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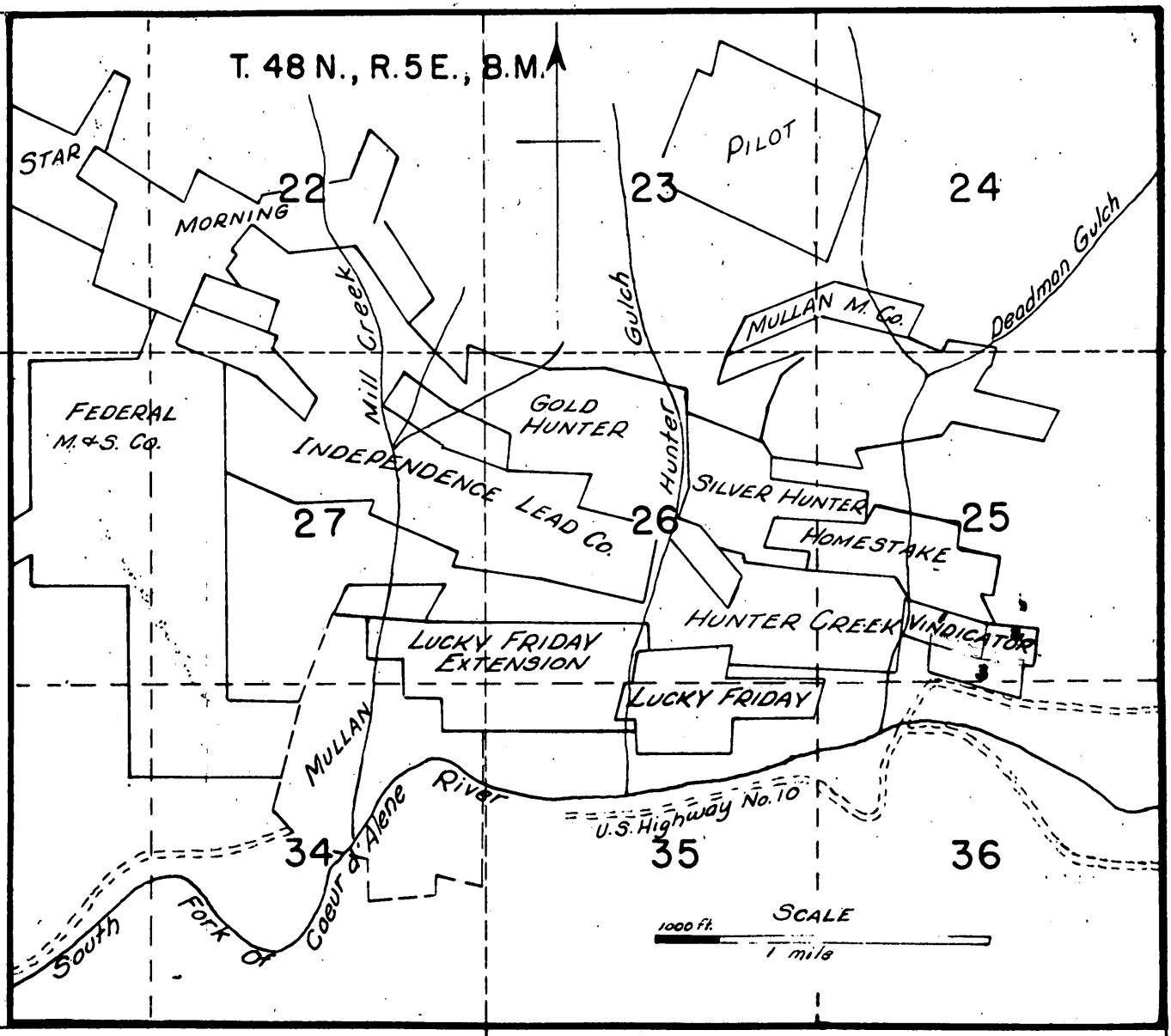
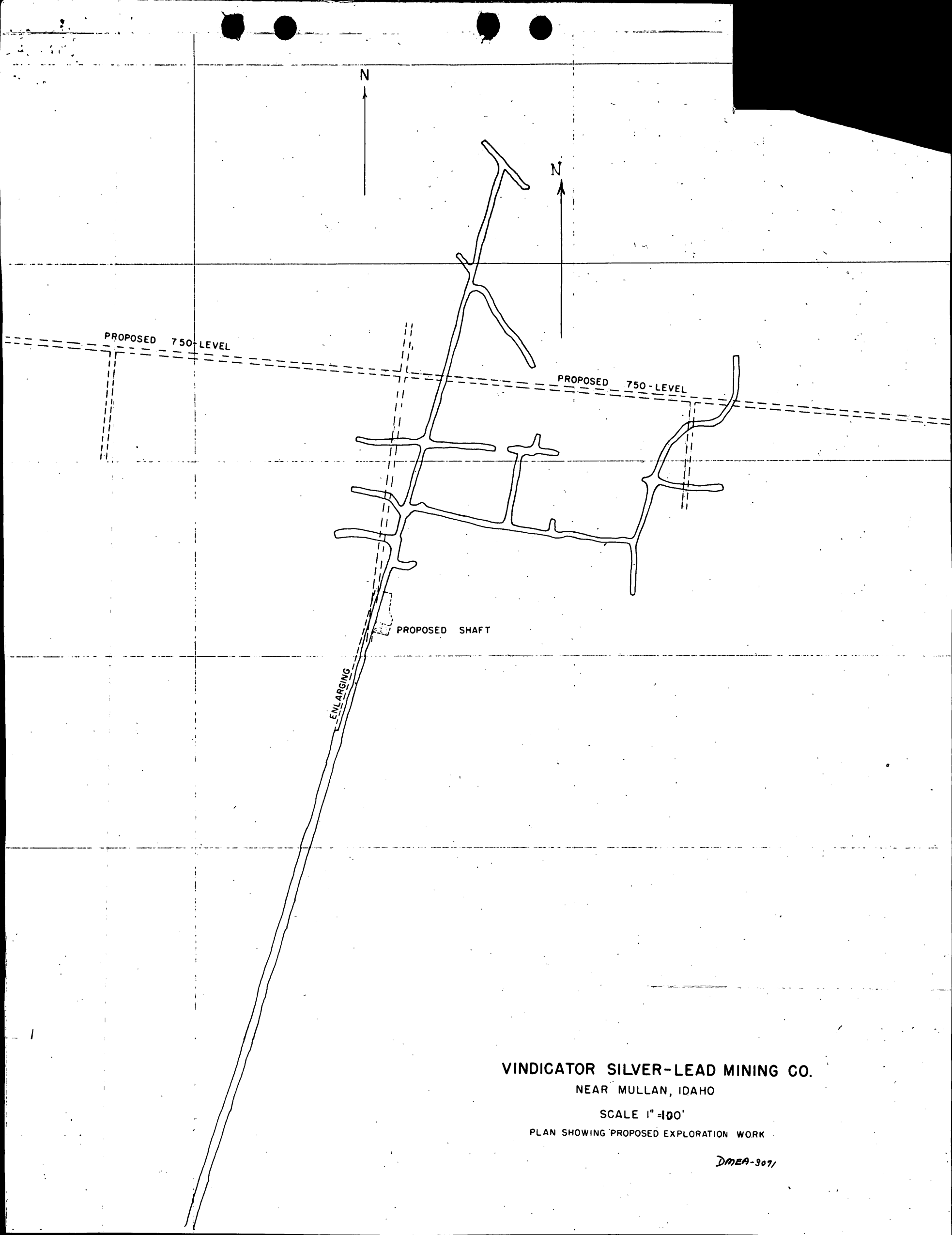
BATES NO. 0340



KEY MAP SHOWING LOCATION
VINDICATOR RELATIVE TO OTHER PROPERTIES

Docket No. DMEA-3071

Claims
1.- Horn Silver Lode
2.- Siskiyou Bell Lode
3.- Curragh Buck Lode


N
N
PROPOSED 750-LEVEL
PROPOSED 750-LEVEL
PROPOSED SHAFT
ENLARGING
VINDICATOR SILVER-LEAD MINING CO.
NEAR MULLAN, IDAHO
SCALE 1" = 100'
PLAN SHOWING PROPOSED EXPLORATION WORK
DMEA-3071

EXPLORATION PROJECT CONTRACT
SILVER BUCKLE MINING COMPANY
DOCKET NO. DMEA-3071

EXHIBIT "A"

Description of the Work

The work is delineated on a map entitled "Vindicator Silver-Lead Mining Company, near Mullan, Idaho - DMEA 3071," and consists of the following:

1. Install track, air, water, and vent pipes in the first 540 feet of the adit level.

2. Rehabilitate 110 feet of the crosscut on the adit level, to the proposed shaft site, and enlarge it from 5' x 7' to 8' x 8'.

3. Cut a station and pocket, at least 15,000 cubic feet of rock excavation, at the proposed shaft site.

4. Sink a two-compartment, timbered, vertical shaft, 6' x 11' in the clear of timber, 800 feet.

5. Cut a station and pocket, at least 5,000 cubic feet of rock excavation, on the 750-foot level.

6. Crosscut and drift, 6' x 8' in the clear, not more than 1700 feet on the 750-foot level; and perform suitable and adequate sampling and assaying.

7. Timber crosscuts and drifts where necessary. Necessary timbering is estimated at 500 feet, any excess over 500 feet to be submitted in advance to the Government for approval, and may be allowed by amendment of the contract.

AGREED UNIT COSTS OF THE PROJECT

540 feet of track, air, water, and vent pipes @ $2.50/ft.	$ 1,350.00
Enlarging and rehabilitating crosscut, 110 feet @ $20.00/ft.	2,200.00

Shaft sinking and timbering 800 feet @ $175.00/ft.	$ 140,000.00	
Crosscutting and drifting (not including timbering) 1,700 feet @ $43.50/ft.	73,950.00	
Timbering (drifts and crosscuts) 500 feet @ $4.00/ft.	2,000.00	
Cutting of station and pocket on the adit level (the completed work is the unit)	7,000.00	
Cutting of station and pocket on the 750-foot level (the completed work is the unit)	3,000.00	
Total Agreed Unit Costs of Project		$229,500.00
Government participation @ 50%		$114,750.00

1. NAME OF APPLICANT

EXPLORATION PROJECT CONTRACT
SILVER BUCKLE MINING COMPANY
DOCKET NO. DMEA-3071

ANNEX II

The property referred to in Article 2 includes all property in Shoshone County, Idaho, in which the Operator has or may acquire any right, title, or interest, including that group of claims known as the Vindicator Group, and including any right, title, or interest in property which it has acquired or may acquire from Vindicator Silver-Lead Mining Company, referred to in Annex I of even date with this contract; and including the following mining claims:

Horn Silver, located October 8, 1889, and recorded in Book J, Page 623, October 14, 1889.

Siskiyou Belle Fraction, located March 28, 1892, and recorded in Book M, Page 256, April 4, 1892.

Curragh Buck, located March 29, 1892, and recorded in Book M, Page 255, April 4, 1892.

Gentle Annie

An undivided one-fourth interest in Bulldog lode claim, patented March 23, 1923, U. S. Survey No. 2943, recorded April 24, 1923 in Deed Book 56 at Page 458.

Oversight Fraction lode mining claim, located June 16, 1953, and recorded in Book 31 of Quartz Locations, Page 239, August 3, 1953.

Overlook lode mining claim.

EXPLORATION PROJECT CONTRACT
SILVER BUCKLE MINING COMPANY
DOCKET NO. DMEA-3071

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2. Rehabilitate 110 feet of the crosscut on the adit level, to the proposed shaft site, and enlarge it from 5' x 7' to 8' x 8'.

3. Cut a station and pocket, at least 15,000 cubic feet of rock excavation, at the proposed shaft site.

4. Sink a two-compartment, timbered, vertical shaft, 6' x 11' in the clear of timber, 800 feet.

5. Cut a station and pocket, at least 5,000 cubic feet of rock excavation, on the 750-foot level.

6. Crosscut and drift, 6' x 8' in the clear, not more than 1700 feet on the 750-foot level; and perform suitable and adequate sampling and assaying.

7. Timber crosscuts and drifts where necessary. Necessary timbering is estimated at 500 feet, any excess over 500 feet to be submitted in advance to the Government for approval, and may be allowed by amendment of the contract.

AGREED UNIT COSTS OF THE PROJECT

540 feet of track, air, water, and vent pipes @ $2.50/ft.	$ 1,350.00
Enlarging and rehabilitating crosscut, 110 feet @ $20.00/ft.	2,200.00

Shaft sinking and timbering 800 feet @ $175.00/ft.	$140,000.00	
Crosscutting and drifting (not including timbering) 1,700 feet @ $43.50/ft.	73,950.00	
Timbering (drifts and crosscuts) 500 feet @ $4.00/ft.	2,000.00	
Cutting of station and pocket on the adit level (the completed work is the unit)	7,000.00	
Cutting of station and pocket on the 750-foot level (the completed work is the unit)	3,000.00	
Total Agreed Unit Costs of Project		$229,500.00
Government participation @ 50%		$114,750.00

4. Physical Description.

(a) The Vindicator mine has been inactive for the last several years. It has been explored by two adit levels and by a number of surface cuts (See attached maps). The upper, or No. 1, level consists of 245 feet of crosscut and 75 feet of accessible drift. There are several short raises and stopes above this level. The lower, or No. 2, level comprises nearly 1600 feet of crosscut and 1000 feet of drift. Most of these workings are accessible for examination. Fortunately, the geology in the inaccessible portions of the workings had been mapped in detail so a complete geological picture is available.

The Vindicator is equipped with a small but modern surface plant (See attached photographs). There is a 40 x 25 foot galvanized sided and roofed compressor building with a concrete floor. In addition there is a 12 x 17 foot frame blacksmith shop and a 15 x 25 foot galvanized office and dry. The dry is equipped with oil heat, electric hot water heater, and showers.

Mining equipment available is listed later in this report.

(b) A small but unknown tonnage of ore was produced from the upper level and from the surface cuts. One small lot of hand sorted ore shipped to the Bunker Hill and Sullivan smelter assayed 23.8% lead, 0.6% zinc, 0.4% copper, 0.2% antimoney and 23.7 oz. silver per ton.

There has been no production in recent years and there are no known ore reserves.

(c) The Vindicator mine is near the eastern end of the Coeur d'Alene Mining District. The regional geology of the area is so well known that

4 (c) Continued

only a very brief outline will be submitted in this report. The sedimentary rocks in the area comprise a thick series of argillites, argillaceous quartzites and quartzites of pre-Cambrian age. Beginning with the youngest, these rocks have been designated as the Stripped Peak, Wallace, St. Regis, Revette, Burke, and Prichard formations. The rocks are generally folded and crumpled and are cut by numerous, large, east-west trending faults. The largest and best known of these is the Osburn fault which has been traced on the surface for many miles. There are several small granitic stocks and many basic dikes in the district. One of the most prominant features is the presence of large, bleached, hydrothermally altered zones in which many of the ore bodies occur.

The mine workings at the Vindicator cut steeply dipping beds of the St. Regis formation (See attached maps). The beds have a general east-west strike and are steeply overturned to the north. The rock itself varies from thin bedded purple argillaceous quartzite to fairly massive, white, viterous quartzite. The presence of so much white quartzite probably indicates that the Vindicator workings are in lower St. Regis and not too far above the Revette formation. The principal structural feature is a broad, sheared, crushed, and highly bleached zone in which the mineralization occurs. As exposed in the No. 2 level this zone is over 200 feet wide, strikes nearly east-west and dips from 80° N. to vertical. Within this zone alteration has been extremely intense. The purple, argillaceous quartzite of the St. Regis formation has been completely altered to fine grained, white, sericitic quartzite. The zone is intricately crumpled and

4 (c) Continued

sheared and contains numerous lenses, pods, and stringers of quartz, ankerite, and siderite with minor amounts of pyrite, galena, sphalerite, chalcopyrite, and tetrahedrite. The strongest and best mineralized of these vein-like structures strikes N. 85° W. and in the lower tunnel dips 80-85° N. The vein from which a small amount of ore was produced in the upper workings strikes N. 85° W. and dips about 60° N. This structure must either steepen rapidly in order to be the same as that exposed in the lower tunnel or else it is an entirely separate structure taking off from the nearly vertical one. Most of the productive veins in the area have a steep southerly dip. It is probably, therefore, that the Vindicator vein-zone has a fairly flat north dip near the surface (conforming closely to the bedding), that it steepens to nearly vertical in the lower tunnel and that it will continue to roll until it assumes a steep southerly dip at lower elevations. The productive Lucky Friday mine, a short distance west of the Vindicator, has shown such reversals in dip.

In the Coeur d'Alene district the justification for deep development at any particular property is generally based on an interpretation of geological conditions in that property as compared to some neighboring mine. This is the case with the Vindicator where the geology is very similar to that at the Lucky Friday mine.

The Lucky Friday is slightly over a half mile west of the Vindicator, in a practically identical geological setting (See attached maps). It is developed by a 2,000 foot vertical shaft and has recently become one of the important lead-silver-zinc mines in the Coeur d'Alene District. The near

4 (c) Continued

surface exposures at the Lucky Friday are very much like those at the Vindicator. The host rock is highly bleached St. Regis giving way at depth to Revette quartzite. The mineralization occurs within a strongly bleached, fractured, and altered zone which strikes nearly east-west and dips steeply to the south. No commercial ore in any quantity was encountered until the 500-foot shaft level was reached. Below the 1400-foot level the host rock is Revette and the mineralization has been more consistant, higher grade, and the ore shoots have greatly increased in size. On the lowest level, 2000-foot, there is about 1000 feet of contineous stoping ore that averages from 5 to 6 feet in width. The mine is currently producing about 120 tons of ore per day averaging 6-8% lead, 1% zinc, and from 10 to 15 oz. silver per ton. The principal minerals are galena, sphalerite, chalcopyrite, pyrite, tetrahedrite, and on the lowest levels some ruby silver.

Mr. John Sekulic, President and General Manager of the Lucky Friday, states that in his opinion the Vindicator is as good a prospect as the Lucky Friday was in the upper workings. The detailed geological map of the main tunnel at the Lucky Friday, a copy of which is included in this report, tends to substantiate Mr. Sekulic's opinion. Another factor indicating that the mineralization at the Vindicator and Lucky Friday are closely related is the similar silver-lead ratio. In the upper workings of both properties this ratio is about 1 : 1, which is much higher than that at most lead producing mines in the district.

The large bleached zones in the Coeur d'Alene District, similar to that at the Vindicator, have been receiving considerable attention in the

4 (c) Continued

last few years. High grade ore bodies have recently been developed beneath such bleached zones at the Silver Summit and Vulcan properties. Near the Vindicator, the Hecla Mining Co. and associates are sinking at the Atlas mine and the Sullivan Mining Co. is undertaking an extensive exploration program at their Silver Mountain property. The development of commercial ore at the Vindicator would stimulate exploration at other adjacent properties.

(d) The portal of the lower Vindicator tunnel is a few feet north of the Northern Pacific Railroad and a paved highway paralleling the railroad (See attached photograph). The town of Mullan lies approximately two miles to the west. The principal source of supplies and material is Wallace, about nine miles to the west. Lead and zinc concentrates could be shipped to the Bunker Hill & Sullivan smelters at Kellogg, a distance of about 20 miles.

There is no housing available at the Vindicator property.

(e) There are seldom any serious shortages of experienced mine labor in the district. All types of mining material and supplies are available at Wallace. There is a high-tension power line to the property and adequate water is available from the South Fork of the Coeur d'Alene River.

5. THE EXPLORATION PROJECT

5. The exploration project.

(a) The project is designed to explore for lead, zinc, and silver.

(b) Description of the proposed work.

The company wishes to explore at depth the mineralized structures that have been opened in the upper workings. It is proposed to do this exploration by sinking and underground shaft from which the necessary laterials will be driven. The site and scope of the proposed program is indicated on the attached maps.

A brief outline of the proposed program is as follows:

1. Rehabilitate and enlarge the crosscut to the shaft site.
2. Cut shaft station and install equipment.
3. Sink a two compartment, vertical shaft 800 feet.
4. Cut a station and pocket at the 750-foot level.
5. A maximum of 1700 feet of crosscut and drifts on the 750-foot level.

It should be pointed out at this time that it is not considered practical to explore the Vindicator by diamond drilling. The nearly vertical dip at the vein-zone would require long holes to gain any depth. The rock itself is so highly fractured and altered that it is doubtful if a satisfactory core could be recovered and the abundance at gouge and soft serilitic rock would contaminate the sludge.

(c) The work will start within 30 days and be completed within 24 months from the date of the exploration project contract.

5.(d) Operating experience and background of the applicant.

The members of the Board of Directors have a broad and varied background of mining experience. The actual management of the exploration program will be under the direction of Preston & Reynolds, Mine Engineering and Geological Service, Kellogg, Idaho. Mr. Preston and Mr. Reynolds have been in the general consulting business for the last seven years. Prior to that they had a number of years experience with various mining companies and Federal agencies.

Vindicator Silver-Lead Mining Company
Box 469
Wallace, Idaho

Form
MF-103

6. Estimate of Costs.

(a)	Independent contracts	$66,020.00
(b)	Labor, supervision and consultants	68,417.52
(c)	Operating materials and supplies	68,771.61
(d)	Operating equipment	31,806.10
(e)	Rehabilitation and repairs	-0-
(f)	New buildings, improvements, installations	-0-
(g)	Miscellaneous	10,585.74
(h)	Contingencies	-0-
		$245,600.97

(Detail of above estimate follows.)

Vindicator Silver-Lead Mining Company
Box 469
Wallace, Idaho

Form
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6. Estimate of Costs.

(a) Independent Contracts

1. Enlarging crosscut to station site.	None
2. Cutting shaft station and installing equipment.	None
3. Shaft sinking. The labor for actual shaft sinking can probably best be done under contract. It is estimated that this cost will be $60.00 per foot.	
800 feet of shaft @ $60.00 per foot	$48,000.00
4. Cut station and pocket at 750-foot level	None
5. A maximum of 1700 feet of crosscut and drift. The direct labor will be an independent contract. It is estimated that 70% of this work will be untimbered and 30% will require timber.	
70% x 1700 x $10 per foot	11,900.00
30% x 1700 x 12 per foot	6,120.00
Total independent contracts	$66,020.00

Vindicator Silver-Lead Mining Company
Box 469
Wallace, Idaho

Form
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(b) Labor, Supervision, Consultants

Crews:

Salaried Personnel:

Foreman: Salary estimated at $500.00 per month. This man will direct the operations at the mine. He will be trouble starter, time keeper, and with the assistance of the compressorman-mechanic take care of all surface work, including tramming from the shaft station to the dump.

Bookkeeping and Accounting: All bookkeeping, accounting, payroll, etc., will be handled by H. F. Magnuson & Company at Wallace at an estimated cost of $200.00 per month. Too high

General supervision, engineering and geology. This work will be done by Preston and Reynolds, Mine Engineering and Geological Service at Kellogg, Idaho, at an estimated cost of $400.00 per month. Too high!!

Total salaried personnel $1,100.00

Workmen

4-6 miners: Two to three per shift. (Labor for shaft, crosscuts, and drfits will be under independent contract - (see estimate)
2 Hoistmen: One per shift.
2 Mechanics: Serve as compressor man and top trammer - one per shift.
2 Cager-Skip tender - during crosscutting and drifting period - one per shift.

Payroll taxes

Federal Social Security @	1.5%
Idaho Industrial Accident Insurance @	6.5%
Federal Unemployment Compensation @	0.3%
Idaho Unemployment Compensation @	2.7%
	11.0%

Wage Rates

	Day	Night
Miners	$13.54	$14.02
Hoistman	13.94	14.42
Cager-Skip tender	13.94	14.42
Mechanic	14.74	15.22

Overtime factor - Multiply by 1.08
Shifts - All calculations based on 2 shifts per day, 6 days per week.

Vindicator Silver-Lead Mining Company
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1. Enlarging 110 feet of crosscut from 5 x 7 feet to 8 x 8 feet, line, power cable, vent line, track, etc. from portal to shaft site. Labor requires 2 miners and 1 mechanic per shift. Estimated time required, 15 days two shifts per day.

Salaried personnel (1)		
1/2 month @ $1,100.00 per month	$550.00	
Labor		
2 day shift miners		
2 x 15 x $13.54 x 1.08	438.70	
2 night shift miners		
2 x 15 x 14.02 x 1.08	454.26	
1 day shift mechanic		
1 x 15 x 14.74 x 1.08	238.79	
1 night shift mechanic		
1 x 15 x 15.22 x 1.08	246.56	
	1,378.31	
		$1,928.31

2. Cutting shaft station, driving 50 foot shaft raise, cutting pockets and installing equipment. Labor requirements, 2 miners and 1 mechanic per shift. Estimated time required, 38 days, two shifts per day. (See map for station detail)

Salaried personnal (1)		
1-1/2 month @ $1,100.00 per month	$1,650.00	
Labor		
2 day shift miners		
2 x 38 x $13.54 x 1.08	1,111.36	
2 night shift miners		
2 x 38 x 14.02 x 1.08	1,150.76	
1 day shift mechanic		
1 x 38 x 14.74 x 1.08	604.93	
1 night shift mechanic		
1 x 38 x 15.22 x 1.08	624.63	
1 part time electrician (consultant)	300.00	
	3,791.68	
		$5,441.68

Not paid extensive portion of this market for exploration.

too high.

3. Shaft sinking - 800 feet, 2 compartment, vertical shaft. (Dimensions are 9 x 14 feet, see attached sketches). Labor requirements, 2 to 3 miners, 1 hoistman, and 1 mechanic per shift. Estimated time required, 320 days, two shifts per day. (Estimated advance 1-1/4 feet per shift)

Salaried personnel (1)	
$\frac{320}{26}$ = 12.3 months @ $1,100.00	$13,530.00

(1) Includes working foreman

Labor		
All miners under independent contract		
Day shift hoistman		
1 x 320 x $13.94 x 1.08	$4,817.66	
Night shift hoistman		
1 x 320 x 14.42 x 1.08	4,983.55	
Day shift mechanic		
1 x 320 x 14.74 x 1.08	5,094.14	
Night shift mechanic		
1 x 320 x 15.22 x 1.08	5,260.03	
1 part time electrician (consultant)	1,200.00	
	21,355.38	
		$34,885.38

4. Cut station and pocket at 750-foot level. Labor requirements, 2 miners, 1 hoistman, 1 cager-skip tender and 1 mechanic per shift. Estimated time required, 12 days, two shifts per day. (See attached maps for details).

Salaried personnel (1)		
1/2 month @ $1,100.00	$550.00	
Labor		
2 day shift miners		
2 x 12 x 13.54 x 1.08	350.96	
2 night shift miners		
2 x 12 x 14.02 x 1.08	363.40	
1 day shift hoistman		
1 x 12 x 13.94 x 1.08	180.66	
1 night shift hoistman		
1 x 12 x 14.42 x 1.08	186.80	
1 day shift cager-skip tender		
1 x 12 x 13.94 x 1.08	180.66	
1 night shift cager-skip tender		
1 x 12 x 14.42 x 1.08	186.88	
1 day shift mechanic		
1 x 12 x 14.74 x 1.08	191.03	
1 night shift mechanic		
1 x 12 x 15.22 x 1.08	197.25	
1 part time electrician (consultant)	100.00	
	1,937.72	
		$2,487.72

5. A maximum of 1700 feet of 6 x 8 foot crosscut and drift. Labor requirements, 2 miners, 1 hoistman, 1 cager-skip tender, 1 mechanic per shift. Estimated time required, 170 days, two shifts per day. (Estimated advance 5 feet per shift).

(1) Includes working foreman

Vindicator Silver-Lead Mining Company
Box 469
Wallace, Idaho

Form
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6(b) 5. (Continued)

Salaried personnel (1)		
$\frac{170}{26}$ = 6.6 months @ $1,100/month	$7,260.00	
Labor		
All miners under independent contract		
1 day shift hoistman		
1 x 170 x 13.94 x 1.08	2,559.38	
1 night shift hoistman		
1 x 170 x 14.42 x 1.08	2,647.51	
1 day shift cager-skip tender		
1 x 170 x 13.94 x 1.08	2,559.38	
1 night shift cager-skip tender		
1 x 170 x 14.42 x 1.08	2,647.51	
1 day shift mechanic		
1 x 170 x 14.74 x 1.08	2,706.26	
1 night shift mechanic		
1 x 170 x 15.22 x 1.08	2,794.39	
1 part time electrician (consultant)	500.00	
	16,414.43	
		$23,674.43
Total - labor, supervision and consultants		$68,417.52

6(c) Operating material and supplies.

Explosives	
Enlarging crosscut, 110' @ $3.50/ft (?)	$385.00
Stations and pockets, 20,684 cu. ft. @ $0.08/ cu. ft.	1,654.72
Shaft, 800' x 30#/ft. @ $0.181/ lb.	4,344.00
delays and wire @ $1.75/ft.	1,400.00
Crosscuts and drifts, 1700' @ $3.80/ft.	6,460.00
Timber	
Enlarging crosscut	-0-
Stations and pockets, 10,000 bd. ft. @ $65.00/M	650.00
Guides, 120' of 4" x 6" @ $270.00/M	64.80
Timber framing, 12 sets @ $15.00/ea.	180.00
Shaft, 151 sets x 910 bd. ft. @ $65.00/M	8,931.65
Guides, 1600' of 4" x 6" @ $270.00/M	864.00
Timber framing, 151 sets @ $15.00ea.	2,265.00
	12,880.65

Vindicator Silver-Lead Mining Company
Box 469
Wallace, Idaho

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6 (c) (Continued)

Crosscuts and drifts, 102 5'-sets			
20' of 8" stull x 15c/ft. x 102			$306.00
5 5' x 12" x 2" lagging @ $65.00/M x 102			331.50
Bits and Steel (Estimate by Copco Pacific)			
Enlarging crosscut, 110' @ $2.00/ft.			220.00
Stations and pockets			519.00
Shaft, 800' @ $5.50/ft.			4,400.00
Crosscuts and drifts, 1700' @ $3.00			5,100.00
Pipes and valves			
3,000' of 3" air & 1" water, valves and fittings @ $0.93/ft.		$2,790.00	
800' of 4" pump column & fittings @ $2.17/ft.		1,736.00	4,526.00
Pro-rated, based on time:			
Enlarging crosscut 2%	$90.52		
Station and pockets 9%	407.34		
Shaft 58%	2,625.08		
Crosscuts and drifts 31%	1,403.06		
	$4,526.00		
Fan pipe, 16"			
2,900 ft. @ $1.20/ft.			3,480.00
Enlarging crosscut 2%	$69.60		
Stations and pockets 9%	313.20		
Shaft 58%	2,018.40		
Crosscuts and drifts 31%	1,078.80		
	$3,480.80		
Rail (crosscut is tracked to shaft site)			
1700' of 20# rail @ $9.75/C			2,209.94
Ties, fish plates, belts, etc. @ $.40/ft.			680.00
Hanging rods for shaft			
800' @ $1.45/ft.			1,160.00

Vindicator Silver-Lead Mining Company
Box 469
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6 (c) (Continued)

Power Cost (Washington Water Power Company)

Estimated and pro-rated based on time 21.4 months @ $600.00/mo.			$12,840.00
Enlarging crosscut	2%	$256.80	
Stations and pockets	9%	1,155.60	
Shaft	58%	7,447.20	
Crosscuts and drifts	31%	3,980.40	
		$12,840.00	
Miscellaneous (lubricants, bell cord, hoses, shaft casings, lamp rental, gas, oil, etc.)			5,800.00
Enlarging crosscut		$300.00	
Shaft		3,000.00	
Stations and pockets		500.00	
Crosscuts and drifts		2,000.00	
		$5,800.00	
Total - operating materials and supplies			$68,771.61

DISTRIBUTION:

Enlarging crosscuts	$1,321.92
Stations and pockets	5,444.66
Shaft	38,455.33
Crosscuts and drifts	23,549.70
	$68,771.61

Vindicator Silver-Lead Mining Company
Box 469
Wallace, Idaho

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6 (d) Operating equipment. To be purchased and not included in unit cost data.

3 Atlas Rock Drills, RH656-4W @ $360.00	$1,080.00	
2 Atlas Pusher Legs @ $165.00	330.00	
2 Atlas Sinker Handles @ $6.60	13.20	
1 75HP single drum hoist, used (estimate)	4,000.00	
2 Sinking buckets @ $135.00	270.00	
1 12B Eimco mucking machine	3,100.00	
1 Coeur d'Alene Hardware 16 cu. ft. skip with guides	615.00	
1 Sinking crosshead	400.00	
2 Eimco air trammers @ $2,500.00	5,000.00	
2 Coppus TMB Vent fans, 15HP @ $675.00	1,350.00	
2 Motor pumps, IR 1½MRV 25 @ $842.00	1,684.00	
2 Sump pumps, IR #35 @ $460.00	920.00	
1 Double drum tugger, S-211 @ $980.00	980.00	
Electrical switches, transformers, etc.	600.00	
6 CD'A side dump mine cars, 30 cu. ft. @ $485.00	2,910.00	
2 4' Sheave wheels @ $255.00	510.00	
2 Sets of bearings and assemblies for sheaves @ $154.00	308.00	
1 Steel tank (sump) 48" x 36" x 60"	200.00	
1,500' 3 conductor, lead covered cable @ $1.835/ft.	2,752.00	
1,200' 7/8" Roebling hoisting rope @ $.45/ft.	540.00	
1 Electric Welding outfit (Buzz box)	250.00	
1 Acetylene Welding outfit	150.00	
1 Cherry picker	250.00	
1 Pickup truck (used)	1,200.00	
Small tools	1,000.00	
Total - operating equipment to be purchsed		$30,412.20

Equipment owned by Company:

1 Ingersoll-Rand, Imperial 10 compressor, Type XRB, complete with 75HP motor, starter, etc.
Value $4,000.00

Use allowance $\frac{\$4,000.00}{60}$ = $66.67/Mo. x 20.9 — 1,393.40

Pro-rated, based on time:

Enlarging crosscut	2%	$27.87
Stations and pockets	9%	125.41
Shaft	58%	808.17
Crosscuts and drifts	31%	431.95
		$1,393.40

Total - operating equipment — $31,806.10

Vindicator Silver-Lead Mining Company
Box 469
Wallace, Idaho

Form
MF-103

6 (e) Rehabilitation and repairs.

