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PRINTED: 12-14-2006

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: IRON KING PROPERTY

ALTERNATE NAMES:
PATENTED CLAIMS MS 1714
LIME ROCK, PATENTED 1714
COPPER PLATTER, PAT. 1714

YAVAPAI COUNTY MILS NUMBER: 713D

LOCATION: TOWNSHIP 13 N RANGE 1 E SECTION 16 QUARTER SE
LATITUDE: N 34DEG 30MIN 02SEC LONGITUDE: W 112DEG 15MIN 25SEC
TOPO MAP NAME: PRESCOTT VALLEY S - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
ZINC
LEAD
GOLD
SILVER
COPPER

BIBLIOGRAPHY:
ADMMR IRON KING PROPERTY FILE
BLM MINING DISTRICT SHEETS 18, 19
ADMMR GEOLOGY FILE BIG BUG DISTRICT GENERAL REPORT
KOSCHMANN, A.H. AND M.H. BERGENDAHL PRINCIPAL GOLD PRODUCING DISTRICTS OF US USGS PP 610 1968 P 46
CLAIMS EXTEND INTO SEC. 15, 21, 22 & 28
ADMMR IRON KING MINE FILE
KUMKE, C.A. AND H.F. MILLE MINING METHODS AND PRACTICES AT THE IRON KING MINE USBM IC 7539 1950
USGS PP 467 GEOLOGY OF PRESCOTT AND PAULDEN QUADS 1965 P 104
ADMMR IRON KING GROUP COLVO FILE
ECOMOMIC GEOLOGY VOL. 47, NO. 1 P 24-56

CONTINUED ON NEXT PAGE

CONTINUATION OF IRON KIN ROPERTY

GEOLOGY OF THE IRON KING MINE BY P. GILMOUR
AND A. STILL, P. 1239, ORE DEPOSITS OF THE
U,S 1933-1967., AIME, GRATON SALES VOLUME 2

IRON KING MINE

YAVAPAI COUNTY
BIG BUG DISTRICT

REFERENCES

USBM I.C. 7539, Jan. 1950

ABM Bull. 137 p. 36

USGS Bull. 782 p. 127-28
USGS P.P. 308 p. 85, 155
USGS P.P. 467 p. 104
USGS P.P. 550-A p. 4
USGS P.P. 610 p. 46

Big Bug District General Report (file)
(~~Geology~~ District File)

Report on "Mills-Northern District"
(Geology File)

Mining World, July 1953, p. 99
" " Dec. 1958, p. 58
" " June 1960, p. 60
" " Aug. 1961, p. 47
" " Feb. 1962, p. 40
" " Nov. 1963, p. 36

E/MJ Oct. 1963, p. 22
E/MJ Vol. 167 No. 8 Aug. 1966 p. 104
E/MJ Feb. 1968 p. 161

World Mining May 1965, p. 34-36

Mining Magazine June 1965 Vol. 112, No. 6
p. 435-36

Skillings Mining Review April 2, 1966 p. 12
" " " Aug. 27, 1966, p. 16
" " " Dec. 17, 1966, p. 15
" " " April 15, 1967 p. 12
" " " July 22, 1967 p. 21
" " " Nov. 23, 1968 p. 11

Mining Congress Journal July 1966 (in file)
" " " March 1969 p. 11

Production thru 1962 $108,040,690 zinc-lead
J. W. Still figures (corres. file)

ABM Bull. 180, p. 460

ABM Bull. 158 p. 112, 128

USGS Bulletin # 1345 p. 34

See: Confidential Files

SMR 9/1/73, p. 21
" 6/22/74, p. 5

See 12/19/63 report by A.J, Zinkl in Mary Copper and Golden Nugget (file) Yavapai

MAPS _ Upstairs in the flat storage area - Fourth Drawer

RECNO	M002386
REC_TYPE	S
USER_FIELD	*U94/4
REP_DATE	72 04
FIL_LINK	PMR CIMRI USBM 0040251178, 0040251179, USBM 0040251180
REP	GERE, W.
REP_AFF	USGS
DIST	BIG BUG DISTRICT
COUNTY	YAVAPAI
STATE_CODE	AZ
CTRY_CODE	US
PHYS	11
DRAIN	15070102
LAND_ST	41
ELEV	4775 FT
UTM_N	3818150
UTM_E	384525
UTM_Z	+12
TOWNSHIP	013N
RANGE	001E
SECTION	16, 21
MERIDIAN	GILA AND SALT RIVER
POSITION	7 MILES N OF MAYER.
SITE	IRON KING MINE
LAT	34.5019
LONG	-112.2569
CTRY_NAME	UNITED STATES
COMMOD	ZN PB AG AU CU
ORE_MAT	SPHALERITE, GALENA, TENNANTITE, GOLD, CHALCOPYRITE, ARSENOPYRITE, TENNANTITE, ANGLESITE, CERARGYRITE, LIMONITE
MAJOR	PB ZN
MINOR	CU AU AG
CLH_USE	94/07/28
PROD	M
LOC_STRUCT	FOLIATION TRENDS N22E
STATUS	7
YR_DISC	1880
NAT_DISC	B
YRFST_PROD	1903 OR 1906
YRLST_PROD	1968
OPER	CORONADO MINERALS (1991)
EXPL_COM	1980-- CONOCO DID A ROCK SAMPLE GEOCHEMICAL STUDY TO LOOK AT ALTERATION. 1982-- JEROME MINING COMPANY AND MCCABE IRON KING MINES DID ALTERATION MAPPING. POST 1982-- SANTA FE WORKED ON STRUCTURE AND LITHOLOGY; DRILLED EXHALATIVE SEDIMENTS AND ALTERATION PACKAGES. CORNADO MINERALS PICKED UP PROPERTY 1991; APRIL, TAILINGS WERE BEING REWORKED. SOUTHWEST METALS, SHATTUCK DENN (1968)
DEP_TYPE	STRATIFORM MASSIVE SULFIDE
DEP_FORM	EN ECHELON VEINS/ARCUATE
D_T_U	FT
DEPTH_BOT	2600
D_B_U	FT
MAX_LEN	2500
M_L_U	FT
MAX_WID	100
M_W_U	FT
DEP_SIZE	M
STRIKE	N 22 E
DIP	71 NW

