DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

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Fig. 1 Mine workings, bulldozer cuts, and trenches showing location of sampling, Lamar mine, Kershaw County, South Carolina.

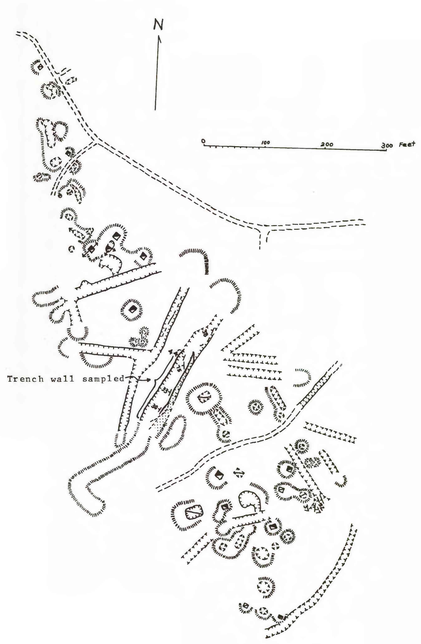

Fig. 2 Index Map of South Carolina showing location of the Lamar mine.

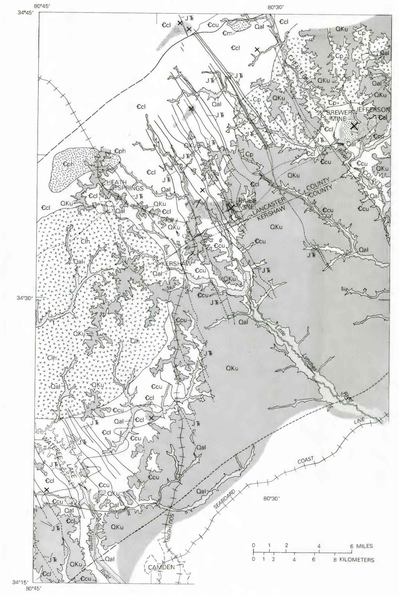

Fig. 3 Geologic Map of the Haile-Brewer area showing location of Lamar mine, Kershaw County, South Carolina (From Bell, 1982).

Table 1: Chemical analyses of samples from the Lamar mine, Kershaw County, South Carolina.

1/ Semi-quantative 6-step spectrographic analysis: S-Fe, S-Mg, S-Ca, S-Ti in percent all other analyses in parts per million. Results are to be identified with geometric brackets whose boundaries are 1.2, 0.83, 0.56, 0.38, 0.26, 0.18, 0.12, etc. but are reported arbitrarily as mid-points of these brackets 1.0, 0.7, 0.5, 0.3, 0.2, 0.15, 0.1, etc. The precision of a reported value is approximately plus or minus one bracket at 68%, or two bracket at 95% confidence. Analyst: A. Farley, Jr., 1967.

2/ Atomic absorption method; results in parts per million. Analyst: A. L. Meier, 1967.

3/ Colorimetric method; results in parts per million. Analyst: J. Friskin, 1967.

L = Less than the value shown.
N = Not detected at value shown.