None

(f) New buildings, improvements, installations.

None

(g) Miscellaneous.

Repairs and maintenance of operating equipment, estimated at 10% of $31,806.10 or $3,180.61			
Analytical work		350.00	$3,530.61
Pro-rated, based on time:			
Enlarging crosscut	2%	$70.61	
Stations and pockets	9%	317.75	
Shaft	58%	2,047.75	
Crosscuts and drifts	31%	1,094.49	
		$3,530.61	
Employment taxes:			
Total salaries and wages		$68,417.52	
Less - Bookkeeping and accounting		4,280.00	
		$64,137.52	
$64,137.52 x 11%			7,055.13
Distribution:			
Enlarging crosscut		$201.11	
Stations and pockets		828.23	
Shaft		3,566.69	
Crosscuts and drifts		2,459.10	
		$7,055.13	

(h) Contingencies.

None

GRAND TOTAL - Items a to h, inclusive $245,600.97

Vindicator Silver-Lead Mining Company
Box 469
Wallace, Idaho

Form
MF-103

6. Estimated Costs. (Continued)

Recapitulation, use for unit cost, less operating equipment to be purchased:

Enlarging crosscut, 110 feet (Includes piping from portal to shaft site) — Unit Cost

a -	None
b -	$1,928.31
c -	1,321.92
d -	27.87*
f -	-0-
g -	271.72
h -	-0-

$\frac{\$3,549.82}{110}$ = $32.27/ft. ?

Station and Pockets (20,684 cu. ft.)

a -	-0-
b -	$7,929.40
c -	5,444.66
d -	125.41*
e -	-0-
f -	-0-
g -	1,145.98
h -	-0-

$14,645.45

3/4 of $14,645.45 to top station	$10,984.09 ?
1/4 of $14,645.45 to 750 station	3,661.36 ?

Shaft - 800 feet — Unit Cost

a -	$48,000.00
b -	34,885.38
c -	38,455.33
d -	808.17*
e -	-0-
f -	-0-
g -	5,614.44
h -	-0-

$\frac{\$127,763.32}{800}$ = $159.70/ft.

6. Estimated Costs. (Continued)

Recapitulation, use for unit cost, less operating equipment to be purchased: - (Continued)

Crosscuts and drifts - 1700 feet (Maximum)

a -	$18,020.00
b -	23,674.43
c -	23,549.70
d -	431.95*
e -	-0-
f -	-0-
g -	3,553.59
h -	-0-

$$\frac{\$69,229.67}{1700} = \$40.72/\text{ft.}$$

* Operating equipment to be purchased does not appear in unit cost data.

TOTAL COST OF PROJECT	$245,600.97
50% company participation	142,800.49
50% DMEA participation	142,800.48

Vindicator Silver-Lead Mining Company
Box 469
Wallace, Idaho

Form
MF-103

7. (a) The applicant will be prepared to furnish its share of the cost of the proposed project in accordance with the regulations on government participation.

(b) The applicant proposes to furnish its share of the costs by money and use of equipment owned by the applicant.

SPOKANE WASH
JE 9 1954
1953

9-160 C
RETURN IF NOT DELIVERED
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
S. 157 HOWARD ST.
Spokane 4, Wash.

OFFICIAL BUSINESS

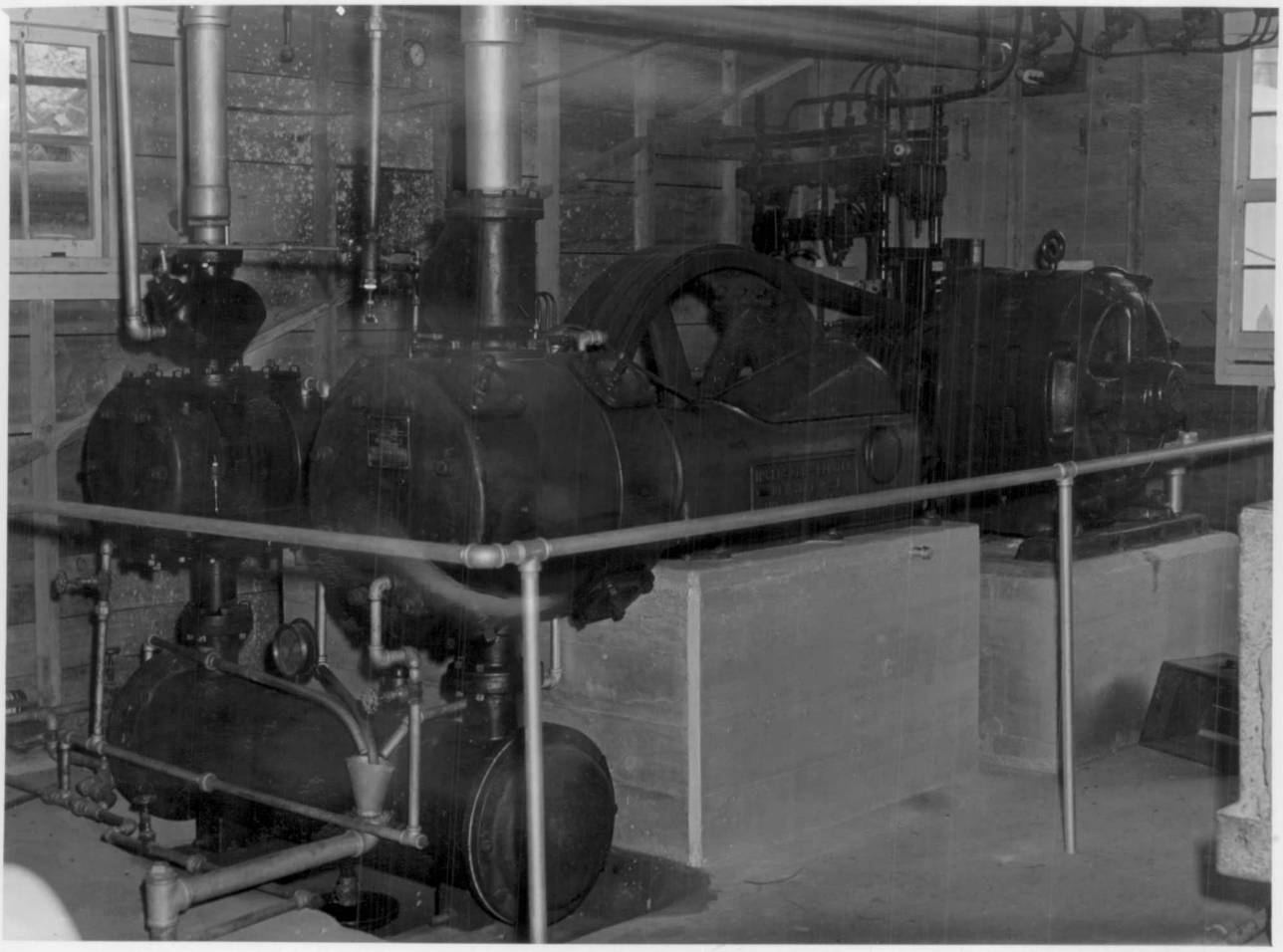
PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300
(GPO)

Mr. George C. Selfridge
Chairman, Operating Committee
Defense Minerals Exploration Administratio
Department of the Interior
Washington 25, D. C.

VINDICATOR SURFACE PLANT

as seen from Highway

U. S. 10



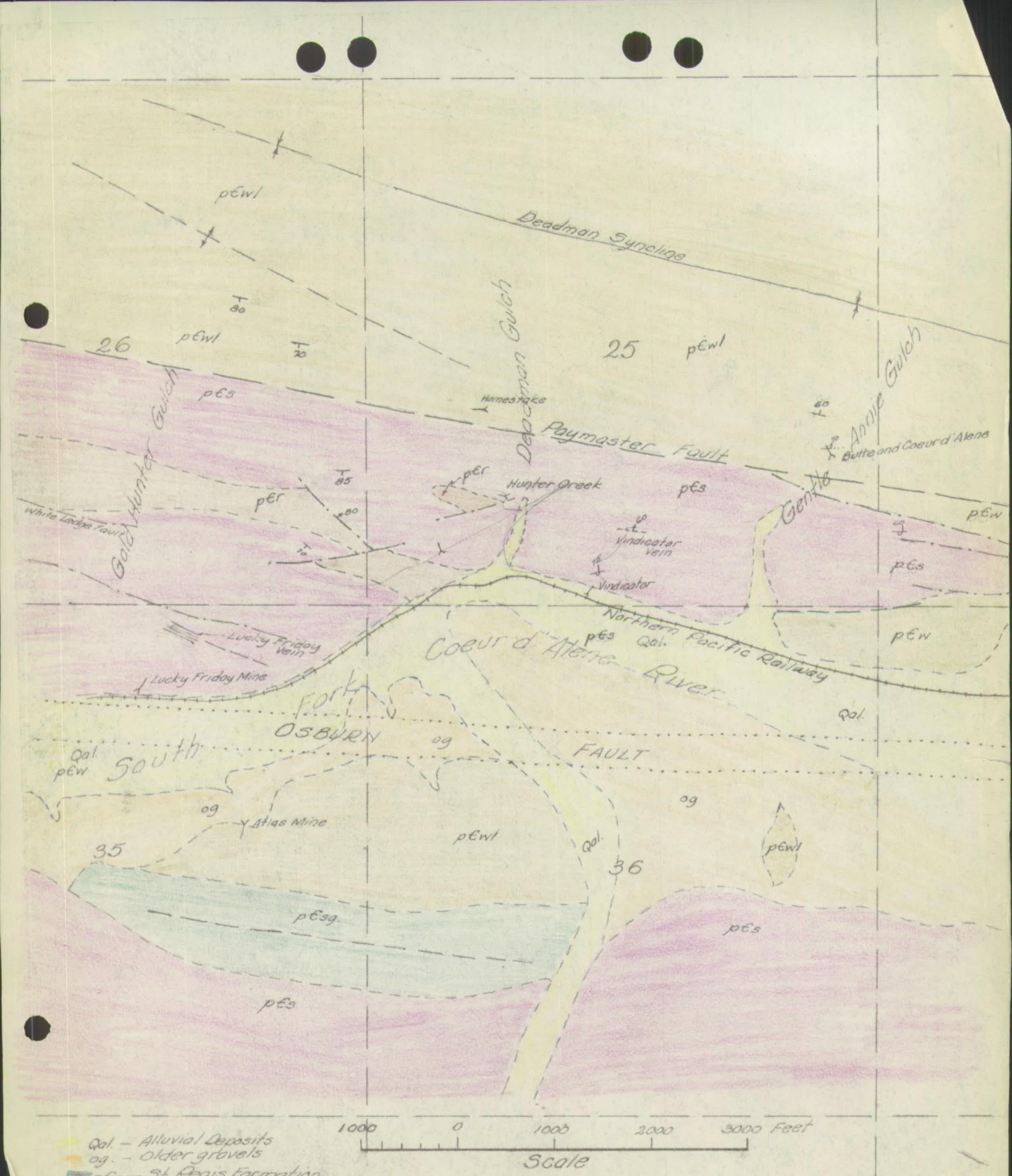
Ingersoll-Rand Compressor

installed at the

VINDICATOR MINE

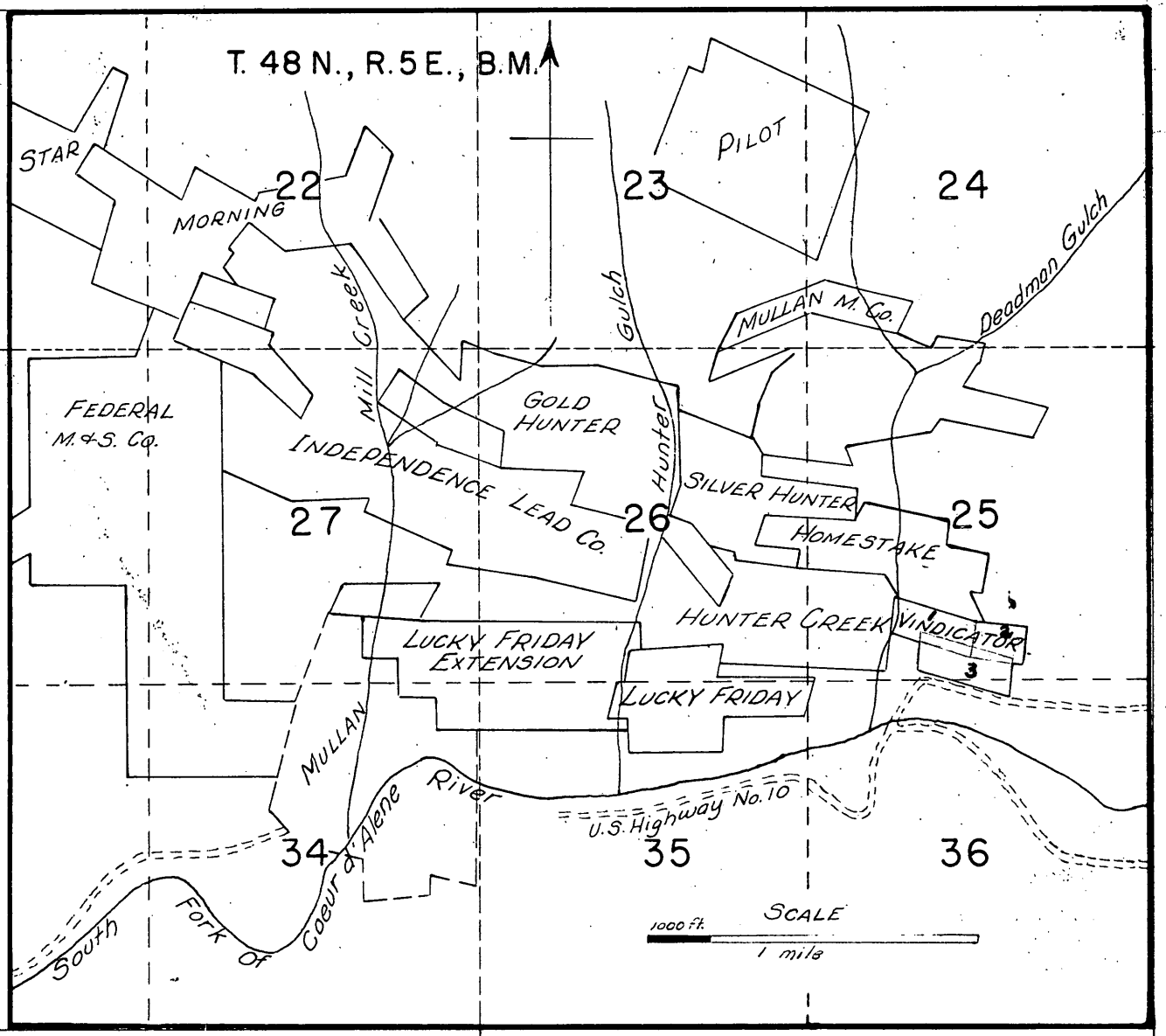
PERMANENT RECORD

DMEA - 3071



REGIONAL GEOLOGY
(From Pottsville Sheet)

DMEA-3071



KEY MAP SHOWING LOCATION
VINDICATOR RELATIVE TO OTHER PROPERTIES

Docket No. DMEA-3071

Claims

1. - Horn Silver Lode
2. - Siskiyou Bell Lode
3. - Curragh Buck Lode

DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE — Idm-E NO. 594 — DMEA NO. 3071

Application
- [ ] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [X] 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 Pseduo
- [X] Certification of
- [X] Closing Letter
- [ ] Cost Audits - Rept of Rev. 4-17-58
- [X] Termination 5-1-55
- [ ] Recision Notice
- [ ] Assignment of Contract
- [X] Contract Amendments
- [X] Contract with all exhibits and annexes
- [X] Owner's Consent to Lien and Subordination Agreement
- [X] Application and attachments

Right Side

- [X] Project summary (final) 12-19-58
- [X] Work Comoleted analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semi-Annual Report for Certified Project
- [x] Final Field Team Report (Tab) November 1958
- [X] Operator's Final Report (Tab) 2-10-58
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [X] On-site Exam Report (Tab) 6-15-53
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No. 2 : Reports
- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [X] Field Team Semi-Annual Report for Certified Project
- [ ] Field Team Interim Reports
- [X] 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

Reported Inactive 12/28/59

17963

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Mr. A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-3071
(Lead-Zinc)
Silver Buckle Mining Company
Vindicator Mine
Shoshone County, Idaho
Contract Idm-E594

Dear Mr. Weissenborn:

your teletype to the Admin dated Nov. 19, 1953

Reference is made to ~~my letter to you dated October 12, 1953, in which there were enclosed the original and five copies~~ of the above-mentioned contract signed by this office for ~~the Government, together~~ with Annexes I, II, and III, Exhibit "A," ~~and two maps.~~ This contract was ~~not executed by the Operator,~~ stating that the Silver Buckle Mining Co. will accept the new contract, ~~and~~ the

~~A new contract~~ has now been signed by the Administrator and is enclosed herein for execution by the Operator. ~~There should be added to it the two maps originally sent to you.~~ After the contract is duly executed, please see to it that the usual distribution is made, after all copies of the contract dated October 12, 1953

Annex II was amended to strike out reference to property which the Operator might thereafter acquire in Shoshone County, Idaho, and to limit after-acquired property to land adjacent or contiguous to land referred to in the annex. Annex I was altered to conform to the changes in Annex II, and a new Annex III was substituted which provides for royalties on all production through the workings described in Exhibit "A."

Sincerely yours,

W S Martin

Enclosures

ACTING Chairman, Operating Committee

Approved:

H. H. Hedges
Member, Bureau of Mines

D Harrobe
Member, Geological Survey

P.S. Please fill in the address of the company in the opening paragraph of the contract form.

SUPPLEMENTAL AGREEMENT

This SUPPLEMENTAL AGREEMENT Made and entered into this 8th day of July, 1953, is between KATHRYN POWERS, a widow of Oakland, California, First party and VINDICATOR SILVER-LEAD COMPANY, an Idaho corporation, having its registered office at Wallace, Idaho, and hereinafter referred to as "Vindicator", Second party,

W I T N E S S E T H:

RECITALS:

On or about December 10th, 1950, First party, Kathryn Powers, acting by and through her attorney-in-fact, William P. Bean of Mullan, Idaho, entered into an agreement in writing with Vindicator wherein and whereby the said Kathryn Powers agreed to sell and convey to Vindicator the following described mining claims, to-wit:

> Hornsilver, Siskiyou Belle Fraction, Curraugh Buck and Gentle Annie unpatented lode mining claims, and an undivided one-fourth interest in and to the patented Bull Dog lode claim, U. S. Survey No. 2943, all known as the Vindicator Group, and formerly owned by the Vindicator Mining Company, all situated and lying in Hunter Mining District, Shoshone County, Idaho,

for the consideration of $20,000.00 plus interest at 5% per annum upon the unpaid balances from time to time remaining unpaid, to be paid to the said Kathryn Powers through the medium of 15% of the net smelter returns on all ore and mineral values extracted and sold from said property.

July 8th, 1953, the said Kathryn Powers entered into an agreement with Vindicator, wherein and whereby she consented to and approved a proposed contract between Vindicator and Silver Buckle Mining Company, wherein and whereby Silver Buckle agreed to undertake the exploration and development of said above described mining claims, but subject to the payment of 15% of the net smelter returns to said Kathryn Powers until she had been paid the

sum of $20,000.00 with interest thereon as aforesaid.

Vindicator and Silver Buckle are of the opinion that the obligation to pay 15% of net smelter returns (which is 15% of gross income) to said Kathryn Powers will render it difficult and perhaps impossible to finance the exploration and development of said property and the parties therefor desire to modify the terms of said agreement as hereinafter set forth.

THEREFORE, by virtue of the premises and in consideration of the mutual benefits to accrue and expect to accrue herefrom, the parties hereby agree with each other as follows, to-wit:

Kathryn Powers does hereby agree to accept payment of the $20,000.00 plus interest, due her under said agreement of December 10th, 1950, as follows:

$1,000.00 on or before August 15th, 1953. (This sum is to be paid by Silver Buckle Mining Company directly to said Kathryn Powers out of the $5,000.00 which Silver Buckle has agreed to pay to Vindicator as part payment for a block of Vindicator's shares under the terms of the Vindicator-Silver Buckle contract).

5% of the net smelter returns on all ores and mineral values extracted and sold from said property, until the total net smelter returns therefrom shall have aggregated $250,000.00. Thereafter, 10% of said net smelter returns until the balance of said indebtedness, principal and interest, is paid.

IN WITNESS WHEREOF, the said Kathryn Powers has executed this agreement in duplicate the 8th day of July, 1953, and the Vindicator Silver-Lead Mining Company has caused this agreement to executed in duplicate by its duly authorized officers and has

caused its corporate seal to be hereunto affixed this _____ day of July, 1953.

Kathryn Powers
First Party

Witness as to Kathryn Powers
W. J. Logue
Grace Powers Oldfield

VINDICATOR SILVER-LEAD MINING COMPANY
By Thomas J. Kassin
President

ATTEST:
C. Thompson
Secretary

Second Party

MEMORANDUM OF AGREEMENT

THIS AGREEMENT, Made and entered into this 8th day of July, 1953, is between KATHRYN POWERS, a widow, of Oakland, California, first party, and VINDICATOR SILVER-LEAD MINING COMPANY, an Idaho corporation having its registered office at Wallace, Idaho, and hereinafter referred to as "Vindicator", second party:

W I T N E S S E T H :

On or about the 10th day of December, 1950 first party, Kathryn Powers, acting by and through her attorney-in-fact, William P. Bean, of Mullan, Idaho, entered into an agreement in writing with Vindicator, wherein and whereby the said Kathryn Powers agreed to sell and convey unto Vindicator the following described mining claims, to-wit:

> Hornsilver, Siskiyou Belle Fraction, Curraugh Buck and Gentle Annie unpatented lode mining claims, and an undivided one-fourth interest in and to the patented Bull Dog lode claim, U. S. Survey No. 2943, all known as the Vindicator Group and formerly owned by the Vindicator Mining Company, all situated and lying in Hunter Mining District, Shoshone County, Idaho.,

for the consideration of $20,000.00 to be paid to the said Kathryn Powers through the medium of 15% of the net smelter returns on all ore and mineral values extracted and sold from said property. A full, true and complete copy of said agreement is hereto attached, marked for identification "Exhibit A", and by this reference made a part of this agreement.

Pursuant to said agreement, and on the 12th day of December, 1950, Vindicator executed its "Production Note" for $20,000.00, payable to said Kathryn Powers in the manner provided in said agreement, "Exhibit A", and which note bears interest at 5% per annum from December 12th, 1950, computed upon the unpaid balances

from time to time remaining unpaid, and which "Production Note" is secured by a mortgage upon said above described mining claims.

Said agreement, "Exhibit A" provided, among other things, that Vindicator should enter upon said premises "as soon as possible * * * * to the end of discovering a commercial ore body therein for the benefit of all parties hereto". To date Vindicator has been unable to finance the prospecting and development of said mining claims, other than the performance of the annul work requirements upon said unpatented claims. No ore has been extracted therefrom during the life of said agreement, "Exhibit A", and no payments, either principal or interest, have been made to the said Kathryn Powers, and the entire purchase price of $20,000.00, plus interest at 5% per annum from December 12th, 1950, is unpaid.

Vindicator now has negotiated a proposed agreement with Silver Buckle Mining Company, an Idaho corporation, (subject, however, to the said Kathryn Powers executing this agreement), whereby Silver Buckle will agree to enter upon said above described mining property, but subject at all times to the rights of said Kathryn Powers under said agreement "Exhibit A", and prospect and search for commercial ore therein, to the end that it may be developed into a productive mine. A full, true and complete copy of said proposed agreement with Silver Buckle is hereto attached, marked for identification "Exhibit B", and by this reference is made a part of this agreement. (It is understood that said agreement has not been formally executed and minor changes may be made therein which shall not materially change the context thereof).

NOW, THEREFORE, By virtue of the premises, and in consideration of the mutual benefits to accrue and expected to accrue herefrom, and in consideration of Vindicator securing the execution

of said agreement, "Exhibit B", by Silver Buckle Mining Company, and further in consideration of $1.00 and other valuable consideration to the said Kathryn Powers in hand paid by Vindicator, the receipt whereof is hereby acknowledged, the parties hereto agree as follows:

1. First party, Kathryn Powers, does hereby waive any and all defaults of Vindicator, if any, in the performance of said agreement of December _____, 1950, "Exhibit A", and does hereby acknowledge and agree that said agreement, "Exhibit A", is in good standing and in full force and effect.

2. First party, Kathryn Powers, does hereby approve said proposed agreement between Vindicator and Silver Buckle, "Exhibit B", and does hereby agree that the performance of the work requirements set forth in said agreement, "Exhibit B", shall be accepted as, and considered as performance by Vindicator of the work requirements of said agreement, "Exhibit A".

3. Vindicator agrees to execute said agreement, "Exhibit B", and to use its best efforts to secure the execution thereof by Silver Buckle, it being expressly agreed that failure of Vindicator to secure the execution of said agreement, shall release the said Kathryn Powers from all covenants and agreements of this agreement and shall leave the parties in their respective positions prior to the execution of this agreement.

IN WITNESS WHEREOF The said Kathryn Powers has executed this agreement in duplicate the 8th day of July, 1953, and the Vindicator Silver-Lead Mining Company has caused this agreement to be executed in duplicate by its duly authorized officers and has caused its corporate seal to be hereunto affixed this _____ day of _____, 1953.

Witness as to Kathryn Powers

Kathryn Powers
First Party

N. J. Logue
Grace Pauline Oldfield

VINDICATOR SILVER-LEAD MINING COMPANY

By [illegible] President

ATTEST:

_____ Secretary

A G R E E M E N T

THIS INDENTURE, made this _____ day of _____, 1950, between the VINDICATOR SILVER-LEAD MINING COMPANY, a corporation, party of the first part, and KATHRYN POWERS, a widow, of Oakland, California, through her duly appointed and acting attorney in fact, WILLIAM P. BEAN, party of the second part;

RECITAL:

That Whereas KATHRYN POWERS, a widow, of Oakland, California, is the owner of certain unpatented lode mining claims located in the Hunter Mining District, County of Shoshone, State of Idaho, known as the Hornsilver, Siskiyou Belle Fraction, Curraugh Buck, and the Gentle Annie Lodes, and also is an owner of one-fourth undivided interest in the Bull Dog Lode Claim, U. S. Survey No. 2943, all consisting of a group of claims known as the Vindicator Group, formerly owned by the Vindicator Mining Company, and all conveyed by deed to the said KATHRYN POWERS, on the 10th day of December, 1945, by the officers and directors of said company in payment of an indebtedness and obligation owing to the said KATHRYN POWERS, amounting to the sum of $5,300.00, And Whereas, the said KATHRYN POWERS did, on the 10th day of December, 1945, enter into an agreement as owner of the aforesaid claims, with WALTER J. LOGUS, called a "BOND AND LEASE" wherein the said KATHRYN POWERS executed a deed to the aforesaid mining claims and placed the same in escrow at the First National Bank in Wallace, Idaho, and under the terms of which the said Walter J. Logus was to pay the sum of $22,500.00 for said mining claims over a period of eight (8) years from the 19th day of December, 1945, to the 19th day of December, 1953, upon certain conditions and covenants therein stated, the most important of which were that the sum of not less than $1,000.00 was to be paid to the said KATHRYN POWERS on or before the 19th day of December in each year, and beginning December 19, 1946, and ending December 9, 1950, and that the said Walter J. Logus was to pay all costs of mining, development, equipment, and operation,

Exhibit A

and to save the said KATHRYN POWERS free and harmless and sfae at all times from liens, judgments and claims of every nature arising from the use and occupation of said premises under said lease, and to deliver the said premises in good order and condition, without demand or further notice, to the lessor on the 19th day of December, 1953, or at any previous date, on lawful demand for forfeiture, and giving the said lessor the right to demand possession and enter into possession with or without force, and with or without process of law, at her option, upon forfeiture of any of the conditions or covenants of said lessee, Walter J. Logus. That the said Walter J. Logus thereafter assigned and set over unto the VINDICATOR SILVER-LEAD MINING COMPANY, a re-organized counterpart of the VINDICATOR MINING COMPANY, the said "BOND AND LEASE" executed to him by the said KATHRYN POWERS on the 10th day of December, 1945, and that the said VINDICATOR SILVER-LEAD MINING COMPANY thereby stands in the same position and rights as the said Walter J. Logus under the said "BOND AND LEASE".

That on the 19th day of December, 1949, the said Walter J. Logus and the said VINDICATOR SILVER-LEAD MINING COMPANY breached and forfeited their rights under said "BOND AND LEASE" by failing to pay the sum of $1,000.00 into the said escrow during any part of the year 1949, as the minimum payment to the said KATHRYN POWERS due on or before the 19th day of December, 1949, and that the same is, at the date of these presents, in default and payment has not been tendered or in any manner made to the said KATHRYN POWERS, or into the said escrow. That the said Walter J. Logus and his assign, the VINDICATOR SILVER-LEAD MINING COMPANY, have further breached the covenants contained in said "BOND AND LEASE" by reason of the fact that they have permitted wages to become delinquent for the years 1948 and 1949, which are a claim against the said mining claims in excess of $7,000.00. That other liens have been filed against said property, contrary to the covenants and conditions contained in said "BOND AND

LEASE", and that the said VINDICATOR SILVER-LEAD MINING COMPANY is, at the date of these presents, unable to meet its obligations, including payment to said KATHRYN POWERS, and that all of said obligations either constitute a lien or claim against the property so leased.

That the said KATHRYN POWERS has heretofore, on the 19th day of January, 1950, duly executed a Power of Attorney which is duly recorded in the records of Shoshone County, Idaho, constituting WILLIAM P. BEAN of Mullan, Idaho, her attorney in fact, to sell, convey, lease, option or otherwise act for the said KATHRYN POWERS in connection with the aforesaid claims as the said KATHRYN POWERS could do herself; and that the said WILLIAM P. BEAN, action for the said KATHRYN POWERS, does hereby declare the said Walter J. Logus and the VINDICATOR SILVER-LEAD MINING COMPANY have forfeited and are in default under the terms and conditions of said "BOND AND LEASE" by reason of the foregoing conditions of default set out in said "BOND AND LEASE" and referred to herein.

WITNESSETH; That by reason of all of the foregoing, the said WILLIAM P. BEAN, acting for the said KATHRYN POWERS as her attorney in fact, makes and enters into a new agreement containing the following covenants and conditions with the said party of the first part, for and on behalf of the said KATHRYN POWERS and to her best interest and protection in connection with aforesaid mining claims and by reason of the fact that the said "BOND AND LEASE" has been forfeited by the said WALTER J. LOGUS, and his assign, the VINDICATOR SILVER-LEAD MINING COMPANY, and therefore all right, title and interest to said claims has reverted, under the "BOND AND LEASE", to the said KATHRYN POWERS as sole owner and claimant, and that whether the said title and interest shall have now reverted to the said KATHRYN POWERS or shall at any time in the future revert or in anywise rest in the said KATHRYN POWERS, these presents shall be effective and binding upon the said parties hereto.

WHEREFORE, in consideration of the covenants and conditions and considerations hereinafter expressed, the said parties agree as follows, to wit:

1. That for the consideration hereinafter expressed, the said KATHRYN POWERS, through her attorney in fact, WILLIAM P. BEAN, agrees to execute and deliver to the party of the first part a Deed conveying all her right, title and interest presently held or to be hereafter acquired through any means or process whatsoever, in and to the following described mining claims, to wit:

> Hornsilver, Siskiyou Fraction, Curraugh Buck, and Gentle Annie unpatented lode mining claims, and a one-fourth undivided interest in and to the patented Bull Dog lode claim, U. S. Survey No. 2943, all known as the Vindicator Group and formerly owned by the Vindicator Mining Clmpany, all situated and lying in the Hunter Mining District, Shoshone County, Idaho.

Together with all tenements, hereditaments and appurtenances thereunto belonging or appertaining, including all personal property situated thereon, or which the said KATHRYN POWERS may be entitled to under foreclosure of her agreement with W. J. Logus and his assign, the VINDICATOR SILVER-LEAD MINING COMPANY, as heretofore referred to.

2. That this Agreement and the aforesaid deed shall be placed in escrow at the IDAHO FIRST NATIONAL BANK, in Wallace, Idaho, upon execution, and shall be delivered to the said first party at such time as said first party performs all its covenants and conditions and tenders payment of all consideration due hereunder, except as otherwise stated herein.

3. That the said KATHRYN POWERS covenants and agrees that she will execute, or will cause to be executed through her attorney in fact, all conveyances or other instruments necessary or which may be required to quiet title to said mining claims, against any and all persons, or institute any other legal proceedings in order that a fee simple and merchantable title may be vested in the party of the first part, upon payment of all considerations stated herein,

and to further execute all documents, instruments, and other papers necessary to patent said mining claims, register any securities to be issued by any corporation, partnership, or individuals in connection with development or operation of said mining claims, provided, however, that no monetary expense in performing the foregoing shall be chargeable to the said KATHRYN POWERS, and that all such expense shall be borne by the party of the first part.

