Field Officer's Copy

EXPLORATION CONTRACT
CHARLES H. TURNER and ANNE Z. TURNER d/b/a
HAMILTON RESOURCES CORPORATION
OME-6885

AMENDMENT NO. 3

It is agreed this 21st day of September, 1976, between the United States of America, acting through the Department of the Interior, U.S. Geological Survey, hereinafter called the "Government," and Charles H. Turner and Anne Z. Turner d/b/a Hamilton Resources Corporation, hereinafter called the "Operator," that Exploration Contract 2313 (OME-6885) dated June 17, 1974, is amended effective September 17, 1976, as follows:

1. The time fixed by Article 1(a) of the Contract as amended by Amendment No. 2 for completion of the work is extended from twenty-seven (27) to thirty-three (33) months from the date of the Contract, or until March 17, 1977.

2. The maximum period for payment of royalty set forth in Article 7(b) of the Contract, and for the lien to secure payment thereof set forth in Article 7(e) of the Contract is extended from ten (10) to twelve (12) years from the date of the Contract, or until June 17, 1986.

This amendment shall not be construed to increase the estimated cost of the Contract, the aggregate amount which the Government may be required to contribute, the amount of any item designated as maximum, nor the fixed-unit cost of any item of work.

Except as herein amended, Exploration Contract 2313 (OME-6885), dated June 17, 1974, shall remain in full force and effect.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Harold Kirkham
Chief, Office of Minerals Exploration

Charles H. Turner
Anne Z. Turner d/b/a
HAMILTON RESOURCES CORPORATION

By Charles H. Turner
Title President

By Anne Z. Turner
Title Secy

Extra for Field Office

EXPLORATION CONTRACT
CHARLES H. TURNER AND ANNE Z. TURNER d/b/a
HAMILTON RESOURCES CORPORATION
OME-6885

AMENDMENT NO. 2

It is agreed this 18th day of December, 1975, between the United States of America, acting through the Department of the Interior, U.S. Geological Survey, hereinafter called the "Government", and Charles H. Turner and Anne Z. Turner d/b/a Hamilton Resources Corporation, hereinafter called the "Operator", that Exploration Contract 2313 (OME-6885) dated June 17, 1974, as amended effective November 1, 1975, as follows:

1. (a) Work under the Contract may be suspended during the period beginning November 1, 1975, and ending no later than June 1, 1976.

(b) The Government shall not contribute to any costs incurred during the period of suspension.

(c) The Government shall not contribute to or be liable for any costs of rehabilitation or repair or any other costs which would not have occurred if there had been no suspension of work, or which may arise out of this suspension.

(d) The Operator, at its own cost and expense, without contribution by the Government, during the period of suspension shall preserve and protect the project work.

2. The date fixed by Article 1(a) of the Contract as amended by Amendment No. 1 for completion of the work is extended from eighteen (18) months to twenty-seven (27) months from the date of the Contract, or until September 17, 1976.

3. It is the essence of this amendment that the work shall be resumed on or before the termination of the period herein fixed for suspension; and if not so resumed, the following provisions shall thereupon become effective:

(a). The Contract and all obligations of the parties thereunder except as hereinafter otherwise provided, shall be and are hereby terminated effective November 1, 1975, if work on the Contract has not been recommenced on or before June 1, 1976.

(b). The Government will contribute only to allowable costs incurred prior to the date set forth in 3(a) above.

(d) The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer (for example, if the Operator either transfers or fails to retain its interest in the land), shall pay to the Government the royalty provided for in the Contract in the same manner and amount, for the same period, and subject to the same provisions as provided for in the Contract as amended herein as if a certification of possible production had been made, such certification of possible production, percentage royalty and liens to secure payment thereof, reports (including the preservation of Operator's record), accounts, audits, and the right to recover any overpayments are hereby preserved.

(e) The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of the Contract, except as provided for in this Amendment No. 2.

This amendment shall not be construed to increase the estimated cost of the Contract, the aggregate amount which the Government may be required to contribute, the amount of any item designated as maximum, nor the fixed-unit cost of any item of work.

Except as herein amended, Exploration Contract 2313 (OME-6885), dated June 17, 1974, shall remain in full force and effect.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Harold Sisbemo

By_____
Chief, Office of Minerals Exploration

Charles H. Turner
Anne Z. Turner d/b/a
HAMILTON RESOURCES CORPORATION

By_____
Title_____

Extra copy for Field Office

EXPLORATION CONTRACT
CHARLES H. TURNER and ANNE Z. TURNER d/b/a
HAMILTON RESOURCES CORPORATION
OME-6885

AMENDMENT NO. 1

It is agreed this 21st day of May, 1975, between the United States of America, acting through the Department of the Interior, U.S. Geological Survey, hereinafter called the "Government", and Charles H. Turner and Anne Z. Turner d/b/a Hamilton Resources Corporation, hereinafter called the "Operator", that Exploration Contract 2313 (OME-6885) dated June 17, 1974, is amended effective May 30, 1975, as follows:

1. The time fixed by Article 1(a) of the Contract for completion of the work is extended from twelve (12) to eighteen (18) months from the date of the Contract, or until December 17, 1975.

This amendment shall not be construed to increase the estimated cost of the Contract, the aggregate amount which the Government may be required to contribute, the amount of any item designated as maximum, nor the fixed-unit cost of any item of work.

Except as herein amended, Exploration Contract 2313 (OME-6885), dated June 17, 1974, shall remain in full force and effect.

Executed in quadruplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Harold Kirkemo
Chief, Office of Minerals Exploration

Charles H. Turner
Anne Z. Turner d/b/a
HAMILTON RESOURCES CORPORATION

By_____
Title_____

By_____
Title_____

FORM 9-1648
MARCH 1968

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
OFFICE OF MINERALS EXPLORATION

Extra. Field Chec

OPERATOR'S MONTHLY VOUCHER For Month of June 1975

Operator's Name Charles & Anne Turner d/b/a Hamilton Resources Corporation

Address Box 3224 HiMar Sta., Boulder, Co. 80303

Docket No. OME- 6885

Contract 14-08-0001 2313

Contract Amount $ 32,940.00

Gov't. Participation % 75 $ 24,705.00

COST ITEMS (FROM EXHIBIT A)	FOR OPERATOR'S USE: THIS MONTH UNITS	THIS MONTH COSTS	TO DATE UNITS	TO DATE COSTS	FOR GOVERNMENT USE ONLY: THIS MONTH UNITS	THIS MONTH COSTS	TO DATE UNITS	TO DATE COSTS
FIXED UNIT COSTS		$		$		$		$
Drifting	36	3,132.00	127	11,049.00	36	3,132.00	127	11,049.00
Supervisor			3	4,500.00			3	4,500.00
Outside Consultant			1	125.00			1	125.00
Transportation/Cons.			210	25.20			210	25.20
Office & Accounting			3	150.00			3	150.00
Payroll taxes, FICA	1	198.00	4	1,330.80	1	198.00	4	1,330.80
TOTAL FIXED UNIT COSTS		3,330.00		17,180.00		3,330.00		$17,180.00
ACTUAL COSTS Category 1								
Bulldozing			30	825.00			30	825.00
Category (7) Misc.								
Assaying	7	82.25	20	235.00	7	82.25	20	235.00
TOTAL ACTUAL COSTS		82.25		1,060.00		82.25		$1,060.00
TOTALS		$ 3,412.25		$ 18,240.00		$3,412.25		$ 18,240.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date June 7, 1975 *Payee HAMILTON RESOURCES CORPORATION

Charles H. Turner

Per Charles H. Turner Title President & Treasurer

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U. S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Approved as noted, subject to field examination and audit.

Signature J. William Hooker OME Field Officer 7/8/75 Date

Approved for: $ (SUBJECT TO AUDIT)

Signature

Date Voucher No.

Docket No. OME 6885
Contract 2313

NARRATIVE REPORT

June 1975

The 8-inch mineralized stringer encountered in A3 Drift pinched completely, (see Narrative Report, March 1975), and after mapping and sampling the structures in both A2 and A3 Drifts it was decided to abandon A3, and to return to A2 Drift.

Mineralization and vein structure began to improve almost immediately, and the heading was advanced a distance of 36 feet on a fairly well mineralized quartz-barite vein, carrying values in gold, silver, copper and lead over widths from 14 inches to 36 inches. The last two drift faces exposed 36 inches of vein.

Assays from the last four faces are being awaited.

The project was shut down during April and May due to inaccessibility, and exceptionally heavy inflow of underground water in the mine.

The access road has now been repaired and ballasted, and the underground water has abated to some extent. It is expected that progress will show an improvement during the summer months.

Reported: Chas H. Turner
Charles H. Turner

ROOT & SIMPSON, Inc.

METALLURGICAL CHEMISTS AND ASSAYERS

DENVER, COLORADO 80218

TEL. 831-7184

P. O. BOX 18329

SPECIMEN ASSAY

ASSAYED FOR	MARKS
Charles H. Turner	Rock

GOLD OZS. PER TON	SILVER OZS. PER TON	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	IRON PER CENT	U_3O_8 PER CENT	PER CENT	PER CENT
0.02	0.84	0.30	0.04	#14				
#15 0.02	23.12	0.35	1.45	#15				
#16 - 0.01	11.29	0.50	1.80	#16				

DATE 5/6/75 CHARGES $ 35.25

Root & Simpson, Inc.

DENVER, COLORADO, May 6, 1975

Charles H. Turner

Boulder, Colorado

TO ROOT & SIMPSON, INC. DR.

METALLURGICAL CHEMISTS AND ASSAYERS

TELEPHONE 831-7184

P. O. BOX 18329
DENVER, COLORADO 80218

#14, 15, 16	AuAgPbCu	$ 33.00
	Preparation	2.25
	Total	$ 35.25

C.D.C.
Associates, Inc.
5401B WESTERN AVE.
BOULDER, COLORADO 80301
303·442·8361

June 17, 1975

C. Tuner
Eldorado Springs

Attention Mr. Turner

Assay Analysis by Atomic Absorbtion

CDC #	Customer Designation	Au oz/t	Ag oz/t	Cu %	Pb %
3666	#17San Juan	0.103	29.2	1.17	0.024
3667	#18San Juan	0.103	3.34	1.35	o.o38
3668	San Juan Dump (B Level) 6 samples	o.124	11.4	o.88	o.o76

J. Micheal Connell

Account: 3 samples @ 11.75 = 35.25

OMF - #17 & #18 @ 11.75
= $23.50

C.D.C.
Associates, Inc.
5401B WESTERN AVE.
BOULDER, COLORADO 80301
303·442·8361

July 3, 1975

C. H. Turner

Assay by Atomic Absorption

CDC #	Customer Designation	Au oz/t	Ag oz/t
3783	19	0.134	13.12
3784	20	0.157	8.40
3785	Comp Dump	0.111	8.40

	Cu %	Pb %
3783	0.68	0.27
3784	0.66	0.12
3785	0.43	0.20

J. Michael Connell

J. Michael Connell

JMC/lb

Account: 3 smps. @ 11.75 = 35.25

OME - #19 & #20 @ 11.75 = $23.50

Hamilton Resources Corp.

MONTHLY TIME SHEET

Month June 1975

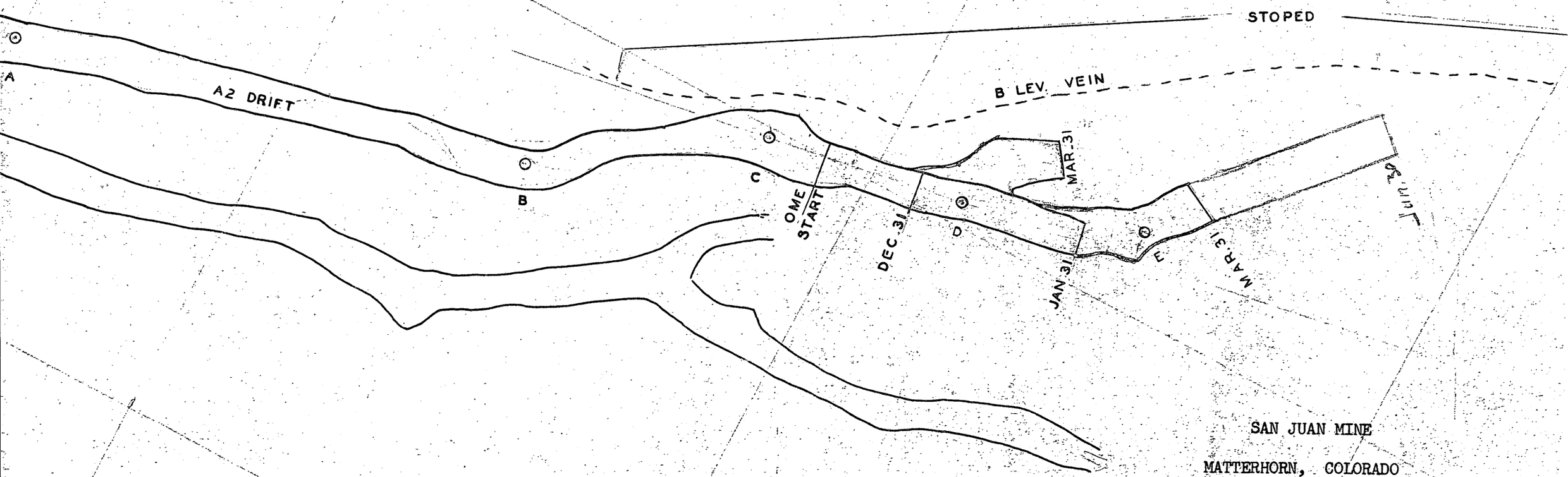
Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Tot. Hrs.	Rate	Wages
Stanley Reed	8	8	8	8	8		8	8	9	7	8				7	8	9	8	8				8	8	8	8	8					160	4.00	640.00
R. Browning	8	8	8	8	8		8	9	7	8	7	6			8	9	8	8					8	8	4	8				8		162	4.00	648.00
P. D. Turner																														8		8	4.00	32.00

TOTAL WAGES 1320.00

@ 15%

$ 198.00

PROGRESS MAP



SAN JUAN MINE

MATTERHORN, COLORADO

1" = 20'

A-2 LEVEL

San Juan Mine Samples 7/7/75

W	Au oz	Ag oz	Cu %	Pb %	
21"	.157	8.40	.66	.12	OME + 88'
24"	.134	13.12	.68	.27	
22"	.103	3.34	1.35	.038	
24"	.103	29.20	1.17	.026	
20"	.010	11.29	1.80	.500	#16
18"	.020	23.12	1.45	.350	#15
20	.005	15.71	2.00	.200	#14
8"	.015	20.70	1.72	.560	✓ 0+68'
18"	.001	0.16	0.22	.020	
18	.001	5.27	0.50	.080	
30"	.035	3.33	0.92	.120	
27"	.020	1.00	0.43	.040	
26"	.045	2.51	0.65	.120	
20"	.075	3.25	0.48	.170	
22"	.040	0.55	0.10	.200	
30"	.020	12.13	0.90	.300	
24"	.005	0.25	0.03	.040	
26"	.010	3.86	0.60	.030	
20"	.005	3.23	0.50	.300	OME + 5'
418	.404	160.42	16.16	3.042	
23" Ave	.042	8.44	.80	.19	

19 (B Dump)

Dump Sample (Selected from Ore Pile 20.#) #85 on 70

Au .10 oz Ag. 21.94 oz Cu. 1.01 % Pb .90% Zn .63%

Core 22"

-2-

(19) 4.19 .804 160.42 16.16 3.482

Width	Au oz	Ag oz	Cu %	Pb %
36"	.04	6.56	0.60	1.24
36"	.02	4.78	0.30	0.25
34"	.02	3.42	0.75	0.20
36"	.08	5.34	0.34	0.38
18"	.04	2.94	1.40	0.10
28"	.02	6.36	1.10	0.10
22"	.001	8.22	1.70	0.30
22"	.01	6.20	1.40	0.40
20"	.02	5.90	1.10	0.60
21"	.04	5.75	1.20	0.55
20"	.065	14.20	1.25	0.50
16"	.050	5.50	1.15	0.45
12"	.04	4.20	0.90	0.40
32	1.25	239.77	29.35	[illegible]
.739	.02	7.49	.91	.28
25"				
24" Core				

7,485 Tons

144 × 2 × 78 = 2246

10

2

144

78

2304

2016

224,64

(163 × 2 × 78)

375 × 2 × 78 = (5,850 ✓)

2 10

3

750

78

6000

5250

58,500

915

720

7485

Jim
Stables
238-1724

8 - 634 - 1913

Mike Jamleort 8 DMEA 3940 DMEA - 923

King Solom Min. Corp.
James Mine
Creede Box 171

Outlet + Subject Mg Co. Outlet/Mi Creede Co

Royalties:
Private Royalties.

102 - Private:
Sec. Joseph Wise
Treas Charles Greenamier

King Solom - Summit Co. Mg.
Jas

Carl Ted Rizzi
38

Solomon Mine - (1969)

Box 171 Creede 81130
Pres. James Mine Jr.
Sec. Henry Mine

$50.00

$62.00

6,000
60.00
$360,000.00

12 1000
12
2000
000
12,000

104.16
12 | 125,000 Tpy
48
20
125,000
125,8

300
12
0

300
22
600
600
6,600

12 6,600
12
13200
6000
132,00

140 Tpy

125
12
250
125
1500

104.16
12
2082
1041
124.92

100 T/month

100 T/mo.

6

100

6 | 25
24

25 T/wk

418

21

21.00 48.00 mine
45.00 under
500.00 50.00

2
28
26
24
25
103

$200.00 / shift

Salvo 54%

2
28
25
23
25
101

$100 Salvo

100
54
460

340
54

$170 / shift
2
340 / shift
3

Salvo

340.00
156.00
496.00

$340.00
.46
204000
136000
156.4000

125000
835

$32,940.00 @ 25%

550	6,720.00	
440		$8,500.00
2146		1,500.00
720		9,520.00
915		1,200.00
915		6720.00
		7,500.00
5686		$34,940.00

Total accepted costs
$21,673.14
Government paid $16,254.86 @ 75%

6252
6288

Outlet - A 182
Mexico Solomon 2370
Outlet - 2444
E 396
Outlet Subset - 3940 E923

Wtd Ave

.038 oz Au	—	@ $140.31/oz	= $5.33
6.930 oz Ag	—	@ $4.41/oz	= 30.56
.86 % Cu	— 17.2 lbs	@ .68¢/lb	= 11.69
.30 % Pb	— 6.0 lbs	@ .31¢/lb	= 1.86
			49.44

.040 oz Au	@ $140.31/oz	= 5.61
9.22 oz Ag	$4.41/oz	= 40.66
1.00 % Cu = 20 lbs @ .68¢/lb.		= 13.60
0.34 % Pb = 6.8 lbs @ .31¢/lb		= 2.10
		$61.97

Haslor $\frac{375 \times 2' \times 78'}{10}$ = 5850
+ 915
720
7485 Tons

.04 oz Au	$140.31/oz	= 5.61
7.49 oz Ag	$4.41/oz	= 33.08
0.91 % Cu = 18.2 lbs Cu @ 0.68¢/lb		= 12.37
0.28 % Pb 5.6 lbs Pb @ 0.31¢/lb		= 1.73
		$52.73

7,485 Tons @ 52.73/Ton = $394,684.05

100 / days
250
5000
200
25000

23.50
23.50
47.00

30
4
120

120
12
240
120
1440

3
4.5
6
27.0

500 / day
250 days
25000
1000
125,000

3.0 ton/wk
4
12.0 T/mo
12
240
240
1440

100 / day
250
5000
2.00
25.000 25000 T/y

25
5 | 125000
10
25
25

7/9/75

Au 164.10/oz × ~~8.44 oz~~ .042 = $6.89

Ag $4.55/oz × 8.44 oz = 38.40

Cu .65¢/lb @ .80% = 16# = 10.40

Pb .19¢/lb @ .18% = .68

Zn .3850/lb

$56.37

Selected one pile 2.#

Au .10 oz @ $164.10 oz/~~ton~~ = $16.41

Ag 21.94 oz @ $4.55/oz = 99.82

Cu 1.01% = 20.2# @ 65¢/lb = 13.13

Pb 0.90% = 18# @ .19¢/lb = 2.42

Zn 0.63% = 1.56

$139.34

10.22
4.25

$18.14

125,00 TPY or 500 T/day

$48.00 – $54.00 /Ton.

100 T/perday ($10. Tp)

" $40.00 "

(50)

(15 Tons)

Rse

$135.00 24 $22,000 163.$1

* Standard Metals
Mgeaton
* Carp Bond

Idaho Ref – $100
700 Ton/Day

SAN JUAN VEIN II

10/7/75

width	Au oz	Ag oz	Cu %	Pb %	station
36"	.04	6.56	.60	1.24	E+27'
36"	.02	4.78	.30	.25	E+32
34"	.02	3.42	.75	.20	E+37
18"	.04	2.94	1.40	.10	E+42
28"	.02	6.36	1.10	.10	E+47
22"	.001	8.22	1.70	.30	E+52
592	.818	142.70	22.01	5.61	
23.6 Ave (26)	.032 oz	7.70 oz	.88%	.224%	

	Au oz	Brodie Sampler Ag	Cu	Pb	Zn %	
36"	.08	5.34	0.34	0.38	.49	#848 E+37' chip Vein material
36"	.06	.62	.07	.26	.26	#849 Grab Vein E+37
stockpile	.10	21.94	1.01	.90	.65	847 STOCK ORE pile
alt. pit	.02	.20	.02	.16	.13	846 alt pit
#9 R+S 5/6/75	.02	0.84	0.04	0.30		

26 Sampler

2.41 Ave width 10/7/75 prices

.031 oz Au @ $141.00/oz = 4.37

7.61 oz Ag @ 4.44/oz = 32.78

.86 % Cu = 172 # @ .65¢/lb 11.18

.85 % Pb 170 # @ .20¢/lb = 3.40

$51.73 ton

San Juan Vein

(26)

Width	Au oz	Ag oz	Cu %	Pb %
592	.818	192.70	22.01	5.61
90	.543	14.28	2.475	.658
36	.08	5.34	.34	.38
36	.06	.62	.07	.26
754	1.501	212.95	24.88	6.908
(32) 23.56 (24")	.046	6.65	.77	.215

Hustler Sampler, San Juan Vein

Width	Au oz	Ag oz	Cu %	Pb %	Station
24"	.50	8.77	1.1	0.24	E+20
30"	.022	2.68	0.285	0.088	E+40
18"	.010	0.57	0.290	0.070	E+58 A
18"	.011	2.26	0.800	0.260	E+58 B
90"	.543	14.28	2.475	.658	

HAMILTON RESOURCES CORPORATION

P.O. BOX 3224 HIMAR STATION BOULDER, COLORADO 80303 (303) 499-3330

May 28, 1976

RECEIVED
JUN 4 1976
REGIONS I AND III
OFFICE OF MINERALS EXPLORATION
DENVER, COLORADO

Mr. J. William Hasler
Field Officer, Region III
Office of Minerals Exploration
Denver Federal Center
Denver, Colorado 80225

Re: OME 6885 (Silver-Gold)
Charles H. and Anne Z. Turner d/b/a
Hamilton Resources Corporation
San Juan Mine
San Miguel County, Colorado

Dear Mr. Hasler:

This is to advise that work under the above contract has been resumed.

Some caving occurred during the winter months, but no serious delays are anticipated.

Very truly yours,

HAMILTON RESOURCES CORP.

Chas H Turner

Charles H. Turner
President

.0b' 1/3 Au — 16 dap Leaching —

5-6g- 1/3 Ag —

25.5'
34.5
47.0
107.0
22
129
163'

— 10th sample

— — for B dump

Dump — .12 3 Au — 60#
11.00 3 Ag

Dep. — $1200 per oz
97.00
1200.00 / oz.

100 th Tranche

163'
115
48

163'
145
18

21'
33
61
115
30
145

2
+58
33
26
27 Y cut
194

80 - 80 o/o
37 50
$53 00
20 00
33 00
$21 11

3' X

A2 + 455 feet x 80 x 120
10

455 x 130 x 2'
10

163' x 80 x 2

Au 0.1 oz	—	$1470 Au	$14.70
Ag 9.0 oz	—	$4.97 Ag	44.73
Pb 1.0 %	— 20#	.31¢/lb	6.20
Cu 1.0 %	— 20#	.71¢/lb	14.20
			$79.83

Charles Turner
4/5/77

Salt Lake City Metallurgy Research Center

October 8, 1975

Region III
RECEIVED
OCT 10 1975
Denver, Colorado

Mr. Charles H. Turner
Hamilton Resources Corp.
Mine Office -- Box 973
Telluride, Colo. 81435

Dear Mr. Turner:

We received your letter of September 30, about processing gold-silver ore from the San Juan Mine in the Telluride area, Colorado. We have a research project on precious metals recovery in progress at this Center and would be glad to examine a representative sample of the ore to see if we could suggest some process possibilities.

As background information, we are glad to enclose a copy of the report, "Innovations in Gold Metallurgy."

Sincerely yours,

G. M. Potter
Research Supervisor

Enclosure

cc: Hamilton Resources Corp.
Boulder, Colo.
J. William Hasler
Geological Survey
Denver, Colo.

From the Wallace Miner, Wallace Idaho
Oct 16, 1975

mailing costs. Total $15.50
Single Copies (local) 15c
By mail in U. S. 20c

MEMBER
IDAHO PRESS ASSOCIATION

Corporate Morality

There are two ways of looking at the well-publicized instances of unethical actions by a few business executives in a few companies — either they are remarkably small in number considering the more than 12 million businesses in the country or they are the tip of an iceberg and there are many undetected acts of political and moral corruption in business.

Our guess is that the number is comparatively small because no other society is so checked and rechecked as the businessman. Competition means others in the same business are keeping an eye on him. People investing in his business review every action. Innumerable government agencies impose rules and regulations. The press publicizes any indiscretions. Employes and their unions have access to all sorts of information. And, most important, we the customers are alert for any kind of ripoff.

However, it is good to see responsible business leaders beginning to speak up in favor of completely open and honest business practices. Outside of insisting on the protection of corporate competitive information, these business leaders are publicly searching for a way to absolutely guarantee fair practices in all businesses going well beyond legal requirements.

This is a worthy goal and its achievement would do much to increase public confidence, not only in the competitive enterprise system, but in our ability to solve other national problems as well.

LEAD INDUSTRY IN JULY 1975

The new supply of lead from primary refineries, secondary smelters, and metal imports, declined about 2 per cent in July compared with June to the relatively low level of 96,800 tons, according to the Bureau of

Lower Grade Ores To Be Treated With Use Of Hydrometallurgical Developments In Treatment

Hydrometallurgical developments in gold processing are trending toward treating lower grade ores and mine waste material by heap-leach cyanidation, followed by precious metal recovery from solution by carbon adsorption or zinc precipitation, states an article in the American Gold News, published in Ione, Calif.

There is also renewed interest in carbon-in-pulp cyanidation techniques for treatment of slimy ores that do not respond to conventional liquid-solids separation. Carlin Gold Mining Company (Carlin, Nevada) stated heap leaching mine cut-off material in 1971, treating about 10,000 tons of ore per month.

The ore is crushed to ¾-inch, dumped on an asphalt pad, and leached by sprinkling with diluted cyanide solution for 7 days. About 70 per cent gold extraction is achieved.

The pregnant effluent is fed into the mill stream from the company's conventional cyanide plant for gold recovery by zinc precipitation.

In 1972, Carlin Gold Mining introduced the first commercial cyanide plant to use chlorine for oxidation treatment of carbonaceous ores prior to cyanidation. Gold extractions averaged 83 per cent from carbonaceous ore in contrast to only 33 per cent extraction by conventional cyanidation without the oxidation pretreatment.