SAMPLE	1/ S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-BA	S-BE	S-BI	S-CR	S-CU	S-LA	S-MO
131	3.0000	0.1500	0.0500L	0.1500	70.0000	0.5000L	50.0000	1.0000L	5.0000L	10.0000L	7.0000	30.0000	30.0000
132	1.5000	0.1500	0.0500L	0.1000	50.0000	0.5000L	100.0000	1.0000	5.0000L	10.0000L	5.0000L	20.0000	20.0000
133	1.5000	0.1500	0.0500L	0.1500	50.0000	0.5000L	50.0000	1.0000L	5.0000L	10.0000L	5.0000L	30.0000	20.0000
134	3.0000	0.1000	0.0500L	0.1000	70.0000	0.5000L	70.0000	1.0000L	5.0000L	10.0000L	5.0000	20.0000	15.0000
135	2.0000	0.1500	0.0500L	0.1000	70.0000	0.5000L	100.0000	1.0000L	5.0000L	10.0000N	5.0000L	30.0000	7.0000
136	1.5000	0.2000	0.0500L	0.2000	70.0000	0.5000L	100.0000	1.0000L	5.0000L	10.0000N	5.0000L	50.0000	5.0000L
137	1.5000	0.1000	0.0500L	0.1000	30.0000	0.5000L	100.0000	1.0000	5.0000L	10.0000L	5.0000	30.0000	15.0000
138	1.5000	0.1000	0.0500L	0.1500	50.0000	0.5000L	50.0000	1.0000	5.0000L	10.0000N	5.0000L	20.0000L	5.0000L
139	1.5000	0.2000	0.0500L	0.1500	100.0000	0.5000L	200.0000	2.0000	5.0000L	10.0000L	5.0000L	30.0000	20.0000
140	1.5000	0.2000	0.0500L	0.2000	70.0000	0.5000L	200.0000	2.0000	5.0000	10.0000L	5.0000	50.0000	5.0000L
141	1.0000	0.1500	0.0500L	0.1500	70.0000	0.5000L	70.0000	1.0000	5.0000L	10.0000N	5.0000L	20.0000L	5.0000L
142	1.0000	0.1500	0.0500L	0.2000	70.0000	0.5000L	70.0000	1.0000	5.0000L	10.0000N	5.0000L	20.0000L	5.0000L
143	1.5000	0.1500	0.0500L	0.1500	50.0000	0.5000L	50.0000	1.5000	5.0000L	10.0000N	5.0000L	20.0000L	5.0000L
144	1.0000	0.1000	0.0500L	0.2000	70.0000	0.5000L	50.0000	1.0000	5.0000L	10.0000N	5.0000L	20.0000	20.0000
145	1.0000	0.1000	0.0500L	0.1500	50.0000	0.5000L	70.0000	1.0000L	5.0000L	10.0000N	5.0000L	20.0000	7.0000
146	0.7000	0.0700	0.0500L	0.2000	200.0000	0.5000L	100.0000	1.0000L	5.0000L	10.0000N	5.0000L	20.0000	5.0000L
147	1.0000	0.0700	0.0500L	0.2000	70.0000	0.5000L	70.0000	1.0000L	5.0000L	10.0000N	5.0000L	20.0000L	5.0000L
148	1.0000	0.0700	0.0500L	0.2000	150.0000	0.5000L	100.0000	1.0000L	5.0000L	10.0000N	5.0000	30.0000	5.0000L
149	1.5000	0.1000	0.0500L	0.1500	100.0000	0.5000L	200.0000	1.0000L	5.0000L	10.0000N	5.0000L	20.0000L	5.0000L
150	1.5000	0.1000	0.0500L	0.1500	100.0000	0.5000L	150.0000	1.0000L	5.0000L	10.0000N	5.0000	20.0000L	10.0000