4. To cause aforesaid deed to be delivered to the said first partyfirst party upon the execution by it of a production note, the terms of which are hereinafter set out, and the placing of the same in said escrow or upon the payment into said escrow of certain cash sums in lieu of royalty payments of said production note, also hereinafter fully set out in detail in these presents, and upon the execution of a first mortgage upon said mining claims, and the personal property thereon, as security for said production note.

IN CONSIDERATION of the covenants and conditions to be performed by the party of the second part, the party of the first part agrees as follows, to wit:

1. To cause to be issued to the said KATHRYN POWERS, or to whomsoever she may designate, 25,000 shares of capital stock of the said VINDICATOR SILVER-LEAD MINING COMPANY.

2. To cause to be issued to WILLIAM P. BEAN, attorney in fact for the said KATHRYN POWERS, an additional 15,000 shares of capital stock of aforesaid company, the same being a further consideration for these presents.

3. To pay to the said KATHRYN POWERS, or to whomsver she may designate, cash payments as follows, to wit:

(a) 15% of all net smelter returns accruing to any individual, partnership, or corporation, derived from ore produced and shipped from said mining claims, until the sum of $20,000.00 has been paid to the said KATHRYN POWERS. However, payment of this cash sum shall be entirely contingent upon discovery, exploitation, and

production of commercial ore within said mining claims conveyed by the said second party hereunder, and in the event development and exploration of said claims does not reveal any commercial ore body, the said party of the first part shall not be obligated to pay such sum to the party of the second part. Payments of said 15% of the net smelter returns from said production shall beging immediately after the first ore is produced and smelted, and payment made therefor, and shall continue to be paid to the said second party at the rate of at least one payment per quarter during each year in which commercial ore shall be produced, shipped and smelted from said property, until the full amount of $20,000.00 has been paid to the party of the second part.

That aforesaid royalty payments shall be evidenced and embodied in a "production note" made to the second party by the first party and which shall be secured by a first mortgage upon said real property and all personal property situated on said mining claims, in the amount of $20,000.00 to be executed by the party of the first part to the party of the second party, and placed in said escrow, at which time said bank shall be authorized to deliver unto the first party the deed to said claims, executed by the second party.

(b) That in lieu of the foregoing payments to the party of the second part, the said first party may deposit into said escrow at the IDAHO FIRST NATIONAL BANK, Wallace, Idaho, to the account of said second party, at any time within two (2) years after date hereof, the sum of $15,000.00 cash in a lump sum, for which the said second party agrees to execute and deliver to the first party all her right, title and interest in and to said mining claims, and to release and relinquish all her rights whatsoever to any payments or security due her under subsection (a), Paragraph 3 aforegoing.

(c) The said first party agrees that it will, as soon as possible, enter upon said premises and perform or cause to be performed work-man-like labor in mining and working the said property,

using accepted mining practices, to the end of discovering a commercial ore body therein for the benefit of all parties hereto.

IT IS MUTUALLY AGREED AND UNDERSTOOD between the parties hereto, that due to circumstances preceding this agreement, there are numerous title difficulties existing with reference to said property, and that there are other actual and possible outstanding interests and claims against said property which stand as a cloud on the title, and liens against said property, which will tend to delay and hinder the progress of the said first party in seeking commercial ore upon the property. However, the said first party agrees to work diligently to clear up all title difficulties, and dispose of all outstanding claims against said property to the end that it will be placed in such a condition as to induce outside capital, either by agreement or by sale of stock, to be expended in and upon the premises, and that in order to discover commercial ore upon said property, it is contemplated that a sum of approximately $100,000.00 must be appropriated and expended after all aforesaid difficulties have been overcome. That the parties shall work together and co-operate with each others in all matters which shall tend to expedite the discovery of commercial ore and production thereof to their mutual benefit and welfare.

IT IS FURTHER AGREED between the parties hereto, in the event the said first party fails to diligently perform any of the covenants herein contained, or becomes in default hereunder in any manner, or abandons its efforts to clear title to said property, or fails to diligently seek the necessary capital to explore and develop said property, or abandons exploration and development work upon said premises once the same has been started, or ceases to produce or extract commercial ore therefrom once the same has been found, that said second party shall be entitled to demand a reconveyance or resale of said property as liquidated damages, to her upon the consideration of surrender of all stock certificates issued

hereunder, and surrender of said production note and satisfaction of said mortgage to the said first party. However, any and all royalty payments made to the second party shall be retained by said second party. Upon lawful demand by said second party after default, the said first party agrees to execute a quitclaim deed to said premises and to deliver possession thereof peaceably to the said second party.

IT IS MUTUALLY AGREED between the parties hereto, that these presents shall be binding upon the heirs, executors, and assigns of all of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands the day and year first above written.

VINDICATOR SILVER-LEAD MINING COMPANY

By: HERMAN J. ROSSI
President

Party of the First Part

Attest:

HARRY F. MAGNUSON
Secretary

KATHRYN POWERS

By: WILLIAM P. BEAN

Party of the Second Part

OPERATING AND MANAGEMENT AGREEMENT

THIS AGREEMENT, Made and entered into, in duplicate, this 7th day of Aug, 1953, by and between VINDICATOR SILVER-LEAD MINING COMPANY, an Idaho corporation, hereinafter referred to as "Vindicator", as party of the first part, and SILVER BUCKLE MINING COMPANY, an Idaho corporation, hereinafter referred to as "Silver Buckle", as party of the second part,

W I T N E S S E T H:

WHEREAS, Vindicator has an authorized capital stock of 2,500,000 non-assessable shares of the par value of 10 cents per share, of which approximately 2,124,000 shares are issued and outstanding and approximately 376,000 shares are unissued; and

WHEREAS, Vindicator is the owner of the following described mining claims, situate in Hunter Mining District, Shoshone County, Idaho, to-wit:

> Hornsilver, Siskiyou Belle Fraction, Curraugh Buck, and Gentle Annie unpatented lode mining claims, and a one-fourth (1/4) undivided interest in and to the Bull Dog patented lode mining claims, U. S. Survey No. 2943, all known as the Vindicator Group and formerly owned by Vindicator Mining Company,

together with all tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and all personal property, buildings, machinery, equipment, tools and supplies; now upon said claims or used in connection therewith.

SUBJECT, however, to all of the terms and conditions of that certain agreement dated July 8th, 1953, between Vindicator and Kathryn Powers, a widow, of Oakland, California, under the terms of which the said property has been conditionally conveyed by the said Kathryn Powers to Vindicator by deed dated December

"Exhibit B"

10, 1950, and recorded on said date, in Book "85" of Deeds, page 419, records of Shoshone County, Idaho, for a consideration of certain shares of stock in Vindicator, and the sum of $20,000.00 represented by a production note, dated December 12, 1950, for $20,000.00, with interest on unpaid balances at rate of five per cent (5%) per annum, made by said Vindicator to Kathryn Powers, payable only from 15% of the net smelter returns derived from ore produced and shipped from the mining claims of Vindicator and secured by a first mortgage upon the real and personal property of Vindicator, recorded on _____, 1953, in Book ____ of Mortgages, page _____, records of Shoshone County, Idaho, it being specifically provided in said agreement between Vindicator and Kathryn Powers that the payment of said note and mortgage is entirely contingent upon discovery, exploration, development, and production of commercial ore within said mining claims so conveyed as aforesaid, and that, in the event development and exploration of said claims does not reveal any commercial ore body, and no commercial ore shall be produced, shipped and smelted from said property, said Vindicator shall not be obligated to pay such sum to the said Kathryn Powers, but on demand shall reconvey said premises to the said Kathryn Powers, the said agreement and said deed having been made and executed on behalf of said Kathryn Powers by her agent and attorney in fact, William P. Bean, of Mullan, Idaho, pursuant to authority granted by power of attorney recorded January 19, 1950, in Book "J" of Powers of Attorney, page 124, records of Shoshone County, Idaho; and

WHEREAS, Vindicator and Silver Buckle have agreed upon the terms of an Operating and Management Agreement, subject to the

approval of the said Kathryn Powers, under which Silver Buckle proposes to take over the prospecting of said lands for ore, and the development, extraction, processing and marketing of said ores and concentrates therefrom, which said property is now developed by means of a No. 1 or Upper Tunnel with crosscut, drift, raises and stopes and by the main adit No. 2 or Lower Tunnel with 1600-foot crosscut and 1000-foot drift; all in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, By virtue of the premises and for and in consideration of the sum of One Dollar ($1.00) in hand paid by Silver Buckle to Vindicator, receipt of which is hereby acknowledged by Vindicator, and the further covenants to be performed by Silver Buckle hereunder, IT IS HEREBY AGREED by and between Vindicator and Silver Buckle as follows:

1. INTERESTS: Vindicator agrees to convey and by these presents hereby does convey to Silver Buckle an undivided 50% interest in and to all ores and mineral values in all of said Vindicator's mining claims or interest therein herein described, with the right of ingress and egress, including 50% undivided interest in any ores to which Vindicator may be entitled under its extralateral rights of said mining claims or interest therein.

With respect to said Bull Dog lode mining claim, Survey No. 2943, this conveyance is intended to convey only 50% of Vindicator's undivided one-fourth (1/4) interest in the ores or mineral values therein contained or appurtenant thereto.

2. TERM: Commencing as of the 15th day of August, 1953, which is the effective date of this agreement, and extending for a

term of not exceeding fifty (50) years from and after said date unless sooner terminated by cancellation or forfeiture as hereinafter provided, Silver Buckle shall take and hold possession of the said property covered hereby for the purpose of prospecting and developing said property for possible ore deposits, and the extraction, processing and marketing of the oresand concentrates therefrom, subject to the terms and conditions hereof.

Provided, that Silver Buckle's possession or right to possession of said undivided one-fourth (1/4) interest in the Bull Dog lode mining claim, Survey No. 2943, shall be subject to the paramount rights of the owner or owners of a majority in interest in said claim. If, as and when Silver Buckle shall desire to commence exploration or mining in said Bull Dog lode mining claim, Vindicator agrees to use its best efforts to secure permission therefor from the owners of the majority interests in said claim.

3. TITLE: Title to the mining claims hereinbefore mentioned and described shall remain at all times in Vindicator; subject, however, to Silver Buckle's one-half interest in the ore and mineral values therein, as conveyed in Paragraph 1 hereof, and subject to the rights of Silver Buckle herein granted.

4. RELATIONSHIP OF PARTIES: This agreement shall not in any manner establish the relation of partnership or co-adventure between the parties hereto, nor shall either party have the right or power to bind the other party hereto, as regards third parties, without the specific written consent of the other party hereto.

5. RESPONSIBILITY OF EACH PARTY FOR ITS OWN OBLIGATIONS: Silver Buckle agrees to fully pay and discharge all obligations it

may incur for labor, materials, supplies, equipment, or otherwise in the prosecution of the work contemplated by this agreement and to save and protect Vindicator and its propertiesfree and harmless from any and all claims, demands and liens for labor and materials that may be furnished for or at the request of Silver Buckle during the life of this agreement or that may be used in the prosecution of the work so carried on hereunder. Vindicator agrees to keep the properties free from liens and encumbrances prejudicial to the rights of Silver Buckle, and to reimburse Silver Buckle for any sums it may be required to pay on account thereof, with interest thereon at five per cent (5%) per annum from the date such sums may have been paid or advanced, but this provision shall not be construed to obligate Silver Buckle to pay any of Vindicator's indebtedness.

6. PURCHASE OF VINDICATOR STOCK BY SILVER BUCKLE: Upon the effective date of this agreement, Silver Buckle agrees to purchase from Vindicator 100,000 shares of its fully paid and non-assessable capital stock of the par value of 10 cents per share for the sum of $5,000.00 in cash and the delivery to Vindicator of a mining quitclaim deed conveying to it the Oversight and Overlook lode mining claims belonging to Silver Buckle of the fair and reasonable value to Vindicator of $5,000.00, which said claims are situated in Hunter Mining District, Shoshone County, Idaho, near or adjacent to the Vindicator properties. Vindicator agrees to use the cash payment of $5,000.00 for the purpose of liquidating the pressing current obligations of Vindicator, including the lien of the State of Idaho, now of record in Book "F" of Liens at page 24, records of Shoshone County, Idaho, and to furnish Silver

Buckle with a certificate to the effect that such obligations therein listed have been liquidated.

7. EXCHANGE OF VINDICATOR AND SILVER BUCKLE STOCK: As and when Silver Buckle shall have caused a shaft of the specifications hereinafter mentioned to be sunk 800 feet on Vindicator's property, or shall have performed work equivalent thereto as hereinafter provided, Silver Buckle shall be entitled to receive from Vindicator an additional 100,000 shares of its fully paid and non-assessable capital stock of the par value of ten cents per share in exchange for 100,000 shares of the fully paid and non-assessable capital stock of Silver Buckle of the same par value and each company covenants and agrees to make such exchange at the time aforesaid.

8. FUNDS AND MANAGEMENT: Silver Buckle, without liability on Vindicator's part for the re-payment thereof, except as herein provided for, shall supply all the funds required for the performance of its obligations under this contract, in addition to the D.M.E.A. loan hereinafter referred to if granted, and all work performed hereunder shall be under the sole management, direction and supervision of Silver Buckle.

9. DEVELOPMENT OF VINDICATOR BY SILVER BUCKLE: Silver Buckle agrees to explore, develop, mine and operate the properties of Vindicator hereinbefore described, but on completion of the exploration program herein provided for, Silver Buckle shall not be required to conduct mining operations when, in its sole judgment, the price of lead, zinc or silver are too low for a profitable operation. For such purpose Silver Buckle is hereby given the quiet, peaceable, and undisturbed possession of said properties, subject, to the terms and conditions of this contract and the said

contract between Vindicator and Kathryn Powers, and agrees to keep and maintain complete and accurate accounts in connection with said operation. All work performed shall be done in accordance with good mining practice and with the end in view of developing Vindicator's mining claims into a workable and productive mine.

10. ASSESSMENT WORK AND MINE REHABILITATION: Silver Buckle agrees to commence the performance of annual assessment work for the assessment year ending July 1, 1953, on the four unpatented lode mining claims of Vindicator on or before June 25, 1953, and complete the same on or before July 1, 1953, and upon completion, to cause a proof of labor thereof to be promptly filed with the County Recorder of Shoshone County at Wallace, Idaho, and to so notify Vindicator. Silver Buckle assumes this responsibility notwithstanding such performance precedes the effective date of this agreement.

Silver Buckle further agrees to expend at least the sum of $2,500.00 on mine rehabilitation of said Vindicator's properties within six months after the effective date of this contract.

11. SINKING OF SHAFT AND WORK EQUIVALENT THERETO: On or before six months from the effective date of this contract Silver Buckle agrees to commence work on the sinking of a vertical shaft at a suitable site within the boundaries of Vindicator's property to be selected by it and which shall not be less than a two-compartment shaft, and shall complete the sinking of such shaft to a depth of 400 feet from the collar of said shaft within one year from the effective date of this contract, provided, however, that Silver Buckle may perform lateral work from said shaft at such level or levels as it may select, in which event six

(6) feet of drifting and crosscutting shall be the equivalent to one (1) foot of shaft sinking and nine (9) feet of diamond drilling shall be the equivalent of one (1) foot of drifting or corsscutting and 400 cubic feet of station excavation shall be the equivalent of one (1) foot of shaft sinking. During the second year from the effective date of this contract and commencing within thirteen (13) months from said effective date, Silver Buckle agrees to continue the sinking of said shaft at the rate of one hundred (100) feet per month, or its equivalent in lateral work, to a total depth of eight hundred (800) feet from the collar of said shaft. In the event, however, that Silver Buckle encounters commercial ore in the course of its mining operations on Vindicator's mining claims, the minimum required by this contract for the sinking of said shaft or its equivalent shall be suspended during the time when ore, other than development ore, is being extracted and shipped to the smelter. Likewise, in the event of delay in securing delivery of hoisting or other machinery and equipment necessary in the sinking of said shaft not the fault of Silver Buckle, the minimum work required by this contract for the sinking of said shaft or its equivalent shall be suspended during the period of such delay, and the time for performance hereunder shall be extended by the length of such delay.

12. <u>USE OF VINDICATOR BUILDINGS AND EQUIPMENT BY SILVER BUCKLE</u>: Silver Buckle shall have the right while this agreement is in force and effect to use the buildings, machinery and equipment now situate on the property of Vindicator or used in connection therewith and shall keep the same in as good condition and repair as received, ordinary wear and tear excepted. An inventory

of said machinery and equipment with a brief description of its condition shall be prepared and a copy thereof properly identified shall be attached to each executed copy of this agreement.

13. DIVISION OF NET SMELTER RETURNS: Silver Buckle shall have the right to mine, mill and ship or sell to a smelter any ores that may be encountered and removed from the aforesaid mining claims during the life of this agreement. If and when the property of Vindicator becomes a producing mine, net smelter returns derived from ores produced and shipped to a smelter from said mining claims of Vindicator shall be paid and divided as follows:

1. 15% of said net smelter returns shall be paid to Kathryn Powers on her production note and mortgage hereinbefore mentioned until the total sum of $20,000.00, plus interest from December 12, 1950, computed at five per cent (5%) on the unpaid balances from time to time remaining, has been paid to her in that manner. Provided that one-half of all sums paid to said Kathryn Powers shall be charged to Vindicator and shall be re-paid to Silver Buckle out of the first smelter returns received by Vindicator in excess of its proportion of the costs hereunder.

2. 5% of said net smelter returns shall be paid to Silver Buckle to apply upon the re-payment of its recoverable costs hereunder, until the total cost of its development expense shall have been re-paid; and

3. 80% of said net smelter returns shall be divided equally between the parties of this agreement so that each of said parties shall receive 40% of said net smelter returns, from which each of the parties shall pay one-half of the current operating costs as hereinafter provided.

When the obligation of $20,000.00 and interest on said production note and mortgage held by said Kathryn Powers has been fully paid, satisfied and discharged, and there remains the total costs of Silver Buckle's development expense, or any portion thereof, to be amortized, then said net smelter returns shall be paid as follows:

1. 5% thereof to Silver Buckle to apply upon re-payment of its recoverable costs as aforesaid, and

2. 95% thereof to be divided equally between the parties to this agreement so that each party to this agreement shall receive 47½% thereof, from which each of the parties shall pay one-half of the current operating costs.

When all development expense of Silver Buckle shall have been amortized, then said net smelter returns shall be divided equally between the parties to this agreement so that each party to this agreement shall receive 50% thereof, subject, also, to the obligations of each to pay one-half of the current operating costs.

"Net Smelter Returns" are hereby defined to be the amount recieved from the smelter, less freight or transportation and treatment charges.

All ores are to be shipped in the name of Silver Buckle and all returns shall be paid by the smelter to Silver Buckle which shall make distribution thereof in accordance with the terms and conditions of this paragraph of this agreement.

Quadruplicate copies of said settlement sheets are to be sent by the smelter to Silver Buckle in order that a copy of such settlement sheets may accompany its payments to Kathryn Powers and two

copies accompany its accountings to Vindicator as hereinafter mentioned.

In computing the cost of development work for which Silver Buckle is entitled to reimbursement by means of 5% of said net smelter returns, only cost and expense that are directly attributable to the development work shall be allowed, plus 10% of the total direct expenses, which said 10% shall cover any and all executives' salaries and expenses, overhead and indirect costs connected with this operation.

The term "producing mine", as used in paragraphs 13 and 14, contemplates the production of ore by mining as distinguished from ore produced in the process of development and commonly called "development ore".

If development ore is encountered, Silver Buckle may stockpile it for future processing and sale, or may process and sell it immediately and retain the entire net smelter returns, subject only to the payment of 15% thereof to Kathryn Powers. All sums received and retained by Silver Buckle from such development ore shall be credited to its recoverable cost account.

14. PAYMENT OF MINING COSTS: If and when the property of Vindicator becomes a producing mine, as defined in the preceding paragraph, each party shall be liable for one-half of the total current operating costs. Settlement and division of net smelter returns with Vindicator, as provided in the preceding paragraph, shall be made quarterly, or at such other intervals as may be agreed upon by the parties hereto, and with each settlement Silver Buckle shall furnish Vindicator two copies of all smelter settlement sheets relating to the ore or concentrates to which such

settlement is being made, and shall furnish to Vindicator an itemized statement showing Silver Buckle's mining and milling costs chargeable to the production and processing of the ore involved in such settlement. Promptly upon its receipt of such statement, Vindicator shall reimburse Silver Buckle for fifty per cent (50%) of such costs. Or, for convenience, Silver Buckle may, at its option, deduct Vindicator's fifty per cent (50%) of said costs and remit only the balance to Vindicator.

It is recognized by both parties hereto that it is not possible to enumerate in this agreement all items of cost which shall be properly chargeable against the production and processing of said ore, but it is agreed generally that said direct costs may include, among other things, property taxes, insurance, engineering expense, cost of full time supervision on the job and labor negotiations.

Office and accounting expense and part time supervision, shall be considered as part of the indirect costs, which are not to exceed 10% (ten per cent) of direct costs as provided in Paragraph 13 hereof.

Any and all questions that may arise with respect to the costs and expenses which Silver Buckle shall be entitled to charge to Vindicator as aforesaid, or with respect to the accounting procedure used, shall be settled, if possible, by conferences between the parties and shall be finally disposed of by an exchange of letters. But, if such questions cannot be disposed of by the parties in that manner, then the question or controversy shall be submitted to arbitration in the manner hereinafter provided.

15. WORKING CAPITAL ACCOUNT: Vindicator, after paying its share of the current operating costs out of its share of said net smelter returns, as provided in the preceding paragraph, shall pay to Silver Buckle any overplus from said smelter returns until it has paid not less than $50,000.00, which sum Silver Buckle shall

deposit in a working capital account, and at the same time and in the same manner Silver Buckle shall make like contributions to said working capital account until it has contributed not less than $50,000.00, making a total working capital account of $100,000.00, and thereafter said working capital account shall be maintained as nearly as practical at that sum by means of deposits in equal amounts from time to time by the respective parties hereto out of their respective net profits from said property. In the event of the termination of this agreement for any reason, after payment of all obligations properly chargeable to the project, any sum remaining in said working capital account shall be divided equally between the parties hereto.

16. PERIODICAL REPORTS: From and after the date Silver Buckle shall commence exploration work upon Vindicator's property, it shall furnish to Vindicator quarterly reports in which there shall be shown the character and amount of exploration and development work performed during the preceding quarter and the place or places where same was performed, including logs of drilling operations, copies of drill cores, assays, mill reports, smelter reports, maps and engineering and geological reports, and there shall also be shown the costs and expenses incurred by Silver Buckle in the performance of said work.

If and when said property has been brought into production, said reports shall be rendered monthly unless otherwise agreed upon by the parties.

If Vindicator shall have any objections to any of such monthly statements of costs and expenses, Vindicator shall so advise Silver Buckle in writing within sixty (60) days after receipt by Vindicator of such statements setting out the details of such objections, whereupon the parties shall confer and attempt to reach an agreement thereon in the manner hereinbefore set out.

If no objections are made by Vindicator within said sixty (60) days, then any and all statements to which no such objections shall have been made shall be deemed to be correct and shall not thereafter be questioned.

If Vindicator's portion of said net smelter returns shall at any time or times be insufficient to pay its one-half of the costs of said operation, then Silver Buckle shall advance the amount of the deficiency and charge the same to Vindicator, and Silver Buckle shall be repaid such amount out of future net smelter returns when sufficient for that purpose, and Vindicator shall not be obligated to re-pay same in any other manner than out of future net smelter returns. If Silver Buckle shall terminate this agreement or abandon this project, Vindicator shall not thereafter be liable for the re-payment of such deficiency or any part thereof.

17. MILL FACILITIES AND MANAGEMENT FEE: Silver Buckle shall arrange for milling facilities on a reasonable basis, and in line with district practice, and shall not charge any management fee with respect to such milling operations, or with respect to any activity not directly applicable to the prospecting, development and mining operations herein contemplated.

18. TAXES: Silver Buckle shall pay all state, county and school district taxes levied upon the lands, improvements and personal property used in connection with its operations hereunder and the mining operations conducted under this contract, and the same shall be considered as a part of Silver Buckle's direct costs. Each party hereto shall pay the state and federal income taxes attributable to its portion of the income and earnings derived herefrom and each party shall pay its proportion of the mines license tax as provided by Chapter 12, Title 47, Idaho Code, and

the so-called "net profit" tax provided by Chapter 28, Title 63, Idaho Code.

It is the understanding of the parties that under the distribution of gross income herein provided, each party will be entitled to the allowable deduction for depletion based upon its respective proportion of said gross income.

19. PERFORMANCE: Silver Buckle agrees to proceed with the exploration and development of Vindicator's property under the terms of this agreement in good faith and as diligently as existing conditions will permit, and in the event that Vindicator's property becomes a producing mine, Silver Buckle agrees to work, mine and operate the same for a period of at least eight (8) months each calendar year during the life of this contract. Silver Buckle, however, must perform ample work to satisfy the requirements of law with respect to the performance of annual assessment work upon the unpatented mining claims of Vindicator, and agrees to file proof thereof in the office of the County Auditor at Wallace, Idaho, on or before June 15th of each year this agreement is in force and effect.

20. ASSIGNMENT: If at any time Silver Buckle should find it of advantage to enter into an agreement for the assignment of its right, title and interest in and to this agreement to a mining corporation, association, or individuals qualified to take over and perform the terms and conditions of this agreement, Silver Buckle shall have the right and privilege of making said assignment without the approbation or consent, either written or oral, of Vindicator, so long as such assignment affects only the property of Vindicator. If, however, such an agreement is for the

purpose of developing and operating some other neighboring property by which the Vindicator property will only be used as a facility to develop and operate such other property, then and in that event the written consent of Vindicator must first be obtained and terms agreed upon for the use and rental of said Vindicator's property. Silver Buckle shall not grant to any one the right to use any of the underground openings in Vindicator's property for any purpose whatsoever except with Vindicator's written consent first had and obtained.

21. EXAMINATION OF TITLE AND SUIT TO QUIET TITLE: Silver Buckle is to have the immediate right to examine the title to said mining claims and all other mining property, both real and personal, made the subject of this agreement and Vindicator agrees to furnish to Silver Buckle abstracts of title certified to date hereof and any other required data at its own cost and expense, if Silver Buckle so desires, and for this purpose Silver Buckle shall have access to all the records of Vindicator and the officers of Vindicator agree to furnish any and all records and pertinent information so that Silver Buckle may determine the status of the title of Vindicator to said lode mining claims and mining property.

It is understood from the statements contained in the Vindicator-Powers agreement that there are numerous title difficulties existing with reference to said property, and that there are other actual and possible outstanding interest and claims against said property which may tend to delay and hinder the progress of Silver Buckle in seeking commercial ore upon the property. If upon examination by attorney or engineers for Silver Buckle there appears to be any serious defects in the title of Vindicator to its mining

properties, Silver Buckle shall have the right to abandon this project or to institute suit to quiet title in the name of Vindicator, but at the sole cost and expense of Vindicator, which may be deducted before the payment to Vindicator of its share of the net smelter returns from ~~its~~ property. Provided, however, that Silver Buckle shall not incur expense in this connection in excess of $1,500.00 without Vindicator's consent.

22. PATENT: In case, during the existence of this agreement, Silver Buckle should decide to patent the unpatented mining claims of Vindicator, it is understood and agreed between the parties hereto that Silver Buckle shall have the right and privilege of instituting patent proceedings in the name of Vindicator, and, when patent is obtained, the same is to be subject to the interest of Silver Buckle in said mining claims as herein agreed. Liability for the costs of such patent proceedings shall be agreed upon by the parties before such proceedings are commenced.

23. RIGHT TO INSPECT RECORDS: Any officer of Vindicator or any other person authorized by its Board of Directors shall have the right, at any reasonable time, to inspect any book or record of Silver Buckle, kept in connection with the operations under this agreement and to make such audit thereof as may be desired, Such authorized officers and/or other authorized persons shall also have the right at any reasonable time to make any inspection which may be desired of the mill operation in which the ores from the property covered by this agreement may be milled, the mine operation, and any other part of the Silver Buckle operation. This right of inspection shall also include the right to inspect all maps and geological data of any kind in connection with Silver Buckle's operations.

24. SALE OF ORES AND CONCENTRATES: It is agreed that Silver Buckle under this agreement controls the sale of the ores and concentrates produced from the properties of Vindicator or otherwise. Silver Buckle agrees to obtain a fair open market price for said ores and concentrates at the time shipped. Silver Buckle shall not enter into a Smelter Contract exceeding one (1) year without Vindicator's approval.

25. POSTING NOTICES: Silver Buckle agrees that upon taking possession of said mining property it will immediately post suitable notices in conspicuous places upon the property notifying all laborers, materialmen, and other parties furnishing work, labor, services or materials to said mining operation that Silver Buckle is in possession and working said property ;under an operating and management agreement with Vindicator, and to the effect that Vindicator and its properties will not be liable for any debts incurred or obligations created by Silver Buckle in the prosecution of work upon the same under this agreement.

26. SUSPENSION OF OPERATIONS FOR STRIKES, ETC.: In the event of strikes, floods, fires, war, revolution, governmental regulations, Act of God, or other unavoidable casualty beyond the control of Silver Buckle, and/or any decrease in metal prices to such an extent as would render mining operations unprofitable in the sole opinion of Silver Buckle, which prevent or substantially retard Silver Buckle from carrying out its obligations hereunder, (and all such causes, and each of them, are expressly recognized as valid reasons for deferment by Vindicator), then and in any of said events so preventing or substantially retarding Silver Buckle from carrying out any of its obligations, the time for performing such

obligations shall be extended for a time equivalent to the duration of such period or periods as conditions above mentioned exist, but any of such causes shall not be ground for suspending the performance of annual assessment work on the unpatented claims of Vindicator, unless suspended by Act of Congress.

27. DMEA LOAN: It is understood by Silver Buckle that Vindicator has made application to the United States Department of the Interior, Defense Minerals Exploration Administration, for a loan of $245,600.96 for the exploration and development of its mining properties, under which, if granted, Vindicator would have to advance 50% thereof, or $122,800.48 of the agreed estimated total cost thereof, and Vindicator agrees that Silver Buckle shall have the benefit of the remaining $122,800.48, which would be paid by the federal government under said DMEA loan, and for this purpose and in the event said loan or any portion thereof is granted, Silver Buckle agrees to raise Vindicator's proportionate share thereof. In consideration thereof, Vindicator hereby sets over, assigns, and transfers to Silver Buckle all of its interest in such loan that may be made under said DMEA application and agrees that Silver Buckle shall have the right and privilege of using and applying said fund for the purposes of exploration and development by and in accordance with the terms and conditions of such loan, if granted. Silver Buckle agrees to be bound by all the terms and conditions that may be imposed by the federal government in connection with the expenditure of said funds and the re-payment thereof, and agrees to meet any time limits or progress requirements imposed by the DMEA, notwithstanding anything to the contrary herein.

If during the progress on any exploration program set up in connection with said DMEA loan Silver Buckle shall be unable to meet the requirements thereof, or for any reason shall abandon or terminate this agreement, it shall give Vindicator ample notice of its intention--and in no event less than ten (10) days before a performance date--to the end that Vindicator shall have ample opportunity to prevent a default under said DMEA project agreement.

Vindicator agrees to sign any subordination agreement required by DMEA and also agrees to procure any required subordination agreement from the said Kathryn Powers.

28. SILVER BUCKLE NOT LIABLE FOR VINDICATOR OBLIGATIONS: It is agreed between the parties hereto that Silver Buckle shall not be obligated for any obligations of any kind or character heretofore incurred by Vindicator or outstanding against Vindicator, if any, and said Vindicator will at all times save harmless and protect said Silver Buckle from the payment of any such obligations.

29. RIGHT OF SILVER BUCKLE TO TERMINATE: Silver Buckle may at any time after date hereof, if it so elects, discontinue any operations, development, or mining program on said Vindicator property. In case that said Silver Buckle desires to abandon the project and discontinue development thereon, it shall give to Vindicator thirty (30) days' written notice of its intention so to do, andupon the expiration of said thirty (30) days, it shall deliver to Vindicator a release thereof, duly executed and acknowledged, legally sufficient to terminate this contract of record, and shall re-convey to Vindicator the 50% interest in and to all ores and mineral values in Vindicator's claims, and by this agreement, conveyed to Silver Buckle, and thereupon the contract shall

be at an end, and Silver Buckle shall have the right to remove, within ninety (90) days thereafter, all machinery, equipment and supplies, for which it has not been re-paid or reimbursed as herein provided, (not including rails, ventilation pipe and fans underground placed thereon by it), provided, however, that such termination shall not relieve Silver Buckle from its liabilities hereunder theretofore accrued, and Silver Buckle shall not remove any of said property until it has paid all of its obligations arising from or in connection with this project. Upon said abandonment or other termination of this agreement, Silver Buckle shall leave the property and the equipment on the property at the time this agreement is entered into in good state and condition, reasonable wear and tear as to the equipment excepted, and all permanent improvements that have been made thereon by Silver Buckle, as well as any and all payments and advances that have been made in the way of cash or otherwise to Vindicator, shall be and become forfeited by Silver Buckle to Vindicator as and for liquidated and stipulated damages for failure on the part of Silver Buckle to fulfill and carry out said development. Vindicator shall have no other recourse against Silver Buckle other than the forfeitures heretofore enumerated.

