MME Form 9
Rev. Nov. 65

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey

OFFICIAL DOCKET FILE

Contract No. _____ Docket No. 6570

Application
- [x] Denied
- [ ] Withdrawn

Reopened 4/24/67

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [x] Application and Attachments
  - Application dated 4/22/67

Right Side

- [ ] Project Summary (final)
- [ ] Work Completed Analysis (final)
- All other material filed in chronological order including the following reports if checked:
- [ ] Field Team Semiannual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam. Report (Tab) March 1967
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No. _____: Reports
- [ ] Analysis of Semiannual Inspection Reports
- [ ] Project Summary (Interim) by MME Engineers

Right Side

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with Transmittal, Narrative and Maps

Folders No. _____: Maps (Use pocket folder or envelope)

Folders No. _____: Settlement Sheets

Folders No. _____: Drill Logs

Folders No. _____: Royalty Material

72195-65

Berry
BERRY METAL ®
World's Largest Self-Integrated Oxygen Lance Designers and Builders
METAL COMPANY
HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

December 21, 1967

Mr. Frank E. Johnson
Chief - Office of Minerals Exploration
United States Department of the Interior
Room 4460, Interior Building
Washington, D. C. 20242

Re: OME 6570
Anglo Saxon Mines, Inc.
Georgetown, Colorado

Dear Mr. Johnson:

Enclosed is our Financial Report for the year ending October 31, 1967.

This is an outstanding report. It shows steady growth and an unusually profitable operation. We are highly regarded by the entire steel industry for our creative ability, engineering, and integrity.

This report supports my statement on December 18, "that we have a gold and silver mine in our business and, therefore, cannot afford to waste our time and money on a potential under $5,000,000.00."

It is quite apparent that there is no necessity for us to look upon Anglo Saxon as an opportunity to "strike it rich". On the contrary, we consider it a legitimate, worthy, and meritorious undertaking.

These facts, plus the fact that we are now paying your government a quarter million dollars in taxes annually, places our request on a plane much higher than the great majority of applications for assistance: first because of its outstanding merit and secondly because we are financially able to carry on into production after completion of the exploration stage.

Propdsal
12/21/67

We have furnished you with such a vast amount of data that it creates a problem of finding time to properly digest, assimilate, and evaluate it. It is our belief that every vital statistic you need for evaluation is contained in either written or map form.

There is no question about the merit of this project. The problem is to select the best method of exploring it with due consideration to the economical aspect and the production phase that must follow exploration.

After due consideration of all related factors, we suggest for your consideration the following exploratory program:

PRIMARY OBJECTIVE
REOPEN UPPER AUNT JACK TUNNEL AT ELEVATION 9760'

Objectives

To explore approximately 72 vein intersections northeast of Saxon Saddle.

To explore the downward extension of the rich ore shoot formed by the junction of the Anglo Saxon and Federal veins. This exploratory area is 612' below surface and 540' below former productive areas which extended approximately 72' below surface and produced an estimated one million dollars of very rich silver ore. That production came northeast of Saxon Saddle Fault and northeast of the junction. The proposed exploratory area is related in that it too is northeast of the fault and northeast of the junction. The ore shoot rakes northeast with the junction due to the north 70° dip of the Anglo Saxon vein and a south 75° to 85° dip of the Federal vein.

70° South on the surface

Direction of dip on Federal vein not indicated on map.

To explore the northeasterly extension of the rich oxidized area within which rich silver minerals (see assay record) were found on the southwest side of the Saxon Saddle Fault - in close promimity thereto - in biotite gneiss which is not conducive to forming ore shoots. It can be reasonable expected that this rich mineral showing will form an ore shoot on the northeast side of the fault and vein junction - in Silver Plume Granite - as contrasted with spotty mineralization in the biotite gneiss on the southwest side of the fault and vein junction.

It is important to note that this is the area recommended for exploration by Professor G. E. Goodspeed, head of the geology department of the University of Washington, together with George H. Garrey, co-author of Professional Paper 63, U.S.G.S. Both of these outstanding geologists plotted this downward extension of the ore shoot based upon their observations of the dip and strike of the veins.

It is also important to note that this is a part of a general area suggested for exploration by Del Rio in Mineral Resources of Colorado (1960 p. 101) and by T. S. Lovering in P.P. 223 U.S.G.S. (1950 p. 191).

Hopkins, Prommel and Gabelman concurred.

On November 25, 1967, Hopkins reported (p. 4) "Surface mapping in the area east of the Saxon Saddle and a reconnaisance further to the north and east, indicates that the granite intrusive body of the "Silver Plume Granite" and other intrusive material including tertiary porphyries should be or are formed at the surface or shallow depths. Accordingly, this area is considered as the more favorable area for the development of major ore bodies when compared to the potential for development at relatively shallow depths west of the same Saxon Saddle where the lithology is a mixture of granite, granite porhyry, granite gneiss, pegmatite and biotite gneiss. Projection of exposed rock lithology from exposures immediately to the northwest of the Saxon Saddle to the Anglo Saxon and Federal workings of the 1870 - 1890 period indicate that the ore production there was apparently at least in part controlled by the lithology. The early production apparently came from the granite and porphyry rock as distinguished from the biotite gneiss of the 1967 nomenclature of U.S.G.S. Bulletin 1231."

Hopkins states (p. 7) "During the field work, seven (7) veins were found in the Saxon Saddle area. If one numbered from north to south, numbers 1, 2 and 3 would correspond to the Federal, Anglo Saxon, and Anglo Saxon Extension veins as presently known. Veins numbered 4 to 7 are parallel veins with a northeasterly strike and apparently steep northerly dip. Veins numbered 8 and 9 are the Algonquin and Molly Gibson respectively." (northwesterly)

Hopkins states (p. 10 - 11) "The correlation of the field work thus indicates that there are a number of veins to be found either in the Saxon Saddle or to the south. Continuity of the veins is indicated by the number of apparently related prospect pits and/or adits driven along their strike lines, a distance of 1200 to 1500 feet in several cases. --- During the field work, other mineralization or indications of mineralization were found in this general area, i.e. east of Saxon Saddle. The location of these veins are indicated by float or dump material found at the several prospect pits or tunnels. These have been platted and thus define a subordinate objective for exploration in the area after penetrating the Anglo Saxon and Anglo Saxon Extension veins during a diamond drilling program. The dump material in leached, hence not indicative of values to be encountered at depth. However, the dump material is vein breccia, resilicified with pseudomorphs of sulphides (Galena? Pyrite?) in the quartz. Reconnaissance to the east has shown gossan areas that indicate vein structure or structures are to be expected in this area."

Probable Cost

770'	New portal and new tunnel to station N15 (see accompanying drawing) @ $80.00 per foot - - - - - - - - - -	$ 61,600.00
770'	Retimbering old drift @ $7.00 per foot - - - - - - - - - - -	4,445.00
600'	Drifting @ $80.00 per foot - - - -	48,000.00
1300'	of diamond drilling @ $12.00 per foot - - - - - - - - - - - - - -	15,600.00
	Total Cost of Primary Objective - - - -	$129,645.00

Comment

We have been hesitant in presenting this program for fear the reopening of an old tunnel would be looked upon with disfavor. On the contrary it must now be looked upon favorably when we compare costs and benefits with other programs presented:

$298,535.84	Total cost of development at the Upper Aunt Jack level - elevation 9760'
$333,400.98	Total cost of development at the Lower Aunt Jack level - elevation 9360'
$322,675.00	Total cost of development at the Beaver Creek Tunnel site
$574,525.00	Total cost of development by Shaft from surface
$129,645.00	COMPARATIVE TOTAL COST OF THIS PROPOSAL

The cost of reopening the old tunnel is materially offset by Berry Metal Company who now agrees to furnish buildings, roads, tools and equipment. This eliminates the liability of loss to OME.

Berry Metal Company and Anglo Saxon Mines, Inc. have already expended over $450,000.00 on the development of this property which comprises a block of about 1000 acres of nearly virgin ground with a multitude of veins.

From every point of view the exploratory method now proposed is the most practical, the most feasible and the most economical method to explore the area of interest as contracted with the cost of exploration by surface drilling in an inaccessible area requiring either costly road construction and transportation, or helicopter operation at prohibitive cost.

It must be born in mind that surface drilling is not as satisfactory as underground exploration, nor does it expose ore for immediate production which is the primary object of the OME program.

In addition to big cost savings - and immediate production possibilities - this program makes available for immediate use a $100,000.00 ore separation and ore storage building.

Under this program ore exposed by exploration can be immediately mined, sorted, stored and shipped.

Gentlemen you have everything you need to approve this program:

1. The mine that focused attention on this area for silver production by the discovery of ore at surface that assayed $28,000.00 per ton.

2. The mine that produced some of the richest silver ore found in Colorado - about $1,000,000.00

3. The mine referred to in U. S. Government "Executive Documents" as one of the richest mines in a county referred to as containing the most valuable and extensive silver veins in Colorado.

4. The mine whose past history is well documented.

5. The mine studied and recommended for development by such outstanding geologists as George H. Garrey, Professor G. E. Goodspeed, John W. Gabelman, H. W. C. Prommel, and Paul M. Hopkins.

6. The mine located in a geological area recommended for exploration by S. M. del Rio and T. S. Lovering.

7. A mine owned by outstanding, successful people of unquestioned integrity and sound financial stability whose only interest is to bring this property into production.

8. A mine recommended by Professor G. E. Goodspeed who stated,

   "Based upon the geological evidence and microscopic examination of the specimens gathered, it is not at all hard to believe - that more ore shoots may be picked up below that portion of the vein where mining stopped - that when you realize Anglo Saxon was mined to a depth believed not to exceed 120 feet, they just barely touched it - that production records are ample proof that a considerable amount was taken out - that there are several veins on the property, some with spectacular outcroppings of 'Gossan' which would indicate they are strong fissures - that a development tunnel driven 600 or 700 feet below surface would explore the vein where ore shoots of rich silver ore might be expected - that such depth is conservative because similar veins in the Georgetown mineral district have enjoyed considerable profitable production at depths 100 to 1600 feet below surface - and that there is a decided run for your money in the development of this mine."

9. A mine - not worked out - or endeavoring to produce ore at low horizons where veins are tight and where ore bodies are of limited horizontal extent.

SECONDARY OBJECTIVE
DIAMOND DRILLING AT LOWER AUNT JACT TUNNEL - EL. 9360'

Objectives

To explore approximately eight veins and in the vicinity of eighteen vein intersections by diamond drilling. See Hopkins map 5,720,000 - 2,810,000.

The area to be explored lies adjacent to, and northeast of, an area that produced over $250,000.00 on the Anglo Saxon Extension and Bull Doze veins.

Proceeds from production in this area can be utilized for further exploratory work on the Primary Objective at elevation 9760'.

Probable Cost of Diamond Drilling

400' to be drilled S5°E from tunnel Y @ $12.00 per foot	$ 4,800.00
1000' to be drilled S80°E from tunnel Breast @ $12.00 per foot	12,000.00
75' to be drilled S15°E to cut ore 50' below point where found in Anglo Saxon Extension Vein cross-cut @ $12.00 per foot	900.00
Total Cost of Secondary Objective	$17,700.00

SUMMARY OF PROBABLE EXPLORATORY COSTS

$129,645.00	Total Cost of Primary Objective
17,700.00	Total Cost of Secondary Objective
$147,345.00	Total Cost of Both Objectives

Respectfully submitted for consideration by:

ANGLO SAXON MINES, INC.
Division of Berry Metal Company

Walter V. Berry

Walter V. Berry
President

WVB:sjw

Enclosures: Financial Report
Georgetown Pictorial
Map

BERRY METAL COMPANY

Harmony, Pennsylvania

REPORT OF EXAMINATION

October 31, 1967

ROY C. HAMERLY

CERTIFIED PUBLIC ACCOUNTANT

PITTSBURGH, PENNSYLVANIA

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ROY C. HAMERLY

CERTIFIED PUBLIC ACCOUNTANT

124 IVYLAND DRIVE • PITTSBURGH, PENNSYLVANIA 15235 • 241-7000

MEMBER, AMERICAN AND PENNSYLVANIA INSTITUTES OF CERTIFIED PUBLIC ACCOUNTANTS

December 13, 1967

Berry Metal Company
Harmony, Pennsylvania 16037

Gentlemen:

I have examined the balance sheet of Berry Metal Company as of October 31, 1967 and the related statement of income and retained earnings for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as I considered necessary in the circumstances.

In my opinion, the accompanying balance sheet and statement of income and retained earnings present fairly the financial position of Berry Metal Company at October 31, 1967, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Yours very truly,

Roy C. Hamerly
Certified Public Accountant

Berry Metal Company
Balance Sheet
As of October 31, 1967

ASSETS

Current Assets:			
Cash on hand and in banks		$386,946	
Accounts receivable		249,456	
Merchandise inventories:			
Finished goods	$ 32,382		
Finished parts	46,885		
Work in process	41,835		
Raw materials	78,481	199,583	
Prepaid expenses		13,945	
Total current assets			$ 849,930

Plant, Property and Equipment:	Cost	Depreciation to Date	Net
Tools and small equipment	$ 25,781	$ 20,069	$ 5,712
Machinery and equipment	422,404	185,003	237,401
Automobiles and trucks	86,290	21,968	64,322
Office equipment	47,093	13,631	33,462
Buildings	577,299	54,652	522,647
Land	32,721		32,721
Totals	$1,191,588	$295,323	$ 896,265

Other Assets:			
Shares of Anglo Saxon Mines, Inc. (Note 1)		$ 32,102	
Patents and deferred patent costs		9,832	$ 41,934
Total assets			$1,788,129

LIABILITIES AND STOCKHOLDERS' EQUITY

Current Liabilities:			
Accounts payable, trade		$ 26,421	
Tax deductions payable		2,867	
Provision for income taxes (Notes 1 & 3)		171,127	
Other accrued taxes and expenses		61,126	
Portion of long-term liabilities due within twelve months		33,975	
Total current liabilities			$ 295,516
Long-Term Liabilities:			
Long-term portions of mortgages payable to Mellon Natl. Bank, P.I.D.A., Z.I.D.C., H.I.B. Engineering, Inc., H.I.B. Trust, East Park S. & L. Assn. and First Fed'l. S. & L. Assn. of Bellevue			447,823
Total liabilities			$ 743,339
Stockholders' Equity:			
Class "A" shares, par value 25¢: 3,707,246 shares unissued, 214,322 shares issued & outstanding		$ 53,581	
Contributions in excess of par value		19,302	
Retained earnings		971,907	
Total stockholders' equity			1,044,790
Total liabilities and stockholders' equity			$1,788,129

Subject to footnotes on next page.

Berry Metal Company
Footnotes to Accompanying Statements

1. Of the $75,000 invested by Berry Metal Company for a 90% interest in Anglo Saxon Mines, Inc., $47,664 has been expensed for mining exploration and development expenses. Berry Metal Company has expensed its 90% share of this amount, or $42,898, leaving the stated balance of $32,102 in its investment account. Berry Metal Company is filing a consolidated Federal income tax return with this subsidiary company, so that income taxes as set forth are after deduction of the $47,664 mentioned above.

2. The $31,500 of incentive bonuses paid for the current year continue a practice begun two years earlier. Since these figures were not set forth separately in prior reports, they are stated below:

Year ended October 31, 1966	$22,800
Year ended October 31, 1965	25,000

These bonuses have been paid to all regular employees except officers who are major stockholders.

3. The investment credit provision reduces Federal income tax for the year by $7,722, all of which has been treated as a reduction of income tax liability and expense for the year.

Berry Metal Company
Statement of Income and Retained Earnings
For the Year Ended October 31, 1967

Net sales		$1,730,240
Cost of Goods Sold:		
Inventories, October 31, 1966	$ 94,550	
Manufacturing costs incurred during current year	912,206	
Total manufacturing costs	$1,006,756	
Less inventories, October 31, 1967	199,583	
Cost of goods sold		807,173
Gross profit on sales		$ 923,067
Selling and administrative expenses		276,003
Net operating income		$ 647,064
Interest and discounts earned		5,392
		$ 652,456
Other Expenses:		
Interest on mortgages	$ 26,203	
Incentive bonuses to employees (Note 2)	31,500	
Loss on abandonment of leased plant	22,852	
Loss on Anglo Saxon Mines, Inc. (Note 1)	42,898	
Adjustments for prior years	5,561	129,014
Net income before income taxes		$ 523,442
Provision for income taxes (Notes 1 & 3)		256,403
Net income		$ 267,039
Retained Earnings:		
Balance, October 31, 1966		704,868
Retained earnings, October 31, 1967		$ 971,907

Subject to footnotes on preceding page.

Berry Metal Company
For the Year Ended October 31, 1967

STATEMENT OF SOURCES AND APPLICATION OF FUNDS

Funds Provided:			
By Operations:			
Net income for the year		$267,039	
Add charges to operations not requiring funds:			
Depreciation and amortization		131,908	
Leased plant abandonment loss		22,852	
Loss on Anglo Saxon Mines, Inc.		42,897	
Total funds provided			$464,696
Funds Applied:			
To purchase of real estate	$ 9,333		
Less mortgage financing	6,600	2,733	
To purchase of machinery and equipment		167,031	
To reduction of long-term debt		62,099	
To investment in Anglo Saxon Mines, Inc.	$ 75,000		
Less portion advanced last year	10,969	64,031	
Total funds applied			295,894
Increase in working capital			$168,802

STATEMENT OF CHANGES IN WORKING CAPITAL

	As of October 31:		Changes in Working Capital	
	1967	1966	Increase	Decrease
Current Assets:				
Cash on hand and in banks	$386,946	$303,749	$ 83,197	
Accounts receivable	249,456	222,625	26,831	
Merchandise inventories	199,583	94,550	105,033	
Other current assets	13,945	10,820	3,125	
Total current assets	$849,930	$631,744		
Current Liabilities:				
Accounts payable	$ 29,288	$ 28,382		$ 906
Accrued taxes and expenses	232,253	183,194		49,059
Current portion of long-term debt	33,975	34,556	$ 581	
Total current liabilities	$295,516	$246,132		
Working Capital	$554,414	$385,612		
Increase in working capital				168,802
			$218,767	$218,767

Berry Metal Company
Comparative Balance Sheet
As of October 31, 1967, 1966 and 1965

	As of October 31:		
ASSETS	1967	1966	1965
Current Assets:			
Cash on hand and in banks	$ 386,946	$ 303,749	$401,418
Accounts receivable	249,456	222,625	136,435
Merchandise inventories	199,583	94,550	59,772
Other current assets	13,945	10,820	9,108
Total current assets	$ 849,930	$ 631,744	$606,733
Plant, Property and Equipment:			
Tools and small equipment	$ 25,781	$ 20,214	$ 16,801
Machinery and equipment	422,404	358,978	202,063
Automobiles and trucks	86,290	50,085	28,911
Office equipment	47,093	26,449	15,186
Leasehold improvements	-0-	39,288	73,913
Buildings	577,299	535,219	-0-
Land	32,721	31,629	5,000
Totals at cost	$1,191,588	$1,061,862	$341,874
Less depreciation to date	295,323	188,176	153,587
Total plant, property & equipment	$ 896,265	$ 873,686	$188,287
Patent costs less amortization	$ 9,832	$ 10,806	$ 12,378
Other assets	32,102	10,969	-0-
Total assets	$1,788,129	$1,527,205	$807,398
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current Liabilities:			
Accounts payable	$ 29,288	$ 28,382	$ 44,677
Accrued taxes and expenses	232,253	183,194	230,016
Current portion of long-term liabilities	33,975	34,556	-0-
Total current liabilities	$ 295,516	$ 246,132	$274,693
Long-term liabilities	447,823	503,322	-0-
Total liabilities	$ 743,339	$ 749,454	$274,693
Stockholders' Equity:			
Contributions for Shares:			
Par value portion	$ 53,581	$ 53,581	$ 53,581
In excess of par value	19,302	19,302	19,302
Total contributions for shares	$ 72,883	$ 72,883	$ 72,883
Retained earnings	971,907	704,868	459,822
Total stockholders' equity	$1,044,790	$ 777,751	$532,705
Total liabilities & stockholders' equity	$1,788,129	$1,527,205	$807,398
Book value per share	$4.87	$3.63	$2.49

Berry Metal Company
Comparative Statement of Income and Retained Earnings
For the Years Ended October 31, 1967, 1966 & 1965

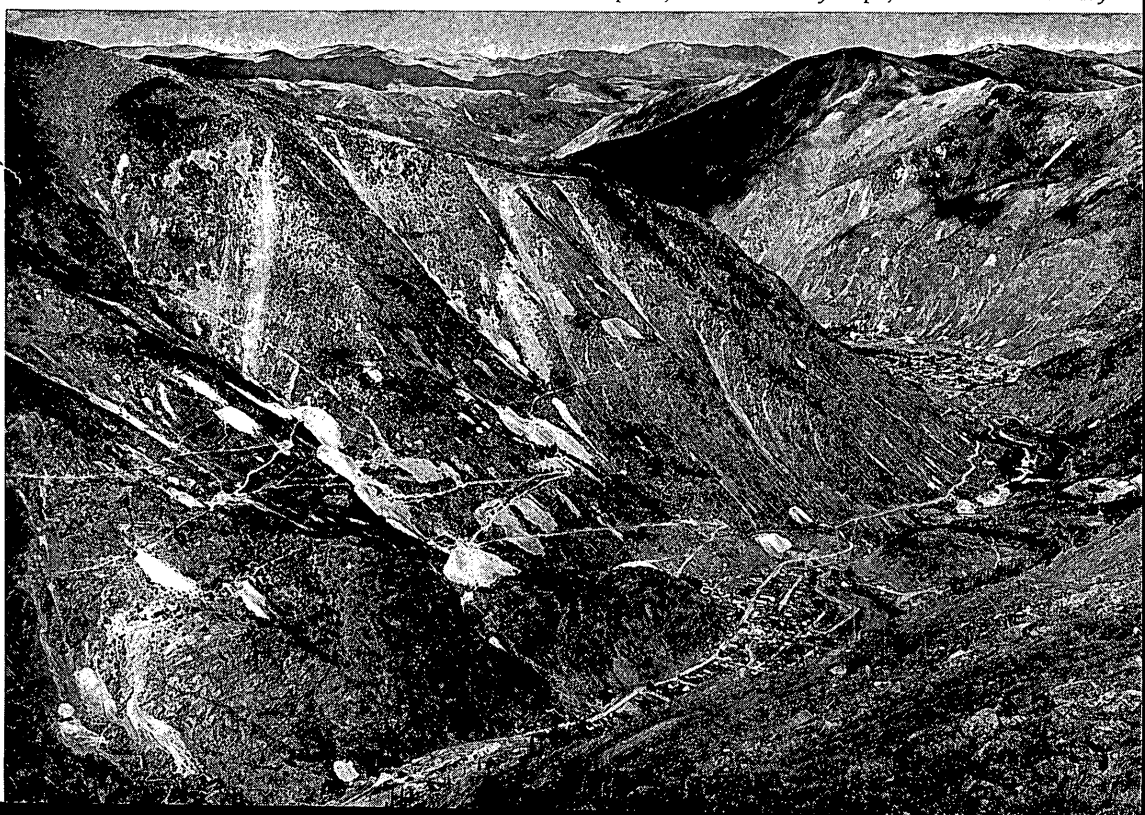
	For the Years Ended October 31:		
	1967	1966	1965
Net sales	$1,730,240	$1,441,092	$1,477,383
Cost of Goods Sold:			
Beginning inventories	$ 94,550	$ 59,772	$ 52,673
Manufacturing costs incurred during the year	912,206	832,258	890,026
Total manufacturing costs	$1,006,756	$ 892,030	$ 942,699
Less ending inventories	199,583	94,550	59,772
Total cost of goods sold	$ 807,173	$ 797,480	$ 882,927
Gross profit on sales	$ 923,067	$ 643,612	$ 594,456
Selling and administrative expenses	276,003	185,144	128,686
Net operating income	$ 647,064	$ 458,468	$ 465,770
Net of other income and other expense*	123,622*	7,197	16,472*
Net income before income taxes	$ 523,442	$ 465,665	$ 449,298
Provision for income taxes	256,403	220,619	232,701
Net income	$ 267,039	$ 245,046	$ 216,957
Retained Earnings:			
At beginning of the years	704,868	459,822	243,225
Retained earnings at end of years	$ 971,907	$ 704,868	$ 459,822
Per share of outstanding stock:			
Net operating income before income taxes	$3.02	$2.14	$2.17
Non-operating items and income taxes	-1.77	-1.00	-1.16
Net earnings	$1.25	$1.14	$1.01

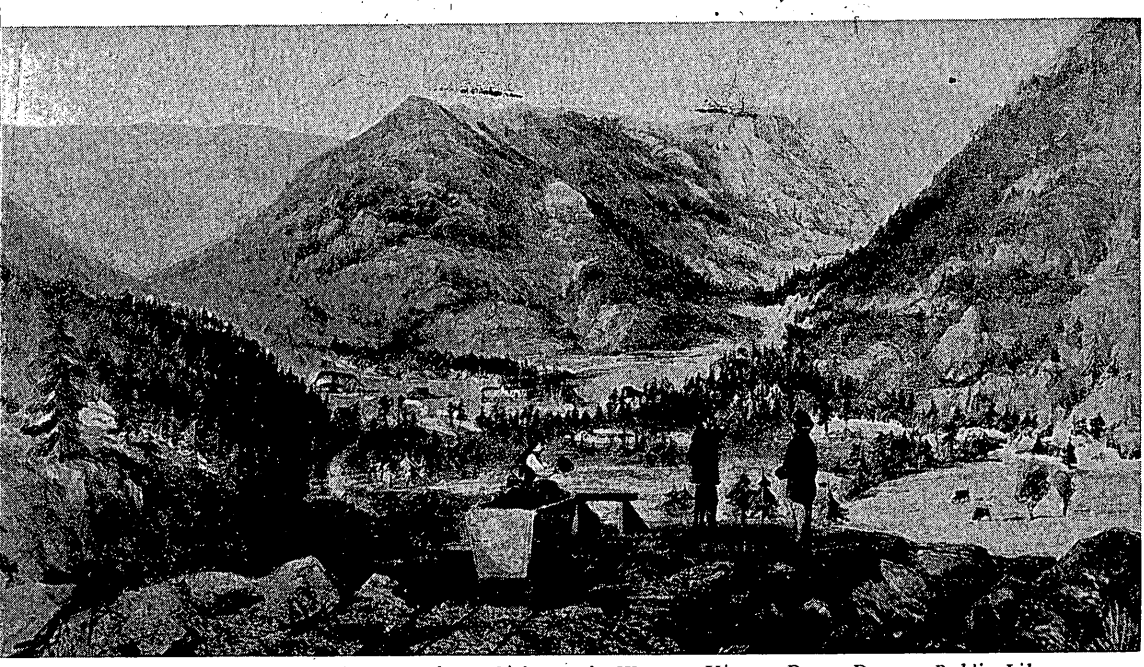
Pikes Peak or Bust

The Colorado mining towns of the Nineteenth Century have by now, a hundred years later, found their place in the history of the winning of the West. These new settlements in a mountain wilderness were unique in that they were built eight hundred miles from the established America of the day. Supplies were hauled from the border towns of Missouri, Iowa, Nebraska, and Kansas by oxcart across the Great American Desert through Indian country. From the distribution point, the settlement of Denver, they were transported up the steep canyons of the Rocky Mountains to the high mountain country by wagon, pack train, and on the backs of sturdy miners. The railroad came to Denver in 1870 and to Georgetown in 1877.

Upper Clear Creek Valley slopes spotted with mine dumps. Silver Plume, foreground, Georgetown beyond.

L. C. McClure photo, Western History Dept., Denver Public Library





A. E. Mathews Lithograph, Western History Dept., Denver Public Library

Earliest Picture, 1866.

The Griffiths

George and David Griffith, members of the Plattsmouth Party, reached Denver City October 25, 1858, the first year of the Pikes Peak Gold Rush. They came from Bourbon County, Kentucky, where they had been farmers. Early in May, 1859, the Cherry Creek settlement went wild with the news that John H. Gregory had discovered gold where Central City is today. The Griffith boys joined the rush for the mountains but found the more promising claims already staked. George began on his own to prospect the surrounding country. In August, 1859, he discovered the Griffith Lode at a spot within Georgetown today, some twenty-five miles from Gregory Gulch.

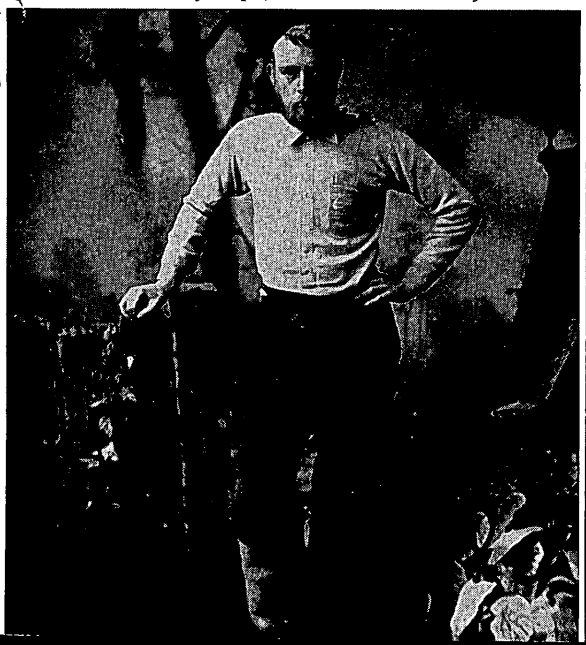
The Griffith boys built a stamp mill, started a town named for brother George, and sent home for two older brothers, John and William, John's wife Elizabeth, and their father. The boys staked out the valley below town as a homestead for their father and built him a cabin. A few years later, as with many pioneers, three of them drifted to other parts of the West. David died in Georgetown in 1882.

L. C. McClure photo, Western History Dept., Denver Public Library

Boom-day Buildings, Georgetown.

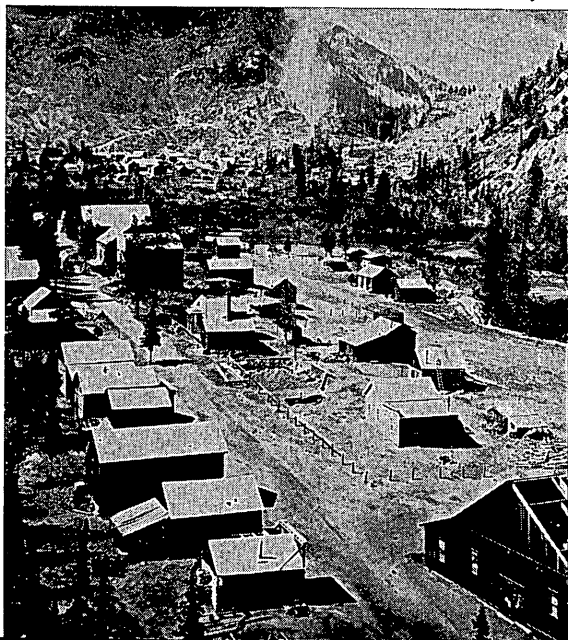
Hard Rock Miner.

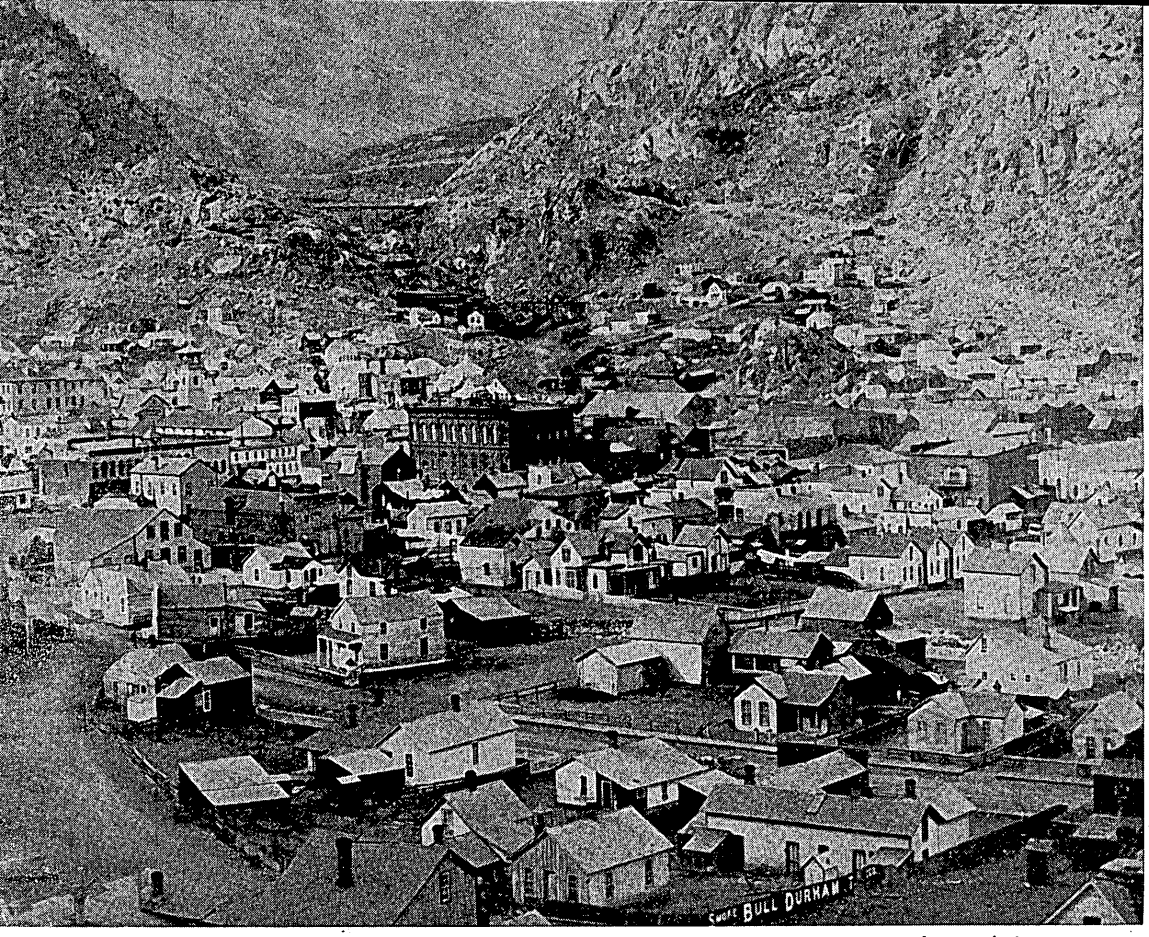
Western History Dept., Denver Public Library



Before 1867.

W. G. Chamberlain photo, Western History Dept., Denver Public Library





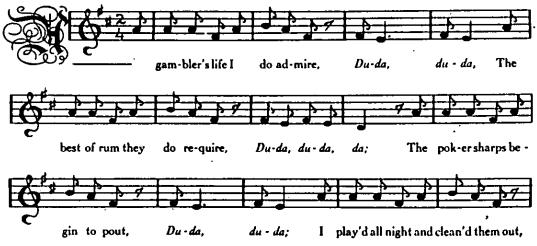
Library of Congress

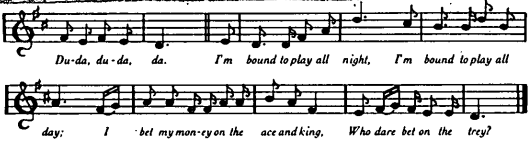
Boom-day Buildings, Looking West.

The discovery of silver near Georgetown in 1864 and the rich Anglo-Saxon strike here in '67 ($23,000 a ton) boomed Georgetown. In 1868 Clear Creek County was the third largest in the Territory, outranked by Arapahoe County (Denver) and Gilpin County (Central City).

The Gambler

AIR: DE CAMPTOWN RACES





2.
Monte's mighty hard to beat,
Du-da, du-da,
They say the dealer's bound to treat,
Du-da, du-da, da;
Bar-Keeper, give me a glass of porter,
Du-da, du-da,
Gin for me, with a glass of water,
Du-da, du-da, da.

3.
The king's a lay-out from the top,
Du-da, du-da,
That's where I let my money drop,
Du-da, du-da, da;
I like to deal, and I like to buck,
Du-da, du-da,
I'm down on noisy chuck-aluck,
Du-da, du-da, da.

4.
There's faro, sledge, and twenty-one,
Du-da, du-da,
For me to beat 'tis only fun,
Du-da, du-da, da;
Gamblers, always hold your tongue,
Du-da, du-da,
French monte-dealers have all been hung.
Du-da, du-da, da.

5.
What will we do these license times,
Du-da, du-da,
I'll steal before I'll work the mines,
Du-da, du-da, da;
The miners used to bet their dust,
Du-da, du-da,
But now they lay it away to rust.
Du-da, du-da, da.

6.
I used to wear a ruffled shirt,
Du-da, du-da,
But now I'm covered with rags and dirt,
Du-da, du-da, da;
A Colt's revolver and a Bowie-knife,
Du-da, du-da,
I'm bound to gamble all my life.
Du-da, du-da, da.

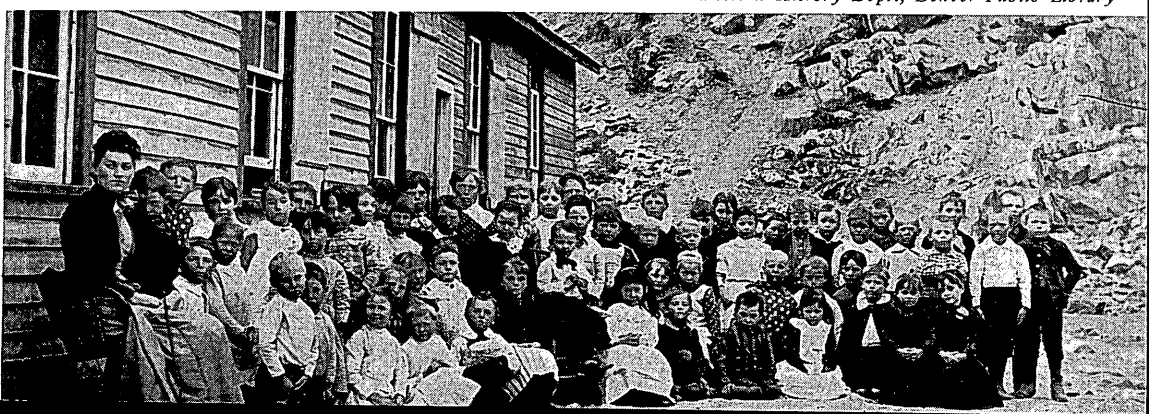
W. G. Chamberlain photo, Western History Dept., Denver Public Library

Georgetown, 1867, Looking North.

The year 1867 was a banner one. There were new silver strikes almost daily. A newspaper, *The Colorado Miner,* was started. Georgetown became the Clear Creek County seat. Buildings sprang up all over the half-mile wide valley. In 1864 there had been only four log houses. Chamberlain and Dillingham Ore Company opened a mill for high grade ore and J. O. Stewart built a smelter at Chimney Rock. The Episcopal Church, the town's first, was erected, blown down in the Big Wind, and re-erected. There was a disastrous fire. Four Masonic and Odd Fellows lodges were chartered. The Gayoso Saloon was the scene of a shooting fracas. A lynching followed and the cemetery was opened. Chicago to Georgetown, via Concord Coach, $196.50.

Georgetown School Before 1874.

Western History Dept., Denver Public Library



Western History Dept., Denver Public Library

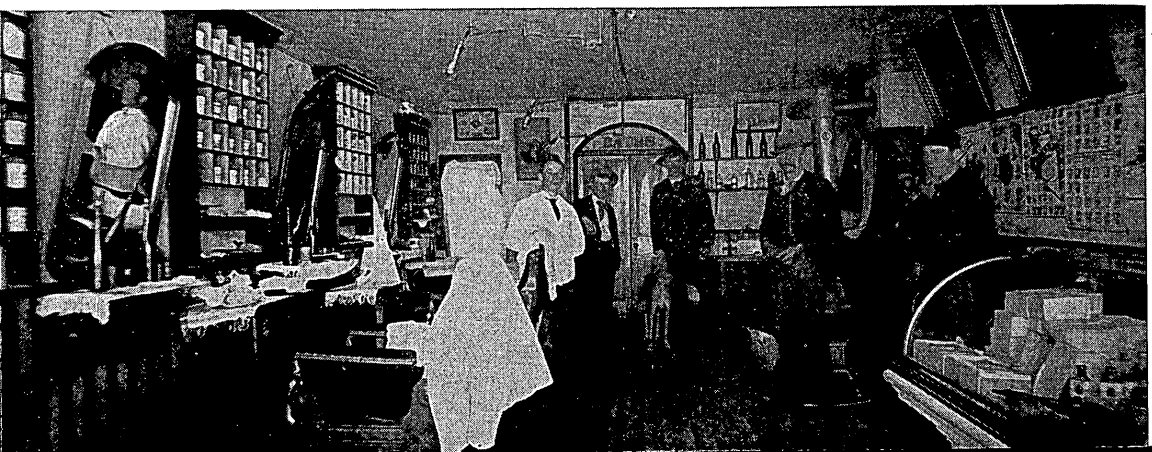
Western History Dept., Denver Public Library

At the Photographer's Gallery.

By 1870 Georgetown was known as "The Silver Queen." It remained the Territory's largest silver camp until 1878 when Leadville became the world's greatest. In 1876 Colorado, the Silver State, was made officially The Centennial State.

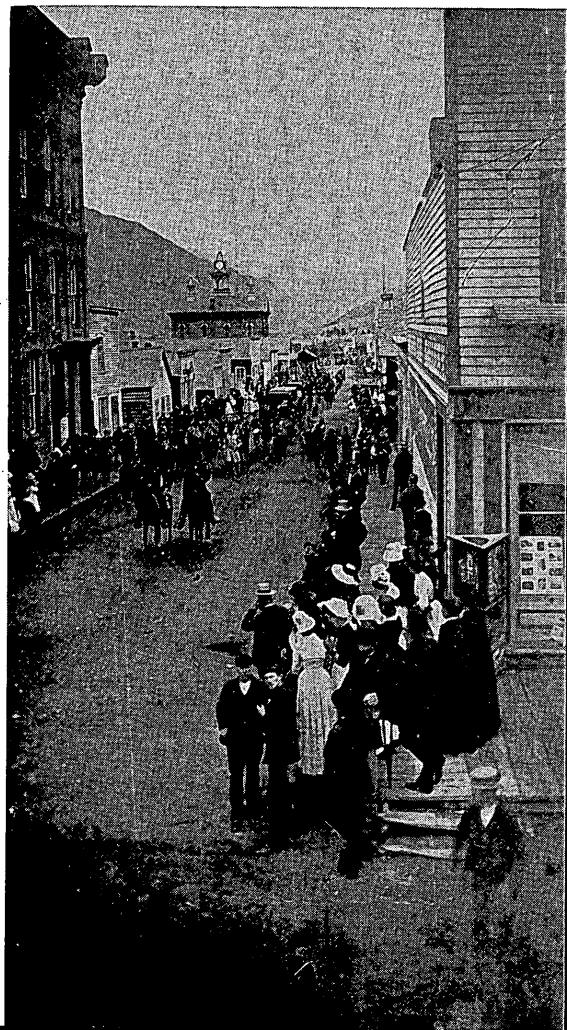
Every Customer Had His Own Shaving Mug.

Western History Dept., Denver Public Library



Western History Dept., Denver Public Library

(Above) Alpine Street decked with flags and bunting, Fourth of July Celebration, 1880's.



(Right) Parade coming up Taos Street, seen from window of McClellan Opera House. In background, brick school building with belfry, built in 1874. To left, the town's only three story building, Cushman Block (recently restored).

Western History Dept., Denver Public Library

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Strobridge Lithograph, 1874.

Pack Trip Off For Summit Of Gray's Peak, Altitude, 14,274 Feet.

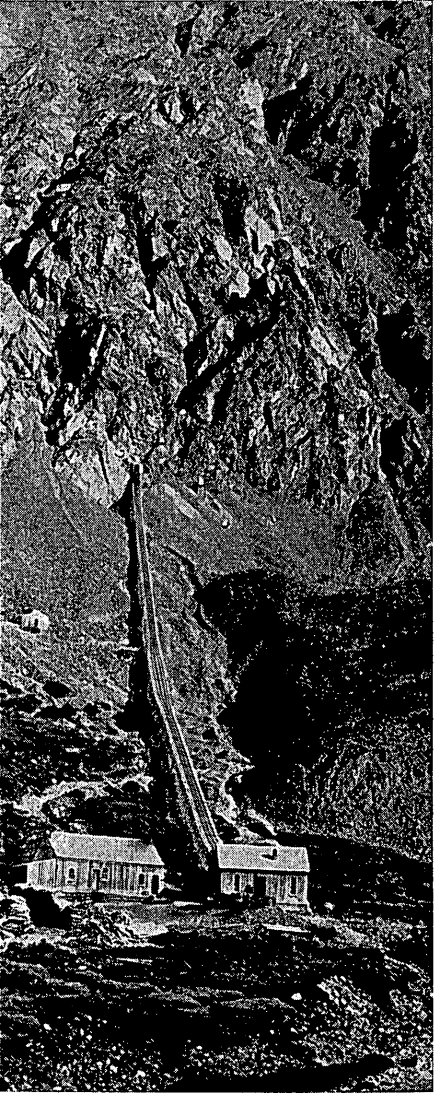
Western History Dept., Denver Public Library

Western History Dept., Denver Public Library

Rare photo showing Barton House and Opera House in lower right hand corner, July 3, 1873.

Taos Street after burning of McClellan Opera House, 1892, which stood left corner of picture.

Western History Dept., Denver Public Library



Mining

Georgetown's adjacent silver mining region, "The Argentine," contributed to its wealth as did mines at nearby Silver Plume.

Located in one of the most inaccessible places, 12,000 feet in altitude, in Gray's Peak Basin, the Stevens Mine *(left)* has produced almost continuously since 1867. *(W. G. Chamberlain Photo, Western History Department, Denver Public Library)*

The famous Pelican-Dives feud, during which miners on both sides went to work armed *(below)*, lasted ten years and made "most of the lawyers in the Territory rich."

Western History Dept., Denver Public Library

Dalgleish photo, Western History Dept., Denver Public Library

Stamp mills, reduction works and ore treatment plants stood on the banks of both creeks that flowed through town, providing water power. The Centennial Mill *(above)* was located in upper town at the mouth of Leavenworth Creek Gulch. *(Below)* Mine timbers were required to support the great weight loosed by cutting tunnels and stopes through the mountain sides.

Dalgleish photo, Western History Dept., Denver Public Library

Western History Dept., Denver Public Library

Rocky Mountain Mill.

Important in the history of Georgetown mining was the establishment in 1867 of the Colorado-British Mining Bureau in London by Robert Orchard Old. Professor Old perhaps did more than any other one person to develop foreign capital for Colorado mines. His ore exhibits in London, as well as those of the famed geologist J. D. Whitney at the Paris Exposition of 1867, brought Colorado mineral discoveries to the attention of the world.

The riches of the New West caught the imagination of rich men in our own country as well. Jay Gould, Marshall Field, P. E. Studebaker, Felix Stoiber, and Charles Rothschild were among the wealthy men who visited Georgetown and invested in its mines in the 1870's.

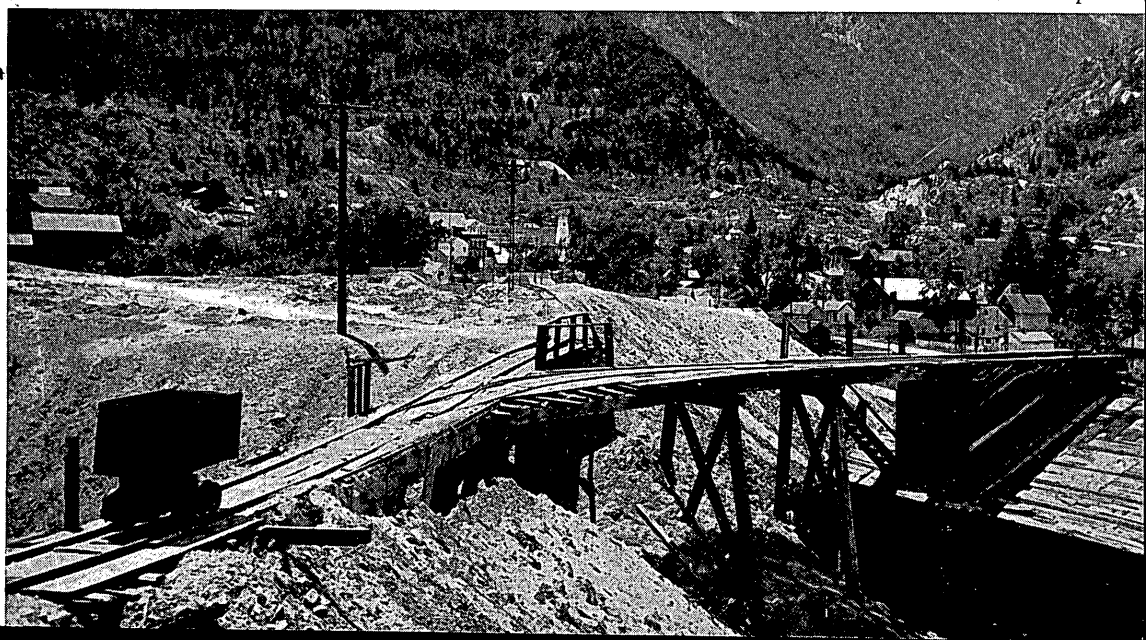
Ore from the fabulous veins was crushed and milled in the Georgetown valley in establishments like the Rocky Mountain Mill. Much of the concentrate was shipped to Denver for smelting and forming into silver bullion bars. Clear Creek County mines produced $1,635,371 in 1882.

Philip Hyde photo

Mine dumps today are scars of glory days.

Site of the Griffith Discovery Today.

Charles Rockwell photo

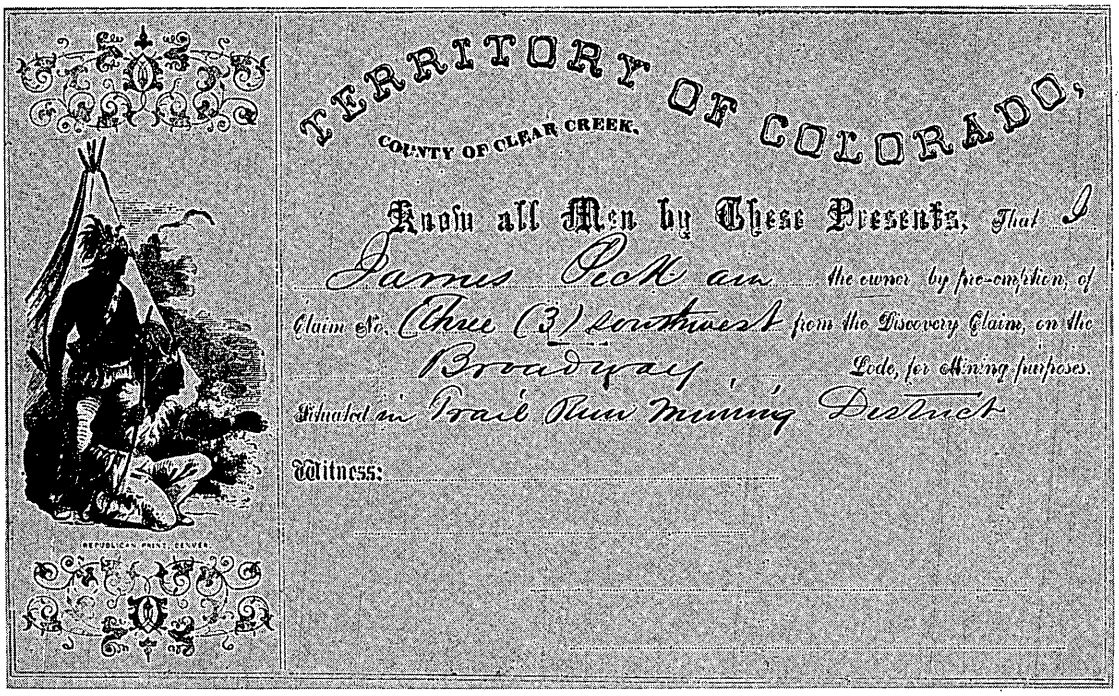


In the 1870's and 1880's it would have been hard to realize that one day most of Colorado's silver mines would be worthless. In 1877-78 the Leadville bonanza produced the greatest mining camp in the world. By the 1890's the price of silver had declined and the "Silver Question" became a public issue. William Jennings Bryan brought it to a climax with his famed "Cross of Gold" speech. The Gold Bugs won and in 1893 the Silver Crash all but ruined the West. The Panic of 1897 provided the finishing blows for the destruction of Georgetown, "The Silver Queen."

Georgetown had sprung into being almost overnight. It had mushroomed with adventure and excitement. It came to its reckoning as swiftly. Families moved away, leaving their homes behind them. By 1900 there were less than a hundred pupils in school; the proud population was counted in hundreds.

(Below) Mining claim certificate issued to James Peck, builder of the famed Peck House, Empire, Colorado, now restored as the Hotel Splendide.

Benjamin Draper collection



TERRITORY OF COLORADO,

COUNTY OF CLEAR CREEK.

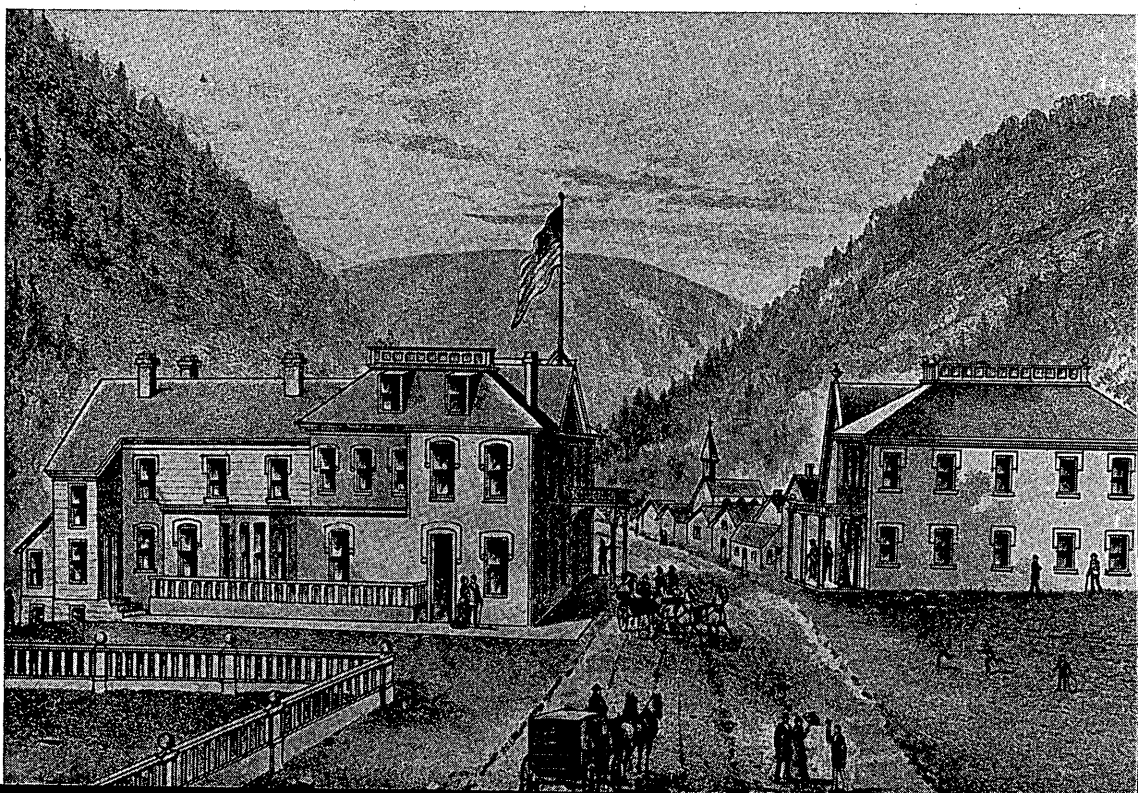
Know all Men by These Presents, That I James Peck am the owner by pre-emption, of Claim No. Three (3) Southwest from the Discovery Claim, on the Broadway Lode, for Mining purposes. Situated in Trail Run Mining District

Witness:

Hotel Life

When William Barton opened his hotel *(below)* August 5, 1867, the *Rocky Mountain News* reported it "second to none in the Territory." Hard rock miners, millionaires, statesmen, English and French noblemen, Governors, and a President, as well as most of the other great and near great who came to Upper Clear Creek Valley, slept and ate at the Barton House. General Grant, on three different occasions, visited Georgetown and was entertained there. Jay Gould owned the railroad and visited the mines. John Torrey, Asa Gray, Charles C. Parry, Frederick V. Hayden, Alfred Russell Wallace, and Alice Eastwood, all scientists of the period, were guests as they explored the high mountain country. Rich men, out of curiosity, boredom, or seeking investments, rubbed elbows with other adventurers and lively members of traveling theatrical troupes, artists, and writers. At table they tasted and savored trout, partridge, venison, elk, buffalo, and bear as well as Eastern delicacies.

Western History Dept., Denver Public Library



Horses were transportation indispensables in the mining camps. Oxen, used on the plains, were of little use in the Colorado Rockies. Miners, judges, doctors, and bosses with the payroll, traveled on horseback. The presence of horses in towns brought flies and created jobs for street cleaners. Manure was packed down around the fire hydrants to keep them from freezing in below zero winters.

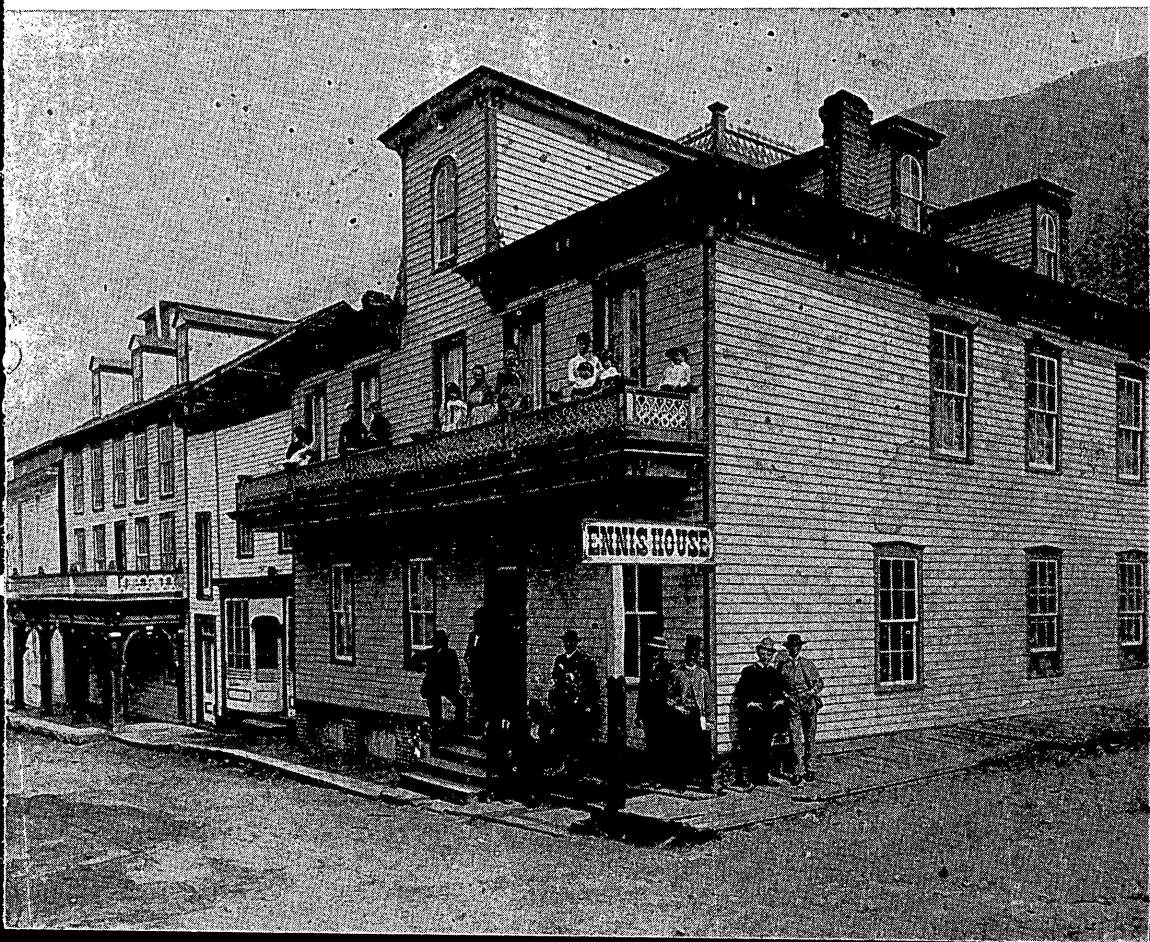
When the railroad came to Georgetown in August 1877, travel time to and from Denver was cut by half. Within eight years the annual number of visitors had risen to fifteen thousand. Colorado's Alpine region was referred to by writers as "the Switzerland of America." Tourists and health seekers alike came up narrow Clear Creek Canyon to spend a week or the balance of a lifetime. Two trains a day deposited passengers at the brick depot in "lower town." They were met by the livery, forerunner of the hotel bus or taxi.

