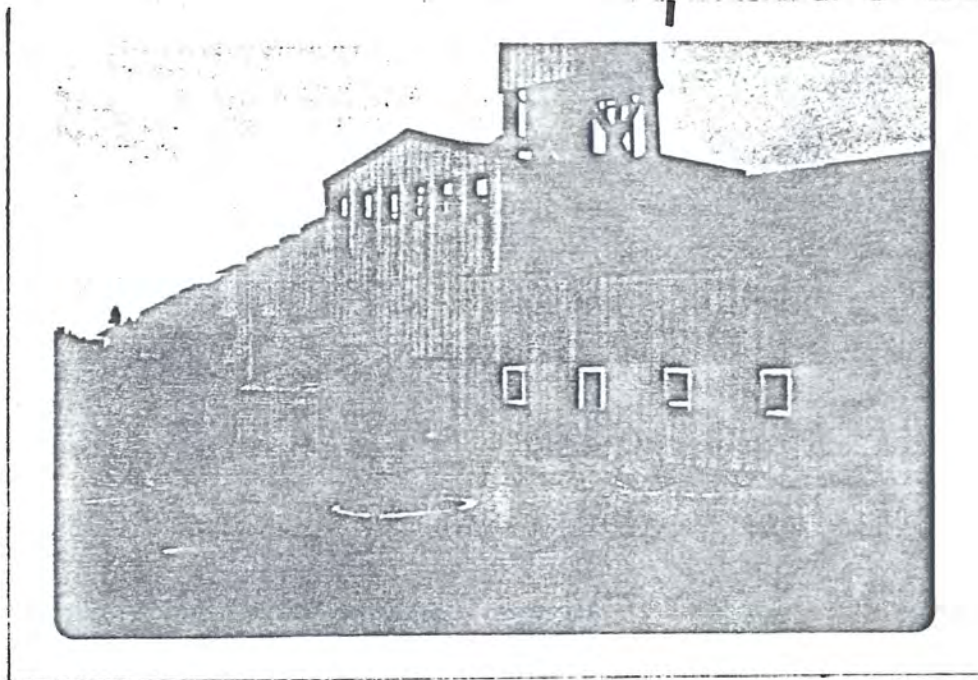


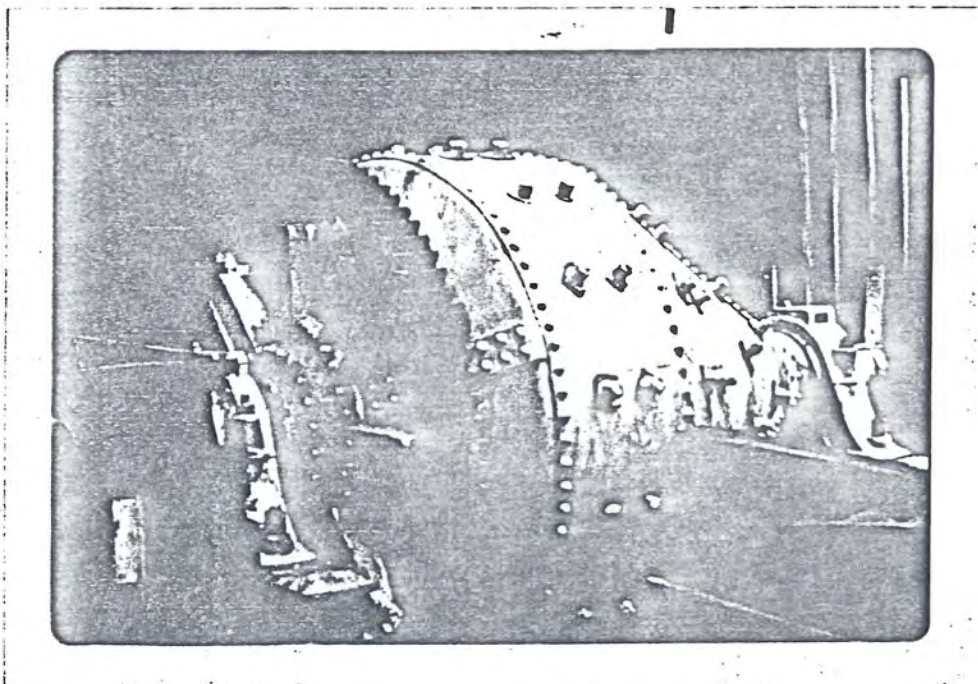
Miscellaneous Reports, Letters, and Assays
on the Powder River Mine, Bighorn Mountains