30. RIGHT OF VINDICATOR TO TERMINATE: Should Silver Buckle fail to perform any of the covenants and agreements herein contained at the time and in the manner herein specified, or shall fail to perform any of the covenants and conditions of said Vindicator-Powers agreement, Vindicator shall have the right to cancel and terminate this contract upon giving to Silver Buckle thirty (30) days' written notice of its intention so to do, stating specifically the grounds upon which it is claimed Silver Buckle is in

default, and unless the existing default shall have been remedied by Silver Buckle during the said thirty-day period, this contract shall thereupon be terminated and at an end. Such cancellation, however, shall not release or relieve Silver Buckle from liabilities hereunder theretofore accrued, and upon such cancellation Silver Buckle shall reconvey to Vindicator the 50% interest in said ore and mineral values in Vindicator's property.

31. LITIGATION: It is agreed between the parties hereto that in case dispute should arise with neighboring owners as respect to the lines of said claims or matters involving extralateral right, including the ownership of ore bodies apexing in Vindicator property, and should litigation ensue relative thereto, it is agreed that Silver Buckle shall have the right to commence litigation, if in its judgment it is necessary, or likewise defend any litigation started against Vindicator or Silver Buckle, and that the expenses and cost of such litigation shall be borne equally by the parties hereto. It is provided, however, that Silver Buckle will not have the right to settle any such controversy or compromise the same without the consent of Vindicator being first had and obtained.

32. ARBITRATION: The parties appreciate that unforeseen contingencies in the operations contemplated by this agreement and not specifically covered by its terms and conditions, and questions of construction and performance may arise. Each party covenants and agrees to approach such questions and differences in a spirit of fairness and cooperation.

In the event the parties are unable to agree upon any question of construction, performance, or other contingency not specifically covered by this agreement, they agree to submit the differences to

arbitration within thirty (30) days after such failure to agree, each to select one arbitrator and those two to select a third, the expenses of such arbitration to be borne equally. Such arbitrators shall render their decision within thirty (30) days after the question is submitted to them. Each party covenants and agrees not to resort to legal action over any question or difference arising out of this agreement until the same has been submitted first to arbitration as herein provided.

33. COMPLIANCE WITH LAWS RELATING TO EMPLOYMENT OF LABOR: Silver Buckle agrees to carry upon its employees compensation insurance under the Workmen's Compensation Law of the State of Idaho and otherwise in all respects hold Vindicator harmless from all liability while said properties are being worked and developed by Silver Buckle during the life of this agreement and to further comply with all federal and state laws relating to social security, unemployment, and old-age insurance, wages and hours, income tax on its employees, both state and federal, and all other statutes, federal and state, affecting the operation of said properties and conditions of employment of all persons in the employment of Silver Buckle.

34. INSURANCE: Silver Buckle agrees to keep the buildings and contents thereof and equipment upon said premises insured against loss by fire in the sum of $_____ and in the sum of $_____ on the portable equipment, all payable to Vindicator as its interest may appear. The cost of such insurance shall be considered as one of the recoverable costs hereunder.

35. AGREEMENT EXTENDS TO SUCCESSORS: This agreement, and all of its provisions, shall inure to and be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, The parties hereto have caused these presents to be signed by their respective officers thereunto duly authorized and their corporate seals to be hereunto affixed the day and year in this agreement first above written.

VINDICATOR SILVER-LEAD MINING COMPANY

By _____
President

ATTEST:

_____
Secretary

PARTY OF THE FIRST PART

SILVER BUCKLE MINING COMPANY

By _____
President

ATTEST:

_____
Asst Secretary

PARTY OF THE SECOND PART

STATE OF IDAHO)
) ss
County of Shoshone)

On this 7th day of ~~July~~ Aug, 1953, before me, the undersigned, a Notary Public in and for the County and State aforesaid, personally appeared Herman J. Rossi and HARRY F. MAGNUSON, known to me to be the ___ President and Secretary of VINDICATOR SILVER-LEAD MINING COMPANY, the corporation that executed the foregoing instrument, and acknowledged to me that such corporation executed the same.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Notarial Seal at Wallace, Idaho, the day and year in this certificate first above written.

Notary Public in and for the State of Idaho, residing at Wallace, Idaho

STATE OF IDAHO)
) ss
County of Shoshone)

On this 7th day of ~~July~~ Aug, 1953, before me, the undersigned, a Notary Public in and for the County and State aforesaid, personally appeared F. E. SCOTT and ~~ROBERT C.~~ Alden Hall ANDERSON, known to me to be the President and Ass't Secretary of Silver Buckle Mining Company, the corporation that executed the foregoing instrument, and acknowledged to me that such corporation executed the same.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Notarial Seal at Wallace, Idaho, the day and year in this certificate first above written.

Notary Public in and for the State of Idaho, residing at Wallace, Idaho.

OPERATING AND MANAGEMENT AGREEMENT

THIS AGREEMENT, Made and entered into, in duplicate, this 7th day of Aug, 1953, by and between VINDICATOR SILVER-LEAD MINING COMPANY, an Idaho corporation, hereinafter referred to as "Vindicator", as party of the first part, and SILVER BUCKLE MINING COMPANY, an Idaho corporation, hereinafter referred to as "Silver Buckle", as party of the second part,

W I T N E S S E T H:

WHEREAS, Vindicator has an authorized capital stock of 2,500,000 non-assessable shares of the par value of 10 cents per share, of which approximately 2,124,000 shares are issued and outstanding and approximately 376,000 shares are unissued; and

WHEREAS, Vindicator is the owner of the following described mining claims, situate in Hunter Mining District, Shoshone County, Idaho, to-wit:

> Hornsilver, Siskiyou Belle Fraction, Curraugh Buck, and Gentle Annie unpatented lode mining claims, and a one-fourth (1/4) undivided interest in and to the Bull Dog patented lode mining claims, U. S. Survey No. 2943, all known as the Vindicator Group and formerly owned by Vindicator Mining Company,

together with all tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and all personal property, buildings, machinery, equipment, tools and supplies; now upon said claims or used in connection therewith.

SUBJECT, however, to all of the terms and conditions of that certain agreement dated DEC. 10TH, 1950, between Vindicator and Kathryn Powers, a widow, of Oakland, California, under the terms of which the said property has been conditionally conveyed by the said Kathryn Powers to Vindicator by deed dated December

10, 1950, and recorded on said date, in Book "85" of Deeds, page 419, records of Shoshone County, Idaho, for a consideration of certain shares of stock in Vindicator, and the sum of $20,000.00 represented by a production note, dated December 12, 1950, for $20,000.00, with interest on unpaid balances at rate of five per cent (5%) per annum, made by said Vindicator to Kathryn Powers, payable only from 15% of the net smelter returns derived from ore produced and shipped from the mining claims of Vindicator and secured by a first mortgage upon the real and personal property of Vindicator, recorded on _____, 1953, in Book _____ of Mortgages, page _____, records of Shoshone County, Idaho, it being specifically provided in said agreement between Vindicator and Kathryn Powers that the payment of said note and mortgage is entirely contingent upon discovery, exploration, development, and production of commercial ore within said mining claims so conveyed as aforesaid, and that, in the event development and exploration of said claims does not reveal any commercial ore body, and no commercial ore shall be produced, shipped and smelted from said property, said Vindicator shall not be obligated to pay such sum to the said Kathryn Powers, but on demand shall reconvey said premises to the said Kathryn Powers, the said agreement and said deed having been made and executed on behalf of said Kathryn Powers by her agent and attorney in fact, William P. Bean, of Mullan, Idaho, pursuant to authority granted by power of attorney recorded January 19, 1950, in Book "J" of Powers of Attorney, page 124, records of Shoshone County, Idaho; and

WHEREAS, Vindicator and Silver Buckle have agreed upon the terms of an Operating and Management Agreement, subject to the

approval of the said Kathryn Powers, under which Silver Buckle proposes to take over the prospecting of said lands for ore, and the development, extraction, processing and marketing of said ores and concentrates therefrom, which said property is now developed by means of a No. 1 or Upper Tunnel with crosscut, drift, raises and stopes and by the main adit No. 2 or Lower Tunnel with 1600-foot crosscut and 1000-foot drift; all in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, By virtue of the premises and for and in consideration of the sum of One Dollar ($1.00) in hand paid by Silver Buckle to Vindicator, receipt of which is hereby acknowledged by Vindicator, and the further covenants to be performed by Silver Buckle hereunder, IT IS HEREBY AGREED by and between Vindicator and Silver Buckle as follows:

1. INTERESTS: Vindicator agrees to convey and by these presents hereby does convey to Silver Buckle an undivided 50% interest in and to all ores and mineral values in all of said Vindicator's mining claims or interest therein herein described, with the right of ingress and egress, including 50% undivided interest in any ores to which Vindicator may be entitled under its extralateral rights of said mining claims or interest therein.

With respect to said Bull Dog lode mining claim, Survey No. 2943, this conveyance is intended to convey only 50% of Vindicator's undivided one-fourth (1/4) interest in the ores or mineral values therein contained or appurtenant thereto.

2. TERM: Commencing as of the 15th day of August, 1953, which is the effective date of this agreement, and extending for a

term of not exceeding fifty (50) years from and after said date unless sooner terminated by cancellation or forfeiture as hereinafter provided, Silver Buckle shall take and hold possession of the said property covered hereby for the purpose of prospecting and developing said property for possible ore deposits, and the extraction, processing and marketing of the ores and concentrates therefrom, subject to the terms and conditions hereof.

Provided, that Silver Buckle's possession or right to possession of said undivided one-fourth (1/4) interest in the Bull Dog lode mining claim, Survey No. 2943, shall be subject to the paramount rights of the owner or owners of a majority in interest in said claim. If, as and when Silver Buckle shall desire to commence exploration or mining in said Bull Dog lode mining claim, Vindicator agrees to use its best efforts to secure permission therefor from the owners of the majority interests in said claim.

3. TITLE: Title to the mining claims hereinbefore mentioned and described shall remain at all times in Vindicator; subject, however, to Silver Buckle's one-half interest in the ore and mineral values therein, as conveyed in Paragraph 1 hereof, and subject to the rights of Silver Buckle herein granted.

4. RELATIONSHIP OF PARTIES: This agreement shall not in any manner establish the relation of partnership or co-adventure between the parties hereto, nor shall either party have the right or power to bind the other party hereto, as regards third parties, without the specific written consent of the other party hereto.

5. RESPONSIBILITY OF EACH PARTY FOR ITS OWN OBLIGATIONS: Silver Buckle agrees to fully pay and discharge all obligations it

may incur for labor, materials, supplies, equipment, or otherwise in the prosecution of the work contemplated by this agreement and to save and protect Vindicator and its properties free and harmless from any and all claims, demands and liens for labor and materials that may be furnished for or at the request of Silver Buckle during the life of this agreement or that may be used in the prosecution of the work so carried on hereunder. Vindicator agrees to keep the properties free from liens and encumbrances prejudicial to the rights of Silver Buckle, and to reimburse Silver Buckle for any sums it may be required to pay on account thereof, with interest thereon at five per cent (5%) per annum from the date such sums may have been paid or advanced, but this provision shall not be construed to obligate Silver Buckle to pay any of Vindicator's indebtedness.

6. PURCHASE OF VINDICATOR STOCK BY SILVER BUCKLE: Upon the effective date of this agreement, Silver Buckle agrees to purchase from Vindicator 100,000 shares of its fully paid and non-assessable capital stock of the par value of 10 cents per share for the sum of $5,000.00 in cash and the delivery to Vindicator of a mining quitclaim deed conveying to it the Oversight and Overlook lode mining claims belonging to Silver Buckle of the fair and reasonable value to Vindicator of $5,000.00, which said claims are situated in Hunter Mining District, Shoshone County, Idaho, near or adjacent to the Vindicator properties. Vindicator agrees to use the cash payment of $5,000.00 for the purpose of liquidating the pressing current obligations of Vindicator, including the lien of the State of Idaho, now of record in Book "F" of Liens at page 24, records of Shoshone County, Idaho, and to furnish Silver

Buckle with a certificate to the effect that such obligations therein listed have been liquidated.

7. EXCHANGE OF VINDICATOR AND SILVER BUCKLE STOCK: As and when Silver Buckle shall have caused a shaft of the specifications hereinafter mentioned to be sunk 800 feet on Vindicator's property, or shall have performed work equivalent thereto as hereinafter provided, Silver Buckle shall be entitled to receive from Vindicator an additional 100,000 shares of its fully paid and non-assessable capital stock of the par value of ten cents per share in exchange for 100,000 shares of the fully paid and non-assessable capital stock of Silver Buckle of the same par value and each company covenants and agrees to make such exchange at the time aforesaid.

8. FUNDS AND MANAGEMENT: Silver Buckle, without liability on Vindicator's part for the re-payment thereof, except as herein provided for, shall supply all the funds required for the performance of its obligations under this contract, in addition to the D.M.E.A. loan hereinafter referred to if granted, and all work performed hereunder shall be under the sole management, direction and supervision of Silver Buckle.

9. DEVELOPMENT OF VINDICATOR BY SILVER BUCKLE: Silver Buckle agrees to explore, develop, mine and operate the properties of Vindicator hereinbefore described, but on completion of the exploration program herein provided for, Silver Buckle shall not be required to conduct mining operations when, in its sole judgment, the price of lead, zinc or silver are too low for a profitable operation. For such purpose Silver Buckle is hereby given the quiet, peaceable, and undisturbed possession of said properties, subject, to the terms and conditions of this contract and the said

contract between Vindicator and Kathryn Powers, and agrees to keep and maintain complete and accurate accounts in connection with said operation. All work performed shall be done in accordance with good mining practice and with the end in view of developing Vindicator's mining claims into a workable and productive mine.

10. ASSESSMENT WORK AND MINE REHABILITATION: Silver Buckle agrees to commence the performance of annual assessment work for the assessment year ending July 1, 1953, on the four unpatented lode mining claims of Vindicator on or before June 25, 1953, and complete the same on or before July 1, 1953, and upon completion, to cause a proof of labor thereof to be promptly filed with the County Recorder of Shoshone County at Wallace, Idaho, and to so notify Vindicator. Silver Buckle assumes this responsibility notwithstanding such performance precedes the effective date of this agreement.

Silver Buckle further agrees to expend at least the sum of $2,500.00 on mine rehabilitation of said Vindicator's properties within six months after the effective date of this contract.

11. SINKING OF SHAFT AND WORK EQUIVALENT THERETO: On or before six months from the effective date of this contract Silver Buckle agrees to commence work on the sinking of a vertical shaft at a suitable site within the boundaries of Vindicator's property to be selected by it and which shall not be less than a two-compartment shaft, and shall complete the sinking of such shaft to a depth of 400 feet from the collar of said shaft within one year from the effective date of this contract, provided, however, that Silver Buckle may perform lateral work from said shaft at such level or levels as it may select, in which event six

(6) feet of drifting and crosscutting shall be the equivalent to one (1) foot of shaft sinking and nine (9) feet of diamond drilling shall be the equivalent of one (1) foot of drifting or crosscutting and 400 cubic feet of station excavation shall be the equivalent of one (1) foot of shaft sinking. During the second year from the effective date of this contract and commencing within thirteen (13) months from said effective date, Silver Buckle agrees to continue the sinking of said shaft at the rate of one hundred (100) feet per month, or its equivalent in lateral work, to a total depth of eight hundred (800) feet from the collar of said shaft. In the event, however, that Silver Buckle encounters commercial ore in the course of its mining operations on Vindicator's mining claims, the minimum required by this contract for the sinking of said shaft or its equivalent shall be suspended during the time when ore, other than development ore, is being extracted and shipped to the smelter. Likewise, in the event of delay in securing delivery of hoisting or other machinery and equipment necessary in the sinking of said shaft not the fault of Silver Buckle, the minimum work required by this contract for the sinking of said shaft or its equivalent shall be suspended during the period of such delay, and the time for performance hereunder shall be extended by the length of such delay.

12. USE OF VINDICATOR BUILDINGS AND EQUIPMENT BY SILVER BUCKLE: Silver Buckle shall have the right while this agreement is in force and effect to use the buildings, machinery and equipment now situate on the property of Vindicator or used in connection therewith and shall keep the same in as good condition and repair as received, ordinary wear and tear excepted. An inventory

of said machinery and equipment with a brief description of its condition shall be prepared and a copy thereof properly identified shall be attached to each executed copy of this agreement.

13. DIVISION OF NET SMELTER RETURNS: Silver Buckle shall have the right to mine, mill and ship or sell to a smelter any ores that may be encountered and removed from the aforesaid mining claims during the life of this agreement. If and when the property of Vindicator becomes a producing mine, net smelter returns derived from ores produced and shipped to a smelter from said mining claims of Vindicator shall be paid and divided as follows:

1. 15% of said net smelter returns shall be paid to Kathryn Powers on her production note and mortgage hereinbefore mentioned until the total sum of $20,000.00, plus interest from December 12, 1950 computed at five per cent (5%) on the unpaid balances from time to time remaining, has been paid to her in that manner. Provided that one-half of all sums paid to said Kathryn Powers shall be charged to Vindicator and shall be re-paid to Silver Buckle out of the first smelter returns received by Vindicator in excess of its proportion of the costs hereunder.

2. 5% of said net smelter returns shall be paid to Silver Buckle to apply upon the re-payment of its recoverable costs hereunder, until the total cost of its development expense shall have been re-paid; and

3. 80% of said net smelter returns shall be divided equally between the parties of this agreement so that each of said parties shall receive 40% of said net smelter returns, from which each of the parties shall pay one-half of the current operating costs as hereinafter provided.

When the obligation of $20,000.00 and interest on said production note and mortgage held by said Kathryn Powers has been fully paid, satisfied and discharged, and there remains the total costs of Silver Buckle's development expense, or any portion thereof, to be amortized, then said net smelter returns shall be paid as follows:

1. 5% thereof to Silver Buckle to apply upon re-payment of its recoverable costs as aforesaid, and

2. 95% thereof to be divided equally between the parties to this agreement so that each party to this agreement shall receive 47½% thereof, from which each of the parties shall pay one-half of the current operating cost.

When all development expense of Silver Buckle shall have been amortized, then said net smelter returns shall be divided equally between the parties to this agreement so that each party to this agreement shall receive 50% thereof, subject, also, to the obligation of each to pay one-half of the current operating costs.

"Net Smelter Returns" are hereby defined to be the amount received from the smelter, less freight or transportation and treatment charges.

All ores are to be shipped in the name of Silver Buckle and all returns shall be paid by the smelter to Silver Buckle which shall make distribution thereof in accordance with the terms and conditions of this paragraph of this agreement.

Quadruplicate copies of said settlement sheets are to be sent by the smelter to Silver Buckle in order that a copy of such settlement sheets may accompany its payments to Kathryn Powers and two

copies accompany its accountings to Vindicator as hereinafter mentioned.

In computing the cost of development work for which Silver Buckle is entitled to reimbursement by means of 5% of said net smelter returns, only cost and expense that are directly attributable to the development work shall be allowed, plus 10% of the total direct expenses, which said 10% shall cover any and all executives' salaries and expenses, overhead and indirect costs connected with this operation.

The term "producing mine", as used in paragraphs 13 and 14, contemplates the production of ore by mining as distinguished from ore produced in the process of development and commonly called "development ore".

If development ore is encountered, Silver Buckle may stockpile it for future processing and sale, or may process and sell it immediately and retain the entire net smelter returns, subject only to the payment of 15% thereof to Kathryn Powers. All sums received and retained by Silver Buckle from such development ore shall be credited to its recoverable cost account.

14. PAYMENT OF MINING COSTS: If and when the property of Vindicator becomes a producing mine, as defined in the preceding paragraph, each party shall be liable for one-half of the total current operating costs. Settlement and division of net smelter returns with Vindicator, as provided in the preceding paragraph, shall be made quarterly, or at such other intervals as may be agreed upon by the parties hereto, and with each settlement Silver Buckle shall furnish Vindicator two copies of all smelter settlement sheets relating to the ore or concentrates to which such

settlement is being made, and shall furnish to Vindicator an itemized statement showing Silver Buckle's mining and milling costs chargeable to the production and processing of the ore involved in such settlement. Promptly upon its receipt of such statement, Vindicator shall reimburse Silver Buckle for fifty per cent (50%) of such costs. Or, for convenience, Silver Buckle may, at its option, deduct Vindicator's fifty per cent (50%) of said costs and remit only the balance to Vindicator.

It is recognized by both parties hereto that it is not possible to enumerate in this agreement all items of cost which shall be properly chargeable against the production and processing of said ore, but it is agreed generally that said direct costs may include, among other things, property taxes, insurance, engineering expense, cost of full time supervision on the job and labor negotiations.

Office and accounting expense and part time supervision, shall be considered as part of the indirect costs, which are not to exceed 10% (ten per cent) of direct costs as provided in Paragraph 13 hereof.

Any and all questions that may arise with respect to the costs and expenses which Silver Buckle shall be entitled to charge to Vindicator as aforesaid, or with respect to the accounting procedure used, shall be settled, if possible, by conferences between the parties and shall be finally disposed of by an exchange of letters. But, if such questions cannot be disposed of by the parties in that manner, then the question or controversy shall be submitted to arbitration in the manner hereinafter provided.

15. WORKING CAPITAL ACCOUNT: Vindicator, after paying its share of the current operating costs out of its share of said net smelter returns, as provided in the preceding paragraph, shall pay to Silver Buckle any overplus from said smelter returns until it has paid not less than $50,000.00, which sum Silver Buckle shall

deposit in a working capital account, and at the same time and in the same manner Silver Buckle shall make like contributions to said working capital account until it has contributed not less than $50,000.00, making a total working capital account of $100,000.00, and thereafter said working capital account shall be maintained as nearly as practical at that sum by means of deposits in equal amounts from time to time by the respective parties hereto out of their respective net profits from said property. In the event of the termination of this agreement for any reason, after payment of all obligations properly chargeable to the project, any sum remaining in said working capital account shall be divided equally between the parties hereto.

16. PERIODICAL REPORTS: From and after the date Silver Buckle shall commence exploration work upon Vindicator's property, it shall furnish to Vindicator quarterly reports in which there shall be shown the character and amount of exploration and development work performed during the preceding quarter and the place or places where same was performed, including logs of drilling operations, copies of drill cores, assays, mill reports, smelter reports, maps and engineering and geological reports, and there shall also be shown the costs and expenses incurred by Silver Buckle in the performance of said work.

If and when said property has been brought into production, said reports shall be rendered monthly unless otherwise agreed upon by the parties.

If Vindicator shall have any objections to any of such monthly statements of costs and expenses, Vindicator shall so advise Silver Buckle in writing within sixty (60) days after receipt by Vindicator of such statements setting out the details of such objections, whereupon the parties shall confer and attempt to reach an agreement thereon in the manner hereinbefore set out.

If no objections are made by Vindicator within said sixty (60) days, then any and all statements to which no such objections shall have been made shall be deemed to be correct and shall not thereafter be questioned.

If Vindicator's portion of said net smelter returns shall at any time or times be insufficient to pay its one-half of the costs of said operation, then Silver Buckle shall advance the amount of the deficiency and charge the same to Vindicator, and Silver Buckle shall be repaid such amount out of future net smelter returns when sufficient for that purpose, and Vindicator shall not be obligated to re-pay same in any other manner than out of future net smelter returns. If Silver Buckle shall terminate this agreement or abandon this project, Vindicator shall not thereafter be liable for the re-payment of such deficiency or any part thereof.

17. MILL FACILITIES AND MANAGEMENT FEE: Silver Buckle shall arrange for milling facilities on a reasonable basis, and in line with district practice, and shall not charge any management fee with respect to such milling operations, or with respect to any activity not directly applicable to the prospecting, development and mining operations herein contemplated.

18. TAXES: Silver Buckle shall pay all state, county and school district taxes levied upon the lands, improvements and personal property used in connection with its operations hereunder and the mining operations conducted under this contract, and the same shall be considered as a part of Silver Buckle's direct costs. Each party hereto shall pay the state and federal income taxes attributable to its portion of the income and earnings derived herefrom and each party shall pay its proportion of the mines license tax as provided by Chapter 12, Title 47, Idaho Code, and

the so-called "net profit" tax provided by Chapter 28, Title 63, Idaho Code.

It is the understanding of the parties that under the distribution of gross income herein provided, each party will be entitled to the allowable deduction for depletion based upon its respective proportion of said gross income.

19. PERFORMANCE: Silver Buckle agrees to proceed with the exploration and development of Vindicator's property under the terms of this agreement in good faith and as diligently as existing conditions will permit, and in the event that Vindicator's property becomes a producing mine, Silver Buckle agrees to work, mine and operate the same for a period of at least eight (8) months each calendar year during the life of this contract. Silver Buckle, however, must perform ample work to satisfy the requirements of law with respect to the performance of annual assessment work upon the unpatented mining claims of Vindicator, and agrees to file proof thereof in the office of the County Auditor at Wallace, Idaho, on or before June 15th of each year this agreement is in force and effect.

20. ASSIGNMENT: If at any time Silver Buckle should find it of advantage to enter into an agreement for the assignment of its right, title and interest in and to this agreement to a mining corporation, association, or individuals qualified to take over and perform the terms and conditions of this agreement, Silver Buckle shall have the right and privilege of making said assignment without the approbation or consent, either written or oral, of Vindicator, so long as such assignment affects only the property of Vindicator. If, however, such an agreement is for the

purpose of developing and operating some other neighboring property by which the Vindicator property will only be used as a facility to develop and operate such other property, then and in that event the written consent of Vindicator must first be obtained and terms agreed upon for the use and rental of said Vindicator's property. Silver Buckle shall not grant to any one the right to use any of the underground openings in Vindicator's property for any purpose whatsoever except with Vindicator's written consent first had and obtained.

21. EXAMINATION OF TITLE AND SUIT TO QUIET TITLE: Silver Buckle is to have the immediate right to examine the title to said mining claims and all other mining property, both real and personal, made the subject of this agreement and Vindicator agrees to furnish to Silver Buckle abstracts of title certified to date hereof and any other required data at its own cost and expense, if Silver Buckle so desires, and for this purpose Silver Buckle shall have access to all the records of Vindicator and the officers of Vindicator agree to furnish any and all records and pertinent information so that Silver Buckle may determine the status of the title of Vindicator to said lode mining claims and mining property.

It is understood from the statements contained in the Vindicator-Powers agreement that there are numerous title difficulties existing with reference to said property, and that there are other actual and possible outstanding interest and claims against said property which may tend to delay and hinder the progress of Silver Buckle in seeking commercial ore upon the property. If upon examination by attorney or engineers for Silver Buckle there appears to be any serious defects in the title of Vindicator to its mining

properties, Silver Buckle shall have the right to abandon this project or to institute suit to quiet title in the name of Vindicator, but at the sole cost and expense of Vindicator, which may be deducted before the payment to Vindicator of its share of the net smelter returns from its property. Provided, however, that Silver Buckle shall not incur expense in this connection in excess of $1,500.00 without Vindicator's consent.

22. PATENT: In case, during the existence of this agreement, Silver Buckle should decide to patent the unpatented mining claims of Vindicator, it is understood and agreed between the parties hereto that Silver Buckle shall have the right and privilege of instituting patent proceedings in the name of Vindicator, and, when patent is obtained, the same is to be subject to the interest of Silver Buckle in said mining claims as herein agreed. Liability for the costs of such patent proceedings shall be agreed upon by the parties before such proceedings are commenced.

23. RIGHT TO INSPECT RECORDS: Any officer of Vindicator or any other person authorized by its Board of Directors shall have the right, at any reasonable time, to inspect any book or record of Silver Buckle, kept in connection with the operations under this agreement and to make such audit thereof as may be desired. Such authorized officers and/or other authorized persons shall also have the right at any reasonable time to make any inspection which may be desired of the mill operation in which the ores from the property covered by this agreement may be milled, the mine operation, and any other part of the Silver Buckle operation. This right of inspection shall also include the right to inspect all maps and geological data of any kind in connection with Silver Buckle's operations.

24. SALE OF ORES AND CONCENTRATES: It is agreed that Silver Buckle under this agreement controls the sale of the ores and concentrates produced from the properties of Vindicator or otherwise. Silver Buckle agrees to obtain a fair open market price for said ores and concentrates at the time shipped. Silver Buckle shall not enter into a Smelter Contract exceeding one (1) year without Vindicator's approval.

25. POSTING NOTICES: Silver Buckle agrees that upon taking possession of said mining property it will immediately post suitable notices in conspicuous places upon the property notifying all laborers, materialmen, and other parties furnishing work, labor, services or materials to said mining operation that Silver Buckle is in possession and working said property under an operating and management agreement with Vindicator, and to the effect that Vindicator and its properties will not be liable for any debts incurred or obligations created by Silver Buckle in the prosecution of work upon the same under this agreement.

26. SUSPENSION OF OPERATIONS FOR STRIKES, ETC.: In the event of strikes, floods, fires, war, revolution, governmental regulations, Act of God, or other unavoidable casualty beyond the control of Silver Buckle, and/or any decrease in metal prices to such an extent as would render mining operations unprofitable in the sole opinion of Silver Buckle, which prevent or substantially retard Silver Buckle from carrying out its obligations hereunder, (and all such causes, and each of them, are expressly recognized as valid reasons for deferment by Vindicator), then and in any of said events so preventing or substantially retarding Silver Buckle from carrying out any of its obligations, the time for performing such

obligations shall be extended for a time equivalent to the duration of such period or periods as conditions above mentioned exist, but any of such causes shall not be ground for suspending the performance of annual assessment work on the unpatented claims of Vindicator, unless suspended by Act of Congress.

27. DMEA LOAN: It is understood by Silver Buckle that Vindicator has made application to the United States Department of the Interior, Defense Minerals Exploration Administration, for a loan of $245,600.96 for the exploration and development of its mining properties, under which, if granted, Vindicator would have to advance 50% thereof, or $122,800.48 of the agreed estimated total cost thereof, and Vindicator agrees that Silver Buckle shall have the benefit of the remaining $122,800.48, which would be paid by the federal government under said DMEA loan, and for this purpose and in the event said loan or any portion thereof is granted, Silver Buckle agrees to raise Vindicator's proportionate share thereof. In consideration thereof, Vindicator hereby sets over, assigns, and transfers to Silver Buckle all of its interest in such loan that may be made under said DMEA application and agrees that Silver Buckle shall have the right and privilege of using and applying said fund for the purposes of exploration and development by and in accordance with the terms and conditions of such loan, if granted. Silver Buckle agrees to be bound by all the terms and conditions that may be imposed by the federal government in connection with the expenditure of said funds and the re-payment thereof, and agrees to meet any time limits or progress requirements imposed by the DMEA, notwithstanding anything to the contrary herein.

If during the progress on any exploration program set up in connection with said DMEA loan Silver Buckle shall be unable to meet the requirements thereof, or for any reason shall abandon or terminate this agreement, it shall give Vindicator ample notice of its intention--and in no event less than ten (10) days before a performance date--to the end that Vindicator shall have ample opportunity to prevent a default under said DMEA project agreement.

Vindicator agrees to sign any subordination agreement required by DMEA and also agrees to procure any required subordination agreement from the said Kathryn Powers.

28. SILVER BUCKLE NOT LIABLE FOR VINDICATOR OBLIGATIONS: It is agreed between the parties hereto that Silver Buckle shall not be obligated for any obligations of any kind or character heretofore incurred by Vindicator or outstanding against Vindicator, if any, and said Vindicator will at all times save harmless and protect said Silver Buckle from the payment of any such obligations.

29. RIGHT OF SILVER BUCKLE TO TERMINATE: Silver Buckle may at any time after date hereof, if it so elects, discontinue any operation, development, or mining program on said Vindicator property. In case that said Silver Buckle desires to abandon the project and discontinue development thereon, it shall give to Vindicator thirty (30) days' written notice of its intention so to do, and upon the expiration of said thirty (30) days, it shall deliver to Vindicator a release thereof, duly executed and acknowledged, legally sufficient to terminate this contract of record, and shall re-convey to Vindicator the 50% interest in and to all ores and mineral values in Vindicator's claims, and by this agreement, conveyed to Silver Buckle, and thereupon the contract shall

be at an end, and Silver Buckle shall have the right to remove, within ninety (90) days thereafter, all machinery, equipment and supplies, for which it has not been re-paid or reimbursed as herein provided, (not including rails, ventilation pipe and fans underground placed thereon by it), provided, however, that such termination shall not relieve Silver Buckle from its liabilities hereunder theretofore accrued, and Silver Buckle shall not remove any of said property until it has paid all of its obligations arising from or in connection with this project. Upon said abandonment or other termination of this agreement, Silver Buckle shall leave the property and the equipment on the property at the time this agreement is entered into in good state and condition, reasonable wear and tear as to the equipment excepted, and all permanent improvements that have been made thereon by Silver Buckle, as well as any and all payments and advances that have been made in the way of cash or otherwise to Vindicator, shall be and become forfeited by Silver Buckle to Vindicator as and for liquidated and stipulated damages for failure on the part of Silver Buckle to fulfill and carry out said development. Vindicator shall have no other recourse against Silver Buckle other than the forfeitures heretofore enumerated.

30. RIGHT OF VINDICATOR TO TERMINATE: Should Silver Buckle fail to perform any of the covenants and agreements herein contained at the time and in the manner herein specified, or shall fail to perform any of the covenants and conditions of said Vindicator-Powers agreement, Vindicator shall have the right to cancel and terminate this contract upon giving to Silver Buckle thirty (30) days' written notice of its intention so to do, stating specifically the grounds upon which it is claimed Silver Buckle is in

default, and unless the existing default shall have been remedied by Silver Buckle during the said thirty-day period, this contract shall thereupon be terminated and at an end. Such cancellation, however, shall not release or relieve Silver Buckle from liabilities hereunder theretofore accrued, and upon such cancellation Silver Buckle shall reconvey to Vindicator the 50% interest in said ore and mineral values in Vindicator's property.