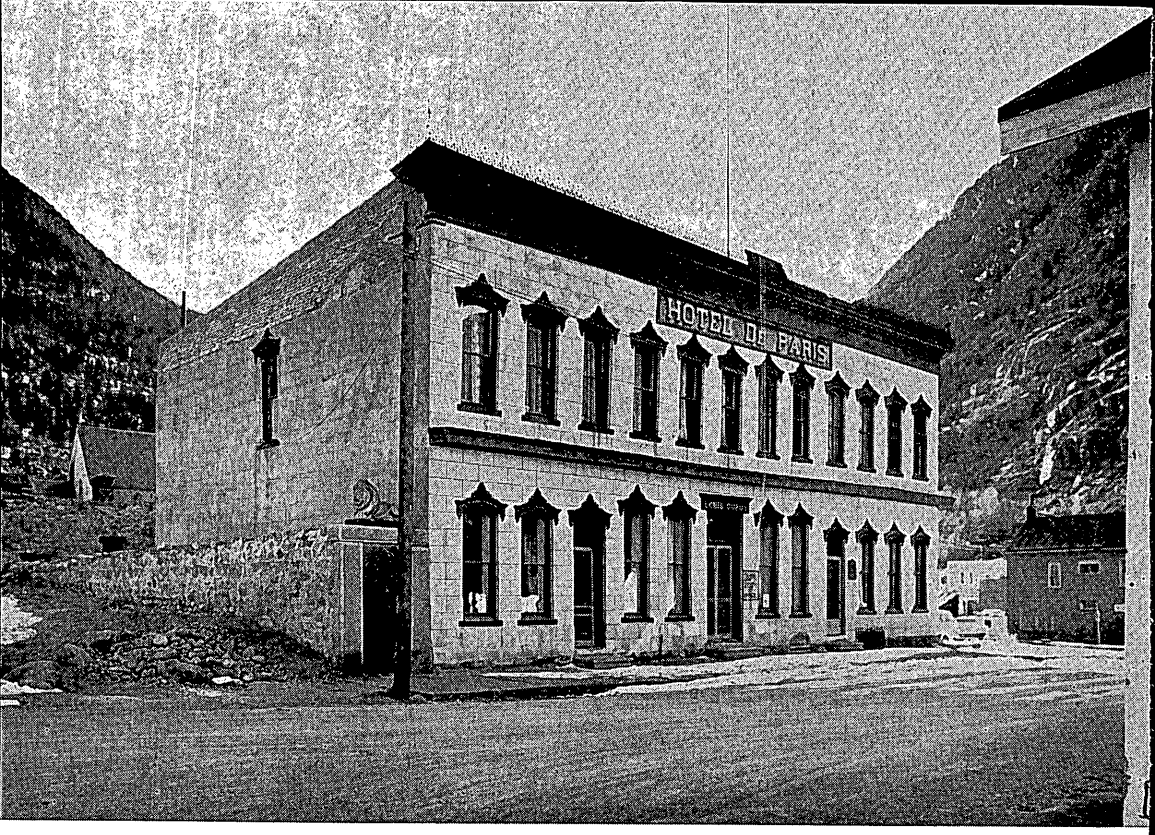
Clara Holcombe Geiger photo

Benjamin Draper collection

Among the dozen "hotels" in Georgetown were boarding houses such as the St. James, the Yates, and American House, catering to traveling drummers, mine operators, and theatre folks. The Ennis House, on Taos Street, was built in 1867 by Thomas Ennis who also pioneered in freighting over Berthoud Pass to Middle Park. The Ennis House set a fine table and had its share of important guests.

Roberta Ennis Keating photo





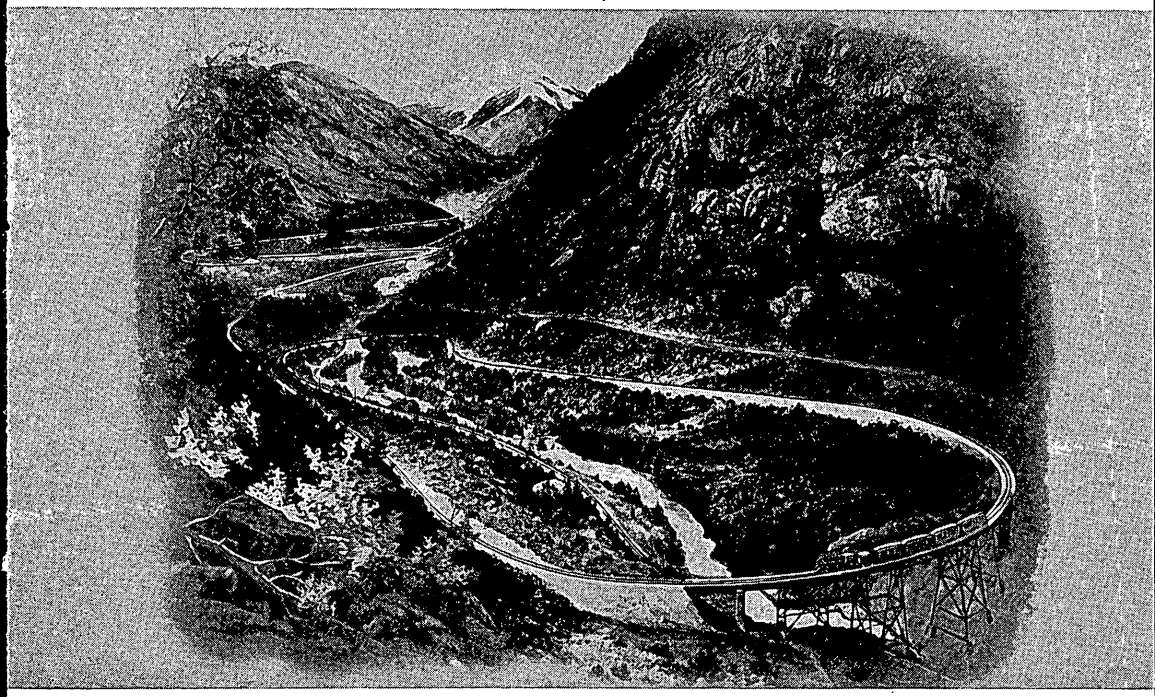
Colonial Dames photo

The story of "the mysterious Frenchman," Louis Dupuy, has been dug from history by scholars since his death in 1900 and the subsequent burial of his housekeeper, Sophie Gallet, beside him in Alvarado Cemetery. The headstone is inscribed "*Deux Bons Amis.*" Louis came to Georgetown in the early 1870's and opened a restaurant, enlarging it until by 1875 the Hotel De Paris had been created essentially as it is today — a two-story, twenty room stone and stucco building with cast iron decorations and pressed metal trim.

For twenty-five years the Hotel De Paris was famed for comfort and cooking. Louis attracted guests not only by culinary ability but with talk of art and literature. He was philosopher, atheist, socialist, and gourmet. Madame Janauschek, the Bohemian tragedienne, stayed up all night in front of the tile-faced fireplace in sheer joy of conversing in French with Louis.

While it may not have been the town's top hotel, it certainly was the most exclusive. Louis served only those who pleased him. His hostelry is again famous, restored as a museum by The National Society of the Colonial Dames in the State of Colorado.

Georgetown Loop

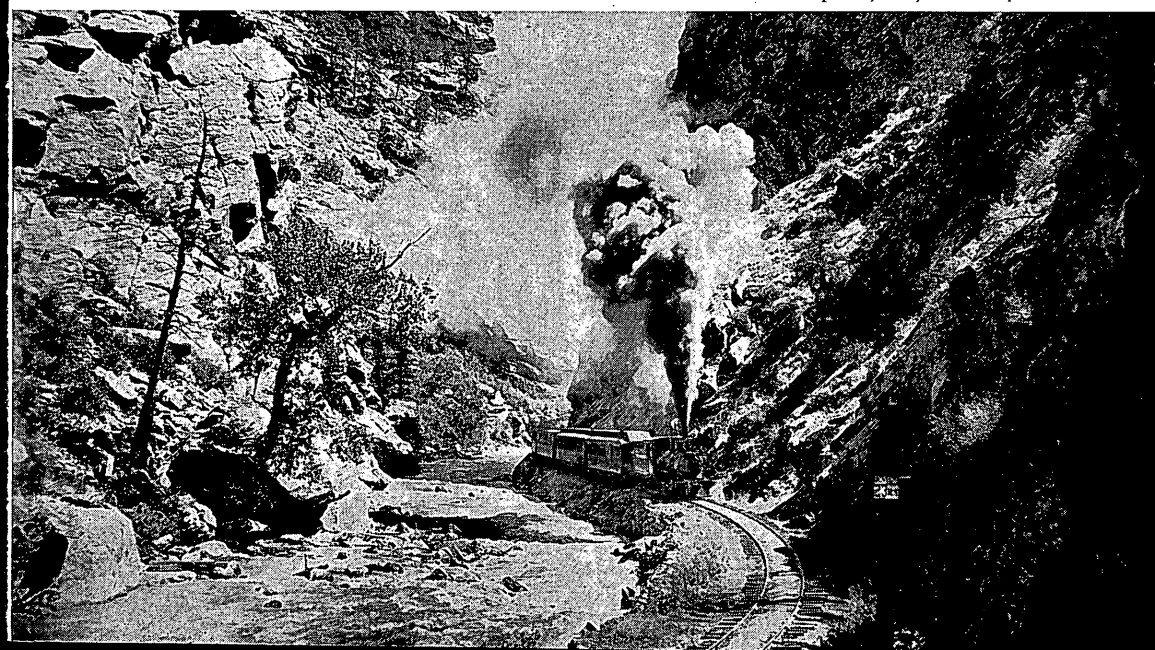


The University of Chicago Libraries

A narrow gauge railroad that climbed up the canyon and looped back over itself three hundred feet above the valley floor to gain altitude! Four miles of track for one mile as the crow flies!

Narrow Gauge Train In Clear Creek Canyon.

L. C. McClure photo, Benjamin Draper collection



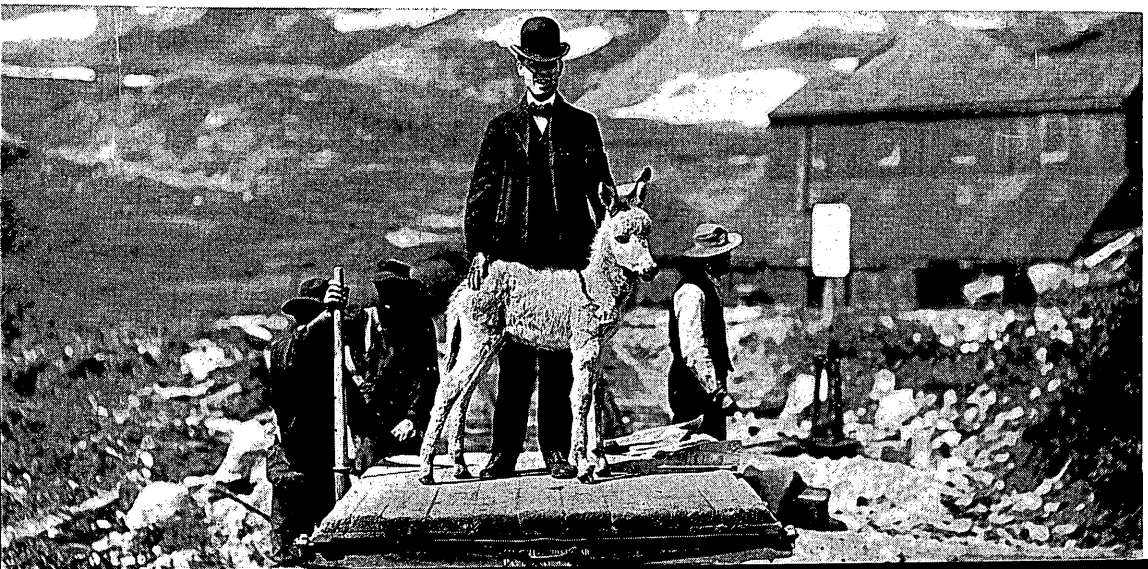
Western History Collection, Denver Public Library.

Colorado Central Train in the Canyon below Georgetown.

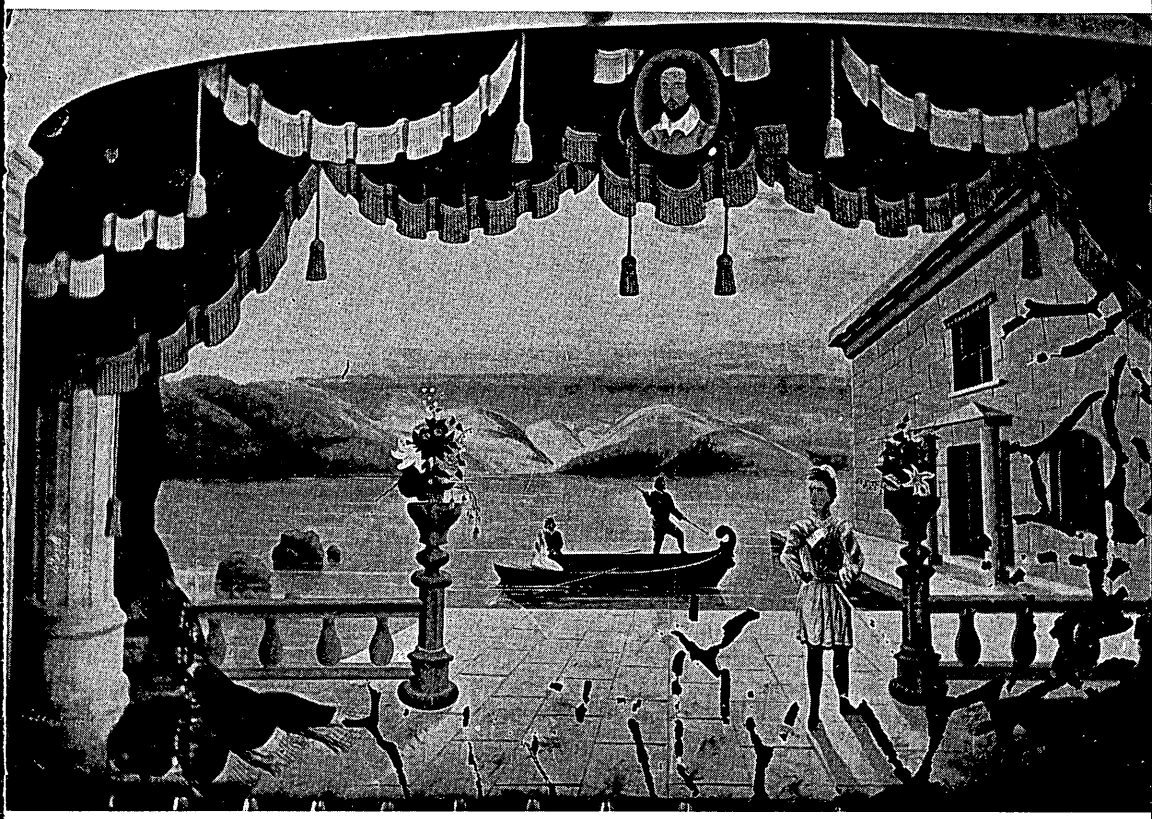
The Georgetown Loop trip brought visitors from every corner of the earth. Baldwin locomotives chugged up narrow Clear Creek Canyon, across the Loop, and terminated at Silver Plume. Here the more adventurous boarded the Argentine Central to the summit of Mt. McClellan.

Arthur Chapman, author of "Out Where the West Begins," at Waldorf, mining camp terminus of Argentine Central.

L. C. McClure photo, Benjamin Draper collection



Theatre

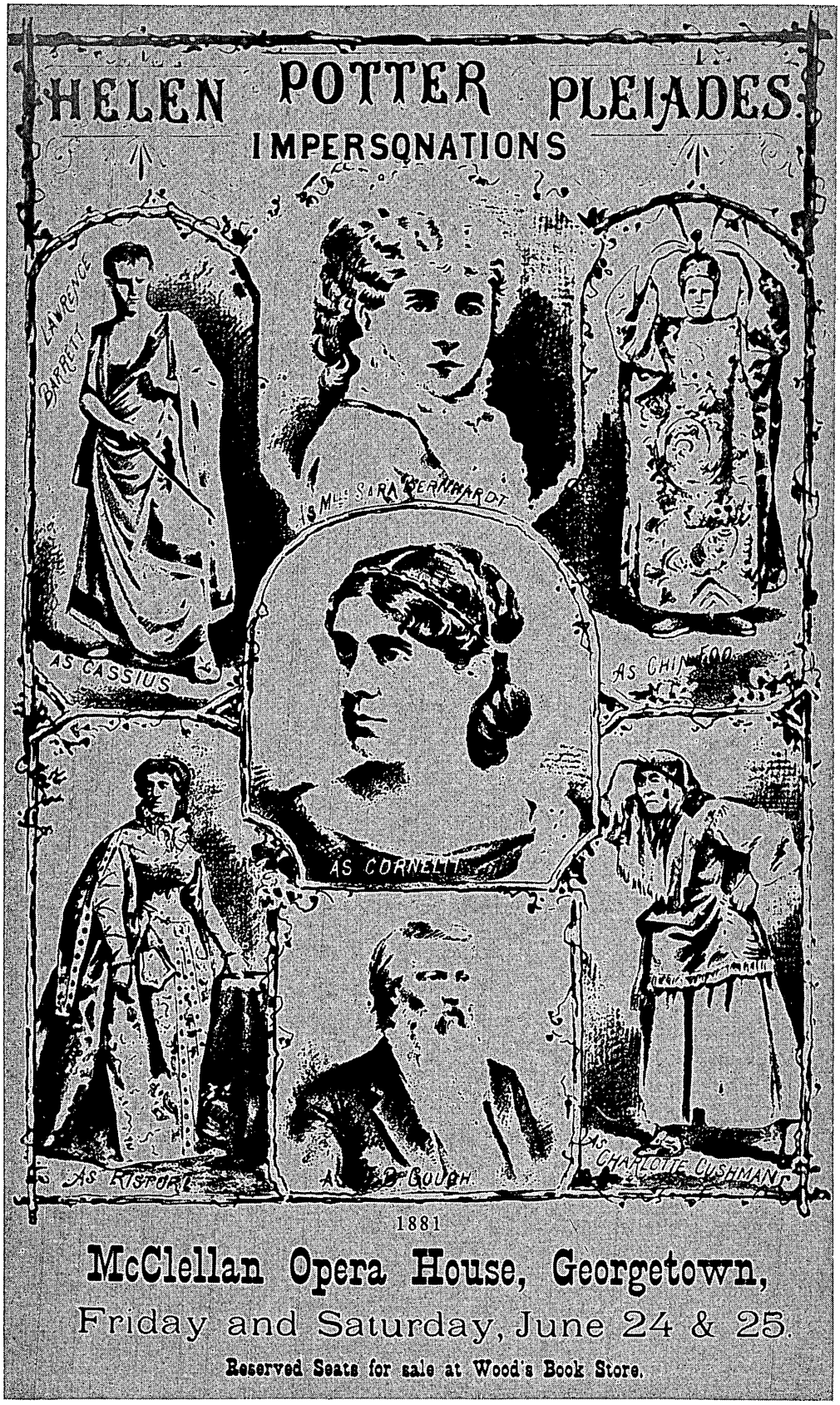


Georgetown Courier photo, Benjamin Draper collection

Drop Curtain, McClellan Opera House.

By 1869 the McClellan Opera House was an established institution. This two story frame building, erected by Erskine McClellan, stood on the corner of Taos and Alpine Streets, next to the Hotel De Paris.

Traveling companies played the mining camps after engagements at the Tabor Grand in Denver. From 1876 to 1882, Georgetown boasted two opera houses. The third floor of the recently restored Cushman Block was a theatre during this period. Heyday offerings included Mrs. Scott-Siddons, Josh Billings, Ilma de Murska, Soldene Comic Opera troupe, Mrs. E. L. Davenport, Denman Thompson, Minnie Palmer (a one-woman show), and the Swiss Bell Ringers — all reviewed with relish by Jesse Randall, editor of the *Georgetown Courier*.



Fred and Jo Mazzulla collection, Denver

FORRESTER OPERA HOUSE

N. C. FORRESTER, PROPRIETOR.

F. FITZGERALD, Manager. WM. SEYMOUR, Stage Manager.

FIRST APPEARANCE IN DENVER OF

LAWRENCE BARRETT,

SUPPORTED BY HIS OWN CALIFORNIA COMPANY.

THIS WEDNESDAY EVENING,

FIRST TIME IN THIS CITY OF

A NEW PLAY,

Translated from the Spanish expressly for Lawrence Barrett by W. D. Howells, Esq., and acknowledged by the press and public to be the Greatest Play since Shakespeare.

MR. BARRETT AS YORICK, THE COMEDIAN.

OBSERVE THE CAST—

Scene—Globe Theatre, London. Time, 1600. Dramatis Personæ, Actors of the Globe Theatre.

MASTER YORICK, a Comedian of the Globe Theatre, **MR. LAWRENCE BARRETT.**

MASTER HEYWOOD, Manager of the Globe Theatre . . . . . MR. WILLIAM SEYMOUR.
MASTER WALTON, Leading Actor in the Globe Theatre . . . . . MR. JOHN WILSON.
MASTER EDMUND, a Protege of Yorick's . . . . . MR. W. H. FITZGERALD.
MASTER WOODFORD, Author of a "New Play" . . . . . MR. DION MARBELLE.
MASTER THOMAS, Prompter in the Globe Theatre . . . . . MR. S. PHILLEO.
GREGORY, an Old Servant of Yorick's . . . . . MR. C. E. TYLER.
MISTRESS ALICE, Wife of Yorick - - - - MISS ADA GILMAN.
DOROTHY, Maid to Alice . . . . . MISS NELLIE WITTINGALE.

Employes, Actors, Spectators, Servants, Etc.

FRIDAY EVE., JULY 18,

BENEFIT OF MR. BARRETT,

On which occasion he will appear as CASSIUS in

JULIUS CÆSAR.

SUMMER HATS!

HAMMOCKS. The largest and most complete st

MEN'S, BOYS AND CHILDREN'S

Ever offered in Denve

WEBER, HOWLAND

382 Larimer Street, next door to

COLORADO L

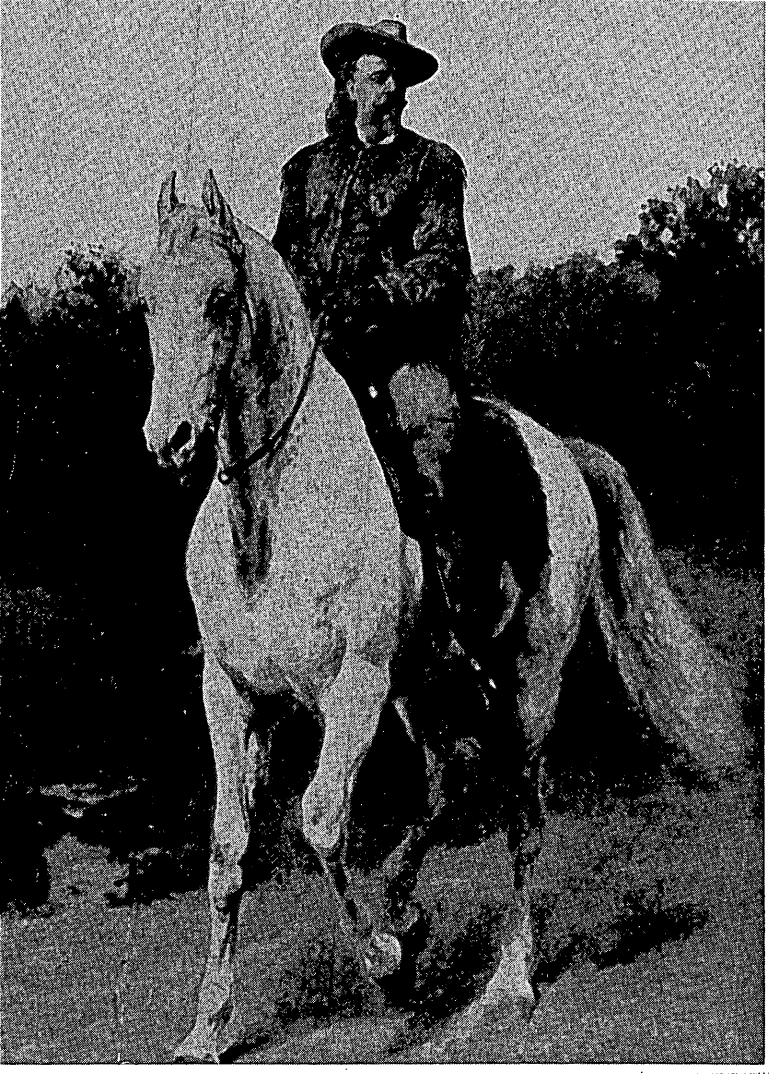
582 LARIMER ST

First-class Work at Lowest Prices. Shirts,

Princeton Theatre collection

The great Lawrence Barrett played a one-night stand in Georgetown, July 25, 1879, in a drama written especially for him, *A New Play*. Madame Janauschek appeared in 1880 and again in 1882.

Crawford collection, Yale University



Crawford collection, Yale University

William F. Cody

Buffalo Bill in July, 1879 brought his theatrical combination and played two nights: Monday evening, *May Cody,* or *Lost and Won* and Tuesday, *The Knight of the Plains,* or *Buffalo Bill's Best Trail.* In 1886 his play, *The Prairie Waif* was backed up with Indians, cowboys, and exhibition rifle shooting; favorably reviewed in the *Georgetown Courier.*

Advertisement in Georgetown Courier, April 1, 1886

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But True.
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C. C. CHURCHILL.

ment. For reference in regard to a bit deal, enquire of any business men at this end of the county. For further information, address,
VIRGINSBURG BROS.
Silver Plume, Colo.

They solicit a continuation of the trade of old patrons, and will make it to the advantage of all to do their trading with them.

2d SILVER BENEFIT.

McClellan Opera House,
One Night Only.

Saturday Evening, April 3d.

THE ONLY AND ORIGINAL

BUFFALO BILL

HON. W. F. CODY,
Late Chief of the Scouts of the U. S. Army,
and his MAMMOTH COMBINATION
in his great Sensational Drama, entitled,

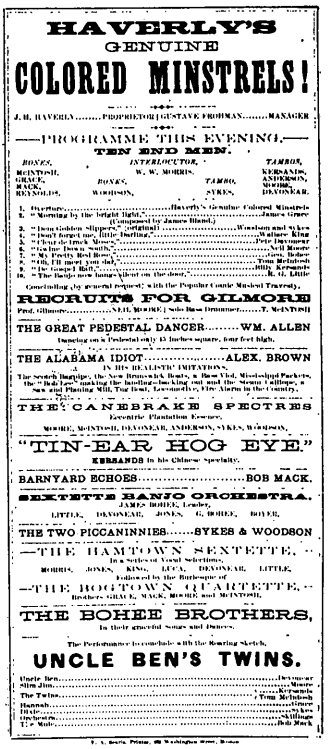
"The Prairie Waif,"

Introducing the Western Scout and Daring Rider,
Buck Taylor, King of the Cowboys.
A Genuine Band of Pawnee Indians,
Under Pawnee Billy, Boy Chief and Interpreter.
24 First Class Artists. New and Beautiful Scenery
Mr. Cody, "Buffalo Bill," will give an exhibition of fancy Rifle Shooting, holding his rifle in twenty different positions, in which he is acknowledged preeminent.
Prices of admission as usual. Reserved seats, one dollar, to be had at Forbes & Stromberg's.

THE GEORGETOWN

Public Ore Market,

HUMPHREY & WHEELER, Proprietors.



HAVERLY'S
GENUINE
COLORED MINSTRELS!

J. H. HAVERLY.....PROPRIETOR | GUSTAVE FROHMAN.....MANAGER

—PROGRAMME THIS EVENING.—
TEN END MEN.

BONES, INTERLOCUTOR, TAMBOS,
McINTOSH, W. W. MORRIS, KERSANDS,
GRACE, ANDERSON,
MACK, BONES, TAMBO, MOORE,
REYNOLDS, WOODSON, SYKES, DEVONEAR.

1. Overture.....Haverly's Genuine Colored Minstrels
2. "Morning by the bright light".....James Grace
(Composed by James Blind.)
3. "Dem Golden Slippers," (original).....Woodson and Sykes
4. "I won't forget me, little Darling,".....Wallace King
5. "I hear the Track Moan,".....Pete Dayspear
6. "Gallop Down south,".....Neil Moore
7. "My Pretty Red Rose,".....Geo. Deboer
8. "Oh, I'll meet you day,".....Tom McIntosh
9. "The Gospel Bell,".....Billy Kersands
10. "The Badge now hangs silent on the door,".....R. G. Little

Concluding by general request with the Popular Comic Musical Travesty,

RECRUITS FOR GLMORE

Prof. Gilmore.....NED MOORE | Solo Bass Drummer.....T. McINTOSH

THE GREAT PEDESTAL DANCER.....WM. ALLEN
Dancing on a Pedestal only 15 Inches square, four feet high.

THE ALABAMA IDIOT.....ALEX. BROWN
IN HIS REALISTIC IMITATIONS.

The Seventh Burglar, the New Brunswick Boats, a Bow Vhd. Mississippi Packets, the "Bob Lee" smoking the Indian chasing out and the Steam Calliope, a Saw and Planing Mill, Tug Boat, Locomotive, Fire Alarm in the country.

THE CANEBRAKE SPECTRES
Eccentric Plantation Essence.
MOORE, McINTOSH, DEVONEAR, ANDERSON, SYKES, WOODSON.

"TIN-EAR HOG EYE."
KERSANDS in his Chinese specialty.

BARNYARD ECHOES.....BOB MACK.

SEXTETTE BANJO ORCHESTRA.
JAMES BOHEE, Leader.
LITTLE, DEVONEAR, JONES, G. BOHEE, BOYER.

THE TWO PICCANINNIES.....SYKES & WOODSON

—THE HAMTOWN SEXTETTE,—
In a series of Vocal selections.
MORRIS, JONES, KING, LUCY, DEVONEAR, LITTLE.
Followed by the Burlesque of
—THE BOGTOWN QUARTETTE,—
Brothers GRACE, MACK, MOORE and McINTOSH.

THE BOHEE BROTHERS,
In their graceful Songs and Dances.

The Performance to conclude with the Roaring Sketch,

UNCLE BEN'S TWINS.

Uncle Ben.....Devonear
Slim Jim.....Moore
The Twins.....Tom McIntosh
Hannah.....Grace
Dinah.....Sykes
Orchestra.....Shillings
Tip Mule.....Bob Mack

T. A. Smith, Printer, 38 Washington Street, Boston.

Crawford collection, Yale University

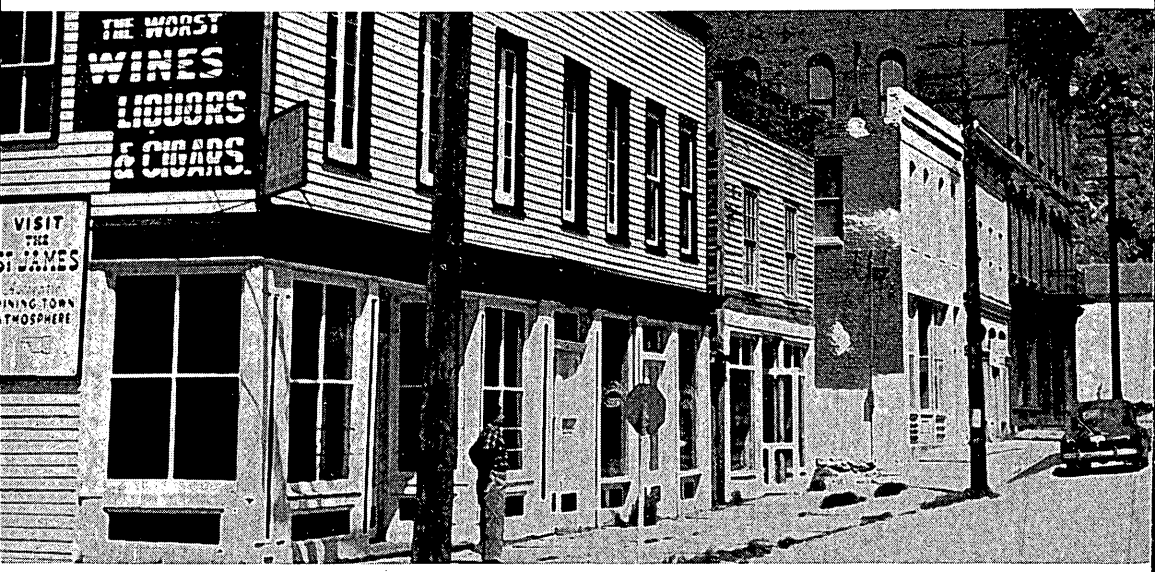
Minstrel shows and Uncle Tom's Cabin companies were a part of theatrical fare. There was even a Boston Double Uncle Tom's Cabin Company with two sets of characters speaking in unison. This troupe included "two trick donkeys and six monster bloodhounds!"

Georgetown's theatrical history came to a sudden close January 10, 1892 when the McClellan Opera House burned to the ground.

In 1946, the little moving picture show on Alpine Street was restored as a public gathering place and named McClellan Hall. Erskine McClellan's admonition, "No Improper Persons Admitted," was lettered on the box office.

Denver Post photo

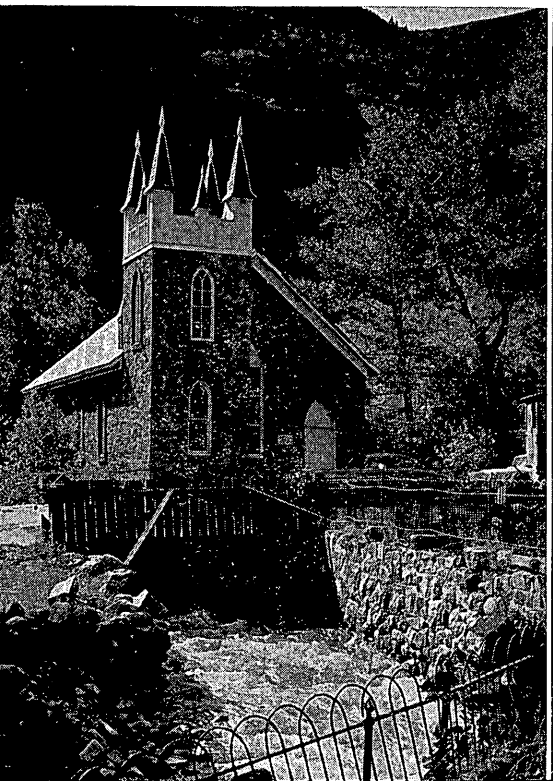
Georgetown Today



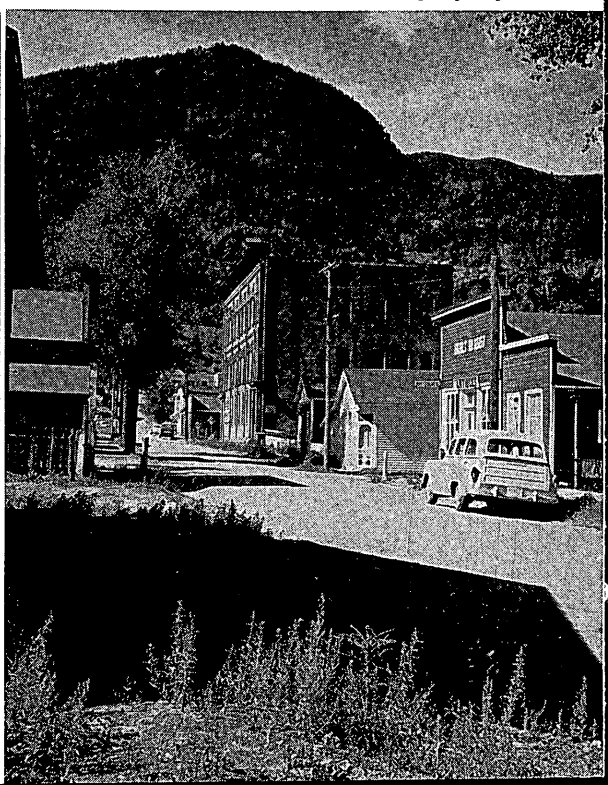
Theodore Metzger photo, Benjamin Draper collection

Restoration of Georgetown was begun in 1946. *(Above)* Alpine Street, the Monti Block, erected in 1867. *(Below, left)* Presbyterian Church, on Leavenworth Creek, built in 1873 and still in use. *(Below, right)* Looking up Taos Street towards the Cushman Block.

Philip Hyde photo



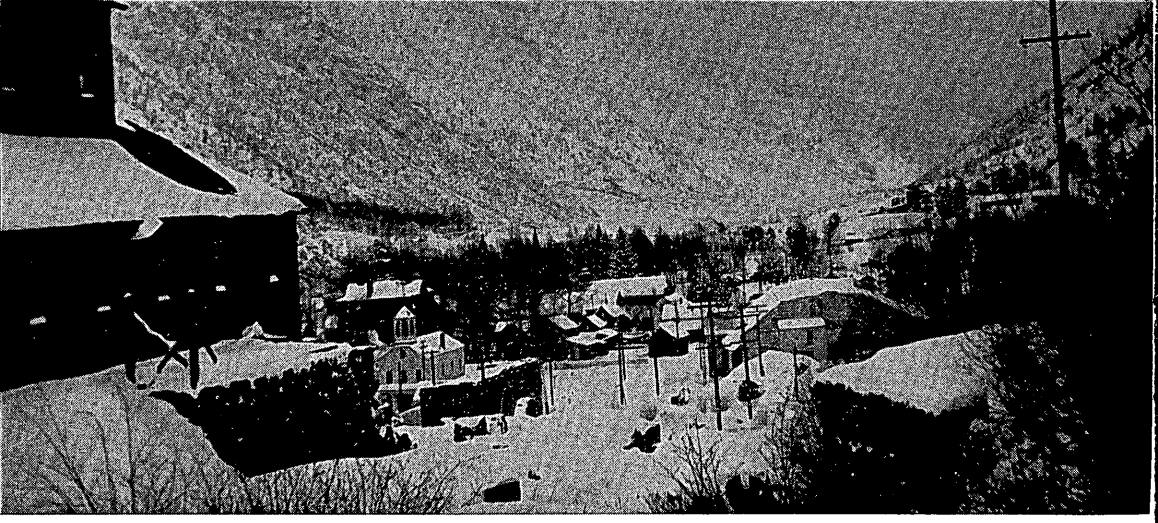
Philip Hyde photo



Elmer Moss photo

Many of the beautiful and historic houses have been restored to their period beauty by new owners and are filled with Victorian treasures. *(Above)* The Frank Maxwell house, one of the ten best examples of American Victorian architecture, is a private summer home. *(Below)* The residence of General William Hamill, mining millionaire of the 1880's, is today a museum.

Elmer Moss photo

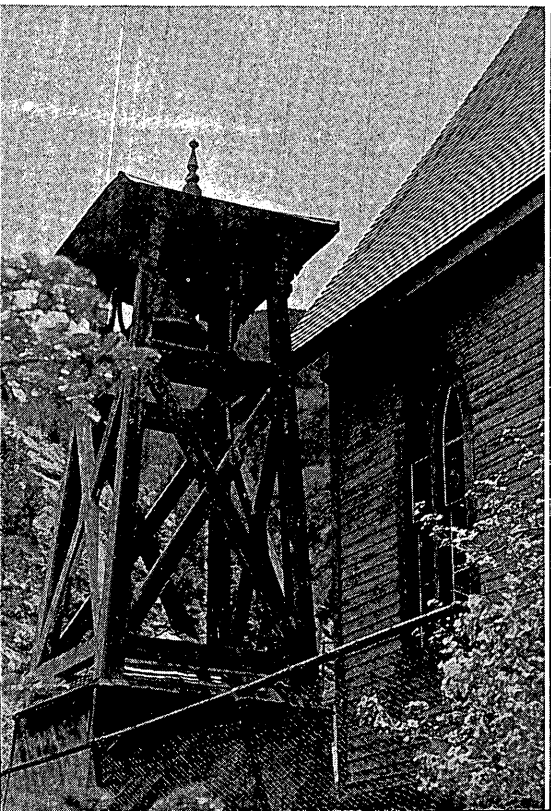


Benjamin Draper photo

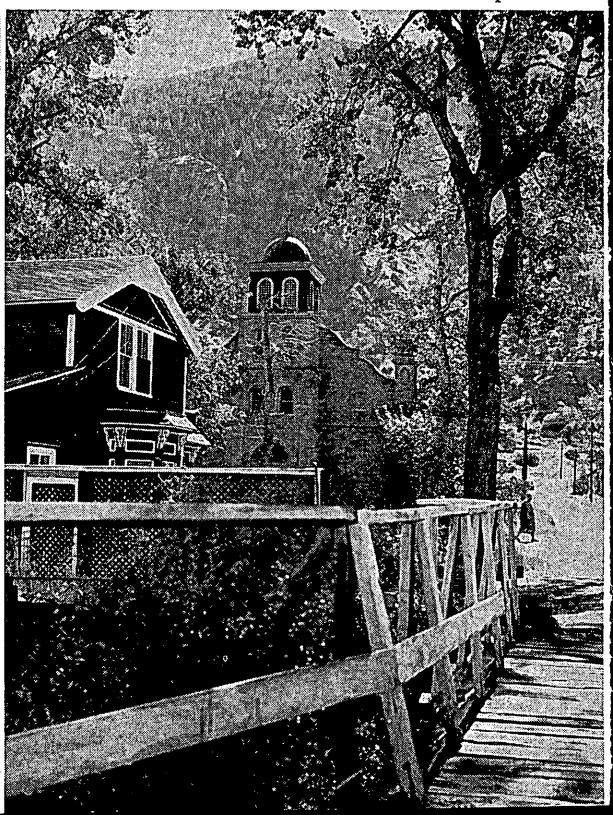
For a few months each year the high mountain country is in the grip of winter — snow, biting winds, and zero weather bring skiing, a new economic attraction. *(Above)* Looking north from Leavenworth Gulch trail. *(Below, left)* Belfry of Grace Church (oldest Episcopal edifice in Colorado, built in 1867-69) is anchored to the hillside because the Big Wind of 1867 blew it down. Georgetown, in boom days, was a great Catholic community with a splendid church, school, and hospital.

(Below, right) Our Lady of Lourdes Catholic Church, built in 1917, after a disastrous fire destroyed the old building.

Charles Rockwell photo



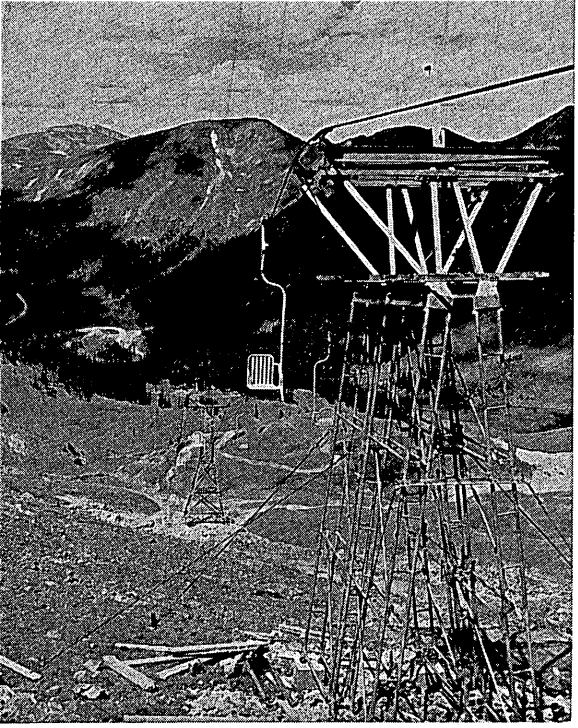
Charles Rockwell photo



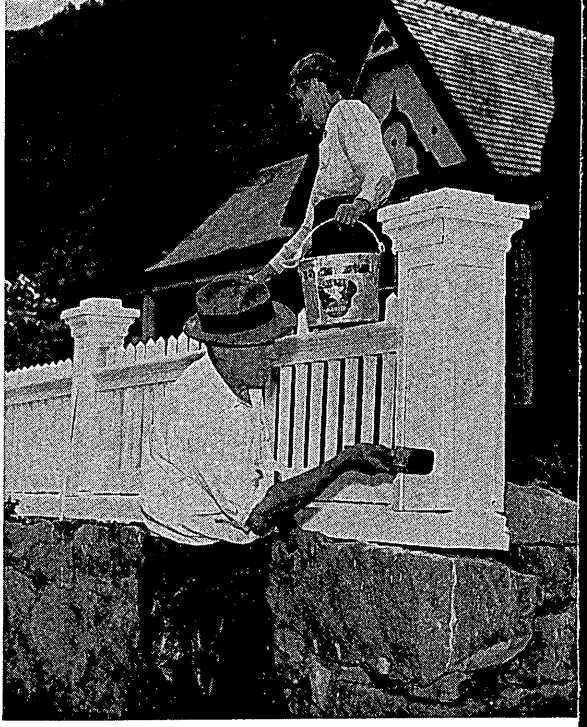
Elmer Moss photo

The Georgetown Public School *(above)*, pride of Clear Creek County in 1874, with three hundred scholars, is today empty, replaced by a modern building. In the Georgetown revival, following World War II, square dancing became popular, encouraged by exhibitions and teaching by such groups as the D. U. Promenaders *(below)*, Mabel S. Rilling, director.

University of Denver photo



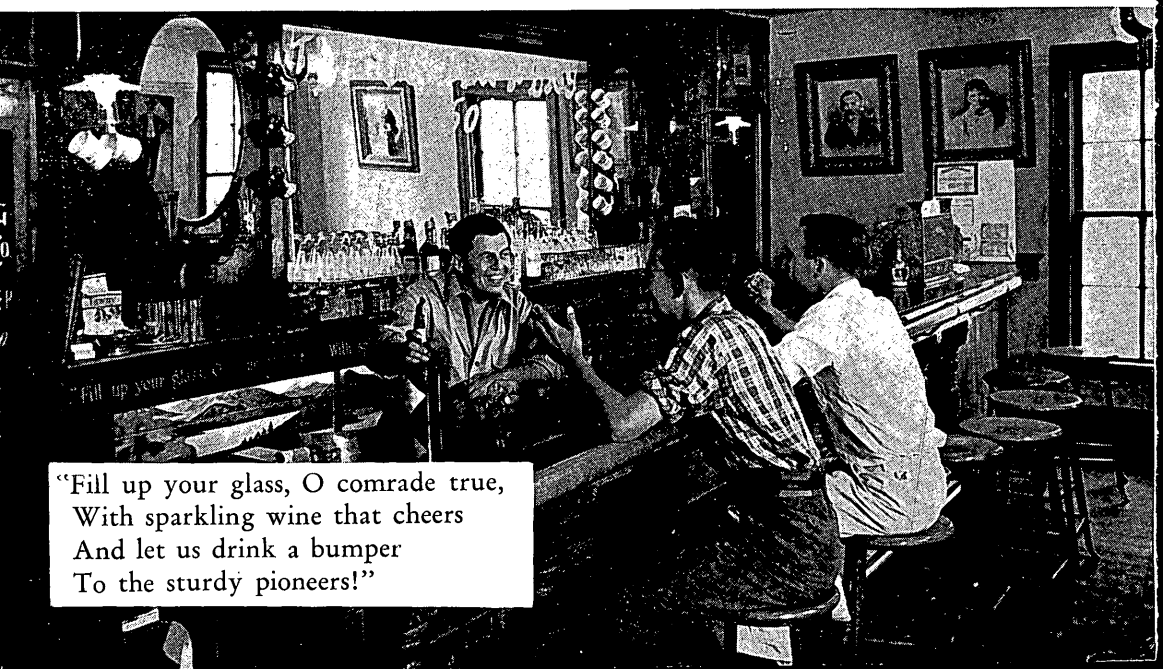
Charles Rockwell photo



Charles Rockwell photo

(Above, right) James Grafton Rogers, Chairman of the Board of the State Historical Society of Colorado, and his wife Cora Peabody Rogers, daughter of a Colorado governor, own and live in the historic Robert Orchard Old house. *(Above, left)* Arapahoe Basin ski lift, operating the year around, gives visitors a closer look at the rugged rocky terrain at 13,000 foot elevations. *(Below)* The St. James Bar, with its Eugene Field salute, written in Denver in 1882, was for several seasons a lively part of summer activities.

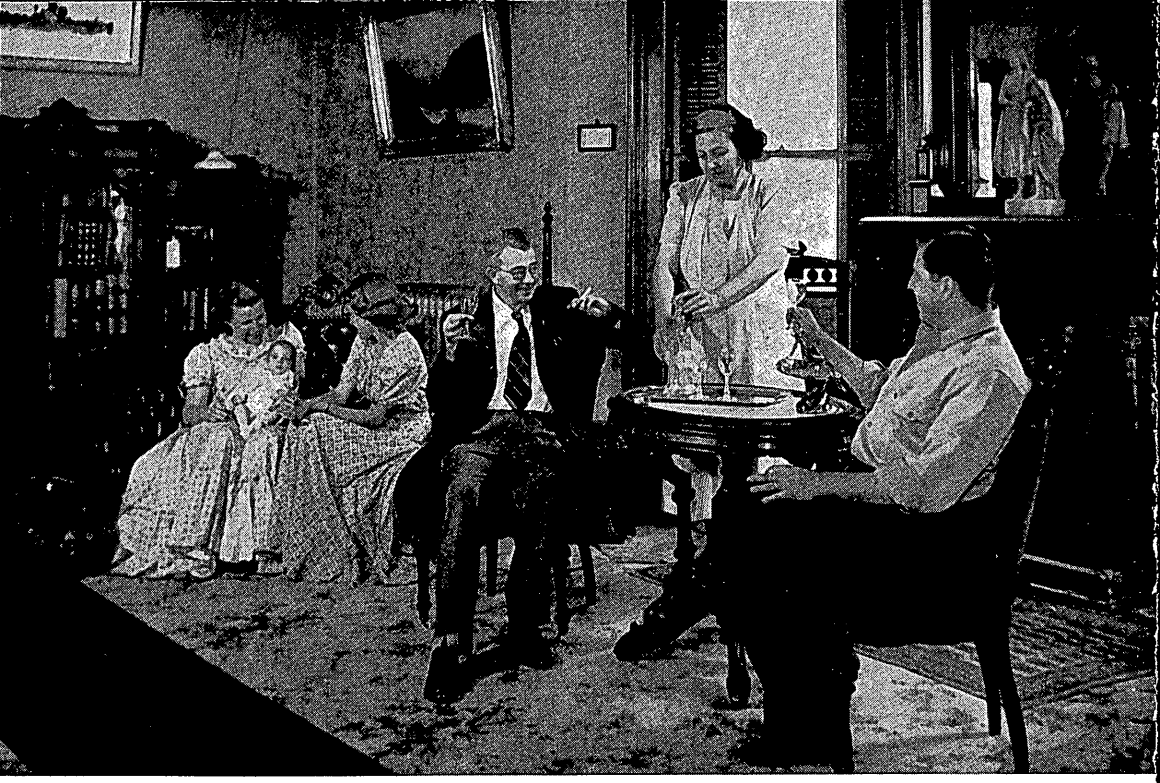
Charles Rockwell photo



Museums

The quiet streets of Georgetown today echo the beauty, quaintness, and pleasures of eighty years ago. The Hotel De Paris is intact from glory days. *(Below)* Hazel Burkholder McAdams, for many years owner of the Hotel, shows one of Louis Dupuy's treasured silver pieces to a visitor. The Hotel still contains his walnut furniture, steel engravings, richly bound books, Haviland china, carpets, and other mementoes of gracious living in the midst of the Georgetown heyday, the 1870's and 1880's.

Charles Rockwell photo



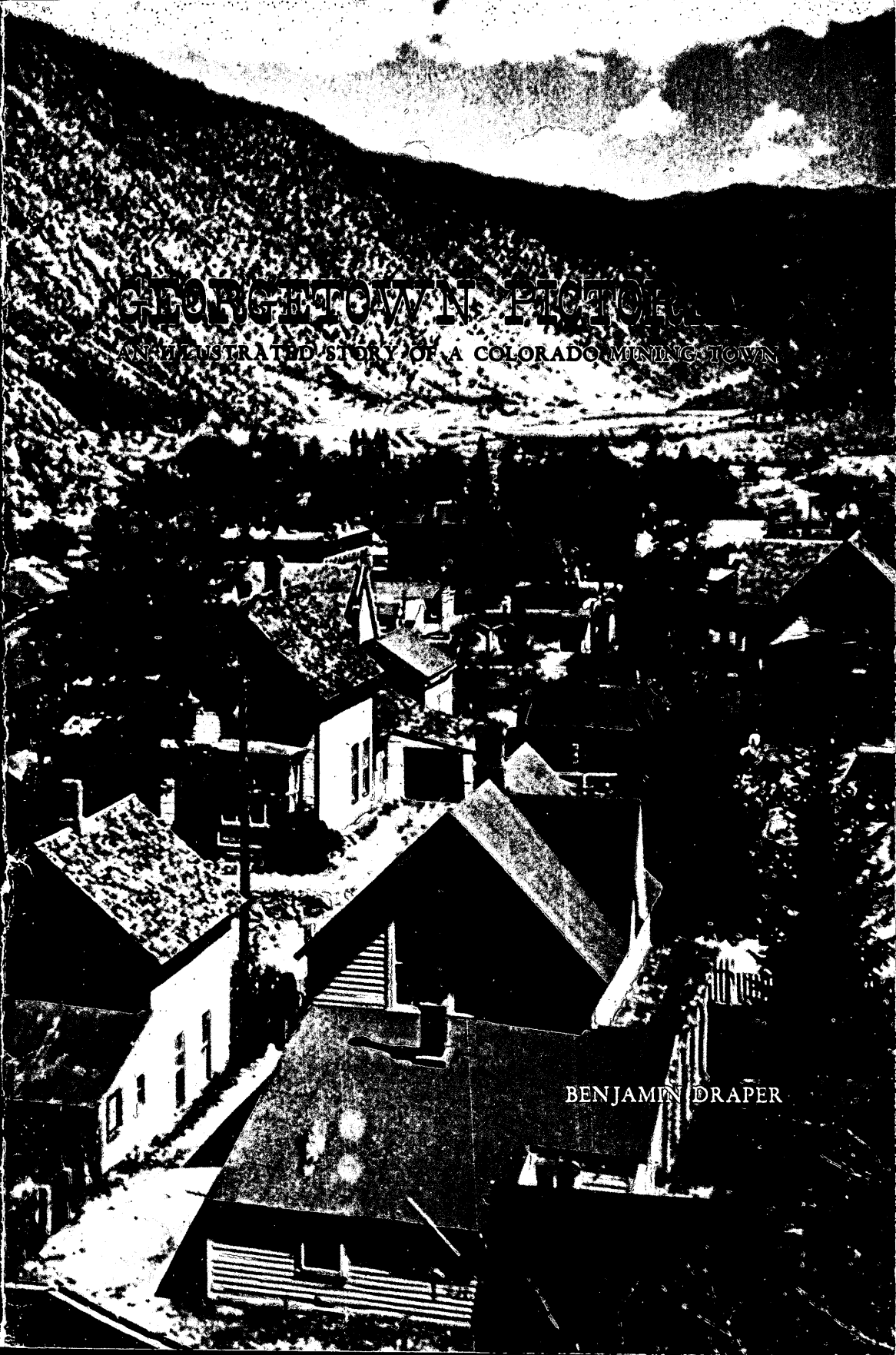
Charles Rockwell photo

Drawing Room - Hamill House Today.

Not Epilogue -- Revival

The Hamill House is open for the public to look upon treasures of bygone days. Thousands of summer visitors throng the streets of Georgetown today to visit antique shops, modest museums, and restored homes — enjoying the good things of the past. Fine motels and restaurants cater to these visitors and to hikers who explore the surrounding mountains. McClellan Players offer summer theatre. Winter evenings are filled to the bursting with skiers who enjoy the warmth of restored saloons. The new Interstate Highway brings visitors as the railroad once did.

Georgetown, still the county seat of Clear Creek County, has a year-round population of three hundred. But it has found new vigor as one of the finest living museums of the Colorado mining camp era and as a center of winter sports. New boom days, albeit another, kind of heyday, have come to Upper Clear Creek Valley.



GEORGETOWN PICTORIAL

AN ILLUSTRATED STORY OF A COLORADO MINING TOWN

BENJAMIN DRAPER

Foreword

The author's interest in Georgetown began in 1921 on his first trip around the Georgetown Loop; heightened in 1929 by the purchase and restoration of the historic Erskine McClellan home. Materials for this record were first collected in 1936 for a Master's thesis at the University of Denver; abstracted in 1940 for a booklet, long since out of print. Encouragement and direction in these early efforts were generously given by Professor Levette Jay Davidson.

Close association with Anne Evans and Ida Kruse McFarlane in the Central City Opera House Association did much to enlarge his interest in the Rocky Mountain West as did work with Maria Davies McGrath, Margaret Evans Myers, and George D. Begole in establishing the Denver Museum. The years 1945-48 were spent in promoting and restoring Georgetown as a tourist attraction.

Miss Ina T. Aulls, retired head, and Mrs. Alys Freeze, present head of the Western History Department of the Denver Public Library have been for many years close associates in historical pursuits. James Grafton Rogers, Chairman of the Board of the State Historical Society of Colorado, heads a host of Georgetown citizens who have made the valley a fine place in these modern times. Professional photographers Philip Hyde, Theodore Metzger, Elmer Moss, and Charles Rockwell have taken and supplied pictures of Georgetown today as a labor of love for which grateful acknowledgment is tendered.

San Francisco, 1964 *Benjamin Poff Draper*

Library of Congress Catalog Card No. 64-24001

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Old West Publishing Company
1228 EAST COLFAX AVENUE, DENVER, COLORADO

In The Environs

Argentine Mining Region. Up the Green Lake Road, bearing right. Famed silver mines. Ghost town of Waldorf. Historical Marker. Mount Wilcox. Argentine Pass. Guanella Pass. Duck Lake.

Green Lake Region. Colorado Central Mine. Ghost town of Silverdale. Green Lake, once famed resort. Clear Lake. Beaver meadows, fishing. Naylor Lake.

U. S. No. 6 to Loveland Pass. Town of Silver Plume. Bakersville. Side trip to Gray's Basin, Stevens Mine, and trail to Gray's and Torrey's Peaks. Picnic areas, Loveland Ski Area. Summit Loveland Pass, altitude 11,995 feet. Over the Pass to Arapahoe Basin Ski Area.

Berthoud Pass Region. Four miles back to U. S. No. 40. Town of Empire, restored Hotel Splendide. Berthoud Pass Ski Area. Over the pass into Middle Park.

Georgetown Loop Site. A pleasant walk from town on the railroad grade to granite foundations of the High Bridge. Historical marker on Silver Plume road.

Alvarado Cemetery. Below town four miles on old road.

CAUTIONS FOR VISITORS: Don't enter old mines. Stay on trails. Don't explore alone. Be careful with matches, cigarettes, and camp fires.

GOOD BOOKS ABOUT COLORADO

Bancroft, Caroline. *Gulch of Gold.* A history of Central City. Sage Books, 1958.

Castle, Marian. *Roxana.* A novel, William Morrow & Company, 1955.

Hafen, Leroy, and Hafen, Ann. *The Colorado Story.* A history. The Old West Publishing Company, Denver, 1953.

Horner, John Willard. *Silver Town* (about Georgetown). Caxton Printers, Ltd., 1950.

Moody, Ralph. *Little Britches.* A story for boys. Norton, N.Y., 1950.

Raine, William MacLeod. *Colorado.* Doubleday & Co., N.Y., 1928.

Warner, Ann Spence. *Days of Gold.* A novel for girls. Bobbs-Merrill, Indianapolis, 1931.

Warner, Ann Spence. *Gold Is Where You Find It.* Bobbs-Merrill, Indianapolis, 1932.

OME 6570
Anglo Saxon Mines, Inc.
Georgetown, Colorado
Division of Berry Metal Company
Harmony, Pennsylvania

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Berry
BERRY METAL ®
World's Largest Self-Integrated Oxygen Lance Designers and Builders
METAL COMPANY
HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

November 30, 1967

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INITIALS CODE

Mr. Frank E. Johnson
Chief Office of Minerals Exploration
United States Department of the Interior
Room 4460, Interior Building
Washington 25, D. C.

Subject: OME 6570
Anglo Saxon Mines, Inc.
Georgetown, Colorado
Division of Berry Metal Company
Harmony, Pennsylvania

Dear Mr. Johnson:

This amends, revises and supplements, our August 16, 1966, application for financial assistance in minerals exploration as well as our communications dated January 3, 1967, and April 22, 1967.

You will note in the Exploration Budget that we deleted buildings, tooling, mining equipment, timber, tunnel work such as cross-cutting or drifting, road maintenance, legal fees, engineering expense, and other items incidental thereto.

In substitution we propose a diamond drilling program that establishes many more targets for ore which materially enhances the chance for success.

Continuing field work and mapping proves that the area east of Saxon Saddle continues to offer the greatest potential for the development of major ore bodies in areas adjoining rich productive ore shoots on the Anglo Saxon, Anglo Saxon Extension, Tunnel and Federal veins. This potential also applies to the many parallel new veins that were mapped.

11/30/67
proposal

copy to R-III by Appl. - see letter 12/11/67

These galena - sphalerite veins are part of an almost continuous highly productive mineralized area that includes the Georgetown - Silver Plume area to the southwest, the Freeland - Lamertine and Idaho Springs - Central City areas to the northeast.

All diamond drill holes are projected into the vicinity of vein intersections. On page 143 of U.S.G.S. Professional Paper 223, Lovering and Goddard state, "it has been common knowledge almost since mining started in the district that junctions of veins are likely to be the site of ore shoots".