Geological Survey of Wyoming

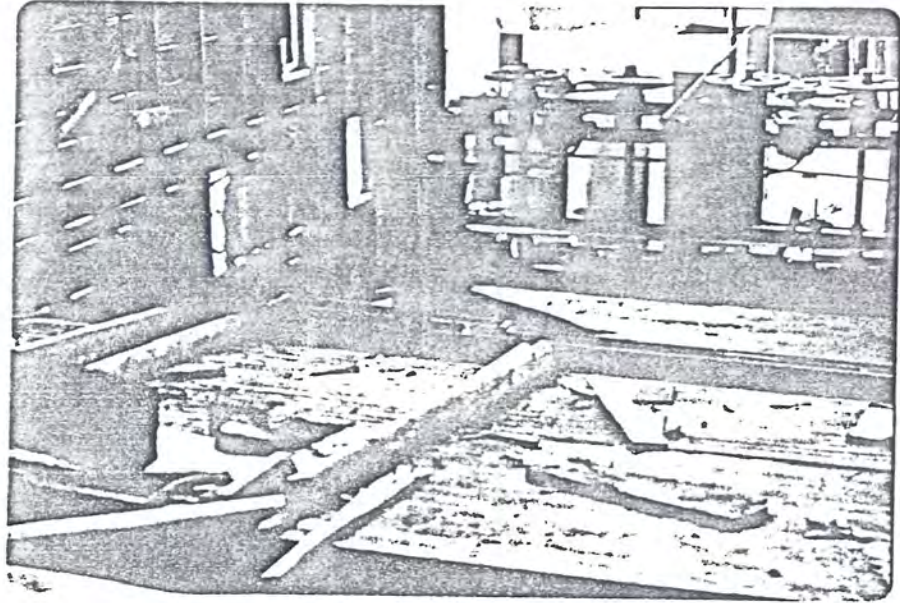
Mineral Report 87-4



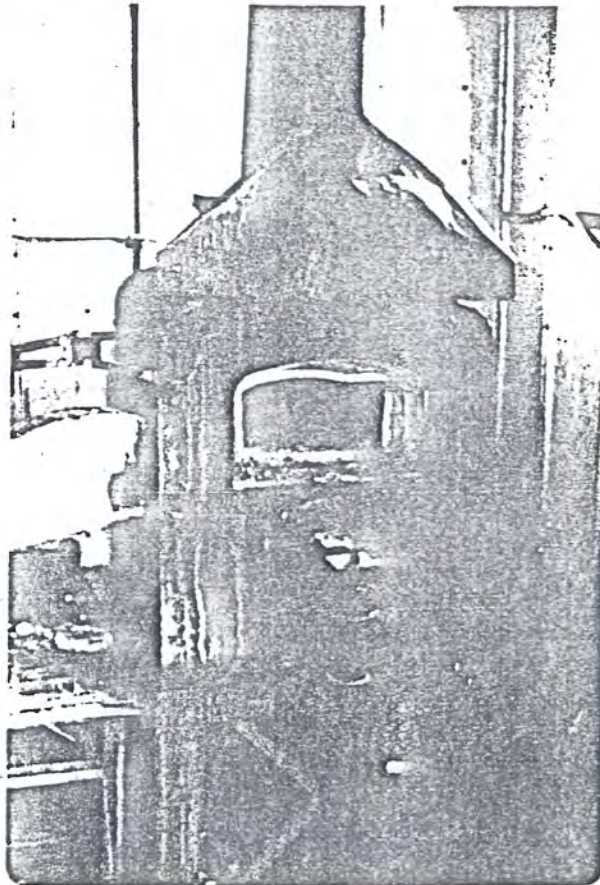
Powder River Mine, Sec. 20, T47N R85W.



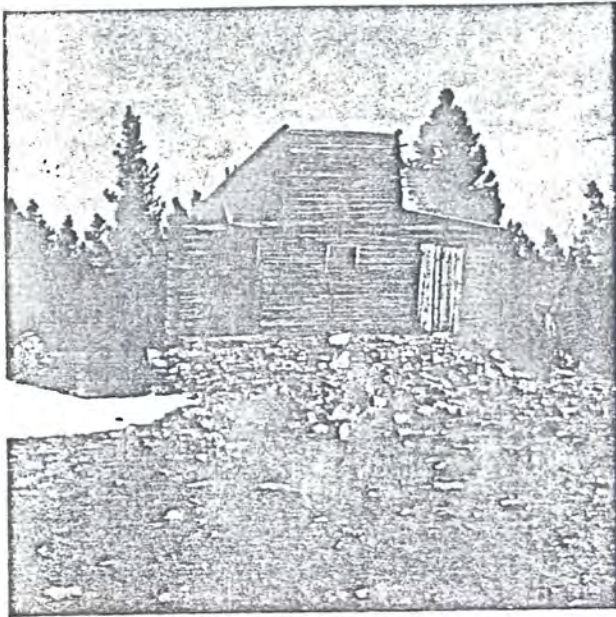
Ball Mill in Powder River Mine.



