— Nº 3766

COMPANY Rockland

near survey of

566 in Main Rt

ROCK drift

MIN-EN LABS LTD.
705 WEST 15th STREET,
NORTH VANCOUVER, B.C.
V7M 1T2

— Nº 3767

COMPANY Rockland

Near winze (N side)

ROCK

MIN-EN LABS LTD.
705 WEST 15th STREET,
NORTH VANCOUVER, B.C.
V7M 1T2

— Nº 3768

COMPANY @ 388/410

Rockland

in alt granite

ROCK

MIN-EN LABS LTD.
705 WEST 15th STREET,
NORTH VANCOUVER, B.C.
V7M 1T2

— Nº 3769

COMPANY Rockland

100' in from

Port.

ROCK over 12"

MIN-EN LABS LTD.
705 WEST 15th STREET,
NORTH VANCOUVER, B.C.
V7M 1T2

— Nº 3770

COMPANY Rockland

drive

from 6" zone @

ROCK winze

MIN-EN LABS LTD.
705 WEST 15th STREET,
NORTH VANCOUVER, B.C.
V7M 1T2

June 13/81
Rockland Lime
exam — good
ore for tailings
ore body in fault
6-71
#3766
near Sta. 566

#3767 in Gouge
zone 6'
faulted O&V.
near mine
N. side

#37 68

@ sta 388 #10

over 1' in alt gram.

#3769

over 12" in alt gram

180' in from port.

#3770 for 6"

benthic zone

@ brize

Rockland Mine

ASSAY CERTIFICATE

LYLA YOCUM ASSAYER
Washington, CA 95986
916-265-4342

Hans
Nevada Property

ACCURACY GUARANTEED

6-19

Sample No.	Gold Per Ton		Silver Per Ton		Remarks
	Troy Oz.	Value	Troy Oz.	Value	
#3766	.06	27.60	2.86	31.46	
#3767	.08	36.80	2.39	26.29	
#3768	.008	3.68	2.38	26.18	
#3769	.006	2.76	2.54	27.94	
#3770	.008	3.68	.83	9.13	
			10.71		
			2.5		

Gold at $ 460- Per Oz.

Silver at $ 11 Per Oz.

Lyla Yocum

6000 0278 (5370)

(1) June 17/81

Exploration programme for Rockland Mine

1) attempt to aquire all previous documentation regarding the property — especially the results of the survey carried out by Lacana in June 1980.

2.) prepare detailed surface map of area — ideally by means of air photos with surveyed ground control.

3.) prepare underground map — where possible — beginning with the lowest level connected to adit 4/800' level then down the range and the lowest workings.

4) detailed sampling and mapping of 800' level and below.

5.) orientation geochem and geophysics survey over known deposit.

establish grid N & S of workings and soil sample @ 50' intervals on 200' lines — Au, Ag, Hg, Sb, As.

geophysics : may have might show extent of Rhyolite zone and altered diorite

Em : might respond to concentration of pyrite in Rhyolite breccia

I.P. : pick up zones of disseminated pyrite.

additional — airphoto interpretation of fault structures and their traces in overburden covered areas → dark (the rock) lins

Surface geological mapping — emphasis on alteration and fracturing of diorite - stromatite.

— detailed geochemistry of the deposit.

6.) drill off below lowest workings and then attempt to extend zone N & S along strike

if faulted off — use geochem or geophys to find more targets.

---

water is present (supposedly in upper workings)

well — supposedly in good shape. still in old tailings pond area

major plus — good Canyon for tailings disposal >500,000 tons.

check out geochem of Alunstrae Rhyolite to SE

check into Barite occurrence

And Stake more ground NOW!!

6000 0278 (5370)
NOV 17 1980

MET-CHEM ENGINEERING LABORATORIES
INCORPORATED

3127 "A" Fite Circle
Sacramento, California 95827
Phone (916) 361-3642

Nondestructive Testing • Material Testing

November 13, 1980

Lacana Mining Company
P.O. Box 11305
Reno, Nevada 89510

Attention: Mr. Michael Easdon Job No: 1607,01.3

LABORATORY TEST REPORT

Sample: Eleven Ore Samples Provided.

Test Required: Gold Content

Test Results:

Sample No.	Gold Content oz/ton
385 ~350-360	0.011
386 360 - 370	0.011
390 400 - 410	0.006
555	0.056
556	0.009
559	0.098
565	0.011
574	0.008
387	0.009
388	0.007
389	0.074

Rockland

Respectfully submitted,

Akef Shihabi

Akef "Fred" Shihabi,
Senior Chemist

6000 0278 (5370)

ethex Corp. Date November 7, 1980 RMGC Job No. 80-26-16R

Certificate of Analysis

Sample No.	ppm Copper	Oz/T Gold	Oz/T Silver
556	70	0.010	0.15
557	140	0.006	0.21
558	15	0.012	0.43
559	30	0.098	0.15
560	45	0.006	-0.10
561	55	0.046	0.32
562	30	0.008	0.18
563	30	0.010	0.36
564	70	0.014	0.47
565	180	0.018	0.37
566	35	0.016	0.35
567	45	0.018	0.60
568	35	0.024	0.68
569	30	0.012	0.61
570	35	0.012	0.25
571	65	-0.005	0.51
572	135	-0.005	0.32
573	355	0.006	0.59
574	245	0.008	0.72

Page 1 of

RMGC Numbers:

Local Job No.: 80-26-16R

Date: NOV 10 1980

Invoice No.: R28546

BY Floy A. Beecher

Floy A. Beecher

ROCKY MOUNTAIN GEOCHEMICAL CORP.

SALT LAKE CITY, UTAH • RENO, NEVADA • TUCSON, ARIZONA

Name: Kacera

Job No. 80-26-16R

No. Samples _____ Prep Charges _____

Date Rec'd _____

Inquart Value 3.539

Date Assayed _____

Page 3 of 4

	Sample No.	Lab. No.	Wt. In Assay Tons	INQ.	DORE	INQ.	Au Bead Wt.	Ag Bead Wt.	Oz/Ton Gold	Oz/Ton Silver
1	551	75	.5 TRA	12 (15)	3.624	.095	.010	.085	0.020	0.17
2	2	76			3.672	.183	.006	.127	0.012	0.25
3	[illegible]	[illegible]	[illegible]		[illegible]					
4	3	78			3.582	.043	.007	.036	0.014	-0.10
5	4	79			3.623	.084	.005	.079	0.010	0.16
6	5	80			3.659	.120	.027	.093	0.054	0.19
7	6	81			3.621	.082	.005	.077	0.010	0.15
8	7	82			3.648	.109	.003	.106	0.006	0.21
9	8	83			3.758	.219	.006	.213	0.012	0.43
10	9	84			3.685	.126	.049	.077	0.098	0.15
11	10	85			3.574	.035	.003	.032	0.006	-0.10
12	1	86			3.724	.185	.023	.162	0.046	0.32
13	[illegible]	[illegible]	[illegible]		[illegible]					
14	2	88			3.633	.094	.004	.090	0.008	0.18
15	3	89			3.723	.184	.005	.179	0.010	0.36
16	4	90	TRA	(15)	3.783	.244	.007	.237	0.014	0.47
17	5	91			3.934	.195	.009	.186	0.018	0.37
18	6	92			3.922	.183	.008	.175	0.016	0.35
19	7	93			3.848	.309	.009	.300	0.018	0.60
20	8	94			3.893	.354	.012	.342	0.024	0.68
21	9	95			3.949	.310	.006	.304	0.012	0.61
22	570	96			3.669	.130	.006	.124	0.012	0.25
23	[illegible]	[illegible]	[illegible]		[illegible]					
24	1	98			3.998	.259	.002	.257	-0.005	0.51
25	2	99			3.701	.162	.001	.161	-0.005	0.32

6000 0278 (5370)

Gold and Silver Fire Assay

Name: Lacuna

No. Samples: 69 Prep Charges:

Inquart Value: 3.539

Job No.: 80-26-16R

Date Rec'd: 10-20-80

Date Assayed: 11-5-80

Page 1 of 4

	Sample No.	Lab. No.	Wt. in Assay Tons	INQ.	DORE	INQ.	Au Bead Wt.	Ag Bead Wt.	Oz/Ton Gold	Oz/Ton Silver
1	355	25	.5		3.610	.071	.010	.061	0.020	0.12
2	6	26			3.539	ND	ND	ND	-0.005	-0.10
3	~~[illegible]~~				~~3.571~~					
4	7	28			3.485	ND	ND	ND		-0.10
5	8	29			3.653	.114	ND	.114	-0.005	0.23
6	9	30			3.626	.087	.007	.080	0.014	0.16
7	360	31	bal #3		3.553	.014	ND	.014	-0.005	-0.10
8	1	32			3.560	.021	.005	.016	0.010	
9	2	33			3.521	ND	.003	ND	0.006	
10	3	34			3.519	ND	.004		0.008	
11	4	35			3.486	ND	.003		0.006	
12	5	36			3.406	ND	ND		-0.005	
13	~~[illegible]~~	~~37~~			~~3.[illegible]~~					
14	6	38			3.518	ND	ND			
15	7	39			3.458	ND	ND			
16	8	40			3.563	ND	ND			
17	9	41			3.229	ND	ND			
18	370	42			3.315	ND	ND			
19	1	43			3.432	ND	.002			
20	2	44			3.300	ND	ND			
21	3	45			3.421	ND	ND			
22	4	46		TRAY 4	3.505	ND	ND			
23	~~[illegible]~~	~~[illegible]~~			~~3.428~~		~~ND~~			
24	5	48			3.510	ND	ND	ND		
25	6	49			3.523	.024	ND	.024	-0.005	-0.10

0000 0278 (0135)

6000 0278 (5370)

Date 7/7/80 Sample A 465100

LOCATION Rockland

SKETCH

Co-ordinate:

Length of Sample

Type select

Description

lt. pink FeOx w/ bright brick red hm on major fracture — Rockland bxa rhy of "vein" zone

Taken by: MF

ASSAYED FOR

				X	X
Cu	Mo	Pb	Zn	Au	Ag

ROCKY MOUNTAIN GEOCHEMICAL CORP.

MIDVALE, UT.-RENO, NEV. SPOKANE, WASH.-TUCSON, ARIZ.

Date 7/7/80 Sample A 071237

LOCATION Rockland-upper adit

SKETCH

Co-ordinate:

Length of Sample

Type

Description rhy bxa of ore dike

Taken by: MF/MG

ASSAYED FOR

				X	X
Cu	Mo	Pb	Zn	Au	Ag

ROCKY MOUNTAIN GEOCHEMICAL CORP.

MIDVALE, UT.-RENO, NEV. SPOKANE, WASH.-TUCSON, ARIZ.

Date 7/7/80 Sample A 071235

LOCATION Rockland

SKETCH

Co-ordinate:

Length of Sample

Type

Description prog alt. gr h.w. sample of main Rockland adit

Taken by: MF/MG

ASSAYED FOR

				X	X
Cu	Mo	Pb	Zn	Au	Ag

ROCKY MOUNTAIN GEOCHEMICAL CORP.

MIDVALE, UT.-RENO, NEV. SPOKANE, WASH.-TUCSON, ARIZ.

DATE _____ **SAMPLE NO.** 00570 S rub & back

LOCATION 616 Kent

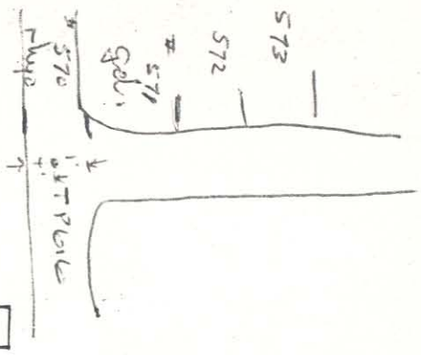
STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH 5' BY _____

DESCRIPTION _____

bed silicified rhyolite
why - gd conduct RS 721 / N5CE
angular frag to 1"

SKETCH



ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3

DATE _____ **SAMPLE NO.** 00571

LOCATION 616 Kent

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH 10 BY _____

DESCRIPTION _____

propylitically altd
slightly faulted
gdn

SKETCH

see sketch 570

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3

6000 0278 (5310)

DATE _____ **SAMPLE NO.** 00567 Sub back.