31. LITIGATION: It is agreed between the parties hereto that in case dispute should arise with neighboring owners as respect to the lines of said claims or matters involving extralateral right, including the ownership of ore bodies apexing in Vindicator property, and should litigation ensue relative thereto, it is agreed that Silver Buckle shall have the right to commence litigation, if in its judgment it is necessary, or likewise defend any litigation started against Vindicator or Silver Buckle, and that the expenses and costs of such litigation shall be borne equally by the parties hereto. It is provided, how ever, that Silver Buckle will not have the right to settle any such controversy or compromise the same without the consent of Vindicator being first had and obtained.

32. ARBITRATION: The parties appreciate that unforeseen contingencies in the operations contemplated by this agreement and not specifically covered by its terms and conditions, and questions of construction and performance may arise. Each party covenants and agrees to approach such questions and differences in a spirit of fairness and cooperation.

In the event the parties are unable to agree upon any question of construction, performance, or other contingency not specifically covered by this agreement, they agree to submit the differences to

arbitration within thirty (30) days after such failure to agree, each to select one arbitrator and those two to select a third, the expenses of such arbitration to be borne equally. Such arbitrators shall render their decision within thirty (30) days after the question is submitted to them. Each party covenants and agrees not to resort to legal action over any question or difference arising out of this agreement until the same has been submitted first to arbitration as herein provided.

33. COMPLIANCE WITH LAWS RELATING TO EMPLOYMENT OF LABOR: Silver Buckle agrees to carry upon its employees compensation insurance under the Workmen's Compensation Law of the State of Idaho and otherwise in all respects hold Vindicator harmless from all liability while said properties are being worked and developed by Silver Buckle during the life of this agreement and to further comply with all federal and state laws relating to social security, unemployment, and old-age insurance, wages and hours, income tax on its employees, both state and federal, and all other statutes, federal and state, affecting the operation of said properties and conditions of employment of all persons in the employment of Silver Buckle.

34. INSURANCE: Silver Buckle agrees to keep the buildings and contents thereof and equipment upon said premises insured against loss by fire in the sum of $_____ and in the sum of $_____ on the portable equipment, all payable to Vindicator as its interest may appear. The cost of such insurance shall be considered as one of the recoverable costs hereunder.

35. AGREEMENT EXTENDS TO SUCCESSORS: This agreement, and all of its provisions, shall inure to and be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, The parties hereto have caused these presents to be signed by their respective officers thereunto duly authorized and their corporate seals to be hereunto affixed the day and year in this agreement first above written.

VINDICATOR SILVER-LEAD MINING COMPANY

By _____ President

ATTEST:

_____ Secretary

PARTY OF THE FIRST PART

SILVER BUCKLE MINING COMPANY

By _____ President

ATTEST:

_____ Ass't Secretary

PARTY OF THE SECOND PART

STATE OF IDAHO)
) ss
County of Shoshone)

On this 7th day of ~~June~~ Aug, 1953, before me, the undersigned, a Notary Public in and for the County and State aforesaid, personally appeared HERMAN J. ROSER and HARRY F. MAGNUSON, known to me to be the ____ President and Secretary of Vindicator Silver-Lead Mining Company, the corporation that executed the foregoing instrument, and acknowledged to me that such corporation executed the same.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Notarial Seal at Wallace, Idaho, the day and year in this certificate first above written.

Arden Hence
Notary Public in and for the State of Idaho, residing at Wallace, Idaho.

STATE OF IDAHO)
) ss
County of Shoshone)

On this 7 day of ~~June~~ August, 1953, before me, the undersigned, a Notary Public in and for the County and State aforesaid, personally appeared F. E. SCOTT and ROBERT L. ANDERSON, known to me to be the President and Secretary of Silver Buckle Mining Company, the corporation that executed the foregoing instrument, and acknowledged to me that such corporation executed the same.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Notarial Seal at Wallace, Idaho, the day and year in this certificate first above written.

Elsie M. Ryan
Notary Public in and for the State of Idaho, residing at Wallace, Idaho.

VINDICATOR

SILVER-LEAD MINING CO.

Report to Shareholders

CORPORATE & TRANSFER OFFICE.... SCOTT BUILDING .....Box 469 - WALLACE, IDAHO 83873

VINDICATOR SILVER-LEAD MINING CO.

OFFICERS and DIRECTORS

|||

H. F. MAGNUSON ..... **Wallace, Idaho**

Vice President and Director

ARTHUR RIESKE ..... **Wallace, Idaho**

Secretary-Treasurer

GEORGE AMES ..... **Renton, Washington**

Director

DR. F. E. SCOTT ..... **Wallace, Idaho**

Director

ROBERT N. BROWN ..... **Spokane, Washington**

Director

REPORT TO SHAREHOLDERS:

In July, 1967 your officers announced that Vindicator had agreed upon the principal terms of an agreement with Silver Buckle Mines, Inc.

For the past fourteen years, the Vindicator property has been subject to an operating and management agreement entered into with Silver Buckle in 1953. The work performed by Silver Buckle under the 1953 agreement consisted of sinking an 800-foot shaft on the Vindicator property and a limited amount of drifting on the 740-foot level at a net cost to Silver Buckle of approximately $210,000. However, since 1957, the work performed has consisted mainly of maintenance work and keeping the shaft pumped free of water.

The basic terms of the new agreement, which has recently been finalized, are as follows:

a. *Vindicator and Silver Buckle both agree to cancel the 1953 operating and management agreement.*

b. *Silver Buckle agrees to waive its right to be reimbursed for expenditures it has incurred in connection with the Vindicator property.*

c. *Silver Buckle will convey any and all interest which it might have in the Vindicator property to Vindicator.*

d. *Silver Buckle shall at their expense continue to maintain the Vindicator property for a period of twelve months after ratification of the new agreement by Vindicator shareholders.*

e. *Vindicator is to issue 1,100,000 shares of its capital stock to Silver Buckle.*

f. *Vindicator agrees to grant Silver Buckle a three year option to purchase up to 250,000 additional shares of Vindicator capital stock at the rate of fifty cents per share.*

A copy of the new agreement between Vindicator Silver-Lead Mining Co. and Silver Buckle Mines, Inc. is on file at the Company office located in the Scott Building, Wallace, Idaho, and may be examined by any shareholder of Vindicator during business hours.

A special meeting of Vindicator shareholders, notice of which is enclosed, will be held on Monday, January 15, 1968, for the purpose of ratifying the agreement with Silver Buckle and to increase the authorized capital of Vindicator.

It is the belief of the Board of Directors that the new agreement with Silver Buckle is for the best interests of the Vindicator shareholders. The Directors recommend a vote in favor of ratifying the agreement with Silver Buckle Mines, Inc.

Recent developments with respect to silver have resulted in increasing interest in properties located in the Coeur d' Alene Mining District, which produces 20,000,000 ounces of silver per year, approximately 45% of the silver produced in the United States.

The Directors are hopeful that the simplification of the interests in the Vindicator property along with the increased interest in the Coeur d' Alene Mining District will bring about renewed deep exploration of the Vindicator property.

We regret to inform our shareholders of the death of Mr. Walter J. Logus, President of Vindicator, who passed away on September 7, 1967. Mr. Logus had served the Company since 1946 as an officer and director. The Directors wish to record their appreciation for his many years of service to the Company.

If you are unable to attend the meeting of shareholders, please sign and return the enclosed proxy.

For the Board of Directors
By H. F. Magnuson, Vice President

December 8, 1967

VINDICATOR SILVER-LEAD MINING CO.

NOTICE OF SPECIAL MEETING OF SHAREHOLDERS TO BE HELD JANUARY 15, 1968

NOTICE IS HEREBY GIVEN that a Special Meeting of Shareholders of VINDICATOR SILVER-LEAD MINING CO., an Idaho Corporation, will be held in the Stardust Motel, in the City of Wallace, Idaho, on Monday, January 15, 1968 at 3:00 p.m. (Pacific Standard Time) for the following purposes:

1. *To receive reports of officers.*

2. *To consider and act upon a proposal to amend Article VI of the Articles of Incorporation of Vindicator Silver-Lead Mining Company, increasing the capital stock of said corporation from $250,000 divided into 2,500,000 shares of the par value of 10c per share, to $400,000 divided into 4,000,000 shares of non-assessable stock of the par value of 10c per share.*

3. *To consider and vote upon a proposal to ratify an agreement between Vindicator Silver-Lead Mining Co. and Silver Buckle Mines, Inc. pursuant to which Vindicator will issue 1,100,000 shares of newly authorized capital stock to Silver Buckle Mines, Inc. and grant an option to Silver Buckle to acquire an additional 250,000 shares. Under the terms of the agreement, Silver Buckle has agreed to cancel the operating and management agreement entered into in 1953 and to convey to Vindicator any and all rights which it (Silver Buckle) might have in the Vindicator property.*

4. *To elect a board of five directors to serve until the next annual meeting of stockholders, or until their respective successors are duly elected and qualified.*

5. *To transact such other business as may properly come before said meeting or any adjournment or adjournments thereof.*

A copy of this notice and a proxy are being mailed to each shareholder at his last known address according to the records of the Corporation.

Shareholders of record as of the close of business on Friday, January 5, 1968, will be entitled to vote in accordance with the By-Laws of the Company.

If you are unable to attend the meeting in person, the management of the Company requests that you execute and promptly mail the enclosed proxy for the meeting.

Dated at Wallace, Idaho December 8, 1967

By order of the Board of Directors
ARTHUR RIESKE, Secretary

VINDICATOR SILVER-LEAD MINING CO.

WALLACE, IDAHO 83873

BALANCE SHEET - November 30, 1967

ASSETS

CURRENT ASSETS:			
Cash in bank			$ 664.99
PROPERTY, PLANT AND EQUIPMENT (Note 1):			
Mining claims:			
Cash costs (Note 2)	$ 6,500.00		
Par value of capital stock issued therefor	254,000.00	$260,500.00	
Development costs (includes par value of stock issued therefor)		96,243.08	
Building		4,196.92	
Machinery and equipment		5,560.05	366,500.05
Total			$367,165.04

LIABILITIES AND SHAREHOLDERS' EQUITY

LIABILITIES (Note 2)		$ None
SHAREHOLDERS' EQUITY:		
Capital stock, non-assessable, par value ten cents per share, authorized 2,500,000 shares, all of which are issued and outstanding	$250,000.00	
Capital surplus	117,165.04	367,165.04
Total		$367,165.04

NOTE 1: The property held by the Company was formerly subject to a management and operating agreement with Silver Buckle Mines, Inc. This agreement was terminated in 1967 by a new agreement which is being submitted to the shareholders for ratification.

NOTE 2: The Company is obligated to pay an additional $20,000 for the mining claims payable only by applying 5% of any net smelter returns from the property.

SILVER SUMMARY

In view of the increasing interest in silver, Free World silver production and consumption is summarized as follows:

	MILLIONS OF OUNCES				
	4 Year Total	*1966*	*1965*	*1964*	*1963*
Industrial uses	1,228	356	334	286	252
Coinage - United States	688	54	320	203	111
Coinage - other nations	225	54	54	61	56
Total free world consumption	2,141	464	708	550	419
Less - free world new production	883	231	224	215	213
Silver consumption in excess of production	1,258	233	484	335	206
Silver bullion in U. S. Treasury at end of year		592	801	1,208	1,558

By November 28, 1967, the silver bullion in the United States Treasury had decreased to 361,000,000 ounces.

The Coeur d' Alene Mining District of Idaho produced 19.4 million ounces of silver in 1966, or approximately 45.2% of the silver produced in the United States in 1966.

PROJECT SUMMARY REPORT

By: J. W. Alt December 19, 1958

1. Docket No. DMEA-3071 (Lead-Zinc)
Contract No. Idm-E594
Property: Vindicator Mine
Shoshone County, Idaho

Operator: Silver Buckle Mining Company
B ox 1088
Wallace, Idaho

Operator's Property Rights: Acquired certain rights from the Vindicator Silver-Lead Mining Company - Operating and Maagement Agreement dated August 7, 1953.

Owner's Consent to Lien - dated October 22, 1953.

Owner's Consent to Lien - dated October 22, 1953.

2. Contract dated October 12, 1953. To complete 30 months.

Work Authorized (Short Form Contract)

1. Install track, air, water and vent pipes in the first 540 feet @ $2.50/ft.	$ 1,350.00
2. Rehabilitate 110 feet of the crosscut on the adit level to the proposed shaft site, 110 feet @ $20.00/ft.	2,200.00
3. Cut a station and pocket at the proposed shaft site, at least 15,000 cubic feet of rock excavation	7,000.00
4. Sink a two-compartment, timbered, vertical shaft 800 feet @ $175.00	140,000.00
5. Cut a station and pocket, at least 5,000 cubic feet of rock excavation, on the 750-foot level	3,000.00

6. Crosscut and drift, not more than 1,700 feet on the 750-foot level and perform suitable and adequate sampling and assaying, 1,700 feet @ $43.50/ft. $ 73,950.00

7. Timber crosscuts and drifts where necessary not to exceed 500 feet @ $4.00/ft. 2,000.00

Total Agreed Unit Costs of Project	$229,500.00
Government's participation, 50%	$114,750.00

Royalty due on any minerals or ores transported through any of the above described workings for a period of 15 years.

Amendments

No. 1. Agreed May 25, 1955, effective May 1, 1955.

Suspends work of the project from May 1, 1955 to November 1, 1955.

Extends completion time to 36 months.

Increases royalty payment period to 16 years.

No. 2. Dated November 1, 1955.

Suspends work of the project from May 1, 1955 to January 1, 1956.

Extends completion time to 38 months.

New Consents To Lien required.

No. 3. Agreed March 15, 1956.

Because of failure of the Operator to supply new Consent to Lien, Amendment No. 2 is cancalled.

Suspends work of the project from May 1, 1955, to July 1, 1956.

Extends completion to 38 months.

Consent to Lien provided as requested, dated December 28, 1955.

Amendments

No. 4 Agreed July 25, 1956.

Suspends work of the project to January 1, 1957.

Extends completion time to 44 months.

Royalty payment period increased from 16 years to 17 years.

No. 5. Agreed January 18, 1957.

Suspends work of the project to July 1, 1957.

Extends completion time to 48 months.

No. 6 Agreed August 9, 1957, effective July 1, 1957.

Suspends work of the project to December 31, 1957.

Completion time is extended from 48 months from date of contract to October 12, 1958.

Royalty payment period increased from 17 years to 18 years.

The contract shall be terminated, effective May 1, 1955, if work has not been resumed or or before December 13, 1957.

Contains a psuedo-certification.

Work Completed

Lay track, air water & vent line, 540 feet @ $2.50/ft.	$ 1,350.00
Enlarge & rehabilitate crosscut, 110 feet@ $20.00/ft.	2,200.00
Cut station and pocket on adit level	7,000.00
Sink shaft, 800 feet @ $175.00/ft.	140,000.00
Cut station & pocket on 750 level	3,000.00
Crosscutting & drifting, 1,294 feet @ $43.50/ft.	56,289.00
Total cost of project	$209,839.00
Government's participation, 50%	$104,919.50

Work under the terms of the contract was started in December 1953 and was continued to April 1955. By Amendment No. 6 the project was terminated, effective May 1, 1955.

3. Audit - Report of Review dated April 17, 1958.

Total cost as claimed by Operator	$209,839.00
Exceptions	None
Total accepted claim cost	$209,839.00
Government's share, 50%	$104,919.50

Operator's final report dated February 10, 1958
Field Team's final report dated November 1958

4. Certification of Discovery or Development. Pseudo-Certification August 7, 1957.

No certification was made as no discovery resulted from this work. However, a pseudo-certification is incorporated in Amendment No. 6.

5. Comments

The contract work was performed in a minerlike manner by an Operator competent both administratively and financially.

The project came to a halt because further drifting on the two mineralized veins found on the 750 level did not appear justified even though approximately 400 feet of drifting authorized in the contract remained unused. The Operator hoped to negotiate an agreement with adjacent property owners which would make possible exploration of other targets outside the contract ground and the contract was recessed while negotiations to this end were in progress. No agreement was reached and consequently the contract was terminated.

The results obtained from exploration on the 750 level were discouraging. Structure and mineralization apparently extend downward from surfaceexposures to the 750 level and show some improvement with depth, but no commercial ore shoots were discovered.

Government participation in further exploration at this time is not warranted. If adjacent claims could be obtained, exploration to the north beyond the Paymaster fault might be justified, but the amount of potentially productive ground controlled by Silver Buckle Mining Co. is too limited to justify the expense of deeper exploration within the present property limits.

J. W. Alt

JWAlt/er
CC: Docket
Dir Read File
Mr. Johnson

DMEA Form 17
Feb. 58

DEFENSE MINERALS EXPLORATION ADMINISTRATION

WORK COMPLETED ANALYSIS

After final audit or review report is received, prepare original only and file in official docket

Operator: SILVER BUCKLE MINING COMPANY		Actual Cost	
State: IDAHO		Agreed Unit Cost	X
Final Report of Audit		Commodity	Docket No. DMEA-3,071
Final Report of Review	X	LEAD-ZINC	Contract No. Idm-E594

Operation	Authorized by Contract and Amendments		Completed		Net cost after sale of Government Property
	Units	Cost	Units	Cost	
Drifting & Crosscutting (6' x 8')	1,700' @ $43.5/ft.	$ 73,950.0	1,294'	$ 56,289.0	$ 56,289.00
XXXXXXXX Timbering Drifts	500' @ $4.0/ft.	2,000.0			
Shafts 2 Compartment 6' x 11'	800' @ $175/ft.	140,000.0	800'	140,000.0	140,000.00
Winzes					
Drilling (Specify)					
Surface Excavation					
Underground Excavation: Adit Level Station		7,000.0		7,000.0	10,000.00
750' Level Station XXXXXXXXXXXXXXXX		3,000.0		3,000.0	
Operating Equipment Purchased					
540' of Track and Pipe @ $2.5/ft. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		1,350.00		1,350.0	1,350.00
and Enlargement-110' @ $20.0/ft.		2,200.0		2,200.0	2,200.00
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)					
Totals		$229,500.00		$209,839.00	* $209,839.00

* Net cost total must agree with final report of audit or review.

Prepared by W. P. Klugescheid Date 2/5/59.

31398

☒ Audited R&R 4/17/58. WORK ANALYSIS SHEET - DMEA PROJECT ☐ Actual Cost

☒ Certified Pseudo (Amend 6) Analysis as of 3/31/55 ☒ Agreed Unit Costs
Incl. Voucher for April 1955.

Name SILVER BUCKLE MINING CO. Docket No. 3,071

State IDAHO Commodity LEAD-ZINC Idm-E No. 594

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting (6'x8')	1700' @ 43.50	$73,950.00	1294'	$56,289.00	
~~Raising~~ Timbering Drifts.	500' @ 4.00	2,000.00			
Shafts (2 compart 6'x11')	800' @ 175.00	140,000.00	800'	140,000.00	
Winzes	Field Team Final Report received — November 10, 1958.				
	Operator's Final Report received — March 28, 1958.				
Drilling (Specify)	Project Summary Report written. No further work warranted unless Applicant acquires adjacent claims, or other information, to the north of the Foymaster Faults might be justified.		No ore discovered.		
Surface Excavation	adit Level Station	7,000.00		7,000.00	
Underground Excavation	750' Level Station	3,000.00		3,000.00	
~~Roads and Trails~~	540' Track + Pipe @ $2.50 per foot.	1,350.00		1,350.00	
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation	+ Enlargement 110' @ $20/ft.	2,200.00		2,200.00	
New Building, Improvements, etc.					
Other (Specify)	Terminated under provisions of Amend. No. 6.				
Totals		$229,500.00		$209,839.00	

Amend #1.
Recess from May 1, 1955 to Nov. 1, 1955
Completion time 36 months. or Oct 12, 56.

Amend. #2.
Recess from May 1, 1955 — January 1, 1956.
Completion time: 38 mos or Dec 12, 1956.
Contingent on obtaining consents to lien.

Amend. #3.
Recess from May 1, 1955 — July 1, 1956.
Completion time: 38 mos or Dec 12, 1956
Date of Contract — October 12, 1953.

Amend. No. 4. Checks Audit
Recess from May 1, 1955 — Jan. 1, 1957.
Completion time: 44 mos or June 12, 1957
Royalty Payment period changed to 17 years.

Prepared by W. P. Muschenheim

Amendment No. 5 - Extends recess to July 1, 1957 and completion time to 48 months - Dec. 12, 1957.

Amendment No. 6. - Recess from July 1, 1957 to December 31, 1957. Completion date extended to Oct. 12, 1958. Royalty period 18 years.

71626

Silver Buckle Mining Co. — Idaho — 3071

Agreed Unit Costs.

540' - Track, Air, Water + Vent Pipes @ $2.50 — $ X 1,350.00

110' Enlarging + Rehab XC. @ 20.00 (5'x7' to 8'x8') X 2,200.00

800' Shaft Sinking + Timbering @ 175.00 (2 Compart 6'x11') X 140,000.00

1700' Drift XCS. @ 43.50 (6'x8') X 73,950.00

500' Timbering (Drift + XCS) @ 4.00 X 2,000.00

Cutting Sta + Pocket on Adit Level X 7,000.00

Cutting Sta + Pocket on 750' Level X 3,000.00

$229,500.00 X

Feb 1955. Spent.

~~984'~~ 1294'	56,289.00
	~~40,934.50~~
~~659'~~ Crosscutting @ 43.50	✓ ~~28,666.50~~
800' Sinking @ 175.00	✓ 140,000.00
750' Sta + Pocket.	✓ 3,000.00
110' Tunnel Enlrg. + Rehab.	✓ 2,200.00
1 Shaft Station on Adit Level	✓ 7,000.00
Track + Pipe Installations 540' @ 2.50	✓ 1,350.00
	~~$ 182,216.50~~
	~~196,484.50~~
	209,839.00

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington
November 6, 1958

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Mr. George C. Selfridge, Chairman
Operating Committee, OME
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3071 (Lead-Zinc)
Silver Buckle Mining Company
Vindicator Mine
Shoshone County, Idaho
Contract No. Idm-E594

Dear Mr. Selfridge:

Enclosed are three copies of a Field Team final report by R. D. Sample, Geologist, U. S. Geological Survey, and John D. Bardill, Metallurgist, U. S. Bureau of Mines, on this project.

Work completed under the project comprised 650 feet of drift and crosscut rehabilitation, 15,000 cubic feet of shaft station and pocket, 800 feet of 2-compartment shaft sinking, 5,000 cubic feet of level station, and 1,294 feet of drifting and cross-cutting. The total cost of the project was $209,839, of which the Government's share was 50 percent or $104,919.50.

No discovery resulted from this work. However, a pseudo-certification is incorporated in Amendment No. 6. Further exploration north beyond the Paymaster fault might be justified, but the company has been unable to secure control of the necessary ground. The favorable ground controlled by the company is too limited in extent to justify the expense of deeper exploration. Therefore, Government participation in further exploration at this time is not recommended.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

Reviewed by
OME OPERATING COMMITTEE
11/18/58
(date)

Enclosures
cc: USBM(2)
USGS(SRO)
Sample

FLD TM
FINAL
REPORT

DEPARTMENT OF THE INTERIOR

OFFICE OF MINERALS EXPLORATION

FIELD TEAM, REGION I

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 10 1958

DATE	INITIALS	CODE

FINAL REPORT

Contract Idm-E594

by

John D. Bardill
Metallurgist
U. S. Bureau of Mines

R. D. Sample
Geologist
U. S. Geological Survey

SILVER BUCKLE MINING COMPANY
P. O. Box 1088
Wallace, Idaho

Docket No.:	DMEA-3071
Commodity:	Lead-Zinc
Contract date:	October 12, 1953
Termination date:	May 1, 1955

Reviewed by
OME OPERATING COMMITTEE
11/18/58
(date)

VINDICATOR MINE
Coeur d'Alene Mining District
Shoshone County, Idaho

Spokane, Washington

November 1958

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FINAL REPORT

SILVER BUCKLE MINING COMPANY
Vindicator Mine
Coeur d'Alene Mining District
Shoshone County, Idaho

Amended Contract Idm-E594

* * * * * *

INTRODUCTION

This report describes a project conducted jointly by Silver Buckle Mining Company and Defense Minerals Exploration Administration to explore for lead and zinc at the Vindicator mine and adjacent properties, Shoshone County, Idaho.

Summary

The exploration project was designed to explore for the downward extensions of lead-zinc mineralization exposed at the surface and on the main adit level by sinking a shaft 800 feet from the main level and by not more than 1,700 feet of drifting and crosscutting on the 750 level. Estimated total cost of the project on an agreed fixed unit cost basis was $229,500, with Government participation of 50 percent.

The work completed consisted of rehabilitation of 540 feet of the main adit, rehabilitating and enlarging 110 feet of the crosscut to the site of the shaft, excavation of a 15,000-cubic foot shaft station and pocket, 800 feet of 2-compartment shaft, excavation of 5,000 cubic feet for 750 level station and pocket, and 1,294 feet of drifts and crosscuts. Total cost of the project was $209,839, of which the Government contributed $104,919.50, or 50 percent. Actual work started in December 1953 and continued to April 1955 at which time a recess was called.

No important mineralization was discovered by the work done. Over a period of several years the Operator attempted

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unsuccessfully to negotiate with neighboring property owners to acquire additional ground which would provide additional exploration targets, and the recess period was extended several times to permit negotiations to continue. It became apparent that no agreement could be reached; consequently, the contract was automatically terminated as of May 1, 1955, under the provisions of Amendment No. 6, dated August 9, 1957.

Recommendations

The results obtained from exploration on the 750 level were discouraging. Structures and mineralization apparently extend downward from surface exposures to the 750 level and show some improvement with depth, but no commercial ore shoots were discovered. Government participation in further exploration at this time is not warranted. If adjacent claims could be obtained, exploration to the north beyond the Paymaster fault might be justified, but the amount of potentially productive ground controlled by Silver Buckle Mining Company is too limited to justify the expense of deeper exploration within the present property limits. A pseudo-certification is incorporated in Amendment No. 6.

LOCATION AND ACCESSIBILITY

The portal of the main adit level is a few yards north of the Northern Pacific Railroad tracks and only a few hundred yards from U. S. Highway 10, which is a main east-west highway. The town of Mullan, the nearest domestic trading center, is approximately 2 miles to the west (pl. 1).

All types of mining materials and supplies are available at Wallace, about 9 miles to the west. There is a high-tension power line to the property and adequate water is available from nearby South Fork of the Coeur d'Alene River.

The property may be reached by traveling easterly from Mullan over paved U. S. Highway 10 for approximately 1 mile to the base of the Lookout Pass road, thence slightly northeasterly over a good graveled road for half a mile, thence northward across the railroad track to the mine portal.

The mine is on the south slope of the Coeur d'Alene River Valley at an altitude of about 3,450 feet. Moderately wooded mountains rise steeply on two sides. Sub-zero weather with moderately heavy snowfalls are not uncommon, but the roads are kept open for year-around use by the county and mine operators. Summers are mild.

PROPERTY

The claims included in the contract are recorded in the courthouse at Wallace, Shoshone County, Idaho, as follows:

Claim	Book	Page
Horn Silver	J	623
Horn Silver Amended	25	241
Siskiyou Belle Fraction	M	236
Siskiyou Belle Fraction Amended	U	473
Siskiyou Belle Fraction Amended	25	240
Curragh Buck	M	235
Curragh Buck Amended	25	242
Curragh Buck Amended	25	626
Gentle Annie	C	162
Overnight Fraction	31	239
Bulldog Lode (U. S. Mineral Survey No. 2943) (Deed Book)	56	458

Prior to the contract the mine had been explored by two adit levels and a number of surface cuts (pls. 3, 3A, and 6).

The upper No. 1 adit level at elevation 3,740 feet consisted of about 245 feet of crosscut and about 75 feet of accessible drifts. There were two short raises and stopes above the level.

The lower No. 2 main adit level at elevation of about 3,450 feet consisted of 1,600 feet of crosscut and 1,000 feet of drifts. Most of the workings were accessible for examination and the geology of the entire mine had previously been well mapped.

The crosscut and drifts were timbered at random, and some untimbered sections have caved.

Reportedly, a small but unknown tonnage of ore was produced from the upper level and surface cuts years ago.

The surface plant consisted of a 40- by 25-foot galvanized iron compressor building with concrete floor housing an Ingersoll-Rand, Imperial 10 air compressor, Type XRB complete with 75 hp motor, starter and accessories. There was a 12- by 17-foot frame blacksmith shop and a 15- by 25-foot alvanized iron office and dry.

GEOLOGY

Regional Geology

The regional geology of the area is described in various professional papers, bulletins, pamphlets, and reports, both published and unpublished by geologists of the U. S. Geological Survey, and others. Among the published reports the following are significant in describing the geology of the Coeur d'Alene Mining District:

1. Ransome, F. L., Calkins, F. C., Geology and ore deposits of the Coeur d'Alene district, Idaho: U. S. Geol. Survey Prof. Paper 62, 1908.

2. Umpleby, J. B., Jones, E. L., Jr., Geology and ore deposits of Shoshone County, Idaho: U. S. Geol. Survey Bull. 732, 1923.

3. Shenon, P. J., Silver Belt of the Coeur d'Alene district: Idaho Bureau of Mines and Geology, Pamphlet 50, 1939.

4. Anderson, Alfred L., Kaolinite intrusion and mineralization in the Coeur d'Alene District, Idaho: Econ. Geology, v. 44, no. 3.

In recent years the geology of the Coeur d'Alene District has been restudied by S. W. Hobbs, V. C. Fryklund, R. E. Wallace, and others of the U. S. Geological Survey. Surface and underground geology of the Smeltervillo, Kellogg, Wallace, Mullan, and Pottsville quadrangles are now available as open file reports of the U. S. Geological Survey.

In addition, there are numerous unpublished reports on the geology of the Coeur d'Alene district in the DMEA files. In a final DMEA report on the National, Copper King, and Missoula properties of Day mines, Inc., Docket No. DMA-106X, dated September 30, 1953, V. C. Fryklund, Jr., summarizes the regional geology in the following paragraph:

"The country rock of the Coeur d'Alene district consists of slightly metamorphosed sediments of the Precambrian Belt series that have been folded, faulted, and intruded by granitic stocks and dikes of various types. The Belt series in this area has been subdivided into six formations on the basis of lithology. No unconformities have been recognized. From bottom of the series to top, the formations are as follows: Prichard, Burke, Revett, St. Regis, Wallace, and Striped Peak. The total section is a least 23,000 feet thick. The veins in the district

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generally strike between N. 45° W. and west and usually dip steeply to the southwest. Many of the veins and faults of the district are in zones of rock that are bleached to a color lighter than normal, presumably by hydrothermal solutions that preceded the ore-forming solutions. The exact nature of the bleaching is currently being studied by the U. S. Geological Survey."

Ore deposits have been found in all of the Belt formations except the youngest formation -- Striped Peak. The Wallace formation is generally considered an unfavorable host rock for mineralization although there have been some notable exceptions to this rule. The St. Regis and Revett formations are generally considered to be the most favorable host rock in the district although in the Pine Creek area the Prichard formation has been an important producer.

One of the most important structural features of the district is the west-northwesterly trending Osburn fault or fault zone (pl. 1) which has been traced intermittently through the district for over 30 miles. Locally, the fault zone ranges in width from 100 to 200 feet and, wherever exposed, dips steeply south. It has been postulated by many geological workers that there have been strike-slip movements of considerable magnitude along this fault. The extent of the pre-ore movements are not known, but it is believed there may be a post-ore strike-slip component of movement of about 16 miles. Numerous mineralized faults and zones are subparallel to the Osburn fault. The Vindicator vein is on one of these subparallel structures about 1,800 feet north of the fault zone. Many of the important mines of the Coeur d'Alene District are found in the wide, irregular belts or zones of bleaching in the Belt series which occur throughout the district.

There appears to be a relationship between the bleached zones and much of the mineralization throughout the Coeur d'Alene District although the relations are not everywhere the same. Many of the veins are in the bleached rock, but some are in unbleached rock and others are partly in bleached and partly in unbleached rock. The Vindicator vein is within a zone of bleached and partially bleached rock (pl. 6).

Local Geology

The geology in the vicinity of the Vindicator mine is best shown on the Geologic Map of the Pottsville Quadrangle, Northern Idaho, prepared by R. E. Wallace, S. W. Hobbs, H. C. Rainey, and B. Boyer of the U. S. Geological Survey in 1932. This map shows that the Vindicator vein is in an area that is underlain by the indurated shales and quartzites of the St. Regis formation; also that it lies

approximately 1,800 feet north of the Osburn fault and approximately 700 feet south of the Paymaster fault zone. The Paymaster fault also trends in a northwesterly direction. The exploration program was designed to cut the Vindicator and associated veins on the 750 level.

All of the shaft sinking from the main haulage (No. 2 adit) to the 750 level was in steeply dipping argillites and quartzites of the St. Regis formation (pls. 4 and 6). Crosscutting and drifting on the 750 level showed the deformation of these rocks to be intense with much cleavage and many localized zones of intense shearing. Hydrothermal solutions have permeated the shear zones with a resultant bleaching and alteration of the rocks into seriatic phyllites (pl. 6). Most of the bds dip steeply to the north and appear to be overturned.