275	3.0000	0.0700	0.0500N	0.0700	500.0000	0.5000L	100.0000	1.0000L	5.0000L	10.0000L	100.0000	20.0000L	15.0000
276	0.5000	0.0300	0.0500N	0.3000	150.0000	0.5000N	50.0000L	1.0000L	5.0000L	10.0000N	5.0000L	20.0000L	5.0000L
277	2.0000	0.0500	0.0500L	0.0700	30.0000	0.5000L	100.0000	1.0000L	5.0000L	10.0000L	5.0000L	20.0000L	5.0000L
278	3.0000	0.0500	0.0500N	0.1500	150.0000	0.5000L	100.0000	1.0000L	5.0000L	10.0000L	5.0000	30.0000	10.0000
279	0.5000	0.0200	0.0500L	0.0070	10.0000L	0.5000N	50.0000L	1.0000L	5.0000L	10.0000L	5.0000L	20.0000L	5.0000L
280	1.5000	0.2000	0.0500L	0.2000	100.0000	0.5000L	300.0000	1.0000L	5.0000L	10.0000L	50.0000	20.0000L	10.0000
281	1.5000	0.2000	0.0500L	0.2000	150.0000	0.5000L	100.0000	1.0000	5.0000L	10.0000L	5.0000L	20.0000L	5.0000L
282	1.5000	0.0700	0.0500L	0.2000	100.0000	0.5000L	150.0000	1.0000L	5.0000L	10.0000N	5.0000	20.0000	5.0000L
283	1.0000	0.1000	0.0500L	0.1500	200.0000	0.5000L	150.0000	1.0000L	5.0000L	10.0000L	5.0000L	20.0000L	10.0000
284	2.0000	0.1500	0.0500L	0.1500	100.0000	0.5000L	150.0000	2.0000	5.0000L	10.0000N	5.0000	20.0000L	50.0000
285	1.5000	0.1500	0.0500L	0.2000	70.0000	0.5000L	200.0000	1.0000L	5.0000L	10.0000N	5.0000L	20.0000L	5.0000
286	5.0000	0.1500	0.0500L	0.1500	100.0000	0.5000L	100.0000	1.0000	5.0000L	10.0000L	5.0000L	20.0000L	15.0000
287	2.0000	0.1500	0.0500L	0.0700	70.0000	0.5000L	100.0000	1.0000L	5.0000L	10.0000N	5.0000L	20.0000L	15.0000
288	0.5000	0.0500	0.0500L	0.0500	30.0000	0.5000L	50.0000	1.0000L	5.0000L	10.0000N	5.0000L	20.0000L	5.0000L
289	1.5000	0.1500	0.0500L	0.2000	70.0000	0.5000L	70.0000	1.0000	5.0000L	10.0000N	5.0000L	20.0000	5.0000L
290	1.0000	0.1000	0.0500L	0.1000	50.0000	0.5000L	70.0000	1.0000	5.0000L	10.0000L	5.0000L	20.0000	5.0000L
291	7.0000	0.0700	0.0500N	0.1000	50.0000	0.5000L	50.0000	1.0000L	5.0000L	10.0000	10.0000	20.0000L	7.0000
292	5.0000	0.0200L	0.0500N	0.0700	100.0000	0.5000L	70.0000	1.0000L	5.0000L	10.0000L	5.0000L	20.0000L	50.0000
293	2.0000	0.1000	0.0500N	0.1000	50.0000	0.7000	100.0000	1.0000L	10.0000	20.0000	26.0000	20.0000L	5.0000
300	3.0000	0.1000	0.0500L	0.2000	70.0000	0.5000L	100.0000	1.0000L	5.0000L	10.0000L	5.0000L	20.0000L	30.0000