LOCATION 300' X cut

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH 10' BY _____

DESCRIPTION _____ SKETCH _____

see sketch 56p

Qz 566 intensely altered
gd to zone

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3

6000 0278 (5370)

DATE _____ **SAMPLE NO.** 00568 back

LOCATION 300' X cut

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH 10' BY _____

DESCRIPTION _____ SKETCH _____

see sketch 56p

altd bkd gd - see
frags pos identified

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3

DATE _____ **SAMPLE NO.** 00569 back

LOCATION 300' X cut

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH 5.5' BY _____

DESCRIPTION _____ SKETCH _____

see sketch 56p

gd less intensely altered
~ 3' from end of X cut

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3

DATE _____ **SAMPLE NO.** 00564

LOCATION 267 Kent

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH 10' BY _____

DESCRIPTION _____ SKETCH _____

bed and prog silicified
apparently selected before
tin ore gov. zones
were entered gd.

see 562

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			

6000 0278 (5370)

DATE _____ **SAMPLE NO.** 00565

LOCATION 267 Kent

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH 7.5 BY _____

DESCRIPTION _____ SKETCH _____

gd as #561
bra prob graduates gd
& 40' fragments
last 2' prob FW bed contact
zone in rhyolite dikes
mate frags gd & rhyolite

see #562

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			

DATE _____ **SAMPLE NO.** 00566 ~~S face~~ back

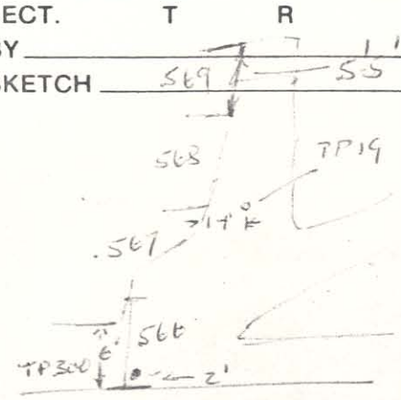
LOCATION 300' Kent

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH 10' BY _____

DESCRIPTION _____ SKETCH _____

~~mtn~~ ing added
gd
back & ~~S~~



ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			

DATE _____ **SAMPLE NO.** 00558 back

LOCATION ~~#~~ 540 - 545'

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH ~~#~~ 5 BY _____

DESCRIPTION _____ SKETCH _____

intensely silicified rhyolite

gd. rhyolite contact @ 545'

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			

60000 0278 (530)

DATE _____ **SAMPLE NO.** 00559

LOCATION Main Adit at ~~145-147~~ 145'-147'

STATE _____ CO. _____ SECT. T R

TYPE cont rx chip LENGTH 2' BY _____

DESCRIPTION _____ SKETCH _____

mod argill intensely altered bkt fault zone strg FeO4 - 1/2 gouge

on FW of ~~dike~~ fk v. intensely altered ~ 2-3' coarser grained diabase - pre dike

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			

DATE _____ **SAMPLE NO.** 00560

LOCATION Main Adit at ~ 304'

STATE _____ CO. _____ SECT. T R

TYPE cont rx chip LENGTH 2' BY _____

DESCRIPTION _____ SKETCH _____

2' sample d. Ken covers 2' wide strongly bxd zone in groundwater

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			

DATE 5/19 **SAMPLE NO.** 00561

LOCATION 267 Xcut
W rib - 10'

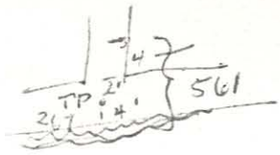
STATE ____ CO. ____ SECT. T R

TYPE cont. chip LENGTH 10' BY ____

DESCRIPTION

Lt gd altered brokes
gd rock 70 on
NB sample taken from
W rib 2 right on back

SKETCH



ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3

6000 0278 (5370)

DATE ____ **SAMPLE NO.** 00562

LOCATION 267' Xcut

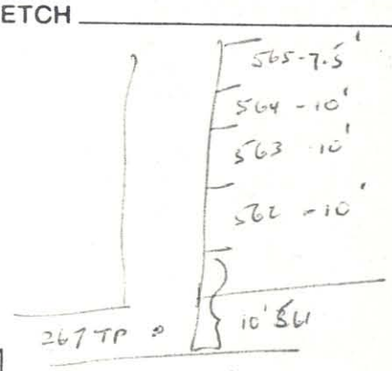
STATE ____ CO. ____ SECT. T R

TYPE ____ LENGTH 10' BY ____

DESCRIPTION

extremely clay altered gd

SKETCH



ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3

DATE ____ **SAMPLE NO.** 00563

LOCATION 267 Xcut

STATE ____ CO. ____ SECT. T R

TYPE ____ LENGTH 10' BY ____

DESCRIPTION

extremely clay altered gd

SKETCH

see 562

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3

DATE _____ **SAMPLE NO.** 00555 BeR

LOCATION _____ 545 - 550'

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH 5 BY _____

DESCRIPTION _____ SKETCH _____

545 - ~~540~~ - 550

bxd gd intensely altered
~~pos dike branch to gd~~
~~incl at ~ 547 - 553 ??~~
~~FW to hydrate dike~~
~~~~ ~ 550 - 547 intensely clay altered
trace sparsy gd ~ 547 - 545 silicified gd.

at ~~~~ 545'
phyllitic - contact
strike N 40° E
dip 60 SE.

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			

6000 0278 (5370)

DATE _____ **SAMPLE NO.** 00557 N

LOCATION _____

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH ~~~~ 9.5 BY _____

DESCRIPTION _____ SKETCH _____

560 - 569.5

gd - mole au py in fracs

mole 562 - 565 2.5' thick
andesite dike ~~gd~~ mod dipping

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			

DATE _____ **SAMPLE NO.** 00556 N

LOCATION _____

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH 10 BY _____

DESCRIPTION _____ SKETCH _____

550 - 560

gd

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			
~~~~

DATE _____ **SAMPLE NO.** 00574 N rib & back

LOCATION Rockland Mine 616 Xcut

STATE New- CO. Lyon SECT. T R

TYPE cont nr. chip LENGTH 10' BY

DESCRIPTION SKETCH

N rib & back

main mine loc per survey

center of mine ≈ 4' west of 573'

NR rib @ west level ≈ 2 end of 574

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			
✓			✓	✓						

6000.0278 (5370)

DATE _____ **SAMPLE NO.** 00572 S rib

LOCATION 616 Xcut

STATE CO. SECT. T R

TYPE LENGTH BY

DESCRIPTION SKETCH

as 571

see sketch 570

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			

6000 0278 (5370)

@ 267' TP → N ~~25.5~~ 25.5° E to 300 TP

300 TP. → N 28 W to 19' TP

@ 19 TP → N 12 E → 17' to end

@ 19' TP → N 61.5° W to 15' to end

— @ 300 TP. → N 27.5° E to 380 TP

@ 380 TP. → N 18° E to 440' TP

@ 440 T.P → N 20° E to 500' TP.

500 TP. → N 42° E to 540' TP.

NB @ 500' drift forks

@ 540 TP. → N 28 E to 600' TP

@ 600 TP → N 60 E to 640 TP

@ 640 TP → S 58 E to tent end at 16.5'

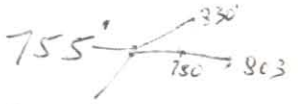
@ 640 TP → N 55 E to 665 TP

@ 665 TP → N 135 E to 700 TP

@ 700 TP → N 37.5 W to 730 TP.

@ 730 TP. → N 67 W to 755 TP

NB 755 TP block drift



755 TP → N 25 E → 780 TP

780 TP → N 15 W → 803 TP

@ 755' TP → N 10.5 W @ 830

@ 830 cancel. continues

@ 755' TP turn S 45 W to block ad.t w̄ wire as picked up from 616 tent

@ 616' on brg bkm 600 & 640 on chart

@ 616 TP → N 57 W 41' TP

wire at 37'

@ 41' TP drift

41' TP → ~~N 8~~ N 27 E to block per 755'

41' TP → S 30.5 W → 62' TP

62' TP → S 23' W → 100' TP

100' TP → S 12° E → 124.5' = 500' TP

~ main drift

9:00 A.M. 7 Aug 76

[illegible]

TP 269'

[illegible]

6000 0278 (5370)

Rockland

TP 505 ~~Fault~~ drift
TP 505 turn ℄ S 25 W main drift
TP 505 ~ ℄ N16E to 19' end.

Surveying along
545 drift from
TP in Main Xcut @ 545'
TP 545/0 ℄ S 37W to 57'
TP 545/0 ℄ N 25 E to 115'
TP ~~515~~ 115' ℄ N34E to 194
@ ~~161~~ 194 turn into Xcut
194/0 S66½E 25.5 TP
@ 25.5 TP S22E end @ 35'
NB TP nailed 1' into drift
subtract 1'
℄ TP 5.5' from N rib on drift
@ 194 TP N19E to 267
@ 267' turn S65E to 30 TP in
Xcut
@ 30' in Xcut 30 TP → S85E to
end of Xcut @ 45'

~~Stope~~ Main Adit W. drift

@ 50'	5'
100'	5'
200	5'
300	6'
400	5.5'
490	5'
~~595~~ 505'	TP for
Xcut extending to S	℄ = 20' to N.
520	8'
540	9'
560	5'

Gold and Silver Fire Assay

Name: Lacuna

Job No.: 80-26-16 R

No. Samples _____ Prep Charges _____

Date Rec'd _____

Inquart Value: 3.539

Date Assayed _____

Page 2 of 4

	Sample No.	Lab. No.	Wt. In Assay Tons	INQ.	DORE	INQ.	Au Bead Wt.	Ag Bead Wt.	Oz/Ton Gold	Oz/Ton Silver
1	377	50	.5		3.688	.149	ND	.149	-0.005	0.30
2	8	51			3.453	ND	ND	ND		-0.10
3	9	52			3.447	ND	ND			
4	380	53			3.454	ND	ND		-0.005	
5	1	54			3.466	ND	.003		0.006	
6	2	55			3.516	ND	ND	ND	-0.005	-0.10
7	3	56			3.598	.059	ND	.059		
8	~~[illegible]~~				3.204	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
9	4	58			3.459	ND	ND	ND		0.12
10	5	59			3.413	ND	ND	ND	-0.005	-0.10
11	6	60	(15)	TRACE	3.591	.052	.009	.043	0.018	-0.10
12	7	61			3.650	.111	.004	.107	0.008	0.21
13	8	62			3.570	.031	.003	.028	0.006	-0.10
14	9	63			3.812	.274	.065	.209	0.130	0.42
15	390	64			3.906	.167	.005	.162	0.010	0.32
16	1	65			3.954	.215	.005	.210	0.010	0.42
17	2	66			3.814	.277	.004	.273	0.008	0.55
18	~~[illegible]~~					~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
19	3	68			3.650	.091	.003	.088	0.006	0.17
20	4	69			3.713	.174	.003	.171	0.006	0.34
21	5	70			3.609	.070	.001	.069	-0.005	0.14
22	6	71			3.659	.120	.002	.118	-0.005	0.24
23	7	72			3.537	ND	.005	ND	0.010	-0.10
24	8	73			3.528	ND	.005	ND	0.010	
25	9	74			3.561	.065	.007	.038	0.014	-0.10

0000 0379 (5370)

DATE 12/18/80 **SAMPLE NO.** 00551 6000 0278 (530)

LOCATION Rockland Mine

STATE NV CO. Lyon City SECT. T R

TYPE continuous rock chip LENGTH 10' BY

DESCRIPTION SKETCH

Main Adit selected rhyolite
500-510 with 2 sample taken
See geology maps for 2 on N back
location & geology

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			
X			X	X						

DATE **SAMPLE NO.** 00552 N

LOCATION

STATE CO. SECT. T R

TYPE LENGTH 10 BY

DESCRIPTION SKETCH

510 - 520
rhyolite

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			

DATE **SAMPLE NO.** 00554 N

LOCATION

STATE CO. 10 SECT. T R

TYPE LENGTH BY

DESCRIPTION SKETCH

530 - 540
S1 rhyolite

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			

Name Lacana

Job No. 80-26-16R

No. Samples _____ Prep Charges _____

Date Rec'd _____

Inquart Value 3.539

Date Assayed _____

Page 4 of 4

	Sample No.	Lab. No.	Wt. In Assay Tons	INQ.	DORE	INQ.	Au Bead Wt.	Ag Bead Wt.	Oz/Ton Gold	Oz/Ton Silver
1	573	100	.5		3.835	.296	.003	.293	0.006	0.59
2	4	101			3.903	.364	.004	.360	0.008	0.72
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

0000 0278 (SEP)

6000 0278 (5370)

SAMPLE NO. 392 N

420 - 430

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH _____ BY _____

DESCRIPTION _____ SKETCH _____

med. varicolor silica bed
decolor. brecc
boundinage hyalite

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			
–			–	–						

6000 0278 (5370)

SAMPLE NO. 391 5

410-420

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH _____ BY _____

DESCRIPTION _____ SKETCH _____

Hyalite

intimately brecciated & silicified

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			
✓			✓	✓						

6000-0278 (5310)

SAMPLE NO. 390

400 - 410

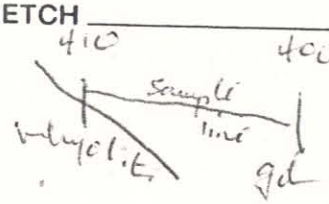
STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH _____ BY _____

DESCRIPTION _____

Hypolite - granodiorite
contact @ 410
at west height w/ to Ca
407.5' sample by Kw to left
in gd. rising above west height

SKETCH



ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			
✓			✓	✓						

6000 0278 (5370)

SAMPLE NO. 389

390 - 400

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH _____ BY _____

DESCRIPTION _____ SKETCH _____

Cr wacharite - ~~[illegible]~~

~~[illegible]~~

note 390 - 395 eliminate Silic. fraction

& Lim - note qtz xls growing in vugs

ASSAYED FOR

✓			✓	✓						
Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			

6000 0278 (5370)