However, recent increases in the cost of chlorine have prompted Carlin Gold to take a second look at the Bureau of Mines' electrooxidation technique which features low operating costs for in-pulp generation of Chlorine from salt.

For 3 years, Cortez Gold Mines has been heap leaching approximately 2-million tons of run-of-mine waste material in conjunction with conventional cyanidation treatment of oxide gold ore. About 2 years ago, Cortez Gold started a cyanide heap-leaching carbon-adsorption electrowinning operation at its Gold Acres property about 8 miles from the main cyanide plant. Over 2-million tons of mine cut-off material is being leached at this site. A low pressure stripping method developed by the U.S. Bureau of Mines is employed to desorb gold from activated carbon.

Pilot heap leaching studies on lean gold ores from deposits too small to warrant construction of a cyanide mill or too low grade for economic treatment involving fine grinding agitation are being conducted by several companies.

Idaho Mining Corp., (Eureka, Nev.) is leaching 20,000 tons of gold-bearing sandstone that reportedly contains approximately 0.05 ounces gold per ton.

Summa Corp. (Manhappan, Nev.) is conducting a similar study on ore containing about 0.1 ounces gold per ton.

After extensive testing in cooperation with the Bureau of Mines, Homestake Mining Co. adopted the carbon-in-pulp process in 1973 for treating 2250 tons per day of slimes at its cyanide plant at Lead, S.D.

Former practice recovered about 60 per cent of the gold by amalgamation with mercury in the ball mill grinding circuits, but this technique was discontinued because of pollution problems. The carbon-in-pulp operation at Lead cost 68 cents per ton of slims treated.

Soluble gold losses in the tailings have been reduced to about 0.0002 ounces per ton of solution. Based on these favorable results, Homestake and the Bureau of Mines are conducting pilot plant studies to determine the feasibility of extending the carbon-in-pulp cyanidation treatment to silver-bearing flotations at Homestake's operation at Creede, Colo.

Two new procedures for stripping gold from activated carbon have been reported by the Bureau of Mines — one method uses a 150 degree C temperature and 52 psig pressure to reduce the time and reagent required in stripping the carbon. The other method employs alkaline alcohol solutions to increase the rate of gold and silver recovery.

J. William Hasler

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Salt Lake City Metallurgy Research Center
1600 East 1st South Street
Salt Lake City, Utah 84112

Joe B. Rosenbaum, Research Director

INNOVATIONS IN GOLD METALLURGY

by

G. M. Potter and H. B. Salisbury

Presented at the American Mining Congress
Mining Convention/Environmental Show
Denver, Colo., September 9-12, 1973

INNOVATIONS IN GOLD METALLURGY[1]

by

G. M. Potter[2] and H. B. Salisbury[3]

ABSTRACT

Low-cost methods of cyanidation have been developed for gold ore deposits too small, too low grade, or unsuited chemically or physically for treatment by conventional procedures. Applicability of heap leaching has been demonstrated to suitably porous and permeable ores, both in the laboratory and on a commercial scale, for recovering 60 to 95 percent of the gold from crushed or mine-run ore containing 0.06 to 0.6 ounce gold per ton. An expanded-bed, multiple-compartment, activated-carbon column developed by the Bureau of Mines is in use to recover the gold from recycling leach solutions. Recent engineering advances in handling pulp and carbon have made the carbon-in-pulp process more attractive for cyanidation of ores requiring fine grinding. Gold is removed from solution and the carbon is loaded by countercurrent flow of carbon and leach pulp through a series of about four stirred contactors with a vibrating screen in each stage to separate the pulp and carbon. Loaded carbon is stripped of gold by hot caustic cyanide solution and reactivated by heating to 600° C before recycle to the gold absorption step, and gold is removed from the cycling strip solution by electrowinning.

INTRODUCTION

A conventional plant for processing lode gold ores containing finely disseminated gold usually embraces fine grinding and agitation leaching in cyanide solution, countercurrent decantation in thickeners for liquid-solid separation and residue washing, clarification of the pregnant solution by filtering, deaeration by application of a vacuum, and precipitation of the gold by reacting the solution with zinc powder.

1/ Presented at the American Mining Congress 1973 Mining Convention/Environmental Show, Sept. 9-12, 1973, Denver, Colo.

2/ Research supervisor.

3/ Metallurgist.

Both authors are with the Salt Lake City Metallurgy Research Center, Bureau of Mines, U.S. Department of the Interior, Salt Lake City, Utah.

Many known domestic gold deposits are low in grade, have limited reserves, or contain troublesome clays or other components that make treatment by conventional procedures impractical. Recent Bureau of Mines research has been focused, therefore, on developing low-capital, low-operating-cost methods suitable for such ores. This report describes two such methods; namely, cyanide heap leaching and the carbon-in-pulp process. Granular activated carbon may be used to advantage in the heap leaching process, as well as in the carbon-in-pulp method, for recovering the dissolved gold from solution.

Basic information on heap leaching and carbon-in-pulp has been reported by the Bureau of Mines (1, 3, 4).[4] Gold heap leaching has some features in common with copper dump leaching and gold cyanide vat leaching. A fluidized-bed carbon column proposed for use in recovering gold from heap leaching solution was adapted from the Bureau's expanded-bed, ion-exchange column (5, 6).

The carbon-in-pulp process as formerly used at the Carlton mill, Golden Cycle Corp., Cripple Creek, Colo., has been described by Seeton (9). Development of procedures for removing gold from the activated carbon by stripping with hot caustic cyanide solution in conjunction with electrolysis was reported by the Bureau of Mines (10). A technique for accelerated removal of gold by pressure stripping the loaded carbon has been recently developed (7). An improved electrowinning cell for recovering the gold from the recycling strip solution is herein described.

A new technique for pretreatment of ores containing natural organic carbon that absorbs gold from cyanide solutions and thus causes loss of gold in the tailings is used by the Carlin Gold Mining Co., Carlin, Nev. Chlorine gas, a strong oxidant, is added to an aqueous slurry of ground ore. The ore pulp is subsequently cyanided in an agitation leach countercurrent decantation process. Recent laboratory work at the Bureau's Salt Lake City Metallurgy Research Center indicates that pretreatment with chlorine water is effective also for certain refractory sulfide ores. An alternative to the direct addition of chlorine to ore slurries is the preparation of hypochlorite in situ by an electrolytic oxidation process (8).

4/ Underlined numbers in parentheses refer to items in the list of references at the end of this report.

THE HEAP LEACHING PROCESS

The heap leaching process, as shown in the flowsheet, figure 1, consists of piling coarse, treatable ore on an impervious pad and percolating it with small amounts of dilute lime-cyanide solution. Unclarified gold-bearing solution draining from the heap is passed through the Bureau's expanded-bed, multiple-compartment activated-carbon column to recover nearly all of the gold and is then returned to the leaching step. Loaded carbon is stripped of its gold content in a new Bureau-developed pressure system, reactivated, and returned to the column. Gold is electrowon from the stripping solution.

To be treatable by heap leaching, gold-bearing rock should be competent, porous, relatively cyanicide-free, and contain fine-sized clean gold particles. Clay content must be low enough that the ore heap remains permeable to percolating solutions during leaching.

In commercial applications, the leaching pads have been made of asphalt or other impervious material, or earth lined with clay as at some copper-leaching operations. Ore sizes have ranged from mine run to about 1/2 inch, depending upon solution penetrability of the rock. The depth of the heap has been 6 to 20 feet or more, and additional "lifts" have been added for further leaching. Solution strengths have ranged from 0.02 to 0.1 percent NaCN, depending on ore requirements, and the pH has been maintained at about 10.5 with lime. The rate of solution application by sprays has ranged from 5 to 25 gallons per square foot per 24 hours. Adequate storage has been provided for pregnant solution between the leaching heap and the gold recovery step that follows.

A five- to eight-stage countercurrent column using minus 10- plus 20-mesh activated carbon for gold recovery from the leach liquor would be expected to produce a 0.0002-ounce barren solution from 0.10- to 0.20-ounce pregnant solution and to load the carbon to at least 400 ounces per ton, while flowing at the rate of 15 to 20 gallons per minute per square foot of column cross-section. From the ecological standpoint, heap leaching has a low potential for pollution. The residues are coarse and nearly dust-free, no gases are emitted, and all solutions are recycled.

Heap leaching results based on laboratory and pilot tests of amenable ores are given in table 1. Gold recoveries of 67 to 95 percent were obtained with consumption of 0.4 to 1.0 pound NaCN per ton of ore and 0.3 to 5.6 pounds of lime. Leaching time varied roughly with the rock size from 4 days at 1/2-inch to 42 days at 4-inch size. However, individual ore amenability may be a more important factor in leaching response than rock size.

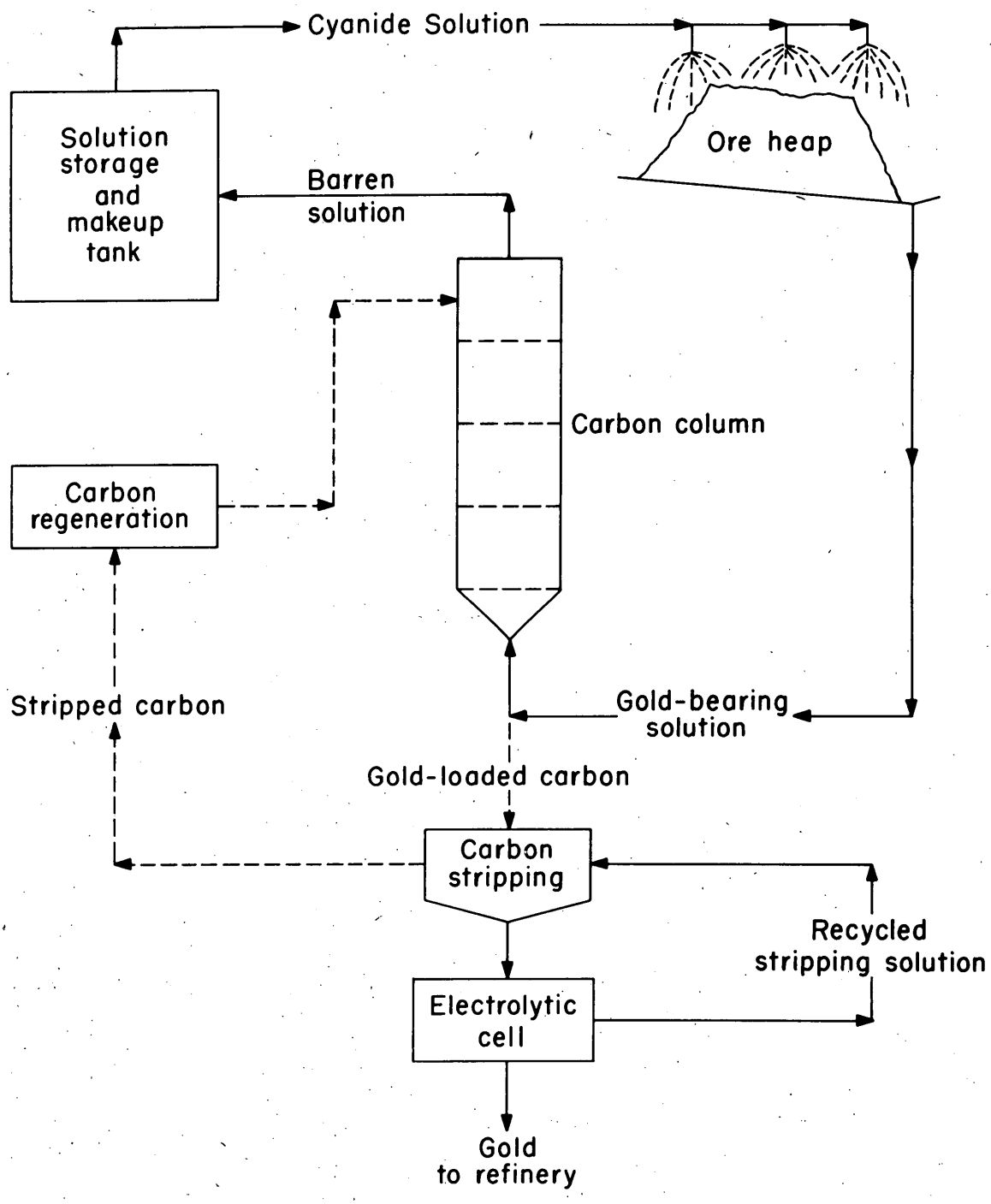


FIGURE 1.- Gold Heap Leaching.

D-2646-SL

TABLE 1. - Results of percolation leaching of gold ores and stripping waste

Sample	Ore size, inches	Gold assay, oz/ton		Gold recovery, pct	Leaching time, days	Reagent consumption, lb/ton ore	
		Head	Tail			NaCN	CaO
1	1/2	0.63	0.03	95	4	0.7	2.7
2	1	.022	.002	91	6	.5	.3
3	1	.068	.015	86	6	.4	.5
4	1-1/4	.08	.02	76	21	.7	3.5
5	2	.20	.03	84	36	1.0	4.3
6	2	.09	.03	67	23	1.0	5.6
7	4	.25	.04	83	42	1.0	4.9

Heap leaching is now being used successfully at several commercial operations, principally in Nevada. Although individual metallurgical data and operational information have not been released, recoveries and other factors are similar to laboratory results.

Carbon-in-Pulp Process

The carbon-in-pulp process (figure 2) comprises cyanide agitation leaching of minus 35-mesh or finer ore in a thick slurry of about 45 percent solids. Protective alkalinity is maintained by adding lime, and the pulp is vigorously aerated during leaching to speed gold dissolution. Gold is removed from the pulp without a prior liquid-solid separation by contacting with activated carbon in a multiple stage-countercurrent system of agitators and screens. Granular carbon, minus 10- plus 20-mesh size, is the preferred absorbent. The process is particularly suitable for treating very slimy ores. Silver is also recovered from amenable ores, although recovery is lower than for gold.

As an example of the application of the carbon-in-pulp process, Bureau of Mines and Homestake Mining Co. engineers worked cooperatively on a pilot unit treating 200 pounds per hour of gold ore slimes from the Lead, S. Dak., mill. At the Lead pilot plant the slime ore pulp was leached at about 45 percent solids with 0.04 percent cyanide and lime for about 20 hours in a Pachuca-type agitator. Then the leached pulp was processed in a four-stage countercurrent carbon-in-pulp unit containing 8 grams carbon per liter of pulp and providing 1 hour of pulp-carbon contact per stage. Carbon was advanced at a rate of 1/2 gram per minute. Barren solutions of about 0.0002 ounces per ton of solution were made, and carbon loadings of at least 400 ounces per ton of carbon were readily attained. Carbon was stripped, the gold was electrowon from stripping solution, and the carbon was reactivated and returned to use.

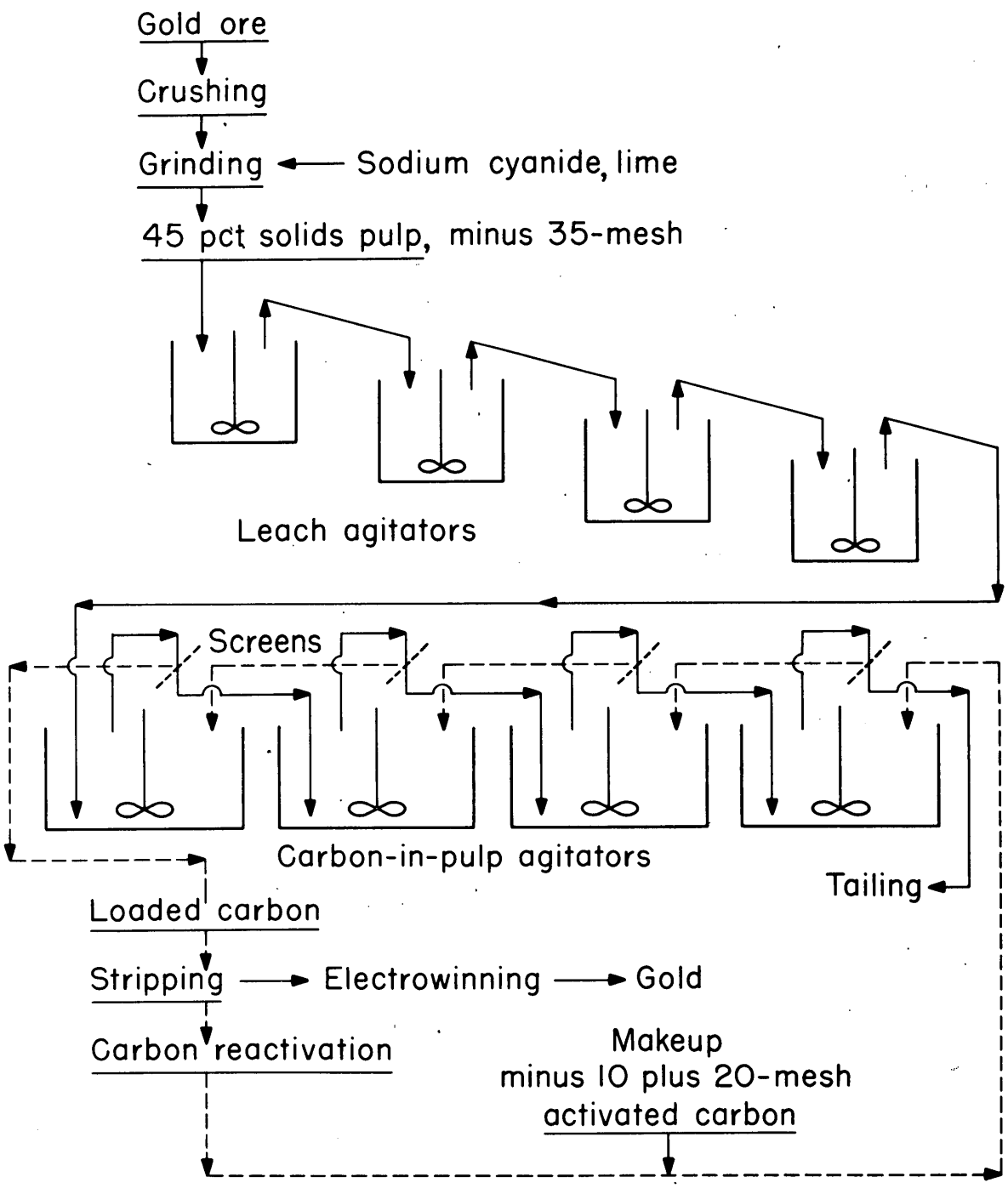


FIGURE 2.- Carbon-in-pulp Process.

D-2647-SL

The Homestake Mining Co. subsequently designed, built, and placed in operation in April 1973, a 2,350-ton-per-day carbon-in-pulp unit to replace an existing slime plant. General features of the new plant were described by Frank M. Howell, Homestake Staff Metallurgist (2).

Pressure Stripping Gold

Activated carbon may be loaded with gold in either the heap leaching or carbon-in-pulp process and burned to recover the gold, but is preferably stripped, reactivated, and returned to the loading circuit for reasons of process economy. The stripping of gold (and silver) from loaded carbon with hot (93° C) 1 percent caustic-0.1 percent cyanide solution has been described by Zadra (10), who reported that 6 hours of processing under laboratory conditions would reduce gold loadings of 200 to 400 ounces per ton down to about 10 ounces. However, former practice at the Carlton mill, current practice at Homestake, and pilot tests at our laboratory indicated that 24 to 60 hours were needed to satisfactorily strip carbon under plant conditions. Reagent requirements for stripping with hot solution at atmospheric pressure are about 40 pounds of NaOH and 5 pounds of NaCN per ton of carbon.

Development work is being done at Salt Lake City on a novel pressure stripping method (figure 3) that greatly reduces process time and reagent consumption. The unit provides for stripping with 0.4 percent NaOH solution at about 150° C and 52 psi. Cyanide is not ordinarily required. The elution flow rate is about 100 milliliter per minute per 1,000 milliliters of wet carbon (about 470 grams of dry carbon). Minus 10- plus 20-mesh carbon loaded to 500 ounces of gold can be stripped to less than 5 ounces in 2 to 6 hours with about 12 bed-volumes of solution. Consumption of NaOH is 13 to 20 pounds per ton of carbon.

Eluate solutions assay as much as 100 ounces gold per ton at the start of stripping. These solutions are cooled in a condenser to about 90° C before discharge from the stripping unit. Gold is then recovered in a three-stage electrolytic unit using stainless steel mesh anodes and stainless steel wool cathodes. Solution from electrolysis, preferably assaying less than 0.03 ounce gold, is recycled to stripping. The gold-bearing steel wool is melted with a standard refining flux.

Stripped carbon may be reused for three or four loading cycles without great loss of efficiency before reactivation. However, because carbon returned to columns or agitators loses its identity with carbon already in circuit, reactivation of all stripped carbon before use is advisable. The reactivation step consists of heating the initially damp carbon in a continuously operated, indirectly heated kiln, nearly closed to the atmosphere, for at least 20 minutes at 600° to 900° C depending on the condition of the carbon. Alternatively, the carbon may be heated in a batch retort.

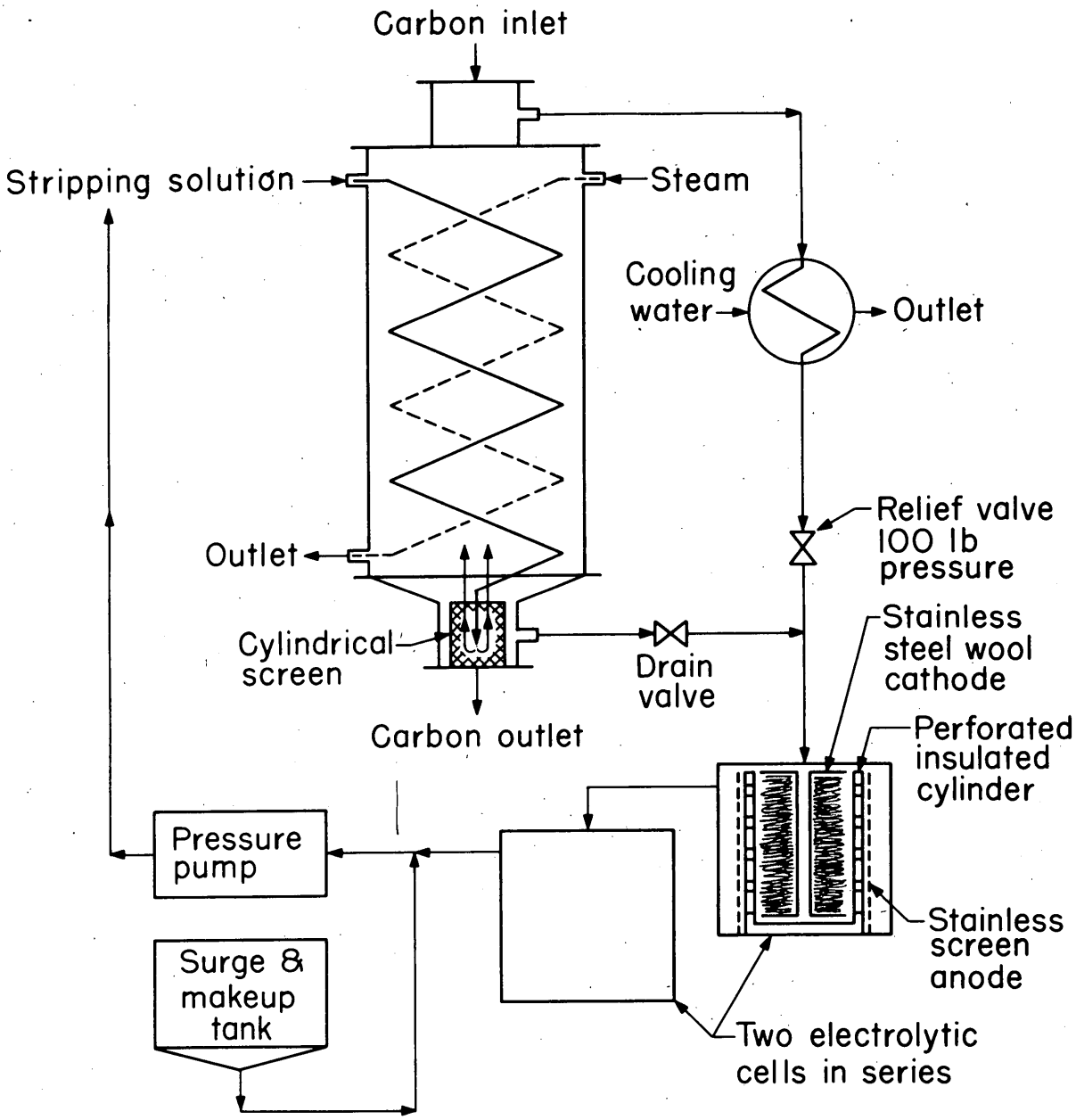


FIGURE 3.-Schematic Diagram of Pressure System to Strip Gold From Activated Carbon.

D-2489-SL

New Electrowinning Cell

The cylindrical electrowinning cell, used to date in pilot and commercial applications for recovering gold from carbon stripping solutions, is basically a cylindrical shell containing a central stainless steel reel wound with stainless steel wool as the cathode, a concentric perforated plastic cylinder for insulation, and a cylindrical stainless steel mesh anode. Careful attention in assembly is required to obtain uniform electrical contact and gold plating. Despite such care, some areas of poor plating caused by inadequate electrical contact or solution short circuiting are found from time to time in operating cells. Therefore, an improved cell was designed, built, and tested, as shown in figure 4.

Initial operations of the new cell indicate that replacement of the steel wool cathode is much easier and faster than with the cylindrical unit. The weighted assembly insures uniform electrical contact throughout the cathode steel wool, and results in a heavier gold deposit and better gold removal from solution than when using the cylindrical cell. Barren solutions of less than 0.03 ounce were obtained using three of the flat cells in series, starting with 60-ounce stripping solution. Operating voltage is 2.5 and the current density, based on the rectangular dimensions of the cathode blanket, is 3.5 amp per square foot.

Some Cost Factors

A preliminary estimate of the capital and operating costs of the heap leaching, carbon-in-pulp, and countercurrent decantation cyanidation processes was made at the Salt Lake City Metallurgy Research Center. Relative cost factors of the three processes are given in table 2. Amenable ore responding to the heap leaching process when crushed to 2- to 3-inch size is assumed. Based on mid-1973 costs, a countercurrent decantation plant to treat 2,500 tons per day of amenable ore is assumed to have a capital cost equivalent to $3,100 per daily ton capacity, and direct operating costs not including return on investment of $2.25 per ton.

TABLE 2. - Comparative estimated cost factors[1]

Process	Cost factor	
	Capital	Operation
Countercurrent decantation	1.00	1.00
Carbon-in-pulp	.68	.77
Heap leaching	.23	0.30 to 0.44

1/ Mining costs are not included.