On page 142 of Professional Paper 223 the same authors state, "the northwesterly premineral faults seem to be the master fissures responsible for the localization of the district". It will be seen from our mapping that these northwesterly fissures comprise the Molly Gibson, Algonquin, Master Key, two unnamed veins in the northwest corner of claim "THIS" survey 18678, and probably others such as the Gold Bug, survey 18737.

These seven northwest fissures form intersections with the northeasterly Anglo Saxon, Anglo Saxon Extensions, Federal, Tunnel, Oscar Wilde, 4, 5, 6, 7 and many other veins of limited exposure. In addition, the Federal vein also forms intersections with all the above named northeasterly veins. It can be readily seen that this multitude of intersections provide unusual potential for developing many ore shoots in areas adjacent to bonanza production. For this reason we conclude - Anglo Saxon property has the potential of becoming one of Colorado's all time great producers of rich silver ore.

Our belief in this potential prompted the following investment:

$367,000	prior to 1951
77,381	since July 1, 1966, for road construction, engineering, buildings, machinery, equipment, payroll, taxes, contract services, supplies, truck expense, development expense, tunnel rehabilitation, cross cutting and drifting.
$444,381	Total Expenditure

The equipment at the mine includes: Caterpillar Bull Dozer, Caterpillar Front End Loader, Air Compressor and Receiver, Ventilating Fan, Generator, Mucker, Jackhammer, Drifter, Stoper, Slusher Hoist, Chain Saws, Lamps, Rail, Steel, Pipe, Hose, Trammer, Charger, Cars and other incidental equipment.

The November 25, 1967, report with supporting maps of Paul M. Hopkins, Consulting Mining Geologist and Engineer, is enclosed.

Mr. Frank E. Johnson

November 30, 1967

Also enclosed are:

Map of Anglo Saxon Mines Property
Area Enlargement from the Geologic Map of the Front Range Mineral Belt, Colorado, compiled by Lovering and Goddard and shown in U.S.G.S. Professional Paper 223, Plate 2 (South Half)
Letter from Benjamin Draper dated December 3, 1940, pertaining to historic background of the Anglo Saxon Mine

Mr. Hudson and I will be in your office between 10:00 and 10:30 a.m. on Monday, December 18, 1967, for discussion of the project.

Yours truly,

ANGLO SAXON MINES, INC.
DIVISION OF BERRY METAL COMPANY

Walter V. Berry

Walter V. Berry
President

WVB:sjw

Enclosures

ANGLO SAXON MINES, INC.
Exploration Budget
November 30, 1967

$ 25,000.00	Contract with Anglo Saxon Mines, Inc. for approximately 2½ miles of road to the drilling sites described.
214,200.00	Contract with Anglo Saxon Mines, Inc. for 8925 feet of holes at $24.00 per foot.
12,800.00	Supervision and engineering
$252,000.00	Total Contract

EXPLANATION OF BUDGET

Road Construction. Contractor estimates road cost at $80,000.00. Using our own equipment - now at the mine - Anglo Saxon Mines, Inc. will contract construction at $25,000.00.

Diamond Drilling. Typical contract prices are set forth in attached quotation from Boyles Brothers. They prefer to quote separately on the many unknown cost factors. Anglo Saxon Mines, Inc. will assume all costs at $24.00 per foot including the establishment of adequate drill stations, compressed air, air lines, water haulage, road maintenance, and other costs.

Supervision and Engineering. The $12,800.00 stated will cover salary of Mr. Hudson, and engineering expense, for the entire project.

ANGLO SAXON MINES, INC.
DIVISION OF BERRY METAL COMPANY

Walter V. Berry

Walter V. Berry
President

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
TUNNEL DRIVING
MINE PLANT DESIGN
AND FABRICATION

Boyles Bros. DRILLING COMPANY

CONTRACTORS-ENGINEERS-GEOLOGISTS

15865 West 5th Avenue
GOLDEN, COLORADO 80401
Phone (303) 279-7913

General Offices and Plant
1624 Pioneer Road P. O. Box 58
SALT LAKE CITY, UTAH 84110
Phone 487-7595

BRANCH OFFICES
ARIZONA (PHOENIX)
CALIFORNIA (AUBURN)
COLORADO (GOLDEN)
NEVADA (SPARKS)
WASHINGTON (SPOKANE)
CHILE (SANTIAGO)
CABLE: BOYLESBROS
MEXICO, D.F.
PERU (LIMA)
CABLE: BOYLESCOP

November 22, 1967

Berry Metal Company
Harmony, Pennsylvania 16037

Attention: Mr. Walter V. Berry - President

Dear Sir:

We propose the following schedules of charges for your drilling program, near Georgetown, Colorado.

Schedule #1
Drilling Underground

		NX	BX	AX
1.	Mobilization of men and equipment, lump sum.			$ 250.00
2.	Drilling 0 to 250 feet, per foot.	$7.80	$6.90	$ 6.40
	250 to 500 feet, per foot.		7.80	6.90
	500 to 750 feet, per foot.		8.40	7.80
	750 to 1000 feet, per foot.		8.80	8.40
3.	Reaming, all sizes, 0 to 500 feet, per foot.			$ 3.80
	500 to 1000 feet, per foot.			$ 4.60
4.	Cementing, plus cost of cement, per hour.			$ 13.50
5.	Standby, as requested, per hour.			$ 12.50
6.	Cardboard core boxes, to hold 10 feet of core, each.			$ 1.00
7.	Lost casing will be charged at cost, at job site.			

Drill stations of adequate size, compressed air, air lines, water and road maintenance, to be furnished at no cost to Boyles Bros. Drilling Co.

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
TUNNEL DRIVING
MINE PLANT DESIGN
AND FABRICATION

Boyles Bros. DRILLING COMPANY

CONTRACTORS-ENGINEERS-GEOLOGISTS

15865 West 5th Avenue
GOLDEN, COLORADO 80401
Phone (303) 279-7913

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BRANCH OFFICES
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WASHINGTON (SPOKANE)
CHILE (SANTIAGO)
CABLE: BOYLESBROS
MEXICO, D.F.
PERU (LIMA)
CABLE: BOYLESCOP

Schedule #2
Surface Drilling

		NX	BX	AX
1.	Mobilization of men and equipment, lump sum.			$250.00
2.	Overburden drilling, plus cost of bits, per hour.			$ 14.00
3.	Bedrock to 500 feet, per foot.	$7.90	$ 7.60	$ 7.15
	500 to 1000 feet, per foot.		9.20	7.60
	1000 to 1250 feet, per foot.		10.50	9.20
4.	Reaming, all sizes, if required.			
	0 to 500 feet, per foot.			$ 3.80
	500 to 1000 feet, per foot.			$ 4.60
5.	Cementing, plus cost of cement or cement substitutes, including drill mud and additives, per hour.			$ 14.00
6.	Standby, as requested, per hour.			$ 12.60
7.	Cardboard core boxes, to hold 10 feet of core, each.			$ 1.00

8. Lost casing will be charged at cost, at job site.

9. Water haul, if required would be charged at truck rental rate of $225.00 per month, plus $.12 per mile, driver's wages and payroll taxes, if driver is required.

10. Drill stations and roads to be prepared and maintained at no cost to Boyles Bros.

Should this meet with your approval, we would appreciate as early notification as possible, to enable us to schedule crews and equipment.

Thank you for your consideration of our company.

Very truly yours,
BOYLES BROS. DRILLING COMPANY

George E. Lensch

George E. Lensch, District Manager

STATE OF ILLINOIS
JOHN STELLE, GOVERNOR
DEPARTMENT OF FINANCE

ILLINOIS TAX COMMISSION

33 NO. LA SALLE STREET
CHICAGO

RAMA H. SWEET, CHAIRMAN
C. W. TERRY
GEORGE W. MITCHELL

ADDRESS ALL COMMUNICATIONS TO THE COMMISSION

December 3, 1940

Walter V. Berry
7742 18th Avenue Northeast
Seattle Washington

Dear Mr. Berry:

Thank you for your letter of November 29th. Yes there are copies of my Master's thesis both in the Western Collection of the Denver Public Library and in the Mary Reed Library at the University of Denver. It is entitled Cultural Life of Georgetown, Colorado, 1859-1900. (A rather forbidding title and you may find it dry reading.)

I've looked through the manuscript for a book I once wrote on Georgetown (unpublished) to find out a bit more about that Anglo-Saxon mine of yours. It is the first really significant discovery of silver on the grand scale -- indeed I would say that the discovery by Campbell and Darnell of the Anglo-Saxon in 1867 was the event that turned the attention of all Colorado Territory to silver possibilities and to the Georgetown region in particular.

I should be very happy to talk with you if you are in Chicago. My office is in the Loop and you can find me here almost all day, every day. Drop me a line if you are in these parts. We might put our heads together and work out some material on your mine and at all events chewing the fat over Colorado yarns and pay-streaks is a pastime that is a very pleasant one.

Sincerely,

Benjamin Draper
Research Associate

BD:IG

World's Largest Oxygen Lance Builders

Berry METAL COMPANY.

HARMONY, PENNA. 16037
AREA CODE: 412-452-8040

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INITIALS	CODE
gla	130
BLL	120
RZG	110
	130

OME 6570
Anglo Saxon Mines, Inc.
Georgetown, Colorado
Division of Berry Metal Company
Harmony, Pennsylvania

MME Form 40
Jan. 65

Budget Bureau No. 42-R1508
Approval expires Dec. 31, 1968

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

Pursuant to Public Law 85–701 (72 Stat. 700; 30 U.S.C. 641)

NAME OF APPLICANT *(Full legal name and mailing address as they should appear on contract if one is executed.)*

Anglo Saxon Mines, Inc.
Georgetown, Colorado
A Subsidiary of
Berry Metal Company
Harmony, Pennsylvania

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER: 6570

DATE RECEIVED: 4/24/67

REGION: III

DIVISION CODE:

BUSINESS ORGANIZATION *(Check one)*

- INDIVIDUAL [ ]
- CORPORATION [X]
- PARTNERSHIP [ ]
- OTHER *(Specify)* [ ]

STATE IN WHICH FIRM IS ORGANIZED:

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
Walter V. Berry		President
William W. Berry		Vice President
James A. Ayers		Treasurer
Idun Y. Berry	% Berry Metal Company, Harmony, Pennsylvania	Secretary

MINERAL(S) FOR WHICH YOU WISH TO EXPLORE: Silver

ESTIMATED COST OF PROJECT: $ 73,556.00

PROPERTY NAME	LOCATION COUNTY	STATE
Anglo Saxon Mines, Inc.	Georgetown, Clear Creek Co.,	Colorado

GENERAL INSTRUCTIONS

Before filling out this application, please read the *OME Regulations for Obtaining Federal Assistance in Financing Explorations for Mineral Reserves* (30 CFR Chap. III). To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit two copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 2, existing mine workings and geology in item 3, and the proposed exploration work in item 5. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 3(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Office of Minerals Exploration, Department of the Interior,* ~~Washington 25, D.C., or with the nearest OME Field Office.~~ Washington, D. C., 20242, or with the nearest OME Field Office.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief, and that he would not ordinarily undertake the proposed exploration under current conditions and circumstances at his sole expense.

April 22, 1967
DATED

Walter V. Berry
BY *(Signature)*

President
TITLE

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

INFORMATION REQUIRED WITH THIS APPLICATION

1. Financial Eligibility:

(a) Submit evidence of efforts made within 90 days preceding the filing of this application to obtain credit from your bank of account and at least one other banking institution or other private source of credit. Such evidence shall include true copies of correspondence which show: (1) date of loan request, (2) amount and terms requested, (3) proposed use of loan funds, and (4) the replies from credit sources. If the loan was offered under terms which you consider unreasonable, state why you consider them so.

(b) List names and addresses of affiliated, parent, or controlling companies or organizations and state extent and nature of their interest.

(c) State how you propose to furnish your share of the cost of the exploration work.

2. Applicant's Rights in Land:

(a) State your interest in the land and mineral rights, whether owner, lessee, purchaser under contract, or other. If you are not the owner, submit one true copy of the lease, contract, or other document (with address of owner) under which you control the property. Describe all liens, mortgages, or other encumbrances on the land and state book and page number and official place where recorded.

(b) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all adjacent land which you own or control. Describe any part of the land or workings which should not be subject to Government royalty and liens. If the land consists of unpatented claims, state book and page number for each recorded location notice, including amended locations, and official place where recorded. State all the names by which you know the property.

(c) For all land or mineral rights encumbered or not owned, submit five copies of Lien and Subordination Agreements on MME Form 52. If the agreements cannot be obtained, state reasons and provide copies of letters of refusal.

3. Physical Description:

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the land. Include existing mine workings and all production facilities.

(b) State your interest, if any, in operations described in (a).

(c) State, if you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves, giving quantities and grades and sampling methods used. Support your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you have, indicating whether you require their return.

4. Accessibility of Property:

(a) To aid the OME representative who may examine the property, state name and address of person who will meet him; give directions for reaching the property; and describe accessibility of property and of any mine workings.

(b) Name the shipping and supply points and state the distances to the property.

5. Exploration Work:

(a) Describe fully the proposed explor[illegible] work giving individual footages and sizes of openings [illegible] *each item of work.* Use narrative, maps, plans, and sections as necessary. Show location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *land boundaries* or to the closest identifiable corner.

(b) If an access road must be built, show the proposed location on the property map and state the length, type and construction methods proposed.

(c) If an OME contract is executed, state how soon thereafter work would be started and finished. State your anticipated average daily or monthly rate of progress for each type of work.

6. Experience:

State your operating experience and background to conduct this exploration work and also that of the person who will supervise the work.

7. Estimate of Costs:

Furnish detailed estimates of the necessary costs *for each item of the work proposed in 5(a)* under the headings listed below with a total for each heading and the estimated total cost of the work. Costs for any work to be performed by an independent contractor should be listed separately under category (a) below. Costs for any work that is not to be performed by an independent contractor should be listed under categories (b) through (g).

(a) Independent contracts. State the total cost of any proposed independent contract for all or any part of the work, and the number of units and the unit cost for each type of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, or per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. (*Note*—If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. The cost of supervision, engineering and geological services, outside consultants, and labor should be itemized by numbers and classes of employees; rates of wages, salaries or fees; and periods of employment. State whether these services are available.

(c) Operating materials and supplies. List items of material and supplies giving quantity and cost of each. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of equipment and tools costing $50 or more per unit. Give specifications and indicate how each item is to be acquired—i.e., rented, purchased or provided by the applicant. If rented or purchased, state the estimated rental or purchase price. If furnished by the applicant, state condition and present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant which will be used in the exploration work.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration work, stating specifications and cost including labor, materials, and supervision.

(g) Miscellaneous. Describe the type and estimate the cost of repairs and maintenance of the operating equipment listed in 7(d). Do not repeat initial repairs listed in 7(e). Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories. [*Note*—The Government will not contribute to costs incurred before the date of the contract, or to costs of or incident to: (1) acquiring, using, or possessing land and any existing improvements, facilities, buildings, installations, and appurtenances, or the depreciation and depletion thereof; (2) general overhead, corporate management, interest and taxes (other than payroll and sales taxes); (3) insurance (other than employees' liability insurance); and (4) damages to persons or property (other than authorized repair to or replacement of [illegible]pment or other property used in the work).]

INT.-DUP. SEC., WASH., D.C

Berry
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METAL COMPANY
HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

April 22, 1967

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Mr. Frank E. Johnson
Chief-Office of Minerals Exploration
Room 4460 Department of Interior
Washington, D. C.

Dear Mr. Johnson:

Subject: OME 6570
Anglo Saxon Mine
Georgetown, Colorado

We submit herewith a new application together with cost estimate for exploration assistance to replace the application submitted on August 16, 1966. All the data and reports submitted at that time are applicable to this application.

Since the date of the original application, we have proceeded with the program at our expense and invested approximately $40,000 in buildings, road, equipment and tunnel preparation. As a consequence, the cost of the project has been substantially reduced.

Mr. Hopkins recommendations with accompanying map is attached.

The program outlined will be Phase One of a continuing program of exploration to be executed as findings may warrant.

Sincerely,

Walter V. Berry

Walter V. Berry
President

WVB:sjl

PAUL M. HOPKINS
CONSULTING MINING GEOLOGIST AND ENGINEER
REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR

2222 ARAPAHOE STREET
CRESTVIEW 9-2313

P. O. BOX 403
GOLDEN, COLO.

April 22, 1967

Mr. Walter V. Berry, President
Anglo-Saxon Mines, Inc.
Georgetown, Colorado

Dear Mr. Berry:

I recommend the following program of exploration on Anglo-Saxon Mines, Inc. property from the Lower Aunt Jack Tunnel at elevation 9360'.

Work Preparation

Rehabilitate 280' of tunnel from portal to bend. It is to be noted that 90' of this work has already been completed.

From bend in tunnel to face clean up tunnel and lay track.

At face blast out a diamond drilling station.

Provide air, water and ventilation lines and drainage ditch. Timber where necessary.

Exploration

Target No. 1

Diamond drill 600' on N38E Course to intersect near junctions the following veins: Idun Marie, Oscar Wilde, Pixley and Anglo Saxon.

Target No. 2

Diamond drill 800' on N81-30E Course to intersect near junctions the following veins: Idun Marie, Oscar Wilde, Anglo Saxon extension and tunnel.

Target No. 3

Diamond drill 600' on S77-30E Course to intersect near junctions the following veins: Anglo Saxon extension, Idun Marie, Tunnel and two unnamed new veins.

Target No. 4

Diamond drill 450' on S56E Course to intersect near junctions the following veins: Anglo Saxon extension, two unnamed new veins, Molly Gibson and Tunnel.

Target No. 5

Cross cut 100' south from bend in tunnel to the Anglo Saxon extension vein within the eastern extend of productive area. Drift 15' easterly and 15' westerly on the vein.

This work is shown on Anglo Saxon Drawing ASM-5A attached.

The program submitted will open sufficient ground for study and determine whether or not commercial ore is present. The findings will serve as a basis for determining the economic value of further exploration.

Yours very truly,

Paul M. Hopkins

Paul M. Hopkins

ANGLO-SAXON MINES, INC.
Lower Aunt Jack Tunnel El. 9360
Proposed Exploration Budget
April 22, 1967

MINING EQUIPMENT				
1- Air Receiver (used)		$ 300.00		
1- 300 Gallon water tank		125.00		
1- G-D Slusher (used) ok		500.00		
8- 20 cubic foot mine cars (used)		1,900.00		S
	Total		$ 2,825.00	
VENTLINE				
750'- 6" Metal		$ 1,200.00		
40 - 6" Couplings		120.00		
	Total		$ 1,320.00	S
AIR LINE				
800'- 2" Black pipe 56 ¢/ft.		$ 450.00		
	Total		$ 450.00	S
WATER LINE				
800'- 1" Black pipe 40 ¢/ft		$ 320.00		
	Total		$ 320.00	S
POWDER, ETC.				
1- Ton powder		$ 550.00		
25- Boxes blasting caps		125.00		
3- Reels fuse		120.00		
	Total		$ 795.00	E
FUELS & OILS				
4000- Gallon gasoline		$ 1,200.00		
100- Gallon Motor oils		100.00		
8000- Gallon diesel fuel		1,700.00		
55- Gallon compressor oil		50.00		
	Total		$ 3,050.00	F
SUPPLIES				
6- Pieces drill steel		$ 130.00		
1- Vane axial fan		815.00		
2- Lamps chargers @ $57.00 ea. ok		171.00		
1- Single drum hoist		500.00		
	Total		$ 1,616.00	S
EQUIPMENT RENTAL				
Compressor 8 mos. @ $900.00/mo.		$ 7,200.00		
Jackleg 3 mos. @ $125.00/mo. ok		375.00		
Trammer 3 mos. @ $300.00/mo. ok		900.00		
	Total		$ 8,475.00	R

Sheet 2 Continued

TIMBER			
50- Sets, 5,000 brd. ft. @ $100.00/M		$ 500.00	
400- Ties @ 40¢ ea.		$ 160.00	
1000- Lagging @ 80¢ ea.		$ 800.00	
	Total		$1,460.00
TRACK			
7- Tons 20# rail (used) @ $125.00/ton		$ 1,075.00	
3- Kegs track spikes @ $40.00/keg		120.00	
Fish plates for rail		250.00	
	Total		$ 1,445.00
CONTRACT EXPENSE			
Slabbing- 225' @ $10.00/ft.		$ 2,250.00	
Clean-up & track laying, 300' @ $5.00/ft.		1,500.00	
Timbering, 50 sets @ $40.00/set		2,000.00	
Cross-cutting, 100' @ $30.00/ft.		3,000.00	
Diamond drilling, 2450' @ $10.00/ft.		29,000.00	
Drifting, 30' at $20.00/ft.		600.00	
Assaying, 200 at $5.00 ea.		1,000.00	
	Total		$39,350.00
INSURANCE & SAFETY			
Workmans Compensation $4.32/per $100.00		$ 400.00	
Three fire extinguishers		100.00	
	Total		$ 500.00
ENGINEERING		$ 1,500.00	
	Total		$ 1,500.00
MANAGEMENT			
Salary, compressor man, 8 mos. @ $500.00/mo.		$ 4,000.00 ?	
Salary, manager, 8 mos. @ $750.00/mo.		6,000.00	
Social security payments		450.00	
	Total		$10,450.00
TOTAL ESTIMATED COSTS			$73,556.00

David C. Hudson

David C. Hudson
Division Manager

Berry
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January 3, 1967

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Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
Room 4460
United States Department of Interior
Washington, D. C. 20242

Subject: Ome-6570 (Silver)
Berry Metal Company
Anglo Saxon Mines Div.
Clear Creek County, Colorado

see copy w/ Haslermemo 12/30/66

Gentlemen:

Two copies of Mr. Hopkins' December 14, 1966 Supplementary Engineering Report - with maps - were delivered to Mr. Hasler's office by David Hudson our Division Manager.

This finalizes our exploration proposal which is the result of considerable study together with discussions in your office and the Denver office.

The Lower Aunt Jack Tunnel, situated at elevation 9360', was selected as the most economically attractive location having the greatest tonnage potential.

Accompanying Map 1 (Our ASM-4) shows this location to be ideally situated between the Colorado Central-Silver Plume Mines on the southwest and the Joe Reynolds-Lamertine-Freeland Mines on the northeast. The elevation of 9360' provides an average mining depth of 700' to 800' below surface at the target area.

This location permits exploration of:

The Anglo Saxon Extension Vein, easterly and beyond the area that produced $250,000.00.

The downward extension of the Anglo Saxon ore shoot which produced $700,000 of exceedingly rich ore in shallow workings 72' below surface.

The downward extension of the Federal Ore Shoot which provuced $100,000 of exceedingly rich ore in shallow workings 72' below surface.

The downward extension of the "Tunnel Vein" Ore Shoot encountered in the Prospecting Tunnel driven at elevation 9760' which encountered a mineralized area - supported by the assay record- extending from a point 1514 feet from portal to 1707 feet where the ore was cut off by a post mineral fault. The ore in this area appeared to be from the top of an ore shoot which Professor Goodspeed described as follows:

> "The ore in the floor of the exploratory tunnel averaged about two feet in width and did not give any indication of narrowing downward on the west side of the north-south post mineral fault zone."

Attached is the Assay Record of mineralization encountered on the "Tunnel Vein". This Assay Record is supported by two shipments of ore obtained in driving the drift of a size to permit timbering down to 5' x 7½' in the clear. This necessitated mining a considerable amount of waste rock which diluted the ore in the following shipments:

98.11 tons direct to AS&R at Leadville for which they settled on the basis of 9.6 oz. of silver per ton.

65.2 tons to Silver Spruce Mill in Idaho Springs. Head assays showed 9.33 oz of silver per ton; 07 oz gold per ton; and .65% lead per ton. This was reduced to 1426 pounds of concentrates which were shipped to AS&R. Settlement was made per smelter sheet #1636 attached. The mill reported considerable silver was lost in water soluable compounds that would necessitate a change in grinding and milling procedure.

204 pounds of the ore was shipped to Denver Equipment Co. for a laboratory ore test. A copy of their test report ZC-8574 dated 5/5/48 is attached. It is significant to note that this ore came from the oxidized zone - above the water table - which should upgrade the value of ore encountered in the Exploration Project. It also indicates that the new exploratory tunnel, located 400 feet below this zone, at or near the bottom of the water table, will encounter the best ore.

Accompanying Map 2 (our ASM 3) shows the four veins proposed for development which have had rich production and/or are supported by Assay Records. Not shown is the multiplicity of veins and vein intersections that have had no development or production. This multiplicity of expected vein intersections can be expected to have an influence on ore deposition and therefore materially enhance the potential of the project.

CONCLUSIONS

A study of all data submitted indicates that an excellent probability exists for the discovery and production of a considerable tonnage of ore that can be mined at a profit.

The owner of the property previously expended $367,000 on the property over a period of 15 years. He ran out of money when success was apparently within reach. The last $20,000 (bank borrowings) was insufficient to complete ore development by drifting thru the fault; raising thru the fault; sinking on ore; and diamond drilling.

The owner is financially able to pay for his part of the program and go beyond the program requirement in fully developing the mine.

The accompanying Financial Statement shows the amazing growth of the company which started manufacturing operations with a $40,000 SBA loan. You will note that in the last three years Income Taxes totaled $590,478 - a splendid return to the Government for the SBA loan which has been repaid.

That record is fully indicative of the character of the company now requesting OME assistance in the meritorious exploration program outlined.

Add the character of Mr. David Hudson our division manager - as indicated by the attached Army Commendation - and you have all the essential prerequisites for granting the OME financial assistance requested.

An extra copy of Hopkins' December 14, 1966 Supplemental Engineering Report is enclosed for your preliminary review pending receipt of Mr. Hasler's report.

Sincerely yours,
Berry Metal Company
Walter V. Berry
WALTER V. BERRY
President

Enc:
Report with Maps
Financial Statement
Hudson Commencation
Assay Report
Denver Eqpt. Report

BERRY METAL COMPANY

Harmony, Pennsylvania

REPORT OF EXAMINATION

October 31, 1966

ROY C. HAMERLY

CERTIFIED PUBLIC ACCOUNTANT

PITTSBURGH, PENNSYLVANIA

ROY C. HAMERLY

CERTIFIED PUBLIC ACCOUNTANT

124 IVYLAND DRIVE • PITTSBURGH, PENNSYLVANIA 15235 • 241-7000

MEMBER, AMERICAN AND PENNSYLVANIA INSTITUTES OF CERTIFIED PUBLIC ACCOUNTANTS

December 27, 1966

Berry Metal Company
Harmony, Pennsylvania 16037

Gentlemen:

I have examined the balance sheet of Berry Metal Company as of October 31, 1966 and the related statement of income and retained earnings for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as I considered necessary in the circumstances.

In my opinion, the accompanying balance sheet and statement of income and retained earnings present fairly the financial position of Berry Metal Company at October 31, 1966, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Yours very truly,

Roy C. Hamerly
Certified Public Accountant

Berry Metal Company
Balance Sheet
As of October 31, 1966

ASSETS

Current Assets:			
Cash on hand and in banks		$303,749	
Accounts receivable		222,625	
Merchandise inventories:			
Finished goods	$ 27,078		
Work in process	25,115		
Raw materials	42,357	94,550	
Prepaid expenses		10,820	
Total current assets			$ 631,744

Plant, Property and Equipment:	Cost	Depreciation to Date	Net
Tools and small equipment	$ 20,214	$ 16,152	$ 4,062
Machinery and equipment	358,978	120,935	238,043
Automobiles and trucks	50,085	14,860	35,225
Office equipment	26,449	8,148	18,301
Leasehold improvements	39,288	10,365	28,923
Buildings	535,219	17,716	517,503
Land	31,629		31,629
Totals	$1,061,862	$188,176	$ 873,686

Patents, net of amortization	$ 10,806
Advance to Anglo Saxon Mines (Note 1)	10,969
Total assets	$1,527,205

LIABILITIES AND STOCKHOLDERS' EQUITY

Current Liabilities:		
Accounts payable, trade	$ 23,642	
Employee tax and other deductions payable	4,740	
Provision for income taxes (Notes 2 & 4)	146,342	
Other accrued taxes and expenses	36,852	
Portion of long-term liabilities due within twelve months	34,556	
Total current liabilities		$ 246,132
Long-Term Liabilities:		
Long-term portion of mortgages payable to Mellon National Bank, P.I.D.A., Z.I.D.C., H.I.B. Engineering, Inc., H.I.B. Trust and East Park Savings & Loan Association		503,322
Total liabilities		$ 749,454
Stockholders' Equity:		
Class "A" shares, par value 25¢: 3,707,246 shares unissued, 214,322 shares issued & outstanding	$ 53,581	
Contributions in excess of par value	19,302	
Retained earnings	704,868	
Total stockholders' equity		777,751
Total liabilities and stockholders' equity		$1,527,205

Subject to footnotes on next page.

Berry Metal Company
Footnotes to Accompanying Statements

1. $10,969 has been advanced toward the formation and operation of a Colorado corporation to be known as Anglo Saxon Mines, which is planned to be a 90% owned subsidiary of Berry Metal Company.

2. A contingent liability exists for approximately $64,000 of additional Federal income taxes for the years ended October 31, 1962, 1963 and 1964. This contested amount has not been provided for in these statements.

3. In the immediately preceding year, Berry Metal Company provided for a $20,000 loss, net of taxes, on the planned abandonment of leasehold improvements. As subsequent developments have required the continued use of the facility at Mars, Pennsylvania, the $14,392 applicable portion of that loss was returned to income in the year under review.

4. The investment credit provision reduces Federal income tax for the year by $6,856, all of which has been treated as a reduction of income tax liability and expense for the year.

Berry Metal Company
Statement of Income and Retained Earnings
For the Year Ended October 31, 1966

Net sales		$1,441,092
Cost of Goods Sold:		
Inventories, October 31, 1965	$ 59,772	
Material purchases	252,010	
Labor	220,480	
Other manufacturing costs	359,768	
Total manufacturing costs	$892,030	
Less inventories, October 31, 1966	94,550	
Cost of goods sold		797,480
Gross profit on sales		$ 643,612
Selling and administrative expenses		185,144
Net operating income		$ 458,468
Other expense, net of other income		7,195
		$ 451,273
Reversed portion of prior abandonment loss (Note 3)		14,392
Net income before income taxes		$ 465,665
Provision for income taxes (Notes 2 & 4)		220,619
Net income		$ 245,046
Retained Earnings:		
Balance, October 31, 1965		459,822
Retained earnings, October 31, 1966		$ 704,868

Subject to footnotes on preceding page.

Berry Metal Company
Comparative Balance Sheet
As of October 31, 1966, 1965 and 1964

	As of October 31:		
ASSETS	1966	1965	1964
Current Assets:			
Cash on hand and in banks	$ 303,749	$401,418	$245,735
Accounts receivable	222,625	136,435	192,486
Merchandise inventories	94,550	59,772	52,673
Other current assets	10,820	9,108	4,456
Total current assets	$ 631,744	$606,733	$495,350
Plant, Property and Equipment:			
Tools and small equipment	$ 20,214	$ 16,801	$ 11,669
Machinery and equipment	358,978	202,063	74,617
Automobiles and trucks	50,085	28,911	19,381
Office equipment	26,449	15,186	9,435
Leasehold improvements	39,288	73,913	32,109
Buildings	535,219	-0-	-0-
Land	31,629	5,000	
Totals at cost	$1,061,862	$341,874	$147,211
Less depreciation to date	188,176	153,587	101,802
Total plant, prop. & equipt.	$ 873,686	$188,287	$ 45,409
Patents cost less amortization	$ 10,806	$ 12,378	$ 13,745
Other assets	10,969	-0-	1,560
Total assets	$1,527,205	$807,398	$556,064
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current Liabilities:			
Accounts payable	$ 28,382	$ 44,677	$ 77,768
Accrued taxes and expenses	183,194	230,016	161,474
Current portion of long-term liabilities	34,556	-0-	714
Total current liabilities	$ 246,132	$274,693	$239,956
Long-term liabilities	503,322	-0-	-0-
Total liabilities	$ 749,454	$274,693	$239,956
Stockholders' Equity:			
Contributions for Shares:			
Par value portion	$ 53,581	$ 53,581	$ 53,581
In excess of par value	19,302	19,302	19,302
Total contributions for shares	$ 72,883	$ 72,883	$ 72,883
Retained earnings	704,868	459,822	243,225
Total stockholders' equity	$ 777,751	$532,705	$316,108
Total liabil. & stockholders' equity	$1,527,205	$807,398	$556,064

Berry Metal Company
Comparative Statement of Income and Retained Earnings
For the Years Ended October 31, 1966, 1965 & 1964

	For the Years Ended October 31:		
	1966	1965	1964
Net sales	$1,441,092	$1,477,383	$1,070,827
Cost of Goods Sold:			
Beginning inventories	$ 59,772	$ 52,673	$ 51,454
Raw material purchases	252,010	274,965	156,250
Labor	220,480	227,395	161,119
Manufacturing expenses	359,768	387,666	388,806
Total manufacturing costs	$ 892,030	$ 942,699	$ 757,629
Less ending inventories	94,550	59,772	52,673
Total cost of goods sold	$ 797,480	$ 882,927	$ 704,956
Gross profit on sales	$ 643,612	$ 594,456	$ 365,871
Selling and administrative expenses	185,144	128,686	96,405
Net operating income	$ 458,468	$ 465,770	$ 269,466
Net of other income and other expense*	7,197	16,472*	406*
Net income before income taxes	$ 465,665	$ 449,298	$ 269,060
Provision for income taxes	220,619	232,701	137,158
Net income	$ 245,046	$ 216,957	$ 131,902
Retained Earnings:			
At beginning of the years	459,822	243,225	111,323
Retained earnings at end of years	$ 704,868	$ 459,822	$ 243,225

DEPARTMENT OF THE ARMY

DAVID C. HUDSON

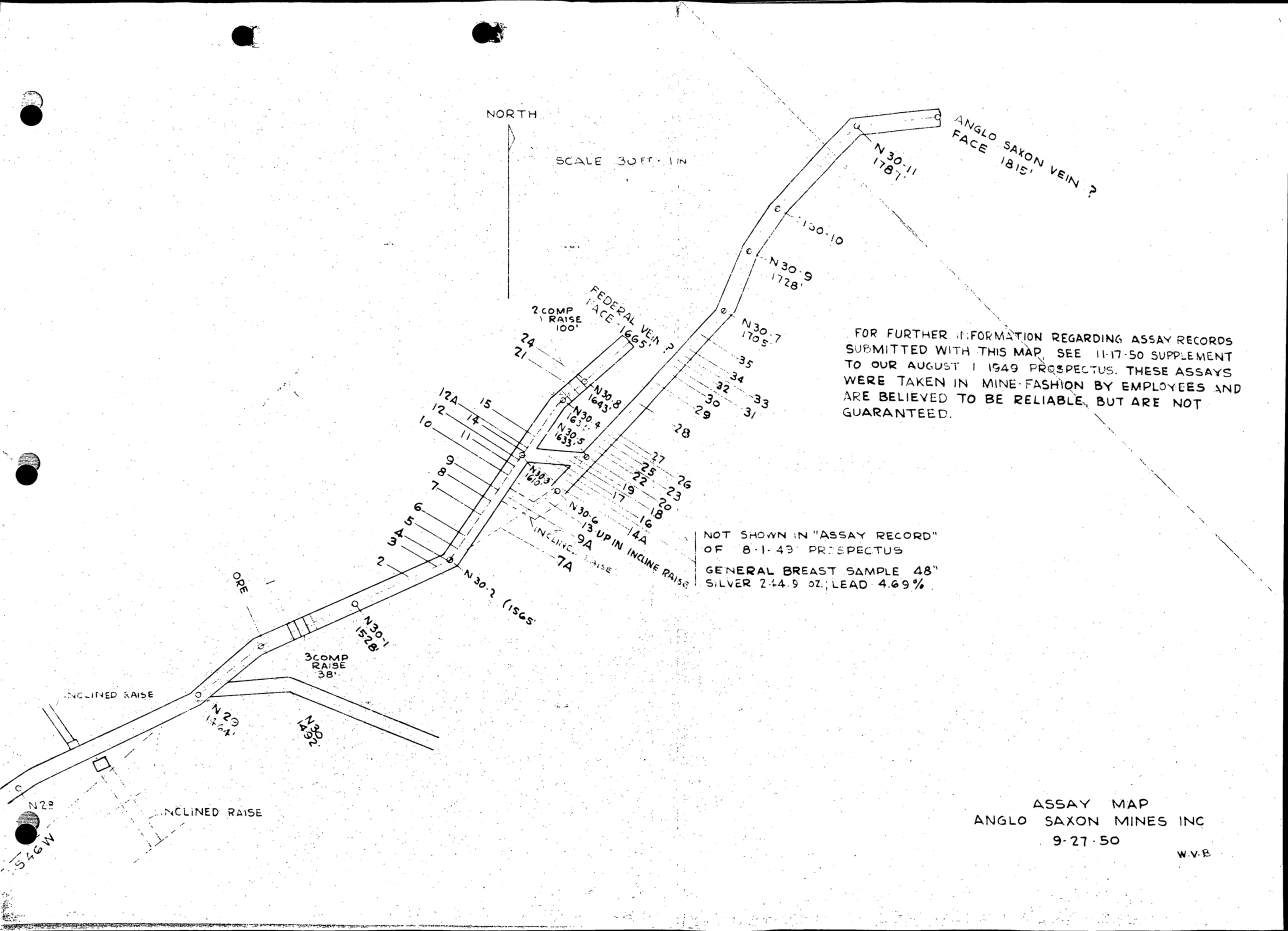
IS OFFICIALLY COMMENDED

FOR

OUTSTANDING PERFORMANCE RATING FOR THE PERIOD 6 JUNE 1965 TO 30 JUNE 1966. MR. HUDSON, AS DIRECTOR OF EDUCATION, CAMP BEARD EDUCATION CENTER, 2D INFANTRY DIVISION, HAS PERFORMED HIS DUTIES IN AN OUTSTANDING MANNER DURING THIS PERIOD. HIS INITIATIVE, DYNAMIC LEADERSHIP AND GUIDANCE, ENTHUSIASM, DILIGENCE, DEVOTION TO DUTY AND UNTIRING EFFORTS CONTRIBUTED MATERIALLY TO THE HIGH STANDARDS OF EFFICIENCY AND TO THE SUCCESS OF THE DIVISION EDUCATION PROGRAM. SUCH SERVICE IS IN THE BEST TRADITION OF THE CIVIL SERVICE.

OCTOBER 1966

F. W. OSETH
COLONEL, GS
CHIEF OF STAFF
2D INFANTRY DIVISION



FOR FURTHER INFORMATION REGARDING ASSAY RECORDS SUBMITTED WITH THIS MAP, SEE 11-17-50 SUPPLEMENT TO OUR AUGUST 1 1949 PROSPECTUS. THESE ASSAYS WERE TAKEN IN MINE-FASHION BY EMPLOYEES AND ARE BELIEVED TO BE RELIABLE, BUT ARE NOT GUARANTEED.

NOT SHOWN IN "ASSAY RECORD" OF 8-1-49 PROSPECTUS

GENERAL BREAST SAMPLE 48"
SILVER 244.9 OZ.; LEAD 4.69%

ASSAY MAP
ANGLO SAXON MINES INC
9-27-50

W.V.B

ASSAY RECORD

ANGLO SAXON MINES, INC.

COMBINED VEIN

Sample Number	Listed Location	Corrected Location	Width of Sample	Position in Vein	Oz. of Silver Per Ton
1	1514	1504	18"	Right side of vein	52.7
			18"	Center of Vein	41.7
			18"	Left side of Vein	44.9
2	1560	1550	24"	Right side of Vein	51.0
			24"	Left side of Vein	5.8
3	1570	1560	17"	Right side of Vein	1.8
			17"	Center of Vein	11.2
			17"	Left side of Vein	15.6
4	1575	1565	42"	Face of Vein	24.6
			12"	Right side of Vein	110.6
5	1580	1570	36"	Face of Vein	129.0
6	1585	1575	66"	Right side of Vein	9.8
			18"	Center of Vein	12.6
			24"	Left side of Vein	70.2

FEDERAL VEIN?

7	1595	1585	30"	Federal Vein Face at Junction	104.1
8	1600	1590	30"	Face of Federal Vein	6.9
9	1605	1595	4"	Seam on Federal Vein	86.0
			20"	Face of Federal Vein	0.75
10	1612	1602	24"	Right side of Federal Vein	2.7
			24"	Left side of Federal Vein	17.6
11	1615	1605	34"	Face of Federal Vein	22.6
12	1618	1608	28"	Left side of Federal Vein	8.4
			37"	Face of Federal Vein	3.2
14	1625	1615	30"	Face of Federal Vein	4.8
15	1628	1618	24"	Face of Federal Vein	8.9
21	1650	1640	36"	Face of Federal Vein	5.5
24	1655	1645	30"	Face of Federal Vein	21.4

Sample Number	Listed Location	Corrected Location	Width of Sample	Position in Vein	Oz. of Silver Per Ton
				CROSS CUT TO ANGLO SAXON VEIN?	
12A	1618	1608	36"	Face of Anglo Saxon Vein Branch	29.8
14A	1625	1615	24"	Face of Anglo Saxon Vein Branch	15.6
16	1630	1615	20"	Face of Anglo Saxon Vein Branch	37.0
17	1633	1618	36"	Face of Anglo Saxon Vein Branch	14.7
			18"	Right side of Anglo Saxon Vein Branch	127.6
			18"	Left side of Anglo Saxon Vein Branch	126.2
18	1641	1626	30"	Face of Anglo Saxon Vein Branch	48.2
19	1644	1629	24"	Face of Anglo Saxon Vein Branch	53.4
				ANGLO SAXON VEIN?	
7A	1595	1585	18"	Anglo Saxon Vein Face at Junction	71.1
9A	1605	1595	28"	Face of Anglo Saxon Vein	112.2
13	1620	1610	12"	Right side of Anglo Saxon Vein	191.0
			12"	Right side of Anglo Saxon Vein	46.1
			12"	Left side of Anglo Saxon Vein	107.2
			12"	Left side of Anglo Saxon Vein	3.4
Extra		1623	48"	Face of Anglo Saxon Vein	244.9
20	1649	1634	16"	Face of Anglo Saxon Vein	271.2
22	1652	1637	6"	Face of Anglo Saxon Vein	1767.4
			18"	Right side of Anglo Saxon Vein	3.8
23	1654	1639	18"	Right side of Anglo Saxon Vein	22.3
25	1656	1641	20"	Left side of Anglo Saxon Vein	15.6
26	1658	1643	36"	Face of Anglo Saxon Vein	124.7

Sample Number	Listed Location	Corrected Location	Width of Sample		Oz. of Silver Per Ton
27	1660	1645	4"	Left side of Anglo Saxon Vein	1790.4
			48"	Face of Anglo Saxon Vein	45.6
28	1675	1660	30"	Face of Anglo Saxon Vein	49.6
29	1685	1670	27"	Face of Anglo Saxon Vein	12.8
30	1690	1675	20"	Face of Anglo Saxon Vein	31.4
31	1695	1678	20"	Face of Anglo Saxon Vein	34.3
32	1696	1681	20"	Face of Anglo Saxon Vein	130.4
33	1698	1683	40"	Face of Anglo Saxon Vein	188.8
34	1700	1685	24"	Left side of Anglo Saxon Vein	6.8
35	1707	1692	40"	Face of Anglo Saxon Vein	0.4

FORM C-247
3M 1-48 7105

AMERICAN SMELTING AND REFINING CO.
ARKANSAS VALLEY PLANT

LEADVILLE, COLO. Aug 12, 1948

BOUGHT OF Anglo Saxon Mines Inc., LOT NO. SMELTER 1636 MINE 1

ADDRESS CLASS Sax Ore SHIPPING POINT Georgetown, Colo

QUOTATIONS OF 7/26-7/31/48 SILVER .90 LEAD 18.833 COPPER

ASSAYS	GOLD OZ. PER TON	SILVER OZ. PER TON	LEAD PER CENT	COPPER PER CENT	INSOL. PER CENT	IRON PER CENT	MANGANESE PER CENT	LIME PER CENT	ZINC PER CENT	SULPHUR PER CENT
A. S. & R. CO.	0.80	434.3	19.6	0.0	42.8	9.5			7.0	
Mine	1.00	437.3	20.1	0.0	42.1	10.2			7.0	
UMPIRE R&S	1.023									
SETTLEMENT ASSAY	1.00	435.8	19.85	0.0	42.45	9.85			7.0	10.4

CAR INITIAL	NUMBER	WEIGHT	FROZEN WT.
Trucked.		1533	

PAYMENTS PER TON			
GOLD 32.31825	@		32.32
SILVER 95%	@		372.61
LEAD, LESS 90%	@	PER UNIT	55.96
COPPER, LESS	@	PER UNIT	
GROSS VALUE OF METALS			460.89
LESS TOTAL DEDUCTIONS			10.10

DEDUCTIONS PER TON	
BASE CHARGE	5.750
INSOLUBLE	2.500
ZINC	
SULPHUR	1.850
EXCESS VALUE	
IRON CREDIT	
LIME CREDIT	
TOTAL DEDUCTIONS	10.100

WEIGHT OF LOT 1533
WEIGHT OF SACKS
WET WEIGHT
LESS MOISTURE 7.0 %

DRY WEIGHT 1426 @ $ 450.79 PER TON 321.41

Rec'd 7/26/48 FREIGHT ADVANCED, @

This lot contains 311 ozs ofsilver.

MOISTURE
SAMPLING 10.00
FROZEN ORE C.O.Parker & Co 6.00
UMPIRE Beach & Co 3.00

CORRECT WR
CHECKED JC % ROYALTY

RATES, EXCEPT ON CONTRACTS, SUBJECT TO CHANGE WITHOUT NOTICE.

NET PROCEEDS $ 302.41

DENVER EQUIPMENT COMPANY
ORE TESTING DIVISION
Denver, Colorado

May 5, 1948

Mr. Walter V. Berry
Anglo Saxon Mines, Inc.
c/o Hotel Edmond Meany
University District
Seattle 5, Washington

Reference: Ore Test ZC-8574

Dear Sir:

We are pleased to submit the following report of results of laboratory ore tests conducted upon your sample of silver ore.

DESCRIPTION OF THE SAMPLE

On April 10, 1948 Mr. Walter V. Berry personally delivered three sacks of ore samples to the Ore Testing Division of the Denver Equipment Company. These sacks contained an ore sample weighing 204 pounds from the Anglo Saxon Mines, Inc., Georgetown, Colorado.

The sample was to be tested under Ore Test Number ZC-8574.

OBJECT OF TEST

The object of the test was to determine the amenability of the sample to concentration by bulk flotation including Unit Cell Flotation or Denver Mineral Jig and Pilot Table treatment. A silver and gold assay was requested.

It is reported that the sample contains argentite, iron and a trace of gold.

Examination of the ore revealed the presence of lead values chiefly in oxide form. Therefore, sulphidization was included in the flotation test work in order to determine the possibility of recovering the oxide lead values present.

PREPARATION OF THE SAMPLE

The entire sample submitted consisting of mixed coarse and fine material of 4 inch maximum size was crushed to 3/4 inch size in the Denver Jaw Crusher. The 3/4 inch material was thoroughly mixed and split into 2 equal portions. One-half of the 3/4 inch material was reduced to 1/4 inch size in Denver Crushing Rolls. This 1/4 inch material was thoroughly mixed and split into 2 portions. One-half of the 1/4 inch material was reduced to minus 10 mesh size by means of the Denver Crushing Rolls in closed circuit with a Denver Dillon Screen. A head sample was cut out of the minus 10 mesh portion. All reject portions were reserved for possible future test work.

ALL RECOMMENDATIONS AND OPINIONS EXPRESSED IN THIS REPORT ARE BASED ON METALLURGICAL RESULTS OBTAINED IN THE ORE TESTING LABORATORY OF THE DENVER EQUIPMENT COMPANY, AND APPLY ONLY TO THE TREATMENT OF MATERIAL CONFORMING TO THE SAMPLE SUBMITTED BY THE SUBJECT COMPANY

DESCRIPTION OF THE ORE

The ore represented by the sample submitted contains silver and lead values in a siliceous gangue. A carefully panned concentrate contained argentite, galena, cerrusite, sphalerite and a small amount of magnetite in a siliceous gangue. No free gold was observed in the panned concentrate. The chief gangue mineral appeared to be chlorite.

Chemical tests disclosed the presence of water soluble chlorides and sulphates. The specific gravity of the ore is 2.74 and when a portion of the minus 10 mesh material is pulped with an equal weight of Denver city water having a pH of 7.4, the resulting pulp has a pH of 7.8.

A partial analysis of the head sample gave the following results:

Gold, ounces per ton	0.002
Silver, ounces per ton	24.50
Total lead, per cent	1.90
Oxide lead, per cent	1.10
Zinc, per cent	0.70
Iron, per cent	1.80
Insoluble, per cent	93.85
Sulphur, per cent	0.37

RESULTS OF TESTS

Results of the test work conducted will be discussed below. Additional information pertinent to the tests will be found tabulated on attached Data Sheets D-1 through D-7.

TEST NUMBER 1

DENVER MINERAL JIG, DENVER "SUB-A" FLOTATION, AND DENVER GRAVITY TABLE.

A 2500 gram charge of minus 10 mesh ore was subjected to treatment comparable to a Denver Mineral Jig in the ball mill-classifier circuit of a regular commercial operation. The jig concentrate produced after one cleaning assayed 760.3 ounces of silver per ton and 39.6 per cent lead representing a recovery of 60.2 percent of the total silver and 40.6 percent of the total lead. The jig tailings ground to 65 mesh size were subjected to Denver "Sub-A" Flotation producing a sulphide concentrate which assayed 448.7 ounces of silver per ton and 41.0 percent lead representing a recovery of 28.7 percent of the total silver and 34.0 percent of the total lead.

After removal of the sulphide concentrate, the pulp was conditioned with sodium sulfhydrate. This sulphidization treatment resulted in a concentrate assaying 35.6 ounces of silver per ton and 12.4 percent

lead and representing an additional recovery of 3.3 percent of the total silver and 14.9 percent of the total lead.

Flotation tailings subjected to Denver Gravity Table treatment resulted in a table concentrate which assayed 42.4 ounces of silver per ton and 3.9 percent lead representing a recovery of 2.51 percent of the total silver and 2.98 percent of the total lead.

As is shown on Data Sheet D-4, the concentrates also contained minor amounts of gold.

TEST NUMBER 2

DENVER UNIT CELL,
DENVER "SUB-A" FLOTATION,
AND DENVER GRAVITY TABLE.

A 2500 gram charge of the minus 10 mesh ore was subjected to treatment comparable to a Denver Unit Cell in the ball mill-classifier circuit of a regular commercial operation. The Unit Cell concentrate produced assayed 645.5 ounces of silver per ton and 24.0 percent lead representing a recovery of 65.1 percent of the total silver and 34.1 percent of the total lead. The Unit Cell tailings were ground to 65 mesh to correspond to a classifier overflow at 65 mesh. The ground pulp was conditioned with sodium sulphide, then subjected to Denver "Sub-A" Flotation which produced a concentrate assaying 378.4 ounces of silver per ton and 48.4 percent lead representing a recovery of 27.6 percent of the total silver and 49.9 percent of the total lead.

A scavenger concentrate was floated which assayed 17.2 ounces of silver per ton and 1.7 percent lead representing 1.3 percent of the total silver and 1.47 percent of the total lead.

Tabling of the flotation tailings produced a table concentrate assaying 21.7 ounces of silver per ton and 7.0 percent lead representing 1.30 percent of the total silver and 5.9 percent of the total lead.

The rejected tailing assayed approximately 1.37 ounces of silver per ton and 0.17 per cent lead.

A screen analysis of the sand tailings indicated that the coarse sands contained more silver per ton than the fine sands indicating that a slight increase in recovery may be made by finer grinding.

ADDITIONAL ENGINEERING DATA

Grinding tests conducted upon the ore when compared with grinding tests on standard ores indicate that the ore represented by the sample submitted is a "medium" ore to grind when grinding to 65 mesh size.

Thickener tests conducted on the flotation concentrates indicate that

a thickener area of 12.0 square feet per ton of dry solids per 24 hours is sufficient to thicken the concentrates and provide storage space in case of filter shutdowns.

Filter tests conducted upon the flotation concentrates indicate that a filter having a capacity of 65 pounds of dry solids per square foot per 24 hours is necessary to filter the thickened flotation concentrates. Filter tests were conducted on concentrates at approximately 4 to 1 liquid to solids ratio. The flotation concentrates as produced have a density of approximately 10 percent solids, but can be thickened with a clear overflow to a density of approximately 20 percent solids. At a density of 20 percent solids, the solids are settling under compression settling and the rate of settling is slowed down considerably.

REMARKS AND RECOMMENDATIONS

Results of laboratory ore tests indicate that the ore represented by the sample submitted is amenable to concentration by Denver "Sub-A" Flotation treatment.

Attached Bulletin Number M7-B16 contains the flowsheet which is recommended for treatment of this ore. This flowsheet (on page 2 of the bulletin) consists of a Denver Unit Cell in the ball mill-classifier circuit with Denver "Sub-A" Flotation of the classifier overflow followed by pilot tabling of the flotation tailings. Conditions and reagents recommended for flotation are those shown under Test Number 2 on Data Sheet D-5.

The Denver Unit Cell provides a means of removing a sulphide concentrate prior to sulphidization. Conditioning the classifier overflow with sodium sulphide as the sulphidizer makes it possible to recover the oxide lead present by Denver "Sub-A" Flotation. A 65 mesh grind is considered optimum for flotation of this ore. Flotation of a scavenger product is recommended. This scavenger flotation product should be returned to the first rougher cell in the Denver "Sub-A" Flotation machine. A scavenger operation would keep the flotation tailings at a minimum without lowering the grade of the flotation concentrates.

The use of a pilot table is recommended for controlling the flotation operation.

Respectfully submitted,

DENVER EQUIPMENT COMPANY

Clarence Thom, Director
Ore Testing Division

Henry J. Gisler, Manager
Ore Testing Division

DENVER EQUIPMENT COMPANY
ORE TESTING DIVISION
Denver, Colorado

Report No. ZC-8574
Test No. 1.

DENVER MINERAL JIG TEST DATA

SAMPLE IDENTIFICATION:

Sample crushed to minus 10 mesh before grinding.

GRINDING:

Preliminary grinding time, minutes None
Final grinding time, minutes 5
Percent solids 67

JIG TEST PROCEDURE: A 2500 gram charge of the sample submitted was passed over the Denver Laboratory Mineral Jig producing a portion of jig concentrates and a jig tailing. The jig tailing was ground for 5 minutes at 67 percent solids and again passed over the Denver Laboratory Mineral Jig producing a second portion of jig concentrates and a final jig tailing. The two jig concentrates were combined and passed over the Denver Mineral Jig producing a cleaned jig concentrate and a jig middling product. The cleaned jig concentrate was dried, weighed and assayed. The jig middling was combined with the jig tailing and reserved for flotation as shown on Data Sheet D-2.

PRODUCT	Percent Weight	ASSAYS Oz/ton		Oz/ton	PERCENT RECOVERY		
		Ag	% Ttl.Pb	Au	Ag	Pb	
Head Assay	--	24.50	1.90	0.002	--	--	
Calculated Head Assay	100.0	23.86	1.84	--	100.00	100.00	
Jig Cleaner Concentrates	1.89	760.30	39.60	0.01	60.22	40.61	
Jig Middlings & Tailings	98.11	9.68	1.12	--	39.78	59.39	

NOTES:

FLOTATION TEST DATA

DENVER EQUIPMENT COMPANY — ORE TESTING DIVISION — DENVER, COLORADO

SAMPLE IDENTIFICATION: Combined Jig middlings & Jig Tailings from Data Sheet D-1

REPORT NO. ZC-8574 TEST NO. 1A

PRODUCT	Percent Weight	ASSAYS Oz/ton Ag	% Ttl. Pb	% Oxide Pb	% Insol	% Fe	Oz/ton Au	PERCENT RECOVERY Ag	Ttl. Pb			
Combined Jig Midds & Tails	98.11	9.68	1.12	--	--	1.80	--	39.78	59.39			
Sulphide Flot. Concts.	1.53	448.70	41.00	40.20	40.00	--	0.04	28.77	34.04			
Oxide Flot. Concentrates	2.22	35.60	12.40	12.20	77.00	--	0.005	3.31	14.94			
Flotation Tailings	94.36	1.95	0.20	--	--	--	--	7.70	10.41			

Grinding and Treatment: Operation	Time Min.	Percent Solids	pH	Reagents: Pounds per ton heads—(2) Z-5	P.O.	S.	A.
Grinding (1)	10	67.0	7.7	--	--	--	--
Sulphide Flotation	10	25.0	7.7	0.20	0.05	--	--
Conditioning	10	24.0	7.7	--	--	1.50	--
Oxide Flotation	9	24.0	7.7	0.10	0.05	--	0.04

Grinding (1)

Time, minutes 10

Classification, mesh None

Sands reground, minutes None

(2) Reagent Symbols: Z-5 = Xanthate "Z-5"
P.O. = Yarmor "F" Pine Oil
S. = Sodium Sulfhydrate
A. = Methyl Amyl Alcohol

NOTES: Flotation performed in Denver "Sub-A" (Fahrenwald) Laboratory Flotation Machine.

Reagents Z-5, P.O., and A. were stage added.

Flotation tailings were subjected to Denver Gravity Table treatment as shown on Data Sheet D-3.

DENVER EQUIPMENT COMPANY
ORE TESTING DIVISION
Denver, Colorado

Report No. ZC-8574
Test No. 1B

DENVER GRAVITY TABLE TEST DATA

SAMPLE IDENTIFICATION:

Flotation tailings as produced in Test 1A on Data Sheet D-2.

GRINDING: None

Preliminary grinding time, minutes ---

Final grinding time, minutes ---

Percent solids ---

TABLE TEST PROCEDURE: The Flotation tailings produced in Test 1A on Data Sheet D-2 were subjected to Denver Gravity Table treatment producing a Table Concentrate and a Table Tailing. The latter was split into a sand and slime fraction as shown below.

PRODUCT	Percent Weight	ASSAYS Oz/ton	%	Oz/ton	PERCENT RECOVERY		
		Ag	Ttl. Pb	Au	Ag	Ttl. Pb	
Flotation Tailings	94.36	1.95	0.20	--	7.70	10.41	
Table Concentrates	1.41	42.40	3.90	0.09	2.51	2.98	
Table Sand Tailings	61.51	1.30	0.12	--	3.35	4.01	
Table Slime Tailings	31.44	1.40	0.20	--	1.84	3.42	

NOTES:

SUMMARY OF RESULTS Test 1, 1A & 1B **DENVER EQUIPMENT COMPANY — ORE TESTING DIVISION — DENVER, COLORADO**

SAMPLE IDENTIFICATION Sample crushed to minus 10 mesh before grinding **REPORT NO.** ZC-8574

	PRODUCT	Percent Weight	ASSAYS Oz/ton Ag	% Ttl.Pb	% Oxide Pb	% Insol	% Fe	Oz/ton Au	PERCENT RECOVERY Ag	Ttl. Pb
1.	Head Assay	--	24.50	1.90	1.10	93.85	1.80	0.002	--	--
2.	Calculated Head Assay	100.0	23.86	1.84	--	--	--	--	100.00	100.00
3.	Jig Cleaner Concentrates	1.89	760.30	39.60	30.40	44.72	--	0.01	60.22	40.61
4.	Sulphide Flotation Concts	1.53	448.70	41.00	40.20	40.00	--	0.04	28.77	34.04
5.	Oxide Flot. Concts.	2.22	35.60	12.40	12.20	77.00	--	0.005	3.31	14.94
6.	Table Concentrates	1.41	42.40	3.90	1.95	87.26	--	0.09	2.51	2.98
7.	Table Sand Tailings	61.51	1.30	0.12	--	--	--	--	3.35	4.01
8.	Table Slime Tailings	31.44	1.40	0.20	--	--	--	--	1.84	3.42
		100.0							100.00	100.00
	Mesh	Screen Analysis of Table Sand Tailings							Per Cent Distribution	
	Plus 48	2.95	1.80						4.29	
	Minus 48 Plus 65	10.85	1.70						14.89	
	Minus 65 Plus 100	16.15	1.50						19.55	
	Minus 100 Plus 150	16.55	1.60						43.77	
	Minus 150 Plus 200	17.35								
	Minus 200	36.15	0.60						17.50	
	Average	100.0	1.24						100.00	

REMARKS:

Combined Products 3, 4, 5, & 6 effect a recovery of 94.81 percent of the total Ag and 92.57 percent of the total Pb in a combined concentrate assaying 320.89 ounces of Ag per ton and 24.20 percent lead. The Ratio of Concentration of the combined concentrate is approximately 14.18 to 1.

FLOTATION TEST DATA

DENVER EQUIPMENT COMPANY — ORE TESTING DIVISION — DENVER, COLORADO

SAMPLE IDENTIFICATION Sample Crushed to minus 10 mesh before grinding

REPORT NO. ZC-8574 TEST NO. 2.

