

REPORT ON

THE ESTERBROOKE MINE.

Owned by The Esterbrooke Mining Co.

Principal office, Douglas, Converse County, Wyoming.

GEOLOGICAL SURVEY OF WYOMING

Officers:

President, J.P. Caffey, Douglas, Wyo.

Vice President, Malcom B.O. Rutherford, Spring Hill, Wyo.

Secretary,

John Foxton, Guthrie, Wyo.

Treasurer,

Location, In Section 9, T. 28 N., R. 71 W. _____

Unorganized Mining District, Albany County, Wyoming.

Name and address of Superintendent, John Foxton, Guthrie, Wyo.

Number of lode Claims, Three, _____ containing _____ about 60 — acres.

Names of lode Claims, Douglas, Douglas #2, and Molly Maguire.

Placer Claims, None. _____ acres.

Mill Sites, None. _____ acres.

Total number of acres in group, _____ about 60 — acres.

Title, By location and discovery. _____

Lien or encumbrance, None filed.

Title guaranteed by, Not insured.

Nearest railroad station, Glendo on C. & S. R.R. — Distance, about 25 — miles,

in north-easterly direction. _____ direction.

Reached by wagon road from mine down Elkhorn Creek divide to station. A good road can be readily made here with a down grade practically all the way.

Altitude at railroad station, 4500 feet above sea level.

Altitude at main workings, About 6000 feet above sea level.

Character of country rock, Granite and schist.Character of walls, Not fully shown but likely schist and diorite.

Character of vein. The vein consists of a silicious vein matter in a ledge varying from two to four feet wide and cutting across the including formation in manner here after described, as shown in open cut and small drift in the 60 ft. shaft.

Character and occurrence of ore. The ore found in this silicious vein matter consists of lead carbonates and galena or lead sulphide in bunches and streaks of varying size.

This ore is often found stained with copper carbonates in the upper workings and from the material on the dump of the main shaft, it is evident that this condition increased as depth was gained.

<u>Development,</u>	3	Shaft	s, 1-98'; 1-60'; 1-30'; 188	feet, size,	about 5' x 5' Timbered.
		Tunnel		feet, size.	
	1	open Cut	(abandoned) about 100	feet, size.	from four to ten ft deep
	1	Drift	(abandoned) about 30	feet, size.	about 3' x 6'.
		Upraise		feet, size,	
		Winze		feet, size,	
		Stope		feet, size,	
			of present use, 188	lineal feet.	
		Total development,			
<u>Ventilation,</u>			natural ventilation in samlleer shafts and air box in main		
shaft.					

Exits and fire protection,

Number of tons of ore mined to date, **about 50,** Average value per ton, \$ **about \$15.00**
 Average number of tons of ore mined per day, **No record kept.** tons.
 Average cost per ton, \$ **No record kept.**
 Average cost of sinking per foot, \$ **No record kept.**
 Average cost of drifting per foot, \$ **No record kept.**
 Average number of men employed in mine, **Five when working.**
~~Average number of men employed in mill,~~
 Freight on ore to railroad station, \$ **3.00** per ton
 Freight on ore to smelter, \$ **3.00** per ton
 Freight on ore to reduction point, \$ **6.00 total freight..** per ton
 Freight on supplies from supply point or railroad station, **about 30 cts. per cwt.** per ton
 Cost of fuel, \$ **1.25** per **cord.** Average cost per month, \$ **No record kept.**
 Cost of timber, \$ per foot. Average cost per month, \$ **No record kept.**
Standard union wages paid in all work.

WAGES PAID.

MINE.			MILL.		
Foremen, \$	per day of	hours.	Foremen, \$	per day of	hours.
Miners, \$	per day of	hours.	Millmen, \$	per day of	hours.
Trammers, \$	per day of	hours.	Laborers, \$	per day of	hours.
Shovelers, \$	per day of	hours,			
Timbermen, \$	per day of	hours.			
Topmen, \$	per day of	hours.			
Pumpmen, \$	per day of	hours.			
Engineers, \$	per day of	hours.			
Laborers, \$	per day of	hours.			

OUTSIDE LABOR

Blacksmiths, \$	per day of	hours.
Carpenters, \$	per day of	hours.
Laborers, \$	per day of	hours.

Water Supply. Water for steam purposes may be had from the springs near the workings but no supply for reduction works is available in the immediate vicinity. At a distance of two miles from the mine, ample water for all purposes may be secured on Little Horse Creek.

TIMBER.

Timber suitable for all mining purposes is found on the claims and a saw mill is located about two miles from the mine where sawed lumber may be had in quantity at \$12.00 per M..

GENERAL REPORT.

As the shafts were partly filled with water at the time of examination and were therefore inaccessible, this can only be a brief surface report.

The country-rock in the immediate vicinity of the vein is schist, very fine grained and often showing considerable evidence of alteration. No extensive outcrop of schist is found on the Esterbrooke near the workings but it may be generally given from the adjacent outcrop east of the claims that the general strike of the schists is north-easterly and that they have a slight dip to the south-east. The workings accessible did not determine these points and it may be found, by development, to be locally different from the above.

Cutting across or at right angles to the general direction of the schists in a north-westerly direction are found the outcrops of several prominent ledges or "dykes" as they are locally known of a white quartzose material, evidently an altered granite and locally known as "quartzite".

Between these white ledges and having the same general direction, are noted bands of dark colored dyke rocks, such as fine grained diorite which occurs on the west side of the main shaft and a coarser grained amphibolite noted at the most southerly or 30' shaft.

The vein runs diagonally across these various formations, having a general northerly and southerly course and apparently cuts through each, although this can only be determined by future development.

At the upper or 60' shaft and on the surface immediately south of this shaft, a similar ore outcrops, apparently headed away from the main outcrop but from the indications noted it is considered that the two stringers are practically part of the same vein and come together south of the present workings and that the included material is in the form of a "horse" in the vein.

From the conditions noted above it is evident that the walls of the vein will be different at the various parts of the vein where it crosses through the succeeding formations but there is no evidence to show that this condition affects the contained mineral values.

These values are principally lead and the ore shipped has been taken mostly from the open cut, roughly sorted and shipped.

One lot shipped gave returns as follows;

Net weight of ore, 35588 pounds.

Silver assay, 1.3 oz. per ton.

Gold do. 0.035 oz per ton.

Lead do. 34.65 per cent.

Silica, do. 34.00 do.

Iron do. 7.00 do.

This ore still shows in the open cut and doubtless can be mined and shipped at a profit in connection with the other work of development on the property.

It is considered that this property would be best developed by work in the present main shaft, which should be straightened up and made suitable for sinking. A small hoist, of at least 25 H.P! should be installed and the work of sinking pushed as rapidly as possible for at least 150' more, and drifts run on the vein at convenient and profitable intervals to determine the extent of the ore opened up.

It is considered that this property presents a very good opportunity for development and that the showings both in the workings and on the surface fully warrant a continuance of the work, with every prospect of it being a successful venture.

Respectfully Submitted.



State Geologist of Wyoming.

Date of Examination,

May 8th, 1902.