19,026		8,086	4,588		12,674	19,026
Total	31,613	57,951	51,905	141,469	9,991	6,901	462	17,354	41,604	64,852	52,367	158,823	1,508	31,613	56,443	51,905	139,961	157,315
LEATHERWOOD																		
76 G	3,492	34,657	49,873	88,022					3,492	34,657	49,873	88,022	1,721	3,492	34,657	48,152	86,301	86,301
76 H	8,990	8,768	10,703	28,461					8,990	8,768	10,703	28,461		8,990	8,768	10,703	28,461	28,461
77 G		12,477	53,230	65,707						12,477	53,230	65,707	1,222		12,477	51,988	64,465	64,475
77 H		6,053	10,294	16,347		440		440		6,493	10,294	16,787			6,053	10,294	16,347	16,787
78 G		8,606	51,993	60,599						8,606	51,993	60,599	886		8,306	51,407	59,713	59,713
78 H			469	469		251	664	915		251	1,133	1,384				469	469	1,384
Total	12,482	70,561	176,562	259,605		691	664	1,355	12,482	71,252	177,226	260,960	3,839	12,482	70,261	173,023	255,766	257,121
FIRE CLAY																		
76 G	12,567	29,115	724	42,406	17,325	8,805	844	26,974	29,892	37,920	1,568	69,380		12,567	29,115	724	42,406	69,380
76 H	1,707	41,851	4,948	48,506		15,281	36,479	51,760	1,707	57,132	41,427	100,266		1,707	41,851	4,948	48,506	100,266
76 I	5,992	27,411	48,013	81,316		446	2,109	2,555	5,992	27,757	50,122	83,871	18,753	4,839	19,652	38,073	62,563	65,118
77 G	19,547	32,313	7,045	58,905	6,458	21		6,479	26,005	32,334	7,045	65,384		19,547	32,313	7,045	58,905	65,384
77 H	10,222	36,175	19,332	65,729		1,403	7,871	9,274	10,222	37,578	27,203	75,003		10,222	36,175	19,332	65,729	75,003
77 I	17,158	36,717	2,769	56,644	2,172	913		3,085	19,330	37,630	2,769	59,729	17,539	16,816	22,102	1,137	39,105	42,190
78 G	23,219	28,927	1,914	54,060	7,349			7,349	30,568	28,927	1,914	61,409		23,219	28,927	1,914	54,060	61,409
78 H	10,442	27,040	13,603	51,085	68			68	10,510	27,040	13,603	51,153		10,442	27,040	13,603	51,085	51,153
78 I	13,769	34,474	15,906	64,149	224			224	13,993	34,474	15,906	64,373	22,519	12,698	21,708	7,224	41,630	41,854
Total	114,623	293,923	114,254	522,800	33,596	26,869	47,303	107,768	148,219	320,792	161,557	630,568	58,811	111,057	258,883	94,049	463,989	571,757
Grand total	187,858	472,632	499,021	1,159,511	65,025	64,704	73,532	203,261	252,883	537,336	572,553	1,362,772	100,687	184,292	433,883	440,649	1,058,824	1,262,085

PRELIMINARY COAL MAP OF THE CORNETTSVILLE QUADRANGLE, PERRY KNOTT, LETCHER, HARLAN, AND LESLIE COUNTIES, KENTUCKY

By
J. E. Johnston, P. T. Stafford, and S. W. Welch

1955

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