Ore deposits in the upper workings of the mine occur in a broad, sheared, crushed, and highly bleached zone. The applicant states:

> "As exposed in the No. 2 level this zone is over 200 feet wide, strikes nearly east-west and dips from 80° N. to vertical. Within this zone alteration has been extremely intense. The purple, argillaceous quartzite of the St. Regis formation has been completely altered to fine-grained, white, sericitic quartzite. The zone is intricately crumpled and sheared and contains numerous lenses, pods, and stringers of quartz, ankerite, and siderite with minor amounts of pyrite, galena, sphalerite, chalcopyrite and tetrahedrite. The strongest and best mineralized of these veinlike structures strikes N. 85° W. and in the lower tunnel dips 80°-85° N. The vein from which a small amount of ore was produced in the upper workings strikes N. 85° W. and dips about 60° N. This structure must either steepen rapidly in order to be the same as that exposed in the lower tunnel or else it is an entirely separate structure taking off from the nearly vertical one. Most of the productive veins in the area have a steep southerly dip. It is probable, therefore, that the Vindicator vein-zone has a fairly flat north dip near the surface (conforming closely to the bedding), that it steepens to nearly vertical in the lower tunnel and that it will continue to roll until it assumes a steep southerly dip at lower elevations. The productive Lucky Friday mine, a short distance west of the Vindicator, has shown such reversals in dip."

From S. W. Hobbs, U. S. Geological Survey, who has done extensive work in the Coeur d'Alene District, the following is quoted:

> "The Vindicator vein is exposed on the surface of the property in a series of 10-12 open cuts and trenches along a length of over 1,000 feet. As exposed in these trenches, the vein is from 1" to 6" wide and composed predominantly of quartz with some carbonate (ankerite?) and notable amounts of galena. The galena shows in at least three contiguous pits along a 150-foot portion of the vein. The underground workings cut several zones in which narrow quartz stringers and veins are localized, but one of these is stronger and more persistent than the rest and is correlated with the vein exposed on the surface. The vein is exposed in the drifts and crosscuts underground for a strike length of 350 feet and has much the same characteristics as the vein at the surface -- a narrow predominantly quartz vein with some high iron carbonate and local stringers and pockets of sulfides. The vein strikes about N. 85° W. and dips from 55° N. at the surface to 85° N. on the No. 2 tunnel level. The progressive steepening at depth may be inherent in the original vein, but also may be due in part to two other factors: (1) normal down-hill creep of the nearly vertical, sheared argillite at and near the surface on the steep slope and (2) a shifting of the upper portion of the vein to the south along a series of low-angle, south-dipping displacement structures along each of which the upper (hanging wall) portion of the rock has shifted slightly down dip. The net effect of the movement on the numerous slip planes may be very appreciable and may be measured in tens or hundreds of feet."

It is generally believed among geologists working in the Coeur d'Alene Mining District that the productive veins are formed along shear zones where there was relatively minor displacement, and principally in a strike-slip direction. The shear zones themselves are undoubtedly the result of major strike-slip movement along the major early east-west-striking faults of the area. Verne C. Fryklund, Jr., believes that the productive veins of the Coeur d'Alene District are confined to seven distinct zones or belts that have a northwesterly trend. Two of these zones are south of the Osburn fault; the others lie north of the Osburn fault. The Vindicator vein lies in one of the belts north of the fault. Fryklund also believes that these formerly contiguous zones have been separated on the order of 16 miles by post-ore movement along the Osburn fault.

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THE PROJECT

The program at the Vindicator mine was based partly upon a similarity to the geologic setting at the neighboring Lucky Friday mine, about 1 mile to the west. At the Lucky Friday mine commercial lead-silver ore is being mined from a deep-seated ore shoot which showed only weak mineralization at or near the surface but which became progressively better with depth. This ore shoot has been developed to the 2,000-foot level and was being extended eastward toward the Vindicator property. A geologic map of the Lucky Friday main level showed a striking analogy to the geologic conditions on the Vindicator main level which is within 50 feet of the same altitude. The Lucky Friday is apparently on a different vein zone from that at the Vindicator, but both are in the same stratigraphic and structural environment.

Although the similarity of geologic environment with the Lucky Friday mine was an important factor in outlining the deep exploration program for the Vindicator mine, the property had geologic merits in its own right upon which to base an exploration program. (1) The mine was located on a known-mineralized structure between the Paymaster fault on the north and the Osburn fault zone on the south. Both of these structures are commonly associated with mineralization in the Coeur d'Alene District. (2) The Vindicator vein structure has produced a small but unknown tonnage of ore from the upper level and open surface cuts which assayed well in zinc, lead, copper, and silver. (3) The vein structure is exposed in the drifts and crosscuts for a strike length of about 350 feet and has much the same characteristics as the vein at the surface. (4) The Vindicator vein occurs in a highly folded, sheared, and faulted block of the St. Regis argillites and argillaceous quartzites which has always been considered a favorable host rock in the Coeur d'Alene District.

In addition to the above geochemical prospecting in the Vindicator area had found some interesting anomalies. S. Warren Hobbs in a report, dated June 15, 1953, appraising the proposed project on the Vindicator mine describes the anomalies as follows:

> "A fairly extensive program of geochemical prospecting was done on the Vindicator and adjacent property by the Geological Survey in 1951-52. The results of traverses perpendicular to the vein and downslope showed that the lead content of the soil exceeded three times background for more than 200 feet downslope and for 60 feet upslope from the vein outcrop. The angle of slope was 30°. This anomaly is added proof of significant lead mineralization in the structure, and the anomaly upslope from the main structure can only mean the presence of additional lead-bearing structures north of the main one. Much more extensive sampling was done on the Vindicator as well as adjoining

property to the north and the general results point to an average lead content in the soil, well above the established background, for a considerable area."

Hobbs in his report concludes that:

"Taken at its face value, and out of the context of its environment, the Vindicator vein is not too impressive. However, the structural and stratigraphic conditions of the mine area, the widespread and pervasive hydrothermal activity as attested by the alteration, and veining of the country rock, and the proven high productivity of adjacent property in the same structural block add up to an impressive array of evidence pointing up the Vindicator property as an exceptionally good exploration possibility. It compares favorably with any exploration now being undertaken in the Coeur d'Alene region, where there are many exploratory projects going on, both by DMEA contracts and entirely by private companies."

Vindicator Silver-Lead Mining Company submitted an application dated April 6, 1953, to Defense Minerals Exploration Administration to explore the Vindicator mine at depth by rehabilitating and enlarging the crosscut to the shaft site on the main adit land, excavating a shaft station and installing equipment, sinking a 2-compartment vertical shaft 800 feet, excavating a shaft station and pocket on the 750 level and a maximum of 1,700 feet of drifts and crosscut on the 750 level.

Later, Silver Buckle Mining Company negotiated an agreement with Vindicator Silver-Lead Mining Company whereby they would perform the work outlined in the application. Then, New Park Mining Company bought an interest in Silver Buckle Mining Company and agreed to perform the exploratory work contemplated in the application for Silver Buckle Mining Company.

A DMEA contract dated October 12, 1953, was granted in the name of Silver Buckle Mining Company on an agreed fixed unit cost basis to perform the following exploration work:

1. Install track, air, water, and vent pipes in the first 540 feet of the main adit level.

2. Rehabilitate and enlarge 110 feet of the crosscut from 5 by 7 feet to 8 by 8 feet to the proposed shaft site.

3. Excavate on the adit level at the proposed shaft site a shaft station and pocket of not less than 15,000 cubic feet, and install equipment.

4. Sink a 2-compartment, timbered, vertical shaft, 6 by 11 feet in the clear of timber, 800 feet including sump.

5. Excavate a shaft station and pocket at the 750 level of not less than 5,000 cubic feet and install equipment.

6. Crosscut and drift, not more than 1,700 feet on the 750 level, including sampling and assaying.

7. Timber drifts and crosscuts where necessary not in excess of 500 feet.

Total agreed unit cost of the project was $229,500, in which the Government would participate to the extent of 50 percent.

The project was under the management of New Park Mining Company, Salt Lake City, Utah, for Silver Buckle Mining Company. Rehabilitation and enlargement of the crosscut was begun in December 1953. The 20-pound rail previously set at 18-inch gauge was removed for 540 feet and 30-pound rail installed at 24-inch gauge. A TM-8 Coppus fan, 15-inch ventilation pipe, 4-inch air line and 2-inch water line were installed.

Rehabilitating and enlarging the 110 feet of crosscut was completed early in February 1954. An additional 39 feet of rehabilitation was done at company expense.

The shaft station, pocket, and head raise on the adit level were completed late in March 1954. Total rock excavation was about 18,500 cubic feet. The shaft station measured about 40 feet long, 14 feet wide, 9 feet high, and 14 feet high at the station brow. Top of the head raise was about 67 feet above the sill. The pocket was raised about 42 feet above the sill at 60°. Random rock bolts were used for ground support in the station. A 75-hp Coeur d'Alene Hardware Company hoist was installed with necessary power cable, transformers, signal system, skip and crosshead, etc.

Shaft sinking was started early in April 1954.

The shaft had been almost dry until, at 240 feet deep, a small water course was cut. A 4-inch water column and pumps were installed.

A pump station and sump approximately 13 by 7 by 11 feet was cut at the 400-foot level at company expense and a shaft-bearing set placed.

GRACE:

The attached not sent with rewritten letter.

HBerry
1/19/61

UNITED

DEPARTMENT OF

OFFICE OF MINERA

The shaft was completed to a depth of 804.5 feet early in December 1954. The 750-level station and pocket raise were completed. The station measured 28 by 14 by 11 feet. Excavation for the shaft pocket amounted to about 1,600 cubic feet, or a total of about 5,900 cubic feet for the 2 excavations. In addition, a tail drift was driven 11 feet to the south. West of the shaft an 11-foot drift was driven for a sump. The north crosscut was driven 34 feet and was widened to 11 feet for installation of double track, ventilation fan, air receiver, pump, etc.

The 750 level northerly crosscut was driven a total distance of about 413 feet from the shaft station. Between 85 and 215 feet from the shaft station the crosscut passed through a sheared zone. At approximately 205 feet a drift was driven about 265 feet easterly along a faulted structure which contained lenses of quartz but was almost barren of sulfide mineralization. About 160 feet east of the north crosscut another crosscut was driven for 90 feet southeasterly from the drift. It cut a few small quartz stringers containing little, if any, sulfides.

About 325 feet north of the shaft station the crosscut passed through another faulted structure. Drifts east and west were driven on the structure. The east drift followed the faulted structure and was driven a total distance of 306 feet. Locally, occurrences of sulfide minerals were exposed in the drift. The west drift following the same structure was driven 209 feet. Only two isolated occurrences of sulfide mineralization were exposed.

The project was recessed April 25, 1955, because of the discouraging results and because the Operator wished to negotiate for adjoining ground which they believed might have additional geologic targets. The Operator requested a 6 months recess.

Amendment No. 1, dated May 25, 1955, suspended work during the period beginning May 1, 1955, and ending not later than November 1, 1955.

Amendments No. 2, 3, 4, and 5 consecutively suspended the work until not later than July 1, 1957. Finally, Amendment No. 6, dated August 9, 1957, suspended work until not later than December 31, 1957, and further stipulated that the contract would be terminated effective May 1, 1955, if the work had not been resumed on or before December 31, 1957, and not completed by October 12, 1958. Work was not resumed by December 31, 1957, and the contract was automatically terminated effective May 1, 1955.

Although the exploration program was not completed according to the contract, the work done in rehabilitation, sinking, crosscutting, and drifting closely approximated the program as originally proposed by the Operator. No ore was discovered by the exploration however, a pseudo-certification was incorporated in Amendment No. 6.

Summary of Factual Data

The project work completed consisted of rehabilitation and installation of facilities in 540 feet of the main adit, rehabilitation and enlarging 110 feet of adit level crosscut, excavating an adit level shaft station, sinking a 2-compartment vertical winze 800 feet including sump to the 750 level, excavating a station and pocket at the 750 level, and crosscutting and/or drifting 1,700 feet on the 750 level. All items except 406 feet of drifting were completed when the contract was terminated.

Following is a summary of the units of work completed and their cost. All work was on an agreed fixed unit cost basis.

Item	Authorized	Completed	Unit cost	Total cost
Lay track, air, water and vent line	540 ft.	540 ft.	$ 2.50/ft.	$ 1,350.00
Enlarge and rehabilitate crosscut	110 ft.	110 ft.	20.00/ft.	2,200.00
Cut station and pocket on adit level	Job	Job	7,000.00	7,000.00
Sink shaft	800 ft.	800 ft.	175.00	140,000.00
Cut station and pocket on 750 level	Job	Job	3,000.00	3,000.00
Crosscutting and drifting	1,700 ft.	1,294 ft.	43.50/ft.	56,289.00
Timbering	500 ft.	None	--	--
Total cost of project				$209,839.00

Total amount of contract	$229,500.00
Government's share at 50 percent	114,750.00
Total amount expended	$209,839.00
Government's participation	104,919.50
Total amount unexpended	$ 19,661.00
Government's share unexpended	9,830.50

The Government did not have an equity in any supplies or equipment.

There was no ore production from any of the DMEA mine workings during the contract period.

Discussion of Conclusions

The contract work was performed in a minerlike manner by an Operator competent both administratively and financially.

The project came to a halt because further drifting on the two mineralized veins found on the 750 level did not appear justified even though approximately 400 feet of drifting authorized in the contract remained unused. The Operator hoped to negotiate an agreement with adjacent property owners which would make possible exploration of other targets outside the contract ground and the contract was recessed several times while negotiations to this end were in progress. No agreement was reached and consequently the contract was terminated.

Although mineralization was generally weak along the structures found by the exploration on the 750 level, there are encouraging indications that commercial ore might be discovered in the area at some future date. The exploration did prove that (1) mineralized structures at the surface do persist at depth to the 750 level and probably continue to greater depth, and that (2) alteration of the country rocks increases at depths; also that (3) the structures and alterations are all in the St. Regis formation -- a favorable host rock. Thus a promising target would be the exploration of these structures at greater depth.

Another promising target which warrants consideration is the area north of the Paymaster fault zone and associated structures. Similar areas associated with this zone have been productive at the Gold Hunter and Lucky Friday mines. Both of these targets require more ground, consequently, no further exploration is recommended unless an agreement can be reached with adjacent property owners so that a greater area can be explored.

Enclosures
Distribution:
DMEA(3)
USBM(5)
USGS(SRO)
Docket
Sample

17

Maps for
Kimb Field Term Report
dated
November 58

DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS
EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

OFFICIAL BUSINESS

(PMGC)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

OFFICIAL FILE COPY
O. M. B.
RECEIVED NOV 24 1958

DATE	INITIALS	CODE
11 24	C	220
11 25	aW	500

November 21, 1958

Re: Docket No. DMEA-3071;
Contract Idm E-594
Silver Buckle Mining Co.
Vindicator Mine
Shoshone County, Idaho

Memorandum

To: W. R. Griswold, Office of Minerals Exploration

From: Commodity Specialist, Branch of Base Metals

Subject: Review of Final Report by Field Team, dated November 1958

I have reviewed the final report on DMEA project 3071 covering exploration at the Vindicator Mine of the Silver Buckle Mining Co., Wallace, Idaho.

Although the geologic setting is similar to that of the Lucky Friday, 1 mile to the west and although the property is on a well-known mineralized structure in favorable environment and has had some production from near surface workings, the shaft sinking to and development on the 750-foot level found little or no sulfide mineralization on the 2 structures explored.

The reporting team John D. Bardill (USBM) and R. D. Sample (USGS) note that the mineralized structures exist at the 750-foot level, that rock alteration is greater at that level than at lesser depths and that the structures are all in the favorable St. Regis formation. They conclude that these factors might warrant further exploration at yet greater depth. They also note that other structures to the north form a potential target area since ore has been found associated with them in the Gold Hunter and Lucky Friday mines.

It is concluded that the cost of exploring these targets is unwarranted because of Silver Buckle Mining Co. ground is limited in extent.

The report is well prepared and contains the significant observations pertaining to the exploration. I concur in the view that further Government participation is unwarranted.

O. M. Bishop

O. M. Bishop

February 10, 1958

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DMEA
RECEIVED APR 10 1958

DATE	INITIALS	CODE

D. M. E. A. Field Team
1201 North Division Street
Spokane, Washington

FINAL REPORT OF SILVER BUCKLE MINING COMPANY
VINDICATOR PROJECT

Re: Docket No. D. M. E. A. 3071

The exploration project at the Vindicator property was operated by New Park Mining Company of Salt Lake City, Utah, who assumed management responsibilities of the Vindicator project through investment in Silver Buckle Mining Company.

After preliminary plans had been completed on the location and arrangements of the tunnel level, shaft section, etc., actual work commenced during December, 1953. The project as planned continued without interruption until April, 1955. At this time the Company asked for a recess of the project for a period of six months, in which time to arrange a program for further development in area and magnitude. The work was suspended on April 25. However, the property has been maintained in proper operating condition to this date.

In view of the completed work at the Vindicator under this contract, and the encouraging results geologically this area was classed even higher as a mineral potential and warranted additional exploration in area and at additional depth to prove a commercial mineral discovery. The D. M. E. A. Project now underway adjoining the property to the east could no doubt provide geologic information that would help determine further work in the Vindicator Area.

Following this line of thought accordingly and to the advantage of all parties, the contract performance dates were amended by Amendments No. 1 through No. 6 closing as of December 31, 1957.

known to occur in deep seated ore deposits of the Coeur d'Alene district.

7. Other favorable structural targets known to occur in the area.

An exploration program planned for an additional one thousand or one thousand two hundred feet of depth in this area can now be calculated as a much better risk in finding rich Coeur d'Alene type ore bodies than the original project of limited exploration to the 750 foot level depth.

Exploration of this magnitude would be justifiable in the event that favorable operating rights could be arranged through a joint venture with other property holders in the area. In previous correspondence we have indicated that there have been, and are, some problems in negotiating additional operating rights with other interests in the area. These have not been resolved to date and along with the present adverse metal prices, further development at this time is at somewhat of a stalemate. However, it is possible that such an exploration program could be initiated either through the Vindicator shaft or perhaps more economically through deep workings of the Silver Mountain project located to the east. Such a program may well someday be considered.

May we thank the individual members of the D. M. E. A. Field Team for their help and co-operation during this project. Our association with them was a pleasure.

SILVER BUCKLE MINING COMPANY

Gale A. Hansen
Mine Superintendent

Enc: 1 Map

C. C.: C. L. Wilson
Scott & Gay

The following work has been completed to date in the Vindicator under contract with D. M. E. A.

Consisting of six unit projects: (Note Contract)

1. Installation of five hundred forty feet of track 30 pound @ 24" gage

2. Tunnel enlarging and rehabilitation, one hundred ten feet to shaft area

3. Completion of shaft station, shaft raise and loading pocket

4. Completed eight hundred feet of vertical shaft, fully timbered, two compartment 5' 6" x 4' 6" inside timber, pump station at four hundred foot depth

5. Completed 750 level Station and pocket raise

6. Crosscutting and drifting in mineralized zone consists of one thousand two hundred ninety four feet off the 750 level.

Future Exploration Possibilities

Geologically this property is still considered favorable at greater depths. Geologic information supporting possibilities of a commercial ore discovery in this area are:

1. Persistency of structure and mineralization from the surface to the 750 level.

2. Persistency and increase in alteration and structure with depth to the 750 level.

3. Favorable rocks in the steep limb of the St. Regis and Revett formations continue with depth.

4. Localization of an ore shoot between two great faults, the Paymaster and the White-Ledge.

5. Relationship in the district with known tops of deep seated ore shoots that are progressively deeper seated from west to east, i. e., Burke area, Morning area, Gold Hunter area, Lucky Fridy area - Vindicator area.

6. The property contains all favorable conditions

The Field Team recommends that this recess be granted including a provision for automatic termination if work is not resumed under the contract at the end of the 6-months' period.

By Field Team, Region I, NW District

A. E. Weissenborn

A. E. Weissenborn, Executive Officer
U. S. Geological Survey

Thomas E Howard

for: Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure 1 (in dupl.)

cc: USBM (2)
USBM(AD)
Fryklund

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

April 27, 1955

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-3071 (lead-zinc)
Silver Buckle Mining Company
Vindicator Mine
Shoshone County, Idaho
Contract No. Idm-E594

Dear Mr. Selfridge:

Enclosed are two copies of a letter from Mr. Clark Wilson, Vice President of the Silver Buckle Mining Company, requesting a recess of work at the Vindicator project.

As you know, drifting on the 750 level has opened up a length of vein, which, although not ore, has shown such improvement over exposures in the upper levels as to be considered quite encouraging. Some 450 feet of drifting remains in the contract. Drifting cannot continue to the east because we are getting too near the property line and the appearance of the vein which has already been followed approximately 220 feet to the west does not justify further drifting to the west at this time. The improvement in the vein on the 750 level suggests that deeper exploration might be profitable; however, the company does not, in our judgment, have sufficient ground to warrant the additional expenditure that would be required to deepen the shaft. Further crosscutting to the north on the 750-foot level to explore the Paymaster and other structures which are known to occur there might very well be worth consideration but this property is controlled by Day Mines, Inc. It is possible that the company may be able to make some arrangement with the owners of the adjoining property so that either deepening the shaft or crosscutting from the present bottom -- or DMEA -- level could be considered. The company has requested recess of the project for a period of 6 months so that these possibilities can be investigated further.

April 22, 1955

DEPARTMENT OF THE INTERIOR
Public Roads Administration
APR 29 1955

Mr. A. E. Weissenborn
Executive Officer
Region I, DMEA
United States Geological Survey
South 157 Howard Street
Spokane, Washington

Re: Docket No. DMEA 3071
Contract IDM-E594

Dear Mr. Weissenborn:

As you know, the work on the above referred contract has proceeded on schedule and we have completed a large percentage of the drifting and cross cutting that was planned on the 750 level. Two fissure zones have been explored and while one of these has shown some good mineralization, unfortunately we have not developed commercial ore bodies. The fissure in the east drift has now been offset by a cross fault and the mineralization itself is quite meager. In drifting west the fissure strands have become quite narrow and we do not feel that we should continue additional work in either drift.

We still feel that this project has some merit, possibly in further examination of the main fissure at depth, and another possibility would be further cross cutting to the north to prospect the Paymaster and Homestake structures.

There are certain items to be negotiated with regards to either of these programs and, of course, estimation must be made of costs involved and the necessary financing arranged for. Accordingly, we request that we be allowed a recess on the present contract for a period of six months in order that these arrangements can be properly made.

In the meantime we plan to retain Mr. Hansen, our supervisor, and one mechanic, who will maintain the property in the proper operating condition. If their services can be considered

RECEIVED
APR 25 1955
U. S. G. S.
SPOKANE, WASH.

a proper charge to the project we would appreciate your notification of this fact.

We certainly appreciate the cooperation of both your office and that of the Bureau of Mines during the time we have been actively operating under this contract.

Very truly yours,

SILVER BUCKLE MINING COMPANY

Clark L. Wilson
Vice President

CLW:jw

cc: Dr. F. E. Scott
Mr. Gale Hansen

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
1201 N. Division St.
Spokane 2, Washington
November 15, 1954

MEMORANDUM

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Cost analysis, Docket No. DMEA 3071 (lead-zinc), Silver Buckle Mining Company, Vindicator Mine, Shoshone County, Idaho, Contract No. Idm-E594

The cost of the project had been discussed briefly with Mr. Gale A. Hansen, as stated in my memorandum dated September 28, 1954. Mr. Selfridge, Chairman of the Operating Committee, requested a copy of this analysis of costs under date of October 21, 1954. Accordingly, Mr. Hansen was contacted again on November 5, and costs were reviewed through September with details of the costs being more closely checked than when they were discussed early in September.

The Operator's summary of costs from the date of the contract, October 12, 1953, through June 30, 1954, and the monthly cost summaries for July, August and September 1954 were reviewed. The review was conducted as though the project was on an actual cost basis. A list of all items purchased with costs was checked. The actual purchase invoices, payrolls, etc. were not checked as would be done in the case of a regular audit, but items that appeared should be disallowed were excluded in the analysis of allowable costs I have prepared.

Following is a tabulation of costs for the period October 12, 1953 through June 30, 1954:

	Item	Company cost	Allowable cost	Apparent disallowance	Allowable cost redistributed
1.	Engr., geol, maps, etc.	$ 6,280.83	$ 383.56	$5,897.27 1/	
2.	Travel	2,132.00	500.00	1,632.00 1/	
3.	Service	3,473.41	---	3,473.41 1/	
4.	Taxes and insurance	644.20	10.00 2/	634.20 1/	10.00 2/
5.	Operating equipment	29,309.90	(27,331.79 3/) 3,900.00 3a/		2,785.66 2/
6.	Tools and supplies	681.65	2,785.66 2/ 212.45 10.00 2/		469.20 3/
7.	Surface plant & dump	2,341.98	1,925.49 4/	78.14 8/	338.35 3/
8.	Main adit	6,966.91	6,903.26 5/	63.65 8/	
9.	Shaft station and hoist room	16,426.46	16,198.22 6/	228.24 8/	
10.	Shaft (322')	45,998.65	45,746.68 7/	251.97 8/	
11.	Accounting	300.00	300.00		
		$114,555.99	$ 78,875.32		
	Less inventory, vent pipe & track for crosscut & drifts		2,584.70		
			$ 76,290.62		
	Amount allowed by contract as of June 30, 1954		66,900.00		
	Difference		$ 9,390.62		

1/ These costs appear to be corporate overhead.

2/ Items considered to be supplies or expendable materials (not equipment) and allowed as such.

3/ Items of equipment and are included in $27,331.79. The depreciation was figured on a 60-months basis because all large items of equipment and most of other items are used items.

3a/ Allowable depreciation for period of 8-2/3 months @ $450/mo. is $3,900.

4/ This item includes the cost of acquiring equipment, organization, etc. which should be prorated for the most part to the shaft, with some to drifting and crosscutting.

5/ As $3,550 was estimated for this item, the cost over this amount should be charged for the most part directly to the shaft, with some to the drifting and crosscutting.

6/ As $10,000 was estimated for these items, costs above this amount should be charged for the most part to the shaft, with some to drifting and crosscutting.

7/ This cost should include the costs referred to in footnotes 4, 5, and 6, which are over the estimated amounts for each.

8/ Telephone and telegram charges appear too high; therefore, they were reduced 50%. Individual calls were not checked to verify if they were an allowable cost.

Costs which appear allowable to the project as of June 30, 1954 total $76,290.62. Some disallowances were made on an arbitrary basis and an audit would change these plus or minus, but it is believed they are reasonably correct. The Government had contributed 50% of the total cost of $66,900 through June 30, 1954.

During the months of July, August and September 1954, the total to which the Government contributed 50% has increased to $117,300. The Operator's "apparent allowable" costs have increased to $114,444.46 plus $1,425 depreciation allowance ($475/mo. for 3 months), making a total of $115,869.46. This shows that the Government has contributed 50% to costs amounting to $1,430.54 in excess of actual costs, which is about 1.2% of total costs allowed by the contract to October 1, 1954.

The Operator has had very favorable operating conditions and has been able to obtain many of his supplies second-hand, which has contributed to an exceptionally economical operation. However, during October he has had to repair the hoist and also had a mine accident, which will increase the costs. Also, there has been an increase in wages and some back pay, which will increase his labor cost slightly.

It is believed that when the shaft sinking is finished and the 750 level station and pocket cut, the costs up to that time will also be reasonably close to the estimated costs.

The Operator shows the costs for Items 8 and 9 in the above tabulation to be above the estimate in the contract, and he also shows Item 7 (Surface plant and dump) which was not set up in the contract as a specific item.

Items 8 and 9 included the cost of revising the station and the rope raise and pocket. The revision was discussed at the time but no allowance was made for the added cost. It was pointed out to the Operator that if he wished to make the change to increase the efficiency, it would have to be justified by reducing costs of sinking and crosscutting.

Item 7 was a cost incurred by the company prior to the sinking operation and they elected to set it up as a separate charge, but it is a direct cost to sinking, drifting and crosscutting.

Items 8 and 9 also contain costs of organization and preparation other than revision that should be prorated to Item 10. The unit cost estimate for shaft sinking, drifting and crosscutting allowed for waste disposal and some preparation.

It may appear on this contract as well as many others that the initial preparation, organization and related costs are underestimated or overlooked, but that is not the case. Generally speaking, a reasonable amount is allowed for such main items, and the estimator is cognizant that there is invariably some delay getting started, but rather than set up those original costs to include the lag it is believed best to include such costs in the actual exploration work (sinking, crosscutting, drifting, raising, etc.). This is usually covered in the rate of advance, which is the "big divisor" when estimating costs. It is pointed out to the Operator or applicant that the "lag time" in getting a project underway, if kept within reason, can easily be made up by his performance. Usually a fraction of a foot in the advance rate will cover usual delays. It is believed that by keeping the cost estimates at a minimum rather than a maximum for the initial preparation, etc., the Operator keeps costs that might seem unnecessary to a minimum and it promotes efficiency.

Eric G. Erickson
E. G. Erickson

Orig. & 3 cys - Wash.
USGS (2)
DMEA
AD
EGE/he

September 14, 1953

Dr. F. E. Scott
Idaho First National Bank Bldg.
Wallace, Idaho

Re: Horn Silver, Siskiyou Belle Fraction, and Curragh Buck Mining Claims of the Vindicator Silver-Lead Mining Company.

Dear Dr. Scott:

At your request I have examined portions of Abstract of Title No. 5640 extended and certified to the hour of 5:00 o'clock P.M. the 1st day of August, 1953, by the Bigsby Abstract Company, C. S. Bigsby, Owner. The abstract shows that there is of record in the County Recorder's office of Shoshone County, Idaho, the following information:

Horn Silver Lode

Quartz Location Notice dated October 8, 1889; recorded October 18, 1889 in Book "J" of Quartz Locations at page 623. Amended Location Notice dated July 19, 1946, recorded August 9th, 1946, Book 25 of Quartz Locations at Page 241.

Siskiyou Belle Fraction

Quartz Location Notice dated March 28, 1892 and recorded April 9, 1892, in Book M of Quartz Locations at page 256.

Curragh Buck

Quartz Location Notice March 29, 1892, recorded April 9, 1892, Book M of Quartz Locations, Page 255. Amended July 19, 1946, recorded August 9, 1946, Book 25 of Quartz Locations at page 242. Amended June 12, 1953, recorded Book 25 of Quartz Locations at page 626.

Undivided 1/4 interest in Bulldog

Patented March 23, 1923, recorded April 24, 1923 in Deed Book 56, at page 458.

Proofs of Labor on above three claims

Year 1949, Instrument #143977, recorded Book X of Misc., Page 164.

Year 1950, Instrument #147013, recorded Book X of Misc., page 239.

Year 1951, Instrument #151714, recorded Book X of Misc., Page 416.

Year 1952, Instrument #154677, recorded Book M of Mining Affidavits, page 217.

Year 1953, Instrument #158240, recorded Book M. of Mining Affidavits, page 359.

Oversight Fraction Lode

On June 16, 1953, there was located the Oversight Fraction lode mining claim in the name of the Vindicator Silver-Lead Mining Company. Notice of Location was filed August 3rd, 1953, Book 31 of Quartz Locations, at page 239.

This last above information does not appear in the Abstract but it has been established as a matter of record in the Recorder's office of the County of Shoshone, State of Idaho.

Very truly yours,

H. J. HULL & SONS

By A. H. Hull/Luce

AH:kmw
cc (five)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
1201 N. Division
Spokane 2, Washington

September 10, 1953

To: DMEA Field Team, Region II

From: E. G. Erickson, Mining Engineer, U. S. Bureau of Mines

Subject: Estimated costs of the project, Vindicator Silver-Lead Mining Company, Shoshone County, Idaho, Docket No. DMEA 3071X (lead-zinc), Contract No. Idm-E592

The subject contract was reviewed with Mr. Scott and Mr. Wilson, representing the Silver Buckle Mining Company, who have an agreement with the Vindicator Silver-Lead Mining Company whereby they will perform the work outlined in the contract.

Mr. Wilson, who is employed by New Park Mining Company, which in turn has bought into Silver Buckle Mining Company, raised some justified questions on the estimated costs of the project, as set forth in the contract; namely, increased wage rate amounting to about 5 percent that has been granted since estimate was made; depreciation allowance for equipment that was not included in equipment to be purchased jointly; rehabilitation of 540 feet of the existing 650 foot adit that has previously been enlarged.

Discussion

A wage increase of $8\frac{1}{2}$ cents an hour was negotiated last month for the majority of the miners in the district, which amounts to a 5 percent increase, not including fringe benefits. To my knowledge, this raise did not effect contract drift and crosscut miners' rates, as they were already making good wages; therefore, only other than contract drift and crosscut labor was used in computing added labor costs for this item.

Contract rates for shaft sinking vary with the job and, as this sinking operation will start after the miners pay raise has been granted, it will effect both contract and company time miners.

The application listed equipment to be purchased amounting to a total cost of $30,412.20 and the contract specified purchasing $5,725.50 worth of equipment and made no depreciation allowance for

the remaining necessary equipment. It is recommended that the Government allow depreciation on $30,000 worth of equipment on a 60-month basis, or $12,000 total depreciation and not participate in any equipment purchase.

The length of the existing adit from the portal to the proposed shaft station site is 650 feet. The first 540 feet had previously been enlarged to 8 X 8' size, but must be re-tracked, piped with air and water line and vent pipe. The operator proposes to do this for $2.50 a foot, which is considered conservative.

Calculations

Drifting and crosscutting

Using a total of $24,000 as drifting and crosscutting wages applicable to the 5 percent wage increase, and dividing by 1700 feet, an increase of $0.70 per foot is found.