SAMPLE NO. 383

330 - 340

STATE _____ CO. _____ SECT. T R

TYPE _____ LENGTH _____ BY _____

DESCRIPTION _____ SKETCH _____

Note occ minor zones
oxygen silic. field &
gouge material 1-3"

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			
✓			✓	✓						

6000 0278 (5370)

Sample location N side

DATE 10/19/80

SAMPLE NO. 355

LOCATION ~~Alma Project~~ Rockland Mine

Main Adit

~~[illegible]~~ 50-60'

STATE NV CO. Lyon SECT. T R

TYPE rocking conductivity LENGTH 10' BY MK & Kerry Hart

DESCRIPTION

See Geologic Map

Start sampling from north 0 per footage markers

SKETCH

Aluminum sample tags at end of 10' sample

ASSAYED FOR

Cu	Mo	Pb	Au	Ag	As	U_3O_8	WO_3			
+			+	+						

6000 0278 (5370)

Lacana Mining Date November 7, 1980 RMGC Job No. 80-26-16R

Rockland NOV 10 1980

Sample No.	ppm Copper	Oz/T Gold	Oz/T Silver	Sample No.	ppm Copper	Oz/T Gold	Oz/T Silver
355	90	0.020	0.12	380	40	-0.005	-0.10
356	550	-0.005	-0.10	381	60	0.006	-0.10
357	70	-0.005	-0.10	382	35	-0.005	-0.10
358	55	-0.005	0.23	383	35	-0.005	-0.10
359	70	0.014	0.16	384	45	-0.005	0.12
360	65	-0.005	-0.10	385	45	-0.005	-0.10
361	70	0.010	-0.10	386	60	0.018	-0.10
362	35	0.006	-0.10	387	90	0.008	0.21
363	20	0.008	-0.10	388	65	0.006	-0.10
364	25	0.006	-0.10	389	90	0.130	0.42
365	25	-0.005	-0.10	390	45	0.010	0.32
366	15	-0.005	-0.10	391	30	0.010	0.42
367	15	-0.005	-0.10	392	20	0.008	0.55
368	20	-0.005	-0.10	393	30	0.006	0.17
369	25	-0.005	-0.10	394	65	0.006	0.34
370	20	-0.005	-0.10	395	70	-0.005	0.14
371	15	-0.005	-0.10	396	30	-0.005	0.24
372	45	-0.005	-0.10	397	15	0.010	-0.10
373	65	-0.005	-0.10	398	15	0.010	-0.10
374	65	-0.005	-0.10	399	15	0.014	-0.10
375	60	-0.005	-0.10	551	15	0.020	0.17
376	45	-0.005	-0.10	552	25	0.012	0.25
377	85	-0.005	0.30	553	10	0.014	-0.10
378	165	-0.005	-0.10	554	15	0.010	0.16
379	180	-0.005	-0.10	555	110	0.054	0.19

BY

Main Adit # 559

145'-147' - mod dipping intensely altered qd. fault zone strg FeO2 - consid altn byd flt. # 559

NB FW of fault intensely altered 2-3" coarse grained dioritic porp dike.

378 @ 385' have qd bx w̄ S̄. sample 2 1/2 qd & 1/2 bx. pass out of bxa zone @ 290

380 at 304 waist high have approx 2' thick bx qd. transecting altd qd. - sampled at waist high ~ 1/5 sample

560' 2' xcut sample across bxa qd @

10/18/80

Rockland Mine
Survey Main Adit declin 16 1/2° E
at TP @ 545' xcut
brg to portal 2 ¢ S70E
plotting 180° 2 ¢ have N70W
- from TP 545' to end x cut
@ 569.5 brg N72 1/4 W.
# 551 - 557 - 500 - 569.5
# 557 @ 569.6

NB
at TP 545 mapping at ~~base~~ waist level rhyolite - andesite contact.
contact attitude
554 - 569.6 granodiorite

sample 558 540 - 545.5 rhyolite - contact taken on back

6000 0278 (5370)

Join counterpart
Notary!

Principals Ownership is equally.
James C Phelan (Wife Marion Phelan) doesn't need
name on agreement)
18510 McCartney Road, Grass Valley Cal. 95945
Tel: 916 - 273 - 3629

Norbank Minerals ~~Inc~~ Ltd. a Corp
1460 NE - 60th Street
Fort Lauderdale Florida 33334

need a notary from Wa.

H. A. Weiler, & his wife
35 Timber Ridge Drive, Brandon
Mississippi 39042

Agreement to lease
Lessee will be, a Nevada Corp
to acquire 20 claims
Mission #1-20 Duly filed & recorded
in Lyon County Courthouse and certified
numbered 54358 - 54377, including
BLM numbers 159006 - 159025.

from trustee to warranty it conveyed INDIAN prior

Effective immediately
Terms —
immediately for to Dec 31 free and
examination
If lessee decides to exercise option
make payment of $3000 and
then annual payments as listed to
total 60,000 and price (purchase
terms) as follows.

~~Jan~~ July 1	1980	—	$ 3,000
July 31	1981	—	6,000
~~Jan~~ 31	1982	—	9,000
July 31	1982	—	12,000
~~Jan~~ 31	1983	—	15,000
July 31	1983	—	15,000
			60,000

Dec 31, 1983 37th month advance payments to start at rate of $3000 / month

Lease carries on as long as water exists

on a 3% N.S.R. override royalty ~~on~~ -
applicable ~~to a final price~~ ?

at ~~Dec 31~~ Jan 1st 1984 start term
annual advance royalty payments $15,000/
ann. or 3% NSR, whichever greater.

— indemnity clause for owner
provide data if available to owner.
to ass. work

1 month advance notice to cancel
lease.

continue upon 30 day notice & receipt
if term. month or 6 months or more prior
to Sept. 1 of one ass year, but in
to have no obligation to do ass. work

E. Gallé
Peter V + P

~~Alan Gordon~~

~~Mike will look into this~~

O.K.

~~index of NSR's because should be~~
~~able to ~~[illegible]~~ on to add to the milling~~
~~& smelting & distribution costs, the~~
~~expense of treating the production to make~~
~~form acceptable, percentage adjustment to~~
~~& smelter or refiner works.~~

this is how gold are ~~so~~ the concentrating
overlaps the smelting.

J. M. Corbett
U.S. Geol. Survey Bull 594 Pages 133 to 141 (10C)
"Some Mining Districts in Northeastern California and Northwestern Nev."
Item 1

EXCERPT FROM "SOME MINING DISTRICTS

IN

NORTHEASTERN CALIFORNIA AND NORTHWESTERN NEVADA"

Pine Grove District, Mineral County, Nev.

Rockland

Location and Accessibility

The Pine Grove district (No. 13, Pl. I, p. 19) is in the northwest part of Mineral County, Nev., about 17 miles in an air line south-southeast of Yerington, the largest town in Mason Valley. The settlement of Pine Grove is 4 miles east of the Mineral-Lyon county line, on the abandoned Lobdell Summit road between East and West Walker rivers, and is shown in the lower right-hand quarter of the Wellington topographic sheet of the United States Geological Survey. The district is most easily reached from Yerington, on the Nevada Copper Belt Railroad, which joins the Southern Pacific at Wabuska and is operated by the Mason Valley Copper Co. between its mines at Ludwig and Yerington and its smelter at Thompson.

Topography

Pine Grove is on the east flank of the Smith Valley Range, which is an irregularly shaped group of mountains separating Smith Valley on the west from Mason Valley on the east. The north end of this range, in the vicinity of the Yerington copper mines, is quite narrow, but south of the West Walker River canyon it spreads out to a maximum width of 12 miles. It is roughly separated from the Sweetwater Mountains at the south end by Dalzell Canyon.

The settlement of Pine Grove stands at an elevation of 6,700 feet in the canyon north of Pine Grove Summit, whose elevation above sea level is approximately 8,500 feet. Mount Etna, a mile and a half northwest of the town, has an elevation of 7,400 feet, and the Sugarloaf, a mile and a quarter east of the town, reaches a height of 6,900 feet.

Geology

Quartz monzonite.-- The town of Pine Grove is situated in an area of light-gray coarsely granular rock. In hand specimens it seems to be feldspathic, though a little quartz is visible, together with biotite and hornblende. Under the microscope the thin sections are seen to be composed largely of feldspar with some ferromagnesian minerals and minor quartz. The feldspar is about equally distributed between orthoclase and oligoclase-andesine, but in some thin sections the plagioclase is in excess of the orthoclase, whereas in others the reverse is true. Greenish biotite is the most common ferromagnesian mineral, but hornblende is sparingly present. Magnetite, titanite, and a little apatite are common accessory minerals. The biotite is altered, some of it being bleached to a nearly colorless mica and other fragments being largely changed to chlorite. The feldspars are kaolinized, the orthoclase being altered before the plagioclase feldspars. This rock is a quartz monzonite near granodiorite, and is typical of the late Mesozoic intrusives of the Pacific coast.

This formation is cut just north of Pine Grove by a strong fault that

6000 0278 (5370)

strikes N. 60° W. and dips 40°-50° N. For 100 to 200 feet south of this fault there is a zone of more or less crushed and intensely altered quartz monzonite, which is a very dark gray to greenish-black rock. It is in this zone that the ore deposits are found.

Granite porphyry.— About half a mile east of Pine Grove, in the canyon, the quartz monzonite is intruded by a dike of reddish-gray porphyry that contains small distinct pink orthoclase phenocrysts, together with white quartz blebs and flakes of greenish biotite. Thin sections of this rock show a medium coarse granular groundmass composed of orthoclase, oligoclase-andesine, microperthite, quartz, and biotite, in which are set small, fairly well developed phenocrysts of the same minerals. The quartz and orthoclase of the groundmass are intergrown in some sides as in "graphic granite." Epidote and kaolin are secondary products from the biotite and feldspars. This rock, a granite porphyry, is probably a derivative of the quartz monzonite magma and was intruded into that rock at no great time after its formation.

Rhyolite.— Above the quartz monzonite and granite porphyry lies a series of pink to gray rhyolites. These rocks form the "Sugar Loaf," 1½ miles east of Pine Grove. The contact lies at the west base of the peak, about 1 mile east of town. From this place it crosses the canyon at an elevation of about 5,900 feet and swings N. 73° W., forming the highest points along the summit of the ridge north of Pine Grove Canyon. These flows seem to dip to the north and northeast at low angles and are relatively thin. The lower flows are slightly porphyritic; the upper flows are more glassy. In the porphyritic flows the groundmass shows microscopic crystals of quartz and orthoclase, rather thickly scattered through the glass base. In this groundmass are a few small fragments of orthoclase, quartz, and biotite.

Basalt.— Some of the low hills in the valley 5 miles east of Pine Grove are composed of black vesicular augite basalt, which overlies the rhyolite unconformably.

Ore Deposits

History and production.— The first discoveries of gold were made on some outcroppings on the north side of the canyon at the town of Pine Grove in 1866 by William Wilson, a resident of Mason Valley. The Wilson mine covers the original location, and also about 80 acres of ground in the vicinity. For some years the district was called the Wilson, after its discoverer, but the name of Pine Grove was finally adopted from a grove of pinon trees, which the Indians visit annually to gather nuts.

In 1869, according to Raymond, there were several arrastres and a 10-stamp mill in operation on oxidized ore, which ran from $30 to $90 a ton. The bullion produced at that time was said to be 0.917 fine.

The Wheeler mine, on the south side of the canyon, about three-fourths of a mile east of town, was discovered shortly after the Wilson.

In 1882 Burchard reports that both the Wheeler and Wilson mines were working ores between $50 and $60 in grade in amalgamating mills. The Wheeler mill had 15 stamps and the Wilson mill 10 stamps.

Prior to 1896 none of the ore was concentrated, and as only about 33 per cent in value of the precious metals in the sulphide ore is free milling the tailing piles contained considerable quantities of those metals. A small

cyanide mill not in use in 1912 was still standing in the canyon just north of Sugar Loaf Peak. It is said that a large quantity of the tailings from the Wheeler mine had been re-treated in this mill with considerable success.

During the later years of development in the mine the low-grade material averaged 0.28 ounce in gold to the ton and the high-grade sulphide ore 3.4 ounces gold, 0.3 ounce silver, and 0.24 per cent copper to the ton. It is estimated by Mr. Deleray, superintendent of the Wilson mine, that the production from that property between its discovery and 1893 amounted to about $5,000,000 and that about $3,000,000 was taken from the Wheeler mine during the same period. Since 1893 the mines have not been worked continuously, but in 1909 the Wilson mine was purchased by the Pine Grove Nevada Gold Mining Co., so there is some hope that the camp may again become active. According to the mining journals the Wilson mine has been reopened and equipped with electrically driven machines.

The following table of production of the Pine Grove district is taken from the mineral resources reports of the United States Geological Survey for the years 1902 to 1911, inclusive. The value of ore a ton according to these figures ranges from $6 to $22, the average being $8.65.

Production of gold and silver from the Pine Grove district, Mineral County, Nev., from 1902 to 1911, inclusive.