PRODUCT	Percent Weight	ASSAYS Oz/ton Ag	% Ttl. Pb	% Oxide Pb	% Insol	% Fe	% Zn	PERCENT RECOVERY Ag	Ttl. Pb			
Head Assay	--	24.50	1.90	1.10	93.85	1.80	0.70	--	--			
Calculated Head Assay	100.0	26.25	1.86	--	--	--	--	100.00	100.00			
Unit Cell Flot. Concts.	2.65	645.50	24.00	15.40	66.58			65.16	34.15			
Oxide Flotation Concts.	1.92	378.40	48.40	48.20	32.96			27.68	49.90			
Scavenger Flot. Concts.	1.61	17.20	1.70	1.70	90.57			1.05	1.47			
Flotation Tailings	93.82	1.71	0.29	--	--			6.11	14.48			
	100.0							100.00	100.00			

Grinding and Treatment: Operation	Time Min.	Percent Solids	pH	Reagents: Pounds per ton heads—(2) S.A.	Z-5	P.O.	Sx	Z-8	A.
Grinding (1)	7	67.0	7.9	1.0	0.10	0.05	--	--	--
Unit Cell Flotation	3	67.0	7.9	--	--	--	--	--	--
Grinding	12	67.0	7.9	--	--	--	--	--	--
Conditioning	7	25.0	7.7	--	--	--	1.5	--	--
Oxide Flotation	10	25.0	7.7	--	0.15	0.05	--	--	0.05
Scavenger Flotation	4	25.0	7.7	--	--	--	--	0.10	0.02

Grinding (1)

Time, minutes 7

Classification, mesh ---

Sands reground, minutes ---

(2) Reagent Symbols: S.A. = Soda Ash
Z-5 = Xanthate Z-5 A = Methyl Amyl Alcohol
P.O. = Yarmor "F" Pine Oil
Sx = Sodium Sulphide
Z-8 = Xanthate Z-8

NOTES: Flotation performed in Denver "Sub-A" (Fahrenwald) Laboratory Flotation Machine.

Xanthates and frothers were stage added.

Flotation tailings were subjected to Denver Gravity Table treatment as outlined on Data Sheet D-6.

DENVER EQUIPMENT COMPANY
ORE TESTING DIVISION
Denver, Colorado

Report No. ZC-8574
Test No. 2A

DENVER GRAVITY TABLE TEST DATA

SAMPLE IDENTIFICATION:

Flotation Tailings as produced in Test 2 on Data Sheet D-5.

GRINDING: None

Preliminary grinding time, minutes ---

Final grinding time, minutes ---

Percent solids ---

TABLE TEST PROCEDURE: The flotation tailings produced in Test 2 were passed over the Denver Gravity Table in order to determine the values contained in the heavy non-floating minerals. The table products and assays of each product are shown below.

PRODUCT	Percent Weight	ASSAYS Oz/ton	%	%	PERCENT RECOVERY		
		Ag	Ttl. Pb	Insol	Ag	Ttl.Pb	
Flotation Tailings	93.82	1.71	0.29	--	6.11	14.48	
Table Concentrates	1.57	21.70	7.00	83.31	1.30	5.90	
Table Sand Tailings	61.62	1.60	0.15	--	3.76	4.96	
Table Slime Tailings	30.63	0.90	0.22	--	1.05	3.62	

NOTES:

SUMMARY OF RESULTS Tests 2 and 2A **DENVER EQUIPMENT COMPANY — ORE TESTING DIVISION — DENVER, COLORADO**

SAMPLE IDENTIFICATION Sample Crushed to minus 10 mesh before grinding **REPORT NO.** ZC-8574

	PRODUCT	Percent Weight	ASSAYS Oz/ton Ag	% Ttl. Pb	% Oxide Pb	% Insol	% Fe	Oz/ton Au	PERCENT RECOVERY Ag	Ttl.Pb
1.	Head Assay	--	24.50	1.90	1.10	93.85	1.80	0.002	--	--
2.	Calculated Head Assay	100.00	26.25	1.86	--	--	--	--	100.00	100.00
3.	Unit Cell Flot. Concts.	2.65	645.50	24.00	15.40	66.58	--	--	65.16	34.15
4.	Oxide Flot. Concts.	1.92	378.40	48.40	48.20	32.96			27.68	49.90
5.	Scavenger Flot. Concts.	1.61	17.20	1.70	1.70	90.57			1.05	1.47
6.	Table Concentrates	1.57	21.70	7.00	3.40	83.31			1.30	5.90
7.	Table Sand Tailings	61.62	1.60	0.15	--	--			3.76	4.96
8.	Table Slime Tailings	30.63	0.90	0.22	--	--			1.05	3.62
		100.00							100.00	100.00
	Mesh	Screen Analysis of Table Sand Tailings							Per Cent Distribution	
	Plus 48	1.50	2.80						2.52	
	Minus 48 Plus 65	8.45	4.80						24.36	
	Minus 65 Plus 100	15.35	2.30						21.20	
	Minus 100 Plus 150	15.80	1.10						21.01	
	Minus 150 Plus 200	16.00								
	Minus 200	42.90	1.20						30.91	
	Average	100.00	1.66						100.00	

REMARKS:

Combined Products 3, 4, & 6 effect a recovery of 94.14 percent of the total Ag and 89.95 percent of the total Pb in a combined concentrate assaying 402.47 ounces of Ag per ton and 27.28 percent lead. The Ratio of concentration of the combined concentrate is approximately 16 to 1.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

December 30, 1966

OFFICIAL
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JAN 3 1967

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6570 (Silver)
Anglo-Saxon Mine
Clear Creek County,
Colorado

Transmitted herewith is a copy of a revised exploration program on the subject property. A cursory review indicates that the program is still too ambitious.

J. William Hasler
J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosure

PAUL M. HOPKINS
CONSULTING MINING GEOLOGIST AND ENGINEER
REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR

2222 ARAPAHOE STREET
CRESTVIEW 9-2313

P. O. BOX 403
GOLDEN, COLO.

14 December 1966

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O. M. E.
RECEIVED
DEC 1967

Mr. Walter V. Berry, Inc.
Anglo-Saxon Mines, Inc.
Georgetown, Colorado

Dear Mr. Berry:

The continuing evaluation and study of recommended exploration of the properties of the Anglo-Saxon Mines, Inc. properties have resulted in a revision of recommendations for exploration.

These recommendations are briefly that all exploration-development of the property be directed using the Lower Aunt Jack tunnel with the objective of the locale where the Anglo-Saxon, the "Tunnel" and Federal veins are either intersecting or are found to be intersecting the Saxon Saddle Fault. The elevation of this exploration is 9360 feet, approximately 400 feet below the previous Upper Aunt Jack tunnel that initially opened this area to examination.

The secondary objectives for exploration are: The Anglo-Saxon Extension vein which should be found less than 100 feet south of the existing tunnel if a cross-cut is driven southerly at a point 340 feet from the portal. The Anglo-Saxon and "Tunnel" veins which should be found on either side of the tunnel as proposed. Diamond drill holes, and where values of interest are found, short cross-cuts will make these two veins accessible for exploitation as economically attractive. The Federal vein will be crossed by the tunnel. At this point, drifting will be determined by assays and widths of the vein as exposed.

The estimate for the complete exploration is based upon finding economically attractive values at all points where the secondary objectives are tested. It is suggested that the secondary objectives, with the exception of the Anglo-Saxon Extension vein, be omitted from the planning of exploration. Diamond drilling only is recommended for your consideration until the results of that drilling is evaluated.

Respectfully yours,

Paul M. Hopkins

Paul M. Hopkins
Mining Geologist and Engineer

PMH:ri

Encls: Report with maps.

SUPPLEMENTARY REPORT

OF

EVALUATION AND RECOMMENDED EXPLORATION

OF THE

ANGLO-SAXON MINE AND ADJOINING PROPERTIES

Sections 2, 3, 4, 5, 8, and 9

Township 4 South, Range 74 West

Clear Creek County, Colorado

---

by

Paul M. Hopkins
Consulting Mining Geologist and Engineer

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PAUL M. HOPKINS
CONSULTING MINING GEOLOGIST AND ENGINEER
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2222 ARAPAHOE STREET
CRESTVIEW 9-2313

P. O. BOX 403
GOLDEN, COLO.

SUMMARY: The writer re-examined the several proposals as delineated in the report of August 9, 1966. Recommendations and the objections to the several proposals were examined in view of later information. The writer proposes a tunnel be driven to reach the major objective--the location of the intersections of the Federal, Anglo-Saxon and "Tunnel" veins either with one another or with the Saxon Saddle Fault using the presently open and usable Lower Aunt Jack tunnel. The tunnel as now proposed does not attempt to "follow" veins but is directed strictly at this one objective. Exploration and development of the four principle veins is proposed at convenient locations where these veins may be reached by relatively short cross-cut tunnels and developed by drifts. All the cross-cut tunnels are to be preceded by diamond-drill holes to ascertain the location of the veins and prove that there is mineralization, although not necessarily of "ore grade."

CONCLUSIONS: The Lower Aunt Jack tunnel is the better location for the exploration-development of the major potential objective. The Anglo-Saxon, Federal, Anglo-Saxon Extension and "Tunnel" veins are near to the centerline of the tunnel for major distances or will be intersected by this tunnel. The Anglo-Saxon Extension vein will be developed by an extension easterly from the past production of the late 1800's and early 1900's. The Anglo-Saxon and "Tunnel" veins will be developed by cross-cut tunnels at 1,000 feet to 2,000 feet easterly from the present heading. In the immediate area of the intersection of the Anglo-Saxon and "Tunnel" veins with the Saxon Saddle Fault, these two veins will be developed by cross-cuts and drifts as shown on the plan map in the pocket (Map No. 2). The Federal vein will be crossed by the proposed tunnel. At this location, drifting on this vein is proposed. The development of these veins on the 9360 elevation affords a more attractive tonnage potential above the development level as compared to the previously considered proposals on the 9754 elevation. This development proposal has many advantages over the prior proposal (No. 2 of the report of August 9, 1966), particularly from the total cost involved in reaching the primary objective. Secondary objectives, the exploration-development of the four principal veins as the tunnel is driven, can be accomplished without interference to the major effort.

RECOMMENDATIONS: It is recommended that the company prepare a detail budget for expenditures required based upon the "driving" of the exploration-development tunnel from the east heading of the Lower Aunt Jack tunnel at an elevation of 9360 feet to the primary objective as defined. A short cross-cut tunnel to the Anglo-Saxon Extension vein is proposed beginning at the bend in the present tunnel at about 340 feet from the present portal. The objective is the area on this vein immediately east of past production as exploited at an early period or about 1900.

Where the nearly parallel veins, the Anglo-Saxon and "Tunnel" veins, are close to the tunnel as now proposed, these should be explored by short diamond drill holes to confirm the location and that there is mineralization. As the history of the property indicates that values are somewhat irregular in distribution, diamond drilling to "block-out" ore reserves is not recommended. Cross-cutting to the vein thence drifting will provide much more reliable sample data upon which to vase the economics and projection of the potential for this property.

The alternate location on the Beaver Creek area at an elevation of 9754 feet was studied in relation to the relative costs and potential. This proposal does not have the attractive tonnage potential as compared to the Lower Aunt Jack tunnel development at an elevation of 9360 feet. This is particularly true when comparing the cost estimates of the two proposals (Proposal No. 3--August 9, 1966) and the Lower Aunt Jack tunnel, especially the ratio of tonnage potential as compared to the ratio of estimated costs. The Beaver Creek tunnel develops a potential of less than 1 to 3 as compared to the Lower Aunt Jack tunnel while the estimated costs are in a 3 to 4 ratio.

Accordingly, the Beaver Creek area as the portal for driving a cross-cut tunnel to reach the objective, is not recommended.

Paul M. Hopkins

Paul M. Hopkins

UNIVERSITY OF CALIFORNIA
DEPARTMENT OF
STATE

PAUL M. HOPKINS
CONSULTING MINING GEOLOGIST AND ENGINEER
REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR

2222 ARAPAHOE STREET
CRESTVIEW 9-2313

P. O. BOX 403
GOLDEN, COLO.

INTRODUCTION: The purpose of this report is the summarizing of subsequent work and results obtained after August 9, 1966 on the properties of the Anglo-Saxon Mining Company in Clear Creek County, Colorado. This report is a short statement of the status of the continuing studies of the property and its potential, particularly to re-examine the previous recommendations, observations and conclusions as new information is available. This program of continuing study further clarifies the objectives and proposals for consideration by the company. In providing the basis for this report, a minimum of surveying has been accomplished, specifically the determination of the portal of the Lower Aunt Jack tunnel and its elevation and the location of the access road thereto. Reconnaissance evaluation was made in the area of the Beaver Creek tunnel portal area for alternate locations, one of which is reasonable at an elevation of 9754 feet. Access road lines were checked over two routes: (1) over the Saxon Saddle and (2) around the hill northerly from the Upper Aunt Jack tunnel, for feasibility and cost estimates of construction. Platting of the information was completed on the base maps for correlation of this data to provide the basis of recommendations to the company.

PREVIOUS WORK: As this report is the continuation of the investigation by Prommel and Hopkins as summarized in their report of August 9, 1966, all work and records of that date were re-examined in view of the additional information now available.

RECENT DEVELOPMENT WORK: The company has built a road from the previously existing access road to the Upper Aunt Jack tunnel on a convenient location from this prior existing road to the Lower Aunt Jack tunnel requiring approximately 1350 feet of construction. The portal site at

this Lower Aunt Jack tunnel was prepared for operation and a frame building with plywood sheeting has been erected. Equipment that the company has on hand has been moved to this building for protection from the weather. The portal of the tunnel has been cleared and re-timbered. Additional clean-up work in the tunnel is being done as time permits. The company has not hired a full crew to start the exploration-development work to date.

ADDITIONAL GEOLOGICAL INFORMATION AND RESULTS: During the building of the access road to the Lower Aunt Jack tunnel portal, two "veins" were found; their location and strike and dip were determined by survey and platted on the geologic map of the property. Mr. Hudson obtained samples from these veins with results indicating less than one (1) ounce of silver per ton in each. A sampling program in the Lower Aunt Jack tunnel and at all other points were mineralization, veins, and apparently barren faults are known to exist has been held in abeyance.

The map (Map No. 2 in pocket) shows the location of the work and the data pertinent to the recommendations. This map further shows the projected location of the four principal veins, the Anglo-Saxon, the Federal, the Anglo-Saxon Extension and the "Tunnel" veins and the Saxon Saddle Fault as related to the proposed exploration-development of the property at an elevation of 9360 feet using the Lower Aunt Jack tunnel as it now exists as the starting point.

A reconnaissance over the projected center line and the adjacent ground over the sharp cliffs immediately northwest of the Saxon Saddle area (the discovery location of the Anglo-Saxon and Federal veins) was made to attempt to predict the influence of the country rock on the timbering requirements of this proposal as compared to Proposal No. 2 of August 9, 1966. This reconnaissance and study of existing platted geology notes by various workers indicate that the "tunnel" as now proposed should have a major distance in igneous rock with a minimum of alteration except immediately adjacent to the several veins. Further, this igneous rock, granitic in composition, stands well in the presently existing tunnel and should be the rock through which the tunnel is driven to the Saxon Saddle Fault. The granitic rock has

been found to be the more favorable of any rock type for deposition of economic ore deposits in the district. This statement is based upon the observations recorded in Professional Papers 223 and 63 of the United States Geological Survey. The writer's observations in the Front Range are in accord with this statement.

In summarizing all the information available, the writer prepared the map (see Map No. 2 in pocket) of the immediate area of interest, generally over and superjacent to the centerline of proposed Lower Aunt Jack tunnel development. This map shows the approximate contours on surface, the projected locations of the four principal veins at their discovery locations and their projected locations at the 9360 elevation. Longitudinal sections of the four veins were drawn to furnish the data for estimation of potential ore deposits. Cross sections to the tunnel as proposed at the diamond drill hole locations were drawn to delineate the objective for the individual diamond drill hole. A district map and longitudinal section from Waldorf on the southwest to the Stanley Mine on the northeast delineates the depths of the past exploitation in Clear Creek County along the general strike of the Front Range Mineral Belt. Tables of potential tonnage were prepared for the several veins.

The re-examination of the information available and study of these additional maps, sections and potential tonnage developed has clearly defined the primary objective, i. e., the locale of the Anglo-Saxon, the "Tunnel" and the Federal veins in close proximity to the Saxon Saddle Fault. This study clearly indicated the more desirable approach is to locate a "haulage tunnel" to the primary objective, thence explore and develop the four major veins, those listed above and the Anglo-Saxon Extension vein. The previous proposal at this elevation, 9360 feet, was designed to follow veins en route to this objective. This previous proposal was not recommended either in August 1966 or at this time for the reasons previously stated.

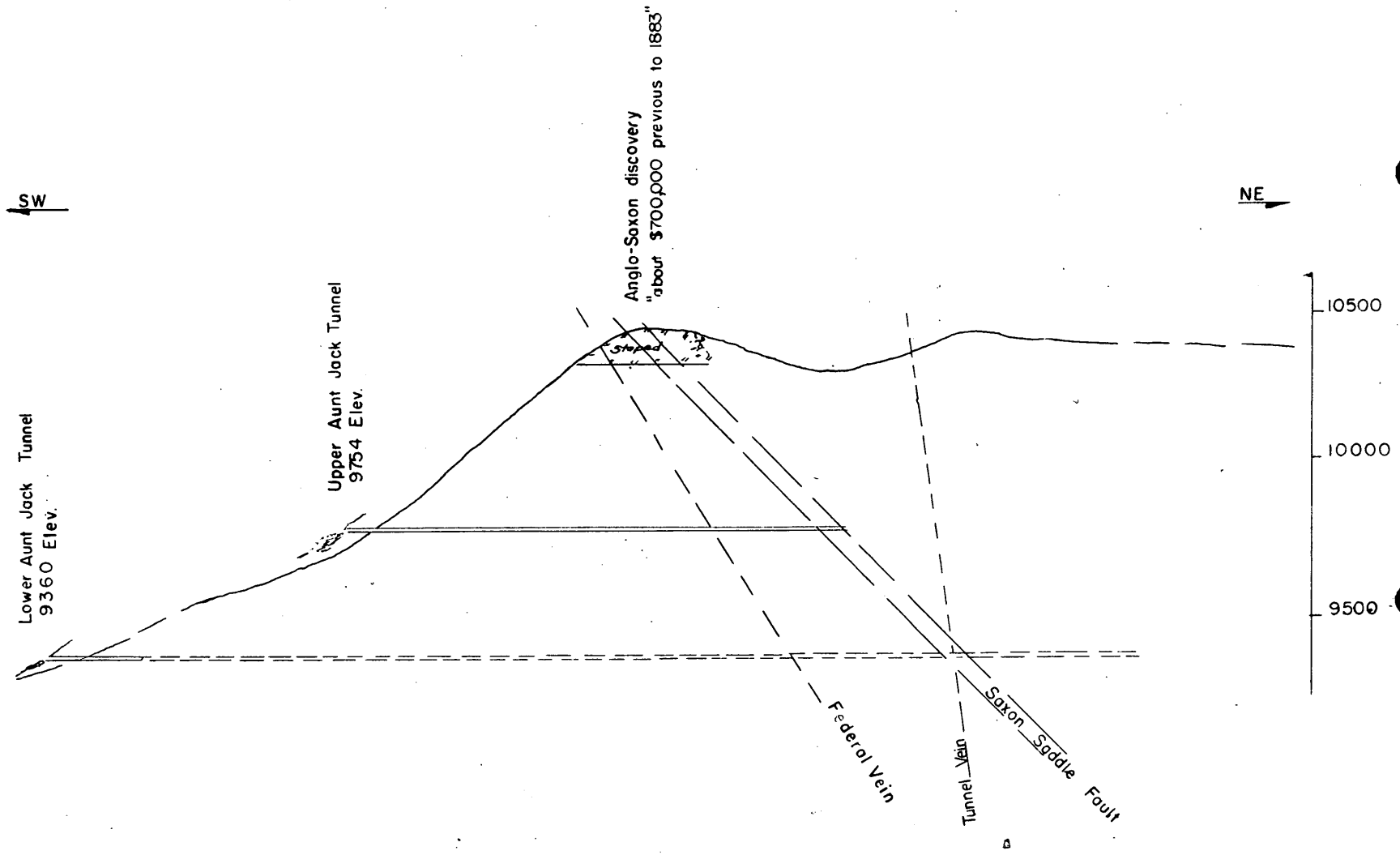
BEAVER CREEK TUNNEL SITE, ALTERNATE LOCATION: ELEVATION 9754 FEET.

The Beaver Creek tunnel portal site and its relative costs were studied, particularly the influence of cost of constructing and maintaining a road to that area and the location of an alternate site to begin the tunnel. The proposal, as presently considered, is discussed briefly for guidance. The conclusions, cost estimates and recommendations are made a part of the complete record of considered proposals to explore and develop the mineral potential of the Anglo-Saxon Mining Company's properties.

When one evaluates the results expected and the limited potential, approximately one-third, being above an elevation of 9754 feet as compared to an elevation of 9360 feet, the desirability of this location cannot be considered as favorably as compared to using the Lower Aunt Jack tunnel for the principal exploration-development effort. These studies developed the following supporting data for changing the initial recommendation of August 9, 1966 from "favorable consideration" to an "unfavorable consideration" at this time.

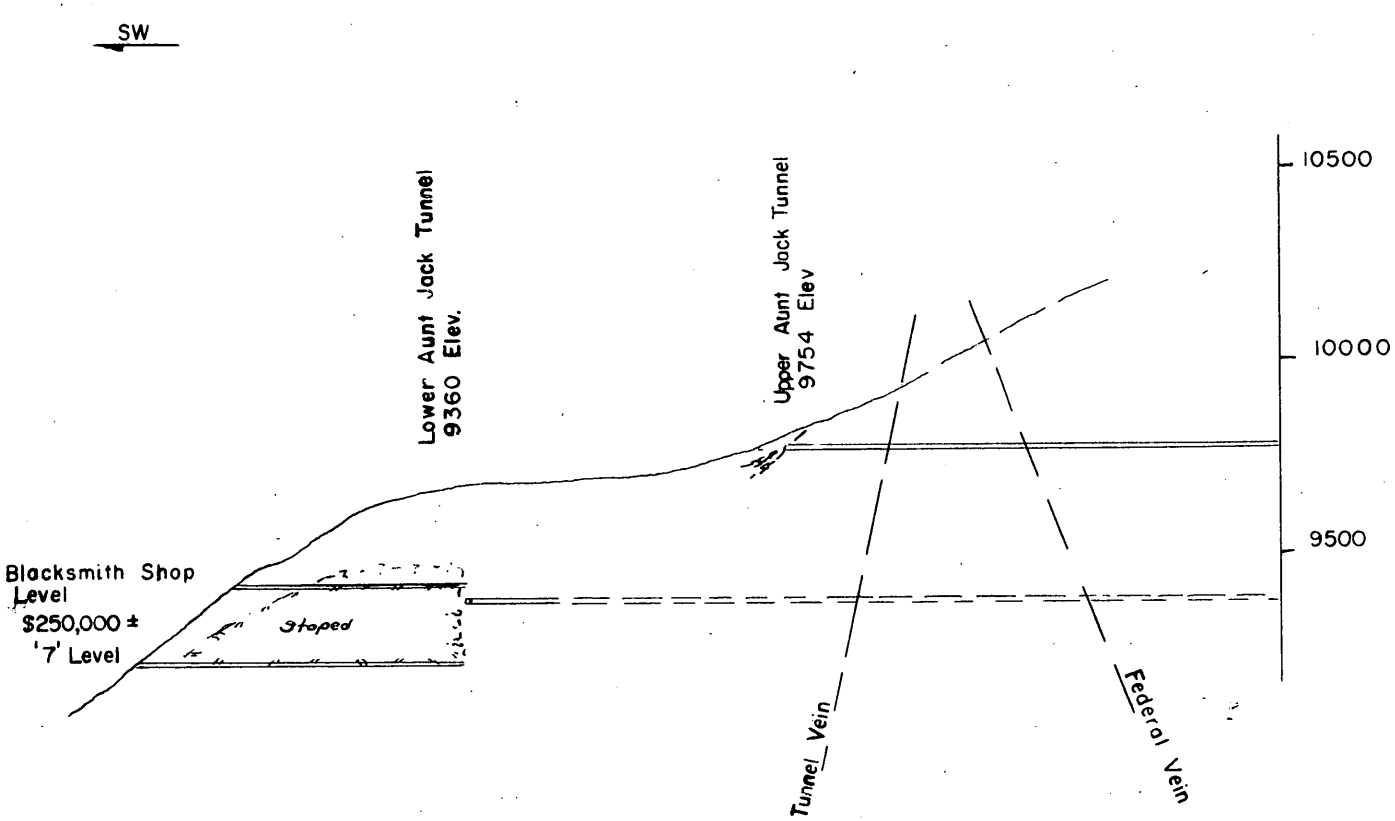
The Beaver Creek tunnel at an elevation of 9754 feet at either of the locations shown on the map (Map No. 2, in pocket) requires approximately the same distance of cross-cutting to reach the objective. In doing so there is the lack of development potential on the several veins encountered except by "drifting" on these veins. The potential above the 9754 feet elevation is approximately one-third as stated above. (See Sections 2 to 5 incl., and Table 1.) Consideration was given to the subsequent desirability of using the Upper Aunt Jack tunnel or a parallel tunnel such as proposal No. 4 of the August 9, 1966 report as a "main haulage tunnel" to the existing ore bin at that elevation. This is to use such installations as presently exist at that elevation. It is doubtful that rehabilitation of the Upper Aunt Jack tunnel is economically feasible as previously discussed in proposal No. 1 of August 9, 1966. The cost of driving a new tunnel parallel to the Upper Aunt Jack tunnel is shown in a budget estimate previously prepared and a part of that same report (Proposal No. 4).

Longitudinal Section of the Anglo-Saxon Vein
Scale: 1" = 500'



Anglo Saxon Mines, Inc.
Section - 2

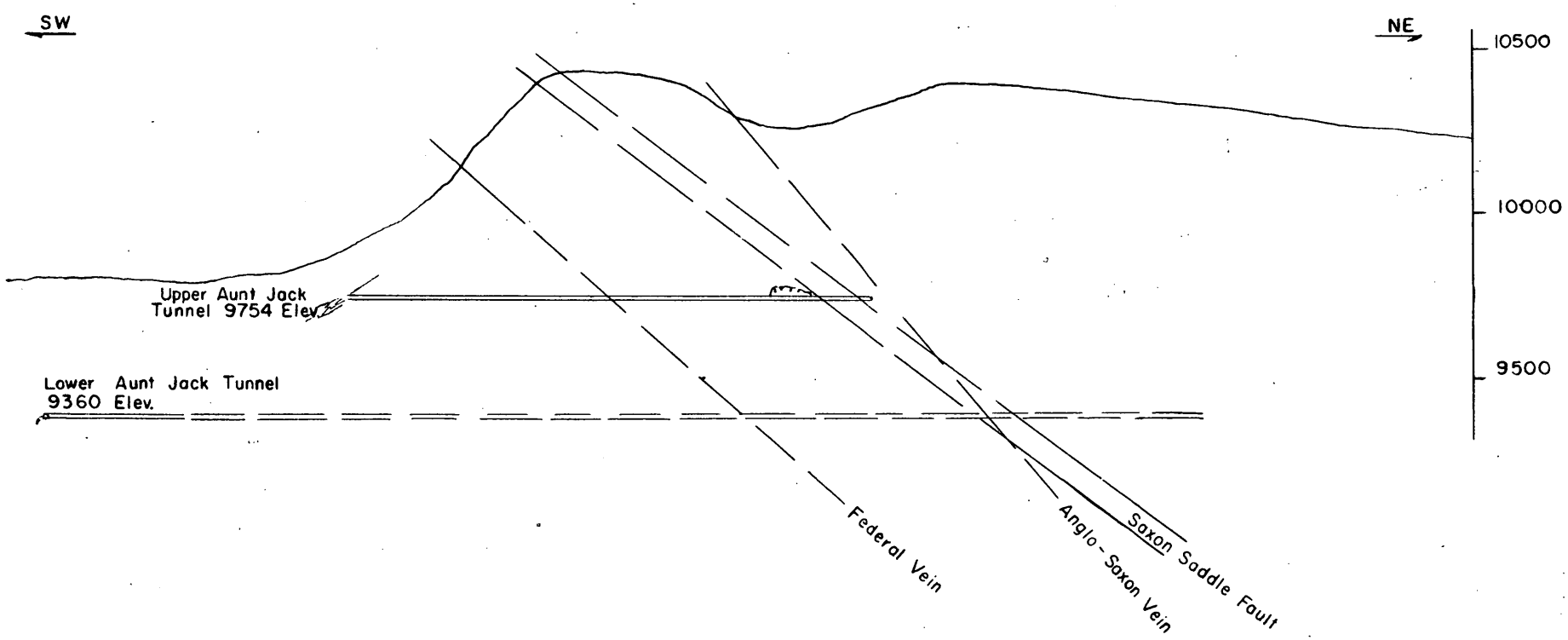
Longitudinal Section of the Anglo-Saxon Extension Vein
Scale: 1" = 500'



Anglo Saxon Mines, Inc.
Section - 3

Dec 14, 1966

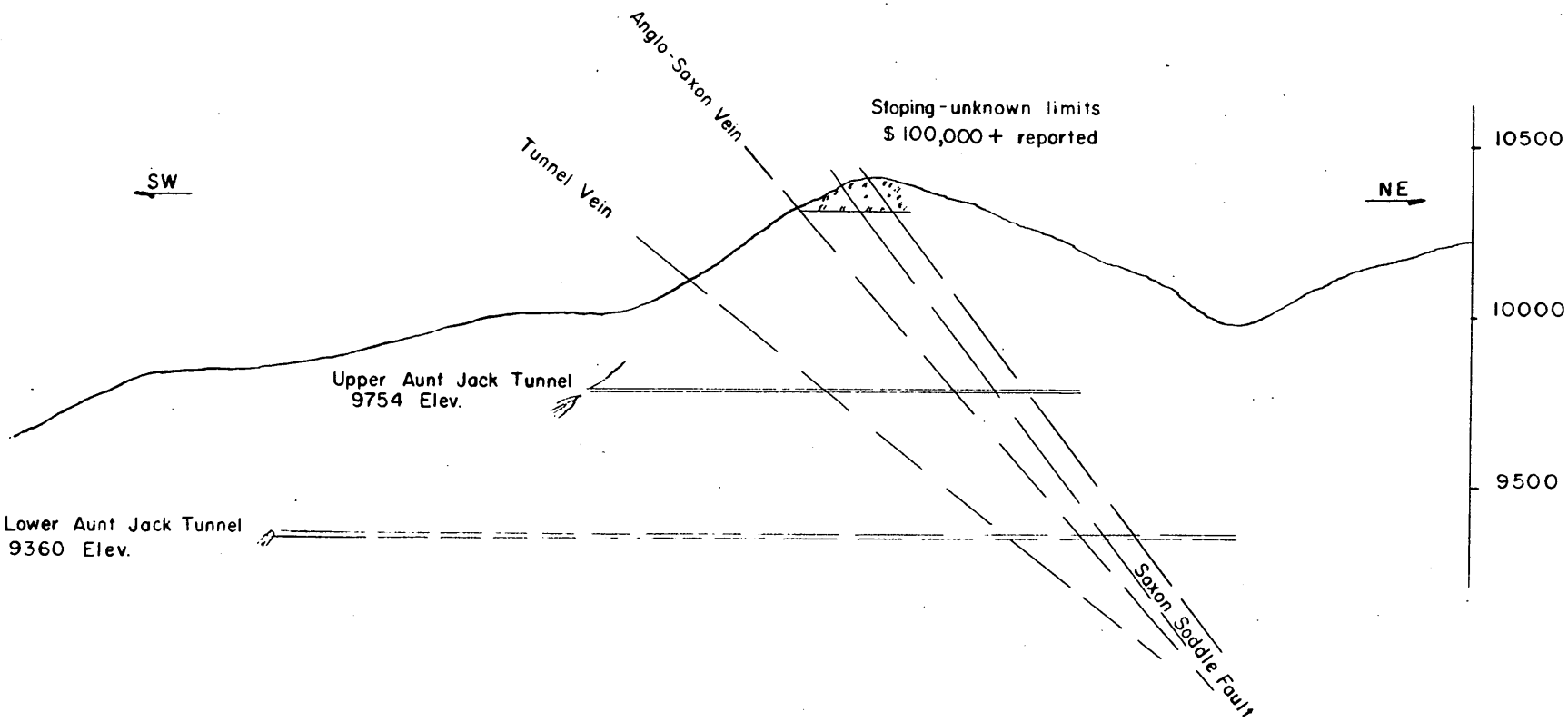
Longitudinal Section of Tunnel Vein
Scale: 1" = 500'



Anglo Saxon Mines, Inc.
Section – 4

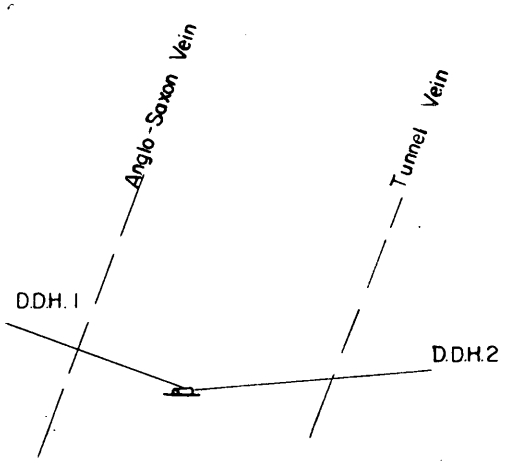
Dec 14.66

Longitudinal Section of the Federal Vein
Scale: 1" = 500'



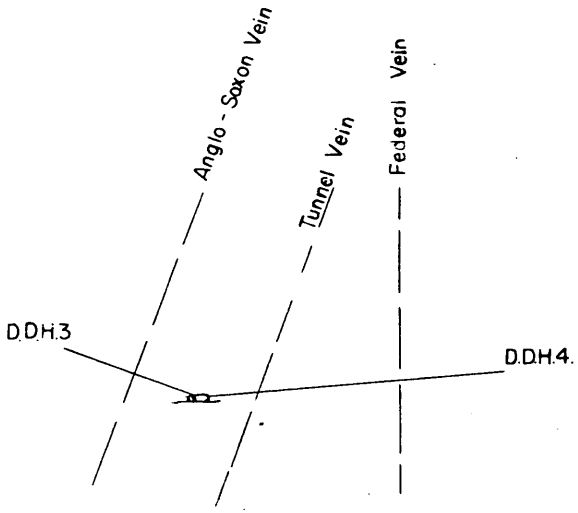
Anglo Saxon Mines, Inc.
Section - 5

Diamond Drill Holes = 1 to 4



DDH 1 N. 20° W.
+ 20°
200 ft.

DDH 2 S. 39° E
+ 5°
250 ft.



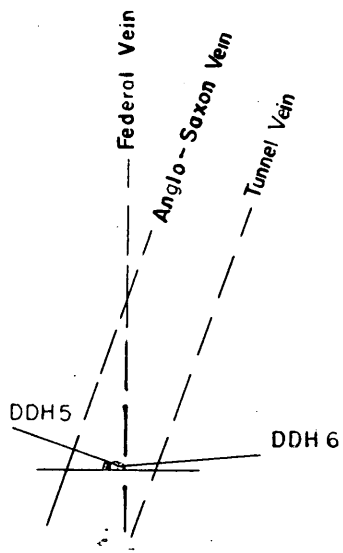
DDH 3 N. 20°W.
+ 20°
150 ft.

DDH 4 S 35° E
+ 5°
300 ft

Anglo Saxon Mines, Inc.
Section – 6

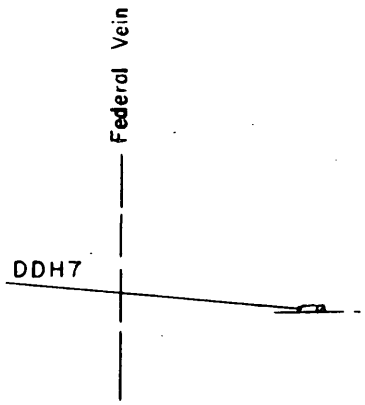
Dec. 14. 1966

Diamond Drill Holes = 5 to 7
Scale: 1" = 200'



DDH5 N20°W
+ 20°
100 ft.

DDH 6 S 20° E
+ 5°
150 ft.

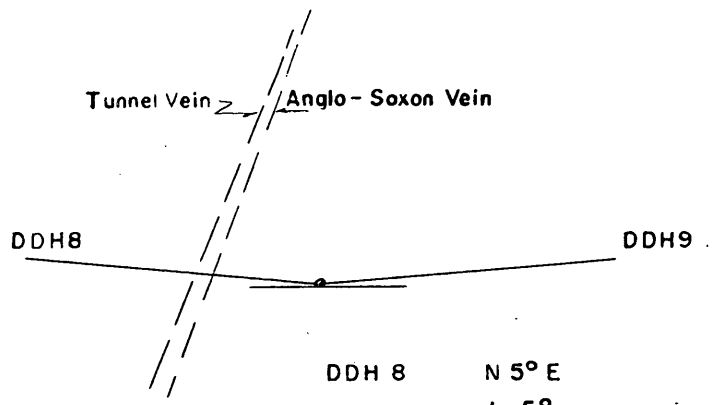


DDH 7 N 48° W
+ 5°
300 ft.

Anglo Saxon Mines, Inc.

Section – 7

Diamond Drill Holes = 8 and 9
Scale: 1" = 200'



DDH 8	N 5° E + 5° 300 ft.
DDH 9	S. 5° E. + 5 300 ft.

Anglo Saxon Mines, Inc.
Section – 8

The comparison of the cost of building a road from the present Upper Aunt Jack tunnel northerly to the proposed alternate site indicates that there is a saving of about $750 for a total estimated cost of $24,250 as compared to the original $25,000. An alternate route from the Upper Aunt Jack tunnel over the Saxon Saddle, the site of the discovery of the Anglo-Saxon and Federal veins, thence down Beaver Creek to the proposed tunnel site indicates that the minimum cost would be approximately $43,000 or an increased cost of about $18,750 over the more direct route.

LOWER AUNT JACK TUNNEL, ALTERNATE PROPOSAL:

The several proposals submitted to the company in August were to delineate the several programs available. Discussions during the time of the preparation of that report indicated the desirability of the Beaver Creek tunnel and some further work on the Lower Aunt Jack tunnel. Subsequent field work as summarized above has established a more favorable proposal to recommend to the company for consideration. This proposal entirely replaces all previous proposals for consideration. However, the company must examine this proposal in view of their objectives and limitations. The primary objectives must be retained. Omission of secondary objectives may either be in part or for the whole.

The proposal as now delineated has the premise that the exploration-development tunnel will be driven near to but not in a mineralized vein over the major portion of its length. The tunnel will reach the primary objective as delineated on pages 25 and 26 of the report of August 9, 1966, i.e., the Anglo-Saxon, the "Tunnel" and the Federal veins near their intersection with the Saxon Saddle Fault on and above this elevation.

The writer prepared the plan map of the property (in pocket) showing the location of this proposed tunnel and the relationship to the four veins of known past production. This tunnel is a "straight line tunnel" to be driven from the present more easterly heading of the Lower Aunt Jack tunnel to the projected area of the intersection of the Anglo-Saxon and "Tunnel" veins with

the Saxon Saddle Fault. This proposal as now delineated has the advantages and partial correction of the criticism of the previously proposed exploration-development at this elevation, 9360 feet.

On page 22 of the report of August 9, 1966, the writers, Prommel and Hopkins, pointed out that the proposal No. 2 as then delineated utilizing the Lower Aunt Jack tunnel was subject to considerable criticism as follows:

> "(a) There is not enough information about the several veins to make any attractive intermediate potential of interest. (b) The cost of maintaining the tunnel as proposed would be similar to the difficulties encountered in the Upper Aunt Jack tunnel where timbering was required for the entire length of the tunnel. (c) The cost of maintenance of the tunnel is over and above the preliminary estimates, hence are an unknown quantity at this time. (d) Continuity of the several veins is subject to question, and the depth from outcrop to tunnel after advancing past the immediate area of the Anglo-Saxon Extension vein rapidly approaches 900 to 1,000 feet from surface."

These criticisms of the Lower Aunt Jack tunnel are discussed in the light of subsequent information as follows:

(a) There are four veins on the property which have produced and are to be found in the vicinity of this proposed development: Anglo-Saxon vein—$700,000 (U. S. G. S. Prof. Paper 63); Federal vein—$100,000 plus by local report; Tunnel vein—260 tons for which settlement sheets are attached; and the Anglo-Saxon Extension vein—$250,000 by local reports. The several other veins have been opened either by prospect pits or by short tunnels with limited or no known production. Grade and values are totally unknown. Projection of the dip and strike from these limited workings on other than the four principal veins, in the case of the dip often of an assumed value, was "not to be accepted without many reservations" (page 16, Report of August 9, 1966). Accordingly, the proposed tunnel avoids attempting to follow these several "veins" but is now directed strictly toward the primary objective.

(b) The proposed "straight-line tunnel" development on the 9360 elevation utilizing the "Lower Aunt Jack tunnel" thence driving on one bearing toward the objective area as previously defined has reduced the apparent requirement of timbering considerably. It is expected that the granite--monzonite country rock, now found in the Lower Aunt Jack tunnel along approximately 600 feet of tunnel, now open to the heading and indicated as being the major country rock to be found along the course of this tunnel, will require a minimum of timbering. The tunnel is laid out to avoid "heavy ground" along the veins as were expected to be encountered in Proposal No. 2 of the August 9, 1966 report. The tunnel as now planned would intersect or cross a minimum of "veins" that are known to be in the mountain and have attitudes, when projected from their limited exposure, which indicate that these "veins" may be found in the tunnel.

(c) Timbering is the proposed method of ground support as it is probably more familiar to the miners in the area and has been used on the other properties in the district. In view of the predicted stability of the rock as cut by the tunnel, the operator should have a minimal maintenance cost on the tunnel during the exploration-development program period. Provision has been made for timbering on crossing or intersecting veins or otherwise unstable ground in the first 1800 feet by providing that 200 feet of timbering be included in the budget on an "as needed" basis. The other timbering requirements are all drifts on the several veins, crossing the Anglo-Saxon vein, the Federal vein and the Saxon Saddle Fault. The location and footages are given in detail in the proposed budget and in the description of the planned exploration-development program using this Lower Aunt Jack tunnel.

(d) A preliminary platting of the veins and the area of each vein which will be developed by tunnels and/or drifts driven on the 9754 feet elevation as compared to the 9360 elevation indicated a ratio of potential reserves as follows:(see Table 1 also):

Anglo-Saxon vein	-	1:3.34
Federal vein	-	1:2.68
Anglo-Saxon Extension	-	1:4.24
"Tunnel" vein	-	1:2.95

These ratios are determined by the relative area over the tunnels and/or reasonably accessible for development over the two development level elevations. No mineralization was considered to occur within 100 feet of the surface outcrop.

The writer makes no prediction as to the width and mineral content of the several veins nor as to the tonnage potential. However, he will offer the following tabulation as tonnages of possible ores in the several veins. In addition, he tabulates the tonnage potential developed if only one-fourth or 25 per cent of the total ground above the two levels are "economic" for vein widths of 1, 2, 3, and 4 feet. The comparison shows that there is a much more favorable potential tonnage to justify the capital required when the development is at 9360 feet elevation.

The depth of the veins below their outcrop is shown on the section for each vein (see Sections Nos. 2, 3, 4, and 5). There is the pattern of mineral deposits as shown on the section from Waldorf to the Stanley mine near Idaho Springs (see Section No. 1 and Map No. 1, in pocket). The mineralization in past commercial operations indicates that, when comparing the desirability of the 9360 elevation to the 9754 elevation, there is a reasonable premise that ore values of equivalent grades should be found above both levels as well as in the interval between. The upper limit of the ore will either be the outcrop at surface of the ground or to the lower limit of the leached zone, immediately subjacent to the surface cover.

The proposed tunnel is driven from the south heading of the Lower Aunt Jack tunnel on an elevation of 9360 feet. The direction is N. 64° 15' East (grid) on a straight line, crossing the Federal vein at approximately 2070 feet and the Anglo-Saxon vein at about 2200 feet, to the foot-wall of the Saxon Saddle Fault at approximately 2650 feet. Other veins may be projected

TABLE 1

Potential Tonnage

	Total Exploitation				25% Exploitation			
	1 ft.	2 ft.	3 ft.	4 ft.	1 ft.	2 ft.	3 ft.	4 ft.
Anglo-Saxon Vein								
9754 Elev.	43,060	86,120	129,180	172,240	10,765	21,530	32,295	43,060
9360 Elev.	143,840	287,680	431,520	575,360	35,960	71,920	107,880	143,840
Anglo-Saxon Extension Vein								
9754 Elev.	20,790	41,580	62,370	83,160	5,198	10,395	15,293	20,790
9360 Elev.	88,160	176,320	264,480	352,640	22,040	44,080	66,120	88,160
"Tunnel" Vein								
9754 Elev.	54,380	108,760	163,140	217,520	13,595	27,190	40,785	54,380
9360 Elev.	160,170	320,340	480,510	640,680	40,043	80,085	120,128	160,170
Federal Vein								
9754 Elev.	33,730	67,560	101,340	135,120	8,445	16,890	25,335	33,780
9360 Elev.	90,390	180,780	271,170	361,560	22,598	45,195	67,793	90,390

as being intersected on this level at various locations but their dip, strike and potential are subject to much question. It is not justifiable to project a vein for several hundreds to two or possibly three thousand feet based upon a strike and dip obtained on a limited exposure of 15 feet or less. Further, the potential of these several veins has no definition to date. Judging from the evidence shown by the several dumps and prospect pits, the potential is limited. Thus, no major potential is projected as being developed on these veins as now found and known.

During the driving of the tunnel, there are a number of intermediate locations where exploration-development should be done to test the economics of one or more of the four (4) known veins with past production. The proposed tunnel on the bearing of N. 64° 15' E. makes these exploration-development proposals using short cross-cuts to the veins attractive. The projected locations of the veins and the tunnel indicate that the cross-cuts are less than 100 feet in distance. A contingency of 50 feet should be provided in all cases to insure that the vein is cut prior to turning on the drifts along the vein of interest.

The first secondary objective is the immediate potential at the limited depth of 350 feet below the apparent line of outcrop on the Anglo-Saxon Extension vein that may be explored and developed by an estimated 100-foot cross-cut driven on a bearing of S. 20° E. at the bend in the tunnel (340 feet from the present portal). This cross-cut will intersect the Anglo-Saxon Extension at the approximate end of the previously exploited ground through tunnels driven along the vein from the west. The previous production on this vein was primarily between the "Blacksmith Shop Level" at 9420 feet elevation and the "Seventh Level" at 9196 feet elevation. It is proposed to drift southwesterly on the vein to test the ground immediately west of past exploitation and to drift northeasterly along the vein to find new potential. If, in drifting southwesterly, old stopes are encountered, any difference between the distance drifted and the proposed 50 feet will be used to continue the drifting to the northeast.

No diamond drilling is proposed as the location of this, the Anglo-Saxon Extension vein, is delineated from U. S. G. S. data and the recovery of the 7th Level portal location by survey in 1966. It is not definite as to the exact footage required as no known maps of the mine are known to exist. Projection by straight line drawing indicates a distance of 65 feet should cut the vein. However, for purposes of estimating, a longer distance of 100 feet is suggested. Drifting on the vein is 50 feet in both the southwesterly and northeasterly direction. Further development on this vein would then be judged from the assay results and widths of the vein as found.

The second secondary objective is at a distance of 1,000 feet on the centerline of the proposed tunnel. At this point, there is a reasonable probability of testing for and locating the Anglo-Saxon and the "Tunnel" veins, one on either side of the tunnel within about 100 feet. (See Section No. 6.) At this point it is recommended that a diamond drill station be cut on the south side of the tunnel, a diamond drill hole be drilled on a N. 20° W. bearing 200 feet at an up angle of 20°. The projected location is 100 feet north of the tunnel. A dip-strike projection from the outcrop to this elevation indicates that the vein should have been found very near the portal of the Lower Aunt Jack tunnel. However, it has not been found. With this uncertainty as to the exact location to be determined, the writer suggests that the drill hole have a total length of 200 feet.

The diamond drill hole to the south is suggested for a bearing of S. 39° E. for 200 feet at an up angle of 5°. The objective of this drill hole is to cut the "Tunnel" vein as found in the Upper Aunt Jack tunnel as projected to this elevation. Mineralization was found in this vein but no assays are known to have been made or found in the records. This statement applies to the Upper Aunt Jack tunnel where it first intersects and thence follows the "Tunnel" vein for about 800 feet.

When driving the cross-cuts to "follow-up" on the mineralization if shown by diamond drill holes, the budget footage is 100 feet of cross-cut with 50 feet northeasterly and southwesterly on the vein where intersected. It may

be found that additional footage for the cross-cut is required. The estimate has the proviso that additional footage as required and shown in the drill hole shall be a part of the exploration with not over 250 feet total footage for cross-cut and tunnel. It is expected that about 30 feet of the cross-cut and all the drift footage shall be timbered, a total timber requirement of 130 feet for each cross-cut and drift unit.

Drill stations are to be located at the 1500 and 2000 foot points. At these points the drilling of diamond drill holes is set-up as shown. (See Sections Nos. 6 and 7.) The same discussion applies as related to diamond drill holes Nos. 1 and 2 above. At the intersection of the tunnel and the Federal vein at the projected point of 2070 feet, a "Y" is set in the tunnel so as to permit the drifting on the Federal vein for 150 feet. The objective of this drifting is the preliminary delineation of the economic potential of the Federal vein. A finite point for the drifting to start is to be determined by mapping of the veins and geology and the confirmation of the dip-strike relation of veins as found with the predicted locations. It is only subsequent to this confirmation that the drift will be started.

Diamond drill hole No. 7 (see Section No. 7) is proposed to cut the Federal vein about 350 feet north of the end of the above exploration-development drift.

After driving the tunnel to the footwall of the Saxon Saddle Fault, at a predicted footage of 2650 feet, the tunnel is turned to a bearing of N. 90° E. thence driven across the fault until the hanging wall is penetrated and "solid" rock is found which requires either no or minimum support. At this point a diamond drill station is set to drill N. 5° E. for 300 feet and S. 5° E. for 300 feet. As the displacement along the Saxon Saddle Fault has an apparent horizontal component of about 70 to 100 feet on the hanging or east wall at the 9754 elevation, it is suggested to confirm the location of the Anglo-Saxon and "Tunnel" veins before starting a cross-cut to intersect these veins on the east side of the Saxon Saddle Fault. If these locations are found to be as

predicted, the Saxon Saddle Fault will thus be found to have a thrust component of about 100 to 150 feet along the plane of the fault. Verbal descriptions by Mr. Berry of slickensides and geologic notes by Mr. Gabelman indicate this is the apparent direction of movement. Accordingly, the northerly drill hole will find the Anglo-Saxon and "Tunnel" veins. The southerly drill hole will "test" for mineralized veins to the south of the tunnel and east of the Saxon Saddle Fault. When the distance to the Anglo-Saxon and "Tunnel" veins are known, the footage can be definitely stated. Based upon the projected locations of these veins, the length of this cross-cut should be 125 feet. However, additional footage should be provided in the estimate to insure the cutting of these veins and the drifting thereon as recommended.

The drifting on the Anglo-Saxon vein should be at least 500 feet. In the budget and for the writer's estimate purposes, he used this minimum figure. The Anglo-Saxon vein is the major producer of record hence should have the more thorough test of its potential in horizontal distance.

The drifting on the "Tunnel" vein should be at least 300 feet. The writer's estimate is this minimum figure. Mineralization is indicated as being found on the 9754 elevation on this vein. However, due to the uncertainty as to the correlation of the veins from the west or footwall side of the Saxon Saddle Fault to the east or hanging wall side of the fault, on the 9754 elevation, the writer suggests that the economics of the two veins can in reality be delineated only after sufficient samples are cut and assays obtained to establish the true potential. It is redundant to state but he will again point out that there is mineralization on one of these veins known to occur 400 feet above and to the west on the hanging wall of the Saxon Saddle Fault as cut in the Upper Aunt Jack tunnel. Further as the mineralization and past exploitation of the Anglo-Saxon vein in the Saxon Saddle area is apparently related, at least casually, to this fault, certainty of location and delineation of the veins of interest are of primary importance. This program as outlined thus explores and develops the indicated potential of the property as presently indicated from the past production and the projected location of ore values and tonnages in sufficient gross figures to warrant the expenditure of the monies required.

BUDGET ESTIMATES: The following budget is the proposal to implement the driving of the tunnel using the Lower Aunt Jack tunnel from its present heading to the primary objective, and at the same time insure the exploration-development of the secondary objectives along the four principal veins where convenient and sufficiently close to afford attractive potential. It shall be noted that some work on this portal has been accomplished subsequent to the preparation of estimates as submitted on August 9, 1966.

Description of the Exploration-Development Proposal using the Lower Aunt Jack tunnel

Construct 0.25 miles road to the portal, prepare tunnel portal site including the surface facilities as required. Drive the tunnel from the present heading (approximately 640 feet from portal) to the Saxon Saddle Fault on a bearing of N. 64° 15' E. 2650 feet plus 100 feet contingency to insure the tunnel being driven on course to the footwall of this fault, thence N. 90° E. 125 feet through the fault, thence N. 5° E. 125 feet with an additional 100 feet contingency to insure that the tunnel can be driven to this projected location of the Anglo-Saxon and "Tunnel" veins. Drifting and short cross-cuts to the Anglo-Saxon, "Tunnel," and Federal veins as described previously and shown on the plan map No. 2 (in pocket).

Cost Estimate based upon a 2-year Program:

Overhead and Plant Equipment	Cost
Road to portal 0.25 miles	presently constructed
Power--electricity by Public Service lines to the property	$10,800
Portal site	presently usable without further improvement
Portal Buildings--one shop building built, cap house, powder magazine, timber shed and snow-shed (75 feet required)	$ 5,250

Cost Estimates (Cont'd.)	Cost	
Expendable tools and supplies	$ 3,000	
Engineering	$10,000	
Machinery--(Adjust according to recent acquisitions)	$10,000	
Tractor and trucks	$22,000	
Management and Overhead	$30,000	
TOTAL -- Installation, Management and Overhead		$91,050
Exploration-Development tunnel and drifts as per details Table No. 2:		
Tunnel -- 2,925 feet	$179,625	
Cross-cuts, drifts as indicated	157,500	
400 feet tunnel as required to reach objectives	22,000	
TOTAL -- All underground work		$359,125
Diamond Drilling Program:		
9 Diamond drill holes as per recommendations and sections 6 to 8, incl. 2,050 feet @ $9.00/ft.	$18,450	
TOTAL -- Diamond Drilling Program		$18,450
GRAND TOTAL -- ALL ITEMS AS DETAILED ABOVE		$468,625

Paul H. Hopkins

TABLE 2

Cost Estimates (Cont'd.)		Cost	
Main Tunnel (Distances are present heading plus footage)			
0 to 1,800 feet			
Driving	1,800 feet @ $55.00/ft.	$ 99,000	
Timber	200 feet @ $25.00/ft.	5,000	
1,800 to 2,000 feet			
Driving	200 feet @ $55.00/ft.	11,000	
2,000 to 2,350 feet			
Driving	350 feet @ $55.00/ft.	19,250	
Timber	350 feet @ $25.00/ft.	8,750	
2,350 to 2,650 feet			
Driving	300 feet @ $55.00/ft.	16,500	
2,650 to 2,775 feet			
Driving	125 feet @ $55.00/ft.	6,875	
Timber	125 feet @ $25.00/ft.	3,125	
2,775 to 2,925 feet			
Driving	150 feet @ $55.00/ft.	8,250	
Timber	75 feet @ $25.00/ft.	1,875	
TOTAL -- Main Tunnel Drive			$179,625
Drifts and Cross-cut Tunnel			
@ Portal plus 340 feet -- South to Anglo-Saxon Extension vein.			
100 feet cross-cut and 100 feet drifts			
Driving	200 feet @ $55.00/ft.	$ 11,000	
Timber	130 feet @ $25.00/ft.	3,250	
Cost--Cross-Cut and Drifts		$ 14,250	
@ Present Heading plus 1,000 feet plus 1,500 feet			
100 feet cross-cut and 100 feet drift each north to Anglo-Saxon vein and south to "Tunnel" vein.			
Driving	200 feet @ $55.00/ft.	$ 11,000	
Timber	130 feet @ $25.00/ft.	3,250	
Cost per Cross-Cut and Drifts		$ 14,250	
Cost of four (4) Cross-Cuts and Drifts			$ 57,000

TABLE 2
(Continued)

Cost Estimates (Cont'd.)		Cost	
@ Present Heading plus 2,000 feet			
100 feet cross-cut and 50 feet drift on Anglo-Saxon vein only.			
Driving	150 feet @ $55.00/ft.	$ 8,250	
Timber	80 feet @ $25.00/ft.	2,000	
Cost of Cross-Cut and Drift			$ 10,250
@ Present Heading plus 2,070 feet -- intersection of tunnel and Federal vein as found.			
150 feet drift on Federal vein			
Driving	150 feet @ $55.00/ft.	$ 8,250	
Timber	150 feet @ $25.00/ft.	3,750	
Cost of Drift			$ 12,000
@ Present Heading plus 2,925 feet -- intersection of tunnel and Anglo-Saxon and "Tunnel" veins as found.			
Drift on Anglo-Saxon vein			
Driving	500 feet @ $55.00/ft.	$27,500	
Timber	500 feet @ $25.00/ft.	12,500	
Drift on Anglo-Saxon Vein			$ 40,000
Drift on "Tunnel" vein			
Driving	300 feet @ $55.00/ft.	$16,500	
Timber	300 feet @ $25.00/ft.	7,500	
Drift on "Tunnel" Vein			$ 24,000
TOTAL -- All drifts and tunneling on exploration-development of veins as per above			$157,500
Cross-cutting and/or tunnel drive as required to insure footage as needed to reach the several critical points for turns either in main tunnel or to reach the veins of interest:			
Drive	400 feet @ $55.00	$22,000	
TOTAL -- Additional Footage "As needed"			$ 22,000
GRAND TOTAL -- All Underground Exploration-Development			$359,125

BUDGET

9360 LEVEL

BLDG. & SITE:		
Power line installation	$ 10,500.00	
24' x 40' Steel building installed less footings	3,738.00	
Foundations	500.00	
Labor, Track and Trestle, to dump area	1,200.00	
Site preparation, dozing, leveling	1,200.00	
Total		17,138.00
MINING EQUIPMENT		
385 CFM Gardner-Denver Compressor,	8,000.00	
Gardner-Denver Mucker, rebuilt	2,500.00	
Atlas 2½ Ton Motor, New	6,200.00	
2 Batteries and extra box, new	3,354.00	
1-Charger for motor batteries, new	570.00	
1-3/4 ton 4-wheel drive Pickup, new	4,100.00	
1-Snow Plow Blade and Hoist	1,000.00	
1-300 gal water tank, new	125.00	
2-Jackleg Drills, Garner-Denver, new	2,840.00	
2-Stopers, used	1,400.00	
2-Jackhammers, used	750.00	
1-Slusher, Gardner-Denver, rebuilt	1,000.00	
1-Slusher bucket, used	100.00	
1-Double drum hoist, Garner-Denver, Rebuilt	1,000.00	
1-Air Hoist, 500 lb. capacity, rebuilt	500.00	
1-Hoist bell, used	15.00	
2-Air driven chain saws - Reed Prentice, used	300.00	
1-10 KW Generator, Merritt-O'Keefe, rebuilt	750.00	
VENTLINE		
4000' 16" Metal @ 2.34/ft. new	9,200.00	
213 couplings, Metal, @ 6.25 new	1,331.25	
50' 16" canvas, new	50.00	
5 couplings, canvas, used	20.00	
AIR LINE		
4000' 3" black pipe, new	4,000.00	
WATER LINE		
4000' 2" black pipe @ .37/ft., new	2,000.00	
8-Miner's lamps, Minestot, @ 32.00, new	256.00	
8-Chargers for Miners lamps, @ 25.00, new	200.00	
8-Lamp belts, used	16.00	
16-Mine cars, 20 cu. ft., 24 guage, type z, @ 441.41, new	7,062.56	
200-Carbide bits, 1-3/4" @ 10.60, new	2,120.00	

6-Sets drill steel 6' hex, 4" x 1¼" @ 22.80, new	$ 136.86	
6-Sets drill steel, 7' hex, 4" x 1¼" @ 25.20, new	151.20	
25-Tons Mine rail, 20 lb., (CF&I, FOB Pueblo, Colo.) new	4,110.00	
1-Rail Bender, used	25.00	
3/4-Ton, 4½" Track Spikes @ 200.00/ton del.	150.00	
1-Track spike bar, new	10.00	
1¼-Ton rail splices @ 200.00/ton del.	250.00	
2½-Kegs 2" x ½" rail splice bolts, 450 lbs., new	75.00	
50'-Jackleg water hose	39.50	
50'-Jackleg Air hose	44.50	
1-3' x 8' Air receiver, used	872.00	
1-Cap crimper, bench type, used	15.00	
1-1 H.P. Deming force pump motor	150.00	
3-ventilating fan, Vane axial, new @ 815.00	2,445.00	
2-Vane aial connectors @ 45.00	90.00	
Total		65,323.87

TIMBER

8" x 8", 6" x 8", 3" x 8", 525 Native pine, 300 sets @ 100 BF/set, 25,000 BF A 70.00/M del.	2,500.00	
2000-Rail Ties @ 40¢	800.00	
3000-16' 3"-4" lagging @ 80¢	2,400.00	
1000-BF 1" Native Pine for shed, etc. @ 70.00/M	70.00	
Total		5,770.00

SHOP TOOLS

1-8" Skill Saw, H.D., new	80.00	
1-½" Elec. Drill, H.D., new	75.00	
1-3/8" Elec. Drill, H.D., new	65.00	
Mechanics tools/chest, new	300.00	
Carpenter's tools/chest, new	200.00	
1-8" Bench Grinder, H.D., new	175.00	
3-Lube guns, new	40.00	
Welding equipment, new	800.00	
Cutting torch & regulator, new	129.50	
2-3/4" - 4" chain pipe tongs @ 35.00, new	70.00	
2-36" pipe wrenches @ 19.40, new	38.80	
2-24" pipe wrenches @ 9.20, new	18.40	
2-18" pipe wrenches @ 5.80, new	11.60	
1-Pipe cutter @ 15.80, new	15.80	
1-set pipe dies 1/8" - 2", new	96.40	
1-4" vice/swivel	52.00	
1-100# Anvil	61.05	
1-2 Ton chain hoist	165.00	
6-Picks	24.48	
12-Shovels	67.08	
2-48" pipe wrenches @ 32.00	64.00	
Misc. hand tools, repairs, replacements	500.00	
Total		3,049.11

POWDER & SUPPLIES, TOTAL PROJECT			
23 Ton 40% Gelex @ 500.00/T		$ 11,500.00	
227 Boxes blasting caps		1,600.00	
45-3,000' reels fuse @ 40.00/reel		1,800.00	
	Total		14,900.00
INSURANCE & SAFETY			
Workman's Compensation @ 4.32/100.00 of payroll		3,500.00	
6-15# CO_2 Extinguishers		300.00	
	Total		3,800.00
ENGINEERING, TOTAL PROJECT		10,000.00	
	Total		10,000.00
ASSAYING			
200 @ 7.50		1,500.00	
	Total		1,500.00
FUELS, LUBRICANTS & POWER, TOTAL PROJECT			
6,000 gals gasoline @ 28¢		1,680.00	
Motor oils and lubricants		300.00	
Electricity, estimated		7,200.00	
	Total		9,180.00
ROAD MAINTAINANCE			
Snow removal		1,200.00	
Grading		1,200.00	
Culverts		600.00	
Ice removal		200.00	
	Total		3,200.00
CONTRACT EXPENSE 5' x 7' TUNNEL			
2925' crosscutting @ 30.00/ft., main tunnel		87,750.00	
500-square sets @ 40.00/set		20,000.00	
Hauling		500.00	
1200' crosscutting & drifting to known mineralized veins @ 30.00/ft.		36,000.00	
2000' Diamond Drilling @ 10.00/ft.		20,000.00	
	Total		164,250.00

MANAGEMENT, TOTAL PROJECT		
Salary, Manager	$ 20,000.00	
Salary, Compressor Man	12,000.00	
Office supplies & clerical help	1,800.00	
Social Security	1,500.00	
Total		35,300.00

9360 Level Total Project - $333,400.98

ANGLO-SAXON MINES, INC.