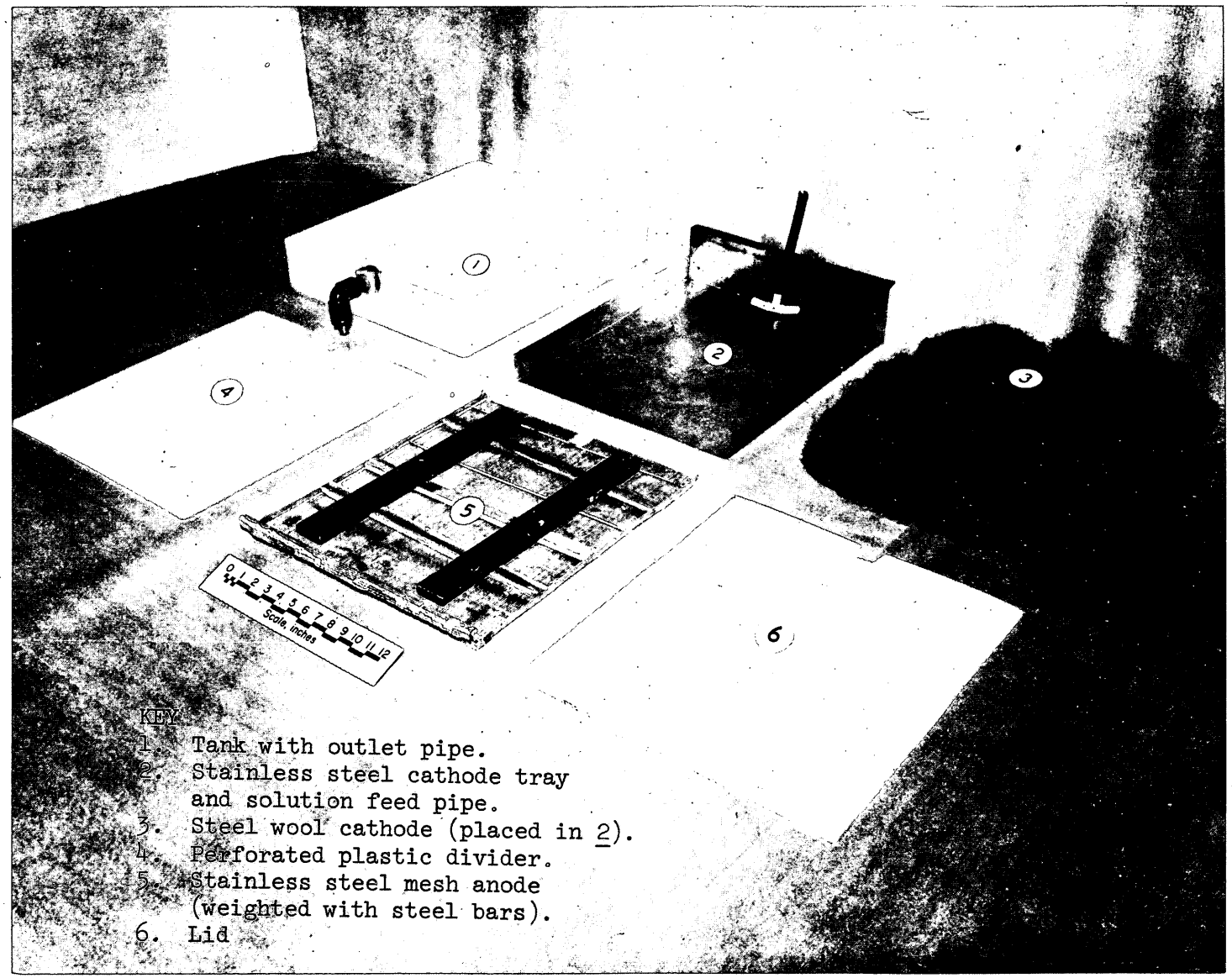


FIGURE 4. - Improved Electrowinning Cell.

REFERENCES

1. Heinen, H. J., and Bernard Porter. Experimental Leaching of Gold From Mine Waste. BuMines RI 7250, 1969, 5 pp.

2. Howell, Frank M. Homestake's New Process Helps Save Environment. The Northern Miner, Apr. 20, 1972.

3. Merwin, R. W., G. M. Potter, and J. H. Heinen. Heap Leaching of Gold Ores in Northeastern Nevada. Pres. at Annual AIME Meeting, Washington, D.C., Feb. 16-20, 1969, Preprint No. 69-AS-79.

4. Potter, G. M. Recovering Gold From Stripping Waste and Ore by Percolation Cyanide Leaching. BuMines TPR 20, December 1969, 5 pp.

5. Rosenbaum, J. B., and J. R. Ross. A Countercurrent Column for Fluid-Bed Ion Exchange of Uranium Ore Slurries. Internat. Symp. on Hydrometallurgy, AIME, Chicago, Ill., Ch. 20, 1973, pp. 535-551.

6. Ross, J. R., and D. R. George. Recovery of Uranium From Natural Mine Waters by Countercurrent Ion Exchange. BuMines RI 7471, 1971 17 pp.

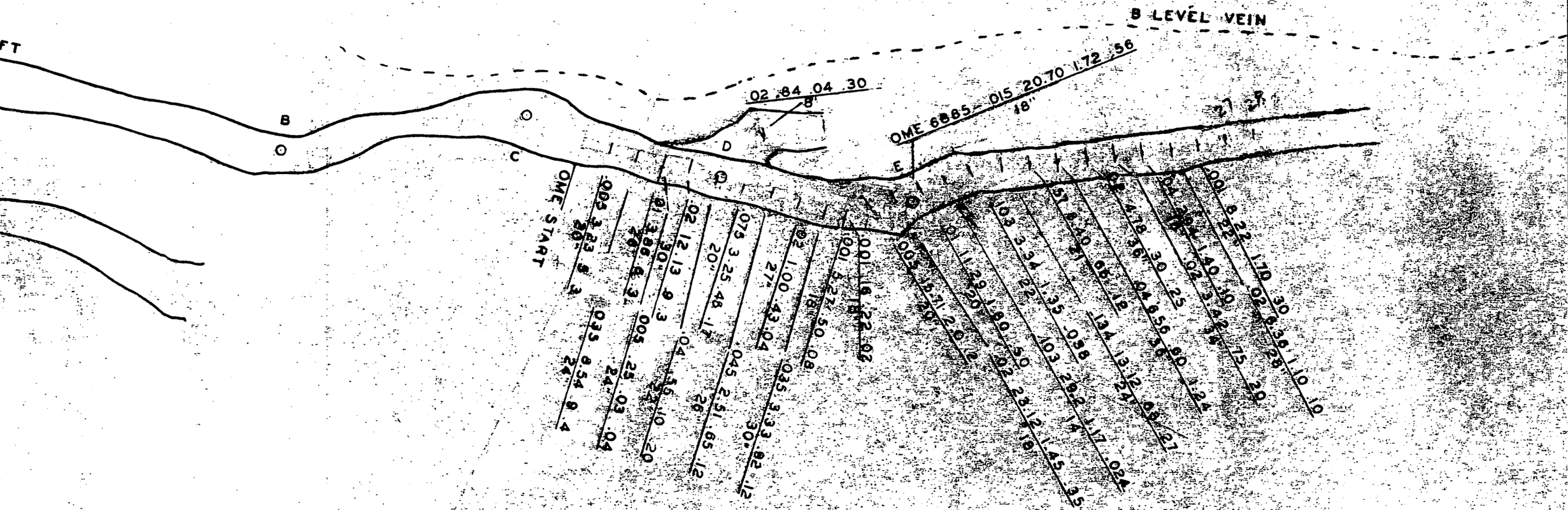
7. Ross, J. R., H. B. Salisbury, and G. M. Potter. Pressure Stripping Gold From Activated Carbon. Pres. at AIME Annual Meeting, Chicago, Ill., Feb. 26-Mar. 1, 1973. Available upon request from Bureau of Mines, Salt Lake City, Utah.

8. Scheiner, B. J., R. E. Lindstrom, and T. A. Henrie. Oxidation Process for Improving Gold Recovery From Carbon-Bearing Gold Ores. BuMines RI 7473, 1971, 14 pp.

9. Seeton, Frank A. Review of Carbon Cyanidation. Mines Magazine, v. 51, July 1961, pp. 13-15.

10. Zadra, J. B., A. L. Engel, and H. J. Heinen. Process for Recovering Gold and Silver From Activated Carbon by Leaching and Electrolysis. BuMines RI 4843, 1952, 32 pp.

VALUES SHOWN - AU AG CU PB / INCHES



SAN JUAN MINE
MATTERHORN, COLO.
1" = 20'

mailing costs. Total $15.50
Single Copies (local) 15c
By mail in U. S. 20c

From the Wallace Mirror — Wallace Idaho Oct 16 1975

MEMBER IDAHO PRESS ASSOCIATION

Corporate Morality

There are two ways of looking at the well-publicized instances of unethical actions by a few business executives in a few companies — either they are remarkably small in number considering the more than 12 million businesses in the country or they are the tip of an iceberg and there are many undetected acts of political and moral corruption in business.

Our guess is that the number is comparatively small because no other society is so checked and rechecked as the businessman. Competition means others in the same business are keeping an eye on him. People investing in his business review every action. Innumerable government agencies impose rules and regulations. The press publicizes any indiscretions. Employes and their unions have access to all sorts of information. And, most important, we the customers are alert for any kind of ripoff.

However, it is good to see responsible business leaders beginning to speak up in favor of completely open and honest business practices. Outside of insisting on the protection of corporate competitive information, these business leaders are publicly searching for a way to absolutely guarantee fair practices in all businesses going well beyond legal requirements.

This is a worthy goal and its achievement would do much to increase public confidence, not only in the competitive enterprise system, but in our ability to solve other national problems as well.

LEAD INDUSTRY IN JULY 1975

The new supply of lead from primary refineries, secondary smelters, and metal imports, declined about 2 per cent in July compared with June to the relatively low level of 96,800 tons, according to the Bureau of

Lower Grade Ores To Be Treated With Use Of Hydrometallurgical Developments In Treatment

Hydrometallurgical developments in gold processing are trending toward treating lower grade ores and mine waste material by heap-leach cyanidation, followed by precious metal recovery from solution by carbon adsorption or zinc precipitation, states an article in the American Gold News, published in Ione, Calif.

There is also renewed interest in carbon-in-pulp cyanidation techniques for treatment of slimy ores that do not respond to conventional liquid-solids separation. Carlin Gold Mining Company (Carlin, Nevada) stated heap leaching mine cut-off material in 1971, treating about 10,000 tons of ore per month.

The ore is crushed to ¾-inch, dumped on an asphalt pad, and leached by sprinkling with diluted cyanide solution for 7 days. About 70 per cent gold extraction is achieved.

The pregnant effluent is fed into the mill stream from the company's conventional cyanide plant for gold recovery by zinc precipitation.

In 1972, Carlin Gold Mining introduced the first commercial cyanide plant to use chlorine for oxidation treatment of carbonaceous ores prior to cyanidation. Gold extractions averaged 83 per cent from carbonaceous ore in contrast to only 33 per cent extraction by conventional cyanidation without the oxidation pretreatment.

However, recent increases in the cost of chlorine have prompted Carlin Gold to take a second look at the Bureau of Mines' electrooxidation technique which features low operating costs for in-pulp generation of Chlorine from salt.

For 3 years, Cortez Gold Mines has been heap leaching approximately 2-million tons of run-of-mine waste material in conjunction with conventional cyanidation treatment of oxide gold ore. About 2 years ago, Cortez Gold started a cyanide heap-leaching carbon-adsorption electrowinning operation at its Gold Acres property about 8 miles from the main cyanide plant. Over 2-million tons of mine cut-off material is being leached at this site. A low pressure stripping method developed by the U.S. Bureau of Mines is employed to desorb gold from activated carbon.

Pilot heap leaching studies on lean gold ores from deposits too small to warrant construction of a cyanide mill or too low grade for economic treatment involving fine grinding agitation are being conducted by several companies.

Idaho Mining Corp., (Eureka, Nev.) is leaching 20,000 tons of gold-bearing sandstone that reportedly contains approximately 0.05 ounces gold per ton.

Summa Corp. (Manhappan, Nev.) is conducting a similar study on ore containing about 0.1 ounces gold per ton.

After extensive testing in cooperation with the Bureau of Mines, Homestake Mining Co. adopted the carbon-in-pulp process in 1973 for treating 2250 tons per day of slimes at its cyanide plant at Lead, S.D.

Former practice recovered about 60 per cent of the gold by amalgamation with mercury in the ball mill grinding circuits, but this technique was discontinued because of pollution problems. The carbon-in-pulp operation at Lead cost 68 cents per ton of slims treated.

Soluble gold losses in the tailings have been reduced to about 0.0002 ounces per ton of solution. Based on these favorable results, Homestake and the Bureau of Mines are conducting pilot plant studies to determine the feasibility of extending the carbon-in-pulp cyanidation treatment to silver-bearing flotations at Homestake's operation at Creede, Colo.

Two new procedures for stripping gold from activated carbon have been reported by the Bureau of Mines — one method uses a 150 degree C temperature and 52 psig pressure to reduce the time and reagent required in stripping the carbon. The other method employs alkaline alcohol solutions to increase the rate of gold and silver recovery.

From Wallace Dispatch, Wallace Idaho
Oct. 16, 1975

mailing costs. Total $15.50

Single Copies (local) 15c
By mail in U. S. 20c

MEMBER IDAHO PRESS ASSOCIATION

Corporate Morality

There are two ways of looking at the well-publicized instances of unethical actions by a few business executives in a few companies — either they are remarkably small in number considering the more than 12 million businesses in the country or they are the tip of an iceberg and there are many undetected acts of political and moral corruption in business.

Our guess is that the number is comparatively small because no other society is so checked and rechecked as the businessman. Competition means others in the same business are keeping an eye on him. People investing in his business review every action. Innumerable government agencies impose rules and regulations. The press publicizes any indiscretions. Employes and their unions have access to all sorts of information. And, most important, we the customers are alert for any kind of ripoff.

However, it is good to see responsible business leaders beginning to speak up in favor of completely open and honest business practices. Outside of insisting on the protection of corporate competitive information, these business leaders are publicly searching for a way to absolutely guarantee fair practices in all businesses going well beyond legal requirements.

This is a worthy goal and its achievement would do much to increase public confidence, not only in the competitive enterprise system, but in our ability to solve other national problems as well.

LEAD INDUSTRY IN JULY 1975

The new supply of lead from primary refineries, secondary smelters, and metal imports, declined about 2 per cent in July compared with June to the relatively low level of 96,800 tons, according to the Bureau of

Lower Grade Ores To Be Treated With Use Of Hydrometallurgical Developments In Treatment

Hydrometallurgical developments in gold processing are trending toward treating lower grade ores and mine waste material by heap-leach cyanidation, followed by precious metal recovery from solution by carbon adsorption or zinc precipitation, states an article in the American Gold News, published in Ione, Calif.

There is also renewed interest in carbon-in-pulp cyanidation techniques for treatment of slimy ores that do not respond to conventional liquid-solids separation. Carlin Gold Mining Company (Carlin, Nevada) stated heap leaching mine cut-off material in 1971, treating about 10,000 tons of ore per month.

The ore is crushed to ¾-inch, dumped on an asphalt pad, and leached by sprinkling with diluted cyanide solution for 7 days. About 70 per cent gold extraction is achieved.

The pregnant effluent is fed into the mill stream from the company's conventional cyanide plant for gold recovery by zinc precipitation.

In 1972, Carlin Gold Mining introduced the first commercial cyanide plant to use chlorine for oxidation treatment of carbonaceous ores prior to cyanidation. Gold extractions averaged 83 per cent from carbonaceous ore in contrast to only 33 per cent extraction by conventional cyanidation without the oxidation pretreatment.

However, recent increases in the cost of chlorine have prompted Carlin Gold to take a second look at the Bureau of Mines' electrooxidation technique which features low operating costs for in-pulp generation of Chlorine from salt.

For 3 years, Cortez Gold Mines has been heap leaching approximately 2-million tons of run-of-mine waste material in conjunction with conventional cyanidation treatment of oxide gold ore. About 2 years ago, Cortez Gold started a cyanide heap-leaching carbon-adsorption electrowinning operation at its Gold Acres property about 8 miles from the main cyanide plant. Over 2-million tons of mine cut-off material is being leached at this site. A low pressure stripping method developed by the U.S. Bureau of Mines is employed to desorb gold from activated carbon.

Pilot heap leaching studies on lean gold ores from deposits too small to warrant construction of a cyanide mill or too low grade for economic treatment involving fine grinding agitation are being conducted by several companies.

Idaho Mining Corp., (Eureka, Nev.) is leaching 20,000 tons of gold-bearing sandstone that reportedly contains approximately 0.05 ounces gold per ton.

Summa Corp. (Manhappan, Nev.) is conducting a similar study on ore containing about 0.1 ounces gold per ton.

After extensive testing in cooperation with the Bureau of Mines, Homestake Mining Co. adopted the carbon-in-pulp process in 1973 for treating 2250 tons per day of slimes at its cyanide plant at Lead, S.D.

Former practice recovered about 60 per cent of the gold by amalgamation with mercury in the ball mill grinding circuits, but this technique was discontinued because of pollution problems. The carbon-in-pulp operation at Lead cost 68 cents per ton of slims treated.

Soluble gold losses in the tailings have been reduced to about 0.0002 ounces per ton of solution. Based on these favorable results, Homestake and the Bureau of Mines are conducting pilot plant studies to determine the feasibility of extending the carbon-in-pulp cyanidation treatment to silver-bearing flotations at Homestake's operation at Creede, Colo.

Two new procedures for stripping gold from activated carbon have been reported by the Bureau of Mines — one method uses a 150 degree C temperature and 52 psig pressure to reduce the time and reagent required in stripping the carbon. The other method employs alkaline alcohol solutions to increase the rate of gold and silver recovery.

Upper Dump

C.D.C.
Associates, Inc.
5401B WESTERN AVE.
BOULDER, COLORADO 80301
303·442·8361

July 3, 1975

C. H. Turner

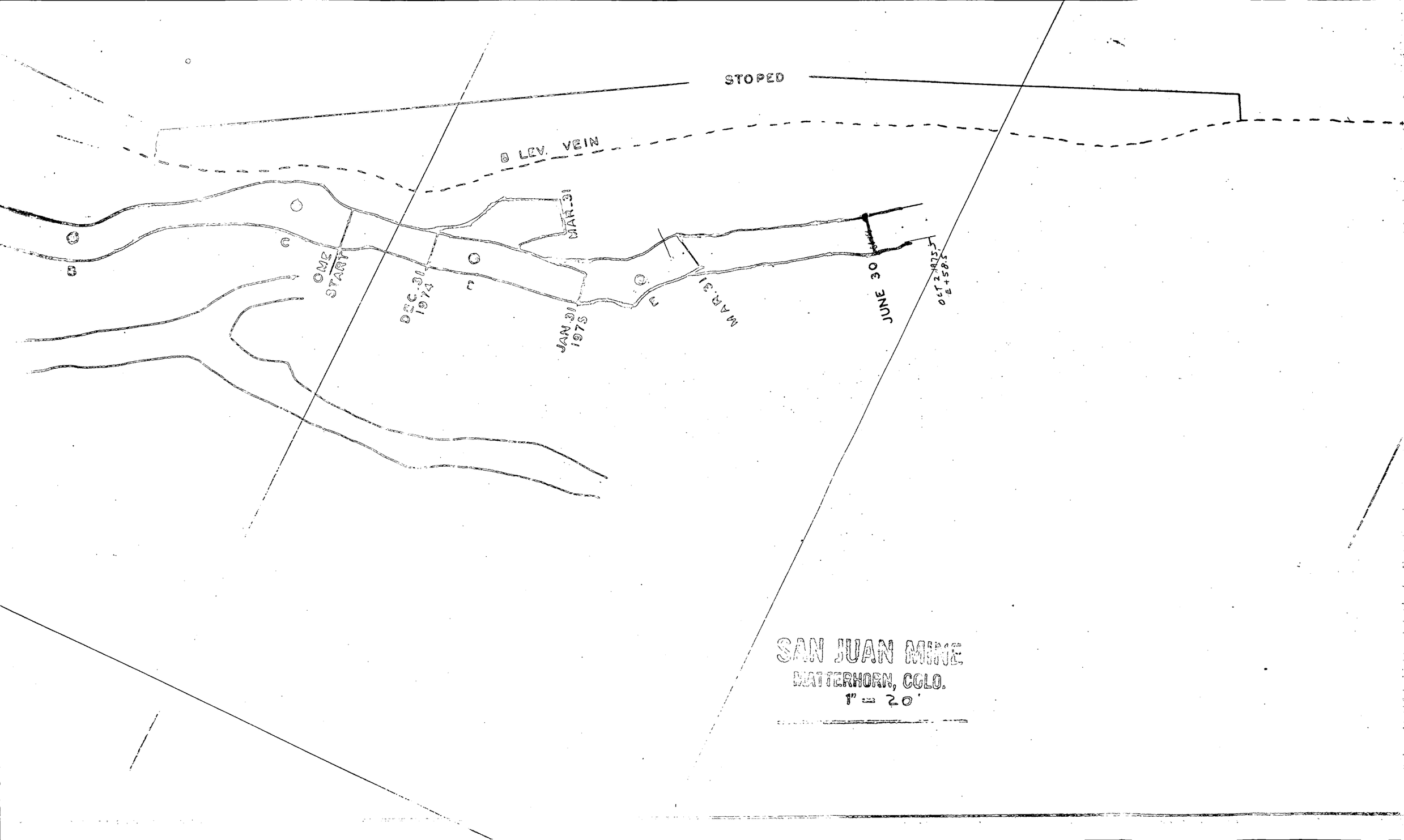
Assay by Atomic Absorption

CDC #	Customer Designation	Au oz/t	Ag oz/t
3783	19	0.134	13.12
3784	20	0.157	8.40
3785	Comp Dump	0.111	8.40
		Cu %	Pb %
3783		0.68	0.27
3784		0.66	0.12
3785		0.43	0.20

J. Michael Connell

J. Michael Connell

JMC/lb



SAN JUAN MINE
MATTERHORN, COLO.
1" = 20'

SKYLINE LABS, INC.
SPECIALISTS IN EXPLORATION GEOCHEMISTRY
12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

Job No. M-3624
November 25, 1975

William Hasler
U.S. Geological Survey
Office of Minerals Exploration
Building 53, Mail Stop 953
Denver Federal Center
Denver, Colorado 80225

Analysis of 4 Rock Chip Samples

Item	Sample No.	Fire Assay Au (oz/T)	Ag (oz/T)	Cu (%)	Pb (%)	width
1.	OME 6885 E + 20	.50	8.77	1.1	.24	24"
2.	E + 40	.022	2.68	.285	.088	30
3.	E + 58A	.010	.57	.29	.070	18"
4.	OME 6885 E + 58B	.011	2.26	.80	.26	18" 24"
		.543	14.28	2.47	.658	
		.135	3.57	.61	.164	

Edwin U. Post
for Charles E. Thompson
Chief Chemist

SKYLINE LABS, INC.
SPECIALISTS IN EXPLORATION GEOCHEMISTRY
12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

Job No. M-3624
November 25, 1975

William Hasler
U.S. Geological Survey
Office of Minerals Exploration
Building 53, Mail Stop 953
Denver Federal Center
Denver, Colorado 80225

Analysis of 4 Rock Chip Samples

		Fire Assay			
		Au	Ag	Cu	Pb
Item	Sample No.	(oz/T)	(oz/T)	(%)	(%)
1.	OME 6885 E + 20	.50	8.77	1.1	.24
2.	E + 40	.022	2.68	.285	.088
3.	E + 58A	.010	.57	.29	.070
4.	OME 6885 E + 58B	.011	2.26	.80	.26

Edwin U. Pot
for Charles E. Thompson
Chief Chemist

FORM 9-1648
MARCH 1968

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
OFFICE OF MINERALS EXPLORATION

OPERATOR'S MONTHLY VOUCHER For Month of May-June 1975

Docket No. OME- 6885

Charles + Anne Turner d/b/a

Operator's Name Hamilton Resources Corporation

Contract 14-08-0001

Address Box 3224 Hinman Sta., Boulder Colo 80303

Contract Amount $

Gov't. Participation % $

FOR OPERATOR'S USE					FOR GOVERNMENT USE ONLY			
COST ITEMS (FROM EXHIBIT A)	THIS MONTH		TO DATE		THIS MONTH		TO DATE	
	UNITS	COSTS	UNITS	COSTS	UNITS	COSTS	UNITS	COSTS
Fixed Unit Costs		$		$		$		$
Drilling + Crosscutting			91	7,917.00				
Long hole drilling								
Supervisor			3	4,500.00				
Outside Consultant			1	125.00				
Per diem. Consultant								
Transportation Consult.			910	25.20				
Office + accounting			3	150.00				
Payroll taxes, FICA, etc			3	1,132.80				
Total Fixed Unit Costs								
Actual Costs.								
Category (1)								
Bulldozing			30	825.00				
Category (7) Miscell.								
Assaying			13	152.75				
Total Actual Costs.								
TOTALS		$		$ 14,827.75		$		$ 14,827.75

I certify that the above bill is correct and just and that payment therefor has not been received.

Date _____ *Payee _____

Per _____ Title _____

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U. S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Approved as noted, subject to field examination and audit.

Signature _____ OME Field Officer _____ Date

Approved for: $ (SUBJECT TO AUDIT)

Signature _____

Date _____ Vou. No.

FOR OPERATOR'S USE	FOR GOVERNMENT USE
REMARKS	REMARKS

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of two parts.

FIRST, the Operator's Monthly Voucher on Form 9-1648 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and three copies of each of the two sections of this report to the OME regional Field Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, FORM 9-1648

In the left hand column list the items for which costs were incurred during the month, and also the items for which costs were previously reported. For items previously reported, show only UNITS TO DATE and COSTS TO DATE. Items listed should conform to Exhibit A of the contract (Estimated Costs of the Work). The total of COSTS THIS MONTH followed by the Operator's signature constitutes a claim for payment of the Government's share of the costs. The Operator or his agent must sign the certification in the lower left corner.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as unemployment taxes, employee's liability insurance, and depreciation of Operator-owned equipment. The certification may be stated thus, "Certified True Copy", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Field Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

ROOT & SIMPSON, Inc.

TEL. 831-7184

METALLURGICAL CHEMISTS AND ASSAYERS

DENVER, COLORADO 80218

P. O. BOX 18329

SPECIMEN ASSAY

ASSAYED FOR	MARKS
Charles H. Turner	Rock

GOLD OZS. PER TON	SILVER OZS. PER TON	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	IRON PER CENT	U_3O_8 PER CENT	PER CENT	PER CENT
0.02	0.84	0.30	0.04	#14				
0.02	23.12	0.35	1.45	#15				
0.01	11.29	0.50	1.80	#16				

DATE 5/6/75 CHARGES $ 35.25

Root & Simpson, Inc.

23" Vein

	$		$
.021 oz Au @	$165.50/oz	=	3.47
6.27 oz Ag	$4.56	=	28.59
.60% Pb = 12# @	.245¢/lb	=	2.94
.37% Zn	7.40# @ .385¢/lb	=	3.85
			$38.85

2,5 6/0

Bill Hanbar 4161

Au = 165.50
Ag - 4.56
Pb - 2450
Cu - .6362
Zn - 38.50 %

	width	.oz Au	oz Ag	%Pb	%Cu	%Zn
OME + 5'	20"	.005	3.23	0.5	0.3	
OME + 10'	24"	.035	8.54	0.9	0.4	
OME + 15'	26"	.010	3.86	0.6	0.3	
OME + 16	24"	.005	0.25	.03	.04	
OME + 20'	30"	.020	12.13	.90	.30	
OME + 25'	22"	.040	0.55	.10	.20	
OME + 30'	20"	.075	3.25	.48	.17	
OME + 35'	26"	.045	2.51	.65	.12	
OME + 40'	27"	.020	1.00	.43	.04	
OME + 45'	30"	.035	3.33	.92	.12	
OME + 50'	18"	.001	5.27	.50	.08	
OME + 52'	18"	.001	.16	.22	.02	
OME + 54'	20"	.005	15.71	2.00	.20	
OME + 64'	20"	.020	23.12	0.35	1.45	15
OME + 68'	20"	.010	11.29	.50	1.80	16
	345	327	94.18	9.08	5.54	
Ave	23"	.021	6.27	.60	.37	

15 3/3 ~~346~~ 348

FORM 9-1648
MARCH 1968

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
OFFICE OF MINERALS EXPLORATION

OPERATOR'S MONTHLY VOUCHER

For Month of March 1975

Docket No. OME- 6885
Contract 14-08-0001 2313
Contract Amount $ 32,940.00
Gov't. Participation % 75 $ 24,705.00

Operator's Name Charles & Anne Turner d/b/a Hamilton Resources Corporation
Address Box 3224 Miller Sta., Boulder, Co. 80303

COST ITEMS (FROM EXHIBIT A)	FOR OPERATOR'S USE: THIS MONTH UNITS	THIS MONTH COSTS	TO DATE UNITS	TO DATE COSTS	FOR GOVERNMENT USE ONLY: THIS MONTH UNITS	THIS MONTH COSTS	TO DATE UNITS	TO DATE COSTS
Bulldozing		$	30	$ 825.00	—	$ —	30	$ 825.00
Drifting	42	3,654.00	91	7,917.00	42	3,654.00	91	7,917.00
Supervision	1	1,500.00	3	4,500.00	1	1500.00	3	4,500.00
Office & Accounting	1	50.00	3	150.00	1	50.00	3	150.00
Assaying	8	94.00	13	152.75	8	94.00	13	152.75
Payroll taxes, etc. (1/ See other side)	1	~~369.15~~ +397.05	3	1,132.80	1	~~369.15~~ +397.05	3	1,132.80
Outside Consultant	1	125.00	1	125.00	1	125.00	1	125.00
Transportation /Consultant	210	25.20	210	25.20	210	25.20	1	25.20
		$6,214.40 HK				$6214.40 HK		
TOTALS		$ ~~5,817.35~~		$ 14,827.75		~~$5,817.35~~		$ 14,827.75

I certify that the above bill is correct and just and that payment therefor has not been received.