Prorating $4,400 of the $12,000 depreciation allowance to drifting and crosscutting and dividing by 1700, a $2.60 cost per foot, an increase is found. Total increase $2.60 plus $0.80 was rounded to $3.50 because 5 percent increase was not applied to contract labor, which may be effected by the pay increase.

Shaft sinking

Using a total of $83,000 as shaft labor applicable to 5 percent increase and dividing by 800 feet, an increase of $5.20 per foot is found.

Using the remaining $7600 depreciation and dividing by 800 feet, an increase of $9.50 per foot of shaft is found, making a total increase of $14.70, which is rounded to $15.00.

No fringe benefits were taken into account in the wage increase of 5 percent. Paid vacation of only 1 week would increase labor cost almost 2 percent, which is a very likely fringe that will have to be paid. A new operation may not have to pay many of the other fringes the established companies now pay.

Following is a recommended "Estimated Costs of the Project" schedule for Exhibit "A" of the contract.

Estimated Costs of the Project
(* indicates allowable maximum)

Agreed Unit Costs

1.	Rehabilitating 540 feet of existing adit crosscut at $2.50 per ft.	$ 1,350.00
2.	Enlarging 110 feet of existing adit crosscut at $20.00 per foot	2,200.00
3.	Shaft sinking, 800 feet at $175.00 per foot	140,000.00
4.	Crosscutting and drifting - 1700 feet at $43.50	73,950.00
5.	Timbering 500 feet at $4.00 per foot	2,000.00
	Total Agreed Unit Costs	$219,500.00

The Government will contribute to the above costs of enlarging and rehabilitating the crosscut, shaft sinking, crosscutting, drifting, and timbering on the basis of these agreed estimated unit costs, as they accrue, for units of work actually performed, in lieu of actual costs. These costs include all costs of the work including sampling and assaying, except those scheduled below to which the Government will contribute on the basis of actual costs.

Schedule Actual Costs

1.	Cut a station and pocket on the adit level 1/	7,000.00
2.	Cut a station and pocket on the 750 foot level 1/	3,000.00
	Total Actual Costs	10,000.00

1/ Schedules waived for this work.

Summary

Total agreed unit costs	$219,500.00
Total scheduled actual costs	10,000.00
Total estimated cost of project	$229,500.00
Government participation at 50 percent	114,750.00

E. G. Erickson

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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July 15, 1953

Memorandum

To: W. R. Griswold, Base Metals Branch, DMEA

From: O. M. Bishop, Base Metals Branch, USBM

Subject: Docket No. DMEA-3071, Vindicator Silver-Lead Mining Company, Hunter Mining District, Shoshone County, Idaho

The applicant proposes to explore the mineralized but non-commercial structure developed in the upper workings. This will be done by a vertical 2-compartment winze sunk 800 feet with a shaft station at 750 feet of depth, and 1,700 feet of subsequent crosscutting and drifting to explore the vein zone.

Geologically the exploration is highly recommended by the field team, who note structural conditions, evidence of past widespread and pervasive hydrothermal conditions, and geochemical anamolies, all of which indicate the merit of the exploration.

It is noted that the nearby Lucky Friday and several other Couer d'Alene mines of merit have been developed on structures that were essentially barren in their upper portions, and the field team notes that the proposed exploration compares favorably with any exploration now being undertaken in the Couer d'Alene region.

The estimate of mining costs appears sound and in line with normal costs under good management. Because of the sound geologic background, nearness to railway, smelter, power and other facilities the exploration appears justified and is hence recommended.

O. M. Bishop
O. M. Bishop

Copy to: A. R. Kinkle
Minerals Division
O. M. Bishop
Files

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

July 9, 1953

Memorandum

To: Mr. W. R. Griswold

From: E. L. Newcomb

Subject: Recommendation for approval

Re: DMEA-3071
Vindicator Silver-Lead
Mining Company
Coeur d'Alene District
Shoshone County, Idaho
$245,600.97
Lead-zinc-silver

The applicant proposes to explore several parallel vein structures by sinking an underground shaft to a depth of 800 feet from the No. 2 level and crosscutting and drifting 1700 feet at the 750-foot level.

The field team recommends the project for approval.

The merits of the proposed work are strongly supported by the success of similar exploration at depth on the nearby Lucky Friday vein. The host rocks on both properties are highly altered and fractured argillite and argillaceous quartzite of the St. Regis formation. Mineralization occurs on steeply dipping vein structures which strike east-west. The vein material at the surface and at shallow depths is mainly quartz, ankerite and small amounts of galena.

Although the mineralization presently exposed on the Vindicator is not impressive, the geological setting on the Lucky Friday and Vindicator properties are very similar. Commerical ore was not found on the Lucky Friday until shaft sinking had reached the 500 level (collar of shaft at about same elevation as Vindicator No. 2 level) and high grade ore was not encountered until the shaft was sunk below the 1400 level. At present the Lucky Friday shaft is at 2000-foot level and ore width is reported to be 5-6 feet over a continuous length of 1,000 feet and averaging 6-8% lead, 1% zinc, and 10-15 oz. silver per ton.

In general, the veins in the area near the Vindicator have all lacked strong mineralization near the surface. However, the results from exploration of strongly bleached, persistent vein structures at depth have been very successful. In addition to the Lucky Friday, the Silver Summit and Vulcan properties have developed high grade ore bodies at depth beneath bleached, poorly mineralized surface showings.

Diamond drilling has not been recommended for the project because of the steep dip of the veins, the highly altered and fractured condition of the host rocks, and the length of holes required to test the vein structure at depth. The core recovery would be poor, the results inconclusive, and conceivably even erroneous regarding width, grade, and continuity of ore shoots. Shaft sinking is the usual practice for exploring promising veins at depth in this area.

From a geological standpoint, the Vindicator vein structure is very favorable for exploration. The proposed work can reasonably be expected to find significant lead-zinc-silver mineralization at depth. I concur with the field team and recommend the project be approved.

E. L. Newcomb

E. L. Newcomb
Geologist

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

Reviewed by DMEA Oper. Com. 7-3-53.

ON-SITE Report

June 15, 1953

Memorandum

To: Chairman, Operating Committee, DMEA

From: Field Team, Region II

6/26/53. Received by [illegible] 8/28/53

Subject: Application for exploration assistance, Vindicator Silver-Lead Mining Company, Shoshone County, Idaho.

Introduction

The Vindicator Silver-Lead property is in the eastern part of the Coeur d'Alene Mining District in an area that has been extensively studied by the Geological Survey in connection with the recent general remapping of the district. The workings of this property have been mapped in detail (scale 1" = 50'); a surface geological map of the area and its environs has been made on a scale of 1" = 1000'; and extensive geochemical prospecting studies have been made over the area. This work was done by R. E. Wallace, S. W. Hobbs, and V. C. Kennedy of the U. S. Geological Survey. The following geologic evaluation of the property which has been prepared by Mr. Hobbs is made on the basis of this past information without further field examinations.

On the basis of the geologic setting and local environment, the Field Team strongly recommends the granting of a contract to the Vindicator Silver-Lead Mining Company along the general outlines of the plan presented in their application.

General Setting and Physical Features & Competency of Applicant

The location, accessibility, property rights, and description of the property are accurately described in the application. It may be emphasized that the location is ideal for easy, year-round access, transportation and general operation.

The applicant company is controlled by people who are well acquainted with the mining profession. They will employ the firm of Preston and Reynolds, a well known and competent mine engineering and geological service of Kellogg, Idaho, to direct the exploration project. Under this arrangement, we feel that the work will be efficiently and adequately handled. The property to be explored consists

of three claims. Although more property would be desirable, the exploration work is so situated that property boundaries should include any possible discovery and afford an adequate production for repayment.

Geology

The accompanying geologic map and cross section along the line of the main Vindicator crosscut adit show the geologic setting of the area. The Vindicator vein occurs in a highly folded, sheared, and faulted block of St. Regis argillites and argillaceous quartzite that is bounded on the north by the Paymaster fault and on the south by the Osburn fault zone. The St. Regis here is predominently thin-bedded with some more massive quartzite layers and some zones of carbonate-rich rock. The structure is complex and contrasts strongly with the more regular and open folding of the Wallace formation north of the Paymaster fault.

The geological map of the mine workings that accompanies the application is exceptionally detailed and accurate and gives a good picture of the geology. For the most part, the beds dip very steeply to the north and appear to be overturned. If this be the case, the beds face toward the portal and the crosscut penetrates older and older beds to the north and may actually approach close to the contact of the underlying Revett quartzite. This fact may have a very direct bearing on the exploration potentialities of the project. The stratigraphic horizon near the contact of the relatively incompetent St. Regis argillite and the very competent Revett quartzite has been the locale of many productive ore bodies elsewhere in the district. Exploration at depth on the Vindicator vein should approach this favorable stratigraphy even more closely.

The intense deformation of these rocks has produced much cleavage and local zones of intense shearing. Although movement along the individual cleavage planes may be very small, the result is a local obliteration of bedding and a localization of areas into which early hydrothermal solutions have permeated with a resultant bleaching and alteration of the rocks into seriatic phyllites. Such bleaching is characteristic of much of this zone and attends mineralized areas in other parts of the district.

Numerous small shears and several faults with appreciable movement cut the workings, but the amount of offset and effect on the general structure is unknown.

The Vindicator vein is exposed on the surface of the property in a series of 10-12 open cuts and trenches along a length of over 1000 feet. As exposed in these trenches, the vein is from 1" to 6" wide and composed predominently of quartz with some carbonate (ankerite?) and notable amounts of galena. The galena shows in at least three contiguous pits along a 150-foot portion of the vein. The underground workings cut several zones in which narrow quartz stringers and veins are localized, but one of these is stronger and more persistent than the rest and is correlated with the vein exposed on the surface. The vein is exposed in the drifts and crosscuts underground for a strike length of 350 feet and has much the same characteristics as the vein at the surface--a narrow predominently quartz vein with some high

iron carbonate and local stringers and pockets of sulfides. The vein strikes about N. 85° W. and dips from 55° N. at the surface to 85° N. on the No. 2 tunnel level. The progressive steepening at depth may be inherent in the original vein, but also may be due in part to two other factors: (1) normal down-hill creep of the nearly vertical, sheared argillite at and near the surface on the steep slope and (2) a shifting of the upper portion of the vein to the south along a series of low-angle, south-dipping displacement structures along each of which the upper (hanging wall) portion of the rock has shifted slightly down dip. The net effect of the movement on the numerous slip planes may be very appreciable and may be measured in tens or hundreds of feet.

The Lucky Friday mine is located some 5000 feet west of the Vindicator and is currently mining ore from an ore shoot that is now developed to the 2000-foot level and extends eastward considerably nearer the Vindicator property than the mine entry. A geologic map of the Lucky Friday main level is included with the application and shows a striking analogy to the geologic conditions on the Vindicator main level which is within 50 feet of the same elevation. Commercial ore was first found in the Lucky Friday vein 500 feet below the main level and the mine has become progressively better with depth until it is now one of the well established, steady, small lead-silver producers of the district. It is obvious from the geologic map accompanying this report that the Lucky Friday is on a different vein zone from that at the Vindicator, but both are in the same stratigraphic and structural terrane in which comparable conditions for ore deposits could occur at most any place. The greater number of mapped faults in the Lucky Friday area, undoubtedly reflects the greater number of underground openings wherein they may be observed.

A fairly extensive program of geochemical prospecting was done on the Vindicator and adjacent property by the Geological Survey in 1951-52. The results of traverses perpendicular to the vein and downslope showed that the lead content of the soil exceeded three times background for more than 200 feet downslope and for 60 feet upslope from the vein outcrop. The angle of slope was 30°. This anomaly is added proof of significant lead mineralization in the structure, and the anomaly upslope from the main structure can only mean the presence of additional lead-bearing structures north of the main one. Much more extensive sampling was done on the Vindicator as well as adjoining property to the north and the general results point to an average lead content in the soil, well above the established background, for a considerable area. More details and maps of the results of this work will be furnished as soon as they are received from the geochemical prospecting unit.

Taken at its face value, and out of the context of its environment, the Vindicator vein is not too impressive. However, the structural and stratigraphic conditions of the mine area, the widespread and pervasive hydrothermal activity as attested by the alteration, and veining of the country rock, and the proven high productivity of adjacent property in the same structural block add

up to an impressive array of evidence pointing up the Vindicator property as an exceptionally good exploration possibility. It compares favorably with any exploration now being undertaken in the Coeur d'Alene region, where there are many exploratory projects going on, both by DMEA contracts and entirely by private companies.

The proposed exploration consists of the sinking of an 800-foot shaft, crosscutting to the vein (or vein zone), a distance of approximately 330 feet, drifting approximately 500 feet each way on the most promising structure and approximately 370 feet of crosscuts from the drift to check for possible structures in the walls. The program as outlined seems to be entirely adequate to test the structure in a manner consistent with the geologic evaluation.

Costs

The applicant's estimate of the costs of the project has been carefully reviewed by E. G. Erickson, U. S. Bureau of Mines. Mr. Erickson considers the costs reasonable and in line with those obtained on other projects in the district with similar operating conditions. Therefore, no formal cost analysis was prepared.

The applicant would prefer a modified unit cost type contract in which the Government would participate on the basis of actual costs for the purchase of the required equipment and on the basis of unit costs for all of the proposed work. For easier administration it is recommended that such a contract be negotiated.

By Field Team, Region II

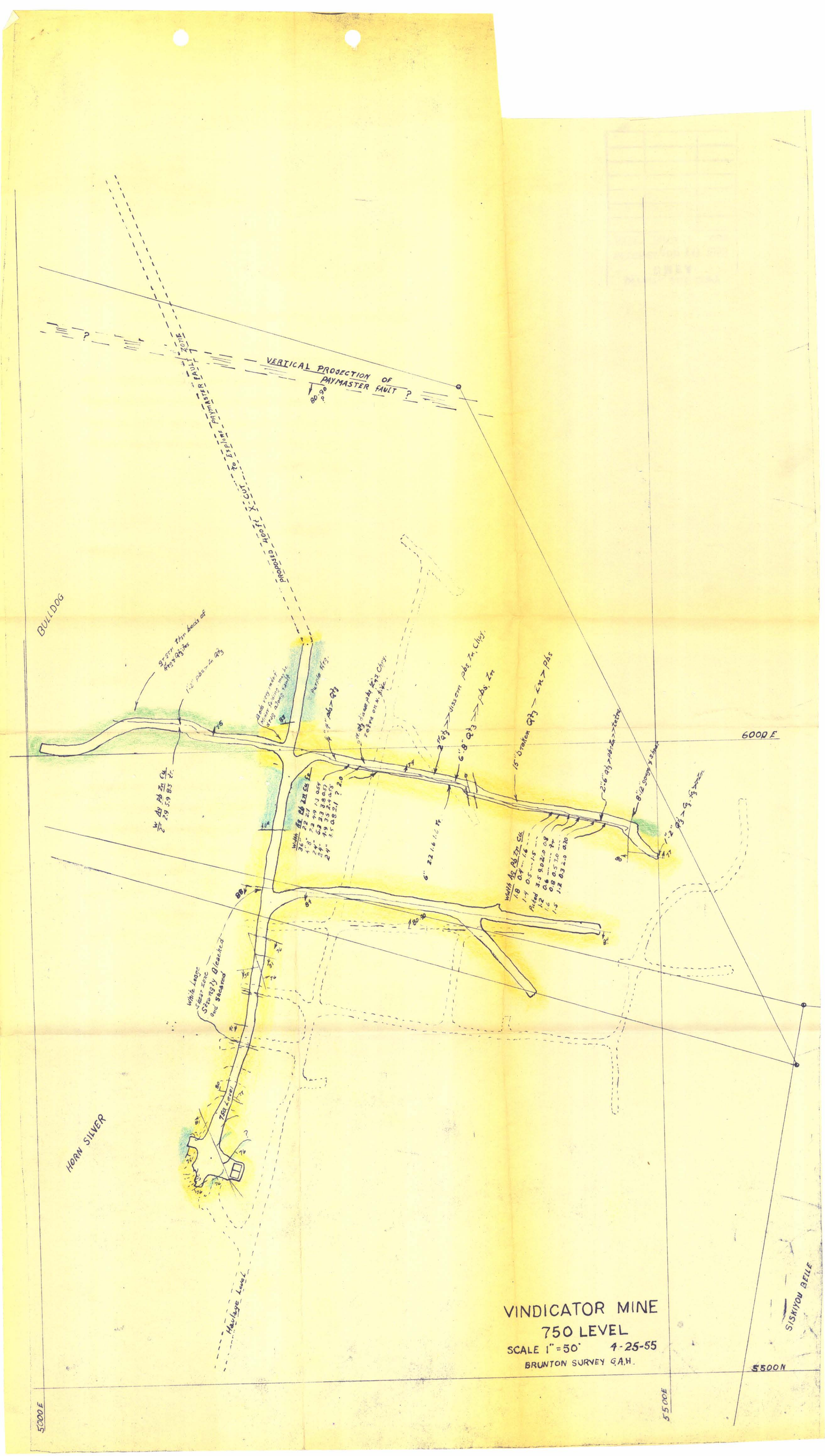
A. E. Weissenborn

A. E. Weissenborn, Executive Officer
(Geological Survey)

Thomas E Howard

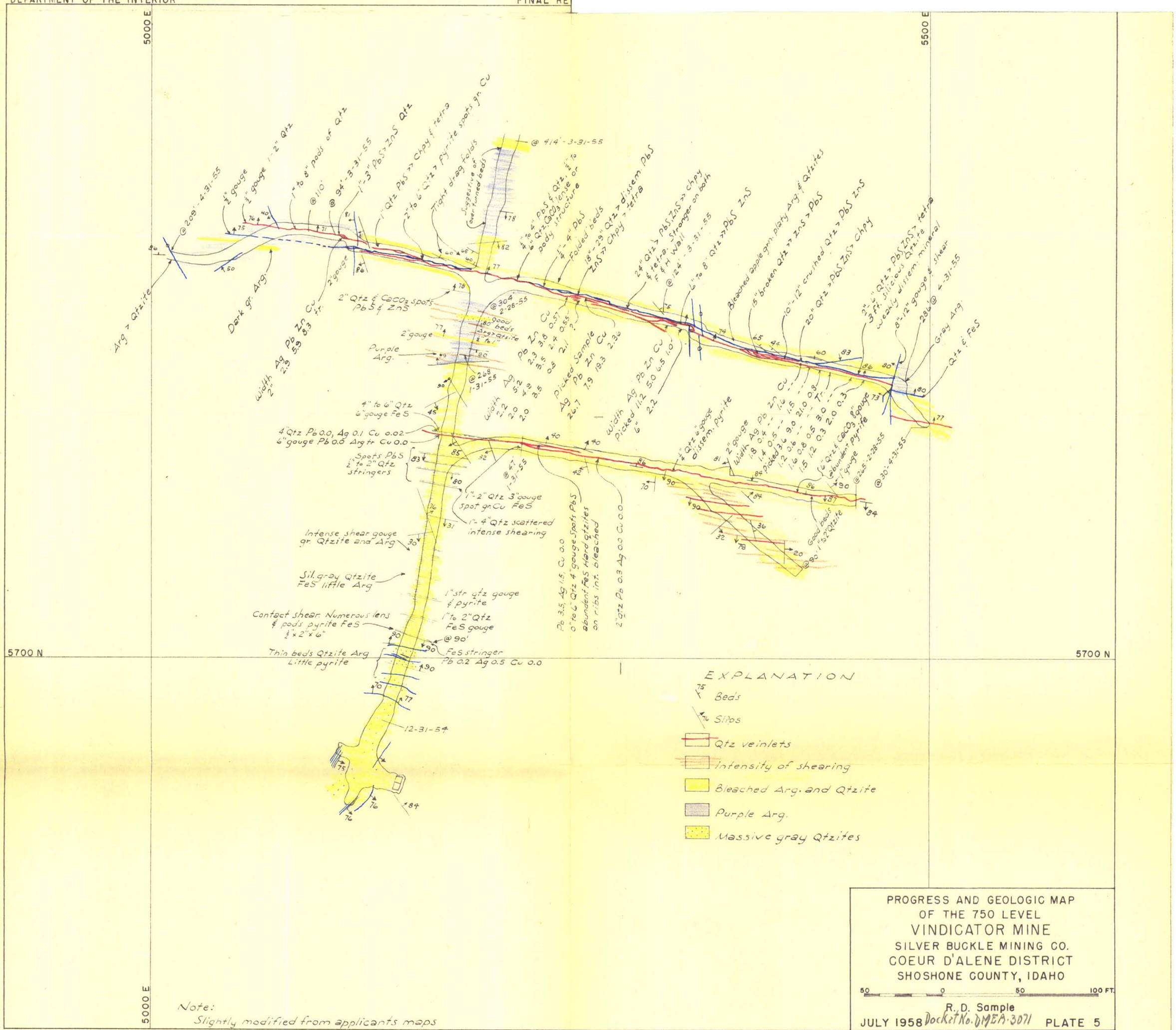
Acting for M. E. Volin, Member
(Bureau of Mines)

Enclosure
Dist:
DMEA (Orig. & 3)
USBM (2)
USGS (SRO)
Docket
Hobbs


VINDICATOR MINE
750 LEVEL
SCALE 1" = 50'
4-25-55
BRUNTON SURVEY G.A.H.
BULLDOG
HORN SILVER
SISKIYOU BELLE
VERTICAL PROJECTION OF PAYMASTER FAULT ?
PAYMASTER FAULT ZONE
PROPOSED 4000 ft X-CUT TO EXPLORE PAYMASTER
750 Level
Haulage Level
White Ledge Shear zone Strongly Bleached and Sheared
Purple Hfg.
6000 E
5500 N
5000 E
5500 E

UNITED STATES
DEPARTMENT OF THE INTERIOR

PREPARED
DEFENSE MINERALS EXPLOR
FINAL RE



Note:
Slightly modified from applicants maps

PROGRESS AND GEOLOGIC MAP
OF THE 750 LEVEL
VINDICATOR MINE
SILVER BUCKLE MINING CO.
COEUR D'ALENE DISTRICT
SHOSHONE COUNTY, IDAHO

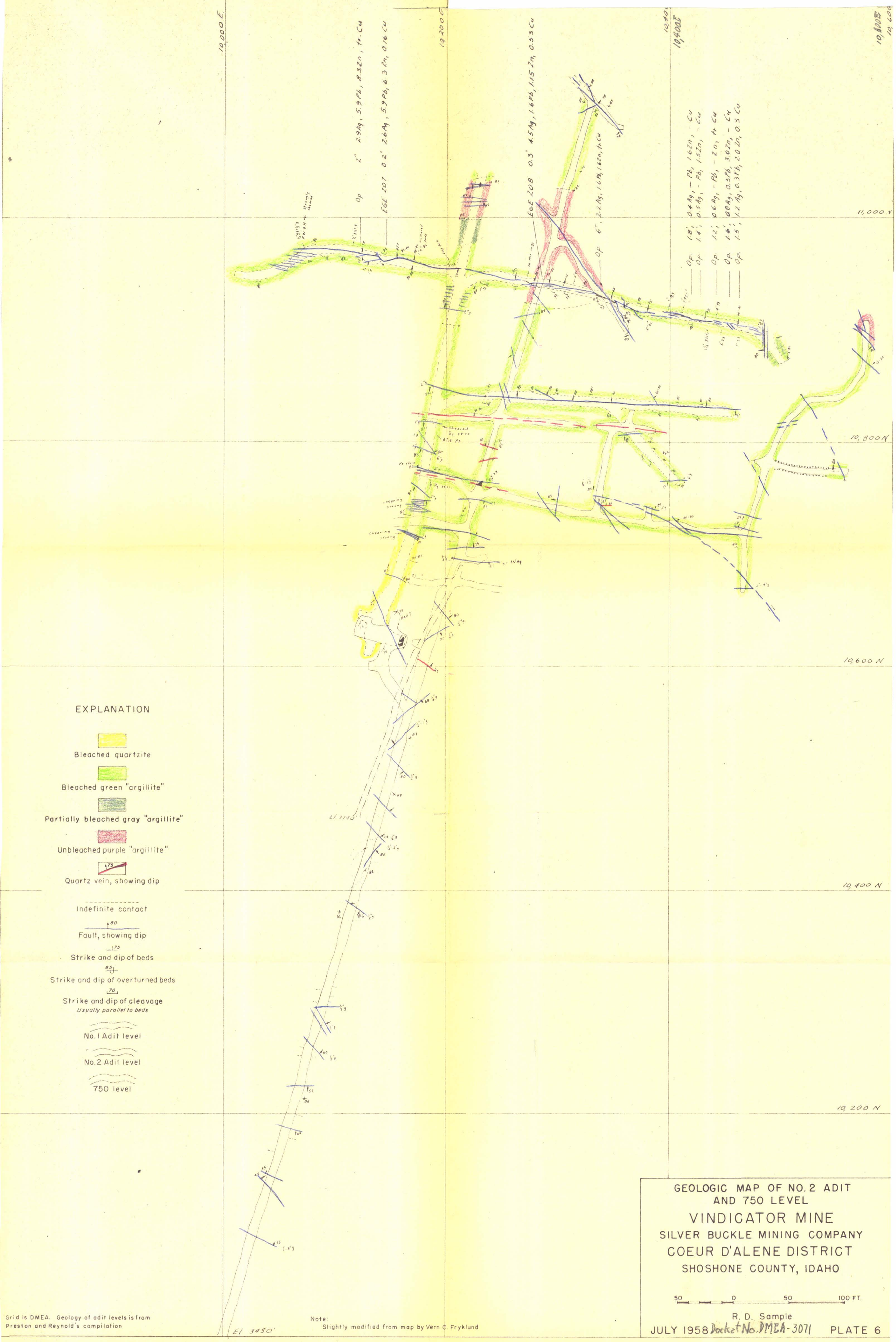
50 0 50 100 FT.

R. D. Sample

JULY 1958 Docket No. DMEA-3071 PLATE 5

UNITED STATES
DEPARTMENT OF THE INTERIOR

PREPAR
DEFENSE MINERALS EXPL
FINAL



EXPLANATION

Bleached quartzite

Bleached green "argillite"

Partially bleached gray "argillite"

Unbleached purple "argillite"

Quartz vein, showing dip

Indefinite contact

Fault, showing dip

Strike and dip of beds

Strike and dip of overturned beds

Strike and dip of cleavage
Usually parallel to beds

No. 1 Adit level

No. 2 Adit level

750 level

Grid is DMEA. Geology of adit levels is from Preston and Reynold's compilation

Note:
Slightly modified from map by Vern C. Fryklund

GEOLOGIC MAP OF NO. 2 ADIT
AND 750 LEVEL

VINDICATOR MINE

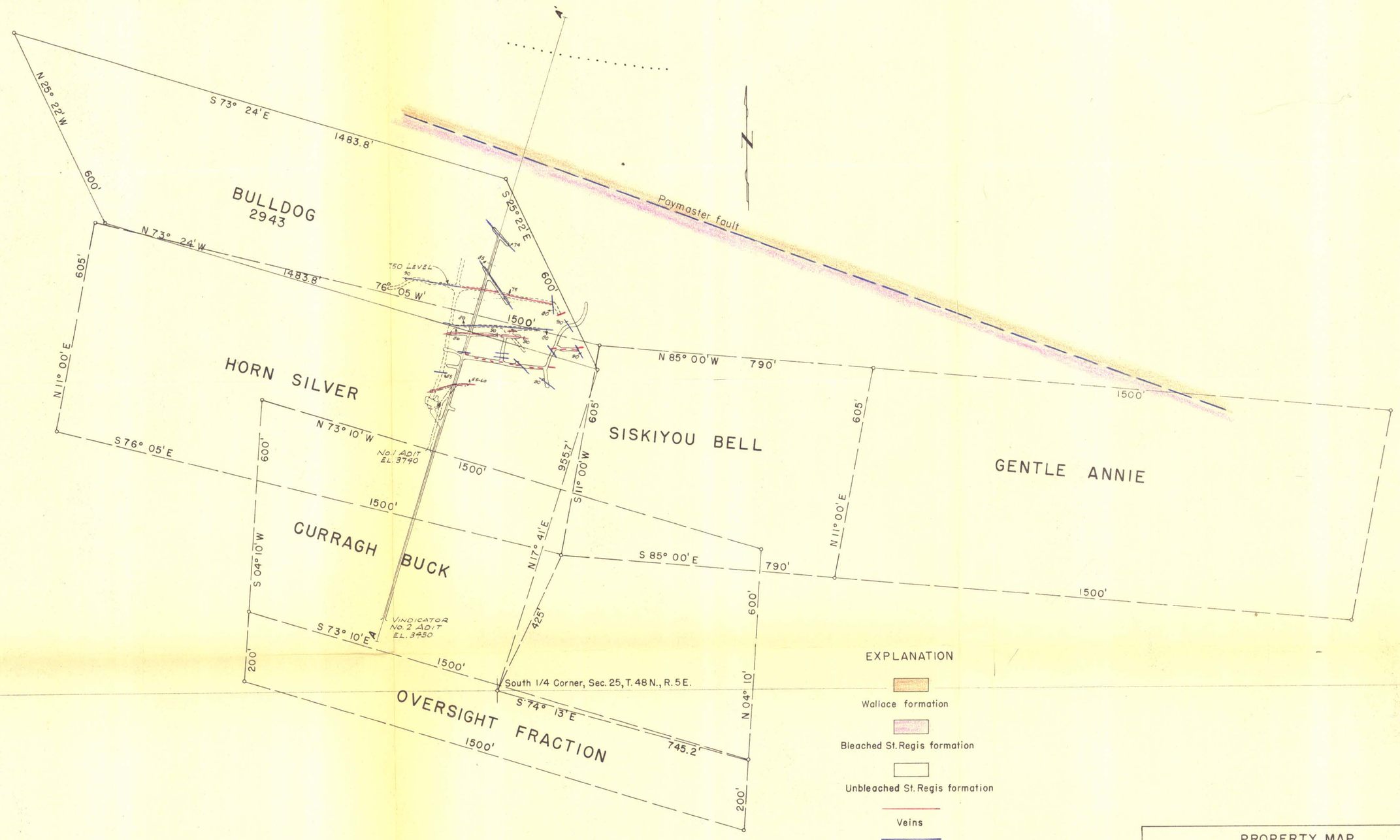
SILVER BUCKLE MINING COMPANY
COEUR D'ALENE DISTRICT
SHOSHONE COUNTY, IDAHO

50 0 50 100 FT.

R. D. Sample

JULY 1958 Docket No. DMEA-3071 PLATE 6

UNITED STATES
DEPARTMENT OF THE INTERIOR



EXPLANATION

Wallace formation

Bleached St. Regis formation

Unbleached St. Regis formation

Veins

Faults

Indefinite contact

Symbols for mine workings

Main level 750 level No. 1 level

Patened claims

Unpatened claims

PROPERTY MAP

VINDICATOR MINE

SHOWING CLAIMS AND SIGNIFICANT STRUCTURES

SILVER BUCKLE MINING CO.
COEUR D'ALENE DISTRICT
SHOSHONE COUNTY, IDAHO

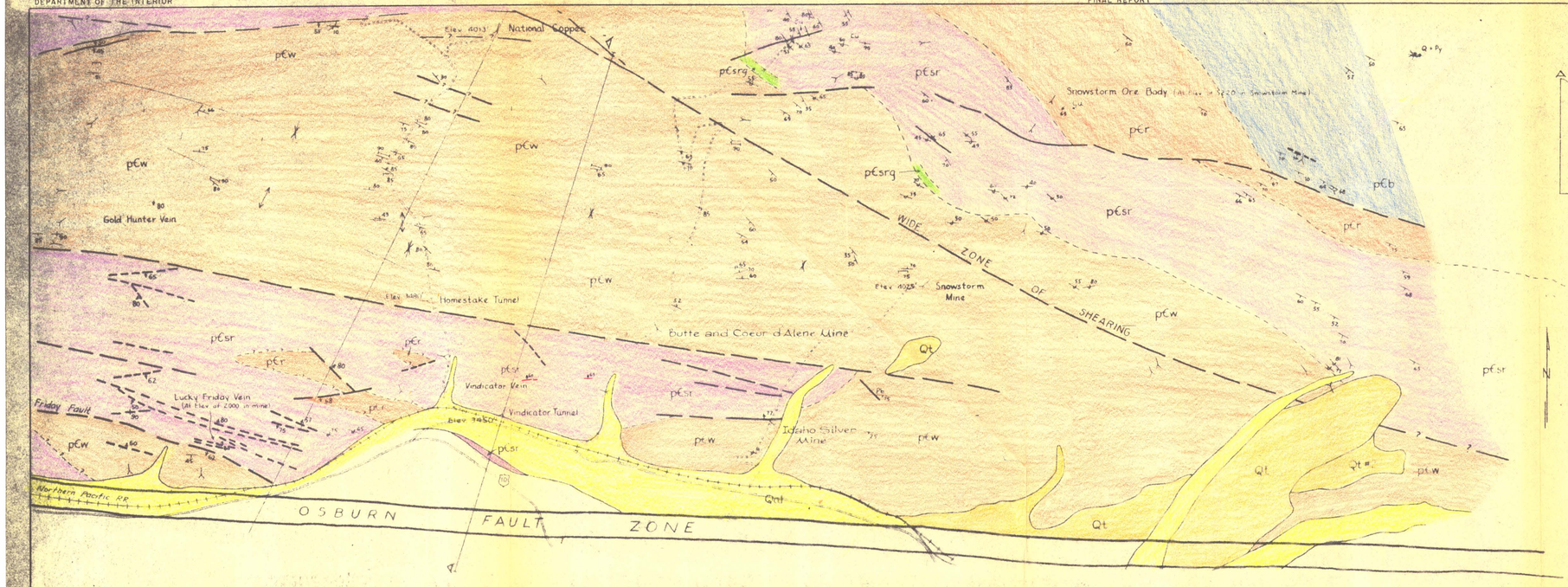
200 0 200 400 FT.