David C. Hudson

David C. Hudson
Division Manager

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September 21, 1966

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Mr. Frank E. Johnson
Chief - Office of Mineral Exploration
U. S. Department of Interior
Room 4460
Washington, D. C. 20242

Subject:OME 6570

Dear Mr. Johnson:

To assist you in evaluating the Anglo Saxon Project I will outline herein my own personal opinions which are the result of 15 years of work on the property and 30 years of study.

Since our visit to your office on the 12th, Mr. Hudson and I talked with Professor Goodspeed regarding the fault in question. In his opinion the fault is "Post Mineral" as indicated by the striations, the slickensides and the abrupt cutting off of the ore along the west wall of the fault.

In checking my own field notes I found the following notations:

1. Slickensides in fault plane from vertical to slight inclination to the south.

2. Movement along the fault appears to be downward and southwest with the southeast wall moving southwest.

3. A block of ground is involved which is bounded on the west by stations N 33-1 and N 33, and on the east by station N 36-1. The width of the block is 100 to 120 feet.

A study of sheet 4 of the Geologic Mine Maps indicates that the vein at station N 34 was displaced to the south about 25 feet and was picked up at station N 33-1. This displacement is again indicated at the face of the tunnel at station N 36-5.

I am of the opinion that -

1. The Federal Vein juntioned with the Tunnel Vein in the vicinity of station N 31.

2. The Anglo Saxon Vein juntioned with the Federal and Tunnel Vein at the face near station N 36-5 and may account - along with the change in wall rock - for the abrupt change in strike and dip. This change should aid ore deposition east of the face due to the fact the northeast wall of the vein moved southwest and thereby created openings for ore. This is particularly favorable in considering that the host rock has changed from altered schist and gneiss to granite; the vein is making water; and silver sulphides - similar to those on the west side of the fault - are beginning to appear.

3. The junction of the Anglo Saxon Vein (north 70 dip) with the Federal Vein (south 80-85 dip) is at or near the face. George H. Garrey and Professor Goodspeed projected the junction into this area. This is significant in that the rich silver production on surface came from both veins east of the junction and east of the fault. The downward extension of the ore shoot is therefore expected to be east of the face.

In addition to the favorable factors indicated above I am impressed with the teachings of Lovering, Newhouse, Vanderwilt, Del Rio, Spurr & Garrey, and others, that the northwesterly pre-mineral faults seem to be the master fissures responsible for the localization of the districts and are believed to be the trunk channels along which the ore-forming solutions moved from depth. It is believed that these northwesterly systems are older than the northeasterly systems and formed during the breccia reef period of faulting. Attached sketch #1 shows a Structure Map of the Silver Plume-Georgetown District with the principal veins and faults. Displacement along most of the vein fissures in this area ranges from a few feet to 15 feet. The exception is the Colorado Central with up to 100 feet displacement. The Anglo Saxon Vein structure and its ore is no doubt influenced by these northwest faults. The map of the Tunnel Development Proposed shows one of these northwest faults in close proximity of the breast and another about 400 feet farther east. Both are expected to influence ore deposition on the Anglo Saxon, Federal and Tunnel Veins especially at their junctions.

I am also impressed with the rock formations on surface, beyond the breast of the development tunnel. These show a preponderance of granite in the Idaho Springs formation and establishes excellent geological conditions for ore deposition.

Another favorable factor is the vast amount of "gossan" - with late quartz - showing on all the dumps of the patented claims along the surface strike of the Anglo Saxon Vein for a distance of $1\frac{1}{2}$ miles toward the Freeland-Lamertine areas. These dumps were created by the assessment and patent work done on these claims.

The Longitudinal Cross Sectional Map prepared by Hopkins shows the breast of the tunnel lying beneath a gulch which, according to Spurr and Garrey and others, is a favorable factor for finding good ore. Depth below surface in this area is 489' which is within the depth at which the best ore is found in this district.

According to Spurr and Garrey "a narrow northwestward trending gold belt runs through the silver district and includes the Central Colorado, Centennial, Griffith and Anglo Saxon Veins". This means the fissure veins were reopened for the later deposited ore minerals. This adds to the economic importance of the Anglo Saxon /vein system.

A summary of the important and impressive factors that justify development of the Anglo Saxon vein system would include:

1. Located in the center of a highly mineralized district bounded by the Colorado Central, Griffith and Silver Plume Veins on the south and southwest; by the Minnesota and Democrat Mountain veins on the west; by the Lawson-Dumont-Silver Creek Veins on the north; and by the Stanley, Freeland, Lamertine Veins on the east.

2. Production of about $1,000,000 from very shallow workings east of the junction of the Anglo Saxon and Federal Veins between elevations 10,372' and 10,300'.

3. Production of about $250,000 from the Anglo Saxon Extension Vein between elevations 9700' and 9300'. See news clipping from Georgetown Courier 2/19/1910 attached.

4. Unknown production from the Magnet, Summit and Dunbarton Veins.

5. Located in an area geologically favorable for ore deposition as specifically pointed to by Del Rio in Mineral Resources of Colorado (1960 p. 101) and by T. S. Lovering in Professional Paper 223 U.S.G.S. (1950 p. 191) who states:

   "The Lamertine and Freeland Veins are part of a belt of strong fractures trending east - northeast ---. This belt probably continues west-southwest of Lamertine to Georgetown, but the intervening area has not been adequately studied. The Lamertine and Freeland veins have had a substantial output, and the possibility of undiscovered ore shoots in an extension of this belt should be

considered, especially as the Lamertine ore body did not crop out and, according to report, was discovered accidentally."

Note: The reason the Lamertine did not crop out is the 100 feet of overburden covering the vein. This overburden covers the area referred to. This factor coupled with inaccessability has prevented adequate study and prospecting. It is therefore apparent that prospecting can best be conducted underground and that is what we propose doing.

6. The finding of rich silver ore on the very edge of the area to be prospected. An arithmetical average of the Assay Report furnished you - after excluding the two high assays of 1765 oz and 1790 oz - shows an average ore width of 24 inches and an average silver content of 50.83 oz per ton.

It is the opinion of those who examined the mineralized area that the ore had the appearance of being "drag" or "halo" ore indicating the approach to an ore shoot which should lie on the east side of the fault and on the east side of the vein junctions - IN VIRGIN GROUND.

CONCLUSIONS

Anglo Saxon Property is an unusually promising prospect. With proper development - good management - and sufficient capital - it should profitably produce large tonnages of rich silver ore.

Good management is an essential pre-requisite for success in this venture and especially so when tax payer money is utilized.

Talent and ability as an executive, organizer, manager, inventor and salesman is indicated by the success we achieved.

It all started in 1951 when we made an important contribution to National Security as indicated by the attached letters from the Munitions Board and the Defense Production Administration.

This was followed by the Small Business Administration loaning us $40,000 to start business. The loan was repaid and the tax payers are receiving from Berry Metal Company and me in excess of $300,000 annually in taxes.

We now ask the tax payers - thru OME - to join us in an exploration project of outstanding merit which has an excellent geological possibility of producing large quantities of rich silver ore that will be in critical short supply within the next two years.

We are continuing preparations for startup and by the time OME approval is received will have upward to $30,000 invested on our own account.

With approaching winter in the mountains early approval will be helpful.

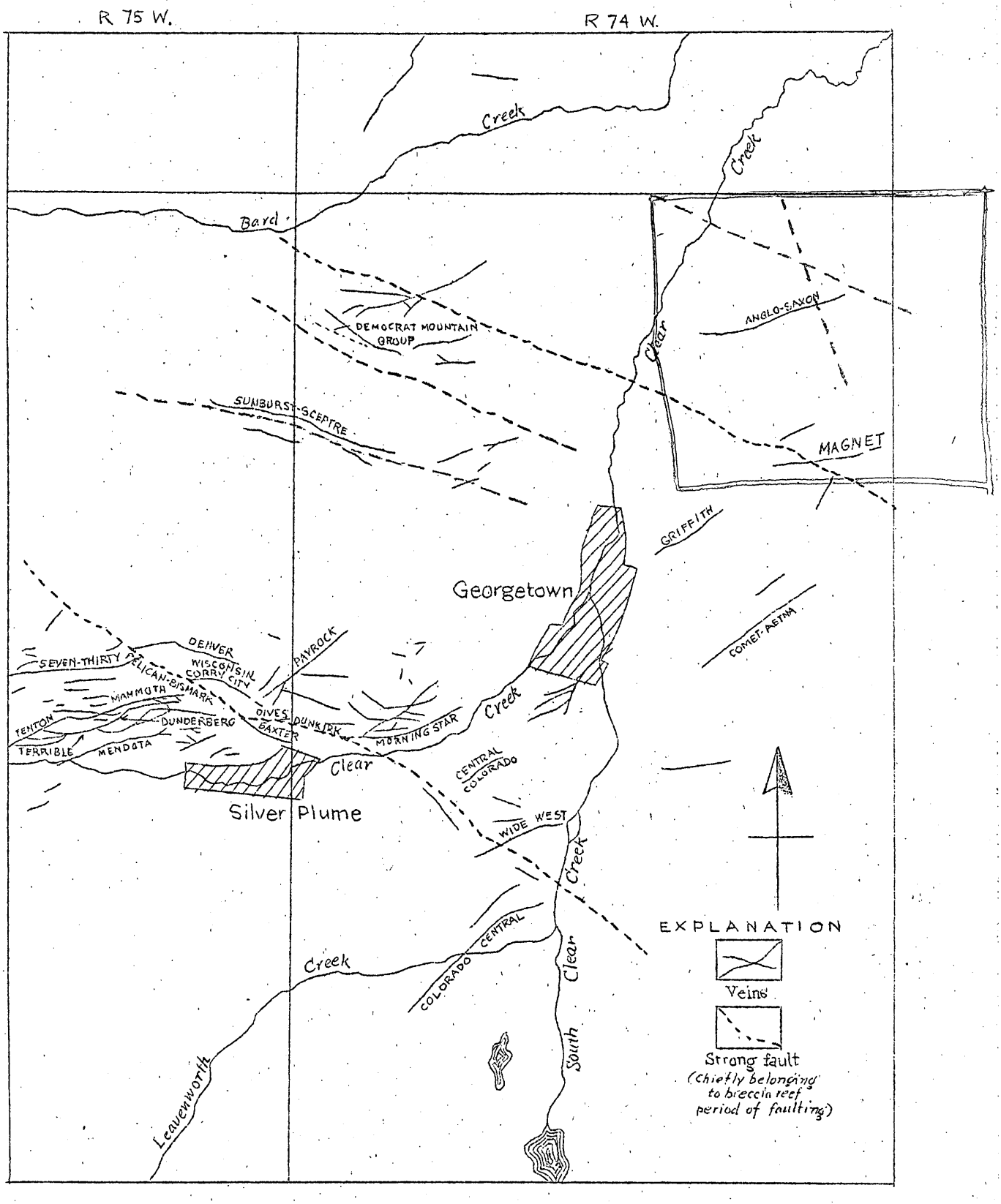
Sincerely yours,

BERRY METAL COMPANY

Walter V. Berry

Walter V. Berry
President

SKETCH #1



STRUCTURE MAP OF THE SILVER PLUME - GEORGETOWN DISTRICT
Showing the Principal Veins and Faults

COURIER.

FEBRUARY 19, 1910. NO. 1707

RICH STRIKE ON THE OLD SAXON

ORE VEIN OF GOOD SIZE AND RICH IN GOLD-SILVER

Shipments to be Started During the Next Few Days. Operator Making Ready to Enlarge Scope of Operations at Early Date.

A bonanza discovery was made this week on the Saxon property situated on Saxon mountain, and it is evident that this rich old property will shortly again be entered among the list of steady shippers of the district. The ore was encountered with the intersecting of the vein through a new crosscut tunnel that was started about two months ago, the streak measuring from four to eight inches wide. Tests show values varying from $125 to $150 to the ton in gold, silver and lead.

This property is being operated under bond and lease by Arthur Robert, a well known and successful operator of this district. Drifting has been started for the purpose of opening ground to permit of carrying a stope and it is hoped to inaugurate shipments within the next week or two.

There is at present on the dumps several tons of good grade ore and it is estimated that the same will mill close to $75 to the ton in gold and silver. This product will be brought to market during the coming week. In the meantime work will be prosecuted in the drift that has been started.

Mr. Robert, the leaser, states that as soon as the workings are in condition that he will employ a number of miners to assist in the development of the ground. There is a great deal of activity in the Saxon mountain locality and a number of properties are making an excellent showing.

SEE HOPKINS' REPORT, PAGE 26 under "RECOMMENDATIONS" (2)

The exploration recommended is believed to be in virgin ground beyond the area in which this ore - and a production of $250,000 - was mined - on several levels - at elevations between 9700' and 9300'.

This is the Anglo Saxon Extension Vein.

Exploration is recommended from the Lower Aunt Jack Tunnel at elevation 9354'.

MUNITIONS BOARD
WASHINGTON 25, D. C.

MBRMR

MAR 2 1 1951

Dear Mr. Berry:

You have asked as to the policy of the Munitions Board concerning the conservation of tin metal, particularly as used in phosphor bronzes and other brass-type bearing metals.

Let me assure you that we consider tin an important strategic and critical material, and one whose conservation is distinctly in the interest of the national security.

If your "Berry metal" can be successfully used in place of bronzes containing substantial percentages of tin, I hope you will endeavor to bring about such a substitution.

Sincerely yours,

Francis H. Griswold

FRANCIS H. GRISWOLD
MAJOR GENERAL, U.S.A.F.
MIL[illegible] FOR
REQ[illegible]

Mr. Walter V. Berry
President, Anglo Saxon
Mines, Inc.
Georgetown, Colorado

DEFENSE PRODUCTION ADMINISTRATION
WASHINGTON 25

January 3, 1952

MEMORANDUM TO: Mr. F. H. Hayes, Director
NPA Copper Division

ATTENTION: Mr. William Meissner

Mr. Walter V. Berry, President, Berry Metal Company, visited us yesterday and presented his technical data on Berry Metal, which is an alternate material for tin bronze bearing alloy. This alloy contains no tin and the test data indicate that the physical properties are superior to the tin bronzes and that the wearing qualities are much better. Antimony takes the place of the tin and is not particularly critical.

From the evidence presented, we believe this is a very good conservation project, since it should save tin, and due to its longer life, also reduce the copper requirements. We were favorably impressed by Mr. Berry and believe he should be encouraged to develop or acquire facilities for the commercial production of Berry Metal, and should receive whatever allotments of copper are necessary to get his project under way.

At a recent meeting of the Conservation Coordinating Committee, prior to Mr. Berry's visit to us, the possibilities of Berry Metal were presented to the Committee based on information supplied to the Munitions Board. The more complete data now available confirmed our opinion of the desirable possibilities of this material. It may be of interest to note that during World War I Berry Metal was used successfully on a number of commercial applications, such as railroad car bearings and steel mill bearings.

Thomas Spooner
Deputy Director
Conservation Division

cc: Mr. Walter Berry - George Mason Hotel, Alexandria, Virginia

DEFENSE PRODUCTION ADMINISTRATION
WASHINGTON 25

October 20, 1952

Mr. Franklin P. Huddle
Chief, Conservation Division
Munitions Board
Room 3-D-189, Pentagon Building
Washington 25, D. C.

Dear Mr. Huddle:

We were very pleased to see the Berry Metal test results, copies of which you received, reported by leading laboratories and manufacturing companies.

On the basis of World War I experience and these recent tests, it appears that this alloy is at least the equal of and for many applications superior to 10 percent tin bronze for bearings.

Naturally the supply condition of the substitute materials, nickel and antimony, have considerable bearing on the desirability of saving substantial quantities of tin. While at present tin is in fair supply, somewhat more favorable than nickel, this may not always be so and it is helpful to know that alternate materials could be used at any time when the relative supplies of the various materials involved would make such substitution desirable.

We have encouraged Mr. Berry to make these alloys commercially available and hope that industry will investigate the possibilities of Berry Metal as a conservation measure in the event of another tin shortage.

Sincerely yours,

Howard Coonley

Howard Coonley
Director
Conservation Division

cc: Mr. Walter V. Berry
President, Berry Metal Company
Pittsburgh 32, Pa.

MUNITIONS BOARD
WASHINGTON 25, D. C.

MBMMA

16 December 1952

Dear Mr. Berry:

This is to acknowledge your letter of 11 December.

Upon receipt of your earlier letter (20 September) we considered what steps could properly be taken by the Munitions Board to make use of the fact that a successful non-tin bearing metal was now available. Let me make clear at once that the policy of the Munitions Board stands firmly opposed to any sponsorship or sales encouragement of any private product. On the other hand, it is perfectly proper for us to bring to the attention of the military departments any new technological development in which they have a presumed interest.

Accordingly, we propose to bring formally to the attention of the Munitions Board itself, composed of assistant or under secretaries from each of the three military departments, that your Berry Metal has been tested and found acceptable. This report, which I will not be able to make available to you because of its classification, will be completed and transmitted as soon as I receive the report of the Annapolis Engineering Experiment Station tests. This report has been formally requested.

Although I cannot send you a copy of the Munitions Board Staff Report, I will send you word that it has been presented and give you, for your own information, a summary of its contents.

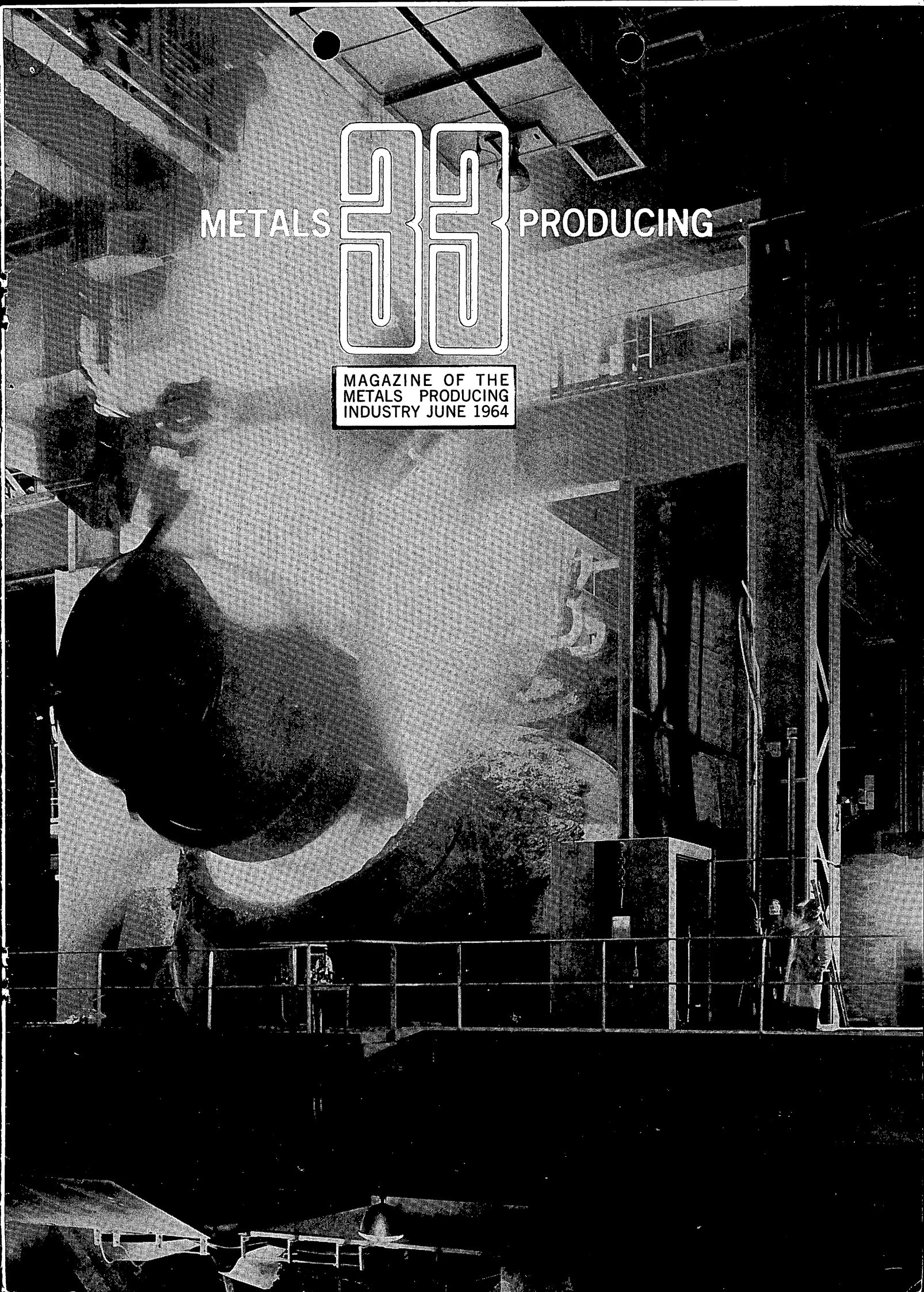
My cordial regards to you, and my compliments on your growing success with your development.

Sincerely yours,

Franklin P. Huddle

Franklin P. Huddle
Chief, Conservation Division
Office of Materials

Mr. Walter V. Berry, Pres.
Berry Metal Company
6015 Fifth Avenue
Pittsburgh 32, Pa.



METALS 33 PRODUCING

MAGAZINE OF THE
METALS PRODUCING
INDUSTRY JUNE 1964

Man with a Lance: Walter V. Berry, president of Berry Metals

Tilter at Steel Mills

SMALL BUSINESSES serving the steel industry are often hard pressed to keep up with the rapid changes in technology now taking place. One such small company—Berry Metal Co., Harmony, Pa.—is doing especially well at keeping abreast of industry in its shifts to new production techniques.

The company manufactures oxygen lances, is currently supplying 65 percent of the U. S. industries' requirements and is now making marked inroads into the BOF lance field. Just this month a Berry-built lance at Pittsburgh Steel's basic oxygen shop went 181 heats.

"This is a multihole lance record for our shop," said D. R. Bailey, superintendent of steelmaking at Monessen. "Berry builds quite a lance. This was our first for the BOF. The only reason its campaign ended at 181 heats is because we took the furnace down for reline."

To learn how Berry Metals gained such a strong foothold in its field, *33* talked with Walter V. Berry, president and founder.

Berry's personality is stamped strongly on the company he heads, making it hard to describe one without describing the other.

Shining Start

Berry is a shoeshine boy-to-millionaire type who started in the lance business late in life—but with the timing of a professional and the cunning of a Mississippi gambler.

Except for one short period when he worked for someone else, Berry has always been a loner. His first wholly-owned enterprise *was,* in fact, a

Berry started with open hearth lances, above, and grew to BOF's. He now supplies about 65 percent of the lance requirements in the U. S. Berry and son (right), company vice president William W. Berry, discuss a BOF lance order.

shoeshine stand founded when he was 12. At 18, he joined his father in establishing the first Berry Metal Co., a foundry, which was sold a few years later.

In 1930, Berry went into the real estate and insurance business in Seattle. This move he credits to the inspiration of a newspaper article and started him on a long career of playing his hunches. From Seattle he went to Colorado to dig for "silver, fame and fortune."

Into the Mine

Berry bought a mining site. Experts told him the mine had rich potential. For 16 fruitless years he worked with pick and shovel, ending up with precious little silver but very philosophical.

Go East Young Man

In '51 Berry conceived the idea of tinless bearing bronze. The Korean War was on and tin was in critical supply. He researched, developed and patented just such a material and took it to the U. S. Navy Experimental Station for tests and approval. The Navy recommended Berry's process and the Munitions Board and the War Production Board encouraged production. Unable to raise production capital in the west, Berry moved east. With $1900 in his jeans, he went to Pittsburgh and reactivated the Berry Metal Co. Then the Korean War ended—and so did the demand for Berry's bronze.

Big Brother

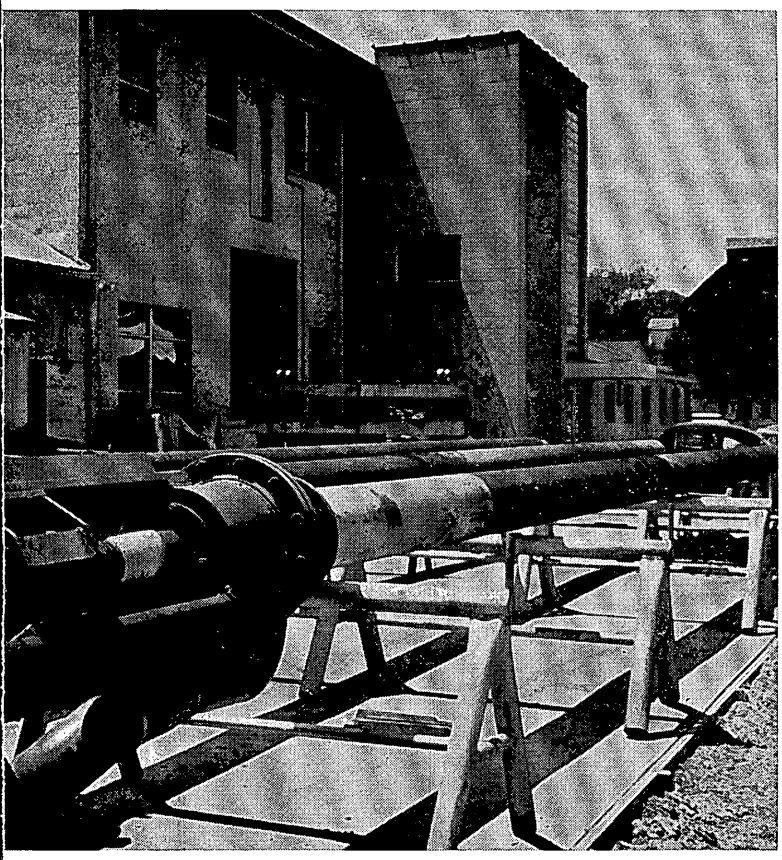
What happened next is a matter of current history. Even though Berry's company was flirting with financial disaster, U. S. Steel took an interest in it and gave Berry orders for metals he could farm out. Its people took him into their confidence on a number of matters, and when they began to experiment with the use of oxygen lances in open hearth furnaces, Berry was one of the foundrymen given a look at the nozzle problem.

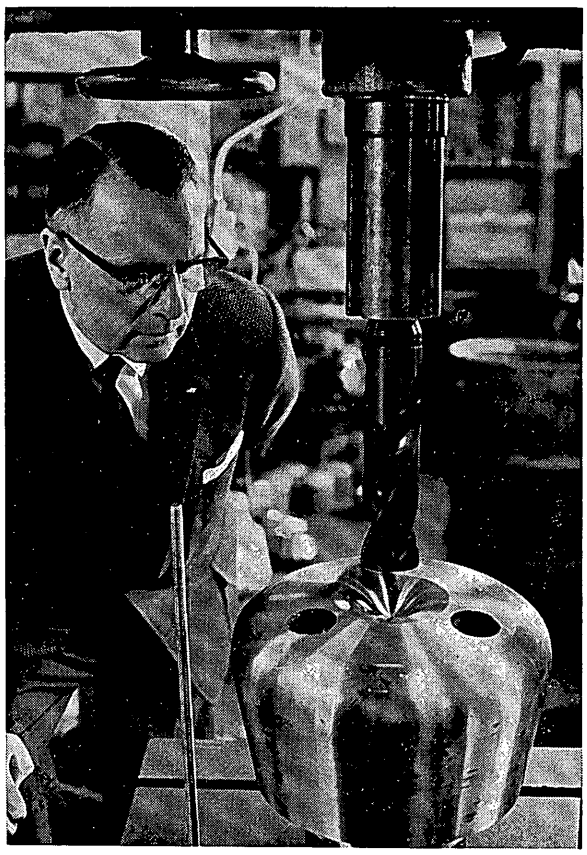
Before Berry, oxygen lance nozzles were fabricated in a welding shop. Berry developed and produced the first cast lance nozzle in America and supplied U. S. Steel with its lance nozzle requirements.

Next, he went to the Small Business Administration for a $40,000 loan and leased a plant in Harmony, Pa. With the loan and plant under his belt, he began to grow.

Handy With A Lance

Developments in lance technology credited to Berry include: the "elephant foot" nozzle, an oxygen-fuel lance and a multiorifice "elephant





The multihole "elephant foot" nozzle of the type used by Pittsburgh Steel to crack its shop record recently.

foot" nozzle.

The original "elephant foot" looked like a pear-shaped balloon at the end of a pipe. Ridiculed at first, it worked so well that it gained wide acceptance in open hearth practice. The oxygen-fuel lance combines oxygen with natural gas or oil without blowing up. It develops flame temperature of 5000 F. The multiorifice "elephant foot" was developed especially for BOF's. Steelmakers report that it reduces sparking and slopping, increasing yield and promoting longer refractory life, and that because of the multiorifice design, increased efficiency with less oxygen is possible. Overall, the aim is to produce better quality steel with increased use of scrap while reducing maintenance and steelmaking costs.

As a direct result of these developments, Berry Metal sales have increased from $50,000 to well over $1 million in just five years.

Berry is still expanding. In fact, the company has just announced a $250,000 expansion program which will mean a new plant and an increase of from 30 to 50 employees.

Orders in the Pot

Orders on hand include foreign as well as domestic jobs. Berry now has a $20,000 order from Spain, and Bethlehem Steel has just awarded the company a contract to build all the BOF lances for its new Lackawanna, N. Y. installation. Other BOF installations have been made at U. S. Steel, Great Lakes and Pittsburgh Steel.

Multi Product Producer

Oxygen lances and oxygen-fuel burners are not the only products of Berry Metal. It also manufactures open hearth end burners, demolition hooks, skull hooks, ingot mold brushing equipment, oil atomizers, bronze oil seal rings, bronze bearings, blast furnace cooling copper and aluminum castings. Its facilities include engineering, a foundry, machine shop and welding and fabricating shops at Harmony. Through its affiliate, HIB Engineering Company (Gary, Ind.), the company can secure additional production capacity, and it is presently studying the installation of facilities at Lackawanna, N. Y.

Message to Steelmen

Walter Berry is a dreamer as well as a businessman. Here are a few of his "dreams."

- An open hearth end burner using an acoustic nozzle which will generate sound waves for the atomization of any grade of fuel oil into a mist. This, Berry feels, should produce a hotter, clean-

er and more efficient flame of any desired length, width or pattern.

• An ingot mold spray coater using an acoustic nozzle which will generate sound waves for atomizing the spray coating material. This, Berry thinks, will lead to ease in evenly and uniformly coating the molds.

He is joined in the above two ideas by the firm of Astrosonics, Inc. (Syosset, Long Island), which specializes in sound generation and acoustic apparatus.

Other ideas include adaptation of an oxygen-fuel burner for the purpose of applying heat to the top of an ingot mold immediately after teeming and within the hot top, and an oxygen-fuel-roof burner which will oscillate or rotate within the roof mounting assembly. Object of the rotation or oscillation would be to permit the melter to reach every area of a furnace filled with scrap.

Borrowing Trouble

Ideas and plans are very much a part of Walter Berry. So is the inclination to speak his mind. When *33* asked him about possible advice to steelmen planning to go out on their own into business, he emphatically inveighed *against* a Small Business Loan unless it is absolutely necessary. Here's why.

According to Berry, you mortgage all of your assets when the loan is granted. You also mortgage all subsequent assets acquired during the term of the loan, which means that you lose complete control of your borrowing power.

In addition, you also have to hypothecate accounts receivable, are limited in making fixed asset additions, and are limited as to the salaries you can pay your executives. (Salaries are limited—and fixed—by the Administration, not by you.)

Considering these restrictions, Berry says, commercial bank loans are almost impossible to secure. You cannot reward your employees without prior consent. You cannot expand through asset additions except to the extent permitted. "In other words, your hands are tied," says Berry, and this is stultifying and not conducive to growth.

Looking toward the future, Berry sees the day when all single orifice oxygen nozzles will be replaced by multiple orifice designs of 3, 4 and 5 holes. He expects oxygen flow rates to increase and oxygen fuel lances to be used for scrap preheating, scrap melting and furnace burn-in.

He also believes the day is not far off when all electric furnaces will be on oxygen, and that steel making vessels utilizing lances and 100% scrap will grow in popularity. ▪

Berry inspecting cast blanks for six-hole nozzles at his Hamony, Pa. plant.

Berry METAL ®

World's Largest Self-Integrated Oxygen Lance Designers and Builders

METAL COMPANY

HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

September 21, 1966

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Mr. Frank E. Johnson
Chief - Office of Mineral Exploration
U. S. Department of Interior
Room 4460
Washington, D. C. 20242

Subject: OME 6570

Dear Mr. Johnson:

In accordance with our letter of the 13th, we enclose the following:

1. An additional set of Geologic Mine Maps. Sheet 4 has been updated.

2. Two maps showing the claims. Our Magnet-Summit Group of claims which lie to the south are not included since development in that area is not under consideration.

3. Two maps showing our suggestions for the proposed Exploration Tunnel. Kindly note the following:

   a) The old tunnel site is in a slide rock area. Rolling rock endangered the lives of miners. Heavy timbers were required making such tunnel unsafe and impractical. It is caved.

   b) The new site is in a safe area. Overburden is now being cleared away in an effort to set the portal in solid rock.

   c) The radius from "A" to "B" is designed to stay in solid formation.

   d) It is suggested that the tunnel be driven from "B" To station N 19 where the old tunnel can be utilized from station N 19 to N 26 - a distance of 430'. There is little timbering in this portion of the tunnel.

If the tunnel from station N 26 to the face can be rehabilitated economically it can be utilized. If not, the cross-cut at station N 29 can be extended into solid formation and new tunnel driven to "C" paralleling the old tunnel.

e) The money saved under item (d) can be utilized for exploration in virgin ground - east of the fault - on the Tunnel, Federal and Anglo Saxon veins.

f) In the vicinity of "C" you will note a northwest trending unnamed vein which, with the Loranzie and Golddug northwest trending veins (not plotted), may be the master fissures or trunk channels responsible for localization of ore shoots. Lovering and others are of this opinion as stated further on.

g) We show our interpretation of the vein system at the face and will describe this as well as the fault later on.

4. Abstract by John Gabelman of T.S. Lovering's Paper "Localization of Ore in Schists and Gneisses of the Mineral Belt of the Front Range, Colorado" printed in Colorado Scientific Society Proceedings Vol. 12, No. 7, 1930. Attached thereto is Lovering's comment on the Silver Plume-Georgetown district stating the significance of ore bodies found at the intersection of northwest fractures with the east-northeast fissures. These are present on Anglo Saxon property in the vicinity of - and beyond - the breast.

Sincerely yours,

BERRY METAL COMPANY

Walter V. Berry

Walter V. Berry
President

LOCALIZATION OF ORE IN SCHISTS AND GNEISSES OF THE MINERAL BELT OF THE FRONT RANGE, COLORADO

by

T. S. Lovering

Colorado Scientific Society Proceedings
Volume 12, No. 7
1930

Abstract

John W. Gableman.

Introduction

The mineral belt extends from Breckenridge to Boulder, in the Front Range, Colorado. It includes the Montezuma, Silver Plume, Georgetown, Idaho Springs, Central City, Caribou, Gold Hill, and Jamestown districts.

This belt produced gold steadily until 1902, and silver until 1917, after which respective dates production declined.

Although deposits are of Eocene age, their distribution and continuity was influenced by the structural features of earlier periods.

Regional Structure

Most of Front Range consists of Pre-Cambrian, schist, gneiss, and granite, with small patches of Cretaceous and Eocene porphyry. Southeast of mineral belt, schist and gneiss has steep monoclinal dip to the north or northeast. But in the mineral belt they are folded into sharp synclines and anticlines which trend northeast.

The schists and gneisses are cut by a series of Algonkian granite intrusions. Their distribution conforms generally to the trend of the mineral belt, and the belief is that because the granite is more competent than gneiss and schist, it took most of the fracturing in Tertiary time, and hence formed the plumbing for ore solutions.

There are no extrusives in the mineral belt, but Tertiary intrusives are common.

It is believed by Lovering that the schistosity was developed by intrusions of the granite from the Pre-Cambrian sediments, and that most of the metamorphism took place before the magma was completely consolidated.

Early Tertiary History

The earliest Tertiary intrusives are contemporaneous with the Denver Formation which is Eocene according to the U.S.G.S., and Cretaceous according to Lovering. Front Range was rising in Denver Time, developing north and northwest trending folds.

Continued into Laramie time. After formation of folds, and still in Eocene time, bodies of qtz. monzonite porphyry were intruded These intrusives were localized along the zone of faulted and folded schists and gneisses between the Pikes Peak and Silver Plume granites, and around the western and northern boundaries of the Coal Creek Granite. Tertiary igneous rocks are rare elsewhere in Front Range save for Miocene volcanics. The faulting that formed the veins preceded and followed these intrusions. The qtz. monzonite porphyry was later cut by dikes of granite porphyry and basic andesite before the first wave of metallization. Emanations from the deep seated differentiating porphyry furnished ore deposits in Summit, Clear Creek, and Gilpin Creek. The deposits are classed as lower or middle Eocene.

General Geology of Mineral Belt

All veins resulted from mineralization of earlier pre-mineral faults. The faults form a definite pattern, and indicate a regional stress to have existed. The trend of the veins is parallel to the edges of the belt, or parallel to the schistosity. Where the belt strikes northeast, all the veins strike northeast, and where the belt strikes east, the veins strike east and northeast.

After the early period of reverse faulting, shearing movement occurred throughout the district resulting in faults with large horizontal components. Faults of this type have a more easterly strike than others.

Shear faulting was followed by normal faulting and minor amounts of more reverse faulting. This movement continued actively during mineralization, but decreased in intensity after metallization was complete. With respect to vertical components, at Idaho Springs, Georgetown, Silver Plume, and Montezuma, the south or southeast walls are down thrown. (This concerns the shear faults mostly.)

Veins and Ore Shoots

Since the porphyry belt and mineral belt coincide, a genetic relation between the porphyries and veins has been inferred. A local center has a group of porphyries characteristic of that locality only, and these centers also seem to be centers of mineralization. Such centers as are marked by an abundance of dikes and small porphyry masses contain richer mineralization than do those centers which contain large stocks.

Note: Both Lovering and Spurr assume that the presence of porphyry is essential to the presence of ore; but Goodspeed has proved otherwise on Saxon Mt.)

This conforms to B. S. Butler's observation that ore deposits are most abundant near intrusive centers where erosion has not gone too deep.

A zonal arrangement is found around the various centers, and in many places the outermost zones of separate centers

overlap. The central area consists of pyritic gold veins. The intermediate zone contains pyrite-gold-silver veins with abundant lead and zinc. The outer zone contains primarily silver.

According to Bastin, the paragenesis is as follows: Pyrite is early, followed by auriferrous, and argentiferous copper minerals. These were followed by argentiferous lead and zinc. The early pyrite solutions clogged the central channels, forcing later solutions to travel in concentric zones around the central part, except where later movement reopened some of the pyrite veins.

Lovering sees a vertical depth zone in which all the ore was deposited. The lowest depth to which mining was carried at the time of this report was 6,500 ft. above sea level at Boulder. This ranged up to 11,500 feet in the Argentine district, and dropped again to 9,350 feet in the Montezuma district. This gradation may be explained by the pleistocene arching of the zone over the crest of the front range. Originally it was horizontal. However, Mr. Collins (criticism) states that there is no proof to indicate that mineralization may not persist to greater depths.

Surface enrichment is important only where the present surface coincides with the Flattop peneplain or the Rocky Mt. Peneplain.

The influence of wallrock is very important, not chemically, but physically. Hard, brittle rocks such as, pegmatite, granite, porphyry, and gneiss are the common wall rocks of the persistent ore shoots. Weak rocks such as schist are too incompetent to make good fissures, and there is not much deposition in them.

Ore solutions will follow the most open fractures, and the intersection of two faults or fractures forms an ideal channel. Hence ore shoots are the most important.

The occurrence of ore where marked changes of dip or strike are found can be correlated with an ancient open space caused by movement of the irregular walls of a fault.

Channels may also be formed in a vein that crosscuts schistosity, or passes from one type of rock into another. If a fault crosses from schist, through gneiss, and into schist again, a channel will be opened in the gneiss larger than any possible in the schist because the schist is too weak.

If a fault parallels the schistosity, it may lose its identity as a well defined fissure, and become a sheeted, reticulated, shear zone. This is the case with the Anglo Saxon. Ore shoots may form in this type of vein where ever it suddenly breaks across the schistosity instead of conforming to it.

The chance of finding ore in a vein that has been reopened and brecciated several times is much better than in one which has never been reopened.

Wall rock alterations took place before, during, and after mineralization. Pre-mineralization alteration consisted of chloritization, epidotization, pyritization, and silicification.

Garnet, magnetite, hematite, tremolite, epidote, and fine-grained quartz (jasperoid?) formed early in mineralization. Sericitization accompanied mineralization. Carbonate gangue accompanied and succeeded mineralization. Calcite is post-mineral and unimportant, as are the clay minerals.

SUGGESTIONS FOR DEVELOPING AND PROSPECTING

Because large granite masses resisted deformation, all fissuring (pre-mineral) is confined to narrow band of schists and gneisses forming the mineral belt. Therefore, it is unwise to prospect outside of this belt.

Within the belt all faults and fissures should be mapped in detail. Direction and amount of faulting, with changes in strike and dip should be noted. Intersections of veins with each other, and with different rock types should be noted. If geophysical methods are utilized, the steep parts of normal faults, and the flat portions of reverse faults should receive special attention.

Hydrothermal alteration should be noted with special attention to seriatic, pyritic, ankeritic, sideritic, or silicic alteration.

"The Silver Plume-Georgetown district and the Empire district are related to local centers of igneous activity, but the deposition of ore was influenced by the regional structure. Most of the veins in the Silver Plume-Georgetown district trend east or northeast, but a strong fracture zone of west-northwest trend cuts through the heart of the mineralized area. In the N.W. part of the Silver Plume district it has been very productive and is known as the Pelican-Dives vein. Farther to the southeast it is feebly mineralized and is very gougy. Many important ore bodies have been found at the intersection of this northwest fracture with the east-northeast figsures, and the bulk of the ore in the district has been produced within a quarter of a mile of it."

LOVERING

Berry
BERRY METAL ®
World's Largest Self-Integrated Oxygen Lance Designers and Builders
METAL COMPANY
HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

September 13, 1966

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Mr. Frank E. Johnson
Chief - Office of Minerals Exploration
U. S. DEPT. OF THE INTERIOR
Room 4460
Washington, D. C. 20242

Subject: OME 6570

Dear Mr. Johnson:

As requested, we are enclosing one (1) complete set of maps showing the geological formations and the prospect tunnel driven on the Anglo Saxon property at elevation 9760.

A second set will be furnished as soon as completed for your Denver office.

When we send you the second set, we will also include our interpretation of the faulting and formation in the last 200 ft. of tunnel.

We take this opportunity to express our appreciation for the courtesies extended during our visit to your office on Sept. 12th.

Sincerely yours,

Walter V. Berry

Walter V. Berry
President

WVB:lrf

Encls.

Office of Minerals Exploration -- Building 25

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August 30, 1966

To: J. W. Hasler,
Field Officer, Region III
Office of Minerals Exploration

From: R. U. King

Subject: OME Docket 6570 (Silver)
Berry Metal Company
Anglo Saxon mine
Clear Creek County, Colorado

The applicant proposes to explore for silver in the Anglo Saxon mine, Clear Creek County, Colorado, by drifting and crosscutting to reach old workings and favorable vein and fault intersections.

The application is well prepared and is accompanied by documented statements indicating significant past production and promise of significant silver deposits in unexplored parts of known veins.

The applicant proposed driving two drifts, one virtually directly above the other, and about 400 feet higher.

The cost of the proposed exploration could be cut in half and yet reach all the named objectives by driving one of the drifts, preferably the lower one, and core drilling for all of the objectives to be gained by the upper level drift. Also, proposed short crosscuts to adjacent or nearby parallel veins could be better replaced by either long-hole or plugged-bit drilling or by core drilling.

why

Shortest drift to reach objectives is preferable

Does potential justify cost

It is interesting to note that the cost of the proposed exploration is exactly that amount that can be contributed by the Government.

Favorable considerati
veins of the Anglo Sa

cc: Chief, OME
OME chron
Hasler chron
OME-6570

Berry
BERRY METAL ®
World's Largest Self-Integrated Oxygen Lance Designers and Builders
METAL COMPANY
HARMONY, PENNSYLVANIA 16037
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August 26, 1966

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Mr. Frank E. Johnson
Chief - Office of Minerals Exploration
U. S. DEPT. OF THE INTERIOR
Room 4460
Washington, D. C. 20242

Subject: OME 6570

Dear Mr. Johnson:

Thank you for your letters of August 19 and 22.

We note in your August 19 letter that funds are not provided for contingencies.

We therefore amend our request as follows:

> That all disallowed and/or deleted amounts itemized in our "Operational Cost Estimates" be utilized for additional drifting; cross-cutting; raising or sinking as conditions encountered in the exploratory tunnel warrant.

A study of the vein maps submitted indicate there are at least 35 vein junctions in proximity to the proposed exploratory tunnels. According to the teachings of Goodspeed, Lovering, Spurr and Garrey, and Del Rio and others, the vein junctions in this district are targets for ore. That being true, as many targets as possible should be explored within the limits of the $333,333.34 exploratory program proposed. This definitely will increase the possibilities for success.

Sincerely,

Walter V. Berry

Walter V. Berry
President

WVB:lrf

cc: Mr. J. W. Hasler, Mgr.
OME - Denver, Colorado

Berry
BERRY METAL ®
World's Largest Self-Integrated Oxygen Lance Designers and Builders
METAL COMPANY
HARMONY, PENNSYLVANIA 16037
TEL. 452-8040 • AREA CODE 412

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August 20, 1966

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
Department of the Interior
Room 4460
Washington, D. C. 20242

Subject: Proposed Exploration of the Anglo Saxon Mine, located at Georgetown, Clear Creek Coutny Colorady

Dear Mr. Johnson:

After talking with you by telephone on Friday, August 19, I telephoned your Denver office to inquire the reason for the delay in forwarding the OME Application which we filed on August 11.

We were informed your Denver office is struggling under a heavy work load and that out application must take its turn.

In order to expedite this matter we are sending this extra copy for your attention.

It is important we get under ground before freezing weather. We will, therefore, appreciate prompt action on our application.

Kindly append our letter of August 16 to this data and make it a part thereof.

To save time please telephone if any questions arise. If necessary, I will fly to Washington for a conference.

Sincerely yours,

Walter V. Berry

WALTER V. BERRY
President

Berry
BERRY METAL ®
World's Largest Self-Integrated Oxygen Lance Designers and Builders
METAL COMPANY
HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

U.S. Department of the Interior
Office Of Minerals Exploration
Washington 25, D. C.

Gentlemen:

Our application for Financial Assistance in Minerals Exploration in the amount of $250,000.00 is contained herein. Exploration is for Silver requiring a 75% government participation.

The mining property described is owned by Idun Y. and Walter V. Berry. It will be leased to Berry Metal Company on a standard lease - acceptable to OME - on a 10% royalty basis.

Upon approval by OME Berry Metal Company will immediately form a wholly owned subsidiary company - Anglo Saxon Mines, Inc. - and will conduct the operation through that subsidiary company. The OME Contract will be with Anglo Saxon Mines, Inc.

Exploration will commence immediately upon approval by OME and on a two shift basis.

FINANCIAL STABILITY OF BERRY METAL COMPANY

Berry Metal Company is an Horatio Alger success - one of the better "Mouse Trap Stories".

It started business in 1952 with a Working Capital of $1901.87 selling Tinless Bronze - an invention of Walter V. Berry, President.

In 1959 Berry obtained a small business administration loan of $40,000.00 used to provide plant, equipment, and working capital to produce oxygen lances and associated equipment used in the new oxygen steel making processes. These were also inventions of Walter V. Berry who successfully pioneered in this field.

The following figures indicate not only the success of Berry, but also the financial benefits which are accruing to the government from their $40,000.00 SBA Loan.

	1961	1963	1965
Sales	$243,282	$604,004	$1,477,383
Profit Before Taxes	1,197	112,549	449,298
TAXES (Government Benefit)	905	56,585	232,701
Profit after Taxes	292	55,964	216,597

The above record - with supporting Financial Statement - indicates:

1. That Berry has established a reputation with the government for ability, financial responsibility and moral integrity.

2. That Berry is financially able to complete the OME Project.

3. That the government is requested to invest $250,000., a sum only slightly more than Berry's annual tax payment.

STATEMENTS OF FACT

Berry's success indicates they already have in their business a Gold and Silver Mine which is providing excellent profit and growth.

Why then are they interested in exploring for Gold and Silver in Colorado?

Their reasons are:

1. Berry's Research Staff is developing projects that will require millions of dollars of capital which they hope can be obtained from mineral production in Colorado.

2. Mr. & Mrs. Berry are extremely confident in the potential of their mining property. Proof of that statement is the fact they spent 15 years of their lives and $367,702 in the development of the property. The development did not provide mineral production. It did however, provide geological information and ore leads which amply justify further development.

Why does not Berry provide all the required capital?

Berry's growth necessitated - and still requires - the reinvestment of all profit in the business. This requirement prohibits the diversion of working capital into the mining project.

The company cannot afford to invest the $333,333 capital required and would not undertake this exploration without OME participation.

With OME participation of $250,000.00 the company will be required to invest $83,333. This amount is BEFORE TAX DOLLARS.

AFTER TAX DOLLARS are $38,333, which will be spread over two years and average $19,166.66 each year which is an amount the company can - conveniently and without harm - invest in the program.

This will be strictly a company project. It is not a promotion scheme. No company stock will be offered for sale.

Our company made a sincere effort to borrow the money required from their own bank in Pittsburgh, Pa. (Mellon National Bank and Trust Co.) and a Colorado Bank (First National Bank of Golden). Both banks declined our application. Copies of the correspondence are attached.

PROGRESSION OF MINE PROPERTY OWNERSHIP

In 1866 T.J. Campbell and Dr. Darnell discovered a Mother Lode of rich silver ore near Georgetown, Clear Creek County, Colorado. The ore assayed $28,000.00 per ton. The lode - situated on Saxon Mountain - was named "Anglo Saxon".

Jerome B. Chaffee - Colorado's first United States Senator - along with Eben Smith - purchased the mine in 1873. Chaffee acquired Smith's interest in 1878.

Henry C. Parker - former Mayor of Georgetown, Colorado - purchased the mine from Chaffee's heirs in 1897. An untimely death in 1900 prevented Parker from reopening the mine.

In 1936 the widow of Mr. Parker deeded the mine to Miss Idun M. Yeterdal who soon thereafter became the wife of Walter V. Berry.

Since 1936 the mine has been the property of Mr. & Mrs. Walter V. Berry.

HISTORY OF THE ANGLO SAXON MINE

From 1867 to 1882 the mine produced fabulously rich silver ore. Production ceased in 1882 probably as a result of economic conditions. Professional Paper 63 of the United States Geological Survey states:

> "The financial panic of 1873 was a decided catastrophe to the mining industry of Clear Creek County, which consists mainly of silver mining, for the market for the ore mined became very irregular, and prices for ore, which formerly had been fair, became excessively low and only certain grades and kinds of ore were at all salable."
>
> The demonitization of silver further added to the economic problems and made a Ghost Town of Georgetown.

The history of the mine is replete with glowing accounts of rich bonanza silver production from this once famous mine. Among the many historical references are the following:

From "The Colorado Miner" - June 27, 1867

"Its ores are indisputably the richest of any yet found in the mines of Colorado, containing ores that assay from $17,000 to $25,000 per ton."

From "The Colorado Miner" - October 9, 1875

"We have examined the mill runs of ore which Woodley and Company have extracted and sold here. The reader will note that these are not 'specimen assays' but verified returns of the value of different lots of ore. First class 11,300 ounces and 4,573 ounces; second class 1000 ounces and 2800 ounces; third class 300 ounces and 800 ounces of silver per ton of 2000 pounds. If any mining district in the world can produce a better record of mill runs from one mine, we have yet to know the fact."

From "The Colorado Directory of Mines" by Thomas B. Corbett, 1879.

"Anglo Saxon, situated on Saxon Mountain, near Georgetown. Nature of ore, silver glance; average value 1,000 ounces silver per ton."

From "Executive Document No. 99, page 146, 46th Congress, 3rd Session, House of Representatives, 1881."

"The most extensive and valuable bill of silver fissures yet discovered in Colorado is at Georgetown. On the south side of Clear Creek is Saxon Mountain which contains a number of good lodes, as the Saxon."

From "Executive Document No. 216, page 373, 47th Congress, 1st Session, House of Representatives, 1882"

"The Saxon, one of the richest mines in the County, is under lease and vigorously worked."

From "Executive Document No. 177, page 260, 48th Congress, 1st Session, House of Representatives, 1884".

"Clear Creek County. This County is a network of fissure veins, and while far in advance of almost any other portion of the State in the development of its veins, many miners think that it is still in the primitive running state, and that the full richness of its veins are yet to be disclosed. On Saxon Mountain is the Anglo Saxon, the Saxon Extension Group, Dunbarton, and the Summit. The Anglo Saxon was not worked during 1883. The developments consist of four levels and numerous cross cuts and shafts. The ore vein is narrow, but rich and has yielded about $700,000 since it was discovered. (Note: The mines referred to are the property of Berry)

THE INCENTIVE TO MR. & MRS. BERRY

Authentic historical records, plus the history of the mine as related by Mrs. Parker (wife of the early owner) to Mr. & Mrs. Berry provided the incentive to reopen this famous rich producer of silver ore.

Professor G. E. Goodspeed, Executive Officer, Department of Geology, University of Washington, Seattle Washington was employed to study and evaluate the property.

Mr. H. R. Aldrich, Secretary of the Geological Society of America wrote us as follows: "I have known Professor G. E. Goodspeed these 35 - 40 years from student days when he was a member of the teaching staff at M.I.T. I have had frequent personal contacts with him, particularly during the last 15 years and have followed his lectures and writings. I would like above all to say that in my best judgment Professor Goodspeed is a man of sterling integrity"

After partially opening one of the old producing tunnels and shaft Professor Goodspeed examined the property and subsequently reported:

> "Based upon the geological evidence and a microscopic examination of the specimens gathered, it is not at all hard to believe - that more ore shoots may be picked up below that portion of the vein where mining stopped - that when you realize Anglo Saxon was mined to a depth believed not to exceed 120 feet, they just barely touched it - that production records are ample proof that a considerable amount was taken out - that there are several veins on the property, some with spectacular outcroppings of 'Gossan' which would indicate they are strong fissures - that a development tunnel driven 600 or 700 feet below surface would explore the vein where ore shoots of rich silver ore might be expected - that such depth is conservative because similar veins in the Georgetown mineral district have enjoyed considerable profitable production at depths 100 to 1600 feet below surface - and that there is a decided run for your money in the development of this mine."

Professor Goodspeed regularly inspected the mine during development from 1937 to 1952 and is therefore best qualified to report on the geological findings and to again evaluate its potential.

During the period 1937 - 1952, Mr. George H. Garrey, Co-Author with Spurr of Professional Paper 63, of United States Geological Survey, was also consulted and visited the mine. He had been in the old workings and established the fact that the ore shoot raked east 50° to 60°. He advised that it would be necessary to drive the exploratory tunnel 1450 to 1600 feet before the downward extension of the Anglo Saxon ore shoot could be intersected. He advised that the geological chance of finding commercial ore on the downward extension of the ore shoot was excellent. When mineral was encountered at about 900 feet from the portal, he advised us to continue on to the Anglo Saxon ore shoot.

During the driving of the exploratory tunnel, it was decided that the tunnel vein was neither the Saxon nor Federal vein, the junction of which created the Anglo Saxon Ore Shoot. It was decided that the Tunnel Vein was an unknown vein whose course would bring it into the area where the downward extension of the Saxon Ore Shoot was expected to be encountered, therefore Garrey and Goodspeed recommended we continue to drift on it.

When Garrey was unavailable, H. W. C. Prommel, a Denver Consulting Geologist and Mining Engineer was consulted. He visited the mine in 1948 and 1950 and reported that indications are that the tunnel is above the permanent water level and that "ore may well be encountered above as well as below the tunnel level"

John W. Gabelman, Mining Engineer, spent the summer of 1946 on the property, mapped the veins and geology of the area, and made a Self Potential Survey of a portion of the Anglo Saxon Extension Vein at elevation 9360' in the area reported on by Spurr and Garrey in Professional Paper 63 and within the area proposed as a secondary target for ore. His report is attached.

As expected, ore was encountered 1514 feet from portal at elevation 9760'. An Assay Map and the Assay Report is attached. As reported, this ore was cut by a North-South Post Mineral Fault dipping 46° east. Several theories were advanced concerning this ore showing;

1. That it represents the top of an ore shoot.

2. That the ore is not in place and is considered to be "drag ore" along the vein fault.

3. Significantly, the most plausible and acceptable theory is that the ore shoot was just forming when cut by the North-South Post Mineral Fault and therefore would continue to form on the northeast side of the fault and particularly on the northeast side of the junction of the Tunnel vein with the Anglo Saxon and Federal veins which should be in the nearby vicinity. This theory is given weight by the statements of Garrey and Goodspeed, who pointed out that the ore shoot formed by the junction of the Anglo Saxon with the Federal vein lies northeast of the junction in the old productive workings and rakes easterly at an angle of 50° to 60°.

Change in the wall rock from granite to shist on the "up" side caused the vein to pinch to a narrow streak. The vein was not explored upward to more favorable wall rock. The vein was not explored downward.

It was concluded that the best target for ore would be within the area northeast of the North-South Post Mineral Fault where the Tunnel Vein should junction with the Anglo Saxon and Federal veins. Since no money was available for that exploration mining operation ceased in 1951.

With the recent announcement of the OME Program, interest was renewed in continuing exploration of the Anglo Saxon Mine on the east side of the North-South Fault. This became particularly interesting since Lovering in Professional Paper 223 and Del Rio in Mineral Resources of Colorado pointed out that this area had not been adequately studied and that it was possible that blind ore bodies, such as the Lamertine Lode, might be discovered in this area.

Professor Goodspeed was recently consulted. He suggested we contact Prommel and have the area surveyed and engineering maps prepared for his study. Prommel recommended that Paul M. Hopkins be employed to do the field and engineering work under his guidance.

In discussing the proposed OME program with Goodspeed, Prommel and Hopkins we strongly emphasised the following:

> That, unless the geological probability of finding a significant body of commercial ore was present, Berry Metal Company could not afford to invest $83,333 from its Working Capital for exploration.
>
> Furthermore, that if that probability did not exist, Berry Metal Company could not afford to take the time required away from its rapidly growing business and research projects.

Goodspeed, Prommel and Hopkins have established the fact that the geological probabilities for finding commercial ore bodies are excellent. The Plane View Maps prepared by Prommel and Hopkins indicate - as pointed out by Goodspeed - that there is a multiplecity of possible vein intersections which in this region are targets for ore.

These findings, coupled with our own observations as the exploration tunnel followed a vein showing marked alteration and kaolization of the wall rocks due presumably to ascending hydrothermal solutions and later oxidation effects due to downward percolating groundwater, indicate that the chances are good for finding rich ore bodies of secondary enrichment.