PLUNGE_DIR	N
PLUNGE	57
DDESC_COM	MASSIVE SULFIDE LENSES IN METARHYOLITE AND META-ANDESITE. THE DEPOSIT IS MADE UP OF 12 EN ECHELON LENSES, UP TO 14 FT IN WIDTH. THE CONTACT BETWEEN LENS AND WALLROCK IS ABRUPT. THE LENSES OCCUR ALONG THE FOOTWALL OF META-ANDESITIC ROCK, IN A SHEARED AND ALTERED ZONE.
QUAD250	PRESCOTT
DEPTH_WK	2600
D_W_U	FT
LEN_WK	63000
L_W_U	FT
DWORK_COM	7 SHAFTS, WITH LARGE LATERAL WORKINGS, LEVELS AT 100 - FOOT INTERVALS. ORE WAS MILLED BY CYANIDATION AND FLOTATION ON SITE.
MIN_AGE	PROT
NORE_MINS	QUARTZ, CALCITE, PYRITE, CHLORITE, ANKERITE, SERICITE, APATITE
ORE_CNTL	STRATIGRAPHY, SHEARING
REG_STRUCT	BEDDING TRENDS N22E
ALTER	CHLORITIZATION, SILICIFICATION, SERICITIZATION
CONC	OXIDATION AT NEAR SURFACE,
HRU_AGE	PROT
HRU_NAME	IRON KING VOLCANICS
CONT_CODE	NA
GEN_COM	INFO.SRC : 1 PUB LIT; 2 UNPUB REPT
REF	CREASEY, S.C., 1952, GEOLOGY OF THE IRON KING MINE, YAVAPAI COUNTY, ARIZONA; ECONOMIC GEOLOGY, VOL. 47, NO. 1.|ANDERSON, C.A. AND CREASEY, S.C., 1958 , GEOLOGY AND ORE DEPOSITS OF THE JEROME AREA, YAVAPAI COUNTY, ARIZONA: U.S.G.S. PROF. PAPER 308, P. 155 - 169.|ANDERSON, C.A., AND BLACET, P.M., 1972, PRECAMBRIAN GEOLOGY OF THE NORTHERN BRADSHAW MOUNTAINS, YAVAPAI COUNTY, ARIZONA: U.S.G.S. BULLETIN 1336, P. 72.|KRIEGER, M.H., 1965 , GEOLOGY OF THE PRESCOTT AND PAULDEN QUADRANGLES, ARIZONA: U.S.G.S. PROF. PAPER 467, P. 110 - 111.|ABGMT-USBM FILE DATA.|GILMOUR AND STILL, 1968, IN ORE DEPOSITS OF THE UNITED STATES, GRATON-SALES VOLUME, V. II, P. 1238-1257.|SITE VISIT BY CIMRI STAFF.|NIEMUTH, N.J., 1987, ARIZONA MINERAL DEVELOPMENT 1984-1986: ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES DIRECTORY 29, 46 P.|SAWYER, M.B., GURMENDI, A.C., DALEY, M.R., AND HOWELL, S.B., 1992, PRINCIPAL DEPOSITS OF STRATEGIC AND CRITICAL MINERALS IN ARI ZONA: U.S. BUREAU OF MINES SPECIAL PUBLICATION, 334 P.
CONT_NAME	NORTH AMERICA
STATE_NAME	ARIZONA
WORK_TYPE	U
CP_ITEM	AU|AG|CU|PB|ZN
CP_ACC	ACC|ACC|ACC|ACC|ACC
CP_AMT	616.493|18494.|9.55100|125.375|367.569
CP_U	OZ|OZ|TONS|TONS|TONS
CP_YEAR	1907 - 1964|1907 - 1964|1907 - 1964|1917 - 1964|1917 - 1964
CP_GRADE	0.123 OZ. AU/TON|3.69 OZ. AG/TON|0.19 % CU||7.34 % ZN
AP_SOURCE	U.S.G.S. BULL. 1336, PAGE 72.
RPR_ITEM	ORE-TAILINGS|ORE-PROVEN
RPR_ACC	EST|ACC
RPR_AMT	5500.|7500.
RPR_U	ST|ST
RPR_YEAR	1986?|1988
RPR_GRADE	0.05 OZ AU/ST, 0.7 OZ AG/ST|1-2.5 TOZ AG/ST, 3-4% PB+ZN,

	0.06-0.07 TOZ AU, <1% CU
RPR_SOURCE	NIEMUTH, 1987; SAWYER AND OTHERS, 1992.
RPR_COM	TAILINGS ORE CONSIDERED TO BE UNRECOVERABLE DUE TO PYRITE ENCAPSULATION/METALLURGICAL PROBLEM AND TO ZN-AS CONTENT.
UPD_DATE	79 02 ; 81 10; 91 05; 93 02
UPDATER	JOHNSON, K.H. (CREASEY, S. C.); DEWITT, ED; CIMRI STAFF
COMMOD_TYP	M
QUAD24	PRESCOTT VALLEY SOUTH (1973)
DATE_ISSUE	95/5/18
UPD_AFF	USGS; ABGMT; USGS
MODEL	KUROKO MASSIVE SULFIDE
MODEL_NUM	28A
PROF_ID	100
PROF_LOC	100
PF_COMMOD	100
PROF_EXPL	100
PFDESC_DEP	50
PFDESC_WRK	100
PROF_GEOL	64
PROF_REF	100
PPROD_RESV	40
PROF_ALL	83
HR_AGE_MV	PROT
HR_TYPE_MV	METARHYOLITE, TUFF, CHERT
HR_NUMBER	1
DEP_CODE	12500
HUC	15070102

NAME OF MINE:

COUNTY:
DISTRICT:
METALS:

OPERATOR AND ADDRESS:

MINE STATUS

DATE:		DATE:
	Iron King Branch H. F. Mills, Gen. Mgr. C. E. Betes, Mine Supt. A. L. Pessin, Mill Supt. J. P. Kellogg, Mine Engr. & Geol. J. K. Kachnic, Master Mech. Luther B. Ady, Ch. Electr. A. J. Zinkl, Pur. & Empl. Agt. Jas. W. Sievwright, Ch. Clerk Prescott, Ariz. Geo. D. Diehl, Ch. Chem. Humboldt, Ariz. (Shattuck Denn)	

DEPARTMENT OF MINERAL RESOURCES

News Items

Date June 9, 39

Mine Iron King

Location Humboldt

Owner Iron King Mines Inc

Address Humboldt

Operating Co. Same

Address

Pres. ✓

Genl. Mgr. H. F. Mills

Mine Supt.

Mill Supt. Oscar Fisher

Principal Metals Gold, Silver

Men Employed

Production Rate 250 tons daily

Mill, Type & Capacity Flotation 250 tons

Power, Amt. & Type Purchased electric

Signed Carl G. Burch Jr.

(Over)