SAMPLE	S-NB	S-NI	S-PB	S-SC	S-SR	S-V	S-Y	S-ZR	2/ AA-AU	3/ CM-AS	CM-CU
131	20.0000L	10.0000	10.0000	15.0000	50.0000	10.0000	20.0000	20.0000L	0.1100	10.0000L	30.0000
132	20.0000L	7.0000	10.0000	15.0000	70.0000	20.0000	10.0000	150.0000	0.2400	10.0000	30.0000
133	20.0000L	15.0000	15.0000	10.0000	50.0000	20.0000	10.0000	20.0000L	0.0800	10.0000L	30.0000
134	20.0000L	10.0000	20.0000	10.0000	50.0000	10.0000	15.0000	20.0000L	0.2100	10.0000L	30.0000
135	20.0000L	7.0000	15.0000	7.0000	100.0000	10.0000	15.0000	20.0000L	0.1600	10.0000L	30.0000
136	20.0000L	5.0000	150.0000	5.0000	50.0000	10.0000	20.0000	20.0000L	0.0700	10.0000L	10.0000
137	20.0000L	7.0000	50.0000	5.0000	50.0000	10.0000	10.0000	200.0000	0.1200	10.0000L	20.0000
138	20.0000L	2.0000L	70.0000	5.0000L	100.0000N	10.0000L	10.0000	150.0000	0.2000	10.0000L	10.0000
139	20.0000L	5.0000	70.0000	10.0000	50.0000	10.0000	20.0000	150.0000	0.4700	10.0000L	30.0000
140	20.0000L	5.0000	30.0000	10.0000	50.0000	20.0000	15.0000	200.0000	0.1100	10.0000L	20.0000
141	20.0000L	2.0000L	10.0000	5.0000L	100.0000N	10.0000L	10.0000	150.0000	0.0200L	10.0000L	10.0000
142	20.0000L	2.0000L	15.0000	5.0000L	100.0000N	20.0000	10.0000	150.0000	0.0500	10.0000L	10.0000
143	20.0000L	2.0000L	10.0000	5.0000	100.0000N	20.0000	15.0000	150.0000	0.2700	10.0000L	30.0000
144	20.0000L	2.0000L	10.0000	5.0000	100.0000N	20.0000	15.0000	150.0000	0.1300	10.0000L	20.0000
145	20.0000L	2.0000	30.0000	5.0000	100.0000N	10.0000L	10.0000	150.0000	0.5600	10.0000L	20.0000
146	20.0000L	2.0000	50.0000	5.0000	100.0000N	10.0000L	10.0000	150.0000	0.0200	10.0000L	10.0000
147	20.0000L	2.0000L	10.0000	5.0000	100.0000N	10.0000L	15.0000	150.0000	0.0200	10.0000	10.0000
148	20.0000L	2.0000L	20.0000	5.0000	100.0000N	10.0000L	15.0000	150.0000	0.0200L	10.0000L	10.0000
149	20.0000L	2.0000L	15.0000	5.0000L	100.0000N	10.0000L	10.0000	150.0000	0.0700	10.0000L	10.0000
150	20.0000L	2.0000	30.0000	5.0000L	100.0000N	15.0000	10.0000	150.0000	0.0700	10.0000	20.0000
275	20.0000L	7.0000	70.0000	5.0000	100.0000	20.0000	7.0000	30.0000	0.3600	20.0000	60.0000
276	20.0000L	2.0000	10.0000	5.0000N	70.0000	10.0000L	5.0000L	20.0000L	0.0200	10.0000L	10.0000
277	20.0000L	10.0000	10.0000L	10.0000	50.0000	10.0000	7.0000	150.0000	0.2500	10.0000L	30.0000
278	20.0000L	5.0000	50.0000	7.0000	70.0000	15.0000	5.0000L	150.0000	0.0400	10.0000L	20.0000
279	20.0000N	3.0000	10.0000	5.0000N	50.0000	10.0000L	5.0000L	20.0000N	0.0900	10.0000L	10.0000
280	20.0000L	2.0000	30.0000	5.0000	50.0000	10.0000	15.0000	20.0000L	0.0500	10.0000L	30.0000
281	20.0000L	2.0000	30.0000	5.0000	50.0000	10.0000	15.0000	20.0000L	0.0800	10.0000L	30.0000
282	20.0000L	2.0000L	10.0000	5.0000L	100.0000N	10.0000L	15.0000	100.0000	0.0700	10.0000	20.0000
283	20.0000L	2.0000L	20.0000	5.0000L	100.0000N	10.0000L	10.0000	100.0000	0.0700	10.0000L	20.0000
284	20.0000L	2.0000	30.0000	5.0000L	100.0000N	10.0000L	10.0000	150.0000	0.0800	10.0000L	10.0000
285	20.0000L	2.0000L	10.0000	5.0000L	100.0000N	10.0000L	20.0000	150.0000	0.0400	10.0000L	10.0000
286	20.0000L	2.0000	100.0000	7.0000	50.0000	20.0000	15.0000	20.0000L	0.1600	10.0000	20.0000
287	20.0000L	5.0000	70.0000	5.0000	100.0000N	10.0000L	10.0000	70.0000	0.2000	10.0000	30.0000
288	20.0000L	2.0000L	40.0000	5.0000L	100.0000N	10.0000L	7.0000	20.0000L	0.1100	10.0000L	20.0000
289	20.0000L	3.0000	15.0000	5.0000L	50.0000	10.0000	15.0000	20.0000L	0.1300	10.0000L	10.0000
290	20.0000L	7.0000	30.0000	5.0000L	50.0000	10.0000	10.0000	20.0000L	0.0800	10.0000L	10.0000
291	20.0000L	2.0000L	30.0000	10.0000	70.0000	10.0000L	5.0000L	30.0000	6.6000	20.0000	50.0000
292	20.0000L	15.0000	70.0000	5.0000N	70.0000	10.0000L	5.0000L	20.0000L	1.1000	10.0000	20.0000
293	20.0000L	10.0000	1000.0000	5.0000L	70.0000	10.0000L	5.0000	70.0000	11.0000	10.0000	180.0000
300	20.0000L	10.0000	10.0000	10.0000	50.0000	20.0000	10.0000	20.0000L	0.2400	10.0000L	30.0000