We also noted within the vein zone numerous smooth surfaces or slickensides which were generally parallel to the dip of the vein and which to us indicated movement within the vein zone during formation. We were impressed with the possibility that the tunnel vein was a major fracture or shear zone which could be expected to extend horizontally and vertically for a considerable distance and exert a strong influence on ore deposition on the northeast side of the North-South Post Mineral Fault where this shear zone or tunnel vein will junction with the Anglo Saxon and Federal veins.

We are therefore convinced that our expenditure of time and money along with the financial assistance from OME is justified.

Accordingly, we employed Mr. David Hudson of Georgetown, Colorado to manage the project. Mr. Hudson is a graduate of the University of Oklahoma and the University of Colorado. He formerly was Superintendant

of Schools and County Judge at Georgetown. During his residence there, he worked spare time for 11 years with U. S. Mineral Surveyor Percy P. Barber studying the mines in this area as a hobby which was the consequence of geology courses taken at the University. In this capacity he became thoroughly familiar with the Anglo Saxon Mine and property.

During the past 2 years Mr. Hudson has been Director of Education with the armed forces in Korea. In leaving that post to become identified with the Anglo Saxon Mine, he sacrifices $4000.00 in annual income which he hopes to recapture in production and profit incentives. This indicates his faith in the project.

Mr. Hudson is an experienced manager, organizer and civic leader. He has been identified with the Boy Scout Organization for many years and is a builder of men.

We firmly believe that we could not select a better or more qualified business man for this work which will be carried on with the cooperation of qualified engineers and geologists such as Goodspeed, Prommel, Hopkins, and those of OME.

In setting up the contract with OME, we request that it be done on an actual cost basis - with some contracting - because we feel that under Mr. Hudson's supervision minimum costs will be secured.

Our sincerity of purpose in the development of the Anglo Saxon Mine was expressed by Mrs. Goodspeed - wife of Professor Goodspeed - at a stockholder meeting in 1949. She stated;

> "Alot of people have come to my husband asking him to put money in mines or to take an interest in them. We have never, in all the 30 years we have been married, had anyone come to us with the attitude that Walter Berry has had. He is trying to get ore out of this mine and he is trying to do it by telling the people the truth. He has done it honestly and fairly. I have a great deal of admiration for the manner in which this development has been handled. It has been such a pleasure to be associated with people like this, I have enjoyed very much meeting the rest of you people too, and knowing that a business like this can be conducted in such a fair and above board manner. It is a contrast and a pleasant one."

> Note: From 1937 to 1952 of the $367,702 invested in Anglo Saxon Mines, only 1% was utilized for Salaries and only 4% was utilized for promotional expenses. That is the true sign of honest endeavor.

This sincerity of purpose is further indicated in the following letter from William E. Walthers Country Judge, Clear Creek County, Colorado.

"COUNTY COURT OF CLEAR CREEK COUNTY"
Georgetown, Colorado
April 20th, 1949

TO WHOM IT MAY CONCERN:

"I have been asked to give my honest opinion concerning the Mining Properties owned and controlled by the Anglo Saxon Mines Incorporated and I do not hesitate to give such an opinion.

"In the first place I was born and raised in this locality and have spent the greater part of my life here and am familiar with the properties known as the Anglo Saxon Mines as well as being familiar with the surrounding properties. I have more or less closely watched the development and production records of these various properties and feel very well qualified to evaluate the same.

"The Anglo Saxon Group is located in the heart of a very rich Mining District and although not as fully developed and consistently worked as some of the surrounding Properties that have produced into the Millions, I feel and belived that with the proper and necessary development the Anglo Saxon Group will produce equally as well as the surrounding properties that have been more consistently developed and worked and in fact might even exceed these production Records by reason of the fact that the early day production Record (1860' and 1870') of the Anglo Saxon Group showed considerable higher Values in the Minerals produced than was the case in many of the adjoining and surrounding Properties.

"I am familiar with the fact that for the past ten or twelve years the Anglo Saxon Mines Incorporated have been carrying on an extensive program of development work on their properties and I am also familiar with the fact that this development program has not been carried far enough to reach a successful conclusion whereby the Property would become a Producing Property and in my opinion would be the type of a producer that would justify most any expenditure for the necessary development work. I have heard it repeated many times by the Old Miners in this district that the Anglo Saxon surface Ores were the highest grade Silver Ores ever produced in Colorado and in fact I have seen some of these specimens and they were practically pure Silver.

"It has been my good fortune to have become acquainted with Mr. Walter V. Berry, President of the Anglo Saxon Mines Incorporated and also have been in position to know how the affairs of the Company have been handled as well as the affairs and detailed work at the Mine and I do not hesitate to say that any Mining Company that is fortunate enough to have him handle their affairs, is indeed fortunate. I have also known his foreman at the Mine and they have to the best of my knowledge always been very capable and reliable men.

"The Mine is very well equipped and in fact is equipped with more modern Machinery than most other Mining Properties in this District.

"It is my very honest opinion that the Anglo Saxon Group of Mines will with proper and necessary development become one of the

great Producers for all time in this District."

Yours very truly,

(signed) William E. Walthers
County Judge
Clear Creek County, Colorado

In order to make it possible to get underground before winter - after approval by OME - Berry Metal Company has recently invested in excess of $15,000 in slide removal, widening and grading of existing road; building new road to tunnel at elevation 9360' reopening tunnel at elevation 9360; attempting to reopen caved tunnel at elevation 9760; preparation of new tunnel site and portal at elevation 9760; surveying and mapping; engineering; reports and drawings; labor and salaries. The above investment will not be presented for OME participation.

In order to further facilitate getting underground before winter, prompt action on this application by OME will be helpful and appreciated.

Arrangements for inspection of the property can be made with David Hudson, Manager, who lives on Taos Street - opposite the park - in Georgetown, Colorado. His telephone number is Area Code 303 - 569 - 2262.

Enclosed is the report of Prommel and Hopkins with supporting engineering drawings.

Respectfully submitted

BERRY METAL COMPANY

Walter V. Berry

Walter V. Berry,
President

BERRY METAL COMPANY

Harmony, Pennsylvania

REPORT OF EXAMINATION

October 31, 1965

ROY C. HAMERLY
Certified Public Accountant
PITTSBURGH, PENNSYLVANIA

ROY C. HAMERLY
Certified Public Accountant
124 IVYLAND DRIVE - PITTSBURGH, PENNSYLVANIA 15235 - 241-7000
Member, American and Pennsylvania Institutes
of Certified Public Accountants

December 10, 1965

Walter V. Berry, President
Berry Metal Company
Harmony, Pennsylvania

Dear Mr. Berry:

I have examined the balance sheet of Berry Metal Company as of October 31, 1965 and the related statement of income and retained earnings for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as I considered necessary in the circumstances.

In my opinion, the accompanying balance sheet and statement of income and retained earnings present fairly the financial position of Berry Metal Company at October 31, 1965, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Yours very truly,

/s/ Roy C. Hamerly

Certified Public Accountant

Berry Metal Company
Balance Sheet
As of October 31, 1965

ASSETS

Current Assets:			
Cash on hand and in banks		$401,418	
Accounts receivable		136,435	
Merchandise inventories:			
Finished goods	$ 14,060		
Work in process	28,642		
Raw materials	17,070	59,772	
Manufacturing supplies inventory		1,819	
Prepaid expenses		7,289	
Total current assets			$606,733

Plant, Property and Equipment:	Cost	Depreciation To Date	Net
Tools and small equipment	$ 16,801	$ 12,732	$ 4,069
Machinery and equipment	190,083	72,040	118,043
Leasehold improvements	55,094	52,274	2,820
Automobiles and trucks	28,911	11,008	17,903
Office equipment	15,186	5,533	9,653
Payments on acquisitions in process	30,799		30,799
Land	5,000		5,000
Totals	$341,874	$153,587	$188,287
Patents, net of amortization			12,378
Total assets			$807,398

LIABILITIES AND STOCKHOLDERS' EQUITY

Current Liabilities:		
Accounts payable, trade	$ 41,503	
Employee tax and other deductions	3,174	
Accrued payroll	36,823	
Provision for income taxes	183,817	
Other accrued taxes and expenses	9,376	
Total current liabilities		$274,693
Stockholders' Equity:		
Class "A" shares, par value 25¢; 3,707,246 shares unissued, 214,322 shares issued & outstanding	$ 53,581	
Contributions in excess of par value	19,302	
Retained earnings	459,822	
Total stockholders' equity		532,705
Total liabilities and stockholders' equity		$807,398

Subject to footnotes on next page.

Berry Metal Company
Footnotes to Accompanying Statements

1. Berry Metal Company is committed to purchase a new plant when construction has been completed in the next few months, which will cost about $400,000 and to which all present company-controlled operations will be transferred. Tentative commitments exist for 100% financing of the real estate cost. Only $18,800 of the assets and none of the liabilities which will be involved are reflected in the accompanying statements.

2. These statements provide for the loss on abandonment of leasehold improvements which will occur within twelve months. The loss is estimated at $20,000, being $40,769 remaining cost of assets less $20,769 of income tax reduction which will apply in the year of abandonment.

3. The $4,128 reduction in current year Federal income tax by reason of the investment credit provision, is used in its entirety as a reduction of current year income tax liability and expense.

Berry Metal Company
Statement of Income and Retained Earnings
For the Year Ended October 31, 1965

Net Sales		$1,477,383	100.0%
Cost of Goods Sold:			
Inventories, October 31, 1964	$ 52,673		
Material purchases	274,965		
Labor	227,395		
Other manufacturing costs (page 5)	387,666		
Total manufacturing costs	$942,699		
Less inventories, October 31, 1965	59,772		
Cost of goods sold		882,927	59.8
Gross profit on sales		$ 594,456	40.2%
Selling and administrative expenses (page 5)		128,686	8.7
Net operating income		$ 465,770	31.5%
Other income, net of expense		3,528	0.2
		$ 469,298	31.7%
Provision for abandonment loss - note 2		20,000	1.3
Net income before income taxes		$ 449,298	30.4%
Provision for income taxes - note 3		232,701	15.8
Net income		$ 216,597	14.6%
Retained Earnings:			
Balance October 31, 1964		243,225	
Retained earnings October 31, 1965		$ 459,822	

Subject to footnotes on preceding page.

Berry Metal Company
Details of Statement of Income
For the Year Ended October 31, 1965

Other Manufacturing Costs

Manufacturing supplies	$ 52,911
Patterns	16,497
Manufacturing employee expense	6,888
Labor taxes	10,043
Subcontract work	177,745
Rental of manufacturing machinery, equipment, land and building	37,323
Heat, power and water	8,876
Plant maintenance	11,194
Trucking, freight and express	14,459
Manufacturing insurance	2,538
Patents amortization and royalties	2,954
Product engineering	14,483
Manufacturing depreciation	31,755
Total other manufacturing costs	$387,666

Selling and Administrative Expenses

Officers' salaries	$ 54,210
Administrative salaries	10,307
Employee expense	2,602
Travel and entertainment	11,580
Automobile expense	4,951
Advertising	2,060
Dues and subscriptions	971
Charitable contributions	870
Telephone and telegraph	5,265
Office rent	960
Office supplies and expenses	9,555
Legal and accounting fees	17,939
Fire and casualty insurance	881
Life insurance	3,355
Payroll taxes	2,675
Other taxes except income taxes	505
Total selling and administrative expenses	$128,686

MME Form 40
Jan. 65

Budget Bureau No. 42-R1368
Approval expires Dec. 31, 1968

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

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APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

Pursuant to Public Law 85–701 (72 Stat. 700; 30 U.S.C. 641)

NAME OF APPLICANT *(Full legal name and mailing address as they should appear on contract if one is executed.)*

ANGLO SAXON MINES, INC.
GEORGETOWN COLORADO
TO BE FORMED AS A SUBSIDIARY OF
BERRY METAL COMPANY
HARMONY, PA.

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER: 6570

DATE RECEIVED: 8-22-66

REGION: III

DIVISION CODE:

BUSINESS ORGANIZATION *(Check one)*

- INDIVIDUAL [ ]
- CORPORATION [X]
- PARTNERSHIP [ ]
- OTHER *(Specify)* [ ]

STATE IN WHICH FIRM IS ORGANIZED: Colorado

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
WALTER V. BERRY		PRESIDENT
WILLIAM W. BERRY		VICE PRESIDENT
JAMES A AYERS		TREASURER
IDUN Y. BERRY	% BERRY METAL COMPANY HARMONY, PA.	SECRETARY

MINERAL(S) FOR WHICH YOU WISH TO EXPLORE: Silver

ESTIMATED COST OF PROJECT: $ 333,334.00

PROPERTY NAME: Anglo Saxon Mines, Inc.

LOCATION — COUNTY: Georgetown, Clear Creek County, STATE: Colorado

GENERAL INSTRUCTIONS

Before filling out this application, please read the *OME Regulations for Obtaining Federal Assistance in Financing Explorations for Mineral Reserves* (30 CFR Chap. III). To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit two copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 2, existing mine workings and geology in item 3, and the proposed exploration work in item 5. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 3(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Office of Minerals Exploration, Department of the Interior, Washington 25, D. C., or with the nearest OME Field Office.*

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief, and that he would not ordinarily undertake the proposed exploration under current conditions and circumstances at his sole expense.

August 16, 1966
DATED

Walter V. Berry
BY *(Signature)*

President
TITLE

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

Berry METAL ®

World's Largest Self-Integrated Oxygen Lance Designers and Builders

METAL COMPANY

HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

July 28, 1966

Mr. Carl H. Kalberkamp,
Assistant Vice President
Mellon National Bank & Trust Company
Pittsburgh, Pa. 15230

Dear Mr. Kalberkamp:

We hereby make application for a 10 year loan in the amount of $250,000.00 for the purpose of searching for new and unexplored mineral deposits on property located at Georgetown, Clear Creek County, Colorado. Said loan to be made to Anglo Saxon Mines, Inc., which is in process of being incorporated as a subsidiary of Berry Metal Company.

Sincerely yours,

Walter V. Berry

WALTER V. BERRY
President

MELLON NATIONAL BANK AND TRUST COMPANY
MELLON SQUARE
PITTSBURGH, PENNSYLVANIA 15230

July 29, 1966

Mr. Walter V. Berry, President
Berry Metal Company
German Street
Harmony, Pennsylvania 16037

Dear Mr. Berry:

Loan Application - Berry Metal Company
Anglo Saxon Mines, Inc.

We have carefully considered your application for a ten-year term loan in the principal amount of $250,000 to be made to Anglo Saxon Mines, Inc., subsidiary of Berry Metal Company, for the purpose of searching and developing a new mineral deposit in Georgetown, Colorado, and based on the information submitted we must regretfully decline the proposal. This conclusion is primarily predicated on the fact that the Bank would be faced with excessive and undue exposure arising from the unexplored and undeveloped nature of the possible ore deposits.

We thank you for submitting this proposal for our consideration.

Sincerely yours,

Carl H. Kalberkamp
Assistant Vice President

CHK:ajt

Berry METAL ®

World's Largest Self-Integrated Oxygen Lance Designers and Builders

METAL COMPANY

HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

July 28, 1966

First National Bank
Golden, Colorado

Atten: Mr. John A. Fortune, President

Gentlemen:

We hereby make application for a 10 year loan in the amount of $250,000.00 for the purpose of searching for new and unexplored mineral deposits on property located at Georgetown, Clear Creek County, Colorado. Said loan to be made to Anglo Saxon Mines, Inc., which is in process of being incorporated as a subsidiary of Berry Metal Company.

Sincerely yours,

Walter Berry

WALTER V. BERRY
President

BANK-ROLL Plan

THE FIRST NATIONAL BANK IN GOLDEN

1301 Jackson Street • Golden, Colorado • 80402

Telephone
279-4563

August 2, 1966

Mr. Walter V. Berry
Berry Metal Co.
Harmony, Pennsylvania 16037

Dear Mr. Berry: Re: $250,000 loan application

We regret to inform you that your request for a 10-yr. loan in the amount of $250,000 to the Anglo Saxon Mines, Inc. cannot be honored at this time.

It has been the policy of our bank for a number of years not to engage in loaning on mineral exploration due to the speculative nature of this operation.

We appreciate your inquiry. If we can be of other service to you, we shall be happy to have you contact us.

Very truly yours,

Frank Sweeney

Frank Sweeney
Asst. Vice President

FS:TW

ASSAY RECORD

ANGLO SAXON MINES, INC.

COMBINED VEIN

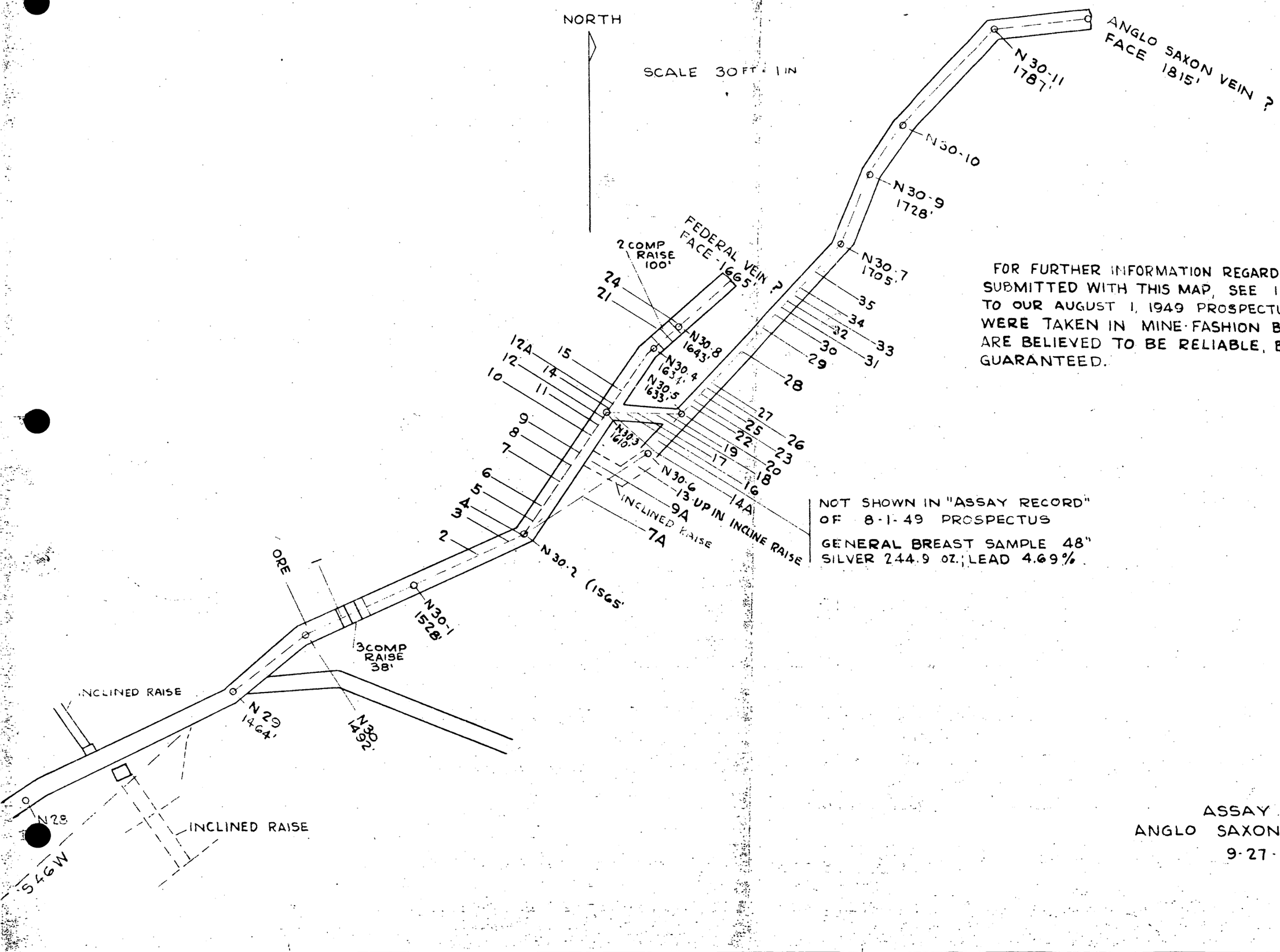
Sample Number	Listed Location	Corrected Location	Width of Sample	Position in Vein	Oz. of Silver Per Ton
1	1514	1504	18"	Right side of vein	52.7
			18"	Center of Vein	41.7
			18"	Left side of Vein	44.9
2	1560	1550	24"	Right side of Vein	51.0
			24"	Left side of Vein	5.8
3	1570	1560	17"	Right side of Vein	1.8
			17"	Center of Vein	11.2
			17"	Left side of Vein	15.6
4	1575	1565	42"	Face of Vein	24.6
			12"	Right side of Vein	110.6
5	1580	1570	36"	Face of Vein	129.0
6	1585	1575	66"	Right side of Vein	9.8
			18"	Center of Vein	12.6
			24"	Left side of Vein	70.2

FEDERAL VEIN?

7	1595	1585	30"	Federal Vein Face at Junction	104.1
8	1600	1590	30"	Face of Federal Vein	6.9
9	1605	1595	4"	Seam on Federal Vein	86.0
			20"	Face of Federal Vein	0.75
10	1612	1602	24"	Right side of Federal Vein	2.7
			24"	Left side of Federal Vein	17.6
11	1615	1605	34"	Face of Federal Vein	22.6
12	1618	1608	28"	Left side of Federal Vein	8.4
			37"	Face of Federal Vein	3.2
14	1625	1615	30"	Face of Federal Vein	4.8
15	1628	1618	24"	Face of Federal Vein	8.9
21	1650	1640	36"	Face of Federal Vein	5.5
24	1655	1645	30"	Face of Federal Vein	21.4

Sample Number	Listed Location	Corrected Location	Width of Sample	Position in Vein	Oz. of Silver Per Ton
				CROSS CUT TO ANGLO SAXON VEIN?	
12A	1618	1608	36"	Face of Anglo Saxon Vein Branch	29.8
14A	1625	1615	24"	Face of Anglo Saxon Vein Branch	15.6
16	1630	1615	20"	Face of Anglo Saxon Vein Branch	37.0
17	1633	1618	36"	Face of Anglo Saxon Vein Branch	14.7
			18"	Right side of Anglo Saxon Vein Branch	127.6
			18"	Left side of Anglo Saxon Vein Branch	126.2
18	1641	1626	30"	Face of Anglo Saxon Vein Branch	48.2
19	1644	1629	24"	Face of Anglo Saxon Vein Branch	53.4
				ANGLO SAXON VEIN?	
7A	1595	1585	18"	Anglo Saxon Vein Face at Junction	71.1
9A	1605	1595	28"	Face of Anglo Saxon Vein	112.2
13	1620	1610	12"	Right side of Anglo Saxon Vein	191.0
			12"	Right side of Anglo Saxon Vein	46.1
			12"	Left side of Anglo Saxon Vein	107.2
			12"	Left side of Anglo Saxon Vein	3.4
Extra		1623	48"	Face of Anglo Saxon Vein	244.9
20	1649	1634	16"	Face of Anglo Saxon Vein	271.2
22	1652	1637	6"	Face of Anglo Saxon Vein	1767.4
			18"	Right side of Anglo Saxon Vein	3.8
23	1654	1639	18"	Right side of Anglo Saxon Vein	22.3
25	1656	1641	20"	Left side of Anglo Saxon Vein	15.6
26	1658	1643	36"	Face of Anglo Saxon Vein	124.7

Sample Number	Listed Location	Corrected Location	Width of Sample		Oz. of Silver Per Ton
27	1660	1645	4"	Left side of Anglo Saxon Vein	1790.4
			48"	Face of Anglo Saxon Vein	45.6
28	1675	1660	30"	Face of Anglo Saxon Vein	49.6
29	1685	1670	27"	Face of Anglo Saxon Vein	12.8
30	1690	1675	20"	Face of Anglo Saxon Vein	31.4
31	1695	1678	20"	Face of Anglo Saxon Vein	34.3
32	1696	1681	20"	Face of Anglo Saxon Vein	130.4
33	1698	1683	40"	Face of Anglo Saxon Vein	188.8
34	1700	1685	24"	Left side of Anglo Saxon Vein	6.8
35	1707	1692	40"	Face of Anglo Saxon Vein	0.4



FOR FURTHER INFORMATION REGARDING ASSAY RECORDS SUBMITTED WITH THIS MAP, SEE 11-17-50 SUPPLEMENT TO OUR AUGUST 1, 1949 PROSPECTUS. THESE ASSAYS WERE TAKEN IN MINE-FASHION BY EMPLOYEES AND ARE BELIEVED TO BE RELIABLE, BUT ARE NOT GUARANTEED.

NOT SHOWN IN "ASSAY RECORD" OF 8-1-49 PROSPECTUS

GENERAL BREAST SAMPLE 48"
SILVER 244.9 OZ.; LEAD 4.69%

ASSAY MAP
ANGLO SAXON MINES INC
9-27-50

W.V.B

GEOLOGIST
MINING ENGINEER

PETROGRAPHIC ANALYSES AND
OLOGY OF ORE DEPOSITS A SPECIALTY

G. E. GOODSPEED
5504 TWENTY-FIRST AVENUE NORTHEAST
SEATTLE

August 2, 1966

BERRY METAL COMPANY

Harmony, Pennsylvania

Attention: Walter V. Berry, President

REPORT ON ANGLO SAXON GROUP OF CLAIMS

Introduction

This group of claims is situated less than two miles northeast of Georgetown, Clear Creek, Colorado on the northwest slope of Saxon Mountain in a rugged part of the Front Range. This complex vein system belongs to a belt of strong fractures trending east northeast from Georgetown to Idaho Springs. This area has been more fully described by Spurr and Garrey in Professional Paper 63 and by Lovering and Goddard in Professional Paper 223, United States Geological Survey. More recently (1960) S. M. Del Rio in Mineral Resources of Colorado makes these statements: - (p. 100 and 101)

> "It is probable that the belt of strong fractures which trend east-northeast from the head of Silver Creek to the valley of Clear Creek near the mouth of Fall River, of which the Lamertine and Freeland veins are a part, continues southwest of Lamertine to Georgetown. This intervening terrain has not yet been adequately studied and it is possible that blind ore bodies, as was the Lamertine Lode could be discovered in this area through proper scientific exploration."

> "Outlook - The Lamertine and Freeland veins have had a substantial output and the possibility of undiscovered ore shoots in the extension of this belt should be considered, especially as the Lamertine ore body did not outcrop and was apparently discovered by accident."

Geology

The dominant rocks in this area are the early pre-Cambrian para schists and gneisses of the Idaho Springs formation locally transected by pegmatite. In the mineralized vein zone both of those rocks are highly altered by vein

forming solutions. Granite which is a more competant rock becomes soft and porous, whereas the altered schist is compressed to a nearly impervious gouge. The solutions penetrated along fractures and fissures forming a very complex vein system. This vein system was recently studied by H.W. C. Prommel and Paul M. Hopkins. They prepared two plan view maps showing possible vein trends and post mineral faulting at elevations of 9,360 and 9,760 feet. According to Burchard, of the Mint, the production from the Anglo Saxon Mine prior to 1883 was about $700,000 from relatively shallow workings approximately 72 feet below surface at point of discovery. This rich production from shallow workings was the incentive for the development work carried on from 1937 to the present, which included a small exploratory tunnel driven approximately 1,800 feet at an elevation of 9,760. This tunnel is now caved. A mineralized zone was encountered 900 feet east of the portal. At 1,514 feet from the portal numerous irregular intersecting veinlets of silver sulphides occurred. The character of both ore and gangue was similar to that of the oxidized ore from the dumps of the upper workings. In the tunnel from 1,504 to 1,683 feet the veinlets of high grade silver sulphides became more numerous where the wall rock was a relatively porous altered granite.

When I visited the mine in August, 1948, the vein and ore shoot had been cut by a north-south post mineral fault. Before the fault was encountered the vein, as shown in a raise 40 feet above the tunnel level, consisted of about 15 inches of hard, brownish, fine grained somewhat fractured quartz containing a considerable amount of disseminated silver sulphide with a wall rock of altered granite. As later reported to me, the wall rock - in the next 30 feet upward in the raise - changed from granite to schist and the ore narrowed

to a streak two inches wide as it approached the post mineral fault zone.

The ore encountered in the exploratory tunnel can be expected to extend laterally and vertically upward and downward depending upon the character of the wall rock.

The ore in the floor of the exploratory tunnel averaged about two feet in width and did not give any indication of narrowing downward on the west side of the north-south post mineral fault zone.

Other factors may be involved in the formation of an ore shoot such as: a decrease in pressure or temperature of the vein solutions as well as the physical character of the wall rock and its alteration products. Several of these factors may be present at the intersection of veins or where a change in dip and strike may widen a vein channel so that mineralizing solutions become slow moving thus allowing more time, with a decrease in temperature, for the precipitation of ore minerals. One of the most striking features shown on the Plan View of veins recently prepared by Prommel and Hopkins is the multiplicity of possible vein intersections which in this region are targets for ore. From my observations of the character of the ore and wall rock in the exploratory tunnel dating from 1937, it is my opinion that a development tunnel should be driven at an elevation of about 9,760 feet to provide an optimum depth of 600 feet below surface, which is a depth at which the richest and most productive ore shoots have been mined in the Georgetown-Idaho Springs area as indicated by the writings of Spurr and Garrey; Lovering and Goddard.

The prime target of this development tunnel would be the area in virgin ground beyond the north-south fault encountered in the old surface workings and in the exploratory tunnel. This is the northeasterly trending belt referred to by S. M. Del Rio in Mineral Resources of Colorado (1960, p. 101) wherein "It is possible that blind ore bodies, as was the Lamertine Lode, could be

discovered." On the easterly side of the north-south fault several vein extensions and junctions should be present which as previously indicated are targets for ore in this region. As shown on the Plan View of Veins this tunnel is so positioned that relatively short cross-cuts can be driven to several possible vein intersections which would provide additional targets for ore.

The secondary target of the development program should include a cross-cut from the Lower Aunt Jack Tunnel at an elevation of 9,360 feet to explore the en echelon fault zone of the Anglo Saxon Extension Vein. In addition, several vein intersections can be prospected from this tunnel by diamond drilling or cross-cutting which will provide additional targets for ore.

It is my considered opinion that this development program has excellent possibilities of developing commercial ore bodies.

Respectfully submitted,

G. E. Goodspeed

G. E. Goodspeed

Geologist & Mining Engineer

GEG:rjw

PRELIMINARY REPORT
of a
Self Potential Survey
on a
Portion of the Anglo Saxon Extension Vein

Georgetown Mining District
Georgetown, Colorado

Conducted under the auspices of
The Colorado School of Mines
Golden, Colorado

John W. Gabelman

November 1946

OUTLINE

I. Location and Topography

II. Geology
   A. General Geology
   B. Economic Geology
      1. Character of Veins and Country Rock
      2. History of Mining
      3. Apparent relationships between Anglo Saxon and Anglo Saxon Extension veins
      4. Description of Surveyed Area

III. Field Procedure
   A. Means of approach to Area
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   C. Procedure for Surveying

IV. Results and Interpretation
   A. Map and Profiles
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      1. Features Known to Exist
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V. Recommendations for Future Work
   A. Geophysical
      1. Additional Self-potential Mapping
      2. Application of other methods
   B. Mining
      1. Opening of tunnel and shaft

VI. Conclusions

Location and Topography

The Anglo Saxon Extension workings are on the western slope of Saxon Mountain in the Georgetown mining district, Clear Creek County, Colorado. They arenalso referenced as being in T-35, R 74 W, in the center of section 4, U.S.G.S. topographic map of the Georgetown Quadrangle. Several old workings are found on the steep open slope at an approximate elevation of 9,000 feet.

At present the property is controlled by the Anglo Saxon Mining Company.

The west side of Saxon Mountain forms the east side of Clear Creek Valley. This valley is a typical u-shaped glaciated valley and represents glacial entrenchment from a more gentle highland. The highland may still be seen above 11,000 feet where the terrain flattens out. At the extension workings the slope varies between 30 and 40 degrees. For more detailed topography and for a generalized picture of the regional terrain, the reader is referred to the Georgetown quadrangle topographic sheet.

There is an improved road from Georgetown to the barn installations of the Anglo Saxon Company, a distance of one mile. The area was reached in the past by trail from the bottom of the valley. However, at present a road is under construction from the Anglo Saxon barn to the Anglo Saxon Mine higher on the same mountain; and at the time of this survey it was completed to within several hundred feet of the Extension workings. This made the area easily accessible.

Geology

General Geology

The Georgetown district lies in an area occupied by crystalline pre-Cambrian gneisses and schists. The oldest rocks are the schists and gneisses of the Idaho Springs formation, first described by S. H. Ball at the type locality in 1908. These rocks are held to be the metamorphic derivatives of sediments, and are termed "meta-sediments". They consist of biotite-sillimanite schist, biotite schist, quartz gneiss, and some calcium silicate rocks.

The Idaho Springs formation is intruded by hornblende, gneiss, quartz monzonite, gneissiod granite, quartz monzonite porphyry, quartz diorite, the Rosalie granite, and the Silver Plume granite; each representing (in order) a subsequently later age. All of these were then intruded with pegmatites, still being of pre-cambrian age. These age relationships are considered conclusive, but the mechanism of emplacement of many of these bodies is still disputed.

At the close of the Cretaceous the area was uplifted and much overlying material removed. This was the major uplift of the Rocky Mountains.

In Tertiary time the area was intruded by dikes, small stocks, and, rarely, sheets of quartz monzonite porphyry, dacite, granite porphyry, alaskite porphyry, bostonite, biotite latite, and syenite. These were followed by faulting and the emplacement of ore deposits in veins. Many of the above mentioned rocks are found in the vicinity of Idaho Springs and not in the Georgetown quadrangle.

Economic Geology

The predominant rock on Saxon Mountain is that of the Idaho Springs formation, with minor patches of gneissoid granite and Silver Plume granite. These have been extensively intruded by coarse grained pegmatites. No

Tertiary intrusives are present. It was long thought that the presence of Tertiary porphyries was necessary for the presence of ore, but the past and present productivity of Saxon Mountain belies this fact.

Character of Veins and County Rock

The veins here are all steeply dipping, and their strikes fall into three general groups. A strike of approximately N70°E is represented by the Anglo Saxon, Anglo Saxon Extension, and Sally Roy Veins. A strike of N50°E is represented by the Federal vein; and the strike of about N70°W includes the Gold Dug, Loramie, and Master Key veins.

Generally the veins consist of zones of hydrothermally altered country rock from two to forty feet wide. Only the central part of this, several inches to several feet wide, is mineralized. In some places, as in the Dunbarton veins, several 6" leads of galena aggregate to form an almost solid 6' face of that mineral. Mineralization along a vein is not consistent in occurrence, strike, or dip. It pinches and swells, and sometimes follows a very irregular path thru the alteration zone. The branching or splitting of leads is very common. Very seldom are ore minerals found concentrated. Most often they are disseminated throughout a quartz or chlorite gangue.

The ore minerals consist of gold, silver, argentite, galena, chalcophyrite, sphalerite, and chalcocite. The gangue consists of quartz, kaolin, sericite, chlorite, pyrite, limonite; and orthoclase and mica from the country rock. A pegmatite dike very commonly forms the hanging or footwall of a vein.

History and Development

Silver was first discovered on the Anglo Saxon lode in 1867, and by 1883 it had produced $700,000 in silver from the higher parts of the vein. Little ore has been mined since that time. The ore consisted of galena with disseminated argentite. In 1937 the mine was reopened by the Anglo Saxon Mining Company at a much lower level, and in 1945 the downward extension of

the shoot that had been mined from the surface was found.

In about 1888 gold was discovered in the Anglo Saxon Extension vein, thought to be an extension, or one of the branches of the Anglo Saxon vein. The production for 1889 was $2,017.60; and that for its total operating period was approximately $250,000 in gold. According to mint reports, the ore contained gold, silver, lead and copper. However, the deposit is primarily a gold-quartz-pyrite vein.

The Extension lode was worked from a series of levels which aggregate a total of about 2,500 feet of drifting. The lowest and most extensive tunnel, 600 or 700 feet above Clear Creek, was 825 feet long. Fromits portal an aireal tram carried ore to a mill almost on the valley bottom. Unfortunately, this mill, constructed for the cyanidation process, never milled any ore because the process$ was not satisfactory for that type of ore.

The last attempt to work this vein was made in 1905 when a tunnel was driven in from the gully immediately to the north of the other workings. Whereas the previous workings had followed the strike of the vein (N73°E) this one was driven almost due south in an attempt to crosscut it. For an unknown reason, when the working was within 20 or 30 feet of the vein, the direction was changed, and it was driven away from the vein. The venture was unsuccessful, but the tunnel, though the portal is caved, is still in good condition.

At present all of the workings and stopes, with the exception of the above mentioned tunnel, are caved and their true extent is unknown.

Apparent Relations of Anglo Saxon and Anglo Saxon Extension veins

Reference will be made here only to the present workings on the Anglo Saxon vein which is a tunnel driven over 1600 feet into the mountain. The portal is not more than 300 feet in elevation above the surveyed area, but is about 1200 feet east of it. The Saxon vein has a strike of N70°E and a

STEEP dip to the north. The ore minerals are galena and argentite, and the gangue are chlorite, sericite, and altered schist and pegmatite. The ore is disseminated in the gangue.

The surface indications of mineraliz-ation of the Extension vein are entirely different though the strike is almost the same (N73oE). There the country rock is gneissoid granite consisting primarily of quartz, and orthoclase with accessory biotite; the gangue is quartz and pyrite, and the ore is gold and copper-sulphide.

These differences are striking to the eye, yet the ores should have comefrom the same vein or one of its branches. The only logical explanations this author can advance are first, that two periods of mineralization are represented on the same vein, the galena argentite association being earlier. Presumably, one portion was closed while ore was being deposited in the other. The second, and equally logical possibility, is that the two areas are in no way interconnected.

Description of Surveyed Area

The survey was carried out at a higher elevation than the main Extension workings. On the basis of strike and dip of both veins where exposed, each had been projected into the vicinity of the other. On the map thesurface projection of the Saxon vein appeared to be not more than 100 feet south of that of the Extension vein at the outcrop of the latter. Neither was found to be exposed. A point on the map at the level of the Extension workings and midway between the two veins was arbitrarily chosen. The point was located on the ground and a line originating there was surveyed up the hill on the strike of the Extension vein (N73°E) with a Brunton Compass. It was extended to the vicinity of the lower Anglo Saxon tunnel. The projections of thetwo veins intersect about halfway between the Extension and Saxon workings.

The surveyed area consisted of a zone 32 meters wide and 80 meters long

whose lower or wester n end was 600 feet west of the supposed intersection. This was wide enough to include portions of both veins if projections were correct.

The work was carried out over steep rugged terrain, both bare and timbered, and portions of which were covered with several feet of snow. Outcrops are scarce, and no hints of mineralization or veins were seen except for a caved shaft at the western end, and south of the base line, of the zone. Oxidized gossam containing quartz, sphalerite, malachite, and limonite was found on the dump. At the western end of the zone where the survey was started the two veins are thought to be about 75 feet apart.

Field procedure

Approach to Area

Men and equipment were transported by truck from the valley bottom as far up the Anglo Saxon mine road as it was completed-- a distance of 1 3/4 miles. From here the equipment was carried up a trail several hundred feet to the lower end of the zone. Much of it had been moved into position before the main party arrived, and two base lines outlining the zone had been surveyed.

Equipment

Accessory equipment consisted of a Brunton compass, a 50 meter tape, geology pick, shovels, and wooden stakes. Geophysical equipment consisted of two porous pot electrodes filled with a saturated solution of copper sulfate (Leads-Northrup), a potentiometer with tripod, a reel with several hundred feet of insulated wire, and salt water.

Surveying Procedure

The 0-c station, at the intersection of the two base lines, was arbitarily assumed to be zero potential, and was used as a datum for future measurements. One base line striking N73°E split the 32 meter zone in half lengthwise. The

other base line at right angles to the former, formed one end of the zone.

One party moved ahead setting stakes that cross sectioned or gridded the zone into eight meter squares. See the accompanying map for designation of these stations.

The second party was split into two groups: an instrument man and recorder, and two men who occupied each station with an electrode.

The potientiometer was set up at station O-C and one of two porous pot electrodes burried here. The other electrode was moved to each station and the potential difference between O-C and the occupied station recorded. Before the survey began and periodically thereafter, the movable or flying electrode was also buried at O-C, and a correction factor measured. This factor was added algebraically to the station potential differences.

In practice, one of the men on the flying electrode cleared away the snow and dug several inches into the soil. The other man placed the electrode, packed soil around it, and dampened the soil with salt water. The potentiometer was then read.

Results and Interpretation

Map and Profiles

See the accompanying map. Potential contours were drawn and extrapolated where indications seemed to warrant such action. Two profiles were drawn, both along the N73° strike, and depth calculations were made assuming each large anomaly to be caused by a vertically polarized sphere. The spherical assumption was made because the anomalies are small and the contours approach circular outlines. More than two anomalies are present, but profiles were drawn only for the most conclusive.

Features known to Exist

Although their exact positions are not known, and outcrops are obscured by overburden, the two veins are believed to transgress the zone longitu-

dinally. As stated before, their supposed positions were projected from great distances. Indications of the more exact locations of these were expected. The only other known features was the caved shaft already mentioned. It is also within the zone and would be expected to cause disturbances.

Possibilities of Positive Results

The Extension vein seems to be very well delineated by the potential contours. The highest negative potentials form a straight line with the strike of N73°E, and just eight meters north of the longitudinal base line. No other features are known or observable which would give similar indications. It is of interest to note that at station 2-B a sizable anomaly of elongated proportions branches off to the NE with a strike of N10° to 20°E. This might be an indication of a mineralized stringer branching from the main vein. When the anomaly center at station 2-D is considered with this one, another interpretation, suggested though improbable, is that another vein cuts the Extension vein at approximately right angles.

The Anglo Saxon vein which is supposedly in the zone south of base line C might be present, but its delineations are doubtful. The anomaly center at station 3-E is its only indication. However, this is the largest anomaly present, and it is seen to line up with the collar of the caved shaft, so that the proper strike results.

A fifth anomaly center is noted in the vicinity of station 6-C but no explanation for its presence is offered.

Possibilities of Negative Results

Structurally, there is nothing present to hint that the Extension vein has not been delineated correctly, except that the anomaly apparently dies out to the east. This, of course, might be due to insufficient information at that end, where no readings were taken on lines 7 and 9.

However, the presence of Saxon vein is doubtful, and it may not be there at all. In view of the proximity and relation of the anomaly center at 3-E to the shaft collar in the vininity of 0-E, it is entirely possible that this anomaly, approximately 15 feet below the surface, has another explanation. It is reasonable to assume that the shaft was sunk at an inclined angle straight into the hill. This would bring it under 3-E, and abandoned iron in the working might cause the disturbance.

The anomaly terminates immediately to the east of 4-B, so that if 3-E is not economically indicative, the Anglo Saxon vein is probably not present within the zone.

It must be remembered that gold itself is not sufficient to produce anomalies. No lead is suspected, so it is probable that pyrite is the cause. There is no way to determine whether the pyrite carries gold, except by actual excavation or by hazarding a guess from known mineral associations in the district. This introduces a speculative aspect. Pyrite is usually disseminated and very irregular in occurrence. This would explain the irregularity of the anomalies along the Extension vein.

Recommendations for Future Work

Geophysical

It is recommended that the present self potential survey be extended to the east at least so far as the supposed intersection, and if possible to the dump of the Lower Anglo Saxon Tunnel.

The survey does not indicate gold or silver values directly, but does delineate definite conductive zones in the subsurface possibly associated with economic minerals. Structure is also indicated by the trend of the anomalies. The method is inexpensive to apply.

Other geophysical methods such as the resistivity, potential drop ratio, and electromagnetic methods could be applied to advantages in obtaining

more accurate positions of vein-wallrock contacts. They would also give better indications of branching veins.

Mining

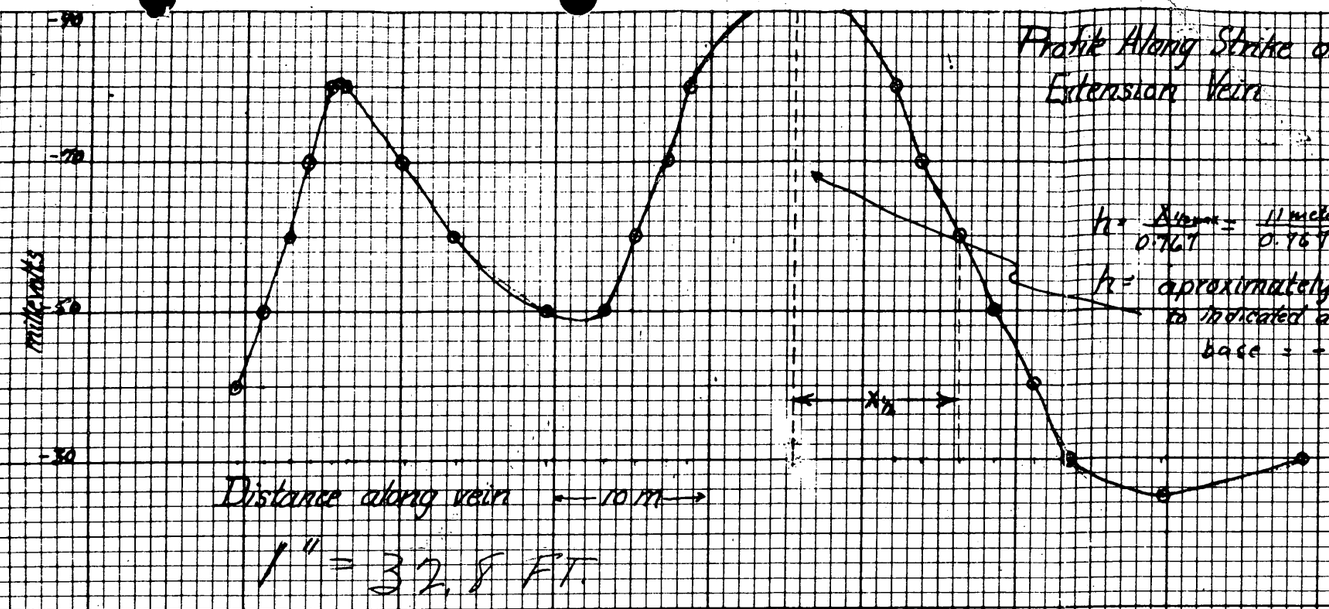
It is primarily recommended that the tunnel approaching the area from the gully to the north be reopened, and driven ahead to intersect the Extension vein. This should preferably be done after additional geophysical methods have been applied. In the course of the survey it was estimated that the tunnel line crossed the zone in the vicinity of line 6, and roughly parallel to it. Furthermore, it may be noticed from the map that the 90 millevolt anomaly on the Extension vein is on line 6.

If sufficient curiosity is aroused, and time and opportunity present themselves it would be of interest to investigate the cause of the anomaly 3-E. Although there are too many negative possibilities to warrant an actual recommendation, it should be realized that if economical minerals are causative, they are present in greater quantities than elsewhere in the zone. Also, theoretically an excavation of only 15 feet would be required.

Conclusions

The author concludes that the self potential method is most practical for use in the Georgetown and adjacent districts. This method has been applied twice successfully; whereas the resistivity, equipotential line, and potential drop ratio and M-scope methods have been used with great difficulty and questionable results.

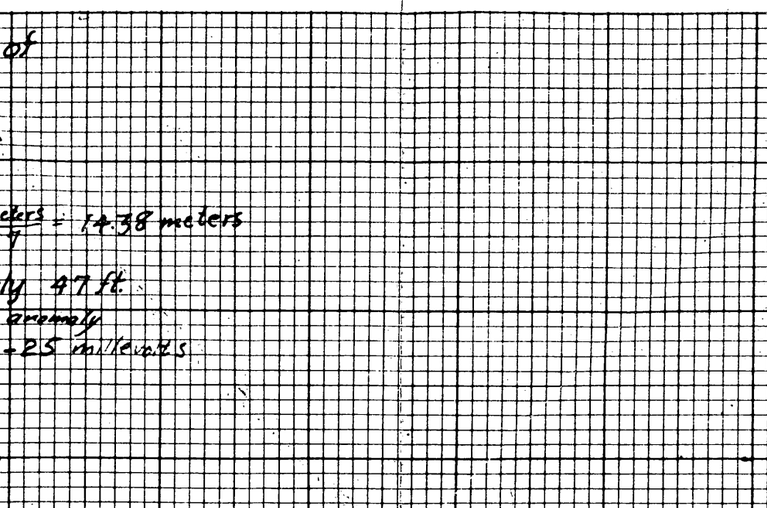
At present there is an excellent opportunity for geophysics to be applied to the Colorado mining districts by interested persons with perseverance and resourcefulness.

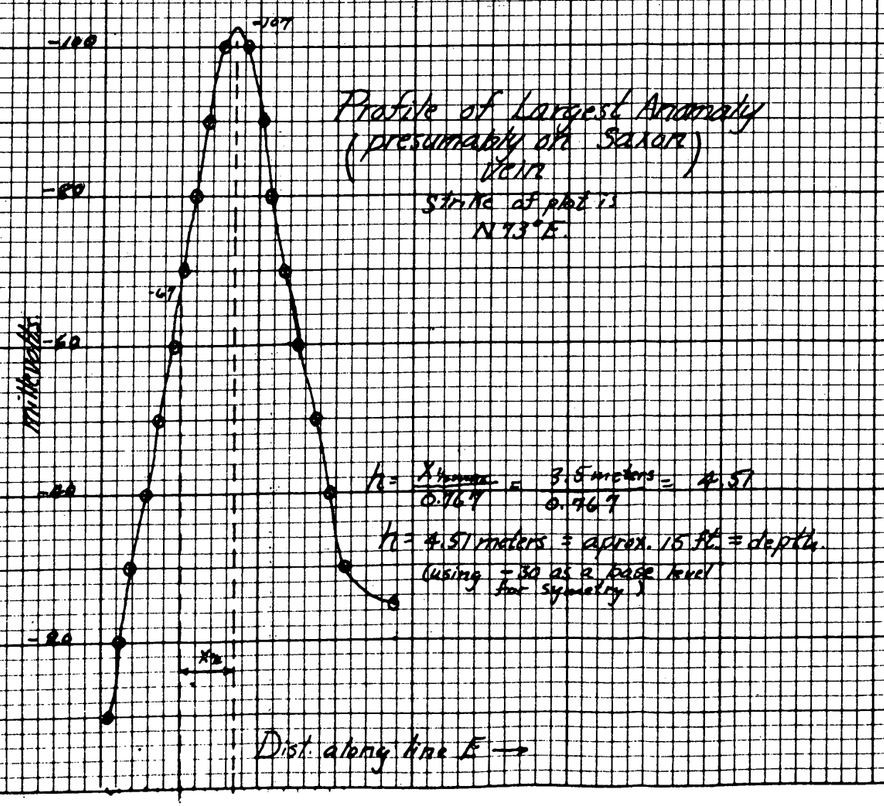


Profile Along Strike of Extension Vein

$h = \frac{X_{half\ max}}{0.767} = \frac{11\ meters}{0.767} = 14.38\ meters$

h = aproximately 47 ft.
to indicated anomaly
base = +25 millivolts





Profile of Largest Anomaly
(presumably the Saxon Vein)

Strike of plot is
N73°E.

$h = \frac{X_{half\ max}}{0.767} = \frac{3.5\ meters}{0.767} = 4.57$

h = 4.57 meters = aprox. 15 ft. = depth.
(using -30 as a base level for symmetry)

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ANGLO SAXON MINE, INC.

Operation Cost Estimate

For Total Project

Upon approval of the exploration project by O.M.E. all items contained herein will be opened to competitive bidding.

Good used equipment will be utilized where possible.

Every effort will be made to effect substantial reduction in cost estimates contained herein in order to provide as much additional money as possible to take care of contingencies; items overlooked; additional items that might be required and other added cost.

All excess monies will be available for additional exploration.

9760 LEVEL

Proposal No. 1 Hopkin's Recommendations

page 26

BLDG. & SITE:		
Power line installation	$ 10,500.00	
24' x 40' Steel building installed less footings	3,738.00	
foundations	500.00	
Labor, Track and Trestle, to dump area	1,200.00	
Site preparation, dozing, leveling	1,200.00	
Total		17,138.00
Total		
MINING EQUIPMENT		
385 CFM Gardner-Denver Compressor,	8,000.00	
Gardner-Denver Mucker, rebuilt	2,500.00	
Atlas 2½ Ton Motor, New	6,200.00	
2 Batteries and extra box, new	3,354.00	
1-Charger for motor batteries, new	570.00	
1-3/4 ton 4-wheel drive Pickup, new	4,100.00	
1-Snow Plow Blade and Hoist	1,000.00	
1-300 gal water tank, new	125.00	
2-Jackleg Drills, Garner-Denver, new	2,840.00	
2-Stopers, used	1,400.00	
2-Jackhammers, used	750.00	
1-Slusher, Gardner-Denver, rebuilt	1,000.00	
1-Slusher bucket, used	100.00	
1-Double drum hoist, Garner-Denver, Rebuilt	1,000.00	
1-Air Hoist, 500 lb. capacity, rebuilt	500.00	
1-Hoist bell, used	15.00	
2-Air driven chain saws - Reed Prentice, used	300.00	
1-10 KW Generator, Merritt-O'Keefe, rebuilt	750.00	
VENTLINE		
3400' 16" Metal @2.34/ft. new	7,956.00	
213 couplings, Metal, @ 6.25 new	1,331.25	
50' 16" canvas, new	50.00	
5 couplings, canvas, used	20.00	
AIR LINE		
3400' 3" black pipe, new	3,500.00	
WATER LINE		
2000' 1½" black pipe @ .37/ft. , new	740.00	
8-Miner's lamps, Minestot, @ 32.00, new	256.00	
8-Chargers for Miners lamps, @25.00, new	200.00	
8-Lamp belts, used	16.00	
16-Mine cars, 20 cu. ft., 24 guage, type z, @441.41, new	7,062.56	
200-Carbide bits, 1 3/4" @10.60, new	2,120.00	

6- Sets drill steel 6' hex, 4" x 1¼" @22.80, new	136.86	
6- Sets drill steel, 7' hex, 4" x 1¼" @25.20,new	151.20	
25- Tons Mine rail, 20 lb., CF&I, FOB Pueblo, Colo, new	4,110.00	
1- Rail Bender, used	25.00	
3/4- Ton, 4½" Track Spikes @ 200.00/ton del.	150.00	
1- Track spike bar, new	10.00	
1¼- Ton rail splices @ 200.00/ton del.	250.00	
2½- Kegs 2" x ½" rail splice bolts, 450 lbs., new	75.00	
50'- Jacklog water hose	39.50	
50'- Jacklog Air hose	44.50	
1- 4' x 12' Air receiver, new	872.00	
1- Cap crimper, bench type, used	15.00	
1- 1 H.P. Deming force pump motor	150.00	
3- ventilating fan, Van axial, new @ 815.00	2,445.00	
2- Vane aial connectors @ 45.00	90.00	
Total		66,319.87

TIMBER

8" x 8", 6" x 8", 3" x 8", 525 Native pine, 250 sets @ 100 BF/set, 25,000 BF @ 70.00/M del.	1,750.00	
1500 - Rail Ties @ 40¢	600.00	
3000 - 16' 3"-4" lagging @ 80¢	2,400.00	
1000 - BF 1" Native Pine for shed, etc, @ 70.00/M	70.00	
Total		4,820.00

SHOP TOOLS

1- 8" Skill Saw, H.D., new	80.00	
1- ½" Elec. Drill, H.D., new	75.00	
1- 3/8" Elec. Drill, H.D., new	65.00	
Mechanics tools/ chest, new	300.00	
Carpenter's tools / chest, new	200.00	
1- 8" Bench Grinder, H.D., new	175.00	
3- Lube guns, new	40.00	
Welding equipment, new	800.00	
Cutting torch & regulator, new	129.50	
2- 3/4" - 4" chain pipe tongs @ 35.00, new	70.00	
2- 36" pipe wrenches @ 19.40, new	38.80	
2- 24" pipe wrenches @ 9.20, new	18.40	
2- 18" pipe wrenches @ 5.80, new	11.60	
1- Pipe cutter @ 15.80, new	15.80	
1- set pipe dies 1/8" - 2", new	96.40	
1- 4" vice/ swivel	52.00	
1- 100# Anvil	61.05	
1- 2 ton chain hoist	165.00	
6- Picks	24.48	
12- Shovels	67.08	
2- 48" pipe wrenches @ 32.00	64.00	
Misc. hand tools, repairs, replacements	500.00	
Total		3,049.11

POWDER & SUPPLIES, TOTAL PROJECT.			
23 Ton 40% Gelex @ 500.00/T		$ 11,500.00	
227 Boxes blasting caps		1,600.00	
45 3,000' reels fuse @ 40.00/reel		1,800.00	
	Total		14,900.00
LEGAL FEES EST.		1,500.00	
	Total		1,500.00
INSURANCE & SAFETY			
Workman's Compensation @ 4.32/100.00 of payroll		3,500.00	
6- 15# CO_2 Extinguishers		300.00	
	Total		3,800.00
ENGINEERING, TOTAL PROJECT		9,000.00	
	Total		9,000.00
ASSAYING			
100 @ 7.50 What?		750.00	
	Total		750.00
FUELS, LUBRICANTS & POWER, TOTAL PROJECT			
6,000 gals gasoline @28¢		1,680.00	
Motor oils and lubricants		300.00	
Electricity, estimated		7,200.00	
	Total		9,180.00
ROAD MAINTAINANCE			
Snow removal		1,200.00	
Grading		200.00	
Culverts		200.00	
Ice removal		200.00	
	Total		1,800.00
Tuba ?			
CONTRACT EXPENSE 5' x 7' TUNNEL			
2200' crosscutting @ 24.00/ft.		60,000.00	
1100' drifting @ 20.00/ft.		22,000.00	
250 - square sets @ 40.00/set		10,000.00	
Hauling		500.00	
	Total		92,500.00

MANAGEMENT, TOTAL PROJECT			
Salary, Manager		20,000.00	
Salary, Compressor Man		10,000.00	
Telephone Service		1,200.00	
Office supplies & part time clerical help		1,800.00	
Administrative Expense		7,500.00	
Social Security		1,350.00	
	Total		92,500.00
CONTINGENCY FUND*		31,928.97	
	Total		31,928.97

9760 Level Total Project $298,535.84

NOTE: Reserves are made for contingencies such as unforseen expense, overlooked items, additional engineering, un-anticipated legal fees, etc.
All funds not used from this item will be expended on exploration.

9360 LEVEL

Proposal #2 in Hopkin's Recommendations page 26.

BLDG. & SITE			
20' x 26' Wood bldg., shop		$ 1,000.00	
Dozing, leveling, grading		300.00	
	Total		1,300.00
MINING EQUIPMENT			
1- Compressor, Gardner-Denver Gasoline Powered-205 CFM Portable		6,000.00	
8- 16 cu. ft. Mine cars, 18 guage, used @ 75.00		600.00	
2½- tons 20# Mine rail, CFI FOB Pueblo, Colo.		328.80	
Vent tube, 1000' metal, 12", new 16' lengths		1,700.00	
50' canvas, 12", new		50.00	
63- Ventube couplings, Metal, @ 5.60, new		352.80	
5- Vent tube couplings, canvas, used		15.00	
1000'- 2" black pipe, Air line		490.00	
1000'- 1½" Water line, black pipe		370.00	
1- Ventilating fan, Buffalo,/ Gasoline motor, rebuilt		1,000.00	
	Total		10,906.60
TIMBER			
5,000 B.F., 50 sets @ 100 BF per set, @ 70.00/M		350.00	
500 Rail Ties @ 40¢		200.08	
500 16' 3" - 4" lagging @80¢		400.00	
2,000 BF 1" Native pine for sheds, etc. @ 70.00/M		140.00	
	Total		1,090.00
POWDER SUPPLIES TOTAL PROJECT			
2- tons 40% Gelex @500.00/ton		1,000.00	
20- boxes blasting caps		140.00	
4- 3,000' reels fuse		160.00	
	Total		1,300.00
LEGAL FEES EST.		500.00	
	Total		500.00
INSURANCE AND SAFETY			
Workman's Compensation @ 4.00/100.00 of payroll		700.00	
3- 15# CO_2 extinguishers @ 50.00		150.00	
	Total		850.00
ASSAYING			
50 @ 7.50		375.00	
	Total		375.00

ROAD MAINTAINANCE			
Snow removal		$ 300.00	
Ice removal		100.00	
	Total		400.00
CONTRACTING EXPENSE 5' x 7' TUNNEL			
300' Crosscutting @ 24.00/ft.		7,200.00	
100' drifting @ 20.00/ft.		2,000.00	
700' Slabbing @ 7.00/ft. if needed		4,900.00	
50- Square sets @ 40.00/set		2,000.00	
Hauling		200.00	
	Total		16,300.00
MISC. EXPENSES			
1- Compressor Man, 40 mo. @ 425.00/mo.		1,700.00	
Social Security		76.50	
	Total		1,776.50

TOTAL PROJECT $34,797.50

SUMMARY

TOTAL PROJECT, 9760' level		$ 298,535.84
TOTAL PROJECT, 9360' level		34,797.50
	Total	333,333.34

RECAPITULATION

OME Participation		250,000.00
Berry Metal Company Participation		83,333.34
	Total	333,333.34

Standard Form No. 65
November 1961
General Services Administration
FPMR (41 CFR) 101-11.6

U.S. Governm[redacted]r Envelope

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MME Form 7
(2/63)

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Date	Surname	Code
9/24/68	Kirkemo	120
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SEP 24 1968

Mr. Walter V. Berry
President
Berry Metal Company
Harmony, Pennsylvania 16037

Re: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

Dear Mr. Berry:

This is to acknowledge receipt of your letter dated September 10, 1968 concerning the subject application for financial assistance.