Present Operat

New Work Planned

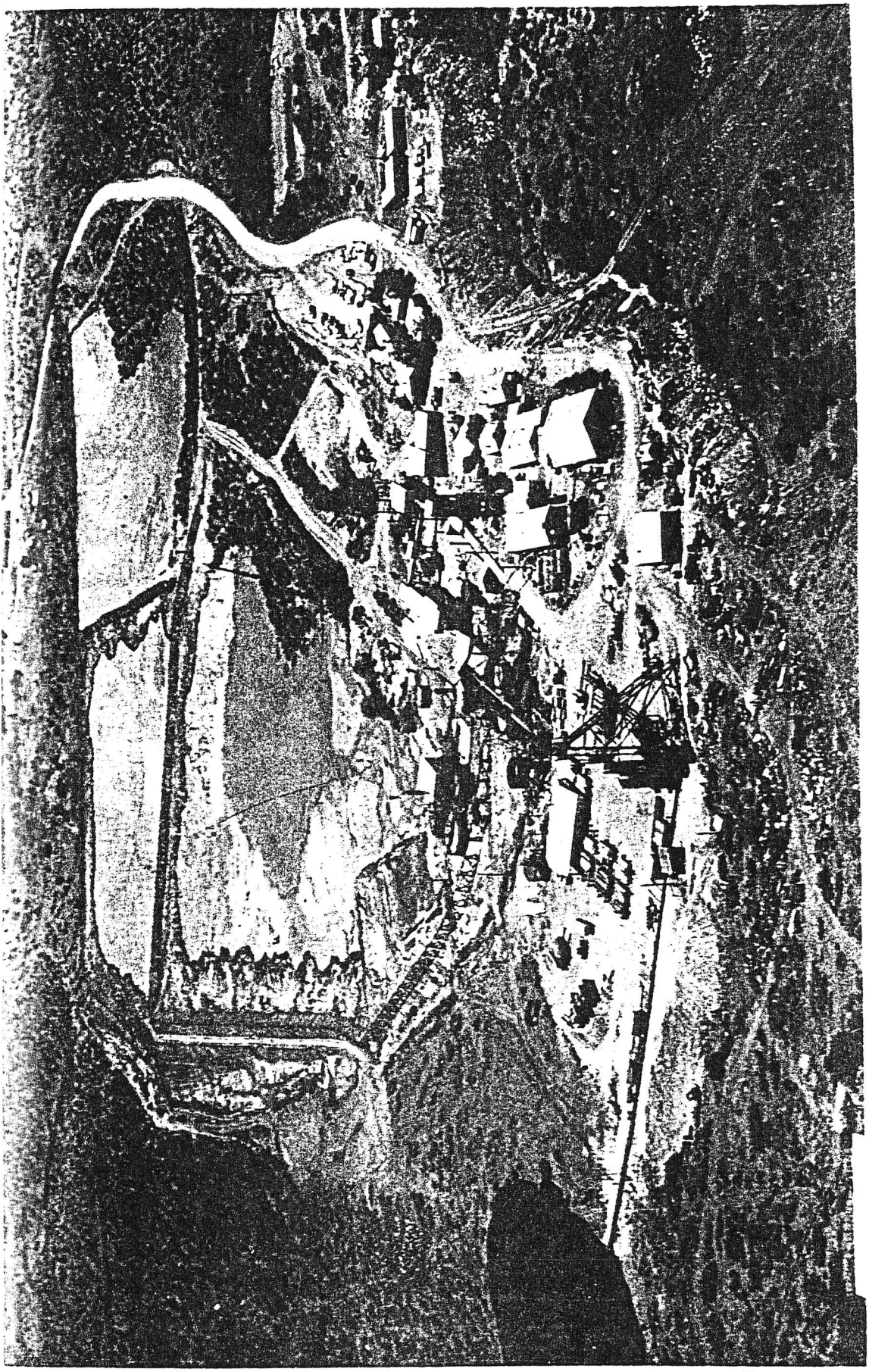
Miscl. Notes

Installing bank of Denver Sub A. Cells for Zinc separation

Temporary shutdown to overhaul plant & make replacements

Confid. do not publish

Have taken out Lloyds Insurance



A-81-2

C-1995

A-81-1

1952

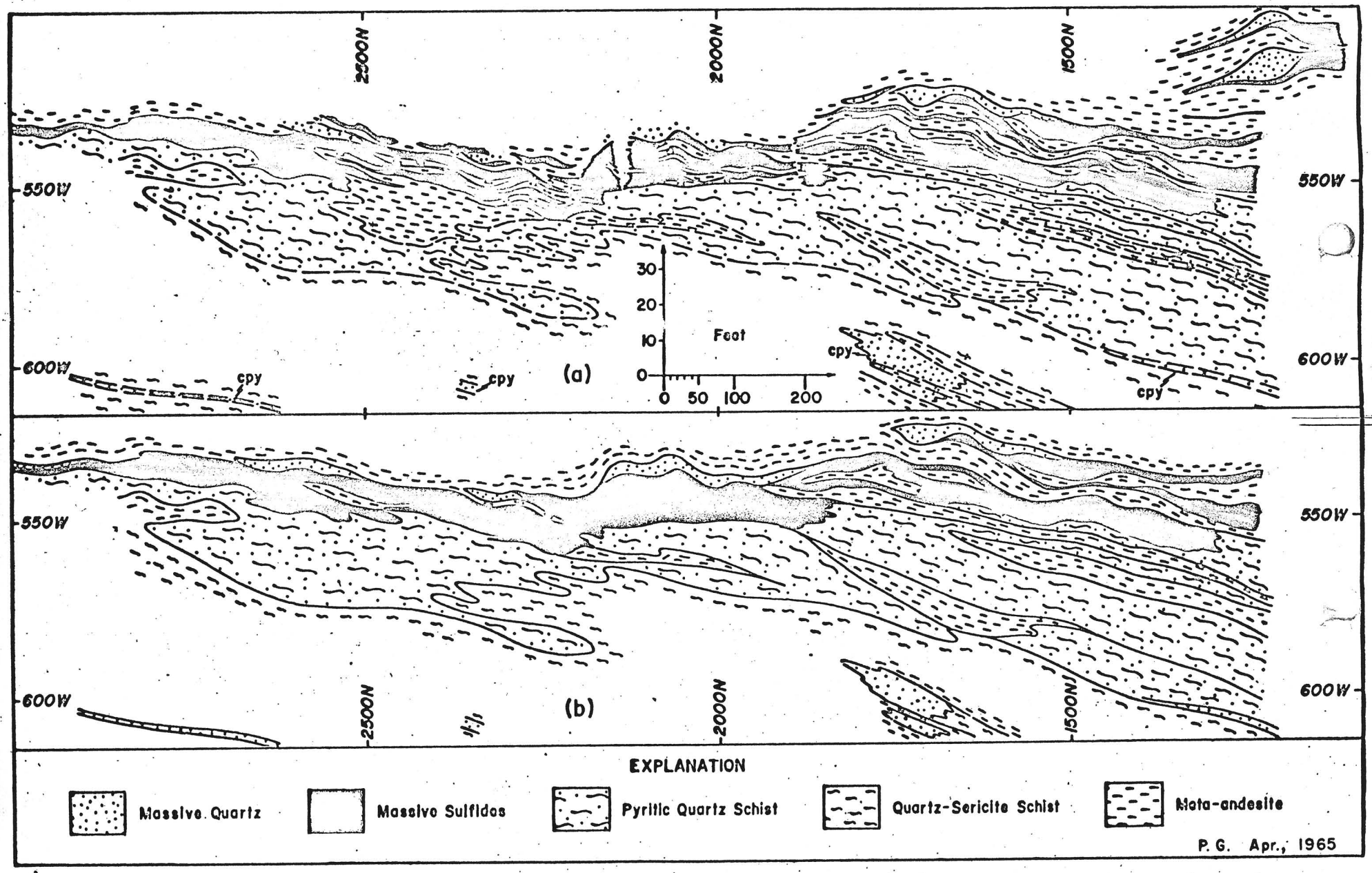

2500N
2000N
1500N
550W
600W
cpy
(a)
30
20
10
0
Feet
0 50 100 200
(b)
EXPLANATION
Massive Quartz
Massive Sulfides
Pyritic Quartz Schist
Quartz-Sericite Schist
Meta-andesite
P. G. Apr., 1965