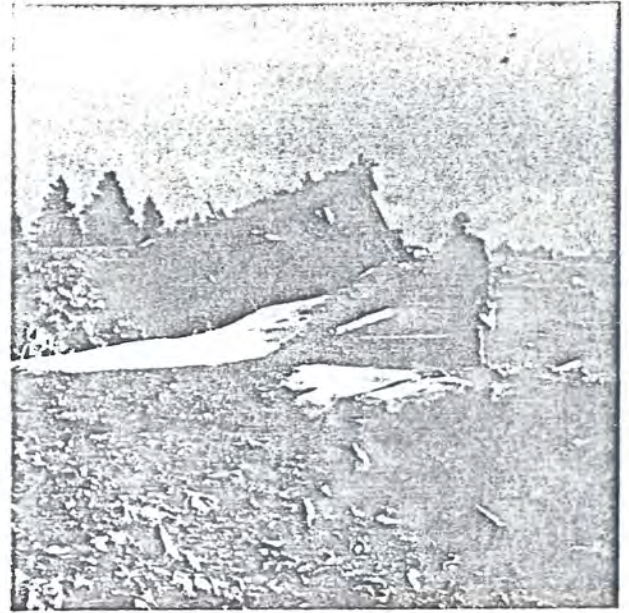
View of gravity tables and flotation cells.



Assay furnace.



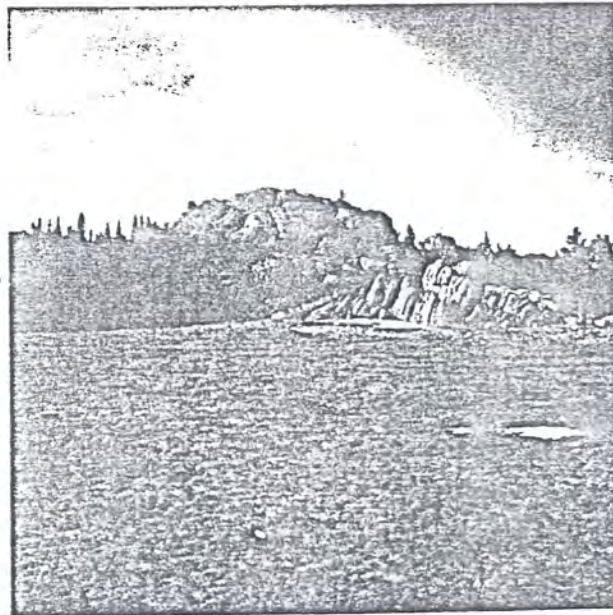
NOV • 31



NOV • 31

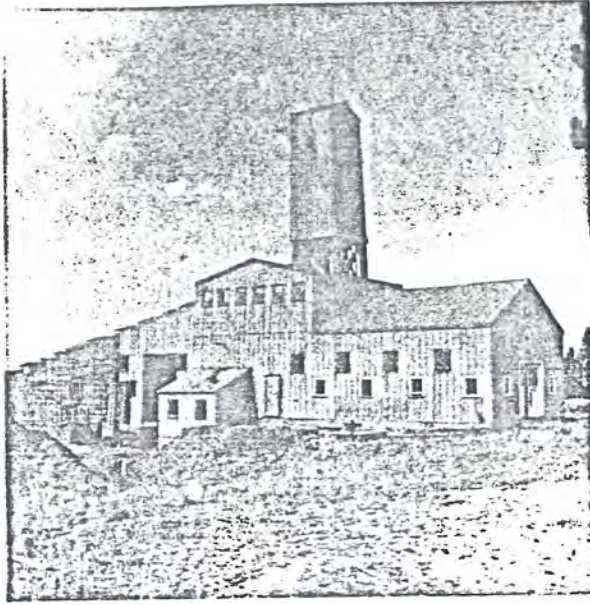
Top Hand Mine, Sec. 31, T47N R83W, radioactive minerals and rare earths, shaft 15 feet deep.

Emerald Park Mine, Sec. 31, T47N R83W, radioactive minerals and rare earths, adit 20 feet.



NOV • 31

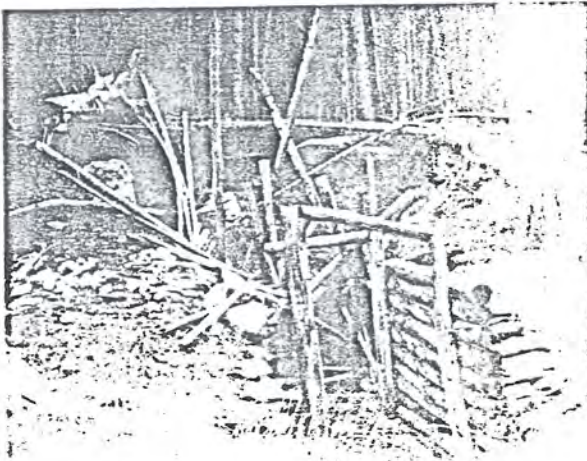
Typical topography developed on pre-Cambrian gneiss and schist.



Powder River Mine, Sec. 20, T47N R85W.
Note tailing in foreground.



Tailings area adjacent to Powder River Mine.