As we had not received the additional information necessary to continue processing your application within 30 days as requested in our letter to you dated July 24, 1968, and because we cannot indefinitely postpone action on an application, we referred your application to our inactive files on September 1, 1968 and consider it as having been withdrawn.

If you wish to reopen this case at any time in the future, you may do so by filing a new application, referring to this OME docket number, and furnishing information pertinent to your new proposal. You must submit copies of letters to banks and their replies dated within 90 days of the date of your new application, and copies of bids on any work to be performed by independent contractors. Factual data already submitted may be referred to, but new data on the results of the work performed since the date of your withdrawn application must be furnished.

Sincerely yours,

FRANK E. JOHNSON (gfe)

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Region III
Mr. Kirkemo

HKirkemo/bsl 9/23/68

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September 10, 1968

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HR 120

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Washington, D. C. 20242

Attention: Mr. Frank E. Johnson
Chief, Office of Minerals Exploration

Gentlemen:

Re: OME - 6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Georgetown, Clear Creek County, Colorado

We acknowledge your recent undated letter. - which is 9/4/68 ?

Please continue our application for the following reasons:

As a consequence of your suggestions regarding our application and the necessity of furnishing additional information, we have been steadily engaged in exploration, road building over the top of the mountain into areas of primary interest, a geophysical and geochemical survey (just completed), and are now engaged in diamond core drilling which will not be completed until early Spring. When this work is complete and the data - complete with additional engineering - is compiled, we will then be in position to amend our application or file a new one for your

further consideration.

Thank you for your indulgence in the matter.

Sincerely,

BERRY METAL COMPANY

Walter V. Berry

Walter V. Berry
President

WVB:cal

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(2/63)

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September 4, 1968

Memorandum

To: The File

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

The Applicant has not responded to our letter of July 24, 1968; accordingly, the application is considered withdrawn and referred to the inactive file.

Harold Kirkemo

Harold Kirkemo

cc: Director's Reading File
Economic Geology File
OME docket
OME Reading File
OME Region III
Mr. Kirkemo

GLAult/a 9-4-68

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(2/63)

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Mr. Walter V. Berry
President
Berry Metal Company
Harmony, Pennsylvania 16037

Re: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

Dear Mr. Berry:

On February 2, 1968, we wrote you regarding your proposal dated December 21, 1967, to explore the Anglo Saxon mine. We stated that "unless information necessary to support any of your proposals is furnished, favorable consideration under the OME program cannot be given to your amended application." To date we have had no reply to our letter.

If you have decided not to continue with the application, please so inform us. We cannot keep an application in suspense indefinitely so unless the required information is received within 30 days from the date of this letter, we will consider the application as withdrawn and the subject docket will be referred to our inactive file.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Mr. Kirkemo
R. 4

HKirkemo/bsl 7/24/68

OME-6570
Berry Metals
Anglo-Saxon Mine
Clear Creek County,
Colorado-

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Rocky Mountain News
3-25-68

Georgetown Voters to Decide Recall

Special to The Rocky Mountain News

GEORGETOWN, March 24—Georgetown voters will go to the polls Tuesday to decide whether Ernest R. Baker should be recalled as town police judge and ex-officio mayor.

Town Clerk Mrs. Nancy Senti estimated there are some 150 voters qualified to cast ballots. Voting will be conducted in the Georgetown Presbyterian Church for Ward I and in the Clear Creek County Courthouse for Ward II.

The question on the ballot is, "Shall Ernest R. Baker be recalled from the office of police judge (ex-officio mayor) of Georgetown?"

If the vote is for recall, there is one candidate listed on the ballot to succeed Baker.

He is David C. Hudson, superintendent of the Anglo Saxon Mine in Georgetown, who was nominated by friends.

County Resident

A resident of the county some 20 years, Hudson is a graduate of the University of Oklahoma and received his master's degree in counseling from Colorado University. He was superintendent of schools here until reorganization when he became principal of the grade school. He also had served 3½ years as a county judge.

The town board of selectmen (town council) set the election upon a recall petition bearing 77 certified signatures, more than the required 60 needed to obtain the action.

Recall action was initiated by a group called Concerned Citizens, headed by David T. Haines Jr., oil company district manager, and Charles C. Christiansen, an architect.

The group charged Baker was serving without a mandtae from the people and that there was a conflict of interest between Baker's public office and private interests.

Incumbent Defeated

Baker, an incumbent who served a 2-year term, was defeated in the last April town election by Douglas Marshal, a Public Service Co. employe who was elected by a write-in vote.

Marshall did not choose to accept the office. Baker was appointed by town council to fill the post under provisions of the town's 1868 territorial charter.

The group charged that a conflict of interest arose when Baker, a building contractor, submitted a construction bid on a town building project contrary to Colorado law.

Town Atty. William Jones said Baker submitted a bid to remodel the first floor of an old fire station to convert the space into town offices, but was not low bidder and did not get the contract.

Copy to Washington 3-22-68

Free Test for Gold Offered at Mines' Celebration

GOLDEN — Pay dirt, anyone? Here's a chance for a free gold test on 100 pounds of gravel.

As a feature of the annual Engineers Day celebration Friday and Saturday at the Colorado School of Mines, samples of placer gravel will be machine-panned for gold dust and nuggets, with no charge, school officials announced Thursday.

The machine is the same one used by the U.S. Bureau of Mines for testing and evaluating potential gold deposits.

The machine was developed by Paul M. Hopkins of Golden, a Mines graduate engineer, who will supervise the testing. Coloradans are invited to bring one cubic foot of gravel—about 100 pounds—to the Mines Field House, 13th and Illinois Sts.

As the early-day prospectors knew, gold usually is associated with "black sand" (magnetite) in stream beds. The Hopkins gold saver can separate pay dirt, if any, from sand and gravel used in construction projects.

Interest in the yellow metal is reviving as a result of the gold crisis abroad.

AMC - 6576
Berry Metal Company
Anglo-Saxon Mine
Georgetown, Colorado

Denver Post
3-21-68

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MN
P & S

2/2/68

NOTE TO OME REGION III

1. Re: Applicant's proposal November 30, 1967, and enclosures: Our docket record shows that Mr. Berry forwarded a copy of this supplementary material to you with his letter of December 11, 1967.

2. Re: Applicant's proposal December 21, 1967 (enclosing Financial Report year ending October 31, 1967, pictorial booklet of Georgetown, Colo., and 2 maps) --

and

3. Letter January 26, 1968 (5 pages) clarifying some of the points in question brought up in meeting of December 18, 1967,

there is no notation to indicate that you received the material numbered 2 and 3. If you did not, please let Mrs. Ault know sometime on an FTS call and we will arrange to forward same.

There is not sufficient time today to duplicate this material and enclose it with this copy.

Harold Kirkemo

H. Kirkemo

OME Surname copy

2/2/68 Kirkemo 120

110

220

120M

FEB 2 1968

Mr. Walter V. Berry
Vice President
Berry Metal Company
Harmony, Pennsylvania 16037

Re: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

Dear Mr. Berry:

This will acknowledge receipt of your proposal dated December 21, 1967, to explore the Anglo Saxon Mine and of your letter dated January 26, 1968, suggesting a conference in Mr. J. N. Kasler's office on Monday, February 26, 1968, for the purpose of discussing the geology of the area and suggesting revisions in your proposal of December 21.

On the basis of information available, we cannot justify Government participation in any of the proposals to explore the area in the vicinity of the Saxon Saddle Fault (your Primary objective) either from the 9754 Level or from the surface. If the now inaccessible 9754 Level were reopened so that the geology of the vein followed in the drift could be reexamined and sampled to indicate whether exploration was warranted, we would give consideration to a new or an amended application. The cost of rehabilitating the caved workings or of driving a new crosscut or drift into the area would be in excess of possible income from production that can be foreseen from the available geological and assay data.

We have suggested to you on several occasions that preliminary work, such as geological mapping, trenching, pitting, shaft sinking, or diamond drilling should be done before an extensive exploration program is undertaken. No tangible data have been furnished to support the contention that there are significant ore bodies at the intersections of veins and of veins and faults in the Anglo Saxon mine. None of the evidence submitted includes descriptions of on-site geological examinations with supporting sample and assay data which clearly indicate the presence of important ore bodies. The geological mapping accomplished to date is the first step of the prospecting stage necessary to determine whether an exploration program is warranted.

We also have discussed with you a modest program of exploration in the vicinity of the Lower Aunt Jack Tunnel specifically for the purpose of exploring several possible targets there--not a program intended as a

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Mr. Frank E. Johnson
Chief - Office of Minerals Exploration
United States Department of the Interior
Room 4460, Interior Building
Washington, D. C. 20242

Subject: OME 6570
Anglo Saxon Mines, Inc.
Georgetown, Colorado

Dear Mr. Johnson:

We requested Mr. Hopkins to clarify some of the points in question brought up in our meeting of December 18, 1967. We quote in part from his report:

Question - Explain why the Plan Maps excluded veins, vein junctions, and geology?

Reply - "The maps show the geology as plotted to the scale of 1 inch to 50 feet. The facts as found can be verified by any interested person. The map drawn to the scale of 1 inch to 200 feet shows this geology and the interpretation of the geology plotted, specifically as to the outcrop line of the several veins. I laid out the holes to find the veins near to - within a hundred feet generally - the apparent locations of interest, i.e. intersections. If this requirement of delineating the intersections is part of the justification for each hole a plan map for each intersection of the drill hole and a vein at each elevation would have to be drawn. In some cases a plan map of this detail would have to be drawn for five (5) or more intersections."

Our Comment - Since it is impossible to project strike and dip of veins at various elevations, it would seem such projections could not be accurate and, if not, then not of justifiable expense. However, if desired we will request Mr. Hopkins to prepare them.

Question - Explain your reason for dotted line projections of veins.

Reply - "The dotted line projections are not projections in the usually conceived concept. These correlations are by tracing the gossan from prospect pits across the talus and/or ground cover to the next pit. A recent publication (U.S.G.S. Bulletin 1231) used the expression covered for this correlation."

Question - Explain the red dots on mine dumps or prospect pits.

Reply - "The red dots on the mine dumps are to show that vein material was found there. I have used this symbolism many times with many people. By the examination of the dump and location of the vein material on the dump, I believe that I made an intelligent interpretation as to the source location in the workings where the mineralization and/or vein material was found. Vein material was found between the prospect pits as float thence by correlating and mapping the location of this float one can establish the continuity shown on the maps. The correlation of the field work over a couple of hundred feet or more will indicate a general strike. Dips were obtained using a "three point method" within the limitations of the field data. In preparing the report I am confident that my approach has been conservative as to the projection of the information. Further, the engineering applications of acceptable principles of the profession have been guided by one basic approach. Multiple proof of data upon which the recommendations were made has been paramount."

Question - May we have your opinion of surface drilling and trenching in the area of interest northeast of Saxon Saddle Fault versus the program you suggested?

Reply - "In order to obtain finite exposures using a tractor dozer and/or front end loader in many areas of interest along the outcrop lines of the several veins, one would have to build a service road of sorts from the Upper Aunt Jack tunnel to the Saxon Saddle, thence trails to the northeast, east and southeast. In addition there would have been many cuts made either as part of the road or near this trail road going up the west side of the hill above the Upper Aunt Jack tunnel. If one attempts the digging out to solid of the several veins there will be a very major amount of rock, talus and soil moved. The cost of this approach is not commensurate with the results to be obtained. The alternate approach would have required the use of diamond drill holes either at the presently recommended locations or nearer the veins such as to cut the several veins with a multitude of short drill holes. These short holes would have been 100 feet to possibly 250 feet in length. The primary results would have been the exploration of shallow potential."

Our Comment - In considering the heavy talus covering and probably 100 feet or more of overburden to be moved - plus the cost of the access road - a program for surface drilling and trenching would probably cost $100,000.00 or more. This is neither sensible or justifiable when considering the best way of doing this exploration as outlined in our letter of December 21, 1967, at a cost of $129,645.00.

We have two suggestions to offer:

Suggestion 1 - As to the geology of the area of interest, it is our opinion that Mr. Hopkins' work is based upon and confirms the vast amount of work done in this area by the U.S.G.S. There should be no question regarding the acceptability of that data. Any differences of opinion are probably attributable to interpretation of the data furnished. In fairness to Mr. Hopkins we suggest a meeting be arranged in Mr. Hasler's office on Monday, February 26, between a representative from your office, Mr. Hasler, Mr. Hopkins, Mr. Hudson and the writer.

OME Surname copy

preliminary step en route to exploring the Saxon Saddle Fault area. Despite report of a favorable vein structure cut in the tunnel advanced last summer, you plan no further work on this structure. If the report can be substantiated by reexamination and resampling, this appears to be the only target eligible for consideration under OME regulations. All other proposals are based on long projections of sparse evidence from widely-scattered geological observations, and, in many cases, on conjecture and unsubstantiated reports.

On page 5 of your letter of December 21, 1967, you stated that the primary object of the OME program is to explore ore for immediate production. This is incorrect. The purpose of the program is stated in Public Law 85-701, 85th Congress, S. 3817, August 21, 1958, as follows:

> "To provide a program for the discovery of the mineral reserves of the United States, its Territories, and possessions by encouraging exploration for minerals, and for other purposes."

Decisions on OME applications are made in the Washington, D. C., office of OME, not in the field offices; therefore, we see no purpose in arranging for a meeting on February 26, 1968, in Mr. J. W. Hasler's office as you suggested. We assume that you have submitted all of the field evidence you have in support of your proposals. We have stated our decision regarding Government participation in exploring the Saxon Saddle Fault (Primary objective), and you have had an opportunity to consider our suggested modest program of exploration in the vicinity of the Lower Aunt Jack Tunnel. To continue consideration of even the latter proposal would require an examination by OME, including mapping and sampling of the new extension of the Lower Aunt Jack Tunnel.

We are glad at any time to meet with you and your associates to consider an exploration proposal which would be eligible under the OME criteria, but until the necessary information described above is submitted, we cannot agree to the proposals heretofore submitted.

Unless information necessary to support any of your proposals is furnished, favorable consideration under the OME program cannot be given to your amended application.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
OME Region III
Mr. Kirkemo

Copy to: Mr. David C. Hudson
AIRMAIL Division Manager
Anglo Saxon Mines, Inc.
Georgetown, Colo. 80444

HKirkemo/gla 2-2-68

At your option we will endeavor to have present at the meeting the following people:

Professor G. E. Goodspeed (retired) who did a great amount of work on the property during its development.

John W. Gabelman, now chief of the Mineral Research Division of Atomic Energy Commission. Mr. Gabelman spent an entire summer on the property and plotted the geology of the development tunnel.

Mr. H. W. C. Prommel (retired) who recommended Mr. Hopkins and who visited the property and prepared two reports during its development. Mr. Prommel is a prominent highly regarded engineer.

In confirming the date of the meeting proposed for February 26, please indicate who among the above three - if any - you would like present at the meeting.

Suggestion 2 - Reconsider our proposal of December 21, 1967, and divide the suggested program covering the "Primary Objective" into three phases.

Phase 1 - OME will assist in driving a cross-cut tunnel 800 feet to explore the Anglo Extension vein, the Federal vein, and veins #4 and #5 near their intersections at elevation 9754'. See Map 2, revised, with our December 21, 1967 letter.

Phase 2 - Anglo Saxon Mines, Inc. will - at their expense - drive the connecting link into their old tunnel and retimber the old tunnel to the breast.

Phase 3 - OME will assist in drifting 600 feet or more northeast from the breast as shown on Map 2, revised, which accompanied our December 21, 1967 proposal and also assist in the 1300 feet of diamond drilling proposed at the end of the new drift. As indicated in that proposal this will explore the downward extension of the rich ore shoots formed by the junction of the Anglo Saxon and Federal veins which produced an estimated $1,000,000.00 of bonanza silver ore on the north east side of Saxon Saddle fault. The area we propose exploring is also northeast of Saxon Saddle fault. This area begins at the location of the breast in the old tunnel which becomes the starting point for Phase 3.

Your further consideration of our December 21, 1967, proposal will be appreciated.

If there is further mapping or data needed from Mr. Hopkins, please advise.

Yours truly,

ANGLO SAXON MINES, INC.
Division of Berry Metal Company

Walter V. Berry

Walter V. Berry
President

WVB:sjw

Berry METAL ®

World's Largest Self-Integrated Oxygen Lance Designers and Builders

METAL COMPANY

HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

OME Region III RECEIVED DEC 27 1967 Denver, Colorado

December 21, 1967

Mr. J. W. Hasler
OME Field Officer, Region III
Office of Minerals Exploration
Room 203 - Building 53
Denver Federal Center
Denver, Colorado 80225

Re: OME 6570
Anglo Saxon Mines, Inc.
Georgetown, Colorado

OFFICIAL COPY O. M. E. RECEIVED DEC 29 1967 DENVER, COLO.

Dear Mr. Hasler:

Enclosed is a copy of our letter to Mr. Johnson.

You will agree with the sound reasoning set forth in this proposal.

It will be helpful if you will add your support to the proposal.

Your cooperation will be most appreciated.

Best wishes for a Merry Christmas and Happy New Year to you and to Mr. King.

Sincerely,

Walter V. Berry

Walter V. Berry
President

WVB:sjw

Enclosure

6570

Berry

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METAL COMPANY

HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

December 11, 1967

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O. M. E.
RECEIVED
DEC 13 1967

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FB	
HK	130

Mr. Frank E. Johnson
Chief Office of Minerals Exploration
United States Department of the Interior
Room 4460, Interior Building
Washington 25, D. C.

Dear Mr. Johnson:

We are sending Mr. Hasler a copy of the supplementary material sent you on November 30, 1967. This will go forward by airmail today.

Thank you for confirming our date for December 18, 1967.

Sincerely,

Walter V. Berry/sjw

Walter V. Berry
President

WVB:sjw

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
12/6/67	Kirkemo	120
		110
		220
		120M

DEC 6 1967

Mr. Walter V. Berry
President
Berry Metal Company
Harmony, Pennsylvania 16037

Re: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry
Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

Dear Mr. Berry:

This is to acknowledge receipt of your letter dated November 30, 1967 and supplementary material to your application for financial assistance to explore the Anglo Saxon mine. It is not indicated whether a copy of this material was furnished Mr. J. W. Hasler, OME Field Officer, Region III. If not, please send a complete copy to him at the following new address for that Office:

Office of Minerals Exploration
Room 203 - Building 53
Denver Federal Center
Denver, Colorado 80225

The appointment to discuss with us your latest proposal on December 18, 1967 between 10:00 and 10:30 A.M., is satisfactory to us.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Kirkemo
Region III

HKirkemo/bsl 12/6/67

43683

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METAL COMPANY
HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

September 22, 1967

COPY
U. M. E.
RECEIVED
SEP 22 1967
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JHH | 120
JED | 110
HK | 130

Mr. Frank E. Johnson
Chief, Office of Minerals Exploration
United States Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.

Dear Mr. Johnson:

Re: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

I recently returned from Colorado after spending three weeks with Mr. Hudson and Mr. Hopkins who are now compiling the data and doing the work requested in your letter of May 11, 1967.

After careful consideration of all the factors, we deem it advisable to submit a new application when all data is at hand. We hope to have this ready to submit early in November.

Sincerely,

Walter V. Berry

Walter V. Berry
President

WVB:sjl

cc: Mr. David C. Hudson

Copy to Region III

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
8/7/67		120
"	Johnson	110
		220
		120M

August 7, 1967

Memorandum

To: The File

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Angl Saxon Mine
Clear Creek County, Colorado

Mr. Walter V. Berry, President, Berry Metal Company, visited the Washington office, OME, on August 4, 1967, to discuss with Mr. Johnson and me the current situation regarding the Anglo Saxon mine and the OME application.

Mr. Berry referred to a letter to him, dated July 30, 1967, from Mr. David Hudson, project manager at the mine, which reported the following information:

1. The Lower Aunt Jack tunnel has been extended in a southeasterly direction (approximately S. 15° E.) to 380 feet from the portal.

2. A mineralized zone, possibly the Anglo Saxon Extension vein, is exposed in the tunnel between 341 and 365 feet from the portal. The zone consists of vein stringers trending N. 50°-75° E. in broken country rock with clay seams. Surprisingly, the ground is firm enough so that timbering is not necessary, as yet. Hudson attributes the broken ground to its near-surface location.

Grab samples from the mineralized zone have been assayed and one sample from a zone four feet wide is reported to indicate 54% lead, 22.5 ounces silver, and 0.25 ounces gold per ton, 3% zinc, and 0.5% copper. The value of this grade material was reported to be $191.85 per ton. A channel sample cut across a 4.0-foot-wide zone when assayed indicated a value of $136.00 per ton.

We suggested that the reported lead content be checked.

Plans are to continue the crosscut through the vein zone, and then to drift both directions on the best showing. Possibly an exploration project will be proposed from the new workings.

3. The whole property has been restaked in a rectangular pattern of adjoining claims in order to claim the fractions of unclaimed ground which Mr. Hasler had noted in his supplementary field report dated May 5, 1967.

4. Mr. Hudson had been advised that overburden would make surface diamond drilling difficult and expensive, and Mr. Berry, therefore, was not pleased with our proposal dated May 11, 1967, to drill from the roads rather than from the tunnel. We assured him that drilling through overburden presented no problem.

5. Mr. Berry repeated his request to concentrate attention on his original primary target area in the east end of the Upper Aunt Jack tunnel. We restated our views on this, and told him that additional, favorable, and authentic information would have to be obtained to warrant reconsideration of this target area. Prospecting and initial exploration are needed to obtain data which possibly could reverse the decision not to participate in this project.

6. We repeated our request for a map showing the surface geology in the area of the Lower Aunt Jack tunnel. We suggested that the geology could be shown on the claim map.

Mr. Berry said he would be visiting the property sometime in the next month, and that we would hear from him shortly thereafter.

Harold Kirkemo

Harold Kirkemo

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
OME Region III
Mr. Kirkemo

HKirkemo/gla 8-6-67

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/10/67	Kirkamo	120
		110
1/11	coe	220
		120M

Mr. William W. Berry
Vice President
Berry Metal Company
Harmony, Pennsylvania 16037

MAY 11 1967

Re: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

Dear Mr. Berry:

We have reviewed the information you submitted to reopen your application for financial assistance to explore the Anglo Saxon Mine, and have the following comments to offer:

We have not received enough factual information to justify the proposed exploration in the vicinity of the Lower Aunt Jack tunnel. No doubt the vein projections shown on the map of proposed exploration received April 24, 1967, are based on a geologic map of the surface, but this information has not been submitted. We should have a geologic map of the surface showing the location of the veins, their strike, dip, and length and width of outcrop, and distribution of such formations. Samples of veins should be described and assayed and assays submitted in order to establish eligibility of the property for the OME program with respect to the content of eligible minerals or metals.

Inspection of the claim map and of the map showing the target areas indicates that unclaimed ground would either be crossed by the proposed drill holes or the target areas border on ground not in your control. Open ground exists in the area surrounded by (1) the Aunt Jack, Pixley, and Surprise claims, (2) Walter V., Bull Moxe, Oscar Wilde, Silver Star, Anglo Saxon Straddler, and Pixley claims, and (3) the Aunt Jack, Idun Marie, and Surprise claims. There are other, but more distant, open areas present. In the event of an OME contract, your rights to all of the land involved in the exploration project would have to be established.

Careful study of your proposal indicates that the four target areas can be reached by diamond drilling from the surface at sites along the road between the Lower Aunt Jack tunnel and the Upper Aunt Jack

23263

tunnel. The areas can be reached by four holes totalling about 2200 feet at a total estimated cost of $28,000-$30,000. This would be a less costly program than the one proposed from the underground station because it would eliminate the major expense to rehabilitate the Lower Aunt Jack tunnel.

If you are interested in an alternate program such as this, we will be glad to describe it further for you. Submittal of the information requested above should not be construed as a commitment by the Government to grant an exploration contract.

Sincerely yours,

FRANK E. JOHNSON (gla)

Frank E. Johnson
Chief, Office of
Minerals Exploration

Copy to: Mr. David C. Hudson
AIRMAIL Division Manager
Anglo Saxon Mines, Inc.
Georgetown, Colorado 80444

CC: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
OME Region III
Mr. Kirkemo

HKirkemo/gla 5-10-67

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

May 5-?
May 25, 1967

OFFICIAL COPY

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Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6570 (Silver)
Berry Metal Company
Anglo-Saxon Mine
Clear Creek County, Colorado

The applicant submitted a revised exploration program on April 22, 1967 to explore the various veins in the Anglo-Saxon mine area, by drilling four diamond drill holes from the face of the Lower Aunt Jack Tunnel, at an elevation of approximately 9360, to explore four target areas, each containing several vein junctions. The total estimated cost of the exploration project is $72,556.00, of which some $40,000.00 is designated for the use of mine equipment, ventline, air line, water line, powder, fuels and oils, etc. supplies, equipment rental, timber, track, contract expense, insurance and safety, engineering and management, which would not be applicable to the rehabilitation and preparation of the Lower Aunt Jack tunnel for use as a drill station, as well as to crosscut and drift an additional 130 feet. Rehabilitation of some 600 feet of crosscut should not cost $40,000.00 or nearly 55 percent of the total estimated cost of the project, as submitted by the applicant.

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500
6500

A review of the applicant's most recent proposal indicates that the four target areas could more easily, and certainly less expensively, be explored by drilling from surface stations along the road between the Lower Aunt Jack tunnel and the Upper Aunt Jack tunnel. By varying the inclination of the holes, as shown on alternate drill holes Nos. 1 thru 4, in the accompanying map the target areas can be explored at the depth calculated to be reached from the drill holes located at the face of the Lower Aunt Jack tunnel, Table 1. Based on the footage proposed in the alternate program a total estimated footage of 2,200 feet is calculated to explore the four target areas from the surface, thus eliminating costly and needless expense to explore the Anglo-Saxon and associated veins from

the Lower Aunt Jack tunnel. A rough cost estimate based on the applicant's data as well as some additional costs is as follows:

Table 1
BERRY METALS ALTERNATE DRILLING PROPOSAL

Hole No.	Bearing	Declination	Estimated total
1	S. 56° E.	-30	500'
	Proposed alternate hole will intersect the Anglo-Saxon, Pixley Vein and the Zulu Vein at elevations of approximately 9200', which is 200 feet below the surface.		
2	S. 70° E.	Horizontal	600'
	Proposed alternate drill hole will intersect Tunnel vein and the Anglo Saxon Extension, as well as the Oscar Wilde Vein 200 feet below the Upper Aunt Jack tunnel level.		
3	S. 77° E.	-25°	600'
	Proposed alternate drill hole will intersect target area 3, which includes the Idum vein, two new veins and the Tunnel vein at an elevation of 9,400 feet.		
4	S. 50° E.	-30°	500'
	Proposed alternate hole No. 4 will intersect target area 4 which includes the projection of the Tunnel and Molly Gibson as well as two new veins. These veins should be intersected at an elevation of about 9400 feet.		

Actual Costs

Category (1) Independent Contracts

Site preparation

D-6, 10 hrs. $14.00/hr.----------$ 140.00

Mobilization and demobilization

One surface drill unit---------- 100.00

Diamond core drilling, 2,200 feet

2,200 ft. at $10.00/ft.----------22,000.00

Note: The $10.00/ft. figure possibly includes lost casing, cement, drill mud, additives and hole plugging agents, cementing and redrilling, reaming and redrilling, and reaming and casing.

Cardboard boxes	160 @ $1.00 each ----------	$ 160.00
Water truck rental and driver		
4 months at $300.00/mo. plus 1,000 miles at 0.12/mile------		1,320.00

Category (2) Personal Services

None Except

Subcategory (a) Supervision and technical services

1. Supervising Engineer

4 months at $750.00----------	3,000.00

1. Workman's compensation

$4.32/$100.00 for $3,750.00----------	162.00
Assaying 200 samples at $5.00 per sample----------	1,000.00
Transportation for supervising engineer 1,000 miles at 0.10/mile----------	100.00
Transportation for consulting geologist Denver to Georgetown 100 miles/day for 10 days at $0.10/mile--	100.00
Per diem for consulting geologist 10 days at $16.00/day-	160.00

Total estimated actual costs (rounded)----------	$28,992.00
Total estimated cost of the project----------	$28.992.00
Government participation at 75 percent----------	$21,744.00

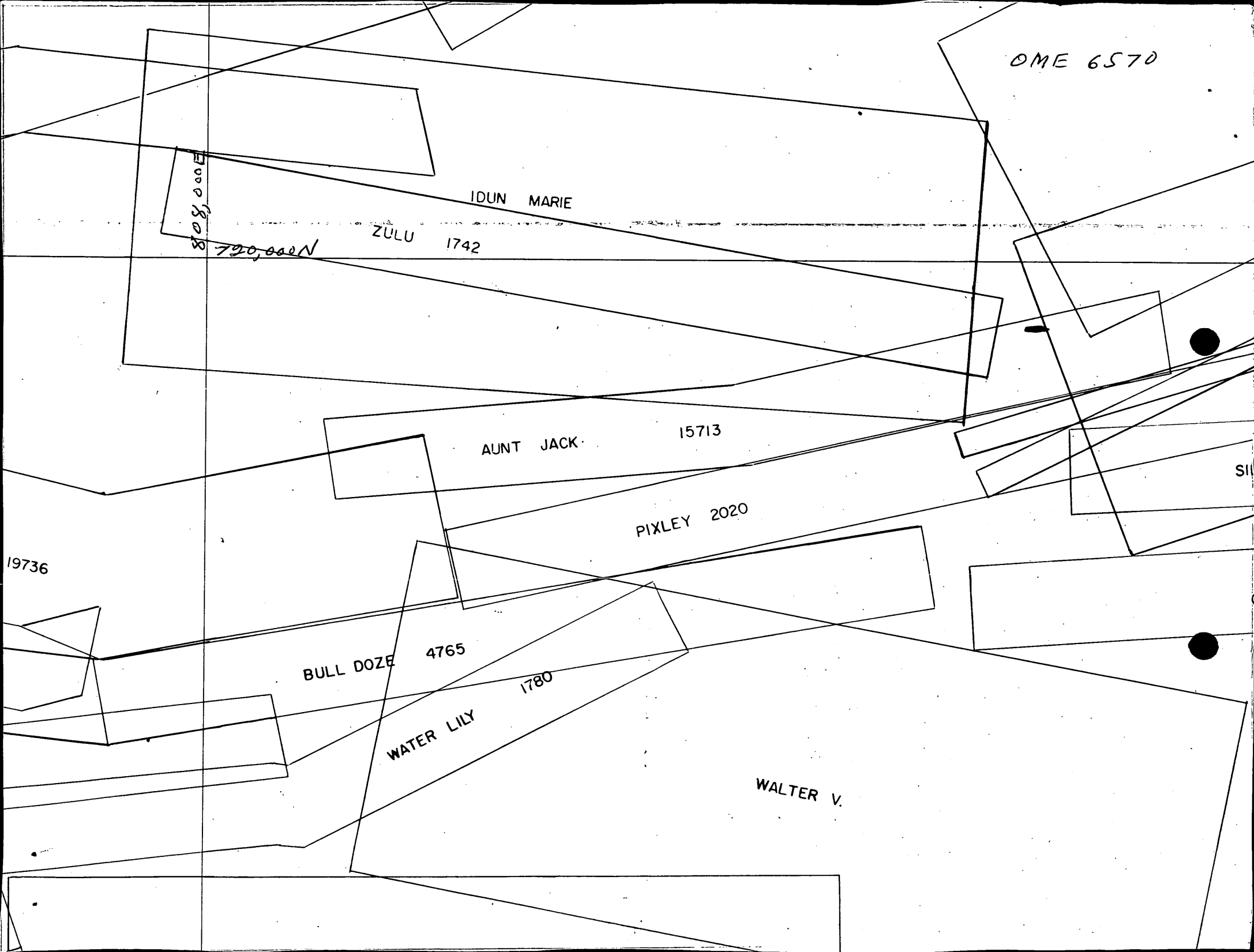
It should be noted that there is evidently some open ground between the Aunt Jack 15713 claim, and the Pixley 2020 claim, as well as other ground, shown as unclaimed lying between the Silver Star 1214, Oscar Wilde 1743, Pixley 2020, Bull Doze 4765 and Walter V claim (See claim map, latitude 5,720,000 Departure 2,816,000 accompanying original application. This unprotected ground would have to be included by staking new claims should a contract be considered.

There are some discrepancies between the 1" = 50' scale map containing the April 22, 1967 proposal and the 1" = 200' contour map accompanying the original application, especially insofar as the strike of the Anglo Saxon Extension vein is concerned.

I am still of the opinion that the applicant is including too many vein junctions based on insufficient evidence, to qualify under the OME program, and I still recommend that the application be denied, even though the estimated cost of the alternate program herein suggested is in the neighborhood of $30,000.00.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration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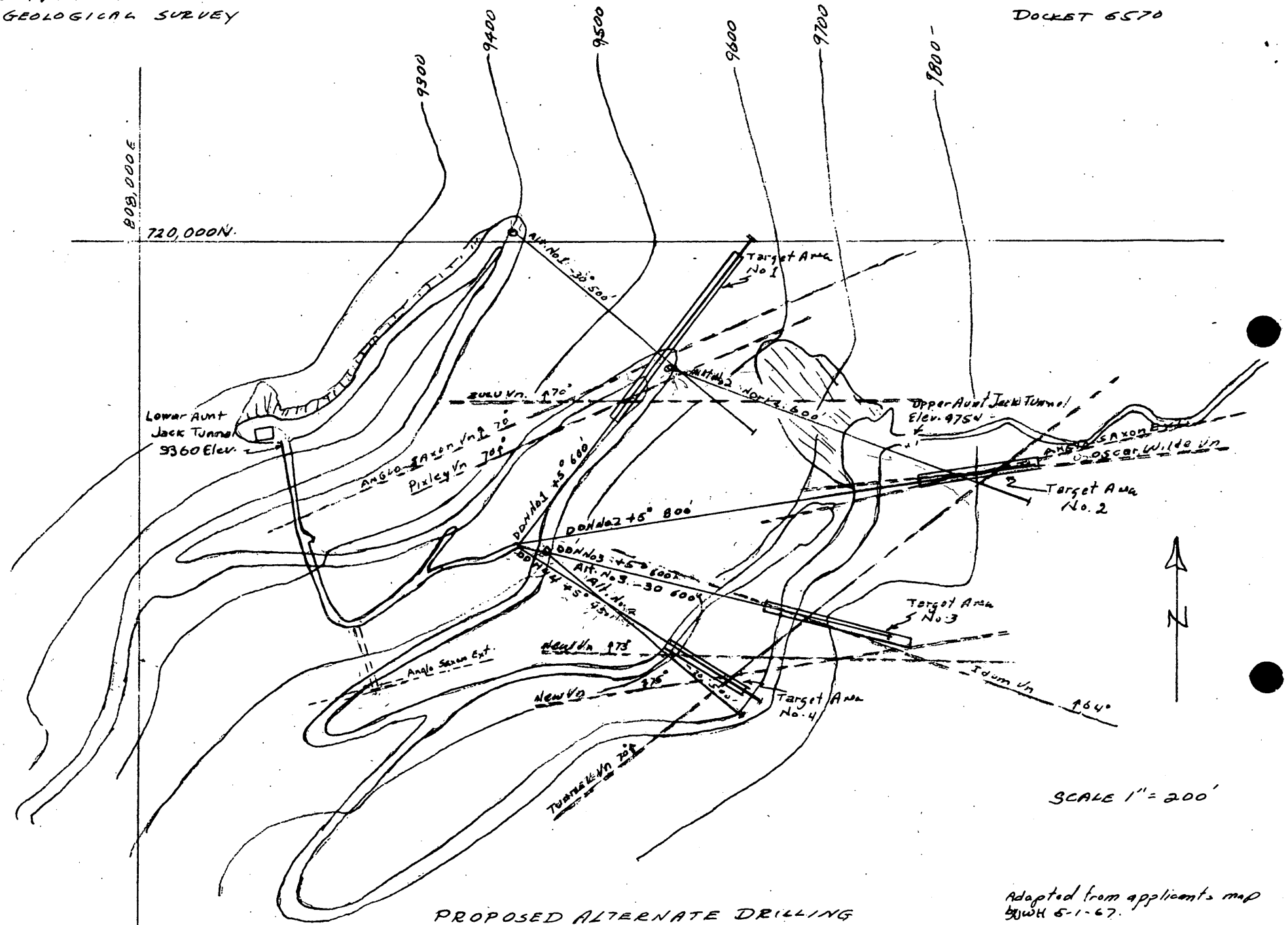
U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION
DOCKET 6570



PROPOSED ALTERNATE DRILLING
ANGLO-SAXON MINES, INC.
CLEAR CREEK COUNTY, COLORADO

Adapted from applicants map
WH 5-1-67.

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
4/20	Peterson	120
"	Johnson	110
		220

April 20, 1967

Memorandum

To: The File

From: Assistant Chief, Office of Minerals Exploration

Subject: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

Mr. Walter V. Berry and Mr. William Berry, president and vice president, respectively, Berry Metal Company, Mr. David Hudson, project manager, and Mr. Paul M. Hopkins, consulting geologist and engineer, visited the Washington office, OME, on April 19, 1967, to discuss with Messrs. Johnson, Peterson, and Kirkemo a proposal to reopen the OME application to explore the Anglo Saxon property. The Government on April 12, 1967, had denied the application without prejudice to the property, and had suggested that the Applicant consider limited exploration in the vicinity of the Lower Aunt Jack tunnel.

After considerable discussion about various proposals for exploration, the following conclusions were reached:

The Government will reopen the application for consideration when the Applicant submits a project proposal complete with an exploration plan, maps, and cost estimates supported by bids. Mr. Hopkins said he would prepare a map on a scale of 1"= 50' showing the Lower Aunt Jack tunnel, projections of nearby veins to the level of the tunnel, and the pattern of diamond drill holes, crosscuts and drifts proposed from the tunnel to cut and explore the target veins.

The tentative plan which the Applicant seemed to favor is to 1) clean out and enlarge the Lower Aunt Jack tunnel to permit installation of rail for the transport of equipment and supplies to the east end of

the tunnel, 2) establish a drill station at that point, 3) explore with diamond drill holes extending to the northeast, east, and southeast the Idun Marie No. 3, Anglo Saxon Extension, and Tunnel veins, and 4) depending upon the results of the diamond drilling, to crosscut to and drift on any significant veins. A drill hole or crosscut may be proposed extending south or southeast from the tunnel at a point about 300 feet from the portal to intersect the Anglo Saxon Extension vein which may be within 75 or 100 feet of the present workings.

The Applicant favored doing the work with his own equipment and crew.

Harold Kirkemo

Harold Kirkemo

cc: Director's Reading File
Division File
Econ. Geol. File
OME Docket
OME Reading File
Region III w/cy of incoming letter dated Apr. 7, 1967
Kirkemo

HKirkemo/mm (4/20/67)

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April 7, 1967

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O. M. E.
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APR 11 1967
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FEJ 110
EP 120
220

Mr. Frank E. Johnson
Chief-Office of Minerals Exploration
Room 4460 Department of Interior
Washington, D. C. 20242

Subject: OME 6570
Anglo Saxon Mine
Georgetown, Colorado

Dear Mr. Johnson:

I appreciate your telephone call to Mr. Hasler requesting priority on the preparation of the report.

My plans are now final for leaving April 29, for Europe on a business trip of two or three months duration. For that reason, we are hopeful that the matter can go to contract prior to my departure and thus avoid delay.

You will note from the attached "Message to Steel Men" that Uncle Sam picked a winner and profitable partner when they started us in business with an SBA $40,000.00 loan.

We believe our new B.O.F. steel making process to be basic - revolutionary - and a new breakthrough in steel making technology. It is expected to have world-wide implications.

This is an important consideration to OME for the following reasons:

We sincerely and confidently believe in Anglo Saxon's potential otherwise it would be foolhardy for us to take valuable time away from our business.

We do not look upon Anglo Saxon as an opportunity to "strike it rich". We have done that in our business. As a consequence, Anglo Saxon is looked upon as a worthy and meritorious project that will expand and diversify our business and help it grow.

From every angle, the project is worthy of OME participation.

Sincerely,

Walter V. Berry

Walter V. Berry
President

WVB:sjl

Enclosure

Berry METAL COMPANY

World's Largest Self-Integrated Oxygen Lance Designers and Builders

HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

IMPORTANT MESSAGE TO STEEL MEN

We have new ideas to share with steel men attending the National Conference in St. Louis, Missouri, April 9 - 12.

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Sincerely yours,

Walter V. Berry

Walter V. Berry, President

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OFFICIAL FILE COPY

Date	Surname	Code
4/10/67	Peterson	120
4/10/67	Kirkbemo	120
"	Johnson	110
4/11	Kielsgard	220
4/11	Meyer	
		110
		220

APR 1 8 1967

Mr. Walter V. Berry
President
Berry Metal Company
Harmony, Pennsylvania 16037

Re: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

Dear Mr. Berry:

Careful study of your application for financial assistance in exploring the subject property and of other information available to us indicates that the probability of disclosing significant ore reserves on the property by your proposed method of exploration is not sufficiently promising to justify Government participation therein. Accordingly, we regret to inform you that your application for exploration assistance is denied, but without prejudice to the property.

We note that both Paul M. Hopkins and G. E. Goodspeed in separate reports recommend a limited amount of exploration in the vicinity of the Lower Aunt Jack Tunnel portal (9360 level). They suggest that the numerous vein systems which traverse this area may contain targets that warrant further testing. We would be pleased to consider a proposal for work limited to this area.

Information already submitted need not be duplicated but it must be identified by referring to the previous application. We should be furnished a description of the proposed work, indicating the specific geologic targets you wish to explore and how you propose to explore them. A new cost estimate should also be included with the proposal.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
OME Region III
Mr. Peterson
130
120M

ECPeterson/gla 4-7-67
Rewritten: FEJohnson/gla 4-10-67

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OME Form 7
(2/63)

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Date	Surname	Code
4/7/67	Kirkham	120
		120
4/10	Johnson	110
		220

April 7, 1967

Memorandum

To: The File

From: Edward C. Peterson, Office of Minerals Exploration

Subject: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

Justification for Denial

The Applicant originally proposed to explore for silver in the Anglo Saxon mine by drifting and crosscutting from the Upper Aunt Jack portal on the 9754 level to reach the Saxon Saddle fault target area where the Saxon, Saxon Extension, Tunnel, and Federal vein systems are believed to intersect. The work would be generally parallel to a 2200-foot tunnel, now caved, driven several years ago by the Applicant to explore the same target area. Total estimated cost of the proposed project was $333,334.

After several revisions, the Applicant submitted an amended proposal which included, in addition to the crosscutting and drifting, some underground diamond drilling, to explore the same target area. Work was proposed to begin at the Lower Aunt Jack Portal and the tunnel to be driven on the 9360 level where the rock formation (Silver Plume granite?) is reported to be more competent than the Idaho Springs formation on 9754 level. Total estimated cost of the proposed work is $359,125.

Although reported past production and sampling of vein material has indicated high-grade silver occurrences in some areas of the subject property, available geologic information suggests that there is little possibility of discovering any significant ore reserves that would justify the high cost, ambitious exploration program proposed by the Applicant.

Study of geologic mine maps and from conversations with the geologist who prepared them in the late 1940's indicates that there is no reason for expecting geologic conditions to be more

favorable for the occurrence of ore bodies in the Applicant's proposed target area than in the existing workings. The Idaho Springs formation (schist and gneiss) cut in much of the present Upper Aunt Jack Tunnel is not conducive to ore bodies of significant size and continuity. The geologist found that mineralized streaks in the tunnel are discontinuous and erratically mineralized.

Areas from which high-grade silver-bearing material was reported by the Applicant were resampled by the geologist at the time of his examination. Assays obtained from the resampled material were disappointingly low.

I concur with the OME field examiner who recently examined the property, and recommend that the application for assistance be denied without prejudice to the property.

The Applicant is being informed that OME might consider a limited program of exploration in the vicinity of the Lower Aunt Jack Tunnel portal. Numerous vein systems which traverse this area may contain targets that warrant further testing. Perhaps, if results of this work are favorable, an expanded program could be developed.

Edward C. Peterson

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Peterson

ECPeterson/gla 4-7-67

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

March 31, 1967

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O. M. E.
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APR 4 1967
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~~120m~~
JS ~~110~~
cp 120P

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6570 (Silver)
Berry Metals Company
Anglo-Saxon Mine
Clear Creek County, Colorado

Transmitted herewith are the original and one copy of a report of examination on the above-stated property. A careful review of each of the applicant's proposals indicates that even though the program is better conceived and that the Anglo-Saxon mines have had considerable early day production it is still felt that the total costs of this proposal of some $259,000 is still possibly too much to expect for the potential that might come from the Anglo-Saxon vein, Tunnel vein, Anglo Saxon extension, and Saddle-Saxon fault zone. It is therefore concluded that the application be denied without prejudice and that the applicant be advised to commence some of his work from the lower Aunt Jack tunnel possibly by extending a crosscut to intersect the Anglo-Saxon Extension vein which is less than 100 feet from the Lower Aunt Jack Tunnel to the southeast and possibly drift on the Anglo-Saxon Extension from that elevation. It is felt that the Anglo-Saxon vein should be intersected and explored to ascertain its continuity and grade, then perhaps some definite exploration targets could be established and another proposal to the OME may be made. Certainly more geologic data must be obtained concerning the project area.

don't advise overlying

ON-SITE REPORT

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

REPORT OF EXAMINATION

on

OME-6570 (Silver)

ANGLO-SAXON MINE

CLEAR CREEK COUNTY, COLORADO

CORE
C. M. M.
RECEIVED
APR 4 1967

By

J. William Hasler

March 1967

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Introduction and Summary

The Berry Metals Company, Harmony, Pennsylvania applied to the Office of Minerals Exploration to explore for silver at the Anglo-Saxon mine and adjoining properties in sections 2, 3, 4, 5, 8 and 9 T. 4 S. R. 74 W. in Clear Creek, Colorado at an estimated total cost of $574,525.

The application was referred to the field for review and field examination on September 30, 1966, and the field examination was made by J. William Hasler November 17, 1967 in company with Mr. Walter V. Berry, President of the Berry Metals Company, Mr. David Hudson, the resident manager and Mr. Paul Hopkins, consulting mining engineer.

The applicant originally proposed five separate sites to explore a "multiplicity of veins" while the prime objective was the Saddle-Saxon fault area where the Saxon, Saxon Extension, Tunnel and Federal veins essentially intersect at depth. Two subsequent exploratory programs were submitted, one being an approach to the Saddle-Saxon fault area via the Beaver Creek area, on property owned by the applicant, and the last proposal being from the Lower Aunt Jack Tunnel at an elevation of 9360 feet, above sea level. Letters to the file dated September 14 and November 29, 1966 quoted in part in this report by Mr. Kirkemo and Mr. Peterson, pretty well reviewed the problems involved in the application. The field examination on September 17, 1966 essentially substantiated the appraisals given by Mr. Kirkemo and Mr. Peterson. It was felt that perhaps a less costly program might be considered by utilizing the Lower Aunt Jack Tunnel, however the applicant's costs on this program amount to some $359,125.00, even though this proposal is a more feasible one.

A careful review of each of the applicant's proposals indicates that even though the program is better conceived and that the Anglo-Saxon mines have had considerable early day production it is still felt that the total costs of this proposal of some $259,000 is still possibly too much to expect for the potential that might come from the Anglo-Saxon vein, Tunnel, Anglo Saxon extension, and Saddle-Saxon fault zone. It is therefore concluded that the application be denied without prejudice and that the applicant be advised to commence some of his work from the lower Aunt Jack tunnel possibly by extending a crosscut to intersect the Anglo-Saxon Extension vein which is less than 100 feet from the Lower Aunt Jack Tunnel to the southeast and possibly drift on the Anglo-Saxon Extension from that elevation. It is felt that the Anglo-Saxon vein should be intersected and explored to ascertain its continuity and grade, then perhaps some definite exploration targets could be established and another proposal to the OME may be made. Certainly more geologic data must be obtained concerning the project area.

Don't advise anything - HR

The Property

The property consists of mining claims, both potential and possessory that lie in parts of Sections 2, 3, 4, 5, 8 and 9; all in T. 4 S., R. 74 W., of the 6th Principal Meridian, in the Griffith Mining District, Clear Creek County, Colorado. The property may be reached by traveling west from Denver, Colorado on U. S. Highway 6 and 40 to Georgetown, Colorado a distance of some 47 miles. The mine area may be reached from Georgetown on a mine access road over a distance of approximately three miles south.

SILVER PLUME-GEORGETOWN DISTRICT, CLEAR CREEK COUNTY[1/]

Introduction

The Silver Plume-Georgetown district occupies an area of about 25 square miles in the west-central part of Clear Creek County, surrounding the towns of Silver Plume and Georgetown. Most of the principal mines are on the south slope of Republican Mountain, just north of Silver Plume, but there are some important mines to the southwest, northeast and northwest of Georgetown. The district is well watered by Clear Creek and its tributaries and is very rugged, ranging from 8,400 to 12,400 feet in altitude. A paved highway down Clear Creek connects both towns with Idaho Springs and Denver.

History and Production

Precious metals were first discovered in the district in 1859, and the rich surface ores were worked chiefly for gold. During 1865 and 1866, many of the rich silver-bearing veins were discovered near Silver Plume and Georgetown. The most active period of silver-lead mining commenced in 1872, reached its peak in 1894 and gradually declined thereafter. During both world wars interest was aroused in the zinc and lead of the silver-lead deposits, and many of the old mines were reopened and actively worked. During 1943-44, the Pelican-Bismark, Mendota and Smuggler Mines were reopened and lead-silver-zinc ore was treated in two mills at Silver Plume and one at Georgetown. The total value of output in the Silver Plume-Georgetown district has amounted to more than $30,000,000 but exact figures for many years are lacking.

Geology

The earliest rocks of the district are the Precambrian schists and gneisses of the Idaho Springs formation, and these contain small widely scattered bodies of gneissic hornblende quartz diorite. The foliation of these rocks is much contorted in places; in general it strikes from north to northwest and dips 45-85° N.E., but in the eastern part of the district the strike is northeast. At the south edge of the district the schist is cut by a large body of quartz monzonite gneiss, and in the eastern part of the district there are irregular bodies of fine-grained granite gneiss related to a batholith of Boulder Creek granite, whose northern end lies just east of the district. The schists and gneisses of the district have been cut by irregular stock-like bodies and dikes of Silver Plume granite and its associated pegmatite and aplites. This granite is for the most part a crosscutting intrusive, but locally it has been intruded parallel to the schistosity.

The Precambrian rocks have also been cut by dikes of dacite, quartz monzonite porphyry, and alaskite porphyry of early Tertiary age. There are no early Tertiary stocks in the mineralized part of the district, but a large stock of quartz monzonite porphyry crops out on Lincoln Mountain just north of the district and a small stock of granite porphyry and one of the alaskite porphyry lie south of Pains Mountain, 2 to 3 miles south of the mineralized area. The porphyry dikes strike both northeast and northwest and most of them dip steeply. Several of these dikes are bordered by very productive veins, notably, a strong persistent dike of alaskite porphyry bordered by the Pelican-Bismark vein system, just north of Silver Plume, and a granite porphyry dike bordered by the Colorado Central veins, about 1-1/2 miles south of Georgetown.

Structure

The ore deposits of the district are fissure veins, which belong to three main systems. In the area just north of Silver Plume, the fissures belong mainly to two systems, one having an average trend of N. 70° W. and the other an average of N. 70° E. (See pl. 13). A few fissures in this area, and most of the fissures elsewhere in the district belong to a system having an average trend of N. 50° E. Exceptions include many of the veins on Democrat and Columbia Mountains, in the northern part of the district, which belong to the N. 70° W. system. Nearly all the vein fissures have moderately steep to vertical dips. It is believed that the N. 70° W. system was formed earliest, as the majority of the dikes have this trend; in fact, the Pelican-Bismark fissure of this system was first opened in the breccia reef period of faulting. This system was apparently reopened at approximately the same time that the N. 70° E. system was developed, as valuable silver ores were deposited in both systems. The N. 50° E. system was apparently the latest formed, for practically all the pyritic gold veins have that general trend, and at Empire they were definitely later than the lead-zinc veins. Displacement along most of the vein fissures was small, ranging from a few feet to 15 feet, but on some, such as the Colorado Central vein, it was as much as 100 feet. In the Silver Plume region the movement was nearly horizontal; along the fissures of the N. 70° W. system the northeast wall moved northwest and down at a slight angle, and along those of the N. 70° E. system, the southeast wall moved southwest. Along the Colorado Central vein fissure, the northwest wall moved southwest and down at the average pitch of 20°. On other veins in the district grooves and slickensides range in pitch from horizontal to vertical, but no data

data indicating the direction of movement are available. Along many of the veins in the district, there has been post-ore movement, but in most places it has been small and has not greatly dislocated the ore.

Ore deposits

The ore deposits of the Silver Plume-Georgetown district are of two types: (1) the silver-lead-zinc veins and (2) the pyritic gold veins. In the very productive area just north of Silver Plume, the veins contain silver, lead, and zinc almost to the exclusion of gold, and the same is true of the veins on Republican and Democrat Mountains, 1-1/2 to 2-1/2 miles to the north-northeast. In these areas, nearly all the veins belong to either the N. 70° W. or the N. 70° E. system. Another important silver-mining area is that of the Colorado Central group, 1-1/2 to 2 miles south of Georgetown. The silver belt is represented farther to the northeast by the Comet-Aetna and Magnet veins, about one mile east of Georgetown. In this belt the predominant strike is northeast. Between the two silverbelts is a narrow gold belt about three-fourths of a mile wide extending from Leavenworth Mountain, 1-1/2 miles south of Georgetown northeastward to Saxon Mountain. In this belt the important veins all trend northeastward. On Lincoln Mountain, 3-1/2 miles northwest of Georgetown, both silver veins and pyritic gold veins are present.

The most abundant ore minerals of the silver-lead-zinc ores are galena and sphalerite, with considerable pyrite in places. The galena and to a less extent the sphalerite are argentiferous. However, the chief silver minerals in the ore are polybasite, argentiferous tetrahedrite, argentite, pyrargyrite, and proustite, and locally native silver. The chief gangue mineral is quartz, but brown carbonates are abundant in places;

sericite, barite, cherty silica, and locally kaolinite are also common.

The chief minerals in the pyritic gold deposits are pyrite, chalcopyrite, gold and small amounts of silver and quartz. Galena and sphalerite also are generally present in small amounts. Tetrahedrite and soft black chalcocite are common but not abundant. Free gold visible to the naked eye is found in places, but native silver is rare. The gangue minerals are quartz and small amounts of brown carbonates and barite. Fluorite is present in some of the veins of the gold belt.

The grade of the silver-lead ores is extremely variable. Much of the ore mined has commonly contained between twenty and several hundred ounces of silver to the ton, though some shipments have contained as little as 10 ounces and small streaks of unusually rich ore are reported to have contained more than 1,000 ounces to the ton. Some of the richest ore came from the Colorado Central vein, where first-class ore averaged 700 to 800 ounces of silver to the ton and the average silver content of ore mined over a 16 year period is reported to have been 200 ounces to the ton. In some of the veins in the area just north of Silver Plume, the silver content seems to be decreasing with depth. For example, in the South Frostberg vein, the ore contained 200 - 400 ounces of silver to the ton on the upper levels, 40 - 50 ounces just above the Mendota tunnel level, and 10 - 15 ounces on the lowest levels. The base-metal content of the silver-lead ores is as variable as the silver content. Ore shipments on which data could be obtained have contained from 2 to 50 percent of lead and from 4 to 40 percent of zinc. The gold content of these veins commonly ranges from 0.01 to 0.22 ounces of gold to the ton, and in places gold is absent. Ore mined from the Pelican-Bismark vein in 1896

contained 150 ounces of silver and 0.1 ounces of gold to the ton, 14 percent of lead, and 20 percent of zinc; these quantities are believed to be fairly representative of much of the silver-lead ore mined from the district in the past. The pyritic gold ore has commonly contained from 0.9 to 2 ounces of gold and from a few to 30 ounces of silver to the ton.

In the Silver Plume-Georgetown district, as in many other localities of the mineral belt, the northwesterly premineral faults seem to the the master fissures responsible for the localization of the district. This is particularly well shown in the highly productive area just north of Silver Plume, where the strong, northwesterly Pelican-Bismark vein, which was first opened in the breccia-reef period of faulting, is believed to be the trunk channel along which the ore-forming solutions moved from depth. Most of the productive vein systems of this area either branch from or approach within close proximity of the Pelican-Bismark vein and nearly all the output has come from within half a mile of this strong lode. Elsewhere in the district the control of trunk channels is not so well exhibited, though there is a suggestion that other strong northwesterly faults and veins, such as the Sunburst-Sceptre vein, may have exercised a similar control. A variety of structural factors influenced the localization of individual ore shoots. Some ore shoots seem related to the character and structure of the wall rock. The most favorable wall rock is granite, though porphyry is commonly favorable; schist is generally unfavorable. In places dikes of porphyry or of granite lying across the vein served to impound the solutions and cause deposition. Vein junctions were effective in controlling ore shoots in some parts of the district, but in others seem to have had little effect. Abrupt changes

strike or dip seem to have been the controlling factors in many mines, and these changes were apparently influenced by the character of the wall rock. Veins passing from schist into granite or from granite into porphyry tended to change their course abruptly. In veins of northwest trend, where the northeast wall moved northwest, as the Pelican-Bismark, the more favorable parts are the more westerly-trending parts. On veins of northeast trend, like the Mendota, where the southeast wall moved southwest the more eastward-trending parts of the vein are more favorable than the more northeastward-trending parts. In reverse faults like the Colorado Central, the flatter parts of the vein were the most favorable for the localization of ore, and in normal faults, the steeper parts were more favorable. Most of the ore shoots in the district are localized in places where both the wall rock and the structure of the vein were favorable for the formation of openings.

Many of the ore shoots in the district are fairly large. In some of the larger mines, ore shoots have been followed rather continuously from the surface to depths between 600 and 1500 feet. Stope lengths of several hundred feet are not uncommon and several compound ore shoots have stope lengths of more than 1,000 feet. The veins, however, are in general narrow, and in most places the ore bodies have had a thickness of only 1 to 3 feet, though locally they have widened to as much as 10 or even 15 feet. In some of the larger mines, also, there are indications that the ore bodies are becoming smaller and less continuous with depth and that the silver content is decreasing with depth. In no place, however, is there evidence that the lower limit of mineralization has yet been reached and, even in the deeper mines, future exploration seems warranted where structural conditions are favorable. Contrary to popular

belief, there are apparently no large bodies of zinc ore left in the stopes of the mines just north of Silver Plume, though there are still appreciable amounts of sphalerite in some of the dumps, notably those along the Mendota vein.

1/ Vanderwilt, John W., 1947, Mineral Resources of Colorado pp. 302 - 306.

Applicant's Proposed Exploration

The applicant's original proposal consisted of five (5) possible sites with which to begin their exploration program as follows:

1. Initially, the rehabilitation and use of the upper Jack tunnel was considered, but a preliminary attempt to reopen the portal of this tunnel proved uneconomical. The caving was a major item in the previous "access" to the area of interest. This proposed operation site was examined and rejected as to any economic value during May, 1966. (Figures in original application).

2. Use of the Lower Aunt Jack tunnel and thence driving easterly to the area of the Saxon Saddle fault -- Anglo-Saxon and tunnel veins, and their mutual intersection on the 9,360 foot elevation. The immediate veins near the heading of the Lower Aunt Jack tunnel contain the one which has had production in the past, and forms an immediate objective for exploration. The vein is the Anglo-Saxon Extension which has been mined to the west of the area of lower Aunt Jack tunnel. This vein can be intersected from the Lower Aunt Jack tunnel by driving about 200 feet from the present east heading.The Anglo Saxon Extension vein may also be intersected near the end of the previous workings and at a lower level or about 65 feet below the 7th level. The distance is apparently less than 50 feet. These two tunnel drives are justifiable together, with drifting on the vein an additional 200 to 300 feet easterly from the more easterly heading. This tunnel is the only justifiable development on this level. The other veins in the immediate area have an unknown potential in a poorly defined location. The additional exploration shown on the plat of this level and at the 9360 elevation was designed to follow the proposed location of the several veins, leading toward the major objective, which

the intersection of the Saxon-Saddle fault, the Saxon vein and the Tunnel vein, and their mutual points of intersection. (See original application).

This proposal is subject to criticism: (a) There is not enough known geologic information about the several veins to be of great potential value. (b) The cost of maintaining the tunnel as proposed would be similar to the difficulties encountered in the upper Aunt Jack tunnel where timbering was required for the entire length of that tunnel. (c) The cost of maintenance in the tunnel is over and above preliminary estimates hence, an unknown quantity at this time (d) The continuity of the several veins is subject to question and the depth from outcrop to the tunnel after advancing past the intermediate area of the Anglo-Saxon extension vein rapidly approaches 900 - 1,000 feet from the surface.

3. The third proposed site for exploration was the adit to be driven southeasterly from the Beaver Creek area at an elevation of 9,757 feet at the portal. The property at the portal site lies within the limits of the claims composing the group of mineral survey 18737 and is not presently owned by the company. This property is not for sale as determined by a conference between the owners and Mr. Walter Berry on August 5, 1966. This site is not available for use, hence is not further considered.

4. The fourth site considered is the 9754 Tunnel Site which is approximately due east of Survey Station 98 on the main road to the Upper Aunt Jack tunnel. This site is also about 300 feet south and west of that portal and is at that same elevation that is 9754 feet.