Sample description:

Samples 131 to 150 and 281 to 286
Quartz sericite schist cut by numerous scattered quartz veins mostly less than one inch thick but some veins as much as three inches thick are included. Samples range from two to ten feet below overlying unsampled colluvium or soil.

Samples 275 to 278, 287 to 288, and 291 to 293
Quartz veins ranging from one half inch to eight inches thick; trace amounts of sulfide minerals and some brecciation locally containing possible pyrophyllite in the thicker veins.

Samples 279 to 300
Replicates of samples 288, 281, 144, 137 and 131.

GEOCHEMICAL SAMPLES FROM THE LAMAR MINE, KERSHAW COUNTY, SOUTH CAROLINA

BY HENRY BELL AND RICARDO LOPEZ

1984

Geochemical samples from the Lamar mine
Kershaw County, South Carolina

by

Henry Bell and Ricardo Lopez

The Lamar mine, Kershaw County, South Carolina is a gold mine or prospect described by Sloan (1908, p.54) as consisting of "Numerous shallow test shafts and open cuts..." (fig. 1). These were driven into gold-bearing quartz-sericite schist impregnated with multiple veinlets of pyritic quartz striking northwesterly. Figure 2 is an index map showing the location of the mine. The rocks in which the mine occurs are part of the Carolina slate belt in the Haile-Brewer area (fig. 3). Little information is published concerning the history or production of the mining. In 1967 a sketch map (fig. 1) was made, by peep sight alidade and tape, of the old workings and the most recent bulldozer trenches probably dating from sometime between 1930 and 1940. The largest trench was sampled as part of the Heavy Metals Program of the United States Geological Survey.

Samples representing about 6 feet of rock were collected along the west wall of the trench beginning near the south end and ranging from about 2 to 10 feet below the overlying colluvium and soil. An effort was made to sample wallrock with included thin quartz veinlets separately from the larger quartz veins. Samples numbers 131 to 150 and 281 to 286 include wallrock and numerous scattered quartz veins mostly less than one inch thick but some veins as much as three inches thick are included. Samples 275 to 278 and 287 to 288 and 291 to 293 are separately sampled quartz veins ranging from about one half inch to eight inches thick. These contain traces of sulfide minerals and some brecciation with locally some possible pyrophyllite. Sample numbers 279, 280, 289, 290 and 300 are replicate samples of numbers 288, 281, 144, 137 and 131 respectively.

The samples were submitted to laboratories of the United States Geological Survey in Denver, Colorado, for chemical analysis by semi-quantitative 6 step spectrographic methods for 34 elements of which only 21 had reportable values and by atomic absorption and colorimetric methods for gold, arsenic and copper using the techniques described by Grimes and Marranzino (1968) and Ward and others (1963, 1969). The results of these analyses are shown in table 1.

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