Year	Crude Ore Treated	Gold	Silver	Total Value
	Tons		Ounces	
1902	1,105	$ 11,270	5,317	$ 14,164
1903	2,675	63,000	28,584	75,000
1904	2,300	14,238	1,832	15,310
1905	150	1,230	242	1,376
1906	1,231	11,090	1,821	12,310
1907	9,735	12,393	3,264	14,547
1908	632	14,143	277	14,310
1909	.....	.....	.....	.....
1910	273	3,246	2,817	4,767
1911	1,024	11,914	81	11,957
	19,125	142,524	44,885	163,741

Development.-- The Wilson mine is developed by a series of tunnels that join and cross one another in a most intricate manner. From the tunnels there are many long-filled stopes, shoots, and galleries, making a network of openings in the ore zone which are estimated to total about 3 miles of workings. All this work reaches a maximum depth of 140 feet below the outcrop. A 300-foot incline shaft is located near the mouth of the main working tunnel, but its mouth was caved and water was standing within 100 feet of the surface, so it could not be entered. Most of this work was done by lessees, as the mine was largely worked under that system. The lessees paid the company a royalty of 50 per cent of the net returns on all ore produced.

The ground is heavy, necessitating the use of large timbers, and a great many of the old stopes are either partly or completely filled with waste, many of them being caved.

A long crosscut tunnel has been started to cut the ore body 500 feet below the outcrop, but as yet has been driven only through the overlying rhyolites. This tunnel has its mouth in the first canyon north of Pine Grove Canyon, about 1½ miles north-northeast of town. It is said that there are about 4 miner's inches of water a minute developed by this tunnel, which would be an adequate supply for a mill located at the tunnel mouth.

The Wheeler mine is developed by three irregular tunnels and connecting stopes, raises, and chutes, through a vertical distance of about 120 feet. The work is in rather bad condition, owing to its long idleness. Most of the stopes are filled, but the ore is visible at many places in drifts.

Occurrence of the ore.-- The ore bodies in the Wilson and Wheeler mines lie in a zone of intense crushing and alteration immediately south of the well-marked fault, striking N. 60° W., that cuts the quartz monzonite. This fault dips 40°-45° N. and is marked by a heavy clay gouge. Rounded pebbles of the altered rock are present in this gouge, which seems to be largely iron-stained clay, together with much sericite. Calcite crystals are developed in it, some ofthem 2 inches across. The gouge ranges from 4 to 6 feet in thickness and slickensides in it are all about parallel to the dip of the vein. The direction of movement was not entirely clear, but the faulting appears to have been normal.

The quartz monzonite for 150 to 160 feet south of the fault has been crushed and altered to a high degree. In this zone there is a considerable quantity of disseminated pyrite and a large number of small interlacing quartz stringers carrying pyrite that range from one-eighth inch to 3 inches in width. There are also lenses of quartz and pyrite that may be 2 or 3 feet thick extending along the strike for 10 to 150 feet. These lenses of sulphides constitute the good ore, which is said to have been of better grade in those portions from 8 to 10 inches thick. They have a very flat dip to the north, between 10° and 15°, so that many pillars were left in the mining operations. The lenses overlap both in strike and dip, and there was apparently no indication to direct new drifting at the end of a lens. There are a few post-mineral faults about parallel to the main fracture that are vertical and have moved the rock on the north side downward from 6 to 8 feet.

Character of the ore.-- The small streaks and large lenses of quartz and sulphides constitute the ore. The sulphide is 95 per cent pyrite, though a little chalcopyrite occurs in places, particularly in narrow veinlets branching off from the lenses. The ores are all somewhat oxidized to a depth of 170 feet. Limonite is common and locally there are small areas of copper-stained ore where the chalcopyrite was most abundant.

The valuable constituents of the ore are gold and silver, and it is said that at the Wilson mine, at the west end of the mineralized area, the ratio of gold to silver was higher than at the Wheeler mine ease of Pine Grove. The bullion from the Wilson mine is said to have sold for $18.75 an ounce, whereas that from the Wheeler mine was worth only $15 an ounce. Above the 170-foot level about 50 per cent of the gold was free in the semioxidized ores and at the surface very rich free-milling ore bodies were found. It is said that at a depth of 250 feet in the Wilson mine there is practically no oxidation of the sulphides, which have a value of about $10 a ton.

Alteration of the quartz monzonite.-- For about 200 feet south of the main fault, and for an unknown distance north of it, the normal light-gray coarsely crystalline quartz monzonite is crushed and altered to a dark-

gray, almost black rock. The alteration is progressing, becoming less and less intense as the fault is left. The beginning of the alteration is shown in the slightly changed rock by a sericitization of the oligoclase-albite and by a partial alteration of the original green hornblende to brownish-green biotite. A small amount of epidote is also seen. In the ore zone most of the plagioclase feldspar is replaced by greenish-brown biotite and sericite, and all the original hornblende is changed to the dark mica. In this rock there is widely disseminated pyrite and numerous interlacing quartz stringers cut the formation in all directions.

At the fault the rock is completely altered to an aggregate of quartz and brownish-green biotite, together with a little orthoclase, apparently left from the original rock. All the plagioclase and hornblende are gone but the magnetite seen appears to have escaped alteration. This rock contains abundant grains of disseminated pyrite as well as veinlets of quartz and pyrite. Calcite is developed to a small extent in veinlets in the ore zone and forms thin crusts coating the joint planes of the rock.

This alteration must have been accomplished at depth by hot ascending solutions rich in potassium. The ores were formed as replacements of the crushed and altered rock by the same solutions that caused the alteration.

Biotitization of the wall rock by vein-forming solutions, though not of wide occurrence, has been noted at a number of places. Lindgren found biotite--

replacing hornblende and feldspars - -- in veins carrying tourmaline (Meadow Lake, Cal.); replacing the same minerals it appears abundantly in the gold-copper veins of Rossland, B. C. A greenish mica, probably biotite, occurs, replacing quartz, in small veinlets, associated with quartz, garnet, tourmaline, actinolite, and zinc blende, in the Bunker Hill and Sullivan mine, Idaho.

Hatch reports that--

in the near neighborhood of the quartz lodes (at Kolar, India) a characteristic brown mica is abundantly developed - - - genetically connected with the mineralization of the lodes, whether by vapors from below or by ascending mineralizing solutions.

In a footnote he further suggests that the "brown mica has been produced by deep-seated vapors attacking the hornblende and supplying the requisite amount of water and alkalies.

At Bingham, Utah, Boutwell notes the alteration of quartz monzonite in the vicinity of zones of strong shattering. He says:

Conspicuous areas of granular quartz are numerous, the orthoclase is highly sericitized, and the femic minerals are represented by numerous irregular patches of small individuals or flakes of dense brown biotite. The quartz and sericite are clearly secondary, and though no direct proof of the age of the biotite has been found it resembles secondary biotite and may be secondary also. Magnetite, excepting occasional grains, has disappeared, and large amounts of chalcopyrite and pyrite are present in the form of rounded grains, chains, and veinlets embedded in secondary quartz, flaky biotite, and sericitized feldspar.

In the gold veins of Dahlonega, Ga., which "lie on the contact of either mica schist and amphibolite or of mica schist and granite," Lindgren mentions garnet, apatite, ilmenite, muscovite, dark-green mica, and green hornblende in the altered wall rocks of the veins, which contain very few striated feldspar grains, though much feldspar is present, and most of it, as indicated by its optical properties, is an oligoclase, although some of it may be albite. In the same veins garnet, hornblende, apatite, and a green mica may develop along the quartz veins. He concludes that "In the prevailing class of Dahlonega mines the products of alteration are such minerals as occur in areas of regional metamorphism or in contact zones."

In his report on the Juneau gold belt of Alaska, Spencer has described the alteration of the diorite, particularly where this rock contains the greatest number of quartz veins, into a fine-grained substance, composed mainly of quartz, calcite, brown mica, and chlorite, by the addition of potash.

Knopf has noted a similar alteration of the igneous rocks in the northern end of the Juneau belt by a large introduction of albite, the conversion of the hornblende and other amphiboles into biotite, and the introduction of apatite. This alteration shows a large addition of soda and potash demanded by the formation of albite and biotite, and a heavy loss of magnesia, lime, and iron. Knopf concludes that the mineralizing solutions were rich in soda and potash and that they were hot, ascending waters of deep-seated origin.

Spencer has recently found a similar alteration of quartz monzonite in the Ely district, Nev. He finds the most intense alteration along zones of crushing and concludes that the alteration was produced by hot aqueous solutions carrying soda and potash which have changed the hornblende, plagioclase, and magnetite of the original rock into sericite and biotite and have deposited pyrite, chalcopyrite, calcite, and possibly quartz.

Rockland Mine.-- The Rockland mine, situated about 3 miles southeast of Pine Grove, though not visited, is presumably of the same type of ore deposits as the Wheeler and Wilson mines and may be on a continuation of the same fault zone, though it seems more probable that it lies in another zone of fracture. The "vein" is said to strike northwest and to dip 45°-55° NE. The footwall is the dark altered quartz monzonite and the hanging wall a "light-colored porphyry," presumably the intrusive granite porphyry, though it may be the rhyolite. The property is developed by three drift tunnels. The ore is said to contain very little copper, the value being chiefly gold and silver, the bullion having a value of $15 an ounce.

There is said to be a 20-stamp amalgamation mill on the property, lately installed to replace a dry process mill, which was unsuccessful on account of the large quantity of clay in the ore.

Future of the District

This type of ore has probably been formed at considerable depth, for the accompanying alteration, as pointed out by Lindgren, is such as to preclude the theory of shallow deposition. It seems probable, therefore, that the mineralization along the fault zone will continue for a considerable distance below the surface. It is to be expected, and is already shown in the lower workings of the Wilson, that the grade of the ore will not be as high as at the surface, but the unaltered sulphides at a depth of 250 feet carry

$10 a ton, and ore of even lower grade has been successfully worked at numerous places. This pyritic ore, with such a small proportion of copper minerals, is amenable to cyanide treatment, and it seems entirely possible that if a sufficient quantity of ore can be treated the properties could again be producers. In fact, reports in the mining journals indicate that these mines are to resume production in the near future.

Rockland 6000.0278 (5370)

INTERSTATE MINING and DEVELOPMENT CO.
317 E. C. Lyon Building
Reno, Nevada

April 30, 1935.

Dear Stockholder:

It is with considerable satisfaction that we are able to report completion of arrangements whereby our Cyanide mill on the Rockland property is to be put in production.

After extensive negotiations with different financial groups, we were able on April 13, 1935 to enter into contract with Harry M. Johnson of Kansas City, to re-condition, repair and put the cyanide mill in operation at his own expense.

He also agrees to mine, mill and develop ore in the Rockland mine during the life of our lease and option, or any extensions thereof, upon the following terms and conditions;

To mine and mill such ore as is now available and such ore as may be discovered and developed and to pay 50 per cent of the net mill returns to the Interstate Mining and Development Co.;

That during the life of this agreement, he shall have the right to use all of the tools, equipment, mining and milling machinery on the property for the purpose of carrying out his part of the agreement, but at the termination thereof he shall surrender the equipment to the Company in good condition and repair, excepting ordinary wear;

That in the event the property should be operated at a loss, such loss shall be borne wholly by Mr. Johnson, with no Company liability.

That settlement on production is to be made every 30 days after the starting of the mill. Mr. Johnson has already commenced work.