The tunnel, as proposed, is planned to avoid the known bad or heavy ground as much as possible. This may be accomplished by crossing the veins such as the "tunnel vein", with a minimum reasonable length of tunnel thence paralleling these veins as much as possible. In particular, in the major portion--about 1,400 feet of the tunnel -- would be about 100 feet southeasterly of the indicated heavy ground of the"Federal" and "Tunnel" veins. This proposed tunnel is essentially parallel to the old Aunt Jack Tunnel which followed the "Tunnel Vein". The disadvantage is the great distance to be driven before reaching the objective which is the area of intersection of the Saxon-Saddle fault, the Anglo-Saxon vein, and the tunnel vein, as projected to this area at this elevation. Throughout a distance of about 1950 feet the tunnel will cross "veins" of unknown potential.

5. A shaft was considered at the location of the approximate west end of line of the "Motto Group" of Mineral Survey 18678. Preliminary estimates were prepared. These costs are considerably larger than any of the other examined proposed sites, hence were rejected by the company for that reason, but was included in the application. The company made the following recommendations."These recommendations are as follows: (1) The company expend the major funds to explore the major objective in sufficient detail to develop the initial potential of the Anglo-Saxon vein east of the Saxon-Saddle fault using the "9754 tunnel" planned for this program. The Tunnel vein is a secondary objective and apparently will be crossed in reaching this major objective. (2) The company expend the limited sums needed to extend the present lower Aunt Jack tunnel to intersect the drift of the Anglo-Saxon extension vein on the 9360 level.

Of the five proposals costs estimates were proposed for proposal No. 2 Lower Aunt Jack tunnel which consists of constructing 0.02 miles of road, prepare tunnel site including surface facilities as required. Drive tunnel on the several courses shown on the plan map No. 1 -- to Anglo-Saxon vein east of the Saxon Saddle fault and explore the immediate area. Proposal No. 3 -- Beaver Creek tunnel site. Construct 0.08 miles of road, prepare portal site including surface facilities as required. Drive tunnel S. 31° E. to Anglo-Saxon vein and explore area generally east of the Saxon Saddle fault on this vein. Proposal No. 4 -- "9754 tunnel". Prepare portal site, reconstruct track and trestle to existing ore bin, surface facilities as required. Drive tunnel on the several courses as shown to the Anglo-Saxon vein east of the Saxon-Saddle fault and explore the immediate area. Proposal No. 5 -- shaft on west end of M.S. 18678 claims (Motto Group). Construct 1.5 miles road, prepare shaft site including buildings as required, sink shaft and explore area near Saxon-Saddle fault on the Anglo-Saxon vein and adjoining area on elevation 9,754 feet. The grand total of $574,525 is given as the estimated". (See text of original application). The application was referred to the field with the following comments: (Memorandum of September 14, 1966: To the File from Ed Peterson and Harold Kirkemo states: "that we are not favorably impressed by the applicant's proposal to drive a new tunnel on the 9754 level (Upper Aunt Jack tunnel level) to possible ore at or beyond the projected intersection of the Anglo Saxon and Federal veins east of the Saxon-Saddle fault. This tunnel would parallel an old inaccesible tunnel in the same target area. Geology shown on maps

prepared by Mr. Gabelman indicates no reason for expecting geologic conditions to be more favorable for the occurrence of ore bodies in the applicant's proposed target area than in the existing workings. The Idaho Springs formation (schist and gneiss) cut in much of the present Upper Jack tunnel is not conducive to ore bodies of significant size and continuity. Mineralized streaks in the tunnel are discontinuous and erratically mineralized.

The applicant is not much interested in exploring elsewhere on the property and minimal amount of work was proposed from the lower Aunt Jack tunnel level (9360). This tunnel is reported to be in the more competent rock formation (Silver Plume granite?) than the Idaho Springs formation, and vein structures may be better developed in this type of rock. These workings are accessible and can be examined.

The geologic information already available does not justify the applicant's major proposal. The surface above the proposed tunnel is in rock palance and therefore the geologic maps prepared by Mr. Gabelman are the best sources of information available. The possibility of gathering information from exposures east of the talus slope should be investigated. If geologic criteria are favorable perhaps a modest program of exploration from the lower Aunt Jack tunnel is warranted.

An on-site field examination on the subject property was made on November 17, 1966. The property was adequately examined relative to the target areas proposed by the applicant for exploration. The applicant was advised that the Office of Minerals Exploration program was not designed to explore acreages of "virgin" ground, nor would they explore a "multiplicity of target areas". He was also advised that the possible consideration

might be given to the proposal to explore the Anglo Saxon mine from the lower level of the lower Aunt Jack tunnel.

On November 28, 1966 a meeting was held in the Office of Minerals Exploration in Washington, D. C. at which time Mr. Berry discussed a revised plan of exploration.

The revised plan as offered by Mr. Berry would include the driving of an adit (in the 9757 level) from the Beaver Creek area southeast for a distance of about 800 feet to explore the original target area in the vicinity of the Anglo-Saxon fault. This would also entail approximately $25,000 of access road construction. The work is similar to proposal No. 3 as suggested by Hopkins and Prommel. The only change being that all workings would be on property controlled by Berry. Also included in Berry's revised plan is an undetermined (as yet) but presumably small amount of exploration from the lower Aunt Jack tunnel level.

The applicant was advised at the time of the field examination that an alternate program might be considered, one that was designed to explore the Anglo Saxon mine, the Saxon-Saddle fault area specifically and that it would not be possible to consider a program consisting of many multiple proposals. The consulting engineer's original report included these, and it was his opinion that exploratinn on several veins could be proposed and that one of them might be adequate for exploration. However, the company had hoped that the whole program as originally proposed would be considered by the OME. As a result of the field examination and conference the applicant has submitted an alternate exploration program as follows: (See Revised Exploration proposal of December 14, 1966).

The applicant proposes to drive an exploration tunnel from the lower Aunt Jack tunnel (9360) near the mineralized vein over its entire length, but to drive far enough away from the vein structure to remain in competent rock. The tunnel will reach the primary objective that is the Anglo-Saxon, the tunnel, and the Federal veins near their intersection with the Saxon-Saddle fault. This tunnel is to be driven from the present more easterly heading of the lower Aunt Jack tunnel to the projected area of the intersection of the Anglo-Saxon, the Tunnel vein, and the Saddle-Saxon fault zone. The applicant states that there are four veins on the property that have produced and are to be found in the vicinity of this proposed exploration work. The Anglo-Saxon vein has produced some $700,000 worth of ore grade material. The Federal vein has produced $100,000 which is shown by a local report and the Tunnel vein has produced some 260 tons for which settlement sheets are attached to the supplementary report, and the Anglo Saxon is reported to have produced $250,000 worth ofeore.

There are several other veins that have been opened either by prospect pit or by short tunnels with limited or little known production. According to the applicant, it is expected that the granite-monzonite country rock now present in the lower Aunt Jack tunnel will provide a more competent rock through which to penetrate and to subsequently explore the area of the Saxon-Saddle fault.

Conclusion and Recommendations

During the processing of the present application a memorandum of September 14, 1966 to the file from Ed Peterson and Harold Kirkemo concerning the subject property is enclosed and is pertaining to a conference held on September 12, 1966 in the Washington office with Mr. Walter V. Berry, Mr. David Hudson of the applicant, and Mr. Frank Johnson, Mr. Ed Peterson and Mr. Harold Kirkemo to discuss Mr. Berry's recent application for financial assistance. The meeting had been held and requested by the applicant in a telephone conversation with Mr. Kirkemo on September 7.

The OME officials informed Mr. Berry that a review of the material submitted with his application did not convince them that enough geologic information was known to justify this ambitious exploration project. The visitors believed that the past production work, exploration work and findings of Del Rio, Goodspeed, Lovering and Spurr which they referred to often were sufficient justification for the project. The applicant displayed a number of photographs taken several years ago showing old exploration workings and surface features of the area. A series of geologic mine maps prepared by John Gabelman of previous underground workings were also shown.

It was apparent from this conversation that the applicant believes strongly in the proposed work on the 9754 level (Upper Aunt Jack Tunnel) and feels that a limited exploration program would be unsatisfactory to him. Mr. Berry indicated only secondary interest in the proposed work on the 9360 level (Lower Aunt Jack tunnel level). The applicant's primary target on the 9754 level is the Anglo Saxon ore shoot at the

intersection of the Anglo-Saxon and Saxon-Saddle fault. The target area is about 600 feet vertically below the surface and about 800 feet below the near-surface mine workings on this ore shoot measured as slope distance parallel to the Saxon-Saddle fault. The tunnel would be driven about 2200 feet generally parallel to a caved tunnel in the same target area. Any veins that intersect cut by the tunnel en route to the main target would be explored by short drifts and/or drill holes.

Work proposed on the 9360 level would consist of several hundred feet of crosscuts and drifts from the existing lower Aunt Jack tunnel to explore the Anglo Saxon extension vein and possible intersecting veins.

The applicant's proposed program of December 14, 1966 from the lower Aunt Jack tunnel consists of some 2925 feet of crosscuts and drifts as well as some 2,050 feet of diamond drill hole. The program itself is more adequately planned even though the objectives are the same. The tunnel is designed to remain in the more granitic rocks following an area between the Anglo Saxon and Tunnel Veins with periodic diamond drill holes from the crosscut to penetrate ~~the~~ and test the extension of the Anglo Saxon and Tunnel Veins and to more adequately explore the Saxon-Saddle fault area. Even though the revised exploration program is better planned and that the Anglo-Saxon mines have had considerable early day production it is still felt that the total costs of this proposal of some $359,000 is still possibly too much to expect for the potential that might come from the Anglo-Saxon vein, Tunnel vein, Anglo-Saxon Extension, and Saddle-Saxon fault zone at the present time. It is therefore concluded that the application be denied without prejudice

and that the applicant be advised to commence some of his work from the lower Aunt Jack tunnel possibly by extending a crosscut to intersect the Anglo-Saxon Extension vein which is less than 100 feet from the Lower Aunt Jack tunnel to the southeast and possibly drift on the Anglo-Saxon Extension from that elevation. It is felt that the Anglo-Saxon vein should be intersected and explored to ascertain its continuity and grade, then perhaps some definite exploration targets could be established and another proposal to the OME may be made. Certainly more geologic data must be obtained concerning the project area.

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
1/6/67	Peterson	
1/6/67	Kirkemo	
	CAC	

Mr. Walter V. Berry
President
Berry Metal Company
Harmony, Pennsylvania 16037

Re: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

Dear Mr. Berry:

This will acknowledge receipt of your letter left-hand side dated January 3, 1967, with the accompanying copy of the revised exploration program.

After our staff has carefully reviewed this new material and the pending examination report by our Field Officer, we will notify you of our decision regarding your proposal.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Region III w/cy of 1/3/67 letter
Peterson

ECPeterson/mm (1/6/67)

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
11/29/66	Kirbarno	120
"	Johnson	110
		220
		120 M

November 29, 1966

Memorandum

To: The File

From: Edward C. Peterson
Office of Minerals Exploration

Subject: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

On November 28, 1966, a meeting was held in our offices between Mr. Walter V. Berry, President, Berry Metal Company, and Frank E. Johnson and Edward Peterson of OME, to discuss Mr. Berry's application for OME assistance.

Mr. Berry requested this meeting to discuss several proposed changes in his original application. He stated that he wanted to get our views and comments of these changes before he confers with Bill Hasler in Denver on December 1.

The revised plan as offered by Berry would include the driving of an adit (9757 level) from the Beaver Creek area southeast for a distance of about 800 feet to explore the original target area in the vicinity of the Anglo-Saxon fault. This would also entail approximately $25,000 of access road construction. The work is similar to proposal No. 3 as suggested by Hopkins and Prommel. The only change being that all workings would be on property controlled by Berry. Also included in Berry's revised plan is an undetermined (as yet) but presumably small amount of exploration from the Lower Aunt Jack tunnel level (9360 level).

Asked if a surface drilling program would be feasible, Berry said, "Yes." However, he believes his proposal would cost less and do a better job. He stated the road construction was necessary in either case to gain access to the portal site or drill sites.

Mr. Berry also inquired about conducting a geophysical survey on a large virgin area east of the Anglo-Saxon fault. He was informed

that this was more in the nature of prospecting and not eligible for OME assistance. However, he was told that OME might assist in a geophysical survey of the area along the fault to determine the area's possibilities prior to any other work being performed.

Mr. Berry stated that he had recently discussed his project with John Gabelman, but offered no further comment concerning this.

Mr. Johnson or Peterson made no definite proposals or commitments, and the meeting ended after a short discussion on items of general interest involving the property and proposed work.

Edward C. Peterson

Edward C. Peterson

cc: Director's Reading File
Division File
Economic Geology File
OME Reading File
Region III
Peterson

ECPeterson/mm (11/29/66)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225
Office of Minerals Exploration

OFFICIAL COPY
O. M. E.
NOV 29 1966
FILE COPY
RG 110
EO 120P
HK 120K

November 21, 1966

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: OME-6570 (Silver)
Berry Metals Company
Anglo Saxon Mine
Clear Creek County,
Colorado

An on-site field examination on the subject property November 17, 1966 was made by the Field Officer, Region III, who was accompanied on the examination by Mr. R. U. King, U. S. Geological Survey, Mr. Walter V. Berry, President of Berry Metals Company, Mr. David Hudson representing the applicant as well as Mr. Paul Hopkins, the consulting engineer.

The property was adequately examined relative to the target areas proposed for exploration. Mr. Berry was advised that the Office of Minerals Exploration program was not designed to explore acreages of "virgin ground" nor would they explore a"multiplicity of target areas". He was also advised that possible consideration might be given to a proposal to explore the Anglo Saxon Mine from the lower level of the Aunt Jack tunnel. He was also advised that the report of examination possibly could ~~be~~ not be completed or even begun for a period of 30 days and that all of the findings during the examination would be duly considered and that all of the facts available would be included in my report to Washington but that it would be Washington's decision as to whether or not a contract might be prepared that the consideration of a contract is based largely on the geological data provided by the applicant.

Considerable clarification of the target area and revision of the applicant's maps were discussed with the applicant, consequently we will be in touch with Mr. Hopkins and Mr. Hudson at a later date concerning the submittal of the data discussed with them.

My impressions are that the project does not appear too promising. A report is in preparation.

J. William Hasler

J. William Hasler,
Field Officer, Region III, OME

Office of Minerals Exploration

November 2, 1966

OFFICIAL COPY
O. M. E.
NOV 4 1966

Mr. Walter V. Berry, President
Berry Metals Company
Harmony, Pennsylvania 16037

Subject: OME-6570 (Silver)
Berry Metals Company
Anglo Saxon Mine
Clear Creek County
Colorado

Dear Mr. Berry:

This morning in a telephone conversation with your Mr. David Hudson, a tentative date of November 17, 1966 was set for a field examination of the Anglo Saxon property relative to an application for financial assistance to explore for silver on the above mentioned property.

Unless otherwise informed, I will consider the date a firm one. Should my schedule change and I find it impossible to make an examination on November 17, 1966 I shall inform Mr. Hudson.

Sincerely yours,

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

cc: Mr. David Hudson
Chief, OME
OME chron
Hasler chron
OME-6570

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
9/30/66	Kirkemo	130
		110
		220
		120
9/30/66	Peterson	

SEP 30 1966

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

This application is referred to you for review, a field examination if warranted, and your recommendations.

The memorandum of September 14, 1966, to the File from Ed Peterson and Harold Kirkemo states that we are not favorably impressed with the Applicant's proposal to drive a new tunnel on the 9754 level (Upper Aunt Jack tunnel level) to possible ore at or beyond the projected intersection of the Anglo Saxon and Federal veins east of the Saxon Saddle fault. This tunnel would parallel an old inaccessible tunnel into the same target area. The geology shown on maps prepared by Mr. Gabelman indicates no reason for expecting geologic conditions more favorable for the occurrence of ore bodies in the Applicant's proposed target area than in the existing workings. The Idaho Springs formation (schist and gneiss) cut in much of the present Upper Jack tunnel is not conducive to ore bodies of significant size and continuity. Mineralized streaks in the tunnel are discontinuous and erratically mineralized.

The Applicant is not much interested in exploring elsewhere on the property. A minimal amount of work was proposed from the Lower Aunt Jack tunnel level (9360 level). This tunnel is reported to be in a more competent rock formation (Silver Plume granite?) than the Idaho Springs formation, and vein structures may be better developed in this type of rock. These workings are accessible and can be examined.

Success attained in enterprises and professions unrelated to exploration and mining does not necessarily qualify either the Applicant or the project manager to supervise and manage a project in the event of a contract.

23263

The geologic information already available does not justify the Applicant's major proposal. The surface above the proposed tunnel is a rock talus, and therefore the geologic maps prepared by Mr. Gabelman are the best sources of information available. The possibility of gathering information from exposures east of the talus slope should be investigated. If the geologic criteria are favorable, perhaps a modest program of exploration from the Lower Aunt Jack tunnel is warranted.

According to the Applicant, there is considerable interest in the Georgetown district concerning this application.

In view of the short distance to this property from Denver and the Applicant's desire to undertake work this fall if possible, we hope you can arrange to visit the property soon. A brief memorandum report with your recommendation may be sufficient for us to make a decision on the application.

Enclosed are copies of reports and maps received recently from the Applicant and a memorandum of Mr. Kirkemo's conversation with Mr. Gabelman.

Frank E. Johnson

Enclosures:
Memorandum to the File dated September 14, 1966
Two letters from Applicant dated September 21, 1966, enclosing
4 geologic maps prepared by Mr. Gabelman
1 page of geologic color index and symbols
1 map of claims
1 map showing development tunnel proposal
1 structure map of Silver Plume-Georgetown district
1 newspaper clipping dated Feb. 19, 1910
4 letters concerning "Berry metal"
1 magazine article on Berry Metal Co.

cc: Director's Reading File
Division File
Economic Geology File
OME Reading File
130
Kirkemo

HKirkemo/mm (9/30/66)

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
9/30/66	Kirkemo	120
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9/30/66	Peterson	

SEP 30 1966

Mr. Walter V. Berry
President
Berry Metal Company
Harmony, Pennsylvania 16037

Re: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

Dear Mr. Berry:

This is to acknowledge receipt of your letters dated September 13 and 21, 1966, with accompanying maps, letters, and reports.

We are now referring the application for further review to Mr. J. William Hasler, Field Officer, Region III, Office of Minerals Exploration, U. S. Geological Survey, Building 25, Denver Federal Center, Denver, Colorado 80225.

The Regional Office will notify you or Mr. Hudson if additional information is needed.

Sincerely yours,

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Division File
Economic Geology File
OME Docket
OME Reading File
Region III
Kirkemo

HKirkemo/mm (9/30/66)

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
9/14		120
	Peterson	120
9/14	[illegible]	110
9/14	Cal	220
		120M

September 14, 1966

Memorandum

To: The File

From: Harold Kirkemo, Assistant Chief, OME

Subject: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

The proposal to explore the Anglo Saxon property was discussed today by phone with Mr. John W. Gabelman, Geologist, U. S. Atomic Energy Commission, Germantown, Maryland. Mr. Gabelman spent some time at the property in the 1940's, part of the time in the employ of Mr. Walter V. Berry, and part of the time as instructor of mine and surface geologic mapping for classes from the Colorado School of Mines.

Mr. Gabelman stated that the location, bearing, width, and identity of the geologic features on his maps of the Upper Aunt Jack Tunnel were plotted as accurately as the scale of the maps permitted. His maps had been checked by an associate professor at the School of Mines.

Areas from which the high-grade silver-bearing material was reported by Mr. Berry were resampled carefully by Mr. Gabelman. Assays obtained from the resampled material were disappointingly low.

In Mr. Gabelman's opinion, the geology of the Anglo Saxon mine area should be mapped in detail to locate areas of competent crystalline rocks, and to locate any veins which may be present in these areas. The best targets for exploration will be on veins in these areas, and probably at depths not exceeding several hundreds of feet.

Harold Kirkemo
Harold Kirkemo

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Kirkemo

HKirkemo/gla 9-14-66

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
9/14	Peterson	120
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9/14	[illegible]	110
		220
		120M

September 14, 1966

Memorandum

To: The File

From: Ed Peterson and Harold Kirkemo
Office of Minerals Exploration

Subject: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

On September 12, 1966, a meeting was held in our offices with Mr. Walter V. Berry, President, Berry Metal Company, Mr. David Hudson, Mr. Berry's Project Manager, Frank Johnson, Harold Kirkemo, and Edward Peterson of OME, to discuss Mr. Berry's recent application for OME financial assistance. The meeting had been requested by the Applicant during a telephone conversation with Kirkemo on September 7.

We informed Mr. Berry that a review of the material submitted with his application did not convince us that enough geologic information was known to justify this ambitious exploration project. The visitors believed that past exploration work and the findings of Del Rio, Goodspeed, Lovering, and Spurr, which they referred to often, were sufficient justification for the project. The Applicant displayed a number of photographs taken several years ago showing old exploration workings, and surface features of the area. A series of geologic mine maps prepared by John Gabelman of previous underground workings were also shown.

It was apparent from this conversation that the Applicant believes strongly in the proposed work on the 9754 level (Upper Aunt Jack tunnel level) and feels that a limited exploration program here would be unsatisfactory to him. Mr. Berry indicated only secondary interest in the proposed work on the 9360 level (Lower Aunt Jack tunnel level).

A number of questions were asked of the visitors pertaining to the project, and they were also asked to clear up several statements made in the narration portion of the application.

23263

We requested two sets of prints of Gabelman's geologic mine maps and Mr. Hudson stated he would send them to us.

The Applicant's primary target on the 9754 level is the Anglo Saxon ore shoot at the intersection of the Anglo Saxon and Federal veins in the hanging wall of the Saxon Saddle fault. The target area is about 600 feet vertically below the surface, and about 800 feet below the near surface mine workings on this ore shoot measured as slope distance parallel to the Saxon Saddle fault. The tunnel would be driven about 2,200 feet generally parallel to a caved tunnel into the same target area. Any veins of interest cut by the tunnel en route to the main target would be explored with short drifts and/or drill holes.

Work proposed on the 9360 level would consist of several hundred feet of cross cuts and drifts from the existing Lower Aunt Jack tunnel level to explore the Anglo Saxon Extension vein and possible intersecting veins.

The meeting clarified the Applicant's proposal. The maps and cross sections submitted with the application had shown proposed tunnels into the Anglo Saxon target area on both levels. The existence of detailed geologic maps by Gabelman of the Upper Aunt Jack tunnel was revealed. These will be of primary value in evaluating this application. The discussion also included questions and answers regarding some of the high cost items in the proposal.

Edward Peterson

Edward Peterson

Harold Kirkemo

Harold Kirkemo

EPeterson/HKirkemo/gla 9-14-66

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Region III
OME Reading File
Mr. Peterson
Mr. Kirkemo

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
9/7		120
		110
		120M
	E. Peterson	120 P

September 7, 1966

Memorandum

To: The File

Subject: OME-6570 (Silver)
Anglo Saxon Mines, Inc.
(Subsidiary of Berry Metal Company)
Anglo Saxon Mine
Clear Creek County, Colorado

Mr. Walter V. Berry, President, Berry Metal Company, phoned this morning to discuss the application for financial assistance to explore the subject property.

He understood that Mr. R. U. King, geologist, U. S. Geological Survey, had reviewed the application. Mr. Berry hoped that any questions we may have had concerning the proposed project were answered by King's review. I replied that the proposal was more speculative than the OME regulations permitted. There is little justification for the proposed work--only generalized geologic maps, projections and extensions based on little geologic evidence, workings inaccessible, meager sample and assay data, etc.

Mr. Berry understood the OME program was intended to help explore virgin ground, but he graciously accepted my comments and understood our problem more clearly after I explained what information was required to justify Government participation in a project.

Mr. Berry requested a conference with us to further discuss the application. A conference was arranged for September 12 at 1:00 p.m. in our offices.

Harold Kirkemo

Harold Kirkemo

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Kirkemo

HKirkemo/gla 9-7-66

23263

August 22, 1966

Mr. Walter V. Berry
President
Berry Metal Company
Harmony, Pennsylvania 16037

Subject: OME - 6570

Dear Mr. Berry:

Your application for exploration assistance, dated August 16, 1966 for the Anglo Saxon Mines, Inc., submitted to our office at Washington, D. C., has been assigned Docket No. OME - 6570.

Please identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Frank E. Johnson
Chief, Office of
Minerals Exploration

Copy to R-III. Application sent to R-III but operator submitted his own copy as there is a time limit for him to begin work.

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
		110
		220

AUG 1 9 1966

Mr. Walter V. Berry
President
Berry Metal Company
Harmony, Pennsylvania 16037

Dear Mr. Berry:

We have your letter of August 16, 1966, concerning your application for assistance to explore the Anglo Saxon mine at Georgetown, Colorado, which was filed with our Denver office.

Your comments regarding your proposal have been noted. We do not provide funds under exploration contracts for contingencies. The amount of a contract may be increased within the maximum allowed for a single contract at any time by an amendment to provide for additional work if justified.

As soon as we receive your application from the field we will review it and notify you if any additional information is needed. Although it is not necessary for you to come to Washington we shall be glad to discuss the application here with you at a mutually convenient time.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file

FEJohnson/bih 8/19/66

23263

Berry

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World's Largest Self-Integrated Oxygen Lance Designers and Builders

METAL COMPANY

HARMONY, PENNSYLVANIA 16037
TEL.: 452-8040 • AREA CODE 412

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AUG 17 1966
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110

August 16, 1966

application has not come to work yet
ce

Mr. Frank E. Johnson, Chief
Office of Minerals Exploration
Department of the Interior
Room 4460
Washington, D. C. 20242

Subject: Proposed Exploration of the Anglo Saxon Mine, located at Georgetown, Clear Creek County Colorado

Dear Mr. Johnson:

On August 11 we delivered an Application for Financial Assistance in Minerals Exploration of the Anglo Saxon Mine, to Mr. J. W. Hasler, Manager of your Denver office. The application was dated August 9, 1966.

You will recall we discussed this matter in your office on April 27, 1966.

In conjunction with this application, we request that:

> All unallowed deleted amounts itemized in our "Operation Cost Estimates" be transferred to the Contingency Funds for additional exploration.

Why do we not use contingency funds

You will note in Professor Goodspeed's Report these statements:

P. 3 - "One of the most striking features shown on the Plan View of Veins recently prepared by Prommel and Hopkins is the multiplicity of possible vein intersections which in this region are targets for ore."

P. 4 - "As shown on the Plan View of Veins this tunnel is so positioned that relatively short cross-cuts can be driven to several vein intersections which provide additional targets for ore."

Prospecting?

P. 4 - "In addition, several vein intersections can be prospected from this tunnel by diamond drilling or cross-cutting which will provide additional targets for ore."

Professor Goodspeed's teaching corresponds with the findings of Spurr and Garrey in Professional Paper 63 and Lovering in Professional Paper 223. Since vein junctions are targets for ore it is imperative that every vein junction in close proximity to the exploratory tunnels be explored.

The Contingency Fund can be wisely utilized for exploring this "multiplicity" of vein junctions.

Del Rio in Mineral Resources of Colorado (1960 p. 100-101) and Lovering in Professional Paper 223 of the U. S. Geological Survey (1950 p. 191) specifically point to the virgin area we propose to explore, i.e. the area between the Frieland-Damertine area and Georgetown, as having possibilities of finding undiscovered ore shoots.

Their statements - together with the reports - our financial and moral standing - prior work - and the authentic reports of past rich silver production - make this a meritorious project. It could revive interest in silver mining throughout Colorado.

You will find our Application complete. The only item missing is the estimate of production. This cannot be honestly given for virgin and unexplored ground. In considering the acreage involved, together with all other factors, it would be reasonable to say that sufficient tonnage to repay the loan is an excellent probability.

You will possibly want to ask some questions regarding our Application. Since we are close by we will appreciate a telephone call to set a day and time for a discussion in your office.

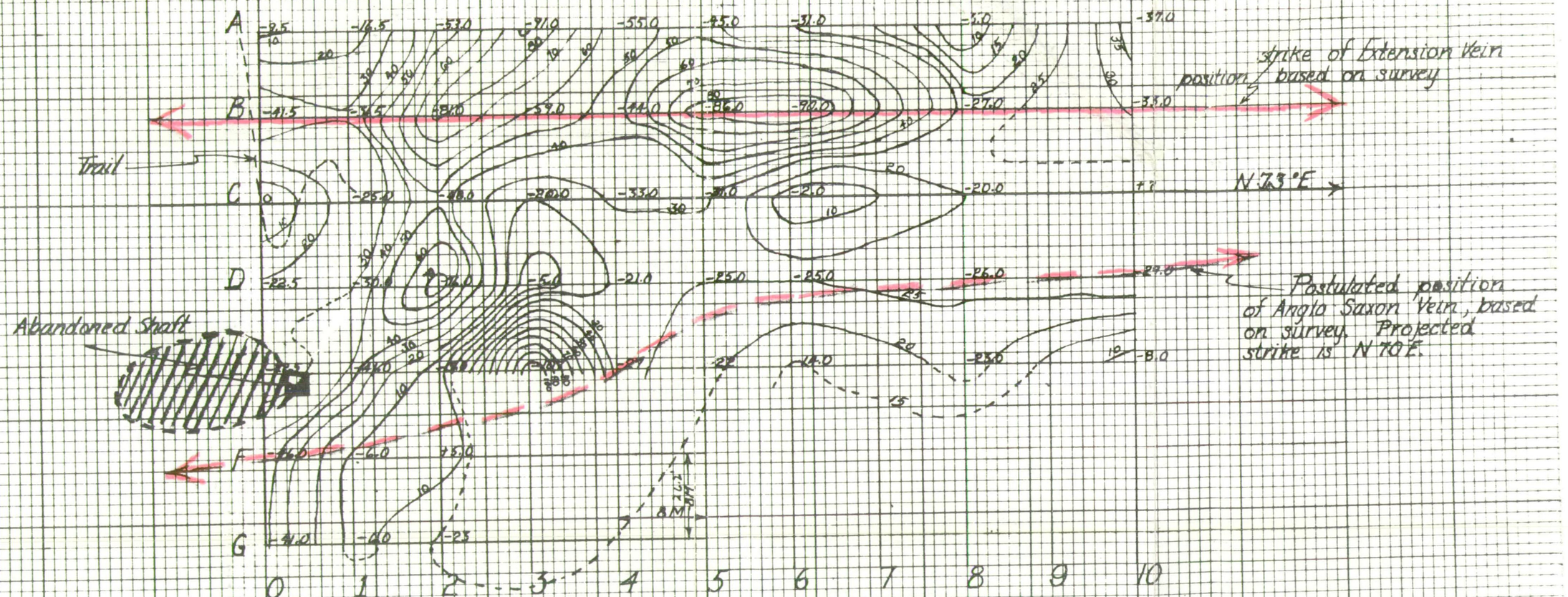
Yours very truly,

BERRY METAL COMPANY

Walter W. Berry, President

WVB:IY

cc Mr. J. W. Hasler, Manager, Denver Office



SELF POTENTIAL SURVEY
of
Anglo Saxon Extension Vein; Georgetown, Colo.
Contour Interval = 5 and 10 millivolts
Scale: 1" = 10 meters.
John W. Gabelman

1" = 32.8 FT.

NO. 340D-10 DIETZGEN GRAPH PAPER
10 X 10 PER INCH
EUGENE DIETZGEN CO.

- Geologic Color Index -
- & Symbols -

Veins (Red Pencil) (Red Ink)

is — Idaho Springs Formation ~ Shistosity by hatching
(Schists & Qtz. Gneisses)

Qd — Quaternary Overburden

Sgr — Silver Plume Granite

Pegmatites

Lithologic Contacts (Blk. Ink)

blue. — Faults (Unmineralized) Green Ink

Claim Boundaries & Corners ~ Blue Ink
Topographic Features ~ Brown Ink
Dumps ~ Red Ink

LEGEND

Lithology

Granite

Acidic Pegmatite

Monzonite

Diorite

Soil or Talus

Faults

Veins

Metallization - Sulphides

Texture

Phaneritic

Pegmatitic

Porphyritic

Schistose

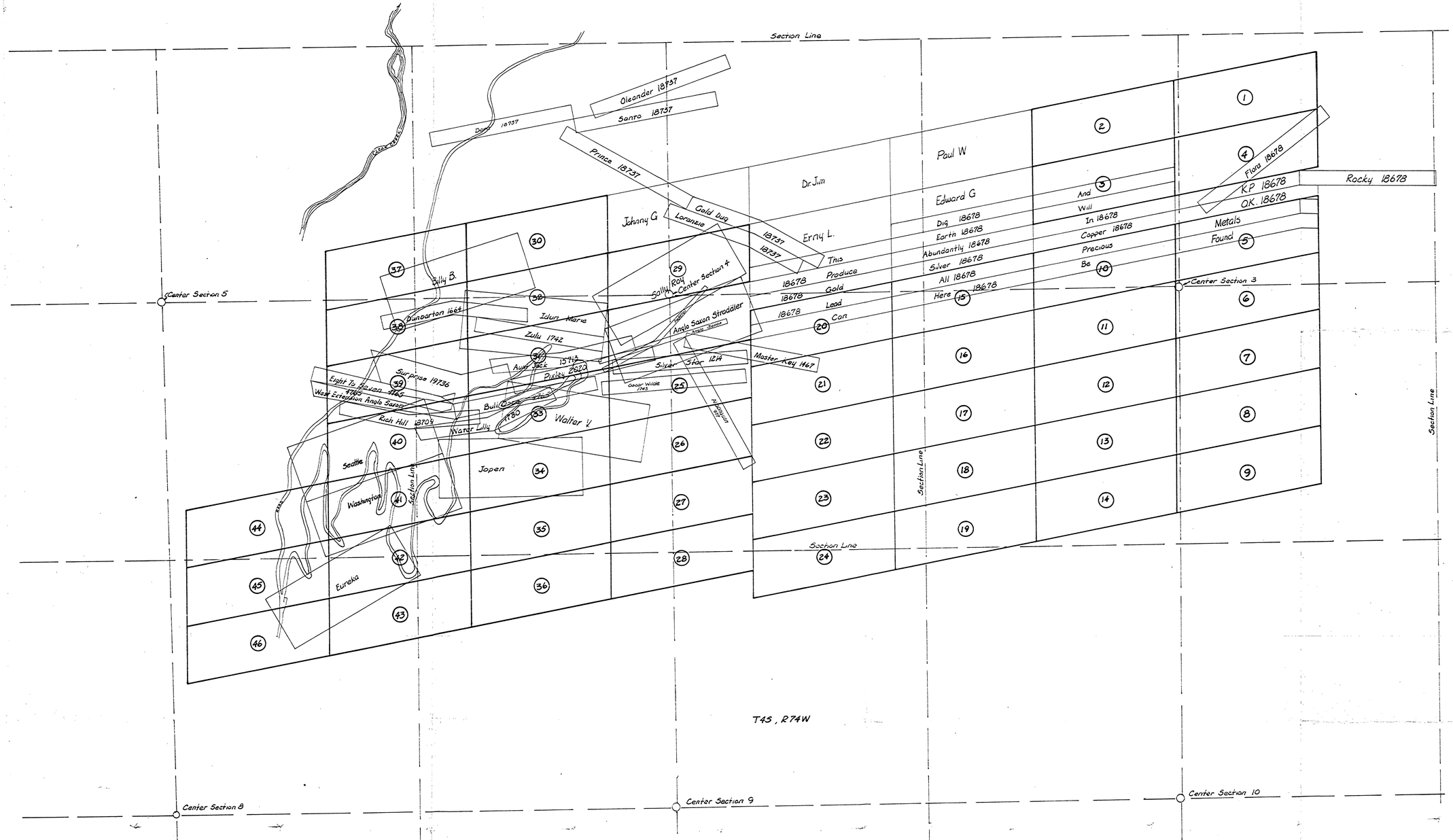
Gneissic

Assays

Width (ft) -	Gold	Silver	Copper	Lead	Zinc
3.2' -	0.02,	12.34,	0.56,	7.89,	1.23

Conventional Map Symbols

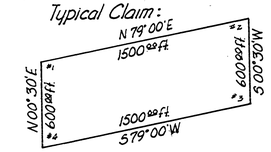
OFFICIAL
COPY
O. M. E.
RECEIVED
DEC 4 1957
INITIALS | CODE



LEGEND

All Claims Have Idendical Bearings, Distances, And Relative Corner Locations.

Typical Claim:



Map Of Claims No. 1 Thru No. 46
Showing Relative Locations
Located By David C. Hudson.

By: Raymond P. Heon
Raymond P. Heon
Registered Land Surveyor
Consulting Mining Geologist
Ph. 567-2403 - 569-2304
P.O. Box 1164 Idaho Springs, Colo.

Property Of:
ANGLO-SAXON MINES, INC.
Georgetown, Colorado
Division Of Berry Metal Co.

Recorded Sept 1, 1967 at 8:30 O'clock, A.M.
Reception No. 36358 John G. Osborne, Recorder

SERIES SHEET OF SHEETS

REVISIONS

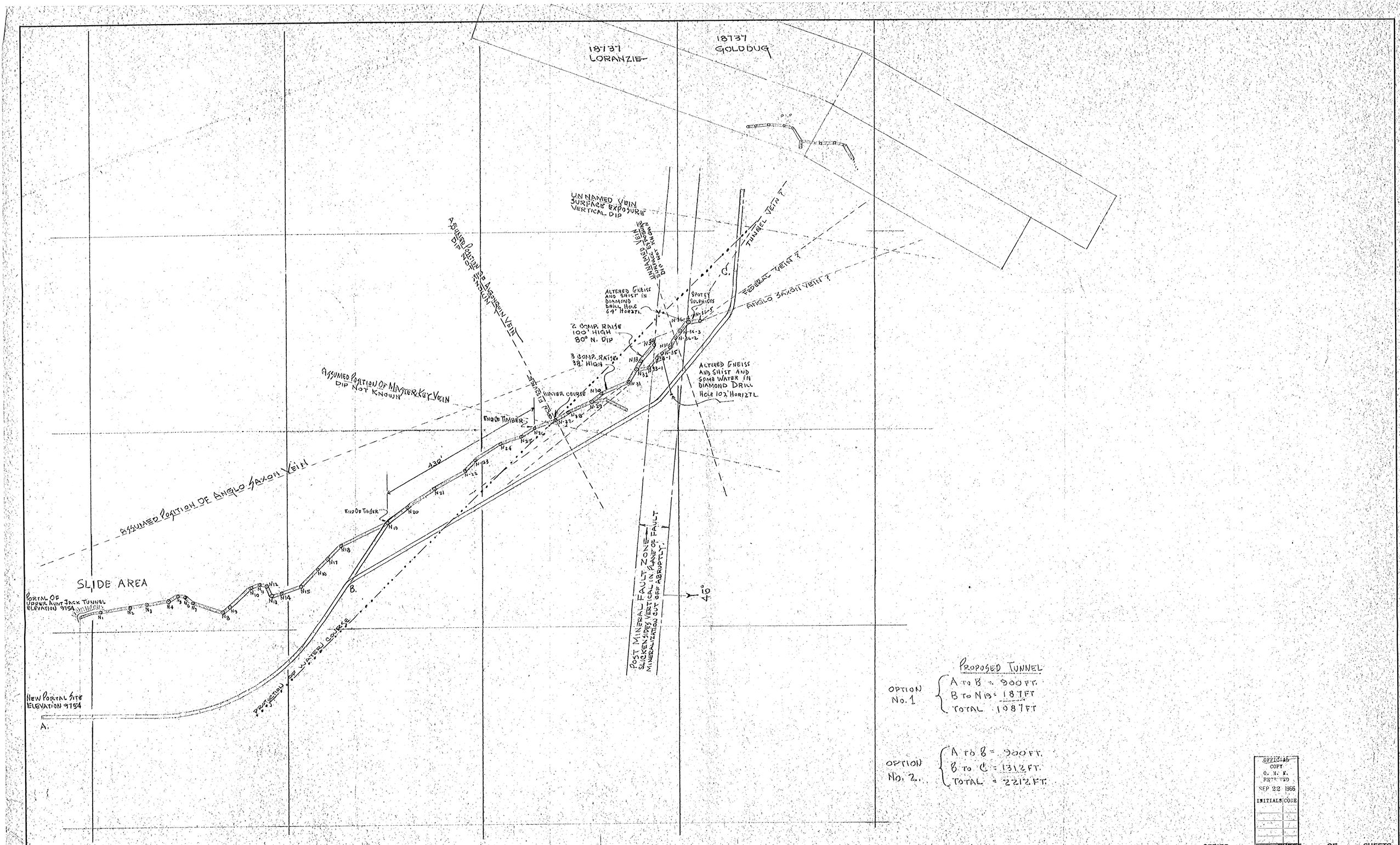
Berry METAL COMPANY HARMONY, PENNA. 16037, U.S.A.

DR. DATE
CH. DATE
APP. DATE
SCALE

DRAWING NO. A5M-8

REV.

STRAPAT PRODUCTS INC. PORT WASHINGTON, N.Y.



PROPOSED TUNNEL

OPTION No. 1
- A to B = 900 FT.
- B to N 19 = 187 FT
- TOTAL 1087 FT

OPTION No. 2
- A to B = 900 FT.
- B to C = 1312 FT.
- TOTAL = 2212 FT.

OFFICIAL COPY O. M. E. RECEIVED SEP 22 1966

INITIALS	CODE

SERIES SHEET OF SHEETS

REVISIONS

ANGLO SAXON MINE
GEORGETOWN, COLO.
DEVELOPMENT TUNNEL PROPOSAL

DR. P.T. DATE 9-18-66
CH. DATE
APP. DATE
SCALE 1" = 100 FT.

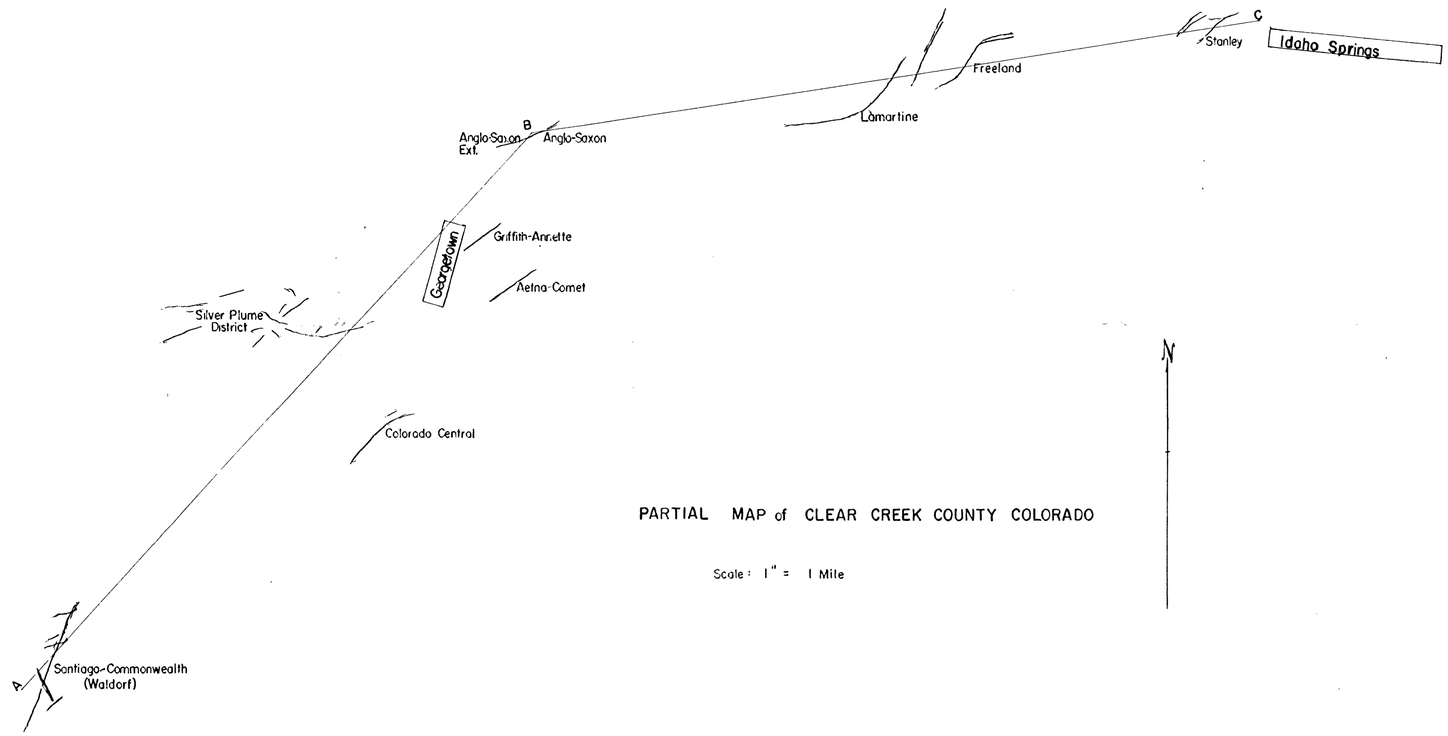
Berry METAL COMPANY HARMONY, PENNA. 16037, U.S.A.

DRAWING NO. REV.

PR 7495-465

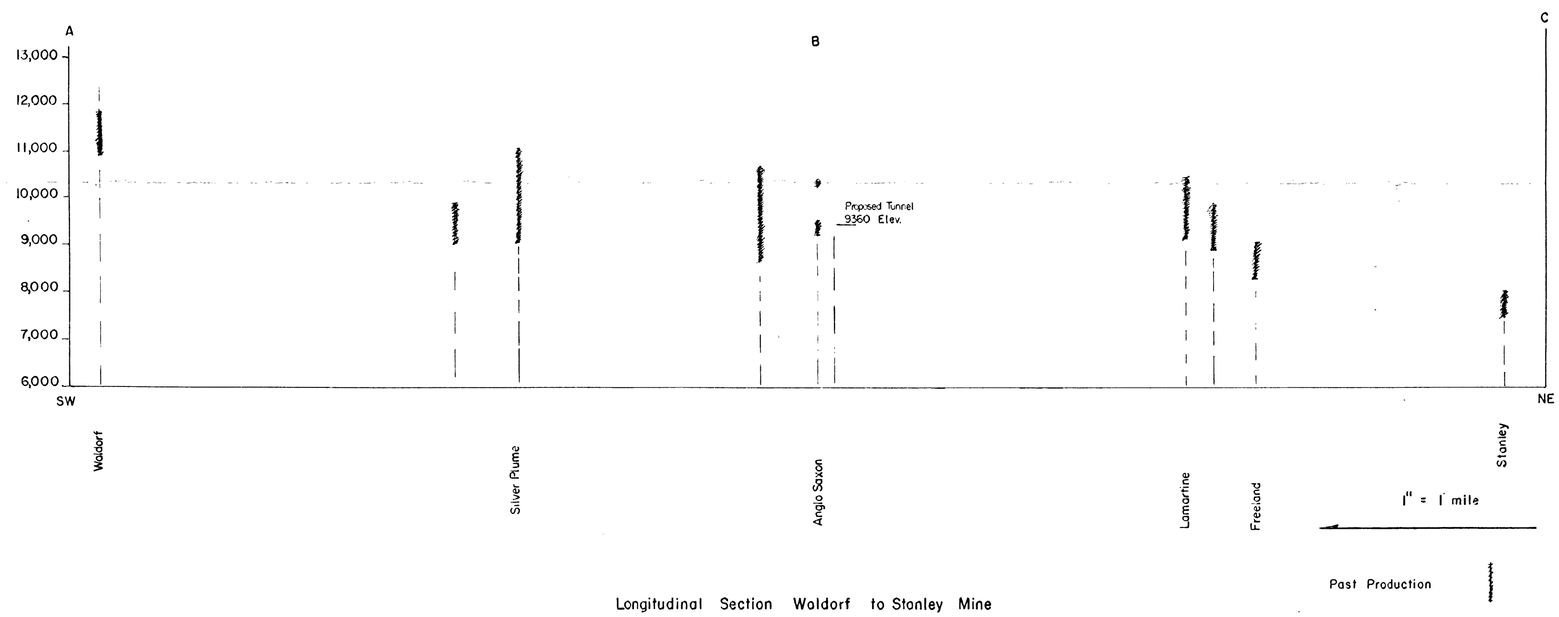
REVISIONS

10 1000 ALBANENE A.G.B. SMITH CO. FOH., PA.



PARTIAL MAP of CLEAR CREEK COUNTY COLORADO

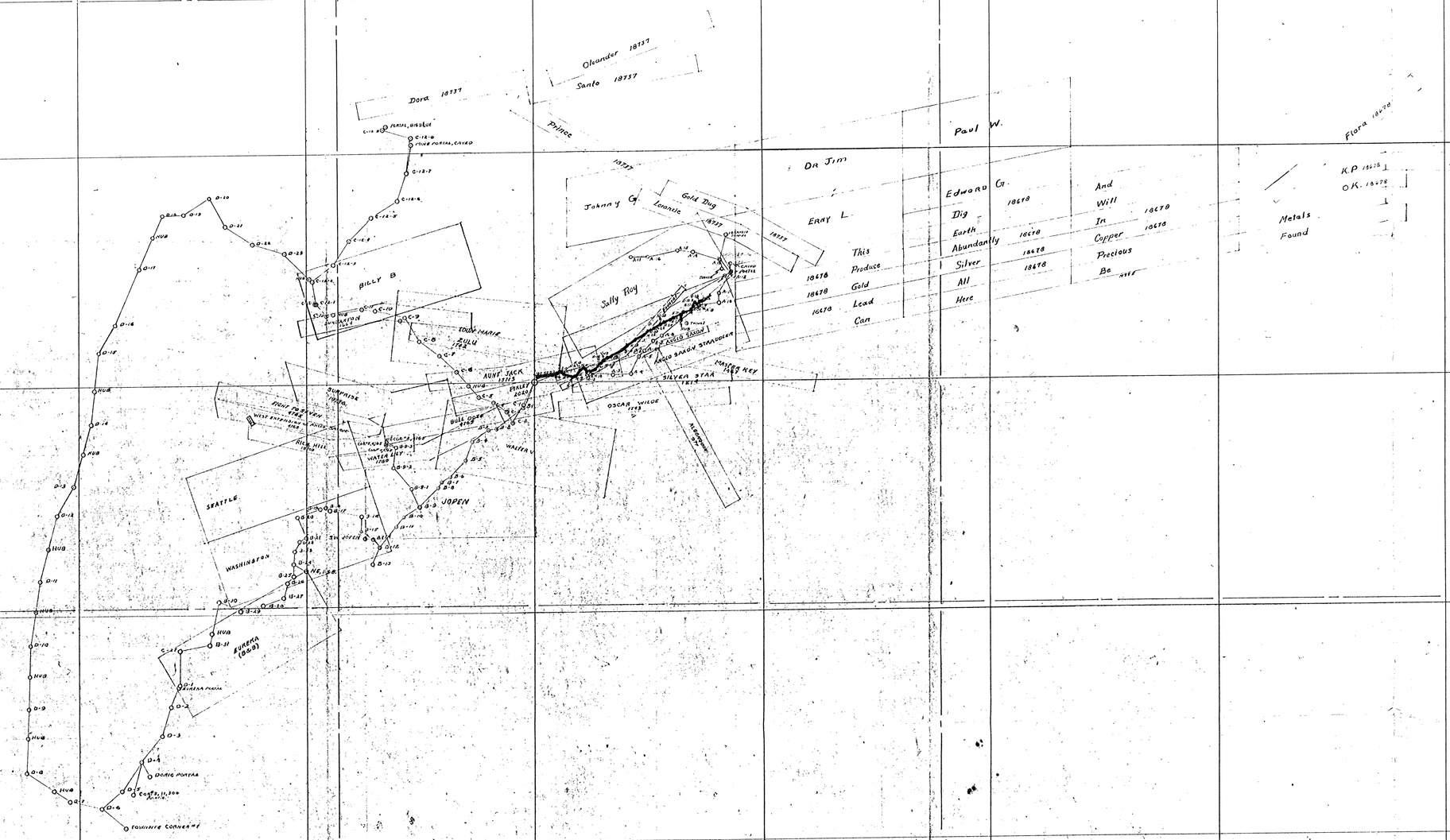
Scale: 1" = 1 Mile



Longitudinal Section Waldorf to Stanley Mine

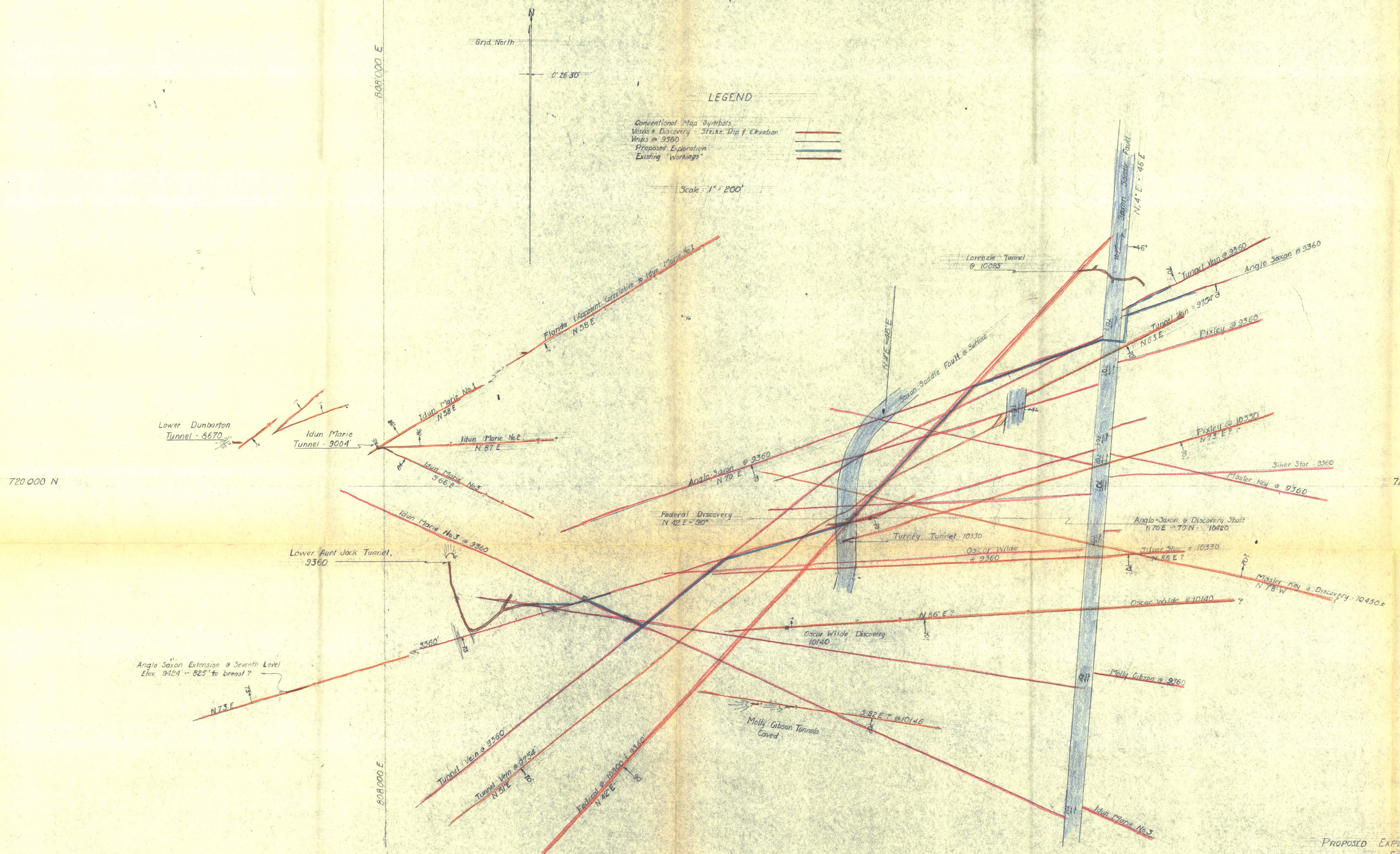
OFFICIAL COPY
C. M. R.
JAN 3

Anglo Saxon Mines, Inc.
Map 1 & Section 1



MAP OF CLAIMS
ANGLO SAXON MINES
GEORGETOWN, COLORADO

OFFICIAL
COPY
O. M. K.
RECEIVED
SEP 22 1910
INITIALS CO.



Course	Distance	Description
S 89 E	145	A.S. Ext. Vn
N 73 E	65	Intersection A.S. Ext & Idun M. Vn.
N 73 E	100	Drift A.S. Ext. Vn
S 66 E	260	Dr. on Idun M. Vn
S 51 W	100	Explor. Tunnel Vn.
N 51 E	455	Dr on Tunnel Vn
N 73 E	475	Dr. on A.S. Ext. Vn
N 42 E	790	Dr on Federal Vn
N 70 E	550	Dr on Anglo Saxon Vn. to fault
N 90 E	100	- Cross Fault Zone
N 5 E	150	XC to A.S. Vn
N 70 E	200 min	Explore A.S. Vn

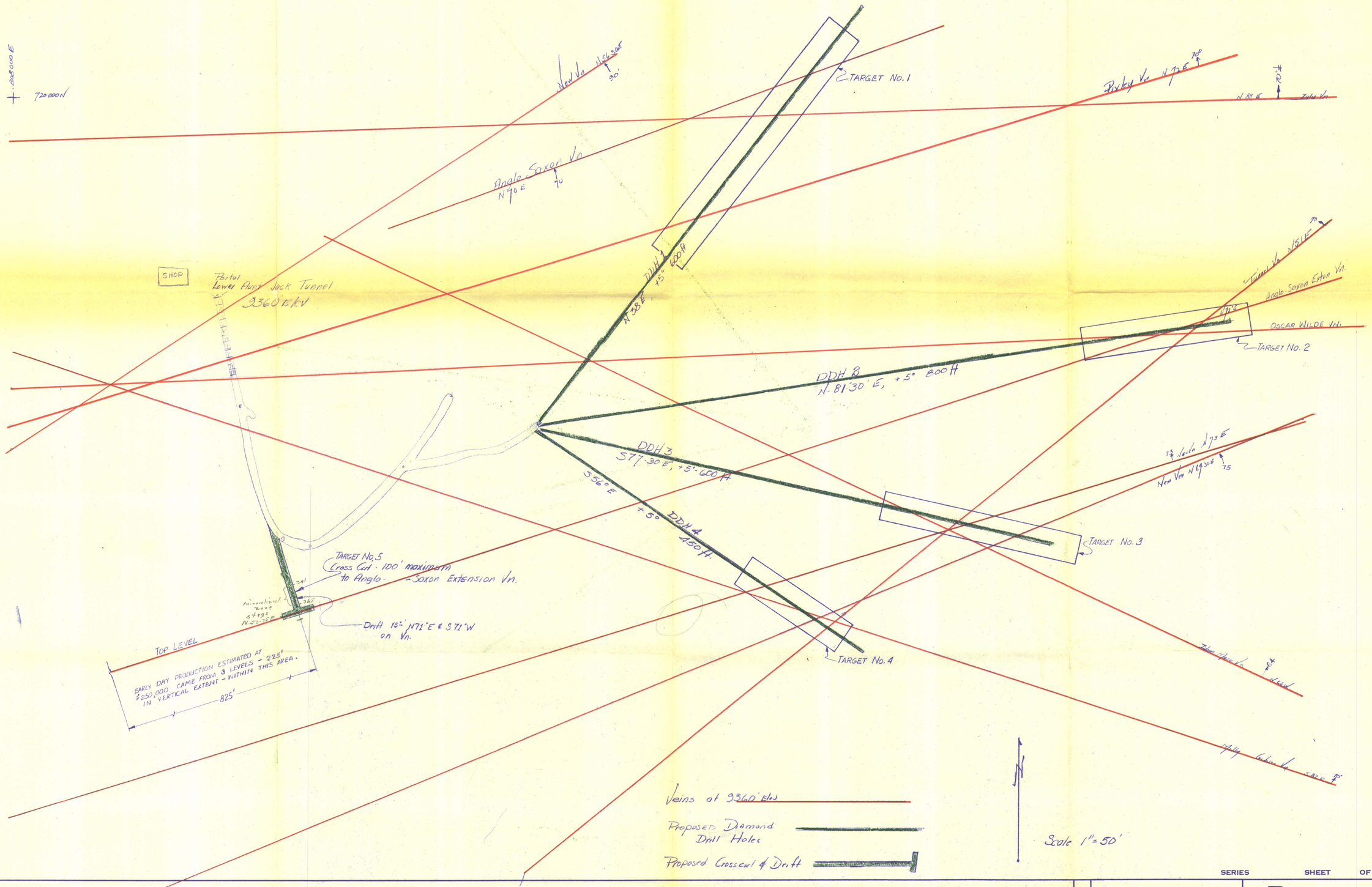
CERTIFIED COPY G. M. S. RECEIVED AUG 23 1966 EXECUTIVE OFFICE

PROPOSAL No. 2
PROPOSED EXPLORATION FROM LOWER AUNT JACK TUNNEL
ELEVATION 9360'
by
ANGLO - SAXON MINES, INC.
GEORGETOWN, COLO

Drawn by Paul M. Hopkins, PE & LS

Plan Map No 1

August 3, 1966



REVISIONS

Proposed Exploration of 9360 Elevation "Lower Aunt Jack Tunnel

REVISIONS

DR. DATE 19 Apr 69
CH. DATE
APP. DATE
SCALE 1" = 50'

SERIES SHEET OF SHEETS

Berry METAL COMPANY
HARMONY, PENNA.
16037, U.S.A.

DRAWING NO. ASM ≈ 5

REV.

10 9696 ALBANENE A.B.B. SMITH CO. PGH., PA.

PR 7495-465