Figure 4

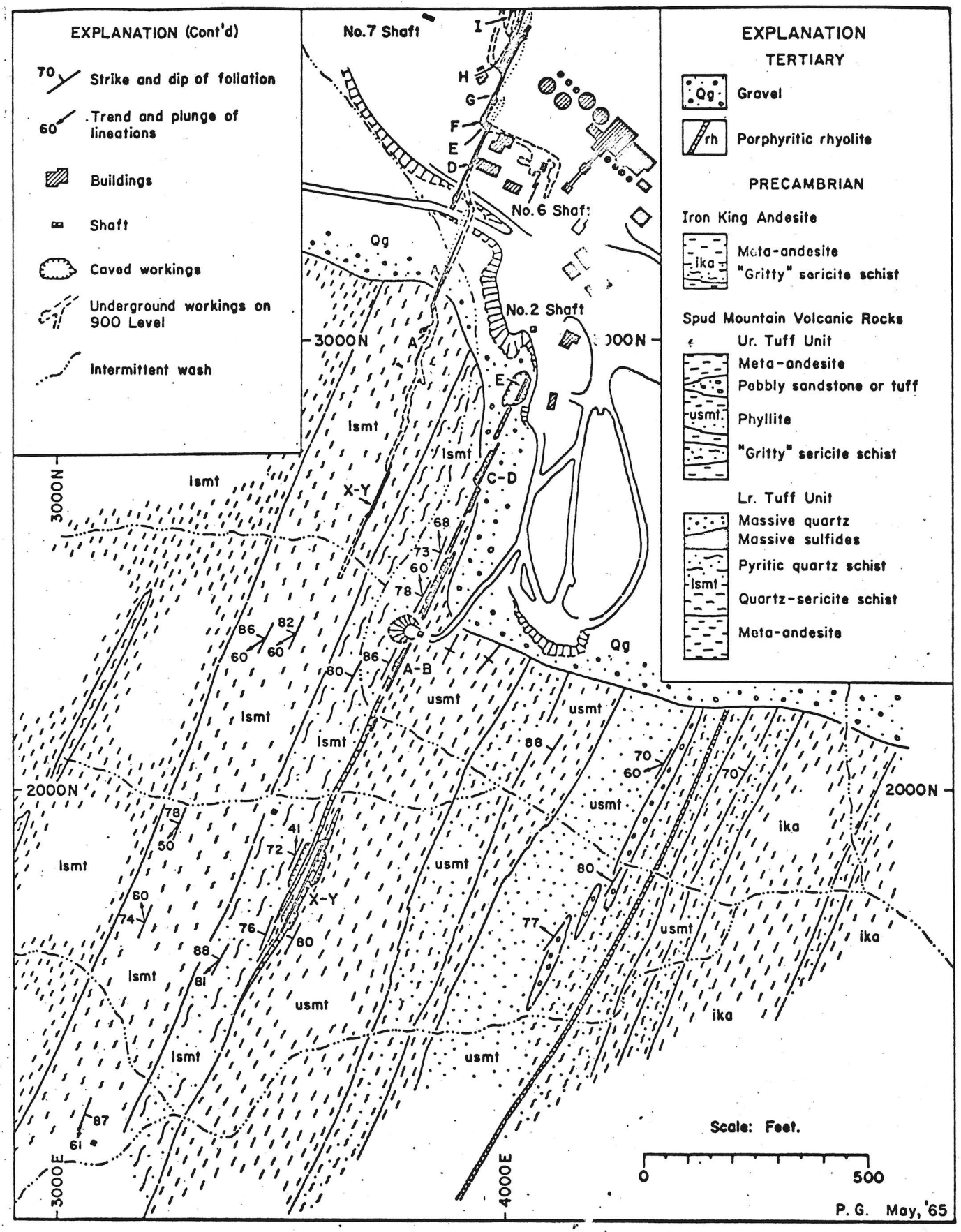

EXPLANATION (Cont'd)
Strike and dip of foliation
Trend and plunge of lineations
Buildings
Shaft
Caved workings
Underground workings on 900 Level
Intermittent wash
No.7 Shaft
No.6 Shaft
No.2 Shaft
EXPLANATION
TERTIARY
Qg Gravel
rh Porphyritic rhyolite
PRECAMBRIAN
Iron King Andesite
ika Meta-andesite
"Gritty" sericite schist
Spud Mountain Volcanic Rocks
Ur. Tuff Unit
Meta-andesite
Pebbly sandstone or tuff
usmt Phyllite
"Gritty" sericite schist
Lr. Tuff Unit
Massive quartz
Massive sulfides
Pyritic quartz schist
lsmt Quartz-sericite schist
Meta-andesite
3000N
2000N
3000E
4000E
Scale: Feet.
0
500
P. G. May, '65

Figure 1

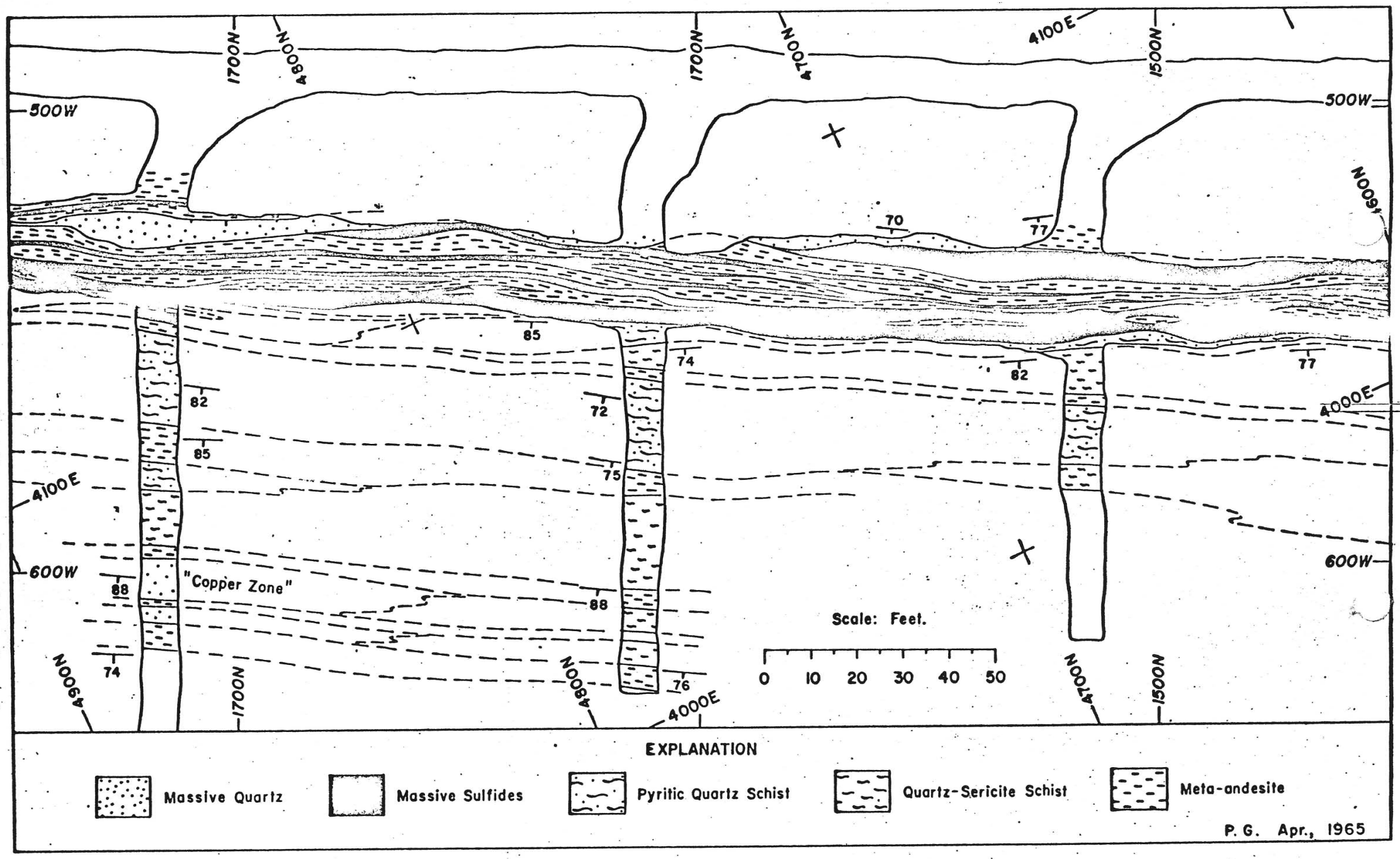

1700N
4800N
1700N
4700N
4100E
1500N
500W
500W
1600N
70
77
85
74
82
77
82
72
4000E
85
75
4100E
600W
600W
88
"Copper Zone"
88
Scale: Feet.
0 10 20 30 40 50
74
76
4900N
1700N
4800N
4000E
4700N
1500N
EXPLANATION
Massive Quartz
Massive Sulfides
Pyritic Quartz Schist
Quartz-Sericite Schist
Meta-andesite
P. G. Apr., 1965