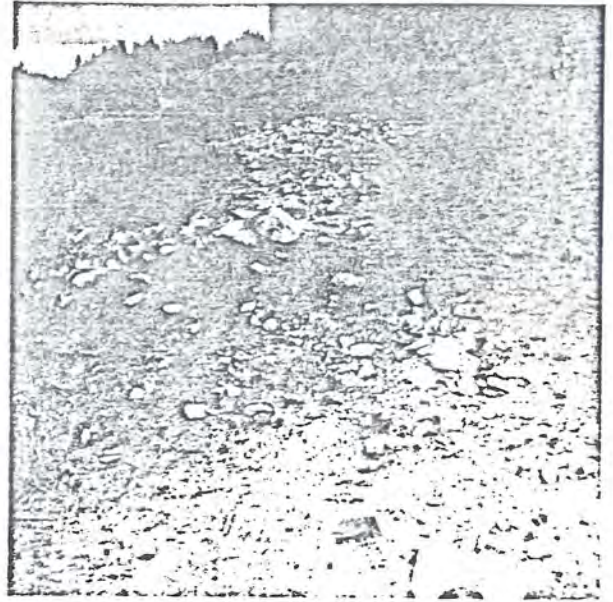
Palo Verde Mine Adit, NE $\frac{1}{2}$ NE $\frac{1}{2}$ Sec. 20, T47N
R85W.



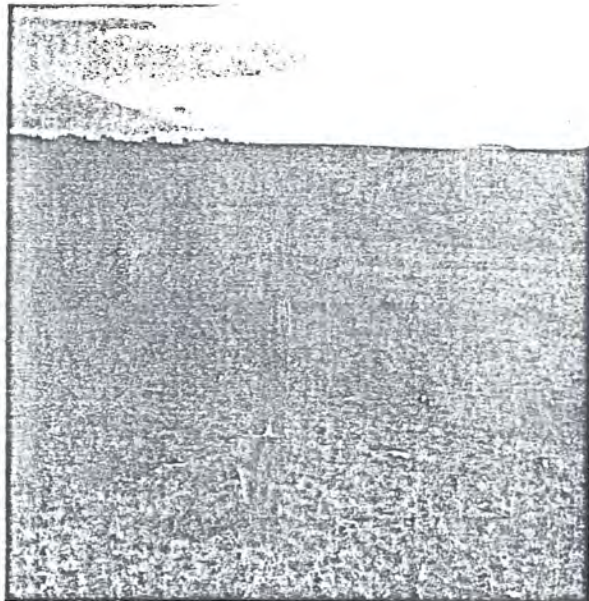
Prospector pit, SE $\frac{1}{2}$ NE $\frac{1}{2}$ NW $\frac{1}{2}$ Sec. 21, T47N
R85W.



Coyote Hole, SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 21, T47N R85W.
Note quartz dike.



Quartz dike trend. Powder River Mine in background.



Lonely claim post.



Panning for gold, North Fork River.

Richards

DANIEL N. MILLER, JR.
DIRECTOR AND
STATE GEOLOGIST



TELEPHONES:
(307) 742-2054
(307) 766-2296

THE GEOLOGICAL SURVEY OF WYOMING
UNIVERSITY OF WYOMING
BOX 3008, UNIVERSITY STATION
LARAMIE, WYOMING 82071

Serving Wyoming Since 1933

SURVEY ADVISORY BOARD
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FORREST K. ROOT
WILLIAM G. WENDELL

November 7, 1973

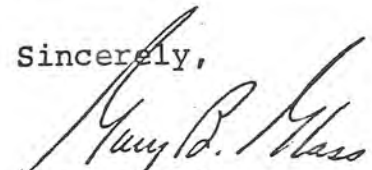
Mr. Rich Kness
P.O. Box 2834
Casper, Wyoming 82601

RE: Powder River Gold mine (Sec. 20, T 47N, R 85W)

Dear Mr. Kness:

This is a transcript of what was written in Mr. Hagner's original notebook. As far as we can ascertain, this is all the information we have available. You might try to contact the Mr. Tate referred to in the notes.

Sincerely,


Gary B. Glass
Staff Coal Geologist

GBG:kr

Enclosure

Gold

MINERAL: GOLD - POWDER RIVER MINE

COUNTY: JOHNSON

LOCATION: Section 20, T 47, R. 65, SE 1/4 NW 1/4

OWNER:

DESCRIPTION:

A gold property which carries some manganese. The ore occurs in quartz veins and in hornblend schist which contains stringers of quartz carrying gold. A shaft has been dug 110' on the principal vein but there is water in the last 35'. Drift 35' at 40' depth.

A mill has just been put up and the first test run made. They don't know the percentage of gold in the ore because it varies and none has yet been mined.

About 100 lbs. of concentrates per hour are expected. These concentrates carry a high percentage of Mu - in fact after running the mill about an hour the plates covered with mercury are coated with Mu and the gold goes over the plates instead of being amalgamated.

The possibility of producing Mu is important because a gold property without any strategic or critical mineral production cannot get a priority rating.

(Visited workings with K. White and spoke about milling problems with George Tate.)