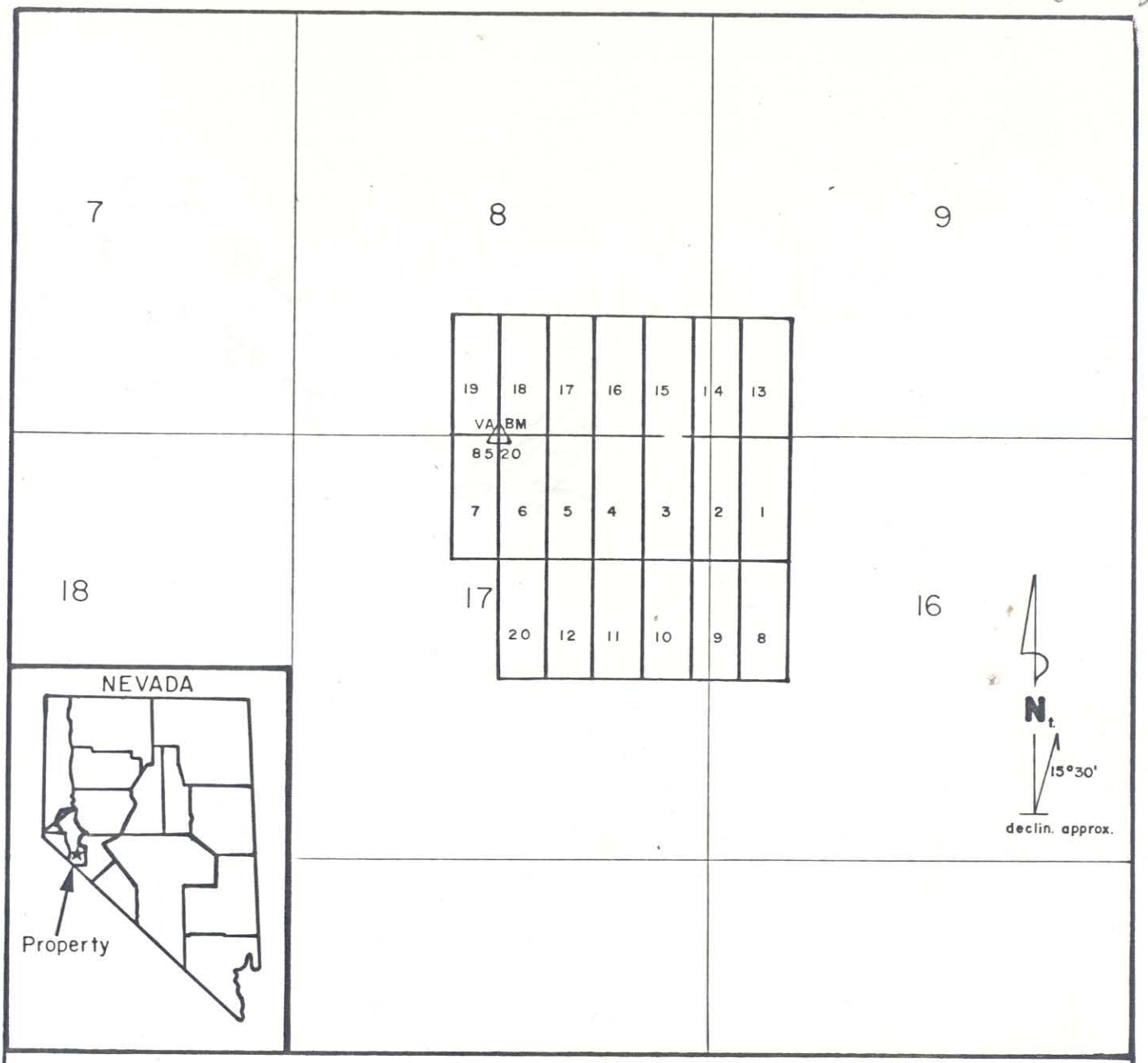
This contract will enable the company to hold the lease and option on the Rockland mine and thus retain its valuable property. Due to the inability of the Company to further finance itself there was immediate danger of losing the property.

Respectfully submitted,

INTERSTATE MINING and DEVELOPMENT CO.

By Tula M. Carpenter
Tula M. Carpenter
Vice-President

6000 0278 (5370)



RED LEDGE MINING CORP.

Location Map of Marion Claims, Rockland Mine

Township 9 North, Range 26 East (Mt. Diablo Meridian) Lyon County, Nevada, U.S.A.

SCALE 1:2,000

0 20 40 60 80 100 120 140 160 180 200 meters

NOTE — DRAWN FROM LYON CO. CLAIM MAP, LOCATIONS APPROXIMATE.

July, 1981	J.P. ELWELL ENGINEERING LTD.

Report on the Mining Claims
presented by L. C. Klarby.

(182)
item 3

6000 0278 (5370)

Date of Investigation: July 20 and 21, 1945 (field).

Claims: Two Groups:

784-5778

a: Horse Shoe; Horse Shoe, Horse Shoe 1 and Horse Shoe 2.

b. Lead Reserve.

BLM No 94146 1980, 1981

Location of Claims.

Horse Shoe group. 29 miles south of Yerington Lyon County, Nevada, approximately in Sec 5, T.9.N. R27E.. Approached by road to Webster Flat and little travelled road to east (post on east side of main road) at north end of Webster Flat. This road to east may be located on the Wellington Topographic as the being the one drawn to the east margin at latitude 39°-40' north. A small x appears on sheet 2 of the General Highway map, Lyon County, Nevada to indicate the location of the claims. These claims are in the Cambridge mining district, about 2.5 miles airline south from the Cambridge Mine.

Lead Reserve: Based on compass bearings taken to Bald Mountain and Yerington this claim is in Section 11, T13N., R27E Mineral County, Nevada, in what is known as the Mountain View or Granite mining district. The claim is 31 miles east of Yerington on the west slope ~~of the~~ and at the north end of the Wassuk Range, near the summit of the range.

Accessibility: a. It is possible to drive an automobile within 300 feet of the main workings on ~~the to~~ Horse Shoe claims.

b. ~~The Lead Reserve can be approached~~ ~~It is possible to~~
The nearest approach to the Lead Reserve by automobile is a point 28 miles from Yerington on the old Reese River Canyon Road (Yerington - Shurz and now blocked). The remaining distance must be traveled by foot.

) Ownership. a. The Horse Shoe Group is owned by the following.

Ira Fallon, Fallon, Nevada.
P. B. Mapes, Yerington, Nevada
Mrs. Geo Plumer, " "

Ownership based on ~~lodd~~ lode location dated Nov. 30, 1928.

L. C. Darby has no interest in property other than that commission resulting from a sale as a result of his efforts.

b. Lead Reserve: a relocation of an abandoned prospect. Relocation reported to be as of July 12, 1945, by L. C. Darby.

~~Ittom~~ Nature of deposits: a. Horse shoe, Gold and Silver.
b. Lead-Silver, (Lead Reserve).

Geology: a. Quartzite intruded by an andesite (?) ~~dotp~~ dyke. Vein closely related to hot spring (epithermal) action based on presence of ~~stan~~ opalite in vein which appears to have developed parallel to bedding in quartzite. The vein ~~deposition~~ deposition has resulted from the dyke, ~~as~~ ~~images of~~ small sill like ~~similar found on the slopes~~ as small sill-like intrusions of andesite occure in the crushed hanging wall of ~~the vein~~ parallel to the ~~app~~ strike of the vein

The vein was reported to be 8 feet wide but actual measurements ~~to~~ indicate a maximum width of 2.7 feet. There is doubt that mineralization will continue ~~to~~ below the junction of the vein and dyke.

A sketch map is attached to show the nature of the workings ~~and~~, position of the vein and other facts of interest. Strike of vein N 9° E dip 35° E.

Samples. The vein is best exposed in an east crosscut and at this ~~point~~ working ~~five~~ four samples were taken
1. L.W. 5.5' west of face, across 2.8' vein.
2. R.W. 3.0' " " " , " 2.5' "
3. R.W. 5.0' " " " , " 1.8'
Crushed quartzite foot wall.
4. Face of Crosscut 3' of Hanging wall.

These samples were taken for the reason Mr. Darby claimed all of this material was sampled and the assayer reported it to have a value of $14.00 per ton mainly gold.

3. A sample, #5, was taken from the dump on account of the ③ ~~it was~~ reported ~~the~~ it was valued at $2,000.00.

Remarks: With the exception of the tunnel work, little could ~~but~~ be learned from the 6 surface cut apparently ~~slo~~ along the strike of the ~~so~~ vein as they would have to be cleaned out. Mr. Mapes is probably the last one to have done any work on the claims. Darby has done none and it is doubtful if he knows where to begin. If the above samples show any gold and silver, ~~$15.00~~ it is possible that a couple leasers might operate it. The ore would have to be shipped to a custom mill, the nearest being at Silver City, Nevada. The property could not be operated by a company and; the samples should indicate the presence of gold and silver in amounts so that the gross value of the ore would be in excess of $15.00 per ton. to be of interest to leasers.

b. Lead Reserve.

This is most disappointing prospect. The claim is presently developed by three tunnels near the ~~ap~~ apex of a narrow ridge at most not more than 200' wide at the elevation of the upper tunnel where the best showing occurs.

~~At the portal of the upper tunnel, a~~
A galena-bearing quartz vein appears in ~~to~~ the back of the tunnel along the right wall. At the portal (upper tunnel) this vein is about 24" wide; 10-12 feet in from the portal it pinches to a seam. At the face of this tunnel and possibly 15 to 20 feet back from the face along the left wall a 12" to 14" crushed and highly oxidized veinlet can be observed. A few casts partially filled with cellular limonite were observed in the veinlet and provide the basis for considering it to be the vein.

The middle tunnel, in which the greatest amount of work has been done, cut a diagonally across a crushed quartz vein about 24" wide. This was highly oxidized and pinched out at the floor of the tunnel (crosscut). ~~It is highly oxidized.~~

Due to the small width of possible vein material exposed in the workings, and the inaccessible ~~position~~ location of the claim no samples were taken. ~~It is doubtful if~~ This deposit could not be operated at a profit.

Remarks: There are a few pounds of 20-25% lead ore on the dump at the portal of the middle tunnel. ~~and~~ The prospect has been grossly misrepresented.

R.W.P.

A small sample was taken from a cropping 300 ft south-west of the tunnel workings to be assayed for Au and Ag; ~~although it~~ ...

as an accomodation to ~~at~~ and at the request of C.L. Darby. It is doubtful if the assay will show it to be of any value.

R.W. Prince July 25, 1945

WALTER S. PALMER, DIRECTOR
VINCENT P. GIANELLA, GEOLOGIST
WILLIAM I. SMYTH, ANALYST

No. 3833

UNIVERSITY OF NEVADA

STATE ANALYTICAL MINING LABORATORY

Reno, Nevada

July 28, 1945

Mr. Robert W. Prince

Nevada State Bureau of Mines, Reno, Nev.

Report on sample or specimen received from you on....., is as follows:

Number	MINERALS OR ROCK	Ounces Per Ton		
		Gold	Silver	
1.	Horse Shoe Claims	0.35	4.5	
2.		0.295	2.6	
3.		0.03	1.0	
4.		0.005	0.2	
5.		0.02	0.2	
LR 1	Darby's Lead Reserve	0.015	0.1	
RWP 1		0.01	0.4	Copper 2.0%

W S Palmer
Director.

The Laboratory very often receives a letter which does not state definitely what is desired on a given sample or we may misun-

John A. Baker Yerington Nevada.
Lyon County Treasurer's office.

.1. Diatomite Wabuska:
Deposit idle no one presently interested.
Briefly investigated by company from Basalt.
Requested or suggested the owner should do some exploration work to show the nature of the deposit.

.2. Group of Copper Claims: Mason Pass Mining District.
21 claims, Four Crows 1-4, Cuprite 1-3, Black Copper, Black Copper 1 and 2, and Martha Washington.
Yerington
Owners: Chas H. Milen, H.D. Shaw, Francis F. Haire and J.A. Baker.
Investigated by U.S. Bur. Mines.

.3. Gravity Group: Barite: 3 claims, 4.11 Sp. Gr. Barite.
Knowland-Land Mining district, Mineral Co.
Require 3/4 mile of road. Six miles from Knowland.
Locally known as Wilson property.
Owners: F.F. Haire, H.D. Shaw and J.A. Shaw.

Tom Miller considered construction of access road to deposit.

.4. Columbia Lead-Zinc Claims, 3. Near old camp of Buckley
Gelas range, Mineral County. Report Ag $4.00 per ton.
4 miles from Knowland.
H.D. Shaw and J.A. Baker owners.

.5. Gold Claims: St. Charles, Marigold, Nevada Boy and Big Shot.
lode claims. In Pine Nut Range near Artesia
Veins in granodiorite. Some tetrahedrite in ore.
All
Yerington
a small shipment made netting $30.00 made by Baker. Vein reported to be 4-6' wide. Developed by 50' tunnel.
L.T. Pitwood and J.A. Baker Owners.

.6. Boovard Placer: 400 acres partially explored: Drill holes
Yerington
10 to 76' deep. (50 acres). Report average value of 40¢ per yd. which is that for one hole only.
Average 20¢. Drill logs available. Investigated by Clayton Dredging Co also Natomas. Near old Ambassador Placer and Artesia.
Judge Guild and J.A. Baker Owner.

.7. Pyrophillite Claims :. Admiral and Col. Muscovite
Developed by 30' Shaft. Has been investigated
by
Commercial Minerals Co.
310- Irvin Street, San Francisco.
Pyrophillite not suitable for their uses probably
on account of percentage of grit (quartz grains)
in the final product.

Mr Baker wishes to bring these claims to
Mr J. A. Carpenter's attention in the hope that
he may know some one that may be interested
in them.

RW Prince July 25, 1945

Lloyd Nevada-Mica Co.

Proposed muscovite mining operation in the Ribby Mountains, Nevada. To commence work about August 1st 1945.

Object: To mine large books of muscovite suitable for cutting for mica insulation and, to produce ground mica products from the mica not suitable for insulation purposes.

Company: This company is managed by Mr. J.W. Lloyd and Mr J.A. Lloyd whose present place of business is: Nevada Mica Company,
8760 - So. Main Street, Los Angeles, Calif.

The complete operation will be under the direction of Mr J. W. Lloyd who is represented as knowing all about mica mining and processing and, ~~and~~ also all that is to be known about gold, silver, copper etc mining and milling.

Mr. James K. Howell,
5616 - Maywood Ave.,
Maywood, California. } informant ~~source information~~.

is interested in the mining claims as well as the mining and processing of the mica.

Mr James K. Howell, formerly an independent oil dealer, is presently employed by the U.S. Spring and Bumper Co. of Los Angeles. He does not appear to know too much about this ~~proposed~~ operation.