Figure 3

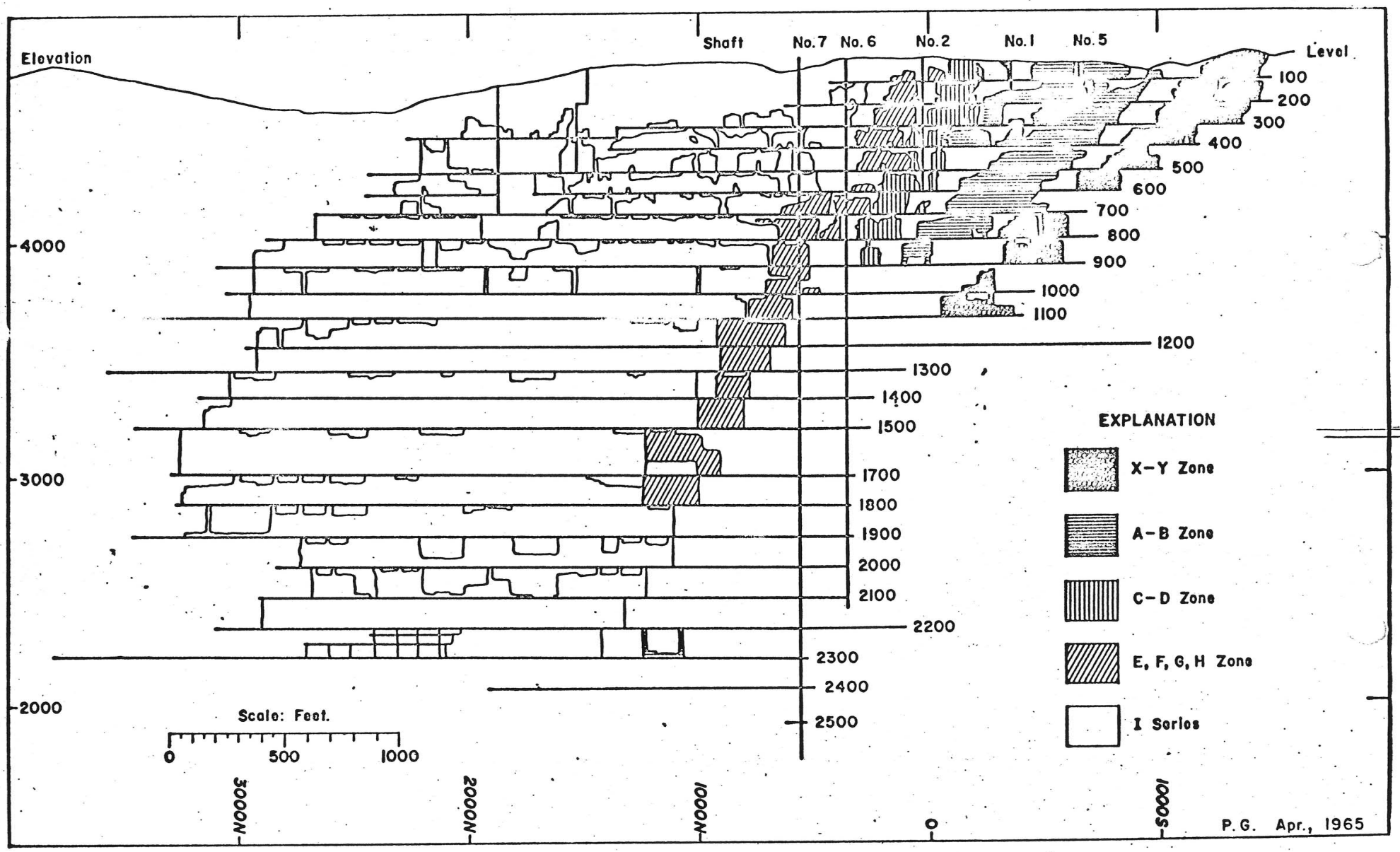

Elevation
Shaft
No. 7
No. 6
No. 2
No. 1
No. 5
Level
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1700
1800
1900
2000
2100
2200
2300
2400
2500
4000
3000
2000
EXPLANATION
X-Y Zone
A-B Zone
C-D Zone
E, F, G, H Zone
I Series
Scale: Feet.
0
500
1000
3000N
2000N
1000N
0
1000S
P.G. Apr., 1965