Date April 16, 1975 *Payee Hamilton Resources Corporation
Charles H. Turner
Per Charles H. Turner Title President & Treasurer

"When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U. S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Approved as noted subject to field examination and audit.

Signature J. William Taylor OME Field Officer Date 4/18/75

Approved for: $ (SUBJECT TO AUDIT)

Signature

Date Vou. No.

FOR OPERATOR'S USE

REMARKS

Payroll taxes, etc.

The amount totalling $386.25, disallowed on the January 1975 Operator's Monthly Voucher, should have been $397.05 as shown on January monthly time sheet enclosed.

Enclosed is the Administrative Suspension Statement covering the above disallowed amount.

Total Payroll taxes, etc. are:

December '74	366.60
January '75	397.05
March '75	369.15
	$1,132.80

FOR GOVERNMENT USE

REMARKS

Op. claimed $ 369.15
397.05
$ 766.20

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of two parts.

FIRST, the Operator's Monthly Voucher on Form 9-1648 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and three copies of each of the two sections of this report to the OME regional Field Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, FORM 9-1648

In the left hand column list the items for which costs were incurred during the month, and also the items for which costs were previously reported. For items previously reported, show only UNITS TO DATE and COSTS TO DATE. Items listed should conform to Exhibit A of the contract (Estimated Costs of the Work). The total of COSTS THIS MONTH followed by the Operator's signature constitutes a claim for payment of the Government's share of the costs. The Operator or his agent must sign the certification in the lower left corner.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as unemployment taxes, employee's liability insurance, and depreciation of Operator-owned equipment. The certification may be stated thus, "Certified True Copy", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Field Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

Docket No. OME 6885
Contract 2313

NARRATIVE REPORT

March 1975

A2 Drift was turned slightly in a north easterly direction, to follow a 20-inch, sparsely mineralized vein structure, which returned an assay of - Gold .005 oz., Silver 15.71 oz., Copper 2.0% and Lead 0.2%. (see Assay map).

The heading was then advanced an additional 15 feet. However, the structure pinched and the drift was stopped, at a total footage of 21 feet for the period.

A survey then revealed that, although the drift appeared to be more or less parallel to the strike of the B Level vein, it was located approximately 15 feet south-easterly of the projected B vein at A Level, assuming an average dip of 75 to 85 degrees. (see Geologic map).

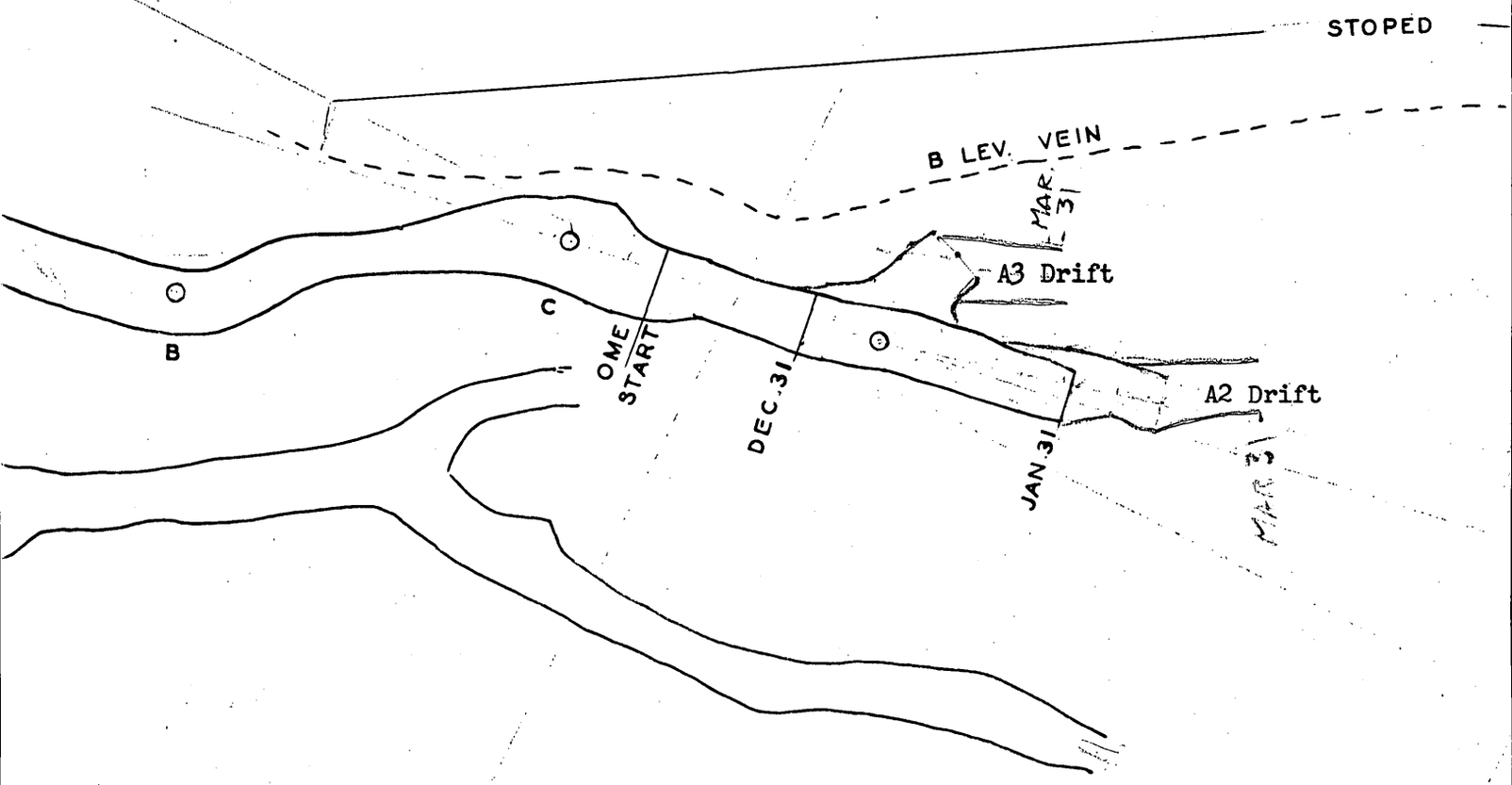
A3 Drift was then started in the footwall, at a point approximately 25 feet easterly from the OME starting point. At a distance of 7 feet from the start of A3 Drift an 8-inch stringer of heavy pyritic mineralization was encountered. This stringer appeared to be following the projected B Level vein strike, and the drift was advanced a total of 21 feet, of which 14 feet followed the stringer. (see Geologic map).

It is proposed to continue advancing on the stringer.

The project has been delayed principally by severe winter weather, and by lack of competent help.

Reported: Chas H Turner
Charles H. Turner

PROGRESS MAP



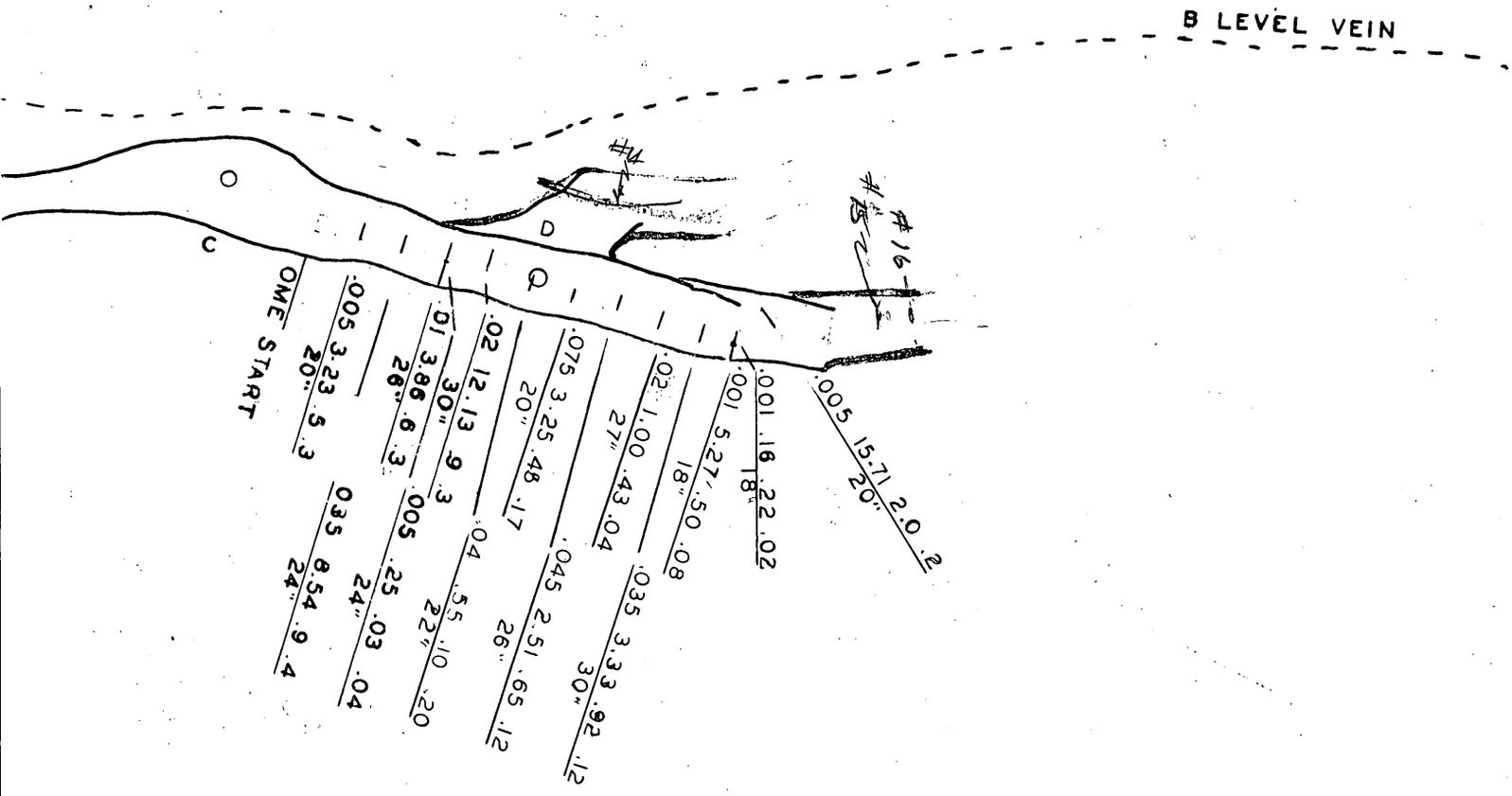
SAN JUAN MINE

MATTERHORN, COLO.

1" = 20'

ASSAY MAP

VALUES SHOWN - AU AG CU PB / INCHES



SAN JUAN MINE
MATTERHORN, COLO.
1" = 20'

Hamilton Resources Corp.

MONTHLY TIME SHEET

Month January 1975

Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Tot. Hrs.	Rate	Wages
C R Turner		6	6	9	9	4	4	4	4	4	2			8	8	8	8	8		8	6	8	10	8			8					140	4.00	560.00
R L Morgan		3	6	6	11					4	2			5	8	6	8	8		6		8	10	8	8		6	4				117	4.00	468.00
J R Aitken														7		3	8	8		8												34	3.50	119.00
Supervisor																																1 Mo.	1500.00	1500.00

TOTAL WAGES 2647.00

× 15%

$397.05

Hamilton Resources Corp.

MONTHLY TIME SHEET

Month March 1975

Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Tot. Hrs.	Rate	Wages
																																31	4.00	124.00
C R Turner	4	3	8	4										4	8		4	5	8	8	6		4	6	8	4	2				8	71	4.50	319.50
D M Velasquez	4		8	5		7																										24	3.50	84.00
Wm S Rich			8	8			8	2																								26	4.00	104.00
M R Lewis			8	8			8	2																								26	3.75	97.50
M E Gaston																			8	8	8		4	6	8	6	2				8	58	4.00	232.00
Supervisor																															1 Mo.			1500.00

TOTAL WAGES 2461.00

× 15%

$369.15

ROOT & SIMPSON, INC.
METALLURGICAL CHEMISTS AND ASSAYERS
PHONE (303) 831-7184 DENVER, COLORADO 80218
ADDRESS P.O. BOX 18329

ESTABLISHED 1902

CARL H. ROSS
PRESIDENT AND TREASURER

March 24, 1975

Assayed for: Hamilton Resources

Lot No.	Oz. Gold per ton	Oz. Silver per ton	Lead Percent	Copper Percent
22" #6	0.04	0.55	0.20	0.10
20 #7	0.075	3.25	0.17	0.48
26" #8	0.045	2.51	0.12	0.65
27" #9	0.02	1.00	0.04	0.43
30" #10	0.035	3.33	0.12	0.92
18" #11	0.001	0.16	0.02	0.22
18" #12	0.001	5.27	0.08	0.50
20" #13	0.005	15.71	0.20	2.0
Charges: $ 94.00	.217	3.78	.95	.530
(22")	.027	X 3.97	.11	.66

181 2

MONADNOCK MINERAL SERVICES

Robert A. & Pamela J. Larson
P.O. Box 85
Ouray, CO 81427

TO: Hamilton Resources Corporation
P.O. Box 3224 HiMar Station
Boulder, CO 80303

3/19/75

DATE	ITEM	AMOUNT
3/17/75	Geological Mapping - San Juan Mine	$125.00
	Mileage - 210 miles @ 12¢/mile	25.20
	TOTAL	$150.20

DENVER, COLORADO, March 24, 1975

Hamilton Resources

Golden, Colorado

TO ROOT & SIMPSON, INC. DR.

METALLURGICAL CHEMISTS AND ASSAYERS

TELEPHONE 831-7184

P. O. BOX 18329
DENVER, COLORADO 80218

#6 thru #13	AuAgPbCu	$ 94.00

SKYLINE LABS, INC.
SPECIALISTS IN EXPLORATION GEOCHEMISTRY
12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

Job No. M-3624
November 25, 1975

William Hasler
U.S. Geological Survey
Office of Minerals Exploration
Building 53, Mail Stop 953
Denver Federal Center
Denver, Colorado 80225

Analysis of 4 Rock Chip Samples

Item	Sample No.	Fire Assay Au (oz/T)	Ag (oz/T)	Cu (%)	Pb (%)
1.	OME 6885 E + 20	.50	8.77	1.1	.24 — 24"
2.	E + 40	.022	2.68	.285	.088 — 30"
3.	E + 58A	.010	.57	.29	.070 — 18"
4.	OME 6885 E + 58B	.011	2.26	.80	.26 — 18"

Edwin V. Post
for Charles E. Thompson
Chief Chemist

ROOT & SIMPSON, Inc.

TEL. 831-7184

METALLURGICAL CHEMISTS AND ASSAYERS

DENVER, COLORADO 80218

P. O. BOX 18329

SPECIMEN ASSAY

ASSAYED FOR	MARKS
U. S. Geologic Survey OME + 63'	OME 6885 0+63 ft.

GOLD OZS. PER TON	SILVER OZS. PER TON	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	IRON PER CENT	U_3O_8 PER CENT	PER CENT	PER CENT
0.015	20.70	0.56	1.72					

DATE 5/17/75 CHARGES $12.00

Root & Simpson, Inc.

ROOT & SIMPSON, Inc.

TEL. 831-7184

METALLURGICAL CHEMISTS AND ASSAYERS

DENVER, COLORADO 80218

P. O. BOX 18329

SPECIMEN ASSAY

ASSAYED FOR	MARKS
U. S. Geologic Survey	OME 6885 0-63 ft.

GOLD OZS. PER TON	SILVER OZS. PER TON	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	IRON PER CENT	U_3O_8 PER CENT	PER CENT	PER CENT
0.015	20.70	0.56	1.72					

DATE 5/17/75 CHARGES $ 12.00

Root & Simpson, Inc.

ROOT & SIMPSON, Inc.

TEL. 831-7184

METALLURGICAL CHEMISTS AND ASSAYERS

DENVER, COLORADO 80218

P. O. BOX 18329

SPECIMEN ASSAY

ASSAYED FOR	MARKS
U. S. Geologic Survey	OME 6885 0-63 ft.

GOLD OZS. PER TON	SILVER OZS. PER TON	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	IRON PER CENT	U_3O_8 PER CENT	PER CENT	PER CENT
0.015	20.70	0.56	1.72					

DATE 5/17/75 CHARGES $ 12.00

Root & Simpson, Inc.

ROOT & SIMPSON, Inc.

TEL. 831-7184

METALLURGICAL CHEMISTS AND ASSAYERS

DENVER, COLORADO 80218

P. O. BOX 18329

SPECIMEN ASSAY

ASSAYED FOR	MARKS
U. S. Geologic Survey	OME 6885 0-63 ft.

GOLD OZS. PER TON	SILVER OZS. PER TON	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	IRON PER CENT	U_3O_8 PER CENT	PER CENT	PER CENT
0.015	20.70	0.56	1.72					

DATE 5/17/75 CHARGES $ 12.00

Root & Simpson, Inc.

DENVER, COLORADO, ~~May 17, 1975~~

~~U. S. Geologic Survey J. William Hasler~~

~~Denver, Colorado~~

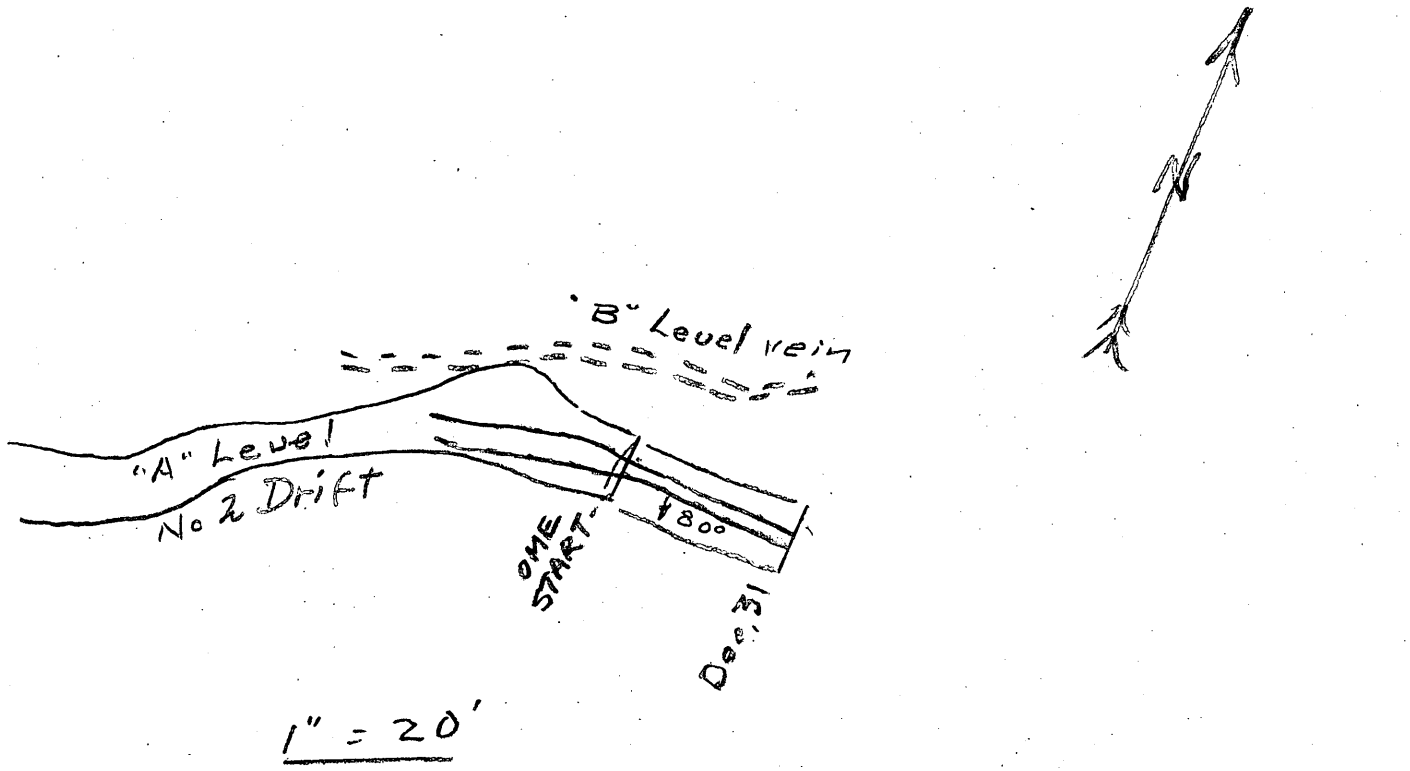
TO ROOT & SIMPSON, INC. DR.

METALLURGICAL CHEMISTS AND ASSAYERS

TELEPHONE 831-7184

P. O. BOX 18329
DENVER, COLORADO 80218

OME 0-63 ft, AuAgPbCu $ 12.00



SAN JUAN MINE MATTERHORN COLO

DECEMBER 1974
Map by Chas. Turner

January, 1975

Charles Turner

Tax, FICA etc etc @ 15%

	Hrs
Turner	140
Morgan	117
	257 Hrs

$4.00/Hr

$1,028.00

Supervisor 1,500.00

$2,528.00

.15%

126400

252800

$379.20

Claimed in Jan 386.25

379.20

$7.05 Bal.

Jack Costanza Stan Reed - Redoall Roy Brown.

Costy (Rocky Deals - ANV

35' new -

1 29.8 Ag
2' 1.71 Cu } face on Hasler vein

Helmuth 0.10 Au
Window - .024 Pb 120' West Range

3729 -

M1

5' feet .103 Au
22" 3.34 Ag
1.35 Cu
.038 Pb

(B) Dual Dump 4,000 Tons

25' 6 Samples 1 foot 1.24

Fines 170 Au. .124 Au
(gray - $4.50 11.40 Ag
.63 .88 Cu
.076 Pb

$83.00

Box:
This followed deformation 4.50
170 Ag
.63 .015

3000
150
45.00

Jan	5	58.75
May	8	94.00
	13	152.75

Au Ag, Cu 64 48.50
8
68.00

Jewel 3.25
8
26.00

$680
260
94.00

961.00 Jules
$1500.00 Superman
2,461.00
2 1 .15
12905 00
2461 0 0
3715.00

369.15

366.60
397.05
763.65
369.15
1,1320

HAMILTON RESOURCES CORPORATION

P.O. Box 3224 HiMar Station Boulder, Colorado 80303 (303) 499-3330

Mine Office - (303) 728 4139

May 20, 1975

OME Region III
RECEIVED
MAY 21 1975
Denver, Colorado

Mr. J. William Hasler
Field Officer, Region III
OME, USGS
Denver Federal Center, Bldg. 53
Denver, Colorado 80225

Re: Docket: OME 6885
Contract 2313
Silver-Gold
San Juan Mine

Dear Mr. Hasler:

Due to operating difficulties caused by an exceptionally long and severe winter, and a critical shortage of competent help, it appears that the above contract will not be completed by June 17, 1975, as specified.

Therefore, we hereby request that the contract be amended to extend the completion date, six months, to December 17, 1975.

Very truly yours,

HAMILTON RESOURCES CORP.

Charles H. Turner

Charles H. Turner
President

HAMILTON RESOURCES CORPORATION

P.O. Box 3224 HiMar Station Boulder, Colorado 80303 (303) 499-3330

Mine Office - (303) 728 4139

May 20, 1975

OME Region III
RECEIVED
MAY 21 1975
Denver, Colorado

Mr. J. William Hasler
Field Officer, Region III
OME, USGS
Denver Federal Center, Bldg. 53
Denver, Colorado 80225

Re: Docket: OME 6885
Contract 2313
Silver-Gold
San Juan Mine

Dear Mr. Hasler:

Due to operating difficulties caused by an exceptionally long and severe winter, and a critical shortage of competent help, it appears that the above contract will not be completed by June 17, 1975, as specified.

Therefore, we hereby request that the contract be amended to extend the completion date, six months, to December 17, 1975.

Very truly yours,

HAMILTON RESOURCES CORP.

Charles H. Turner

Charles H. Turner
President

50# Idaho [illegible]

2-12-75

Charles Turner 2 1/2 No Snow

Sat & Sun. Mon 3 days show

18			
30	~~30~~	48	1
48'	4	18	
		30	

Stan Reed: U contract
Colo Plateau —
Brothers & Fathers Austin —
Smith - Telephone Co.
Silver Bell Drilling Dec.
Rico - Jones Mine —
Dave Crump (Rio) 1/2 - Rt. $60.00
Rico Argenta - Xtal Oil —
Jake Jahnke, Orville Mgr.

FORM 9-1648
MARCH 1968

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
OFFICE OF MINERALS EXPLORATION

X Fa + Fac/Ope

OPERATOR'S MONTHLY VOUCHER

For Month of January 1975

Docket No. OME- 6005
Contract 14-08-0001 2319
Contract Amount $ 32,940.00
Gov't. Participation % 75 $ 24,705.00

Operator's Name Charles C Fano Turner d/b/a Hamilton Resources Corporation
Address Box 322A Miner Sta., Boulder, Colo. 80303

FOR OPERATOR'S USE					FOR GOVERNMENT USE ONLY			
COST ITEMS (FROM EXHIBIT A)	THIS MONTH		TO DATE		THIS MONTH		TO DATE	
	UNITS	COSTS	UNITS	COSTS	UNITS	COSTS	UNITS	COSTS
Bulldozing		$	30	$ 825.00		$	30	$ 825.00
Drilling	31	2697.00	49	4263.00	31	2,697.00	49	4,263.00
Supervision	1	1500.00	2	3000.00	1	1500.00	2	3,000.00
Office & Accounting	1	50.00	2	100.00	1	50.00	2	100.00
Assaying	5	58.75	5	58.75	5	58.75	5	58.75
Payroll taxes, etc.	1/3	366.85	2/3	752.85	1/3	366.85	2/3	366.85
						$ 4,305.75		$ 8,613.35
TOTALS		$ 4692.00		$ 8999.60		$ 4,692.00		$ 8,999.60

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Feb. 14, 1975 *Payee Hamilton Resources Corporation

Per Charles H Turner Title President & Treasurer

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U. S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Approved as noted, subject to field examination and audit.

Signature J. William Hasler OME Field Officer Date 2/21/75

Approved for: $ 3,229.31
(SUBJECT TO AUDIT)

Signature

Date Vou. No

FOR OPERATOR'S USE	FOR GOVERNMENT USE
REMARKS	REMARKS

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of two parts.