George Tate

Box 67

Buffalo, Wyoming

RESEARCH FOUNDATION

THE UNIVERSITY OF TOLEDO

PHONE JEFFERSON 6-6354 2801 WEST BANCROFT STREET TOLEDO 6, OHIO

30 March 1959

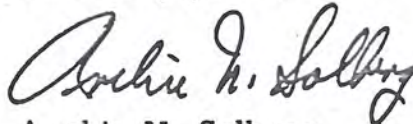
Mr. Art Pietrykowski
620 Carver Blvd.
Toledo, Ohio

Dear Mr. Pietrykowski:

The following results were obtained from the sample of ore you submitted for analysis:

Results: Gold.; 0.14 ounces per ton
(2000 lbs.) equivalent to \$4.90 per
ton at \$35.00 per oz.

Sincerely yours,



Archie N. Solberg
Executive Director

ANS/pah

1
77
39
116
Samples
- 7

1250 =

Ave
17.5
.18

Paid J.L. Wight

EMPIRE STATE OIL COMPANY
THERMOPOLIS, WYOMING

September 17, 1949

Mr. J. L. Wight, President
Powder River Mining Corporation,
P. O. Box 322,
Buffalo, Wyoming

Dear Sir:

Enclosed herewith is check in settlement of 10% of proceeds from sale of bullion produced by Powder River Exploration Syndicate from operating the gold mining claims covered by agreement dated September 17, 1940.

Also enclosed are copies of the settlement sheets furnished by the purchasers showing the following information:

Date	Issued by	Gold & Silver Quantity	Values	
11/16/42	U. S. Mint, Denver	.596 oz.	\$ 20.86	
8/13/49	Charles O. Parker & Co.			
	Retort No.2		3.01	
	Retort No.1		2.13	
	Total		<u>26.00</u>	
Your proportion 10%				\$2.60

To date we have not received the copies of the agreement and release from Mr. Wilcox. It seems that there is an objection to the provisions wherein we ask that the Powder River Mining Corporation aid us in protecting our property, which provision is intended merely to request that anyone connected with the project extend to us the courtesy of notifying us of any hazards known by them that is threatening to cause damage or loss to the property, or perhaps if they should notice anyone pilfering they would ask the pilferer to desist.

We did not intend to infer that the Powder River Mining Corporation would in any way be considered an insurer of the property, we included the item in the agreement to bring to their attention that we would appreciate any information that would provide timely warning to us. We are many miles from the area, whereas some of the Powder River Mining Corporation representatives are relatively close to the area in which the property is situated.

Yours truly,

EMPIRE STATE OIL COMPANY

J. O. Ahlquist
Accountant

Encl.

cc. Mr. A. A. Wilcox
546 So. Main,

—Representing—



The California
Insurance Company

BUFFALO TRUST & TITLE CO.

Buffalo, Wyoming

MU. 4-7651
MU. 42959

Powder River Mining Corporation properties:

18 Lode Claims situated in Big Horn Mountains about 55 miles southwest of Buffalo, Wyoming, comprising about 320 acres.
4 shafts on 4 separate paralleling leads
one shaft 100 ft. deep with about 500 ft of drift
one shaft 100 ft. deep with about 150 ft. of drift on the 75 ft. level,
one shaft 38 ft. deep - no drift,
one shaft 68 ft. deep with 65 ft. of drift on 40 ft level.

Buildings

one metal covered mill building 122 ft. X 36 ft. with 55 ft. high head frame
four log cabins for living quarters and various other log and frame buildings for shops etc...

Equipment:

Complete milling equipment including 1 75 ton mill which will have to be replaced
Flotation unit
Classifier
2 tables
amalgating plates 4' X 4'
2 jaw crushers
1 hoist
3 pumps, 2 cameron sinking pumps 1 large 1 small
1 hand pump
1 - 121HP Caterpillar Diesel
Complete 2300 volt Generator (large enough to electify mill building and camp)
1 Conveyor
a motor for each unit
Various other equipment, cars, rail pipe tools etc.
Of several hundred assays (running from as high as \$3000.00 per ton down to a trace) it averages about \$20.00 per ton. 55% free milling.

Would like to have your engineers inspect, sample and test this property with the idea of leasing and operating the property on a lease to run on a long term if the property meets with your approval.

Plans should be made so that inspection, sampling etc be done after May 15th. 1953 as the road is not being kept open this winter.

Contact Powder River Mining Corporation

Geo. M. Adams, Director, 71 N. Main St., Buffalo, Wyo.



HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA

October 4, 1957

Mr. George M. Adams
Buffalo Trust & Title Company, Inc.
71 N. Main Street
Buffalo, Wyoming

Dear Mr. Adams:

Thank you for your letter of September 19 concerning the Powder River Mine. We appreciate your offer which would allow us to prospect the veins without payment. As a result of this offer, we have examined again the data on the mine and have concluded that the work done does not indicate further testing by us would be warranted.

I am enclosing for your information a copy of the assay report and a sketch of locations of the samples. These were also given to Mr. Noel at the time of his option.