Mining Claims:
The muscovite mica will be obtained from a group of claims reported (J. K. Howell) to be in Ribby Valley (~~above Ribby Mts.~~) one of which is ~~known~~ is known as the Kennedy. The names of the other claims not known to Mr. Howell.

Plan of Operation: The large books of mica suitable for cutting and splitting will be shipped to Los Angeles where that will be done under the supervision of Mr J.A. Lloyd (father of J.W.L.). The smaller books not suitable for that will be ~~ground~~ processed in a mill, ~~to be located~~ to be constructed near the mine, which will be equipped to grind, concentrate and classify ~~the grinding and products~~ the mica.

Notes: See specifications of following companies applying to ground muscovite products.

over

Notes continued by R.H.P

1. Firestone Tire and Rubber Co. (Synthetic rubber)
2. Flintkote Company. (Paper products)
3. O.A. Smith } Welding rod.
4. Westinghouse Electric & Mfg Co
5. General Paint Co. (Paint and wallpaper
6. ~~Rubberoid Products~~. (Paper and paper products.
   Ruberoid Company.
7. Mefford Chemical Co. Chemical Jobbers.

Fire stone Tire specifications most ridged, 97% - 300 mesh. Price $70.00 ton. (Free quartz particles must be a minimum)
O.A. Smith buys on chemical analysis as well as screen analysis. Dry ground mica must weigh 16 to 18 lbs. per cu foot which makes it necessary to remove the quartz to make the weight limit.

Mr. James K. Howell gave the above information excepting notes on company specifications. Contacted at Fernley Nevada, July 20th. 1945.

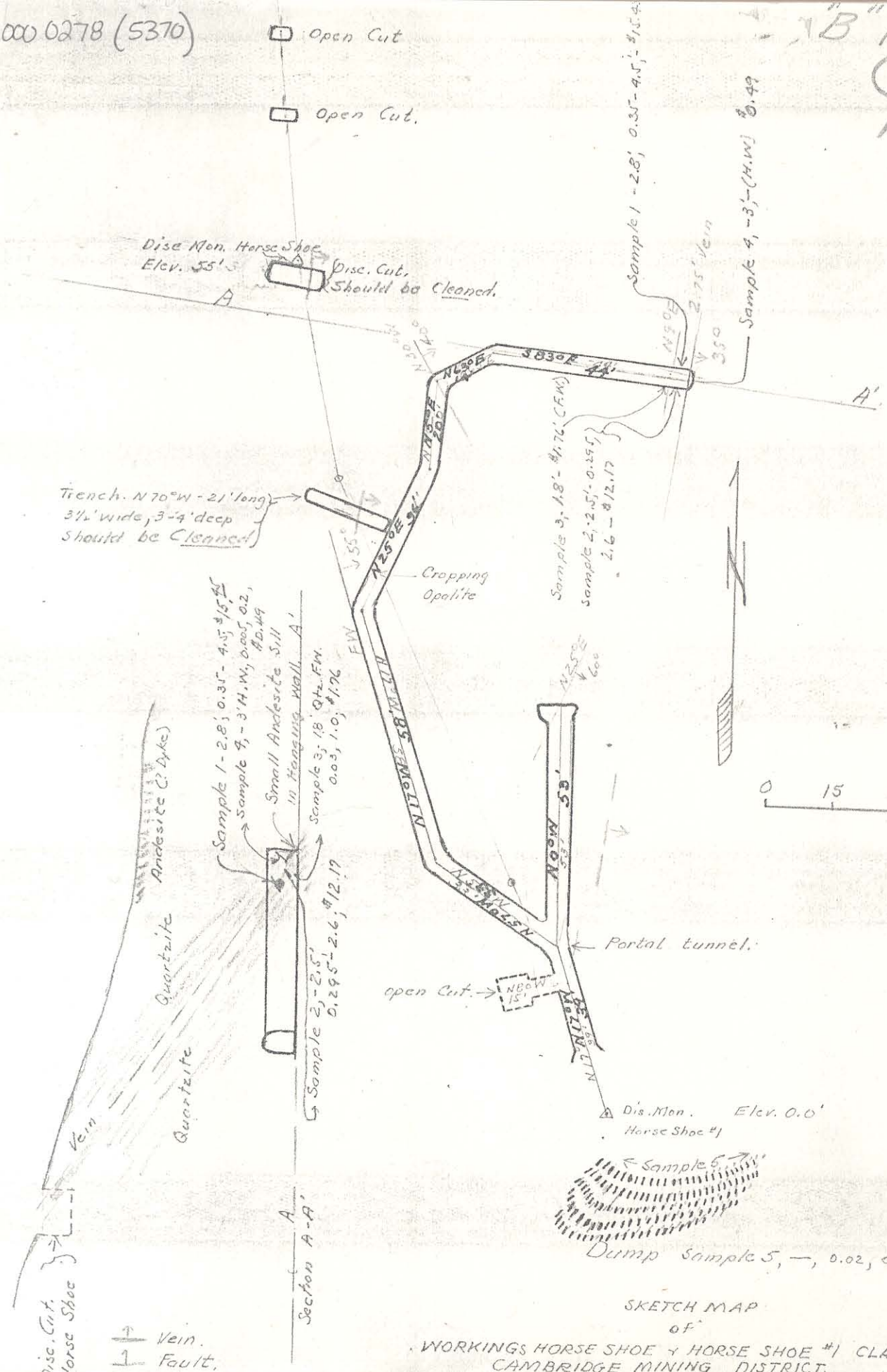
R.H. Prince. (July 26, 1945)

6000 0278 (5370)

"B" 14

182

Item 3



Vein.
Fault.
Andesite (?) Dyke & Sill.
Quartzite.

Scale 1" = 30'

SKETCH MAP
OF
WORKINGS HORSE SHOE & HORSE SHOE #1 CLAIMS
CAMBRIDGE MINING DISTRICT,
LYON COUNTY, NEVADA.
Presented by L. C. Darby.
by Nev. State Bur. Mines July 28, 1945.
Tapp & Brunton. R.W.P.

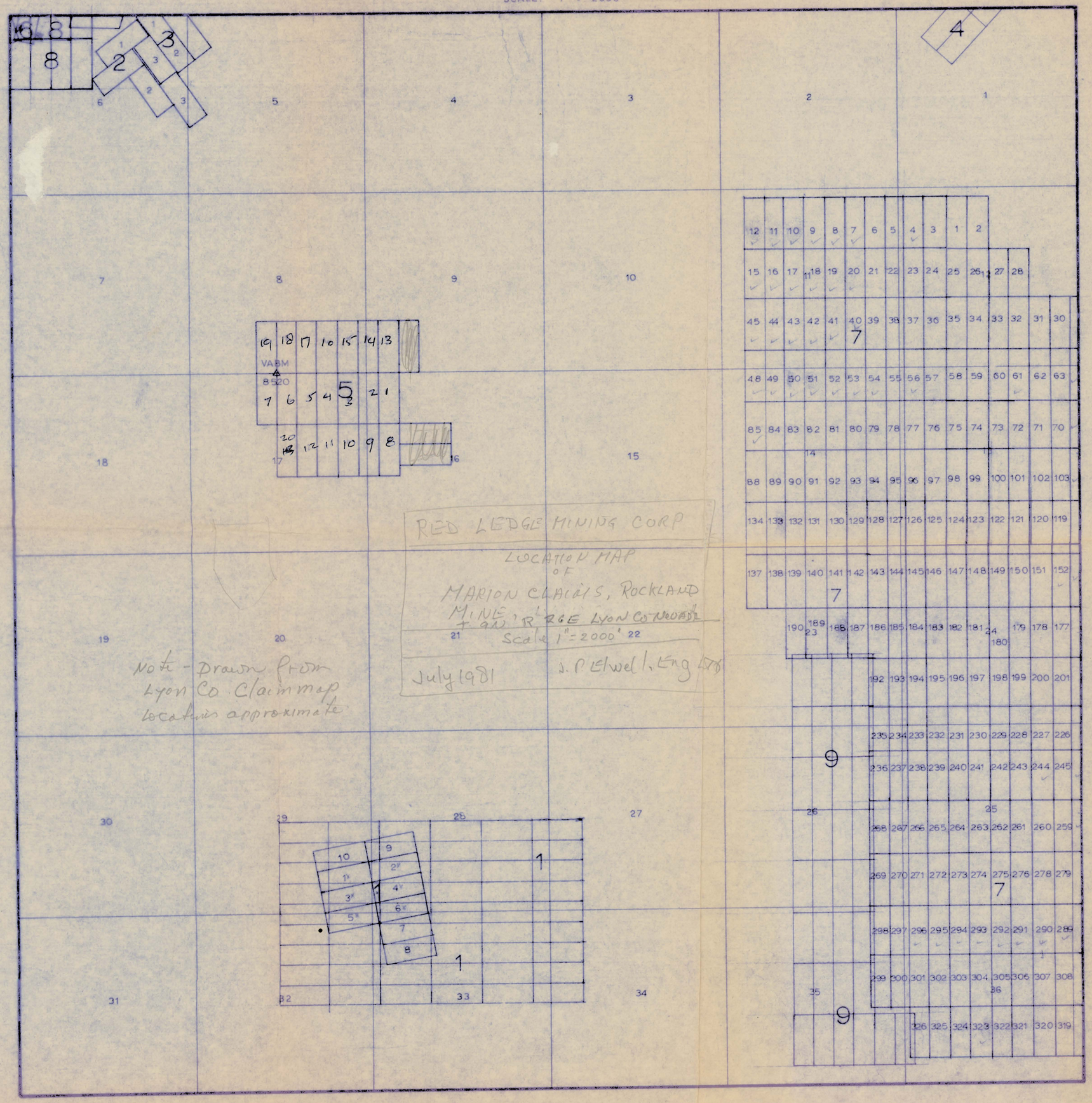
6000 0278A (5370)

TOWNSHIP 9 NORTH RANGE 26 EAST

SCALE: 1" = 2000'

1-6 LOCATED 12/79

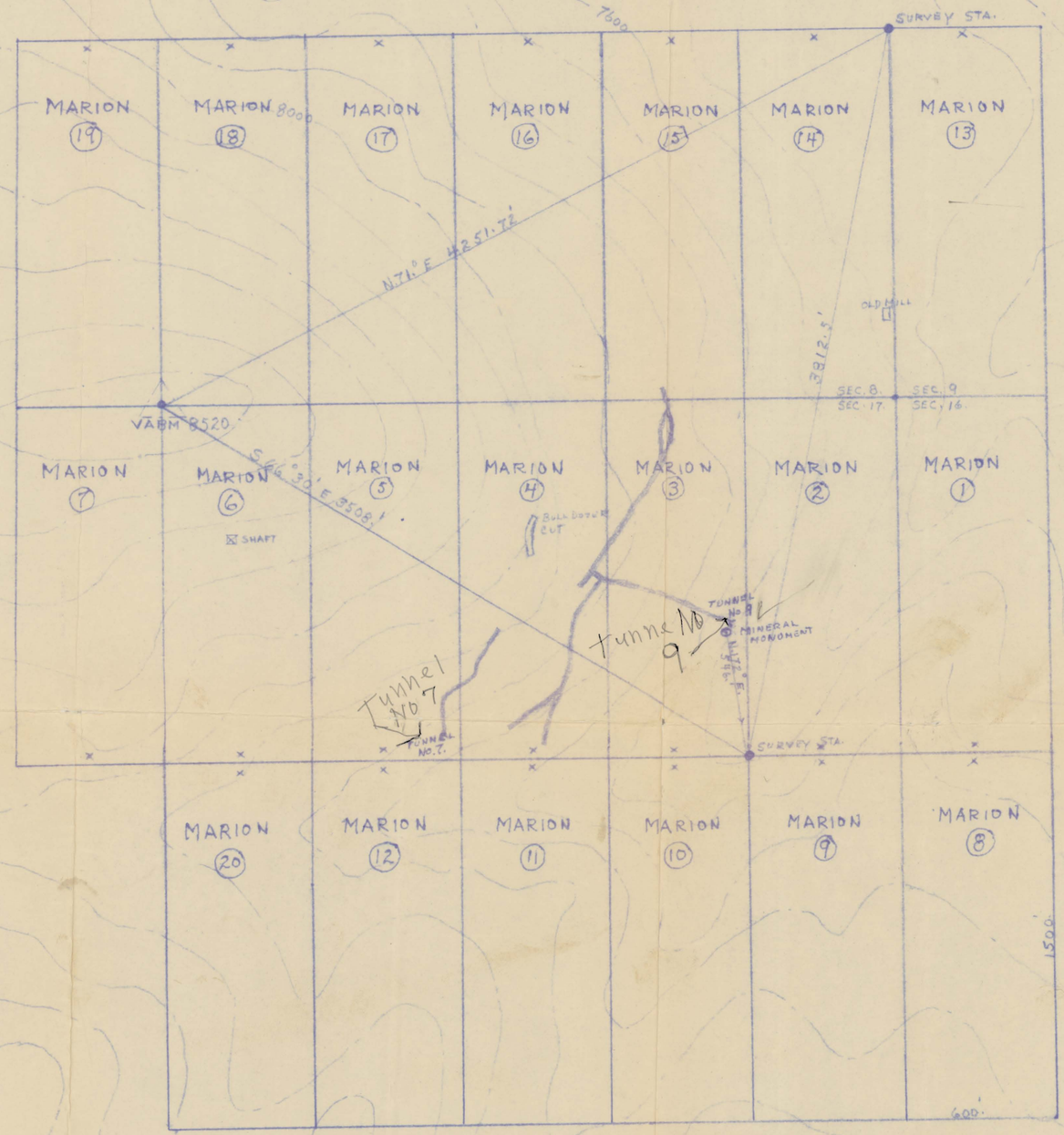
1 - Mac Lode Claim Group No's 1-6 & Red No. 7-10
2 Kids Claim Group (Proctection)
3 Crown Placer & Lode Claim Group
4 Owen Claim Group
5 Phelan & Sonoma Lode Claim Group (MARION NO. 1-25)
6 Ida R No1 Lode Claim
7 Fly Lode Claim Group (✓ AMENDED)
8 Southern Cross Claim Group
9 Jenny Claims