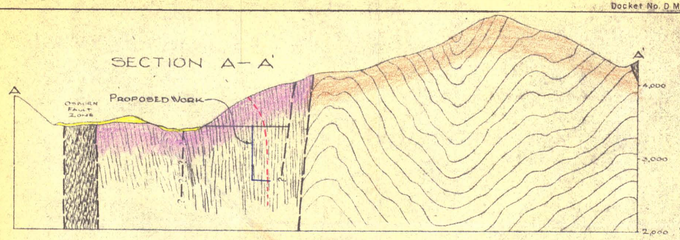
R. D. Sample

July 1958

Plate 3

Slightly modified from operator's map





EXPLANATION

- Qal — Alluvial deposits
- Qt — Terrace gravels
- pЄw — Wallace formation
- pЄsrg / pЄsr — St. Regis formation (pЄsrg - thin bedded, light green member. pЄsr - purple St. Regis
- pЄr — Revett formation
- pЄb — Burke formation

- Veins
- Contact (Dashed where approximately located)
- Contact indefinite
- Fault showing dip (Dashed where approximately located. U, upthrown side, D, downthrown side)
- Strike and dip of beds
- Strike and dip of overturned beds
- Strike and dip of cleavage
- Anticline
- Syncline
- Portal of adit

SURFACE GEOLOGY IN THE VICINITY OF THE VINDICATOR MINE AREA
COEUR D'ALENE DISTRICT
SHOSHONE COUNTY, IDAHO

1000 0 1000 2000 3000 FT.

R. D. Sample

July 1958

Plate 2

Map from R. E. Wallace and S. W. Hobbs

UNITED STATES
DEPARTMENT OF THE INTERIOR

LOCATION MAP

VINDICATOR MINE

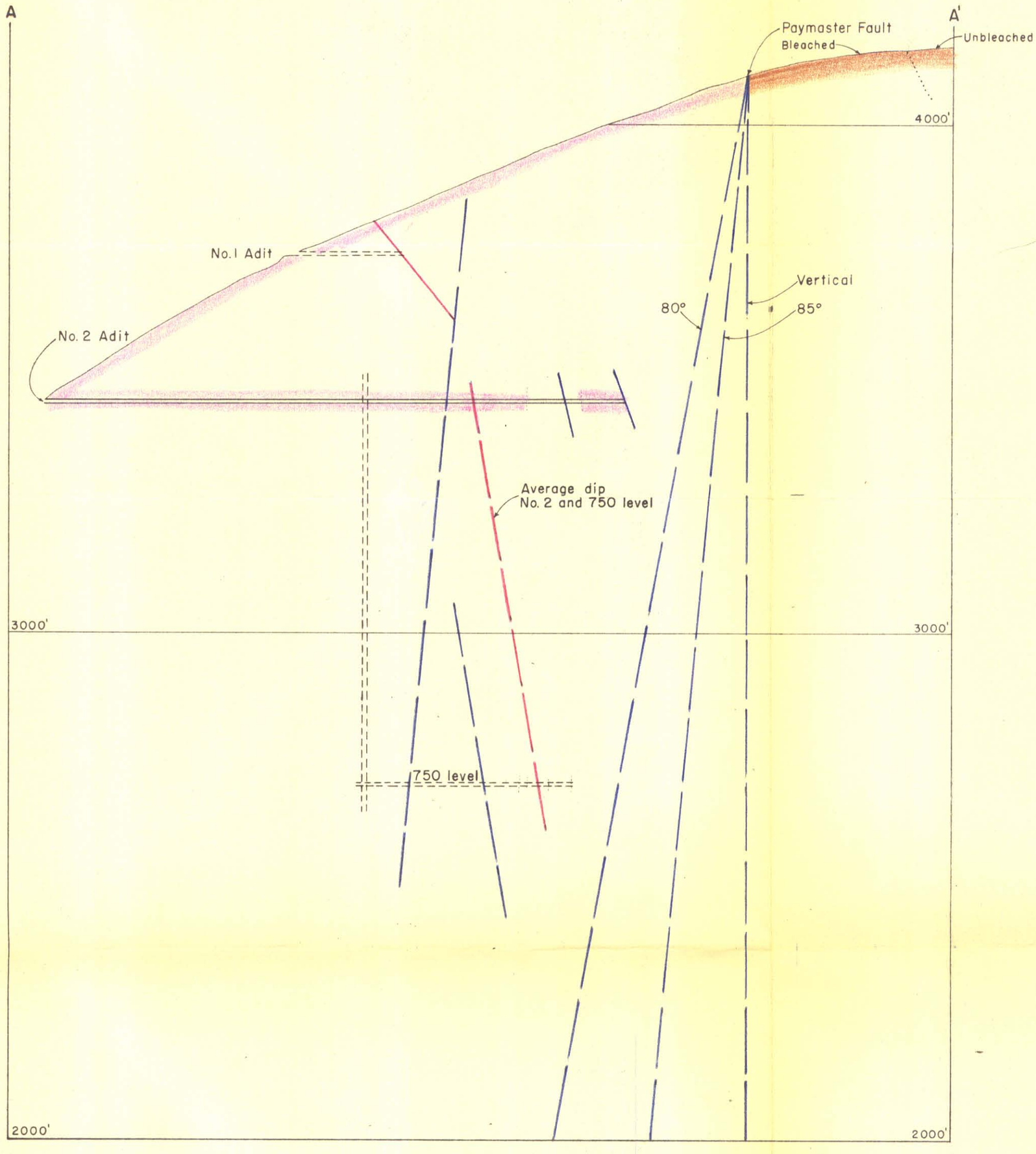
COEUR D'ALENE DISTRICT, IDAHO

1 ½ 0 1 2 MILES

R. D. Sample

JULY 1958

PLATE I



EXPLANATION

Wallace formation

Bleached St. Regis formation

Unbleached St. Regis formation

Veins

Faults

Indefinite contact

CROSS SECTION A—A'
VINDICATOR MINE
SILVER BUCKLE MINING CO.
COEUR D'ALENE DISTRICT
SHOSHONE COUNTY, IDAHO

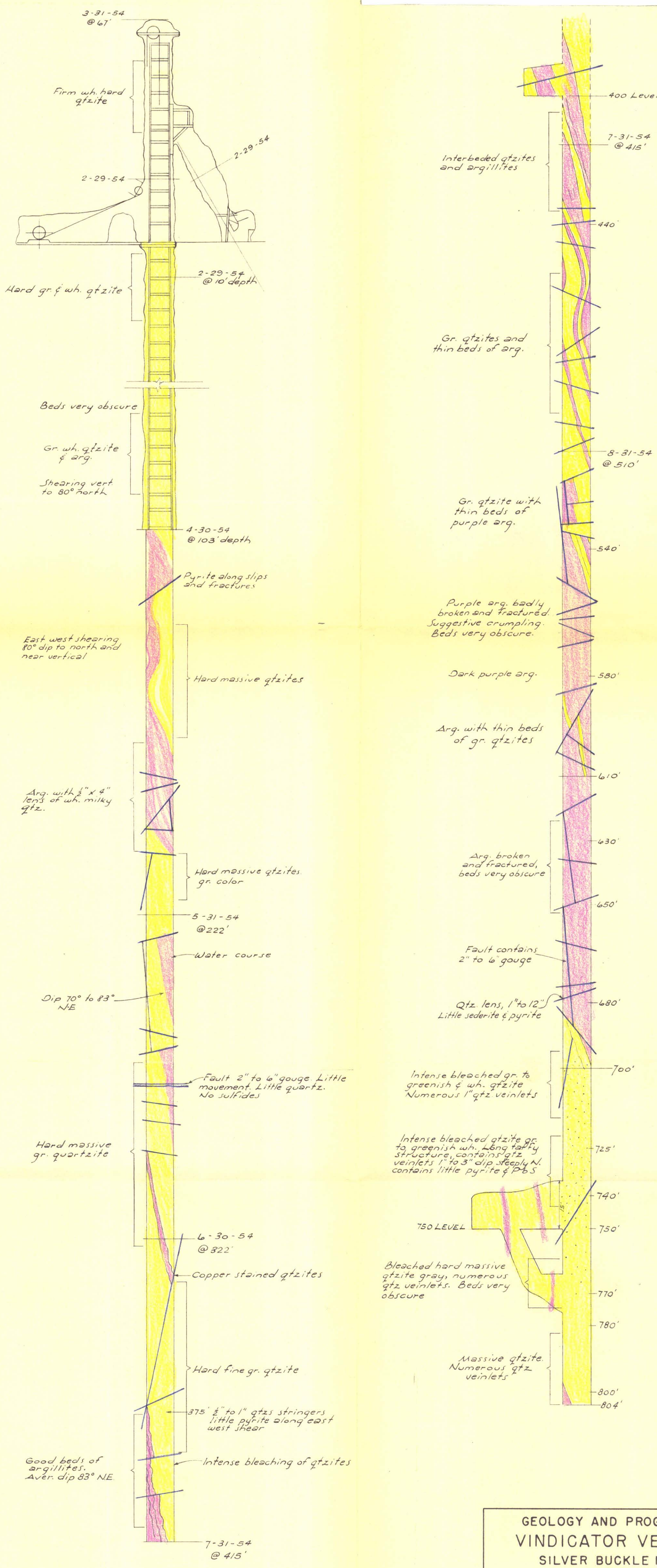
200 0 200 400 FT.

R. D. Sample

JULY 1958

PLATE 3 A

Slightly modified from map by Verne C. Fryklund



Slightly modified from operators monthly reports

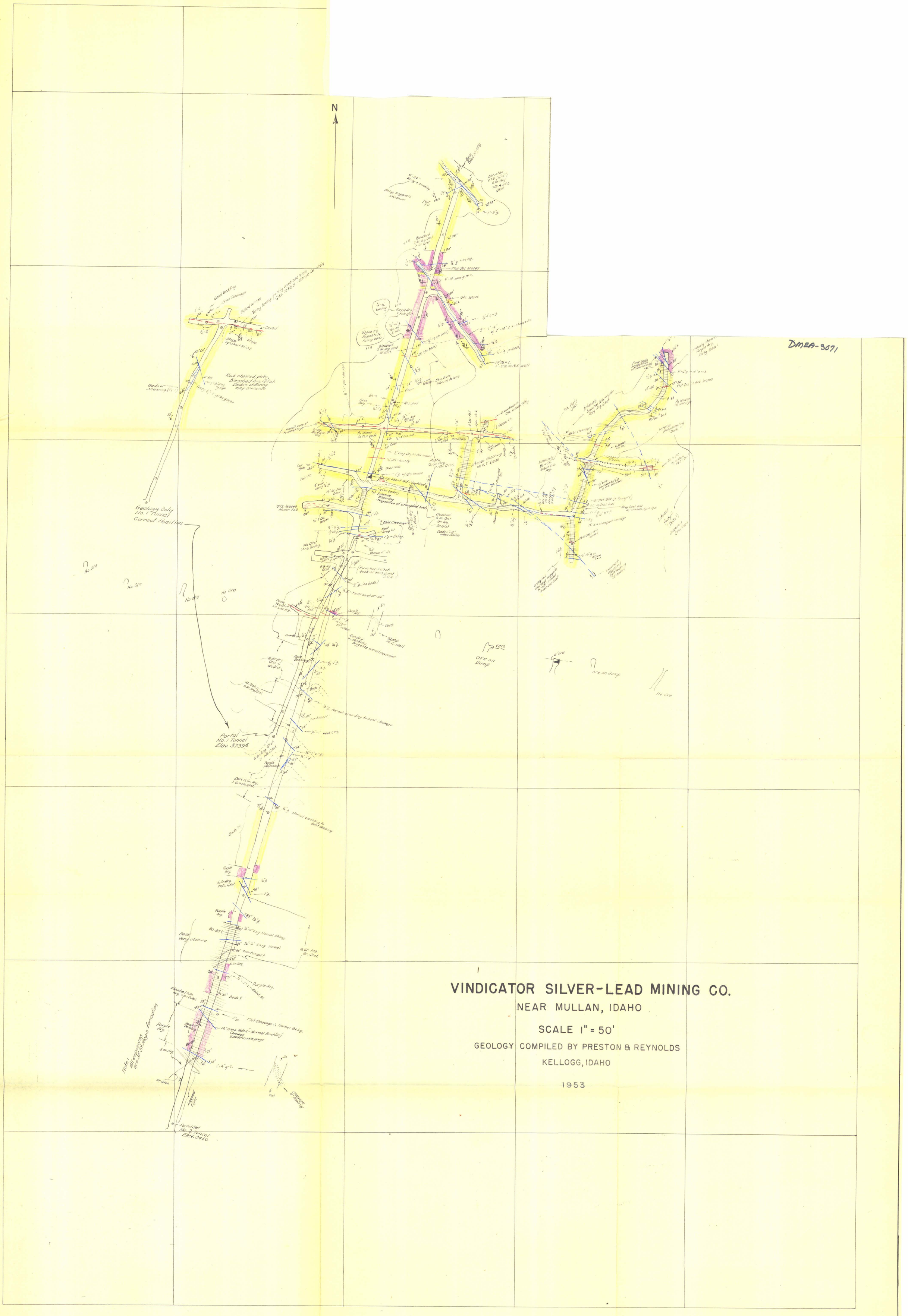
GEOLOGY AND PROGRESS MAP OF THE
VINDICATOR VERTICAL SHAFT
SILVER BUCKLE MINING COMPANY
COEUR D'ALENE DISTRICT
SHOSHONE COUNTY, IDAHO

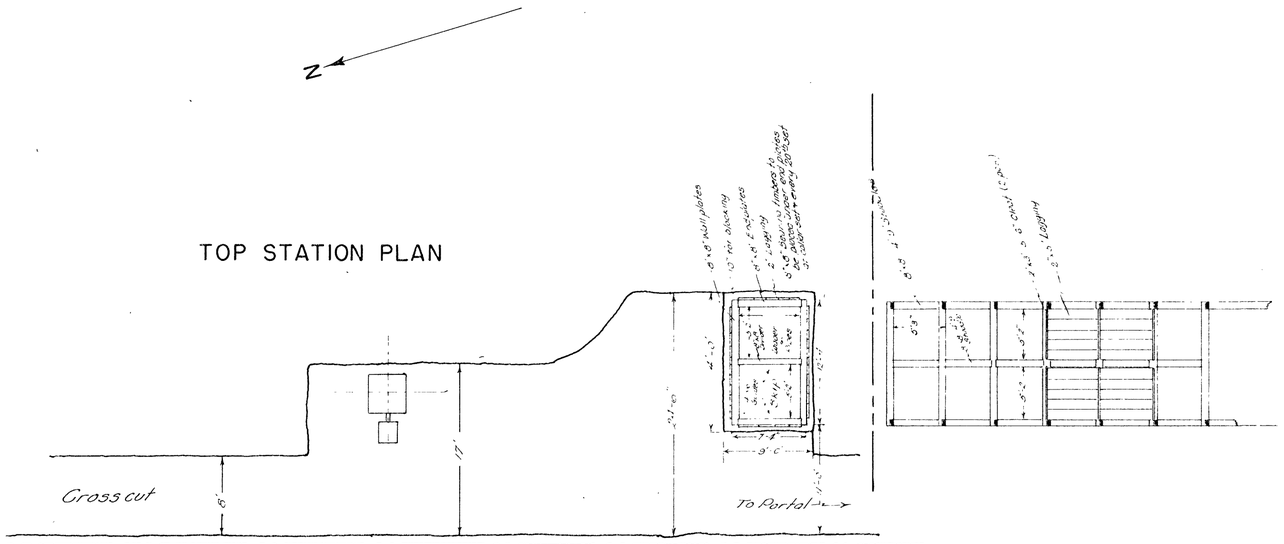
20 0 20 40 FT.

R. D. Sample

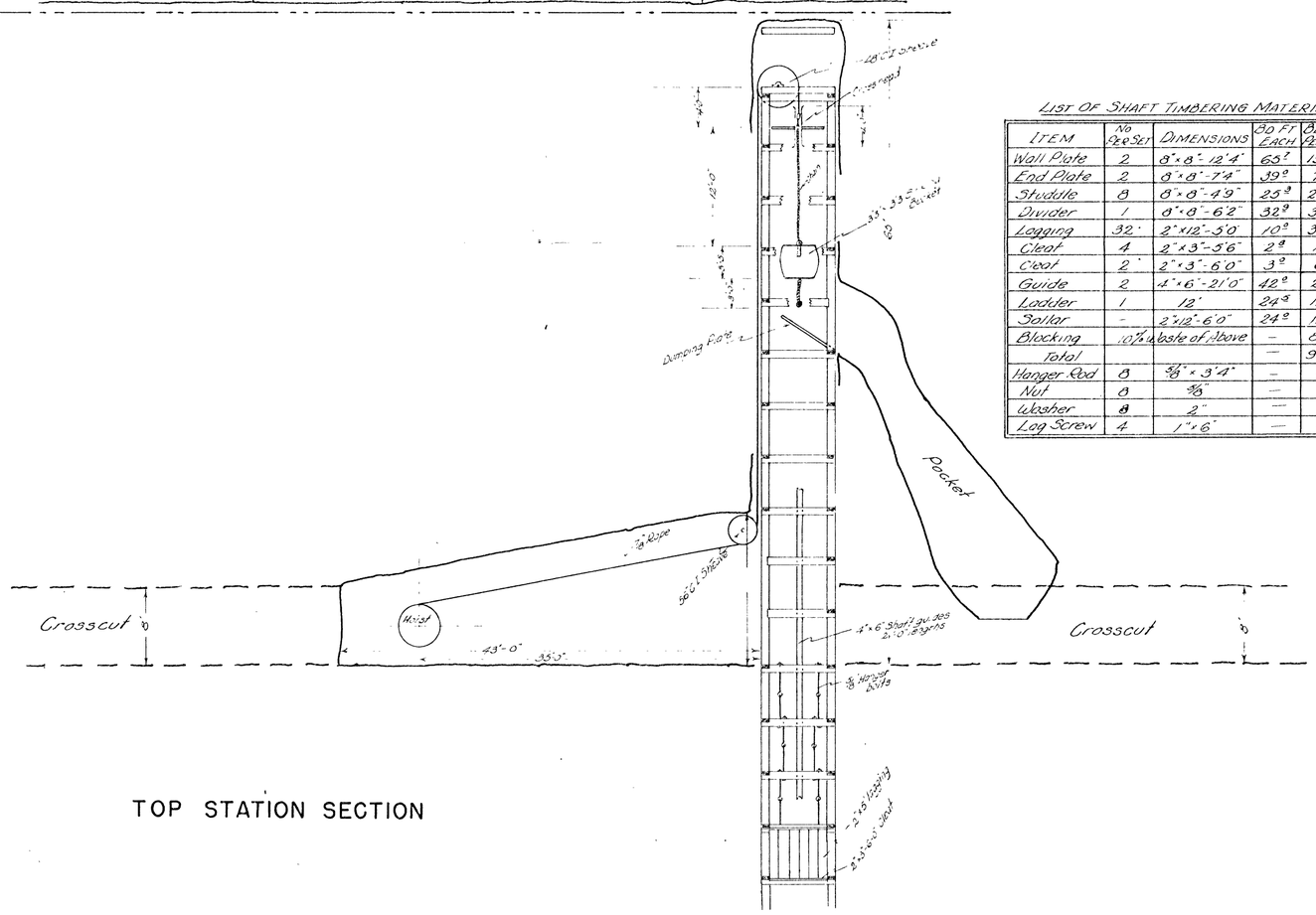
JULY 1958

PLATE 4


N
DMEA-3071
Geology Only
No. 1 Tunnel
Correct Position
Portal
No. 1 Tunnel
Elev. 3739±
Portal Set
No. 2 Tunnel
Elev. 3450
No Ore
ore on Dump
ore on dump
No ore
Note: All exposures are of Shoshone formation
VINDICATOR SILVER-LEAD MINING CO.
NEAR MULLAN, IDAHO
SCALE 1" = 50'
GEOLOGY COMPILED BY PRESTON & REYNOLDS
KELLOGG, IDAHO
1953



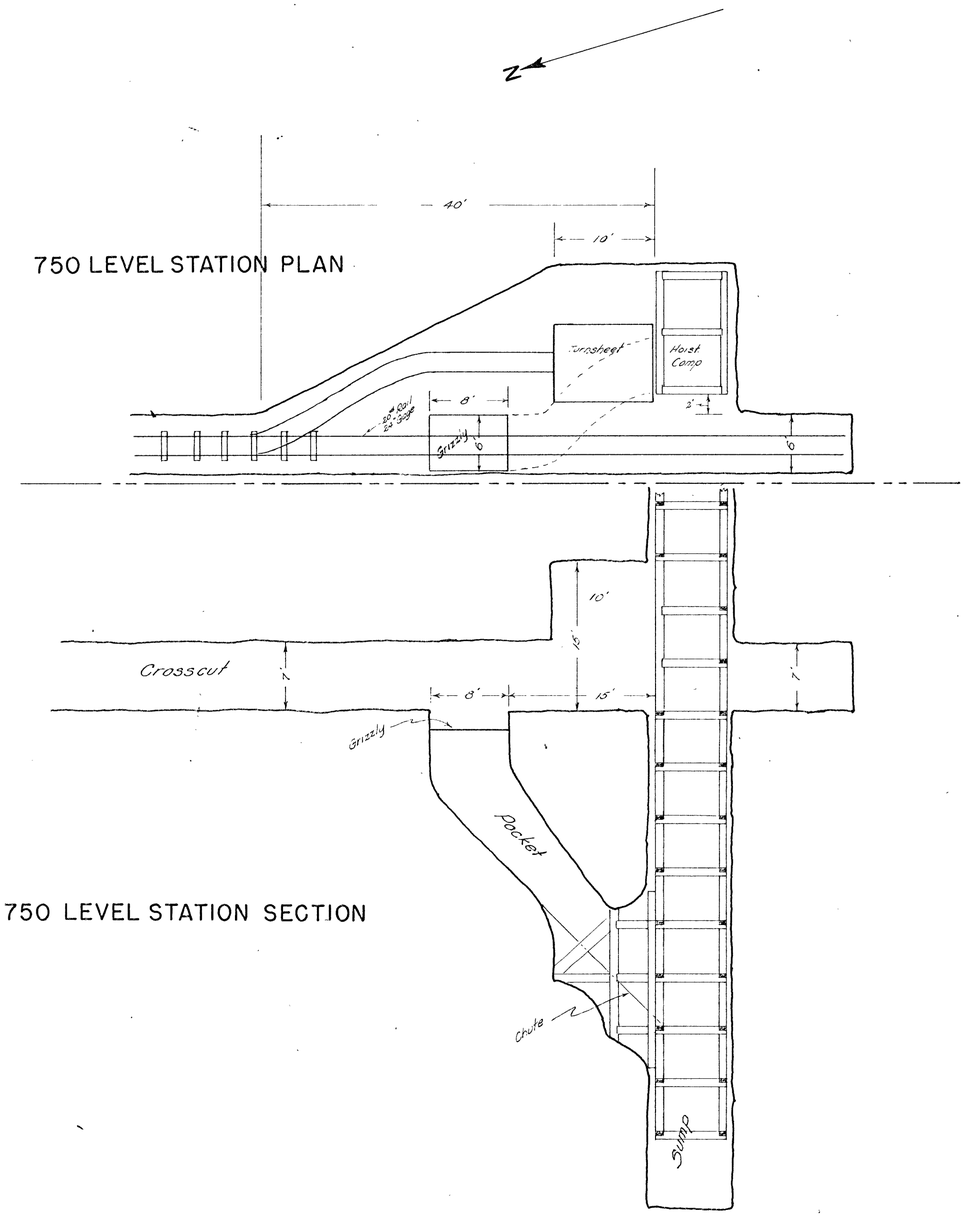
TOP STATION PLAN



TOP STATION SECTION

LIST OF SHAFT TIMBERING MATERIALS

ITEM	No. Pcs Set	DIMENSIONS	BD FT EACH	BD FT PER SET	BD FT PER FT
Wall Plate	2	8"×8"-12'4"	65^{2}	131^{4}	25^{9}
End Plate	2	8"×8"-7'4"	39^{9}	78^{9}	14^{9}
Studdle	8	8"×8"-4'9"	25^{3}	202^{4}	38^{6}
Divider	1	8"×8"-6'2"	32^{9}	32^{9}	6^{3}
Logging	32	2"×12"-5'0"	10^{0}	320^{0}	61^{9}
Cleat	4	2"×3"-3'6"	2^{9}	11^{9}	2^{1}
Cleat	2	2"×3"-6'0"	3^{0}	6^{0}	1^{1}
Guide	2	4"×6"-21'0"	42^{0}	21^{0}	4^{0}
Ladder	1	12'	24^{3}	12^{3}	2^{3}
Sollar	-	2"×12"-6'0"	24^{0}	12^{0}	2^{3}
Blocking	10%	Waste of Above	–	83^{0}	16^{0}
Total			—	910^{0}	173^{6}
Hanger Rod	8	5/8"×3'4"	—	—	—
Nut	8	5/8"	—	—	—
Washer	8	2"	—	—	—
Lag Screw	4	1"×6"	—	—	—



750 LEVEL STATION PLAN

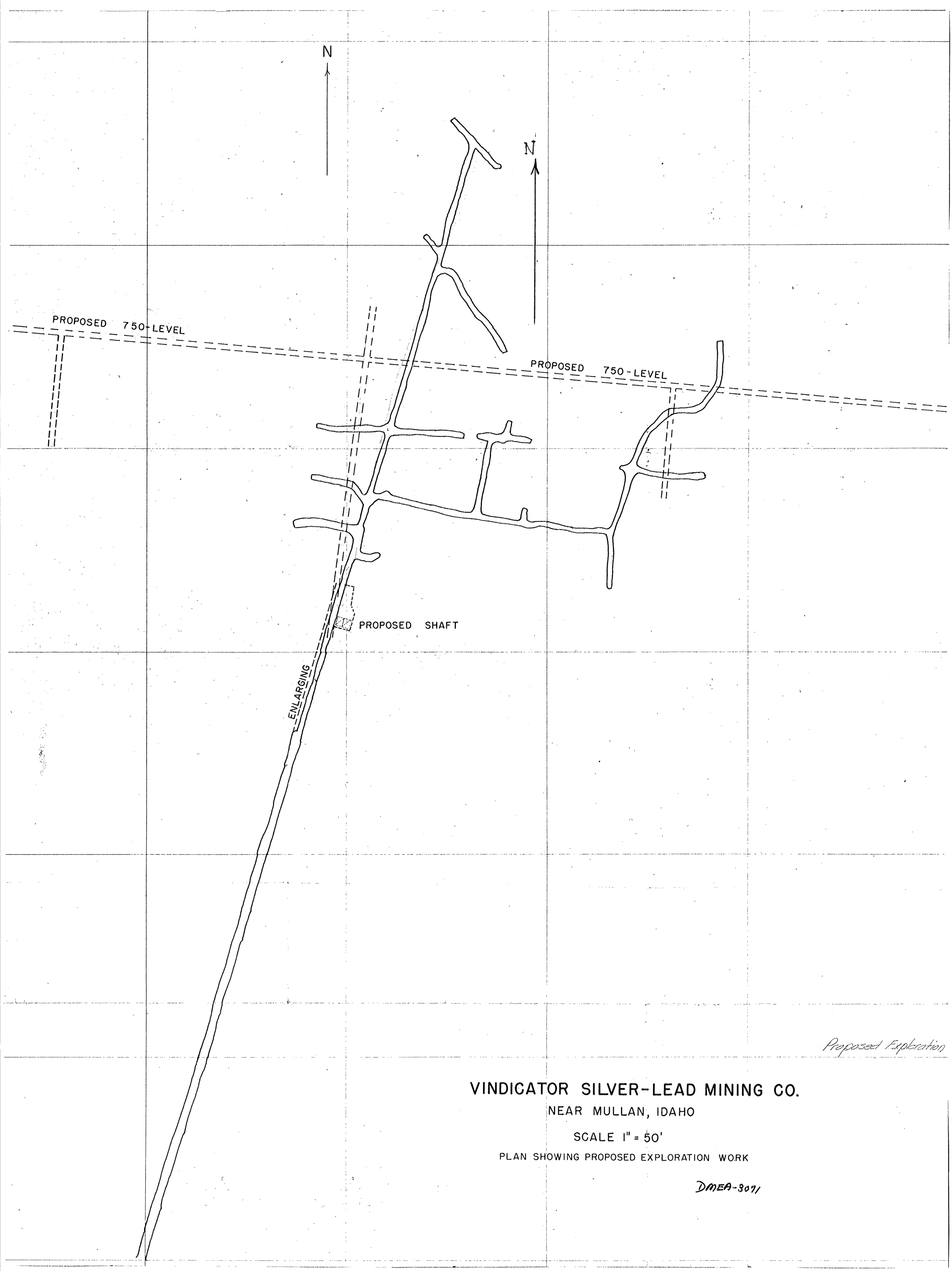
750 LEVEL STATION SECTION

PROPOSED VINDICATOR SHAFT

GENERAL LAYOUT

SCALE 1" = 10'

DMEA-3071.



Proposed Exploration

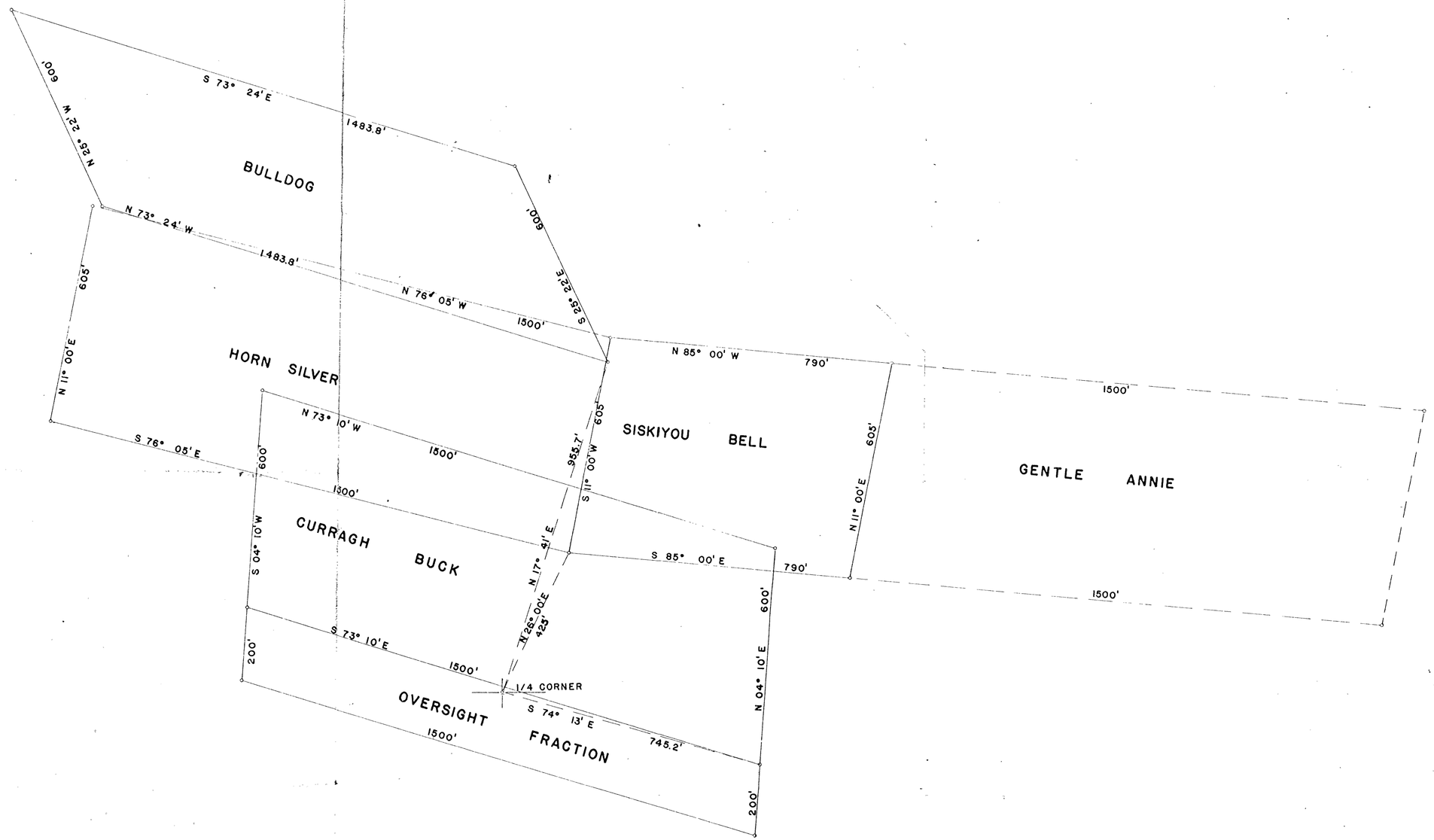
VINDICATOR SILVER-LEAD MINING CO.

NEAR MULLAN, IDAHO

SCALE 1" = 50'

PLAN SHOWING PROPOSED EXPLORATION WORK

DMEA-3071



VINDICATOR SILVER LEAD MNG. CO.

PROPERTY MAP

1" = 200' NOV. 1953 SKG