Sincerely yours,

Gordon C. Mathisrud

Gordon C. Mathisrud
Asst. Chief Geologist

GCM/k

ASSAY REPORT

Powder River Mine
Johnson County, Wyoming

Sample	Place	Gold Dollars Ton @ \$35.00	Silver oz./ton
1	No. 2 Vein, 75 ft. level, Face 45' west of shaft	\$.15	n.f.
2	" " " " Back 38' west	n.f.	n.f.
3	" " " " Muckpile grab, last round	2.10	n.f.
4	" " " " Back 28' west, 31" vein	42.65	0.10
5	" " " " Face 72' east of shaft	.50	n.f.
6	" " " " Back 37' east	n.f.	n.f.
7	" " " " Back at shaft	.35	n.f.
8	" " " " Wall in shaft	n.f.	n.f.
9	No. 2 Vein, 50 ft. level, Face 32' east of shaft	n.f.	n.f.
10	No. 4 Vein, Dump, Selected rusty quartz	.35	n.f.
11	No. 3 Vein, Dump, Selected Cu. stained quartz	4.25	n.f.
12	No. 1 Vein, Dump, Selected rusty quartz	8.15	n.f.

n.f. = none found

Gordon C. Mathisrud
Asst. Chief Geologist

GCM/k

Powder River Mine
Johnson County Wyoming

POWDER RIVER No. 2

No 4 shaft
Incl. 69
Sample 10
from dump

No 4 vein 55' level

YELLOW

NW 1/4 NW 1/4 NE 1/4 NW 1/4

SW 1/4 NW 1/4 SE 1/4 NW 1/4 SEC 20
T47N. R 85W.

GOLD No. 1

No 1 vein 50' level

No 1 vein 25' level

No 2 shaft
Incl. 80

No 1 vein 25'

No 2 vein 75'

No 2 vein 50' level

Incl. 100

Sample 12
from dump

No 1 shaft

No 2 vein 75' level

No 2 vein 50' level

Incl. 50' level

GOLD

No 3 shaft
Incl. 88
Sample 11
from dump

No. 1

POWDER RIVER MINE
JOHNSON Co., WYOMING

1" = 100'

7-11-57

GCM

3001-07 LAWRENCE STREET
2114 Curtis Street

TELEPHONE MAIn 1852

CHEMISTS, ASSAYERS, ENGINEERS
DENVER 2, COLO.

Folio 5358

Date Aug. 13, 1949.

Empire State Oil Co.,
Thermopolis,
Wyoming.

We hereby Certify, that the samples assayed for you gave the following results:

DESCRIPTION	GOLD OUNCES PER TON	SILVER OUNCES PER TON	COPPER PER CENT (WET)	LEAD PER CENT (WET)	ZINC PER CENT	IRON PER CENT	INSOLUBLE PER CENT	VALUE PER TON
-------------	---------------------------	-----------------------------	-----------------------------	---------------------------	------------------	------------------	-----------------------	------------------

Retort #2 -

Before melting weight;	2.64 oz. troy.	
Gold fineness and value:	16.2	\$1.40
Silver fineness and value:	838	1.61
		<hr/>
		3.01
		1.50
Charges		\$1.51
Net		2.13
Retort #1 total value:		<hr/>
Check herewith		\$3.64

Gold at _____ per ounce Copper at _____ per unit

Silver at _____ per ounce Zinc at _____ per unit

Lead at _____ per unit _____

Charge \$ _____

CHARLES O. PARKER & CO.
CHEMISTS, ASSAYERS and ENGINEERS

RICHARD McCARTHY

ASSAYER AND CHEMIST

56 East Granite Street

Butte, Montana,

Sept 25.1945

19

K.C. Bellows

Mr.

Your Sample

assayed as follows:

No.	DESCRIPTION	Per Ton of 2000 Lbs.			Per Cent Copper	Per Cent Lead	Per Cent Zinc	Per Cent Silica	Per Cent Iron	Per Cent
		Ozs. Gold	Gold at	Ozs. Silver						
		Trace	-							
		0.01	.25							
		Trace								
		Trace								
		0.02	.70							
		0.08	4.50							
		0.03	1.5							
		0.01	.35							
		0.01	.35							
		0.06	2.0							

Charges \$ _____ 7
3 T

Respectfully,
Richard McCarthy

RICHARD McCARTHY

ASSAYER AND CHEMIST

56 East Granite Street

Butte, Montana,

Sept 25.1945

19

K.C. Bellows

Mr.