Figure 2

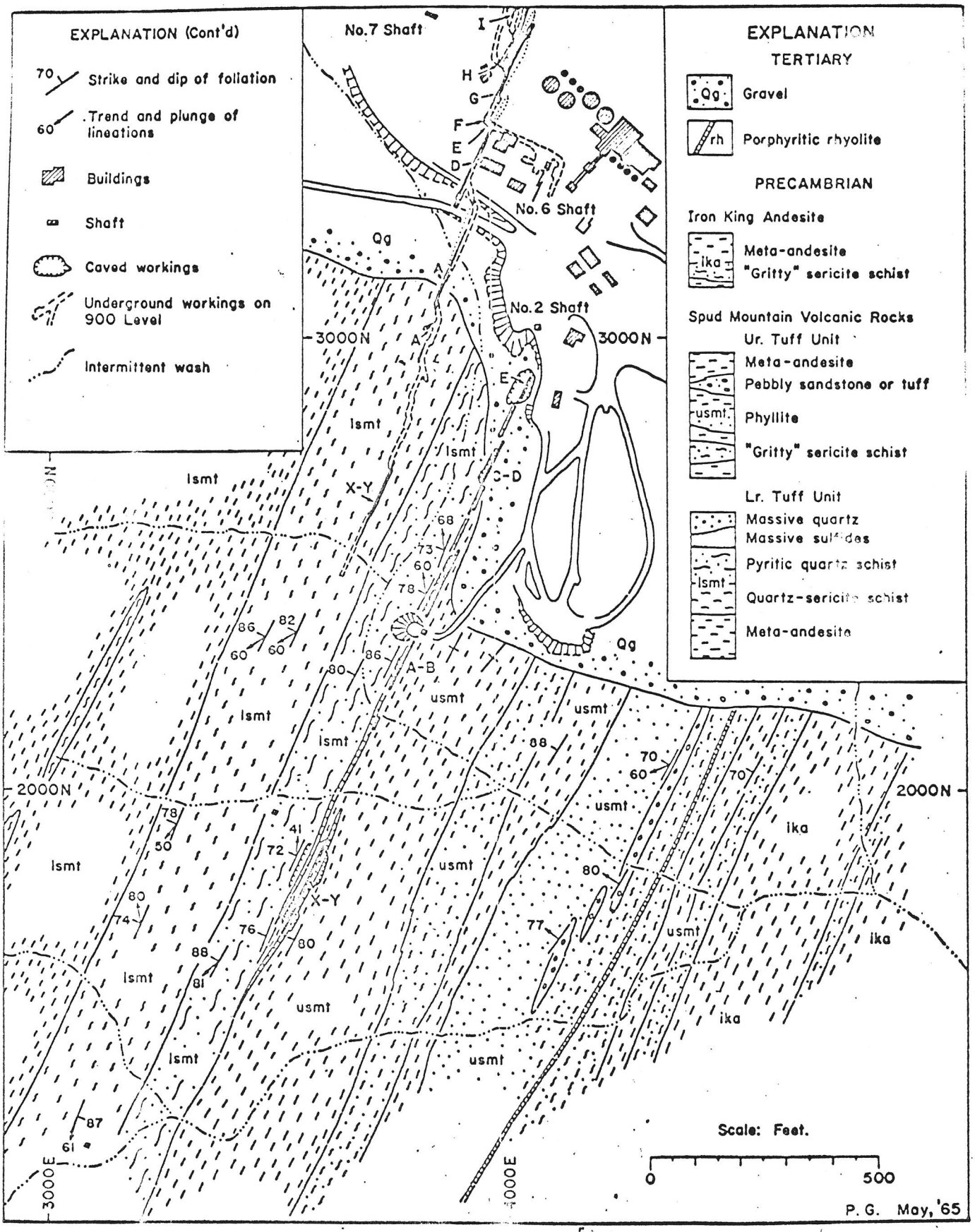

EXPLANATION (Cont'd)
Strike and dip of foliation
Trend and plunge of lineations
Buildings
Shaft
Caved workings
Underground workings on 900 Level
Intermittent wash
No.7 Shaft
No.6 Shaft
No.2 Shaft
3000N
2000N
3000E
4000E
Scale: Feet.
0
500
P. G. May, '65
EXPLANATION
TERTIARY
Qg Gravel
rh Porphyritic rhyolite
PRECAMBRIAN
Iron King Andesite
Ika Meta-andesite
"Gritty" sericite schist
Spud Mountain Volcanic Rocks
Ur. Tuff Unit
Meta-andesite
Pebbly sandstone or tuff
usmt. Phyllite
"Gritty" sericite schist
Lr. Tuff Unit
Massive quartz
Massive sulfides
Pyritic quartz schist
lsmt Quartz-sericite schist
Meta-andesite

Figure 1

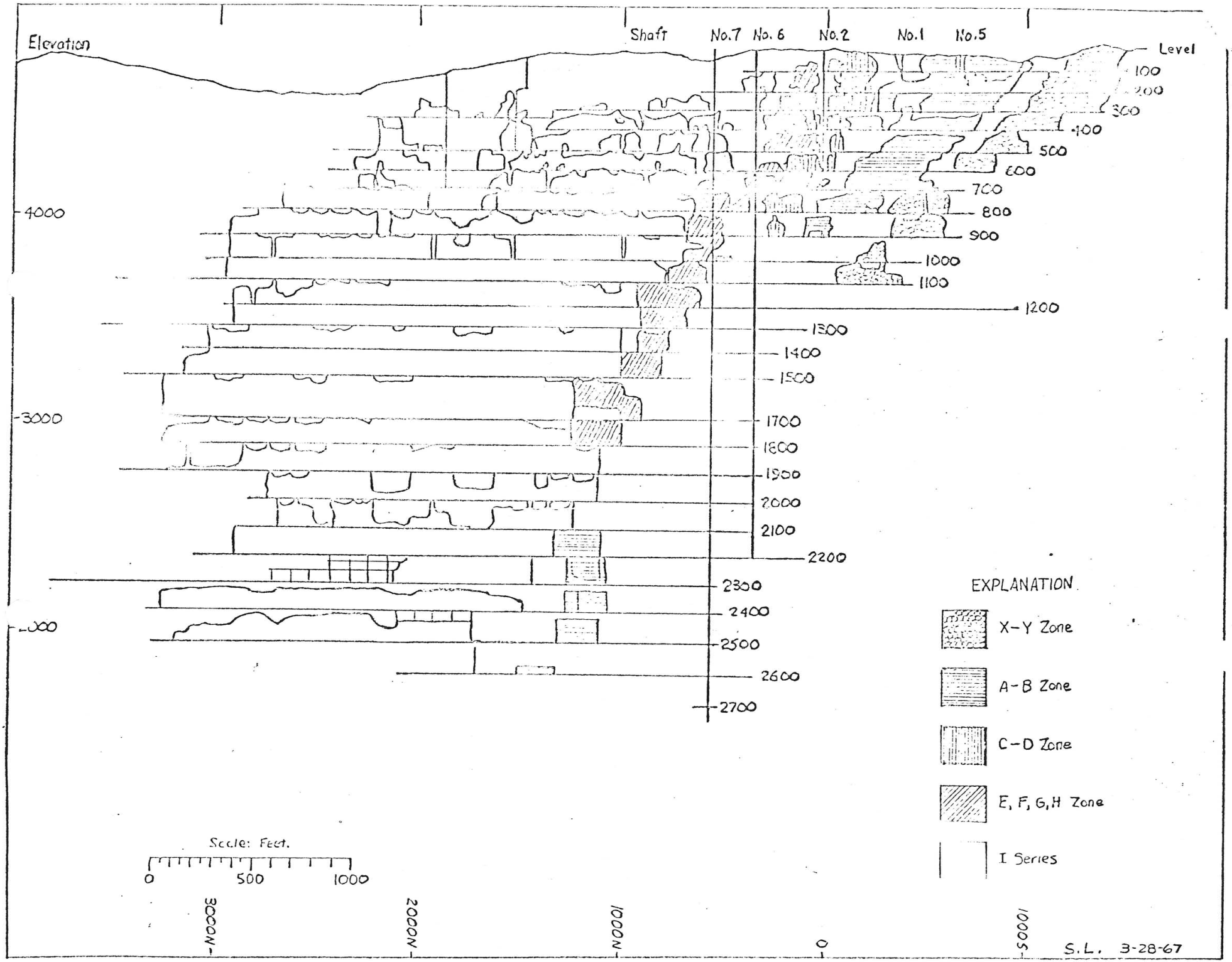

Elevation
Shaft
No.7
No. 6
No.2
No.1
No.5
Level
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
4000
3000
EXPLANATION
X-Y Zone
A-B Zone
C-D Zone
E, F, G, H Zone
I Series
Scale: Feet.
0
500
1000
3000N
2000N
1000N
0
1000S
S.L. 3-28-67