FIRST, the Operator's Monthly Voucher on Form 9-1648 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and three copies of each of the two sections of this report to the OME regional Field Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, FORM 9-1648

In the left hand column list the items for which costs were incurred during the month, and also the items for which costs were previously reported. For items previously reported, show only UNITS TO DATE and COSTS TO DATE. Items listed should conform to Exhibit A of the contract (Estimated Costs of the Work). The total of COSTS THIS MONTH followed by the Operator's signature constitutes a claim for payment of the Government's share of the costs. The Operator or his agent must sign the certification in the lower left corner.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as unemployment taxes, employee's liability insurance, and depreciation of Operator-owned equipment. The certification may be stated thus, "Certified True Copy", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Field Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

FROM THE DESK OF

Charles H. Turner

2-15-75

Bill:

Sorry these are late. I have been snowed-in for almost a week. Almost got opened-up to-day, but it is starting to snow again.

Hope to have the assay map ready when the next batch of results arrive.

The enclosed assays from the December work are from successive faces. No.4 follows No.3 from the hangingwall side of the vein. The vein assays were better than expected, since it hadn't made the expected turn under the stope above. January samples look better.

I have located a second crew, and hope to speed the work if we ever get out of these snow banks.

When the snow stops, and the road to the portal is open, I'll give you a call by phone. Will try to give you a few days notice.

Don't give up hope.

Chas

Office Region 1
RECEIVED
FEB 20 1975
Mpt
Denver, Colorado

Docket No. OME 6885
Contract 2313

NARRATIVE REPORT

January 1975

Drifting:

A2 Drift was advanced a distance of 31 feet, for the most part on a water-stained and fractured quartz vein, having an average width of 20 inches, and containing varying amounts of mineralization.

However, the last 10 feet of advance showed a distinct improvement, inasmuch as the vein width increased to an approximate average of 28 inches, and the fracturing and water-stain largely disappeared. In addition, the mineralization appeared to become more abundant as the heading advanced.

The vein material has been separated from the foot wall host rock by 2 to 4 inches of gouge. The host rock appears to be typical of the immediate area, ie- locally called diorite-monzonite. To date, this has been fairly hard, containing many fractures and aparse pyritic mineralization.

The vein, which has maintained an easterly trend, is gradually turning to the northeast to conform to the north-easterly bearing of the old mined workings in B Level, directly above.

Caving drill holes, caused by the nature of the ground, have resulted in an excess of time required to complete the drilling-mucking cycle. It is expected that the improved structure now being exposed will largely eliminate this problem.

Other serious delays have been caused by unreliable labor, and the severe winter storms and sub-zero temperatures.

Reported: Chas H Simm

DENVER, COLORADO. Feb. 10, 1975

Hamilton Resources Corp.

Telluride, Colo.

TO ROOT & SIMPSON, INC. DR.

METALLURGICAL CHEMISTS AND ASSAYERS

TELEPHONE 831-7184

P. O. BOX 18329
DENVER, COLORADO 80218

Samples 1-5 Au, PbCu Ag, Az Pb Cu $58.75

OK
gwd

ROOT & SIMPSON, Inc.

TEL. 831-7184

METALLURGICAL CHEMISTS AND ASSAYERS

DENVER, COLORADO 80218

P. O. BOX 18329

SPECIMEN ASSAY

ASSAYED FOR	MARKS
Hamilton Resources Corp.	

GOLD OZS. PER TON	SILVER OZS. PER TON	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	IRON PER CENT	U_3O_8 PER CENT	PER CENT	PER CENT
0.005	3.23	0.3	0.5	Sample 1				
0.035	8.54	0.4	0.9	Sample 2				
0.010	3.86	0.3	0.6	Sample 3				
0.005	0.25	0.04	0.03	Sample 4				
0.020	12.13	0.3	0.9	Sample 5				

DATE 2/10/75 CHARGES $ 58.75

Root & Simpson, Inc.

FORM 9-1648
MARCH, 1968

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
OFFICE OF MINERALS EXPLORATION

OPERATOR'S MONTHLY VOUCHER For Month of December, 1974

Docket No. OME- 6885
Contract 14-08-0001 2513
Contract Amount $ 32,040
Gov't. Participation % 75 $ 24,705

Operator's Name Charles H. Ore and Arno Turner d/b/a Harrison Resources Corporation
Address Box 3224 Iliff Ave., Boulder, Colorado

FOR OPERATOR'S USE					FOR GOVERNMENT USE ONLY			
COST ITEMS (FROM EXHIBIT A)	THIS MONTH		TO DATE		THIS MONTH		TO DATE	
	UNITS	COSTS	UNITS	COSTS	UNITS	COSTS	UNITS	COSTS
Drilling	18	$ 1566.00	18	$ 1566.00	18	$1,566.00	18	$ 1,566.60
Supervisor	1	1500.00	1	1500.00	1	1,500.00	1	1,500.00
Carlos C Acc't'g	1	50.00	1	50.00	1	50.00	1	50.00
Mycoll Corp. Ofc.	1/3	366.60	1/3	366.60	1/3	366.60	1/3	366.60
Bulldozing	--	-------	30	825.00	—	—	30	825.00
TOTALS		$ 3482.60		$ 4307.60		$ 3,482.60		$ 4,307.60

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Jan. 6, 1975 *Payee Harrison Resources Corp.

Per Charles H. Ore Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U. S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Approved as noted, subject to field examination and audit.

Signature J. William Hasler OME Field Officer Date 1/13/75

Approved for: $ (SUBJECT TO AUDIT)

Signature

Date Vou. No.

FOR OPERATOR'S USE	FOR GOVERNMENT USE
REMARKS	REMARKS
Approximately 4 months of "dead work" was required, as follows:	1/ The operators 1/3 share for 1/3 of project on 1 month payment for labor & supervision; Morgan - $ 516.00 Charles R Trenton - 428.00 Charles H. Trenton Supervisor - $ 1,500.00 $ 2,444.00
1 - The supporting timbers in the portal area had been stolen, and it was necessary to do considerable rehabilitation work, and completely re-timber the portal.	15% of 2,444.00 = $366.60
2 - Compliance with new Bureau of Mines regulations, regarding safety and explosives storage, required many shifts of work.	
3 - Short supply of suitable compressor, together with inadequate sources of supplies, etc., were a serious handicap.	
Although a number of severe winter storms were experienced, the dead work was completed by the end of November, and December was devoted to installation of a diesel power plant, pipe lines, vent, system, etc., and a start was made on the drifting.	
Samples are being prepared and sent for assay.	
It is felt that the major handicaps have now been overcome, and a good crew is on the job.	

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of two parts.

FIRST, the Operator's Monthly Voucher on Form 9-1648 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and three copies of each of the two sections of this report to the OME regional Field Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, FORM 9-1648

In the left hand column list the items for which costs were incurred during the month, and also the items for which costs were previously reported. For items previously reported, show only UNITS TO DATE and COSTS TO DATE. Items listed should conform to Exhibit A of the contract (Estimated Costs of the Work). The total of COSTS THIS MONTH followed by the Operator's signature constitutes a claim for payment of the Government's share of the costs. The Operator or his agent must sign the certification in the lower left corner.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as unemployment taxes, employee's liability insurance, and depreciation of Operator-owned equipment. The certification may be stated thus, "Certified True Copy", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Field Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

INDIVIDUAL PAYROLL RECORD FOR YEAR ENDING Dec 31 1914

SOCIAL SECURITY NO. 529 | 24 | 8759

NAME OF EMPLOYEE Robert Lewis Morgan PHONE _____ MARRIED ☐

ADDRESS 350 N Broadway CITY Tooele Utah DATE OF BIRTH _____ SINGLE ☑ NUMBER OF EXEMPTIONS 1

THE IDEAL SYSTEM - COPYRIGHT U.S. PAT. OFFICE

IDEAL SYSTEM - FORM 2905

1	2							3		4		5		6		7		8		9		10		11		12		13		14		15			
WEEK ENDING		HOURS WORKED PER DAY						TOTAL HOURS WORKED		RATE	PER HR. DAY WK. UNIT	REGULAR TIME EARNINGS		OVERTIME EARNINGS		OTHER COMPENSATION		TOTAL EARNINGS (A)		DEDUCTIONS FROM EMPLOYEE'S EARNINGS												NET AMOUNT PAID EMPLOYEE (COL A LESS COL. B)		CHECK NO	
MO.	DAY	SUN	MON	TUE	WED	THU	FRI	SAT	REG. TIME	OVER-TIME										STATE UNEMP. INS AT ___ %		FEDERAL OLD AGE AT ___ %		FEDERAL WITHHOLDING TAXES		OTHER WITHHOLDING TAXES State		OTHER DEDUCTIONS		TOTAL DEDUCTIONS (B)					
																																			1
																																			2
																																			3
																																			4
																																			5
																																			6
																																			7
																																			8
																																			9
																																			10
																																			11
																																			12
																																			13
TOTAL THIRD QUARTER																																			14
																																			15
10	12		7	7	3				17		4 00	68 00						68 00				3 98		7 00		1 11		Dep		✓ 12 09		55 91		132	16
	19																																		17
	26	7	7	7	4	4			36			144 00						144 00				8 42		21 80		3 36		Dep		✓ 33 58		110 42		138	18
11	2																																		19
			8	7	8	8	8		39		4 00	156 00						156 00				9 13		24 50		3 82				✓ 37 45		118 55		146	20
	16		4	4	4	7	8	6	33		4 00	132 00						132 00				7 72		19 70		3 01				✓ 30 43		101 57		155	21
	23		4	7	8		8	8	35		4 00	140 00						140 00				8 19		21 80		3 36				✓ 33 35		106 65		158	22
	30		8	8	8		4	8	36		4 00	144 00						144 00				8 42		21 80		3 36				✓ 33 58		110 42		165	23
12	7	8	8	8	8	8			40		4 00	160 00						160 00				9 36		26 60		4 20				✓ 40 16		119 84		166	24
	14	5	8	9	7	6	5		40		4 00	160 00						160 00				9 36		26 60		4 20				✓ 40 16		119 84		170	25
	21		8	3	5	3	6	6	31		4 00	124 00						124 00				7 25		17 60		2 66				✓ 27 51		96 49		177	26
	28		5	4			4	5	18		4 00	72 00						72 00				4 21		7 30		1 21				✓ 12 72		59 28		181	27
TOTAL FOURTH QUARTER																																			28
TOTAL FIRST QUARTER																																			29
TOTAL SECOND QUARTER																																			30
TOTAL THIRD QUARTER																																			31

IDEAL SYSTEM REG. U. S. PAT. OFFICE PUBLISHED BY THE IDEAL SYSTEM CO. LOS ANGELES

INDIVIDUAL PAYROLL RECORD FOR YEAR ENDING Dec. 31 1914

NAME OF EMPLOYEE Charles R. Turna. PHONE MARRIED ☑

ADDRESS Boulder CITY Colo. DATE OF BIRTH SINGLE ☐

SOCIAL SECURITY NO. 530 28 2370

NUMBER OF EXEMPTIONS 0

THE IDEAL SYSTEM. COPYRIGHT U S PAT OFFICE

IDEAL SYSTEM - FORM 2905

1	2							3		4		5	6	7	8	9	10	11	12	13	14	15		
WEEK ENDING	HOURS WORKED PER DAY							TOTAL HOURS WORKED		RATE	PER HR. DAY WK. UNIT	REGULAR TIME EARNINGS	OVERTIME EARNINGS	OTHER COMPENSATION	TOTAL EARNINGS (A)	DEDUCTIONS FROM EMPLOYEE'S EARNINGS						NET AMOUNT PAID EMPLOYEE (COL A LESS COL. B)	CHECK NO	
MO. DAY	SUN	MON	TUE	WED	THU	FRI	SAT	REG. TIME	OVER-TIME							STATE UNEMP. INS AT ___ %	FEDERAL OLD AGE AT ___ %	FEDERAL WITHHOLDING TAXES	OTHER WITHHOLDING TAXES	OTHER DEDUCTIONS	TOTAL DEDUCTIONS (B)			
																								1
																								2
																								3
																								4
																								5
																								6
																								7
																								8
																								9
																								10
																								11
																								12
TOTAL THIRD QUARTER																								13
																								14
																								15
																								16
																								17
																								18
																								19
																								20
																								21
23			8	8	8	8	32			4 00		128 00			128 00		9 49	18 10	3 34		28 93	99 07	160	22
30		8	8	8		48	36			4 00		144 00			144 00		8 42	20 50	3 90		32 82	111 18	164	23
2	7	8	8	8	8	8			40	4 00		160 00			160 00		9 36	24 10	4 78		38 24	121 76	167	24
14	5	6	8	3	7	6	5		40	4 00		160 00			160 00		9 36	24 10	4 78		38 24	121 76	171	25
21				6	6	6	18			4 00		72 00			72 00		4 21	9 40	1 62		15 23	56 77	176	26
28		5	4						9	4 00		36 00			36 00		2 11	3 60	74		6 45	29 55	180	27
TOTAL FOURTH QUARTER																								28
TOTAL FIRST QUARTER																								29
TOTAL SECOND QUARTER																								30

IDEAL SYSTEM
REG. U S PAT. OFFICE
PUBLISHED BY
THE IDEAL SYSTEM CO. LOS ANGELES

FORM 9-1648
MARCH 1968

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
OFFICE OF MINERALS EXPLORATION

Thru Fed Res

OPERATOR'S MONTHLY VOUCHER

For Month of July 1974

Docket No. OME- 6885
Contract 14-08-0001 2313
Contract Amount $ 32,940
Gov't. Participation % 75 $ 24,705

Operator's Name Charles H. and Anne Turner, d/b/a Hamilton Resources Corporation
Address P.O.Box 3224, Hilner Sta., Boulder, Colo.

FOR OPERATOR'S USE					FOR GOVERNMENT USE ONLY			
COST ITEMS (FROM EXHIBIT A)	THIS MONTH		TO DATE		THIS MONTH		TO DATE	
	UNITS	COSTS	UNITS	COSTS	UNITS	COSTS	UNITS	COSTS
Bulldozing D-7	30	$ 825.00	30	$ 825.00	30	$ 825.00	30	$ 825.00
TOTALS		$ 825.00		$ 825.00		$ 825.00		$ 825.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Aug. 8, 1974 *Payee Hamilton Resources Corp.

Per Charles H. Turner Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U. S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Approved as noted, subject to field examination and audit.

Signature J. William Hasler OME Field Officer Date 8/4/74

Approved for: $
(SUBJECT TO AUDIT)

Signature

Date Vou. No.

FOR OPERATOR'S USE	FOR GOVERNMENT USE
REMARKS	REMARKS
A minimum of 250 feet of 35-foot wide right-of-way was cleared of trees, cutting and filling were carried out where necessary, earth ballast was hauled to the site, and spread, and the whole was graded and drained, to result in a good access road to the main mine portal. The work was done with a D-7 Caterpillar bulldozer. The work was impeded by heavy rains, and it was necessary to repeat the finish grading. The surface has now been compacted by use and the road is in excellent condition.	

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of two parts.

FIRST, the Operator's Monthly Voucher on Form 9-1648 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and three copies of each of the two sections of this report to the OME regional Field Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, FORM 9-1648

In the left hand column list the items for which costs were incurred during the month, and also the items for which costs were previously reported. For items previously reported, show only UNITS TO DATE and COSTS TO DATE. Items listed should conform to Exhibit A of the contract (Estimated Costs of the Work). The total of COSTS THIS MONTH followed by the Operator's signature constitutes a claim for payment of the Government's share of the costs. The Operator or his agent must sign the certification in the lower left corner.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as unemployment taxes, employee's liability insurance, and depreciation of Operator-owned equipment. The certification may be stated thus, "Certified True Copy", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Field Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

FARMER CONST. CO.
PLACERVILLE, COLO.

No. 4352

DATE	7/15/74
CUSTOMER'S ORDER	
SALESMAN	
TERMS	
F. O. B.	
VIA	

Sold To HAMILTON RESOURCES CORP.
SAN JUAN MINE
SAN MIGUEL COUNTY, COLORADO

Shipped To

Address

	ROAD CONSTRUCTION 30 HRS — D7 CAT @ $27.50			825	00

7H 736 Rodiform

INVOICE

HAMILTON RESOURCES CORPORATION

P.O. BOX 3224 HIMAR STATION BOULDER, COLORADO 80303 (303) 499-3330

August 9, 1974

Mr. J. William Hasler
Field Officer, Region III
O M E, USGS
Denver Federal Center, Bldg. 53, Room 28
Denver, Colorado 80225

Re: OME 6885 (Silver-Gold)
Hamilton Resources Corp.
San Juan Mine

Dear Mr. Hasler:

I am enclosing herewith an original and three copies of Operator's Monthly Voucher Form 9-1648, covering work completed during August 1974, together with the original invoice from the Contractor.

Very truly yours,

HAMILTON RESOURCES CORP.

Chas H Turner

Charles H. Turner
President

encls.

FORM 9-1648
MARCH 1968

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
OFFICE OF MINERALS EXPLORATION

OPERATOR'S MONTHLY VOUCHER For Month of July 1974

Operator's Name Charles H. and Anne Turner, d/b/a Hamilton Resources Corporation

Address P.O.Box 3224, HiMar Sta., Boulder, Colo.

Docket No. OME- 6885
Contract 14-08-0001 2313
Contract Amount $ 32,940
Gov't. Participation % 75 $ 24,705

FOR OPERATOR'S USE					FOR GOVERNMENT USE ONLY			
COST ITEMS (FROM EXHIBIT A)	THIS MONTH		TO DATE		THIS MONTH		TO DATE	
	UNITS	COSTS	UNITS	COSTS	UNITS	COSTS	UNITS	COSTS
Bulldozing D-7	30	$ 825.00	30	$ 825.00	30	$ 825.00	30	$ 825.00
TOTALS		$ 825.00		$ 825.00		$ 825.00		$ 825.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Aug. 8, 1974 *Payee Hamilton Resources Corp.

Per Charles H. Turner Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U. S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Approved as noted, subject to field examination and audit.

Signature J. William Naeb OME Field Officer Date 8/14/74

Approved for: $
(SUBJECT TO AUDIT)

Signature

Date Vou. No.

FOR OPERATOR'S USE REMARKS	FOR GOVERNMENT USE REMARKS
A minimum of 250 feet of 35-foot wide right-of-way was cleared of trees, cutting and filling were carried out where necessary, earth ballast was hauled to the site, and spread, and the whole was graded and drained, to result in a good access road to the main mine portal. The work was done with a D-7 Caterpillar bulldozer. The work was impeded by heavy rains, and it was necessary to repeat the finish grading. The surface has now been compacted by use and the road is in excellent condition.	

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of two parts.

FIRST, the Operator's Monthly Voucher on Form 9-1648 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and three copies of each of the two sections of this report to the OME regional Field Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, FORM 9-1648

In the left hand column list the items for which costs were incurred during the month, and also the items for which costs were previously reported. For items previously reported, show only UNITS TO DATE and COSTS TO DATE. Items listed should conform to Exhibit A of the contract (Estimated Costs of the Work). The total of COSTS THIS MONTH followed by the Operator's signature constitutes a claim for payment of the Government's share of the costs. The Operator or his agent must sign the certification in the lower left corner.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as unemployment taxes, employee's liability insurance, and depreciation of Operator-owned equipment. The certification may be stated thus, "Certified True Copy", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Field Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

HAMILTON RESOURCES CORPORATION

P.O. BOX 3224 HIMAR STATION BOULDER, COLORADO 80303 (303) 499-3330

August 9, 1974

Mr. J. William Hasler
Field Officer, Region III
O M E, USGS
Denver Federal Center, Bldg. 53, Room 28
Denver, Colorado 80225

Re: OME 6885 (Silver-Gold)
Hamilton Resources Corp.
San Juan Mine

Dear Mr. Hasler:

I am enclosing herewith an original and three copies of Operator's Monthly Voucher Form 9-1648, covering work completed during August 1974, together with the original invoice from the Contractor.

Very truly yours,

HAMILTON RESOURCES CORP.

Charles H. Turner
President

encls.

FARMER CONST. CO.
PLACERVILLE, COLO.

No. 4352

DATE	7/15/74
CUSTOMER'S ORDER	
SALESMAN	
TERMS	
F. O. B.	
VIA	

Sold To HAMILTON RESOURCES CORP.
SAN JUAN MINE
SAN MIGUEL COUNTY, COLORADO

Shipped To

Address

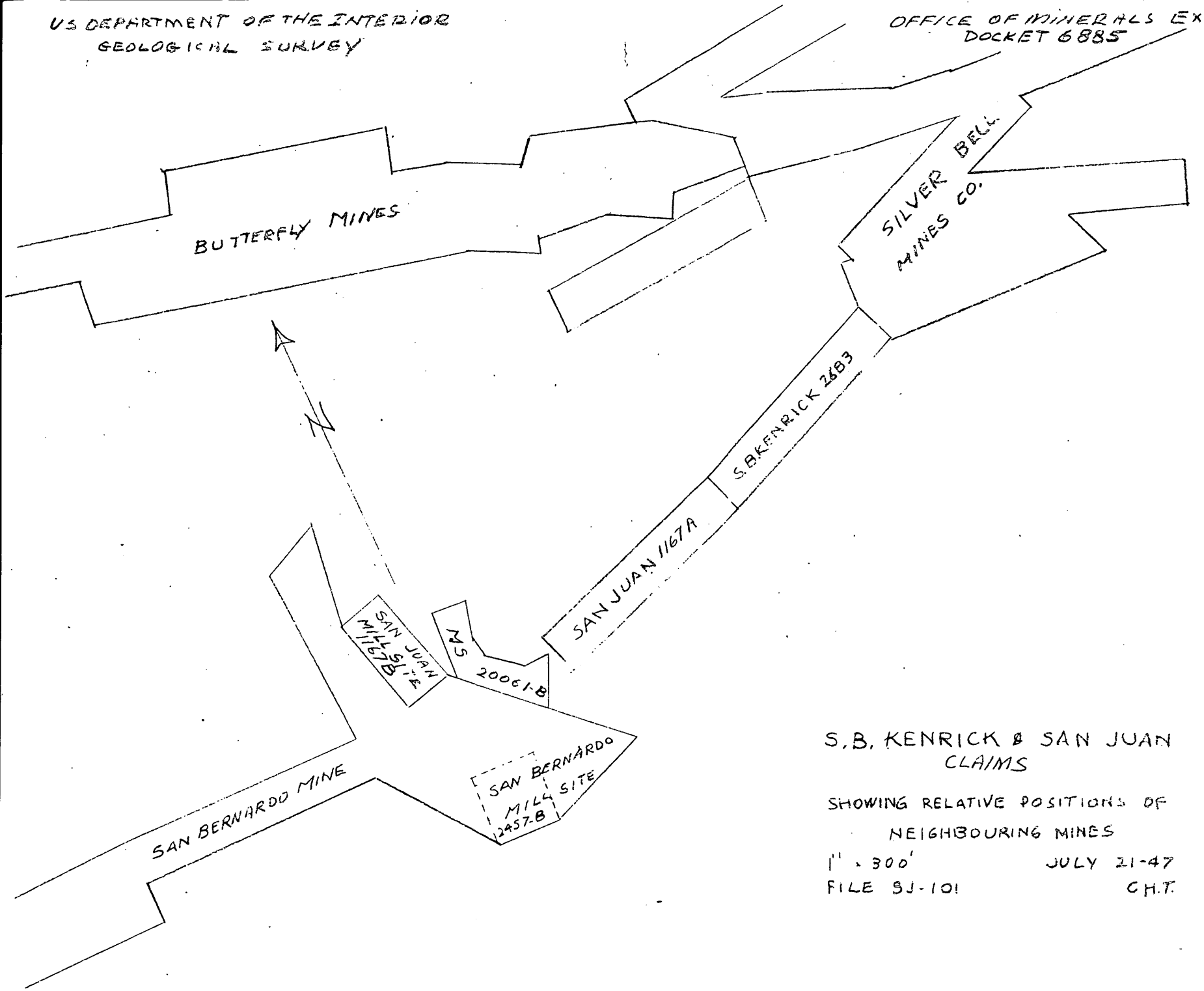
	ROAD CONSTRUCTION 30 HRS – D7 CAT @ $27.50			825	00

7H 736 Rediform

INVOICE

US DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION
DOCKET 6885



S.B. KENRICK & SAN JUAN CLAIMS

SHOWING RELATIVE POSITIONS OF NEIGHBOURING MINES

1" = 300' JULY 21-47

FILE SJ-101 C.H.T.

FIGURE 1

FORM 1006

SALT LAKE BLUE

5 .075 2801 1.34 2.93

5.10
5|28.01
25
30

26
5|1.34
10
34

.015
5|.075
5
25

.015 Au —

5.60 Ag

.26 Cu —

.015
.075
1800
1200
015
03.700

US DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION
DOCKET 6885

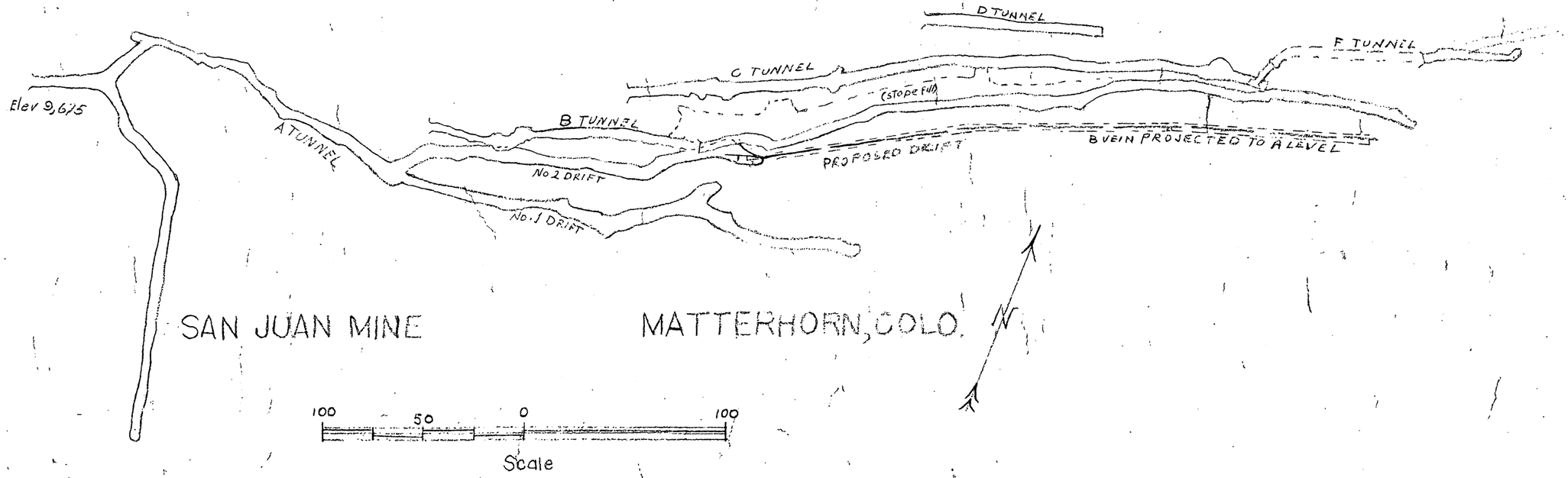


FIGURE 2

Extra copy for the Field Office

MME Form 50
July 1965

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

EXPLORATION CONTRACT
(Long Form)

Docket No.	Commodity	Contract No.	County	State
OME [illegible]	Silver-Gold	2313	San Miguel	Colorado

It is agreed JUN 17 1974 (Date), between the United States of America, acting through the Department of the Interior, U. S. Geological Survey, hereinafter called the "Government," and

Charles H. Turner and Anne Z. Turner d/b/a

Hamilton Resources Corporation, a Colorado corporation,

whose mailing address is P.O. Box 3224 Miller Station, Boulder, Colorado 80303, hereinafter called the "Operator," as follows:

ARTICLE 1. Authority and scope.--(a) This contract entered into under the authority of Public Law 701, 85th Cong., 2d sess. (72 Stat. 700; 30 U.S.C. § 641 - 646), consists of this form, the attached Annex I (land description), Exhibit A (work and costs), and the maps and documents listed. The work is a search for new or unexplored deposits of the commodity designated above. The Operator shall begin the work on or before Sept. 15, 1974 (Date), and, subject to the provisions of Article 9 and Exhibit A, shall either have completed the work within 12 months from the date of the contract or shall have incurred allowable costs (see Article 6) in a sum not less than the total cost set forth in Exhibit A.

