



COAL NOMENCLATURE IN THE CARBON MINING DISTRICT OF THE HANNA COAL FIELD

SUMMARY OF COAL RESOURCES AND RESERVE BASE IN MILLIONS OF TONS

Coal name (Weighted average thickness, feet)	MEASURED RESERVE BASE		INDICATED RESERVE BASE		TOTAL RESERVE BASE		INFERRED RESOURCES		GRAND TOTAL	
	Overburden thickness (feet):		Overburden thickness (feet):		Overburden thickness (feet):		Overburden thickness (feet):		Overburden thickness (feet):	
	0-100	100-200	0-100	100-200	0-100	100-200	0-100	100-200	0-100	100-200
Carbon No. 6 (5.94)	1.02	1.02	0.04	0.04	1.06	1.06	—	—	1.06	1.06
Carbon No. 5 (8.36)	0.42	0.37	0.79	0.05	0.04	0.09	0.47	0.41	0.88	0.88
Johnson (13.66)	13.70	13.21	26.91	6.38	35.31	41.69	20.08	48.52	68.60	68.60

COAL ANALYSES

ANALYTICAL DATA FOR:	Carbon No. 6 High volatile C bituminous			Carbon No. 5 High volatile C bituminous		Johnson Coal Bed High volatile C bituminous		
	AVERAGE			AVERAGE		AVERAGE		
	RANGE ANALYSIS (3-11 samples)	PROXIMATE (11 samples)	ULTIMATE (3 samples)	PROXIMATE (1 sample)	ULTIMATE (1 sample)	RANGE ANALYSIS (9-12 samples)	PROXIMATE (12 samples)	ULTIMATE (12 samples)
AS RECEIVED BASIS								
MOISTURE (%)	7.5-13.4	10.25		10.02		7.06-22.78	11.00	
VOLATILE MATTER (%)	22.8-41.1	35.66		36.05		33.44-41.7	36.50	
FIXED CARBON (%)	18.1-46.18	39.83		42.66		39.74-47.7	43.25	
ASH (%)	5.5-51.6	14.27	30.2	11.27		3.5-10.36	7.25	
SULFUR (%)	0.9-2.4		2.3		0.33	0.35-0.91		0.60
HYDROGEN (%)	3.4-5.5		4.7		—			—
CARBON (%)	28.7-53.8		44.6		—			—
NITROGEN (%)	0.7-1.1		0.9		—			—
OXYGEN (%)	17.8-20.9		17.2		—			—
BTU/LB.	5,140-10,850	8,705 (4 samples)		10,540 (1 sample)		10,810-11,700	11,280 (10 samples)	

FORMS OF SULFUR (AS RECEIVED BASIS)

	(3 samples)		(3 samples)	
	RANGE ANALYSIS	AVERAGE	RANGE ANALYSIS	AVERAGE
PYRITIC (%)	0.82-2.37	1.61		
SULFATE (%)	0.01-0.02	0.01		
ORGANIC (%)	0.35-1.08	0.68		

	(3 samples)		(3 samples)	
	RANGE ANALYSIS	AVERAGE	RANGE ANALYSIS	AVERAGE
INITIAL DEFORMATION	2050-2400	2180		
SOFTENING TEMPERATURE	2180-2510	2300		
FLUID TEMPERATURE	2280-2580	2390	2150-2300	2230

ASH COMPOSITION (%)

	(3 samples)	
	RANGE ANALYSIS	AVERAGE
SiO ₂	43.0-59.0	51.7
Al ₂ O ₃	13.0-19.0	16.7
CaO	2.8-14.0	7.8
MgO	1.42-1.52	1.48
Na ₂ O	0.14-0.16	0.15
K ₂ O	1.8-2.8	2.3
Fe ₂ O ₃	9.0-13.0	10.7
TiO ₂	0.71-0.81	0.75
P ₂ O ₅	< 0.1	< 0.1
SO ₂	2.3-7.6	4.8

STRUCTURE, COAL THICKNESS, AND SHALLOW OVERBURDEN FOR THE CARBON NO. 6, CARBON NO. 5, AND JOHNSON COAL BEDS IN THE CARBON MINING DISTRICT, HANNA COAL FIELD, SOUTHCENTRAL WYO.

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 1979

Project approved by The U.S. Bureau of Mines, Department of Interior, under Grant Number 60-25420.

This map has not been reviewed for conformity with the editorial standards of the Geological Survey of Wyoming.

References: Glass, G.B., and Roberts, J.T., 1979, Reserving Striped Coal Resources and Striped Reserve Base of the Hanna Coal Field in Southcentral Wyoming; Geological Survey of Wyoming Report of Investigations No. 17, 168 p.