Figure 2

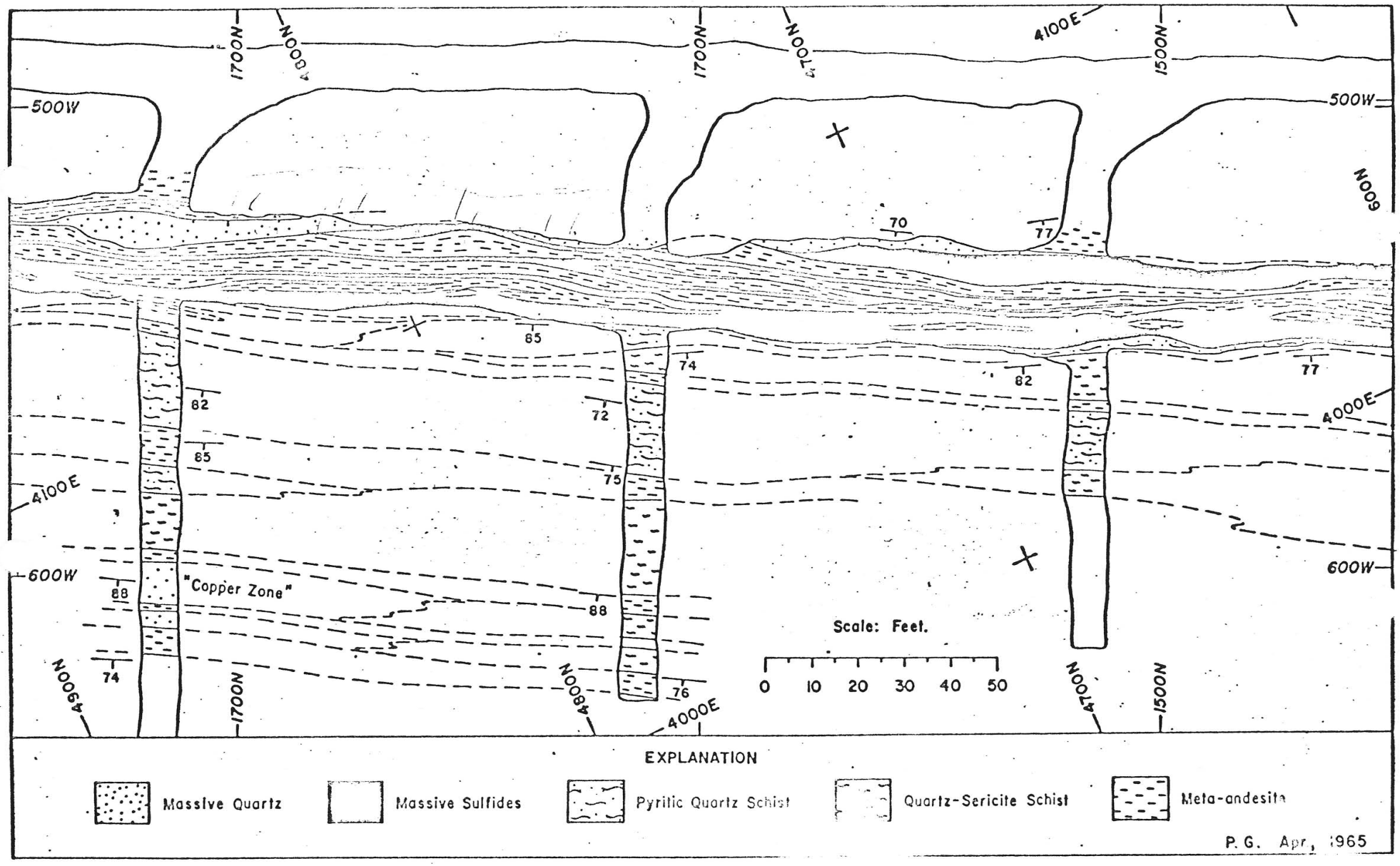

1700N
4800N
1700N
4700N
4100E
1500N
500W
500W
600N
70
77
65
74
82
77
82
72
4000E
85
75
4100E
600W
600W
88
"Copper Zone"
88
Scale: Feet.
0 10 20 30 40 50
74
76
4900N
1700N
4800N
4000E
4700N
1500N
EXPLANATION
Massive Quartz
Massive Sulfides
Pyritic Quartz Schist
Quartz-Sericite Schist
Meta-andesite
P. G. Apr, 1965

Figure 3

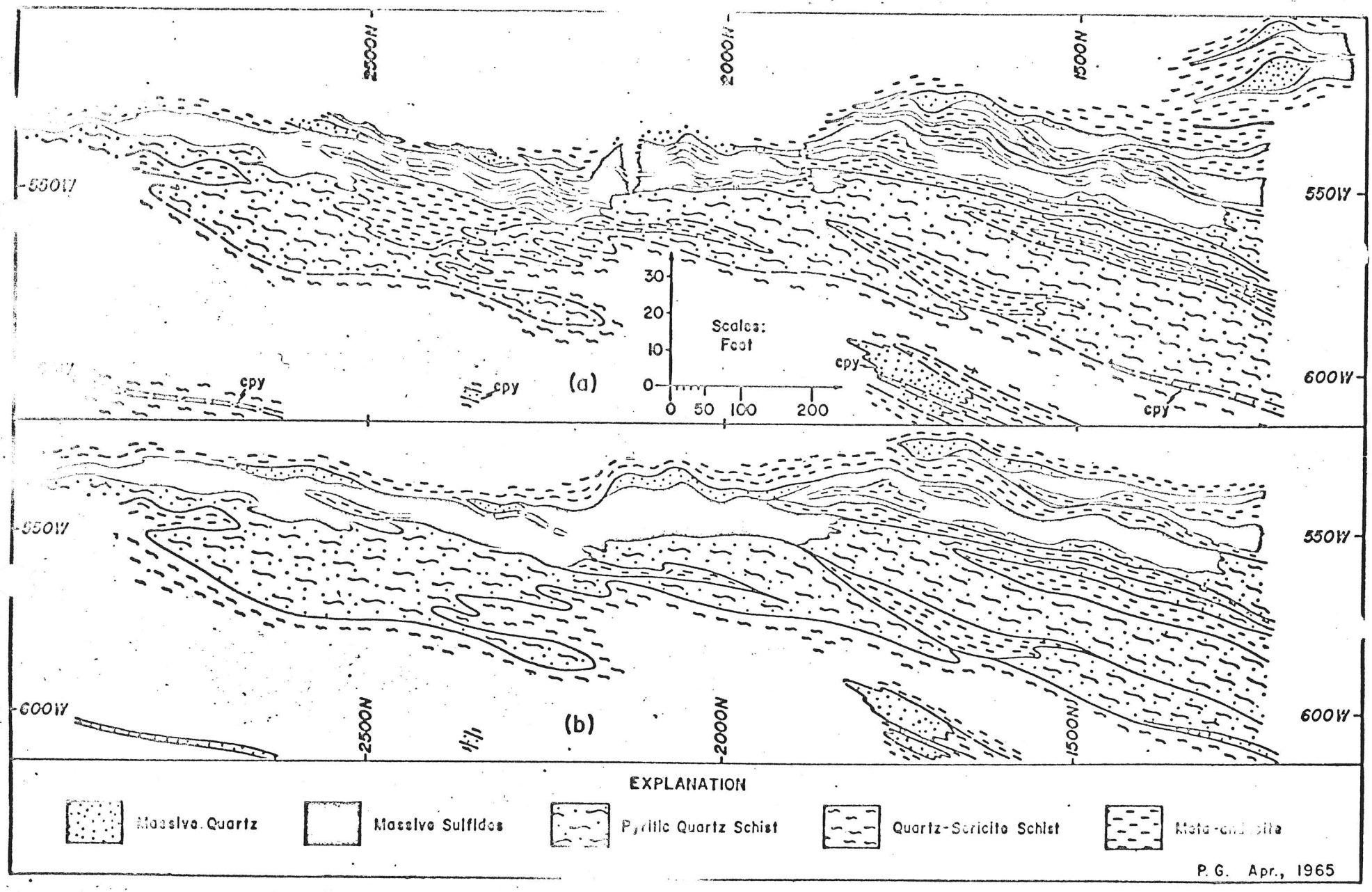

2500N
2000N
1500N
550W
600W
cpy
(a)
(b)
Scale:
Feet
0 50 100 200
0 10 20 30
EXPLANATION
Massive Quartz
Massive Sulfides
Pyritic Quartz Schist
Quartz-Sericite Schist
P. G. Apr., 1965