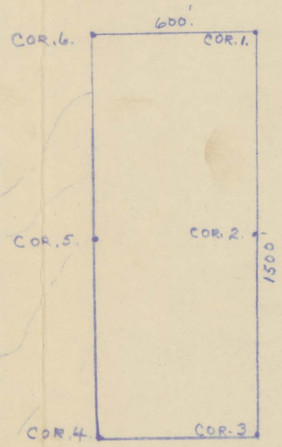


RED LEDGE MINING CORP
LOCATION MAP
OF
MARION CLAIMS, ROCKLAND
MINE, T 9N, R 26E LYON CO NEVADA
Scale 1" = 2000'
July 1981
J. P. Elwell, Eng Ltd

Note - Drawn from Lyon Co. Claim map
Locations approximate

6000 0278B (5370)





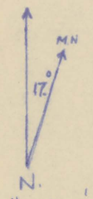
MARION No. 1-20 LODE CLAIMS

LYON COUNTY NEVADA

R. 26 E. TWP. 9 N.

UNSURVEYED SEC'S 8.- 17.

H. A. WEILER
35 TIMBER RIDGE DRIVE
BRANDON MISS.
39042



1" = 400' CONTOUR INT. 80'

CLAIMS 600' X 1500'

X LOCATION POST

ALL POSTS AND CORNERS
4" x 5' WHITE PVC PLASTIC PIPE

MINERAL MONUMENT 4" x 7.5' WHITE PVC PLASTIC PIPE 1.5' IN GROUND

R.A.M. JULY 1980

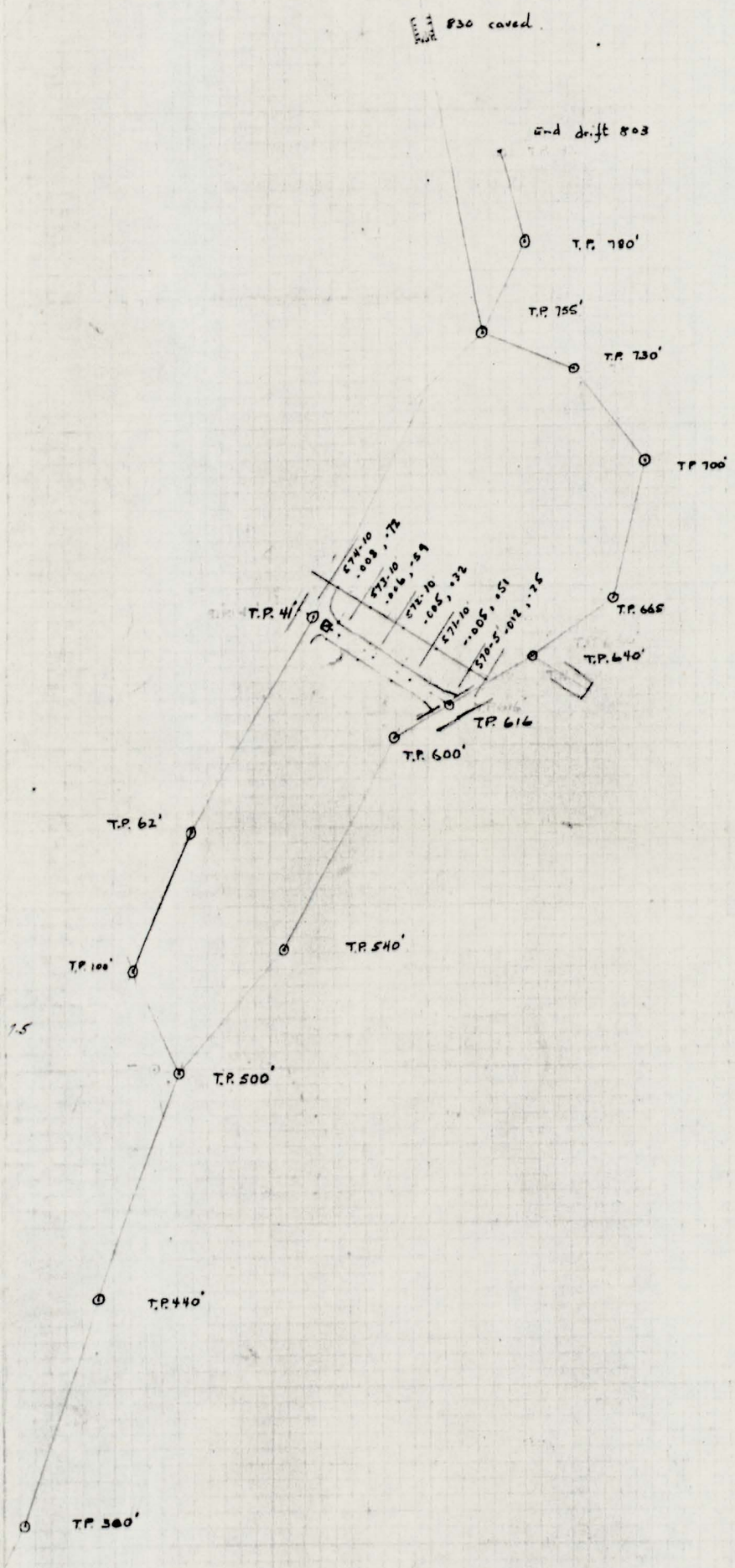
R A M July 1980

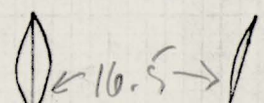
Rockland Mine
Map July 22, 1980

Yhalde Surveyed
Aug 24, 1972

6000 0278c (5370)

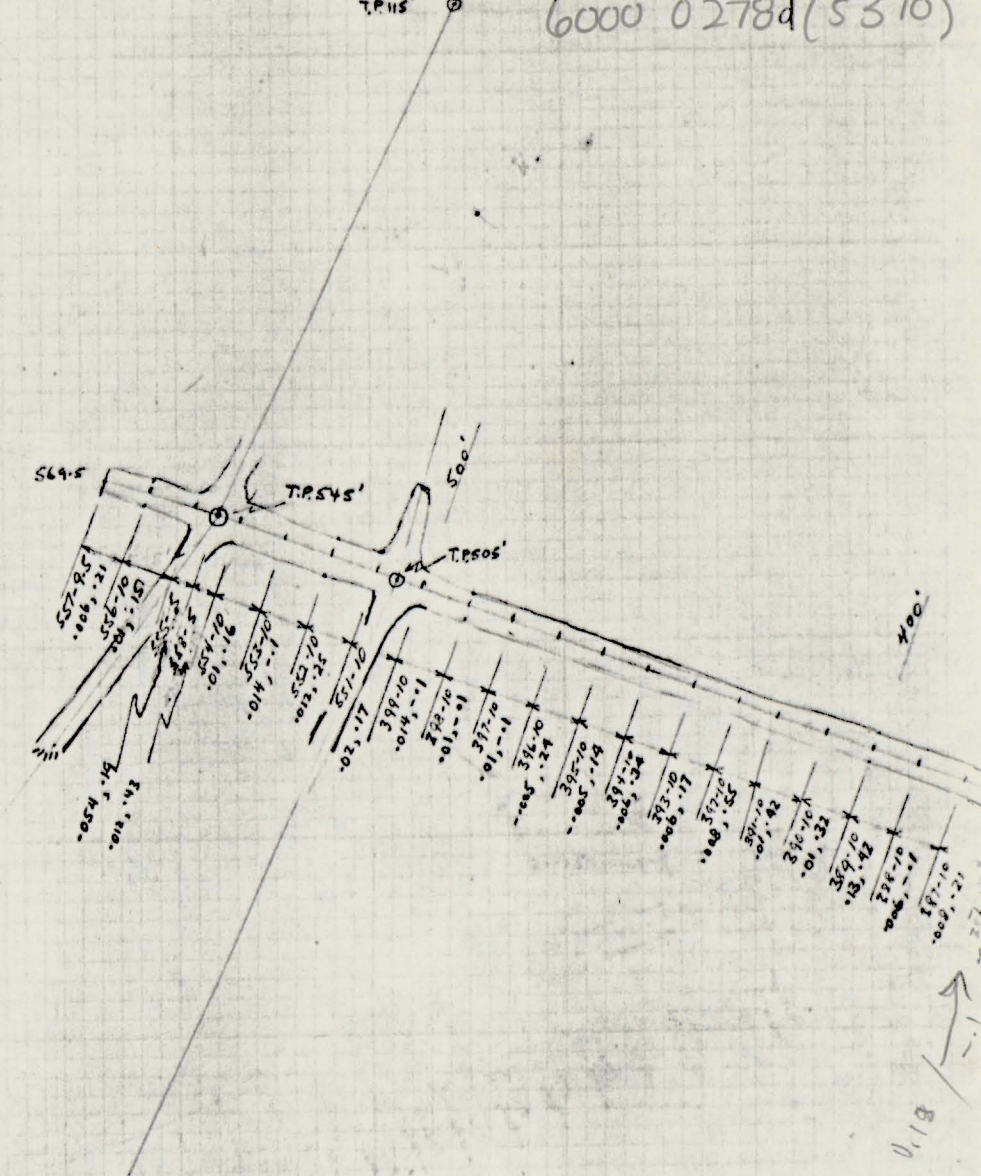
NW - SIDE



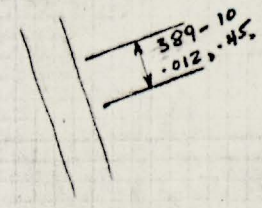


6000 0278d (5310)

SW Side

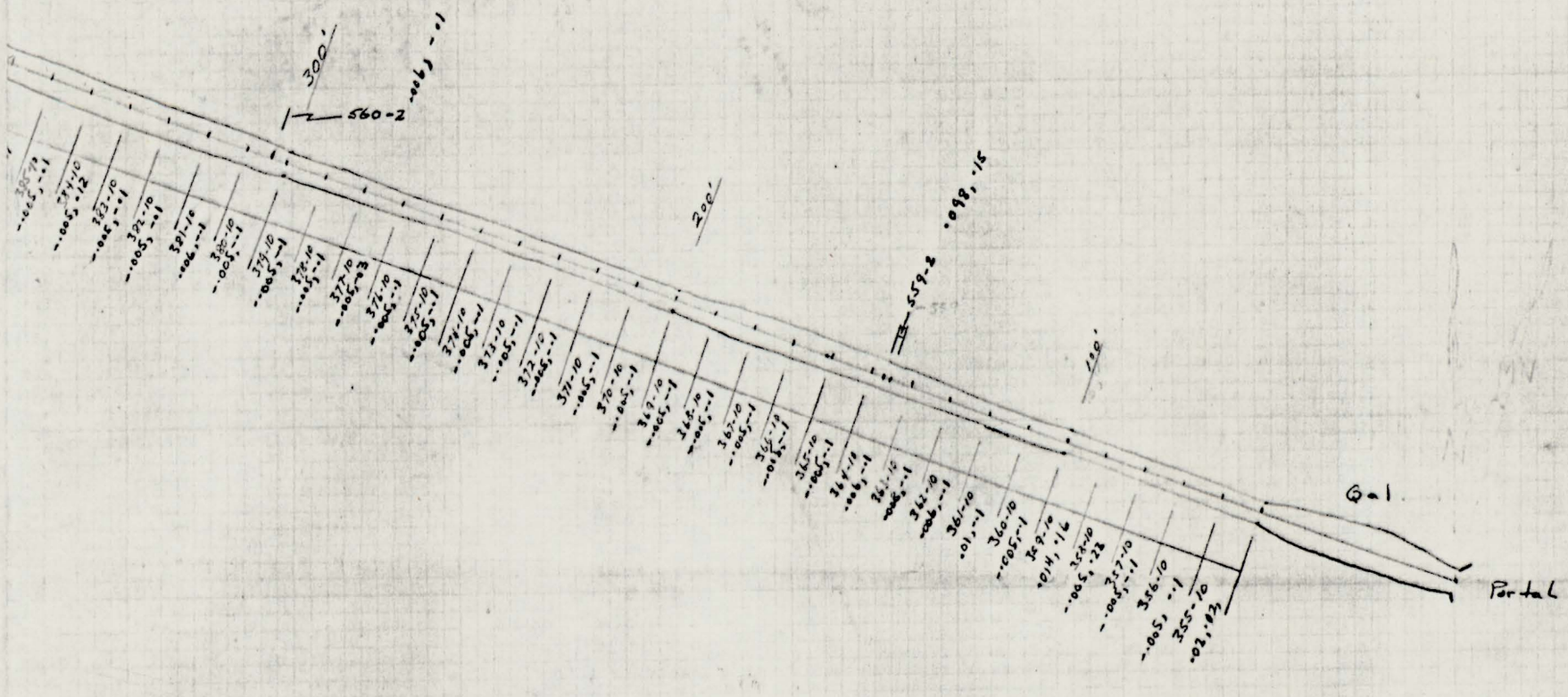


EXPLANATION



Sample number & length
Gold, silver in ounces/ton; copper in ppm

6000 0278e (5310)