(b) The total allowable cost of the work set forth in Exhibit A is $[illegible]. The Government will contribute 75 percent of the allowable costs as they are incurred, in a total sum not in excess of $[illegible] in accordance with the provisions of Articles 3, 4, 5, and 6. "Costs incurred" means costs that have been paid or have become due and payable, or that the Government determines have become obligations.

(c) Interest computation.--Simple interest at the rate of 9 - 3/4 percent shall accrue from the dates Federal funds are made available until the period specified for payment of royalty expires, or until the amount of Federal funds contributed is fully repaid with interest.

(d) The Operator shall not transfer or assign this contract or any right or obligation thereunder without the written consent of the Government.

ARTICLE 2. Operator's right in land.--(a) The Operator represents and undertakes that Annex I correctly describes the land which is the subject of this contract and the nature of the Operator's right of property and possession therein (whether as owner, lessee, or otherwise), and that such right, title, or interest is subject only to the following claims, liens, or encumbrances:

See Annex I

(b) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above and (if the Operator does not hold the legal title) the lien agreement of any holder of the legal title of the land (lessor, seller, optionor, etc.) are attached as follows:

See Annex I

(c) The Operator shall preserve and maintain his right, title, or interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. The Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a royalty on production and liens for the payment thereof. Two true copies of such instrument shall be furnished to the Government. If the Government's rights to royalty as provided in Article 7 have been terminated, the provisions of this paragraph (c) shall become inapplicable.

ARTICLE 3. Performance of the work.--(a) Operator's responsibility.--The work shall be performed diligently, efficiently, in a workmanlike manner in accordance with good mining standards, and in compliance with State laws governing health, safety, and liability insurance covering employment. The Operator shall provide suitable and adequate equipment, facilities, materials, supplies, and labor to complete the work as specified in Article 1(a).

(b) Independent contracts.--To the extent that the allowable costs are estimated in Exhibit A with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed (see Article 6(a), Category (1)). Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract, the Government will participate in payments to the independent contractor only as to work performed in accordance with the provisions of this exploration contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

(c) Government may inspect.--The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract and production operations during the period that royalty is payable to the Government. The Operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 4. Contribution by the Government.-- The Government will make its contribution on the basis of the monthly vouchers referred to in Article 5(b), but all payments by the Government are provisional only, subject to audit. Until the account between the Operator and the Government is finally audited and settled and the Operator's final report has been received, the Government may withhold such sums as are necessary to protect its interests. The Government may make payments for the account of the Operator directly to independent contractors and suppliers rather than to the Operator.

ARTICLE 5. Reports, accounts, audits.--(a) Operator's records.--The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine all pertinent books, documents, papers, and records of the Operator. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

(b) Monthly reports.--The Operator shall provide the Government with four copies of monthly reports in three sections as follows:

(1) Operator's Monthly Voucher claiming costs for work performed;

(2) Operator's Progress Report showing the number of units of the various types of work performed; and

(3) a narrative report of the work performed during the reporting period, including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground.

(Forms for reporting under (1) and (2) above will be provided by the Government; however, the original of the Operator's Monthly Voucher shall be supported by documentary evidence, such as certified copies or transcripts of payrolls and invoices, for all costs claimed under Article 6 (a) (1).)

(c) Final report.--Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with three copies of a final report (in addition to the final monthly report). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the related costs.

(d) Report of sales.--The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's royalty relates, such as two copies of smelter or concentrator settlement sheets and certified accounts of production and sale or other disposition of production.

(e) Compliance with requirements.--If the Government determines that any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the preparation or completion of the same with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 6. Costs.--(a) Allowable costs.--The allowable costs of the work to which the Government will contribute are limited to:

(1) the necessary, reasonable, and direct actual costs that are estimated in Exhibit A by categories as specified in this article; and

(2) fixed costs for units of work to be performed (per foot, per hour, etc.) agreed upon in lieu of actual costs and set forth in Exhibit A.

The Government will not contribute to costs under any category or subcategory omitted from the estimate of costs in Exhibit A. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost; any excess over a fixed unit cost; and any excess over the total allowable cost of the work are not allowable. The Operator shall incur such excesses for his own account without contribution by the Government, but the Operator is not obligated to incur more than his agreed percentage of the total allowable cost of the work.

Any category or subcategory or element thereof not designated as a maximum in this article, or in Exhibit A may be exceeded, provided that the total allowable cost of the work, which is a maximum, is not exceeded.

CATEGORY (1)--INDEPENDENT CONTRACTS.--(See Article 3(b)). The total of this category and the average unit cost estimated for each type of work to be performed under an independent contract are maximums.

CATEGORY (2)--PERSONAL SERVICES.

Subcategory (a)--Supervision and Technical Services--All elements of this subcategory (number of supervisors, technicians, outside consultants, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)--Labor.

CATEGORY (3)--OPERATING MATERIALS AND SUPPLIES.--Includes such items as drill bits and steel, explosives, fuel, pipe, power, timber, rail, and small tools costing less than $50 each.

CATEGORY (4)--OPERATING EQUIPMENT.

Subcategory (a)--Rental.--The number of each rented item [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)--Purchases.--The total of this subcategory is a maximum.

Subcategory (c)--Depreciation.--All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)--INITIAL REHABILITATION AND REPAIRS.--Costs of items listed under this category include all requirements, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The total of this category is a maximum.

Subcategory (a)--Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).--The total of this subcategory is a maximum.

Subcategory (b)--Initial rehabilitation and repairs of operating equipment.--The total of this subcategory is a maximum.

CATEGORY (6)--NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).--Costs of items listed under this category include all requirements, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The total of this category is a maximum.

CATEGORY (7)--MISCELLANEOUS.--Includes requirements and costs that do not fall within any of the first six categories, such as repairs other than initial and maintenance of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, and communications.

(b) Nonallowable costs.--In addition to the limitations imposed by paragraph (a) of this Article 6 the Government will not contribute to the following costs:

(1) Costs of the land, such as rental, depreciation, depletion, or other costs of acquiring, owning, or holding possession;

(2) Indirect costs, such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) Previous work performed or costs incurred before the date of this contract; and

(4) Deferred payments.--Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods, unless the purchase agreement is approved by the Government in writing.

(c) Reductions in costs.--The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original total cost. The provision does not apply to receipts from production which are subject to the Government's royalty under the provisions of Article 7.

ARTICLE 7. Repayment by Operator.--(a) Certification.--If the Government considers that mineral or metal production from the land covered by the contract may be possible as a result of the exploration work, it shall so certify in writing to the Operator at any time not later than six months after a sufficient final report and final accounting (see Article 5) have been furnished.

(b) Royalty on production.--The Operator, whether or not the producer (for example, if the Operator either transfers or does not retains his interest in the land), shall pay to the Government a royalty on all minerals and metals mined or produced from the land as follows:

(1) irrespective of any certification of possible production--from the date of the contract until the lapse of the time within which the government may issue such certification or until the total net amount contributed by the Government is fully repaid with interest, whichever occurs first; or

(2) if the Government issues a certification of possible production--for a period of ten years from the date of the contract, or until the total net amount contributed by the Government is fully repaid with interest, whichever occurs first.

(c) Payment of royalty.--(1) The Government's royalty shall be five percent of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrate, metal or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business and shown as deductions on the buyer's settlement sheets (such as treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight payable by the buyer to a carrier (not the Operator or producer)), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. No costs of the Operator or Producer are deductible in arriving at the "gross proceeds" as that term is here used.

The term "treatment processes" means those processes (such as milling, concentrating, smelting, refining, or equivalent, but excluding fabricating or manufacturing) applied to the crude ore or other production after it is extracted from the ground to put it into a commercially marketable form.

(2) The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be.

(d) Unsold production.--If any production (ore, concentrate, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrate, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination or the market value, whichever is greater.

(e) Lien for payment.--To secure the payment of royalty (see Article 7(b)), the Operator hereby grants to the Government a lien upon his interest in the land and upon any production of minerals and metals therefrom until the royalty claim is extinguished by lapse of time or is fully paid.

(f) Notice to purchasers.--The Operator or producer shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Government, and this estimate shall be final and binding upon the Operator or producer.

(g) No obligation to produce.--Nothing in this contract shall be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(h) Government not obligated to buy.--Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals and metals mined or produced from the land.

ARTICLE 8. Interests in purchased property.--(a) Title and ownership.--All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions although title thereto shall be taken in the name of the Operator.

(b) Preservation of property.--Until the final disposal of any property in which the Government has an interest, the Operator shall preserve and protect same for the best interest of the Government, and any reasonable and necessary cost thereof will be treated as an allowable cost of the exploration. After the completion of the work, termination of the Government's obligation to contribute, or when such property is not being used for the work, the Operator shall not use it elsewhere without the written consent of the Government and without paying a reasonable rental to be fixed by the Government for its proportionate interest.

(c) Disposal of property.--Upon the completion of the work, termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest for the joint account of the Government and the Operator, either by return to the vendor, sale to others, purchase by the Operator, or sale or transfer to the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government, the Operator shall not sell at any price any item of property that cost more than $500, and shall not sell at less than 25 percent of the purchase price any item of property that cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or offers. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, explosives, pipe, or rail), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item, the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the exploration.

(d) Default of the Operator re disposal.--If within 90 days after the completion of the work, termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may:

(1) in writing extend the time within which the Operator must dispose of or liquidate the property;

(2) by written notice to the Operator, place upon such property what it determines to be a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; and

(3) enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 9. Termination of the Government's obligations.--(a) If the Government determines that operations at any time have failed to achieve anticipated results and further work is not justified, the Government may give the Operator written notice thereof, and thereupon:

(1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to final accounting and reporting; and

(2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to final accounting and reporting.

(b) If the Government determines that the Operator is in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon:

(1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to final accounting and reporting; and

(2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to final accounting and reporting.

The Government may also avail itself of any other remedy the law may provide for breach of contract, including the right to rescind the contract and to demand repayment of all moneys contributed by the Government under the contract.

(c) The giving of any notice by the Government under the provisions of this Article 9 shall not affect the Government's rights as provided for in the contract with respect to royalty and liens to secure the payment thereof, and such rights shall be fully preserved.

(d) The determinations of the Government are subject to appeal under Article 13.

ARTICLE 10. Notices to be given by the Government may be delivered to the Operator, or may be sent by certified mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 11. Officials not to benefit.--No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 12. Nondiscrimination in Employment. The provisions respecting nondiscrimination in employment which are required by section 301 of Executive Order 10925, dated March 6, 1961 as amended and supplemented are attached hereto as Exhibit B and are hereby incorporated in and made a part of this contract.

-1

ARTICLE 13. Disputes.--Any dispute arising under this contract which is not disposed of by agreement shall be decided by the Director, U. S. Geological Survey, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Operator. The decision of the Director, U. S. Geological Survey, shall be final and conclusive unless, within 30 days from the date of receipt of such copy, the Operator mails or otherwise furnishes to the Director, U. S. Geological Survey, a written appeal addressed to the Secretary of the Interior. The decision of the Secretary or his duly authorized representative for the determination of such appeals shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence.

The term "Director, U. S. Geological Survey," as used herein includes his duly authorized representative.

ARTICLE 14. Work Hours Act of 1962 - Overtime Compensation.--This contract, to the extent that it is of a character specified in the Work Hours Act of 1962 (Public Law 87-581, 76 Stat. 357-360) and is not covered by the Walsh-Healey Public Contracts Act (41 U.S.C. 35-45), is subject to the following provisions and to all other provisions and exceptions of said Work Hours Act of 1962.

(a) Overtime requirements.--No Operator or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic to be employed on such work in excess of eight hours in any calendar day or in excess of forty hours in any workweek unless such laborer or mechanic receives compensation at a rate of not less than one and one-half times his basic rate of pay for all hours worked in excess of eight hours in any such calendar day or in excess of forty hours in any such workweek, as the case may be.

(b) Violations; liability for unpaid wages; liquidated damages.--In the event of any violation of the clause set forth in subparagraph (a) of this paragraph, the Operator and any subcontractor responsible therefor shall be liable to any affected employee for his unpaid wages. In addition, such Operator and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for

liquidated damages. Such liquidated damages shall be computed, with respect to each individual laborer or mechanic employed in violation of the clause set forth in subparagraph (a) of this paragraph, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of eight hours or in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in subparagraph (a) of this paragraph.

(c) Withholding for unpaid wages and liquidated damages.--The U. S. Geological Survey may withhold or cause to be withheld, from any moneys payable on account of work performed by the Operator or subcontractor, such sums as may administratively be determined to be necessary to satisfy any liabilities of such Operator or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (b) of this paragraph.

ARTICLE 15. Copeland (Anti-Kickback) Act--Nonrebate of wages.--The regulations of the Secretary of Labor applicable to contractors and subcontractors (29 CFR, Part 3), made pursuant to the Copeland Act, as amended (40 U. S. C. 276c) and to aid in the enforcement of the Anti-Kickback Act (18 U. S. C. 874) are made a part of this contract by reference. The Operator will comply with these regulations and any amendments or modifications thereof and will be responsible for the submission of affidavits required of independent contractors thereunder. The foregoing shall apply except as the Secretary of Labor may specifically provide for reasonable limitations, variations, tolerances, and exemptions.

ARTICLE 16. Changes and added provision.--

_____

_____

_____

_____

Executed in ~~Contractor~~ Carlton H. Turner the day and year first above written.

Carlton H. Turner
Anne E. Turner d/b/a
HAMILTON RESOURCES CORPORATION
(Operator)

By _____
Title _____

By _____
Title _____

THE UNITED STATES OF AMERICA

By _____
U.S. Geological Survey

_____

I, _____, certify that I am the
(Name)

_____ secretary of the corporation named as Operator herein; that

_____, who signed this contract on behalf of the Operator, was then
(Name)

_____ of said corporation; that said contract was duly signed for
(Title)

and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

_____

 [CORPORATE SEAL]

EXPLORATION CONTRACT
CHARLES H. TURNER AND ANNE Z. TURNER d/b/a
HAMILTON RESOURCES CORPORATION
OME-6885

ANNEX I

The land, including all rights pertaining thereto, referred to in Article 2 of the contract consists of two (2) patented lode mining claims and a mill site in Sections 4 and 5, T. 41 N., R. 9 W., NMPM, Trout Lake Mining District, San Miguel County, Colorado. These claims are shown in figure 1, titled "S. B. Kenrick and San Juan claims" which is attached and made a part hereof.

The mining claims are identified as:

Name	U. S. Survey No.
San Juan	1167A
S. B. Kenrick	2683
San Juan Millsite	1167B

The Operator is in possession of these claims by virtue of an Indenture dated April 23, 1973, between Charles H. Turner and Anne Z. Turner, and Hamilton Resources Corporation, a Colorado corporation.

Recorded 3:00 o'clock P. M., October 16, 1973

Reception No. 186534 Gay Cappis Recorder

BOOK 346 PAGE 236

THIS INDENTURE, Made this --23rd-- day of April, 1973, between

CHARLES F. TURNER and ANNE Z. TURNER, tenants in common,

of the City and County of Boulder and State of Colorado, parties of the first part, and

HAMILTON RESOURCES CORPORATION, a Colorado corporation,

of the City and County of Boulder, and State of Colorado, party of the second part;

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of TEN DOLLARS AND OTHER GOOD AND VALUABLE CONSIDERATION---------~~Dollars,~~ ~~100~~

to them in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, have granted, bargained, sold, remised, released and forever quit-claimed, and by these presents do grant, bargain, sell, remise, release and forever quit-claim, unto the said party of the second part, its heirs and assigns, the following described property, situate, lying and being in the Trout Lake Mining District, in the County of San Miguel, and State of Colorado, to wit:

S.B.Kenrick Lode Claim, U.S.Patent Survey 2683, San Juan Lode Claim, U.S.Patent Survey 1167-A, San Juan Millsite, U.S.Patent Survey 1167-B, Sections 4 and 5, T.41 N., R. 9 W., N.M.P.M.

State Documentary Fee
Date OCT. 16, 1973
$ exempt kr

TOGETHER with all the dips, spurs, and angles, and all the metals, ores, gold and silver-bearing quartz, rock and earth therein, and all the rights, privileges and franchises thereto incident, appendant and appurtenant, or therewith usually had and enjoyed; and all and singular the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining, and the rents, issues and profits thereof; and all the estate, right, title, interest, claim and demand whatsoever, as well in law as in equity, of the said parties of the first part, of, in or to the said premises, and every part and parcel thereof, with the appurtenances.

TO HAVE AND TO HOLD, all and singular, the said premises, together with the appurtenances and privileges thereto incident, unto the said party of the second part, its heirs and assigns forever.

IN WITNESS WHEREOF, The said parties of the first part have hereunto set their hand s and seal s the day and year first above written.

Signed, sealed and delivered in the presence of

Charles F. Turner [SEAL]

Anne Z. Turner [SEAL]

[SEAL]

STATE OF COLORADO,
City and County of Boulder } ss.

The foregoing instrument was acknowledged before me this 23rd day of April 19 73, by Charles F. Turner and Anne Z. Turner

My commission expires September 18, 1973. Witness my hand and official seal.

[illegible]

EXPLORATION CONTRACT
CHARLES H. TURNER AND ANNE Z. TURNER d/b/a
HAMILTON RESOURCES CORPORATION
OME-6885

EXHIBIT A

The purpose of the project is to explore the San Juan mine for gold, silver, copper, and lead ore bodies by drifting northeastward on the San Juan vein in the No. 2 drift, A tunnel level, in igneous rocks associated with the Ophir stock.

General Provisions

A bulldozer no smaller than the equivalent of a Caterpillar D-7 shall be used to repair and maintain an access road.

The drift to be advanced shall be not less than 6 by 6 feet in cross section and shall be timbered as necessary. Drift sets shall be not less than 8- by 8-inch timber, or equivalent round timber. Roof bolts may be used in lieu of timber. Any crosscutting necessary to recover faulted segments of the vein may be done at the expense of the allowance for equivalent drift advance. Rubber-tired, diesel-powered equipment with adequate scrubbers and anti-pollution devices shall be used for transportation in the drift.

All significantly mineralized areas traversed by the drifts shall be sampled normal to the trends of the deposits at intervals not exceeding 5 feet. In addition, a representative bulk sample may be taken of each round broken.

All samples, from whatever source, shall be split as necessary and one split assayed. The Operator shall store one split of each sample in a suitable container properly labeled. Stored samples shall be made available for Government inspection and possible use, and may be disposed of only with prior Government approval.

All splits of samples assayed shall be analyzed for gold, silver, copper and lead.

True copies of assay certificates and maps or sketches showing the work completed, the location, width, and assay value of all samples assayed, and the geological formations and structures traversed by the workings shall be furnished monthly to the Government.

The Operator shall provide such equipment, materials, supervision, labor, and technical services as may be required to perform the work in a satisfactory manner.

The location, direction, and extent of each work item shall be subject to Government approval.

The Operator shall perform all work in such a manner as to maintain in the vicinity of the project the quality of the environment which existed prior to start of the work. Materials such as waste rock, stockpiled ore, and water resulting from the project shall be accumulated or discharged in a safe manner so as not to degrade the quality of the adjacent land, air, and streams, and in compliance with all applicable Federal and State laws.

Description of the Work

The work shall consist of repairing and maintaining an access road to the San Juan mine, and extending the No. 2 drift, A tunnel level, in a northeasterly direction along the San Juan vein. The total of drift advance may approximate 250 feet.

The approximate location of the proposed drift extension is shown on Figure 2, entitled "San Juan Mine, Matterhorn, Colorado," attached and made a part hereof.

Estimated Costs of the Project

Fixed Unit Costs

Drifting - crosscutting[1/] 251 feet at $87.00/foot	$21,837.00
Long hole drilling 800 feet at $1.50/foot	1,200.00
1 Supervisor, 3 months at $1,500.00/month	4,500.00
1 Outside Consultant 3 days at $125.00/day	375.00
Per diem, Outside Consultant 3 days at $25.00/day	75.00
Transportation for Consultant 2,042 miles at $0.12/mile	245.00
Office and accounting expense 3 months at $50.00/month	150.00
Payroll taxes, F.I.C.A., insurance at 15%	1,958.00
Total Fixed Unit Costs	$30,340.00

1/ Includes all costs whatsoever such as labor, equipment, materials and supplies. The Government retains no equity in any of the equipment or materials used.

Actual Costs

Category (1) Independent Contracts		
Bulldozing[1/] 30 hours at $27.50/hour	$ 825.00	
Category (7) Miscellaneous		
Assaying, 151 samples (rounded), Gold, silver, copper at $8.50/sample Lead at $3.25/sample	1,775.00	
Total Actual Costs	$2,600.00	
Total Estimated Cost of the Project		$32,940.00
Government participation at 75 percent		$24,705.00

1/ Includes all costs whatsoever such as labor, equipment, materials and supplies. The Government retains no equity in any of the equipment or materials used.

EXHIBIT B

EQUAL OPPORTUNITY CLAUSE (FEDERALLY ASSISTED CONSTRUCTION)

EQUAL OPPORTUNITY (APPLICANT)

(a) The applicant hereby agrees to incorporate, or cause to be incorporated, into any contract for construction work, or modification thereof, as defined in the rules and regulations of the Secretary of Labor at 41 CFR, Chapter 60, which is paid for, in whole or in part, with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to grant, contract, loan, insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the following Equal Opportunity (Federally Assisted Construction) clause:

EQUAL OPPORTUNITY [1] (FEDERALLY ASSISTED CONSTRUCTION)

During the performance of this contract, the Contractor agrees as follows:

(a) The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this Equal Opportunity (Federally Assisted Construction) clause.

(b) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

(c) The Contractor will send to each labor union or representative of workers, with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(e) The Contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(f) In the event of the Contractor's noncompliance with the Equal Opportunity (Federally Assisted Construction) clause of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended, in whole or in part, and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as provided by law.

(g) The Contractor will include this Equal Opportunity (Federally Assisted Construction) clause in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however,* That in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

(b) The applicant further agrees that it will be bound by the above Equal Opportunity (Federally Assisted Construction) clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided, however,* That if the applicant so participating is a State or local government, the above Equal Opportunity (Federally Assisted Construction) clause is not applicable to any agency, instrumentality, or subdivision of such government which does not participate in work on or under the contract.

(c) The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of Contractors and subcontractors with the Equal Opportunity (Federally Assisted Construction) clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

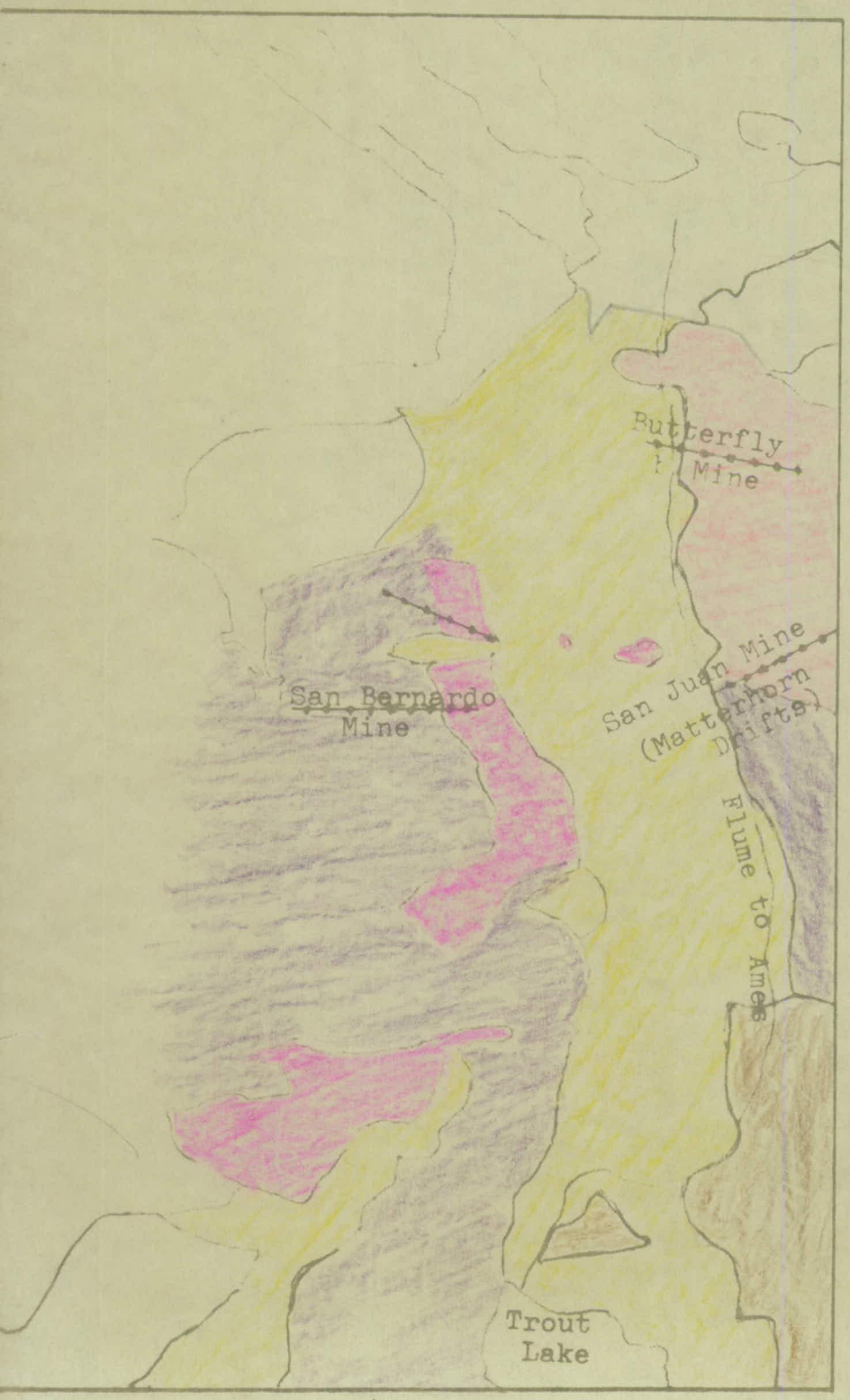
(d) The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order No. 11246 of September 24, 1965, with a Contractor debarred from, or who has not demonstrated eligibility for, Government contracts and Federally assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the Equal Opportunity (Federally Assisted Construction) clause as may be imposed upon Contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D, of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings the administering agency may take any or all of the following actions: Cancel, terminate, or suspend, in whole or in part, this grant [contract, loan, insurance, guarantee]; refrain from extending any further assistance to the applicant under the program with respect to which its failure or refusal occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

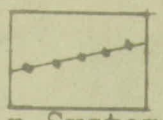
[1] On and after Oct. 14, 1968, the term "race, color, religion, sex, or national origin" is substituted for the term "race, creed, color, or national origin," as provided by Executive Order No. 11375, Oct. 13, 1967 (32 F.R. 14303).