Your Sample

assayed as follows:

No.	DESCRIPTION	Per Ton of 2000 Lbs.			Per Cent Copper	Per Cent Lead	Per Cent Zinc	Per Cent Silica	Per Cent Iron	Per Cent
		Ozs. Gold	Gold at	Ozs. Silver						
1		0.04	1.40							
2		0.02	.70							
3		Trace	-							
		0.01	.35							
		Trace	-							
		0.02	.70							
		Trace	-							
		Trace	-							
		Trace	-							
		Trace	-							

Charges \$ _____

Respectfully,
Richard McCarthy

Mr. K.C.Bellows

Your Sample _____ assayed as follows:

No.	DESCRIPTION	Per Ton of 2000 Lbs.			Per Cent Copper	Per Cent Lead	Per Cent Zinc	Per Cent Silica	Per Cent Iron	Per Cent
		Ozs. Gold	Gold at	Ozs. Silver						
1		0.14	1.1							
2		0.30	0.50							
3		0.02	.70							
4		0.18	6.30							
5		0.03	1.15							
6		0.18	6.20							
7		0.01	.35							
8		0.86	30.10							
9		0.05	4.10							
10		0.04	1.40							

Charges \$ _____

Respectfully,

Richard McCarthy

RICHARD McCARTHY

ASSAYER AND CHEMIST

56 East Granite Street

Butte, Montana,

Sept 26.1945 19

Mr. K.C.Bellows

Your Sample _____ assayed as follows:

No.	DESCRIPTION	Per Ton of 2000 Lbs.			Per Cent Copper	Per Cent Lead	Per Cent Zinc	Per Cent Silica	Per Cent Iron	Per Cent
		Ozs. Gold	Gold at	Ozs. Silver						
11		Trace	—							
12		Trace	—							
13		0.70	24.50							
14		0.20	7.00							
5		0.02	.70							
6		0.07	4.45							
7		0.02	.70							
8		0.54	18.90							
9		0.02	.70							
0		0.01	.35							

Charges \$ _____

Respectfully,

Richard McCarthy

Charges \$ _____

Respectfully,

Richard McCarthy

RICHARD McCARTHY

ASSAYER AND CHEMIST

56 East Granite Street

Butte, Na,

8/27/40

19

Mr. McCarb

Your Sam _____ assayed as follows:

No.	DESCRIPTION	Per Ton of 2000 Lbs.			Per Cent Copper	Per Cent Lead	Per Cent Zinc	Per Cent Silica	Per Cent Iron	Per Cent
		Ozs. Gold	Gold at	Ozs. Silver						
1		0.06		0.2						
2		0.02		0.1						
3		0.06		2.2						
4		0.13		0.2						
5		.04		0.1						
6		Trace		0.1						
7	35 42	3.20		0.5	18 ^m					
8	52 71383 70 140	0.02		0.2						
9		0.20		0.2						
		3.83								

Charges \$

Average \$14.90

Respectfully,

R. McCarthy

RICHARD McCARTHY

ASSAYER AND CHEMIST

56 East Granite Street

Butte, Montana,

Sept 25. 1945

19

Mr. K.C. Bellows

Your Sample _____ assayed as follows:

No.	DESCRIPTION	Per Ton of 2000 Lbs.			Per Cent Copper	Per Cent Lead	Per Cent Zinc	Per Cent Silica	Per Cent Iron	Per Cent
		Ozs. Gold	Gold at	Ozs. Silver						
1		0.04	1.40							
2		0.02	.70							
3		Trace	-							
4		0.01	.35							
5		Trace	-							
6		0.02	.70							
7		Trace	-							
8		Trace	-							
9		Trace	-							
10		Trace	-							

Charges \$

Respectfully,

R. McCarthy

Report on The Powder River Mining Company Inc., Gold Mine
Johnson County, Wyoming

February 4, 1961

Carl L. McBirnie

-Introduction

Mr. Harold Blair and J.L. Wight of the Big Horn Mining Company, P.O. Box 322, Buffalo, Wyoming has requested a complete report on the gold mine of The Powder River Mining Company, Inc. Data for this report was prepared by Mr. J.L. Wight and the writer.

Location and Ownership

This property is located in Sec. 20, T. 47, R.85W., Johnson County, Wyoming. The owner of this property is The Powder River Mining Company, Inc.

Geology of the Deposit.

High temperature quartz and schist outcrops to the surface in narrow veins penetrating the country rock known as a coarse grained granite. The quartz veins and schist are highly mineralized containing an average gold content value of ~~19.00~~ ^{19.00} per ton of ore (2000 $\frac{1}{2}$), based on gold value of \$35.00 per fine troy ounce, according to assays. In accordance with metallurgical tests gold values appear to be 90% free milling with 10% to be recovered in sulfide concentrate.

These quartz veins and schist are great in number and have an approximate total width of 20 ft., and length of 1500 ft. The general strike of the ore body is North 65° West, pitching approximately 5° East to West, and dipping North at approximately 65°. This vein structure is intersected on the East by a feldspar

dike and by a bull quartz dike on the west.

The origin of these quartz outcrops seems to be finger veins from a major quartz intrusion which would appear to be reached at an approximate depth of 840 ft., below surface. There are indications that the quartz and schist veins increase in width and values with depth.

Ore Reserves

The present development on this property indicates an ore reserve to be approximately 1,089,000 tons, (2000_r), with an ore density of 160³#/ft³. Additional development should indicate many times the present ore reserve.