ROCKLAND MINE, LYON COUNTY, NEVADA
900 LEVEL

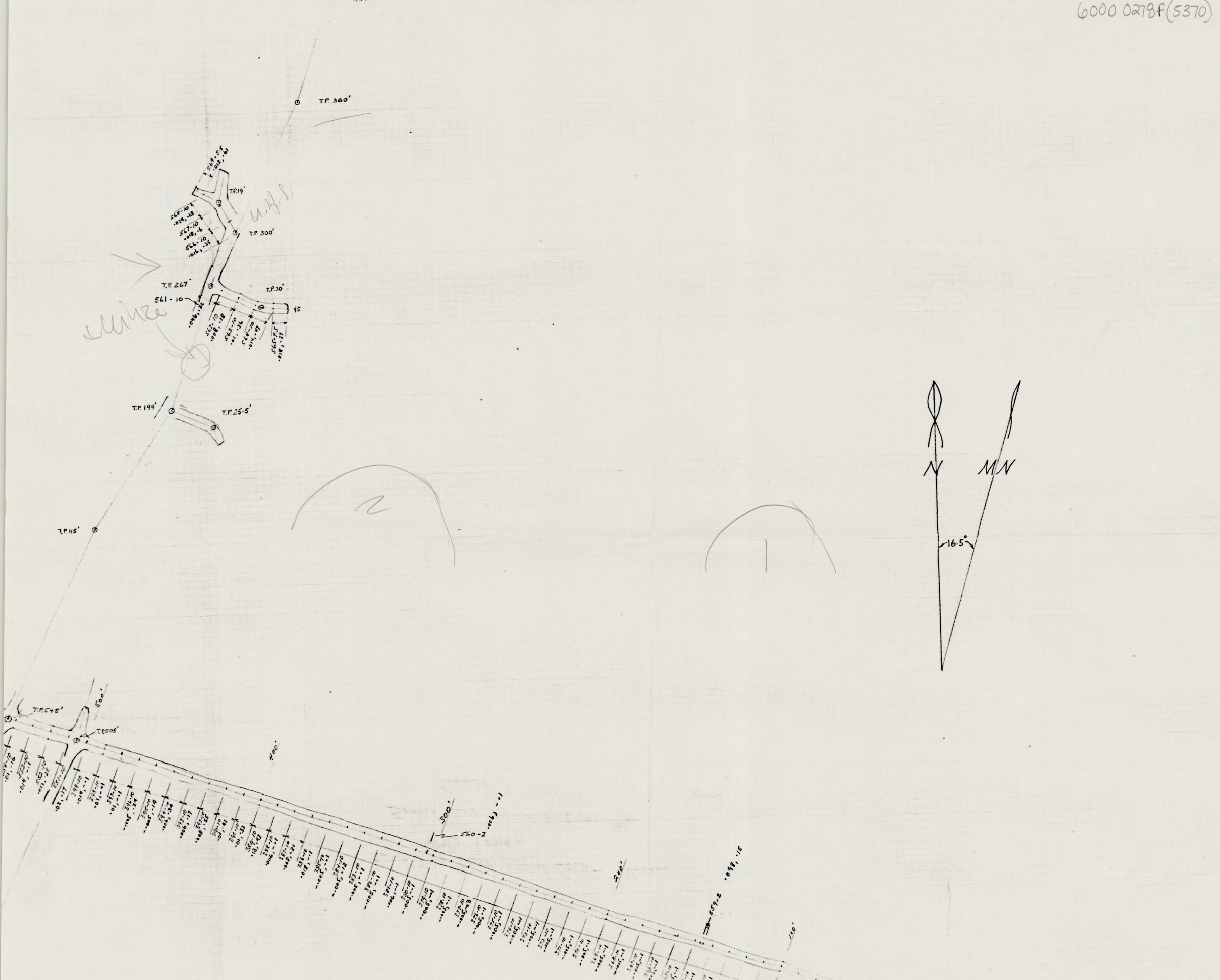
SAMPLE LOCATION AND ASSAY MAP

SCALE: 1" = 40'

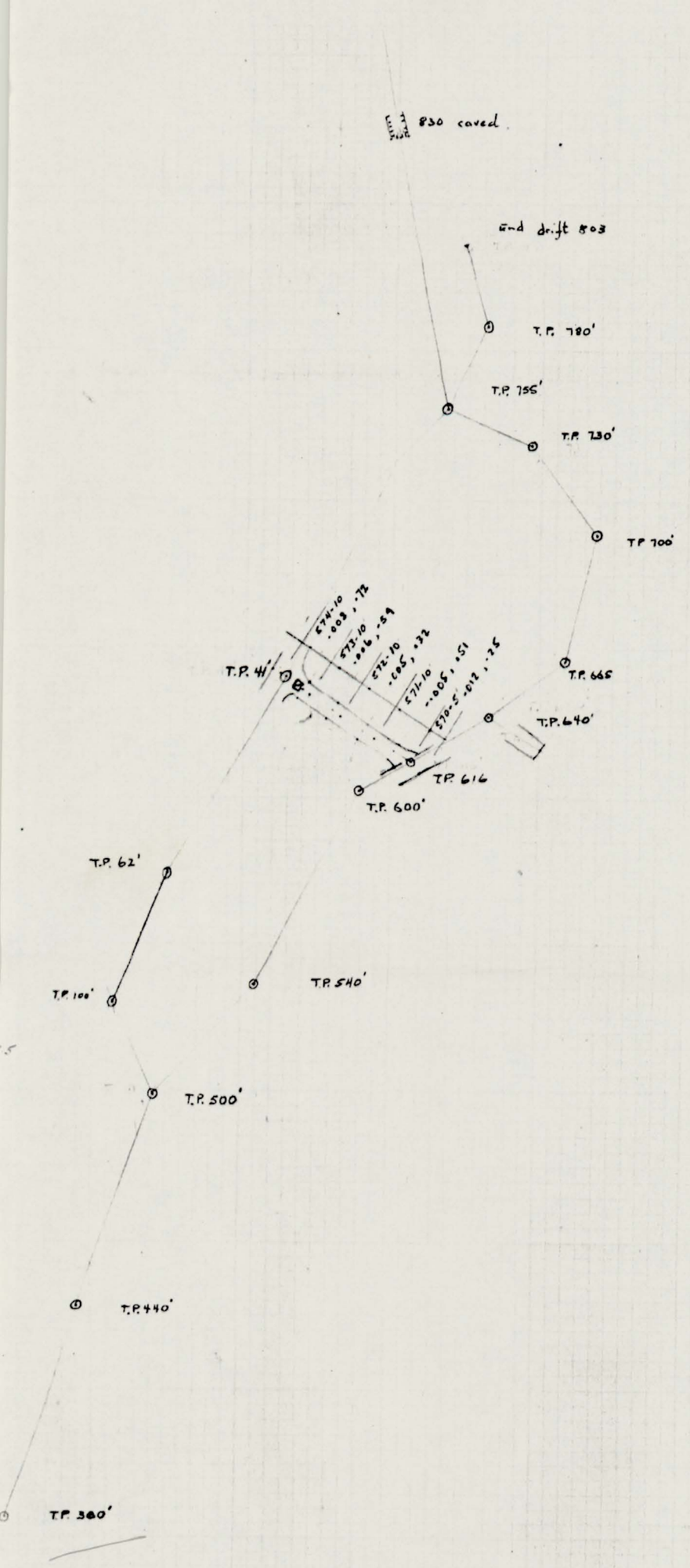
MMTE
10/80

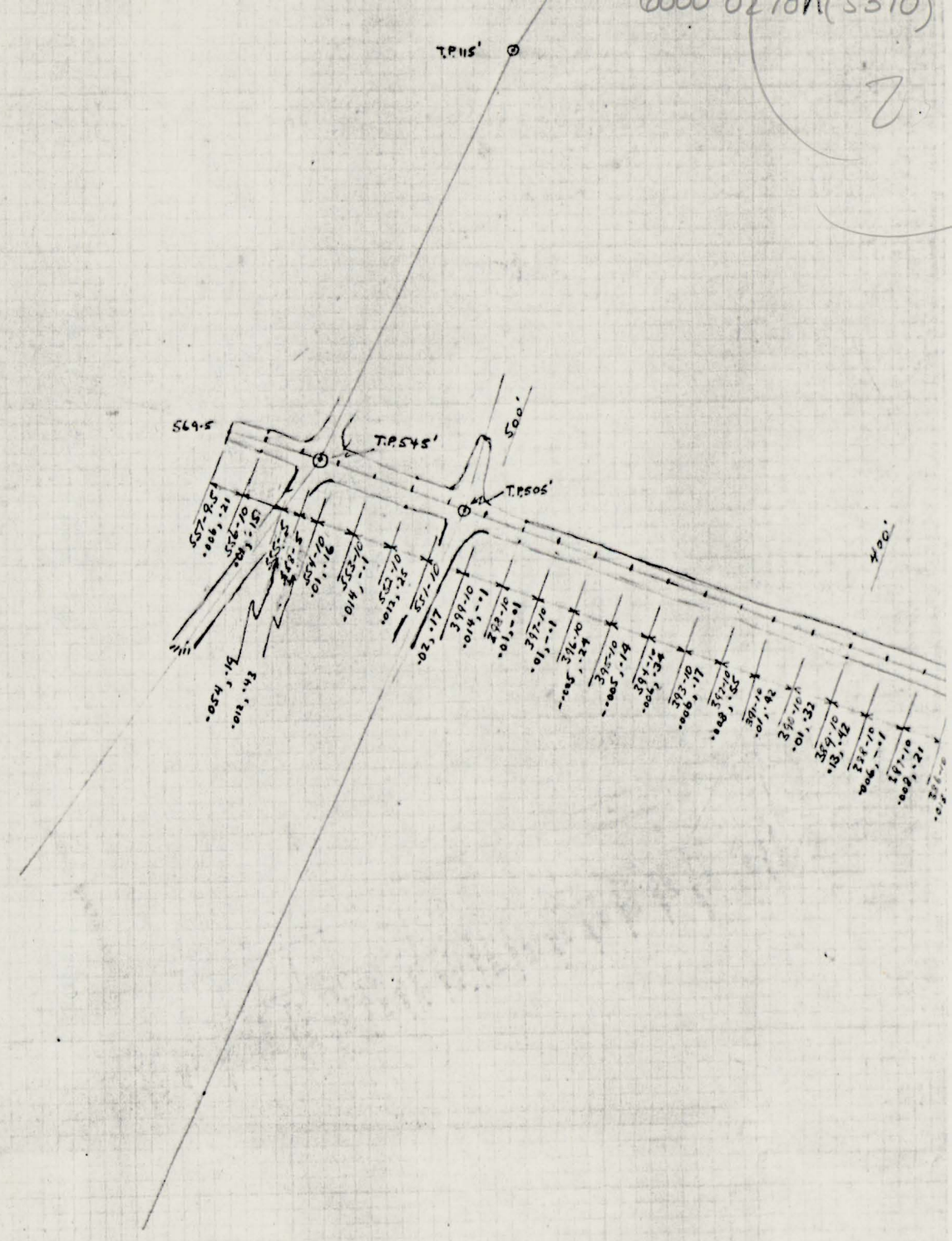
85

6000 0278f (5370)



6000 0278g (5370)





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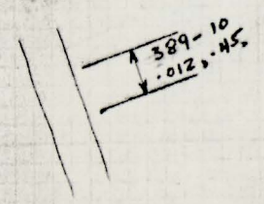
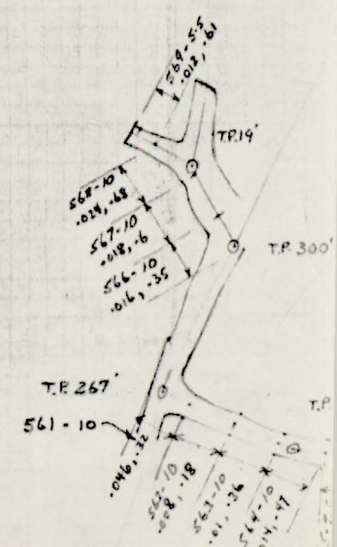


Sample number & length
Gold, silver in ounces/ton ; copper in ppm.

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