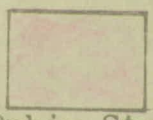
Charles H. Turner
Box 3224 HiMar Sta.
Boulder, Colo. 80303

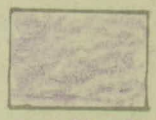
GEOLOGY of SAN JUAN MINE AREA
San Miguel County, Colorado

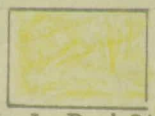
Adapted from Plate 1, Geological Survey Bulletin 1227.

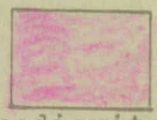


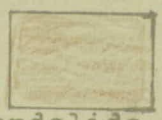

Vein System


Ophir Stock Porphyritic rocks


Mancos Shale


Glacial Drift


Granodiorite Porphyry

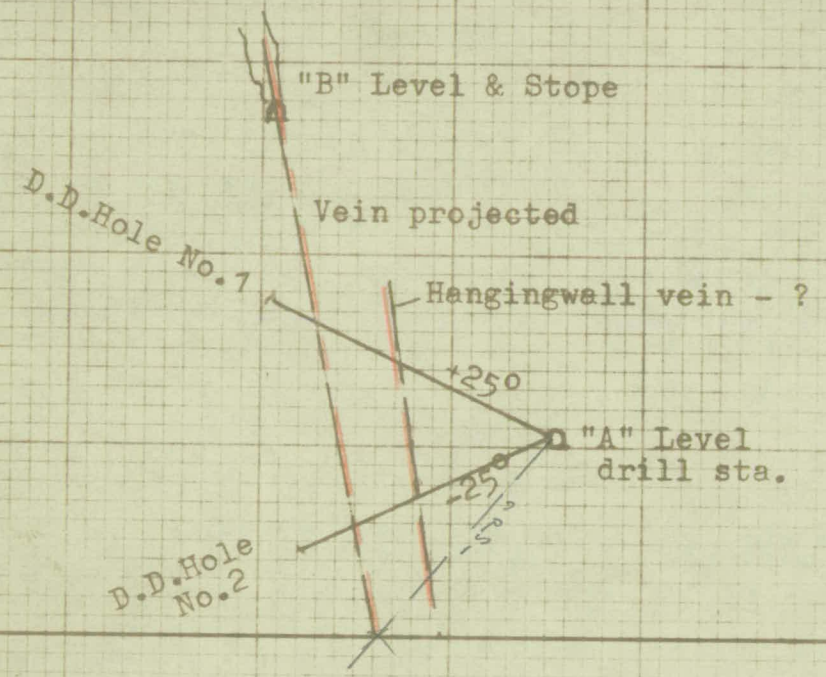

Landslide Deposit

C

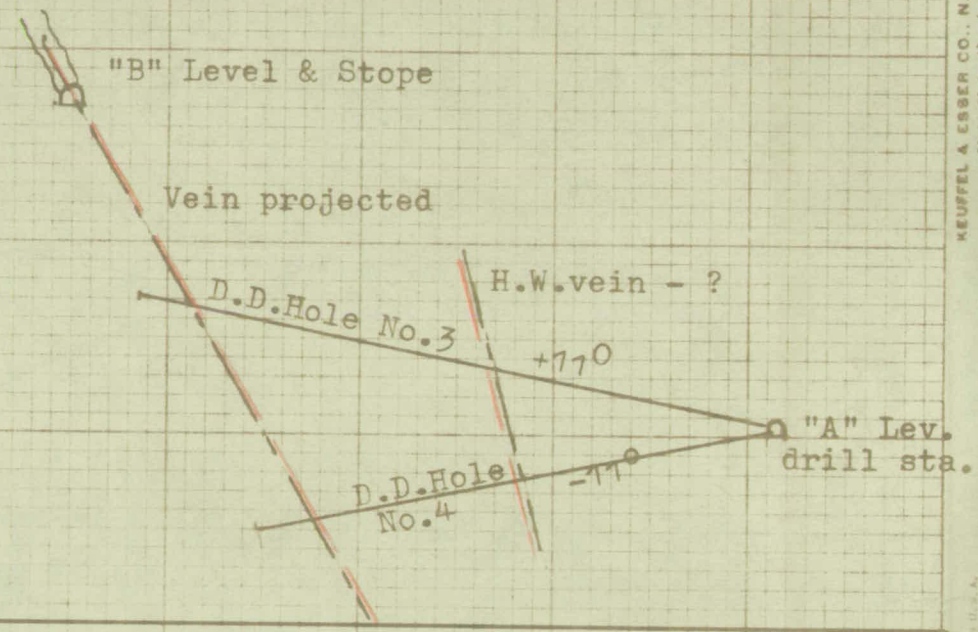
SAN JUAN MINE

Charles H. Turner
Box 3224 HiMar Sta.
Boulder, Colo. 80303

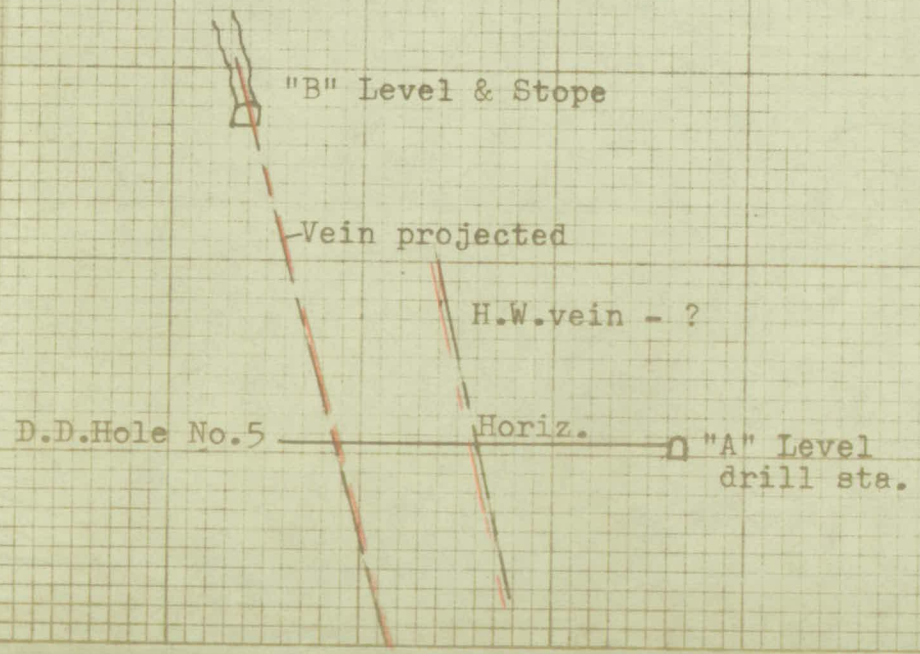
D.D.Hole No.1 80 ft.)
D.D.Hole No.2 70 ft.) N.6°W.



D.D.Hole No.3 165 ft.)
D.D.Hole No.4 135 ft.) N.42°E.



D.D.Hole No.5 100 ft. N.28°E.



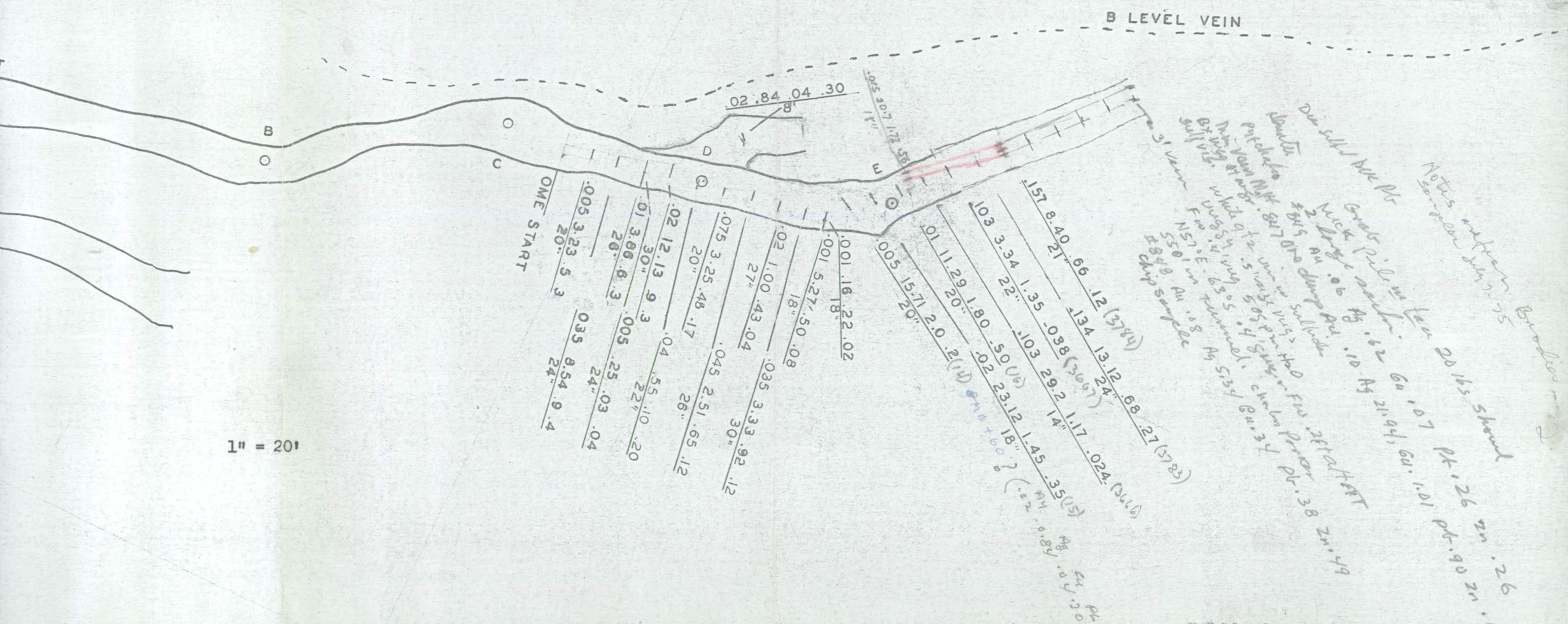
Sections thru proposed Diamond Drill holes No's 1-2-3-4-5, all drilled from same drill station at east breast of "A" Level South drift. (See Map A).

Scale: 1" = 50'

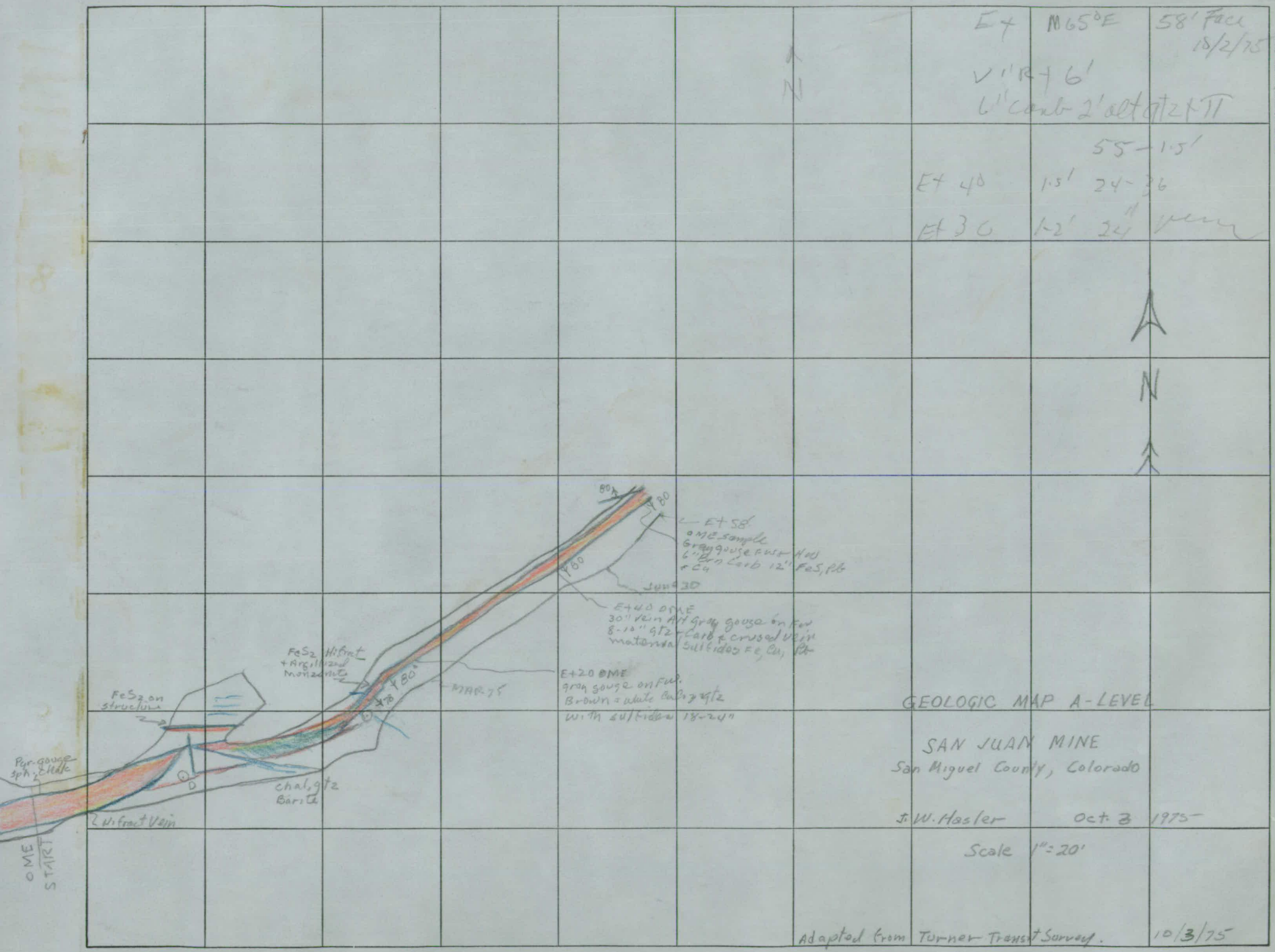
D

ASSAY MAP

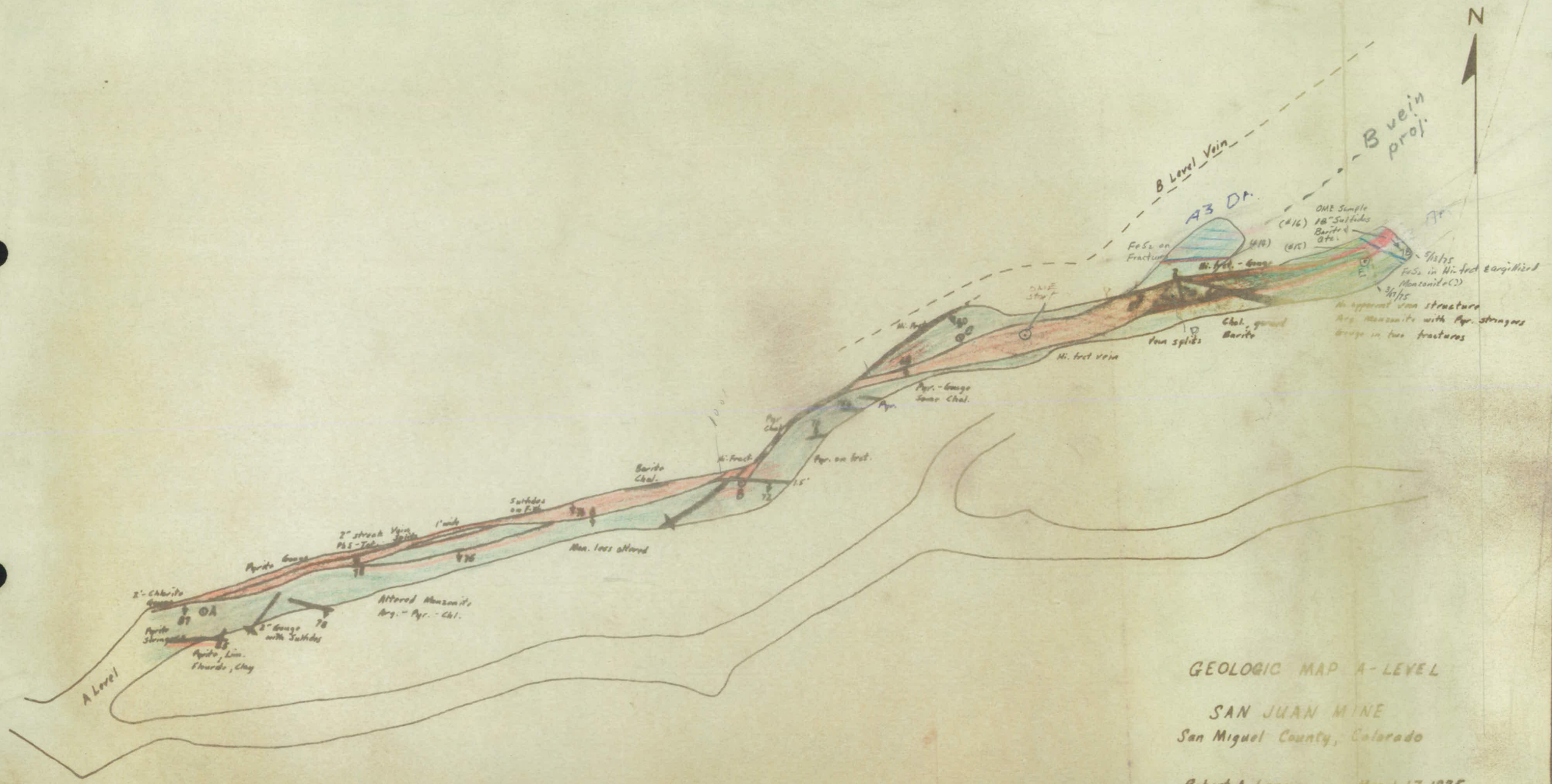
VALUES SHOWN - AU AG CU PB / INCHES

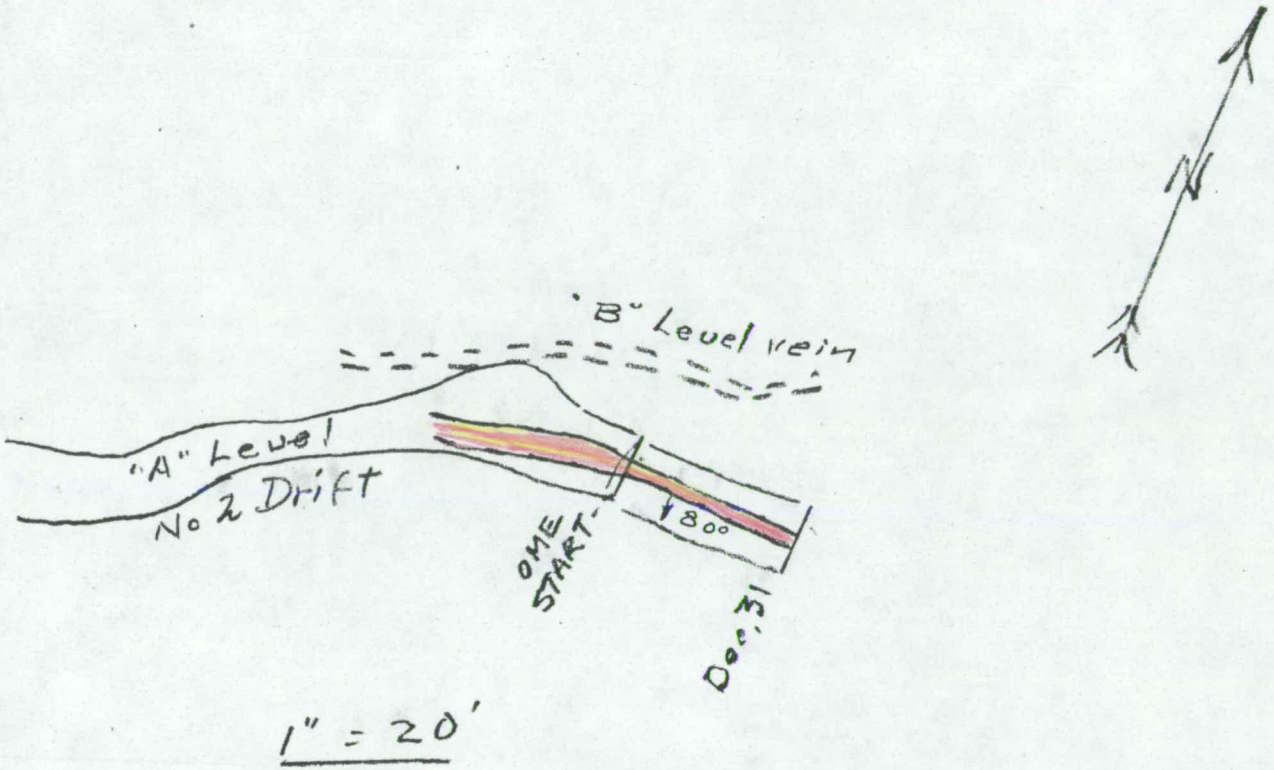


SAN JUAN MINE
MATTERHORN, COLO.



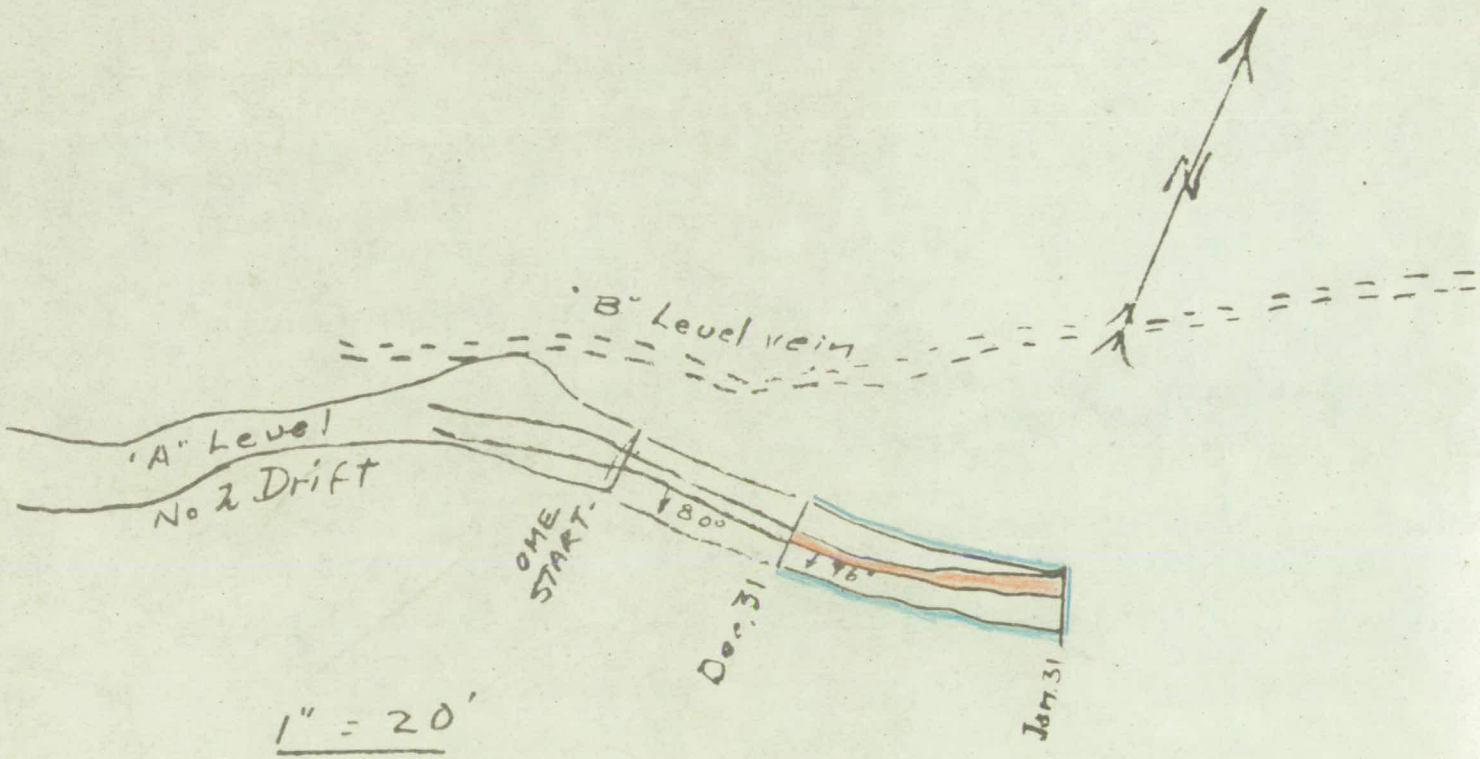
K&E 10 5156 2-71 2036


N
B Level Vein
B vein proj.
A3 Dr.
OME Sample
(#16) 18" Sulfides
Barite etc.
(#19)
(#15)
FeS2 on Fracture
Hi. frct. - Gouge
5/8/75
FeS2 in Hi-frct & argillized Monzonite(?)
3/11/75
No apparent vein structure
Arg. Monzonite with Pyr. stringers
Gouge in two fractures
Chal. gouged Barite
Vein splits
Hi. frct vein
Pyr. - Gouge Some Chal.
Pyr.
Pyr. on frct.
Hi. Frct.
Barite Chal.
Sulfides on f.w.
1' wide
2" streak Vein PbS - Tab.
Vein splits
Pyrite Gouge
Mon. less altered
Altered Monzonite, Arg. - Pyr. - Chl.
2" Gouge with Sulfides
2' - Chlorite Gouge
Pyrite Stringers
Pyrite, Lim. Fluorite, Clay
A Level
GEOLOGIC MAP A-LEVEL
SAN JUAN MINE
San Miguel County, Colorado
Robert A. Larson
March 17, 1975
Scale: 1" = 20'



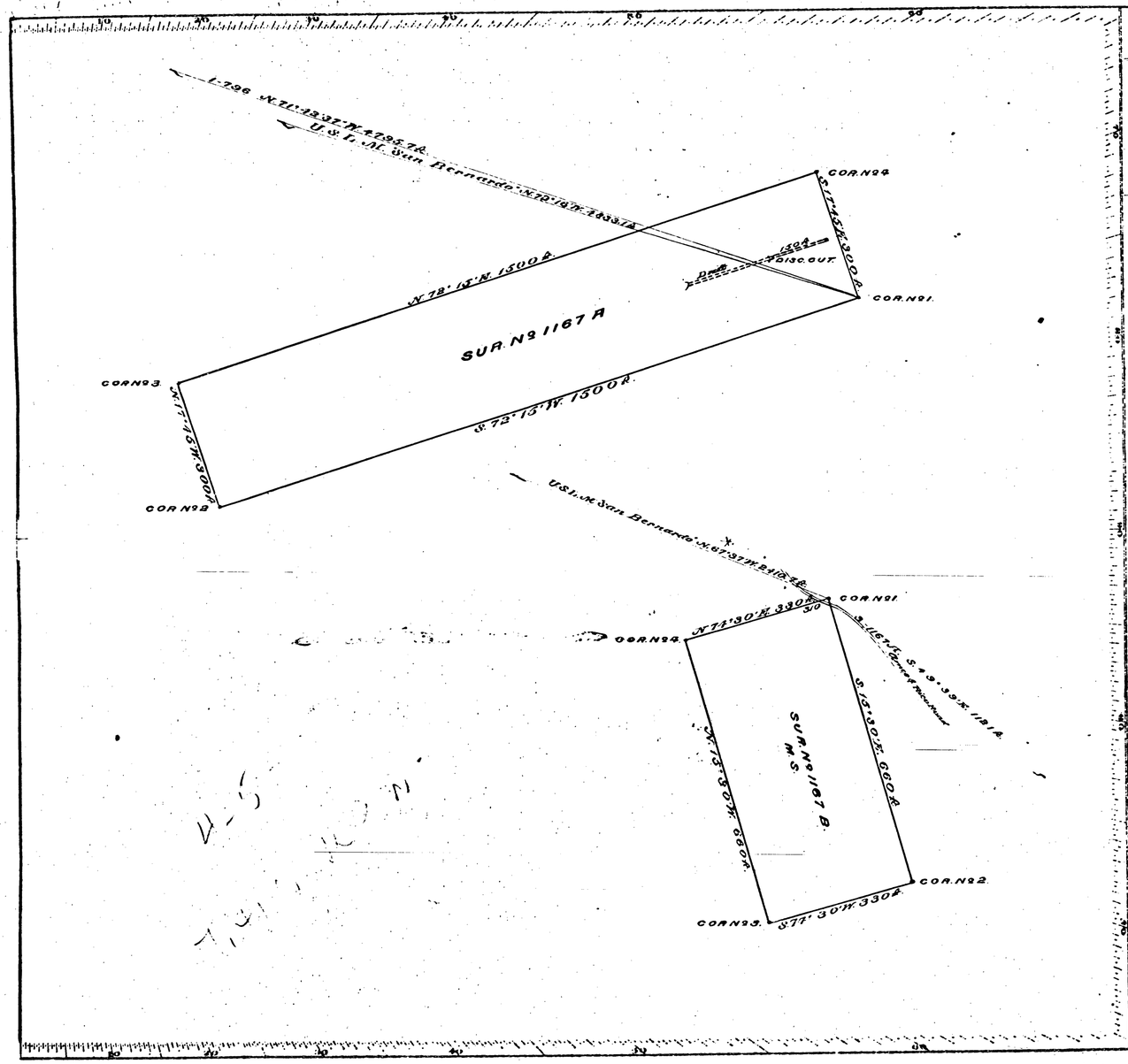
SAN JUAN MINE MATTERHORN COLO

DECEMBER 1974
Map by Chas. Turner



SAN JUAN MINE MATTERHORN COLO

JANUARY 1975
Map by Chas. Turner



Lode Date of Additional Location
August 9th 1882.
M.S. Date of location August 5th 1882.