Mining Program

Selective open-cut and/or vertical shaft, with sub-level haulage ways, square set stopping and sand fill, such as that employed by the Homestake Mining Company at Lead, S.D. Haulage ways could be developed in the country rock on the footwall of the vein structure at 150 ft., vertical intervals off the shaft. Crosscuts from the haulage ways could be driven to intersect the vein structure at 200 ft., intervals along the main haulage way. At the end of the crosscuts where the vein structure is intersected "I" raises would penetrate the vein structure to the level above. Cut and fill stopping operations would then begin, extracting the developed ore body. This would be done by taking a 6 ft. cut and sand filling as extraction took place.

Respectfully submitted

Carl L. McBirnie
Carl L. McBirnie
278 "L" Street
Salt Lake City, Utah

OUR MOTTO: WHAT THERE IS IN IT, NO MORE, NO LESS.

THE COLORADO ASSAYING COMPANY

(INCORPORATED)

ASSAYERS AND CHEMISTS

2013 WELTON STREET

DENVER, 1, COLORADO, Sept. 29, 1945.

REPORT ON DETERMINATIONS MADE FOR — Mr. K. C. Bellows,
Buffalo, Wyo.

SAMPLE MARKS	METALS	Amount per Ton		PER CENT	Value per Ton	
		Ozs.	Hds.		Dollars	Cents
#1	Gold		.14			4.90
#2	Gold		.20			7.00
#3	Gold		.03			1.05
#4	Gold		.15			5.60
#5	Gold		.01			.35
#6	Gold		.14			4.90
#7	Gold		.02			.70
#8	Gold		1.02			35.70
#9	Gold		.02			.70
#10	Gold		.06			2.10
#11	Gold		.01			.35
#12	Gold		trace			
#13	Gold		.01			.35
#14	Gold		trace			
#15	Gold		.02			.70
#16	Gold		.14			4.90
#17	Gold		.01			.35
#18	Gold		.01			.35
#19	Gold		trace			
#20	Gold		.04			1.40

GOLD AT \$35.00 PER OUNCE
LEAD AT _____ PER UNITSILVER AT _____ PER OUNCE
COPPER AT _____ PER UNIT

THE COLORADO ASSAYING COMPANY

By Edmund Phillips43
32

39

OUR MOTTO: WHAT THERE IS IN IT, NO MORE, NO LESS.

THE COLORADO ASSAYING COMPANY
(INCORPORATED)

ASSAYERS AND CHEMISTS

2013 WELTON STREET

DENVER, 1, COLORADO, Sept. 29, 1945

REPORT ON DETERMINATIONS MADE FOR — Mr. K. C. Bellows,
Buffalo, Wyo.

SAMPLE MARKS	METALS	Amount per Ton Hds.		PER CENT	Value per Ton	
		Ozs.	Hds.		Dollars	Cents
#21	Gold	.04			1.40	
#22	Gold	.01			.35	
#23	Gold	.02			.70	
#24	Gold	.03			1.05	
#25	Gold	trace				
#26	Gold	trace				
#27	Gold	.01			.35	
#28	Gold	trace				
#29	Gold	trace				
#30	Gold	trace				
#31	Gold	trace				
#32	Gold	trace				
#33	Gold	trace				
#34	Gold	.01			.35	
#35	Gold	trace				
#36	Gold	trace				
#37	Gold	trace				
#38	Gold	.01			.35	
#39	Gold	trace				
#40	Gold	trace				

THE COLORADO ASSAYING COMPANY

GOLD AT \$35.00 PER OUNCE
LEAD AT _____ PER UNIT

SILVER AT _____ PER OUNCE
COPPER AT _____ PER UNIT

By *Edmund Phillips*

OUR MOTTO: WHAT THERE IS IN IT, NO MORE, NO LESS.

THE COLORADO ASSAYING COMPANY

(INCORPORATED)

ASSAYERS AND CHEMISTS

2013 WELTON STREET

DENVER, 1, COLORADO, Sept. 29, 1945.

REPORT ON DETERMINATIONS MADE FOR — Mr. K. C. Bellows,
Buffalo, Wyo.

SAMPLE MARKS	METALS	Amount per Ton		PER CENT	Value per Ton	
		Ozs.	Hds.		Dollars	Cents
#41	Gold		trace			
#42	Gold		.01			.35
#43	Gold		.92			32.20
#44	Gold		.20			7.00
#45	Gold		trace			
#46	Gold		.08			2.80
#47	Gold		.07			2.45
#48	Gold		.61			21.35
#49	Gold		.01			.35
#50	Gold		trace			
#51	Gold		trace			
#52	Gold		.03			1.05

20 Sample - Trace
Average $\frac{4.10}{32}$ Sample .13

SOLD AT \$35.00 PER OUNCE
LEAD AT _____ PER UNIT

SILVER AT _____ PER OUNCE
COPPER AT _____ PER UNIT

THE COLORADO ASSAYING COMPANY

By Edmund Phillips