SURVEY No. 1167 A & B.

Mineral District. No. 7

PLAT

OF THE CLAIM OF

The Big San Juan Mining & Milling Co.

UPON THE

SAN JUAN LODE & SAN JUAN MILL SITE

TROUT LAKE MINING DISTRICT

SAN MIGUEL COUNTY

STATE OF COLORADO.

Containing an area of Lode 19.33 / M.S. 3 Acres.

Scale of 200 Feet to the inch.

Variation 22°45' / 22°45' East.

SURVEYED BY

F. J. Kramer
U.S. Deputy Mineral Surveyor.
November 9th 1885

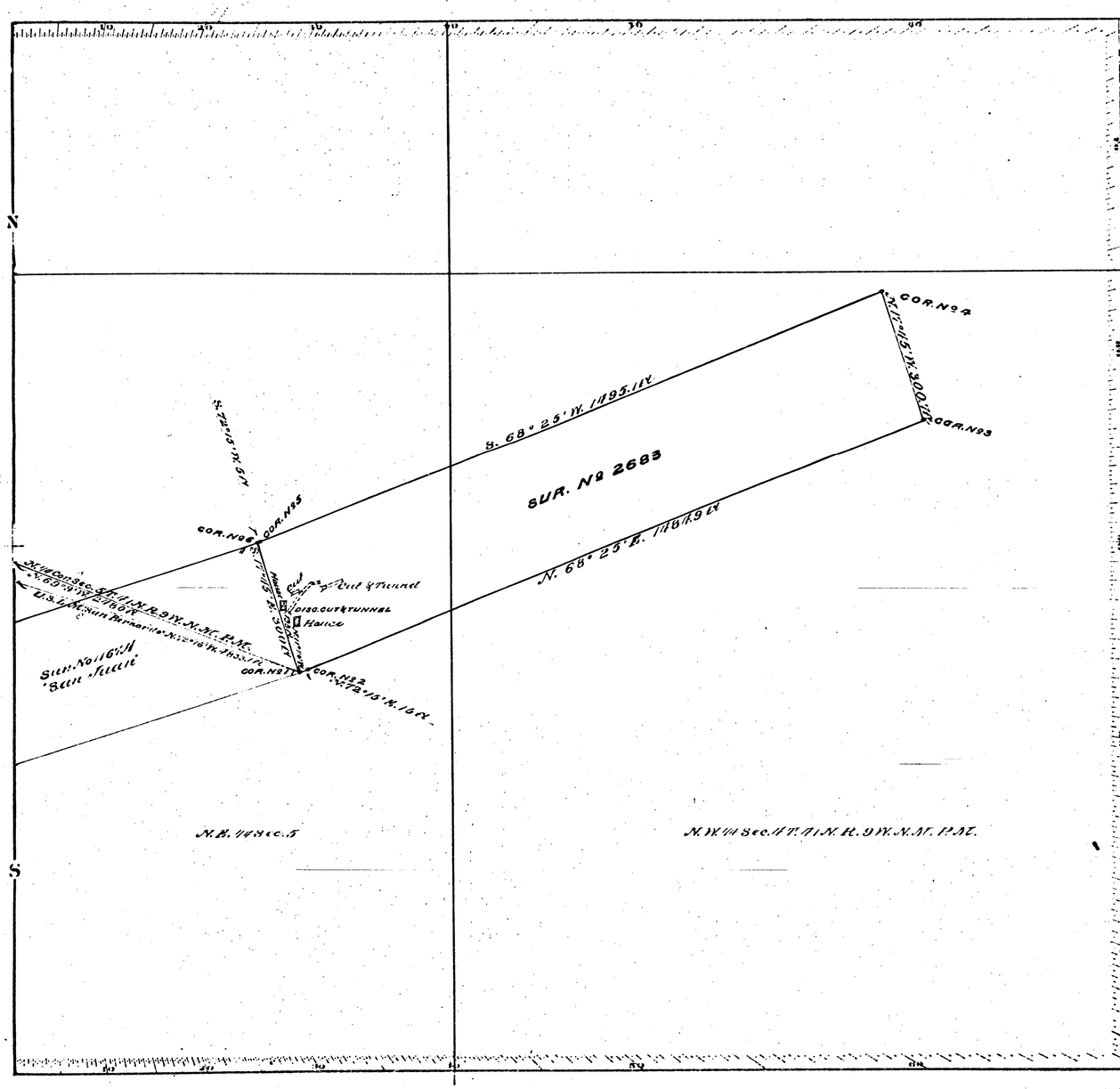
The original Field Notes of the Survey of the Claim of The Big San Juan Mining & Milling Co. upon the San Juan Lode & San Juan Mill Site from which this plat has been made, have been examined and approved, and are on file in this office, and I hereby certify that they furnish such an accurate description of said Mining Claim as will, if incorporated into a patent, serve fully to identify the premises, and that such reference is made therein to natural objects, and permanent monuments as will perpetuate and fix the locus thereof. I further certify that the value of the labor and improvements placed thereon by the applicant or its grantors, is not less than Five Hundred Dollars, and that said improvements consist of the Discovery cut and a drift.

as appears by the affidavit of the deputy surveyor. And I further certify that this is a correct Plat of said Mining Claim made in conformity with said original field notes of the survey thereof.

U.S. Surveyor General's Office
Denver, Colorado
January 11th 1886

Jas. A. Dawson
U.S. Surveyor General for Colorado

*N. 63°16' W. 240.9 ft. See letter 2 285 - Dec. 1-'98.



Date of Additional Location without date

SURVEY No 2683

Mineral District. No 7

PLAT

OF THE CLAIM OF

James A. Beattie et al

UPON THE

S. B. KENRICK LODE

TROUT LAKE MINING DISTRICT.

SAN MIGUEL COUNTY.

STATE OF COLORADO.

Containing an area of 10.33 Acres.

Scale of 200 Feet to the inch.

Variation East.

SURVEYED BY

R. H. Hollis

U.S. Deputy Mineral Surveyor.

November 12th 1886

The original Field Notes of the Survey of the Claim of James A. Beattie et al upon the S. B. Kenrick Lode from which this plat has been made, have been examined and approved, and are on file in this office, and I hereby certify that they furnish such an accurate description of said Mining Claim as will, if incorporated into a patent, serve fully to identify the premises, and that such reference is made therein to natural objects, and permanent monuments as will perpetuate and fix the locus thereof. I further certify that the value of the labor and improvements placed thereon by the applicant or his grantors, is not less than Five Hundred Dollars, and that said improvements consist of

three cuts and two tunnels

as appears by the affidavit of the deputy surveyor. And I further certify that this is a correct Plat of said Mining Claim made in conformity with said original field notes of the survey thereof.

Jas. A. Dawson.

U.S. Surveyor General's Office, Denver, Colorado

December 2nd 1886

U.S. Surveyor General for Colorado

CHARLES H TURNER
BOX 3224 HIMAR STA
BOULDER CO 80303

ASSAYS

Sample No.	Au (oz./ton)	Ag (oz./ton)	Cu %	Pb %	Width	
A1	0.01	3.60	1.00	2.40	1.0'	
A2	0.26	26.24	1.31	5.88	2.2'	
A3	0.06	1.94	1.17	0.24	3.0'	
A4	0.01	0.16	0.22	0.15	2.0'	2.14'
A5	0.01	0.10	0.10	0.06	3.3'	
A6	0.01	0.74	1.01	0.15	2.0'	
A7	0.02	13.22	1.43	0.57	1.5'	
AVG.	0.05 OZ.	6.57 OZ.	0.89 %	1.35 %		
B1	0.04	2.60	0.45	- STOPE FILL	—	
B2	0.14	12.56	1.85		1.2'	
B3	0.13	6.86	2.80		0.8'	
B4	0.14	12.50	1.65	LEAD NOTED	1.3'	
B5	0.06	4.10	1.68	IN SAMPLES	1.0'	
B6	0.02	42.26	2.84	BUT NOT RUN	0.7'	
B7	0.08	8.25	2.48		1.5'	1.0'
B8	0.10	10.22	0.92		0.5'	
B9	0.10	3.16	1.36		1.0'	
B10	0.08	8.66	2.48		0.8'	
B11	0.12	12.20	2.60		0.3'	
B12	0.04	7.66	0.68		1.0'	
B13	0.59	22.94	1.19		1.0'	
B14	0.15	9.64	0.82		0.6'	
B15	0.01	0.10	0.03		0.5'	
AVG.	0.13	12.38	1.79			
C1	0.04	9.20	1.40	LEAD NOTED	1.0'	
C2	tr.	11.48	1.70		1.8'	
C3	0.13	6.64	1.00	IN SAMPLES	1.2'	1.10'
C4	0.08	18.42	1.76		0.5'	
C5	0.03	2.82	0.64		1.0	
C6	0.02	0.38	0.08		0.4'	
C7	0.02	0.12	0.05		0.6'	
AVG.	0.06	11.43	1.46			
D1	0.04	4.20	0.60		1.0'	
E1	0.12	5.32			2.5'	
F1	0.02	52.42	3.80		0.5'	

NOTE: Assays in box were obtained from fringes only of orebody. Sampling to be done by core drilling as indicated $500

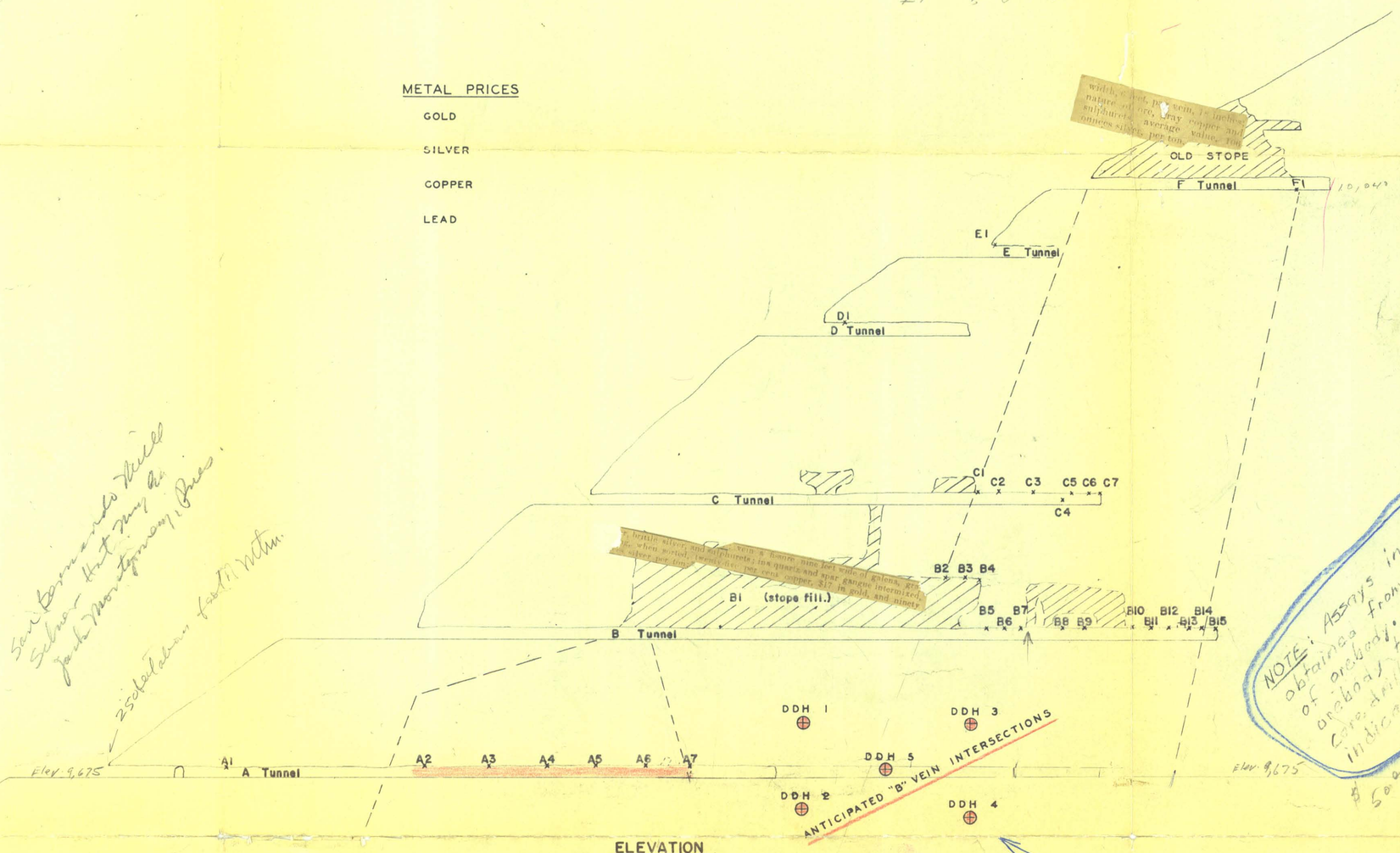
METAL PRICES

GOLD

SILVER

COPPER

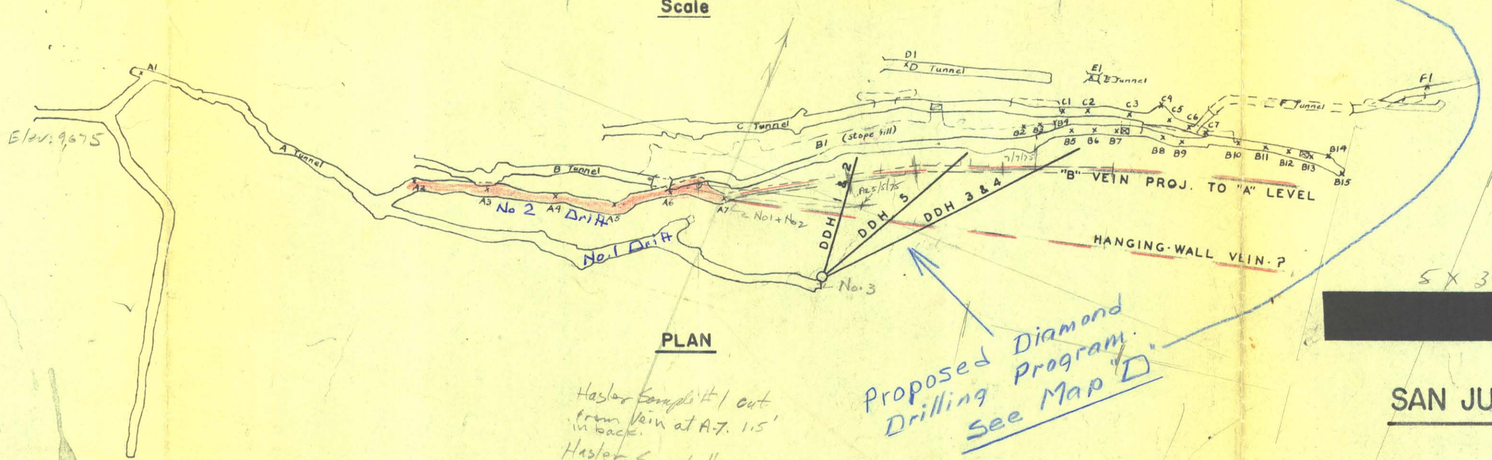
LEAD



ELEVATION

100 50 0 100 200 feet

Scale



PLAN

Proposed Diamond Drilling Program. See Map "D"

Hasler Sample #1 cut from vein at A-7. 1.5' in back.
Hasler Sample #2 cut from Drift Face 1.5' near H.W.
Hasler Sample #3 stringers + vein in back at face 7' = Back

[redacted]

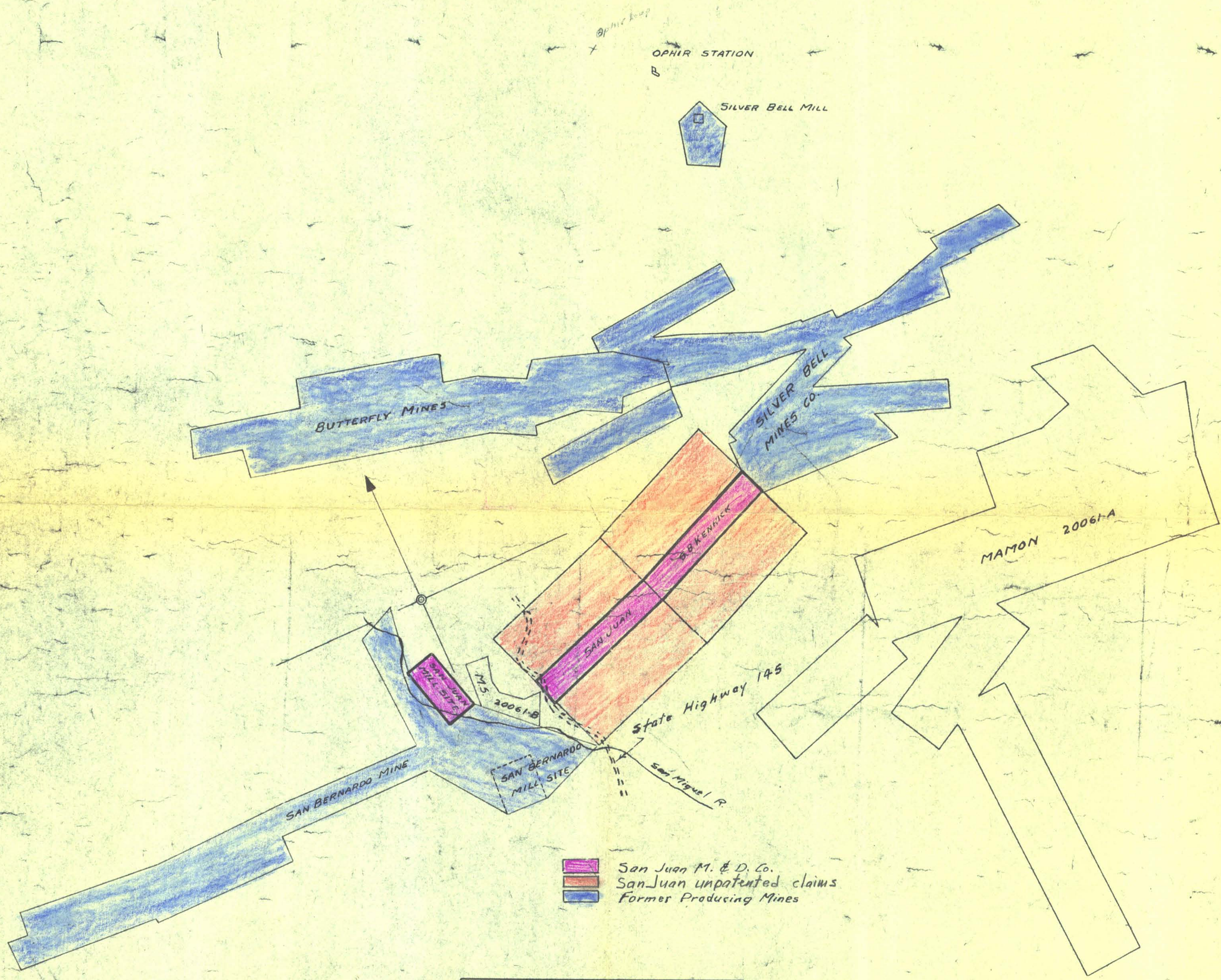
SAN JUAN MINE — MATTERHORN, COLO.

Date — 26 Feb, 1957

A

MAP SJ - 110

CHARLES H TURNER
BOX 3224 HIMAR STA
BOULDER CO 80303



S. B. KENRICK & SAN JUAN
— PLAN —
SHOWING RELATIVE POSITIONS OF
NEIGHBOURING MINES
1" = 800' JULY 21-47
FILE SJ-101 C.H.T.

B

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MOUNT WILSON QUADRANGLE
COLORADO
7.5 MINUTE SERIES (TOPOGRAPHIC)
SW/4 TELLURIDE 15' QUADRANGLE

OME 6885 (Ag)
San Juan Mine
Chas. (Hon Tom)
N 4192700.
E 246680. #13

Mapped, edited, and published by the Geological Survey with cooperation by the Atomic Energy Commission

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1952. Field check 1953

Polyconic projection. 1927 North American datum
10,000-foot grid based on Colorado coordinate system, south zone
1000-meter Universal Transverse Mercator grid ticks, zone 13, shown in blue

Land lines are omitted in T. 41 N., T. 42 N., and T. 43 N.–R. 9 W. and R. 10 W. because of insufficient data. All recovered corners are shown

All mining features on this map are inactive unless otherwise indicated

GN MN
1°48' 32 MILS
14½° 258 MILS
UTM GRID AND 1953 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000
1 ½ 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

COLORADO
QUADRANGLE LOCATION

ROAD CLASSIFICATION
Light-duty — Unimproved dirt
State Route

MOUNT WILSON, COLO.
SW/4 TELLURIDE 15' QUADRANGLE
N3745—W10752.5/7.5

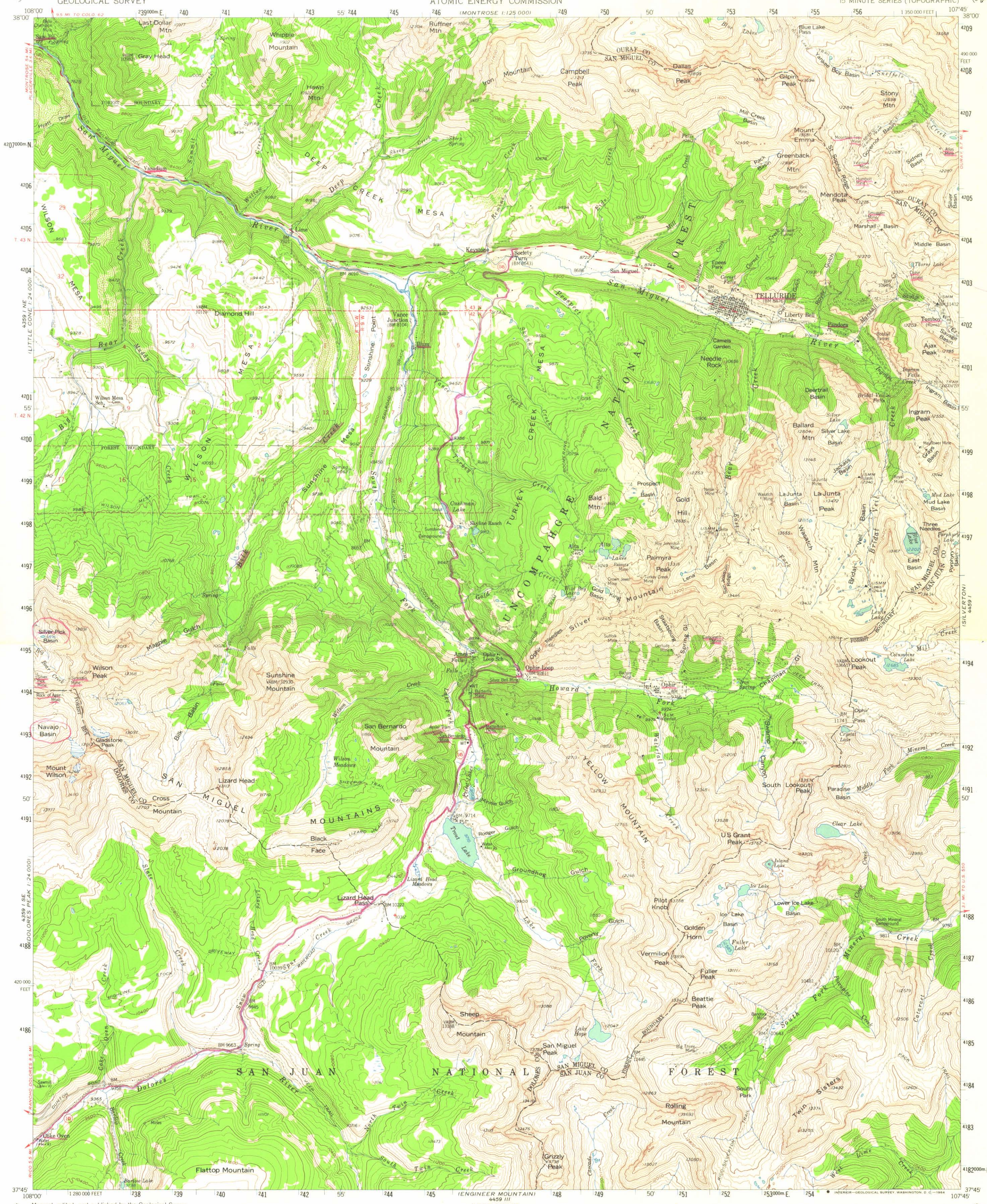
1953

AMS 4459 IV SW—SERIES V877

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

UNITED STATES
ATOMIC ENERGY COMMISSION

TELLURIDE QUADRANGLE
COLORADO
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Compiled in 1959 from 1:24 000-scale maps of Telluride, Gray Head, Mount Wilson, and Ophir 7.5 minute quadrangles, surveyed 1953-1955. Topography from aerial photographs by photogrammetric methods. Aerial photographs taken 1951-1952

Polyconic projection. 1927 North American datum
10,000-foot grid based on Colorado coordinate system, south zone
1000-meter Universal Transverse Mercator grid ticks, zone 13, shown in blue

Dashed land lines indicate approximate locations
Certain land lines omitted because of insufficient data, or because of alleged fraud or defects in the surveys
All recovered corners are shown

UTM GRID AND 1955 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
(GN, MN; 1°46' 31 MILS; 14° 249 MILS)

SCALE 1:62 500

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D.C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

COLORADO
QUADRANGLE LOCATION

ROAD CLASSIFICATION
Medium-duty — Light-duty
Unimproved dirt
State Route

This area also covered by 1:24 000-scale maps of Telluride, 1955, Gray Head 1953, Mount Wilson 1953, and Ophir 1955. 7.5 minute quadrangles

TELLURIDE, COLO.
N3745—W10745/15

1955

AMS 4459 IV—SERIES V777

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1964