Figure 4

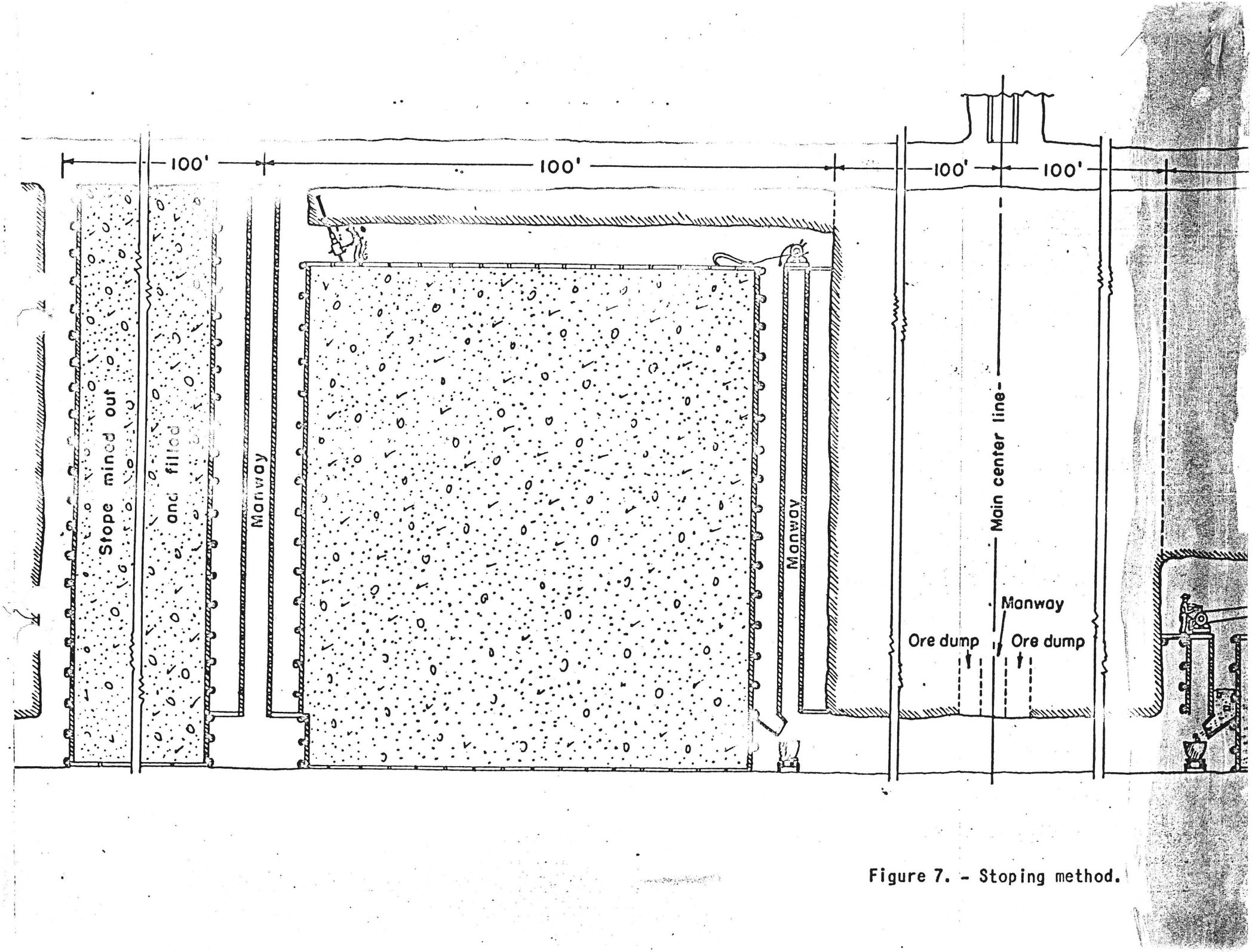
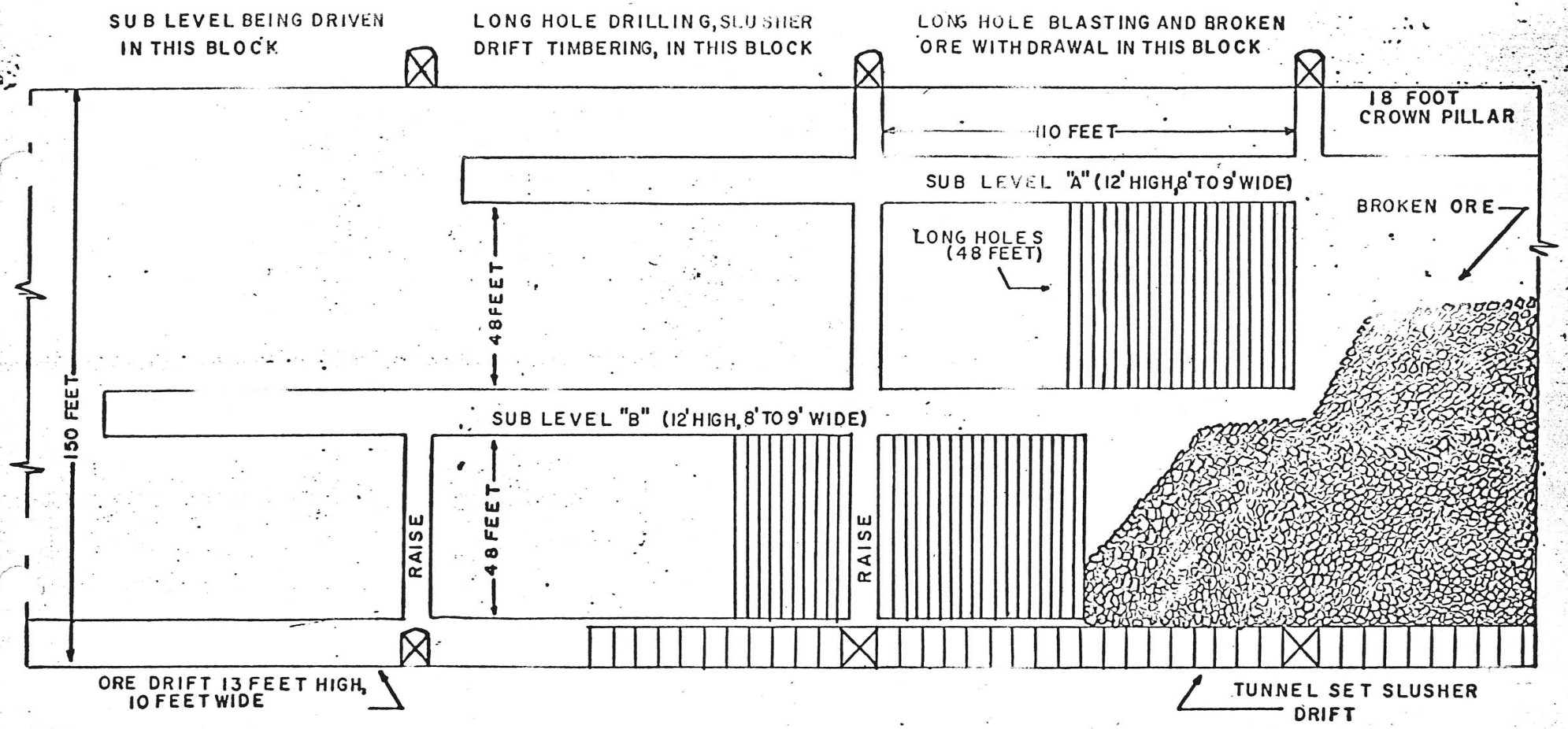


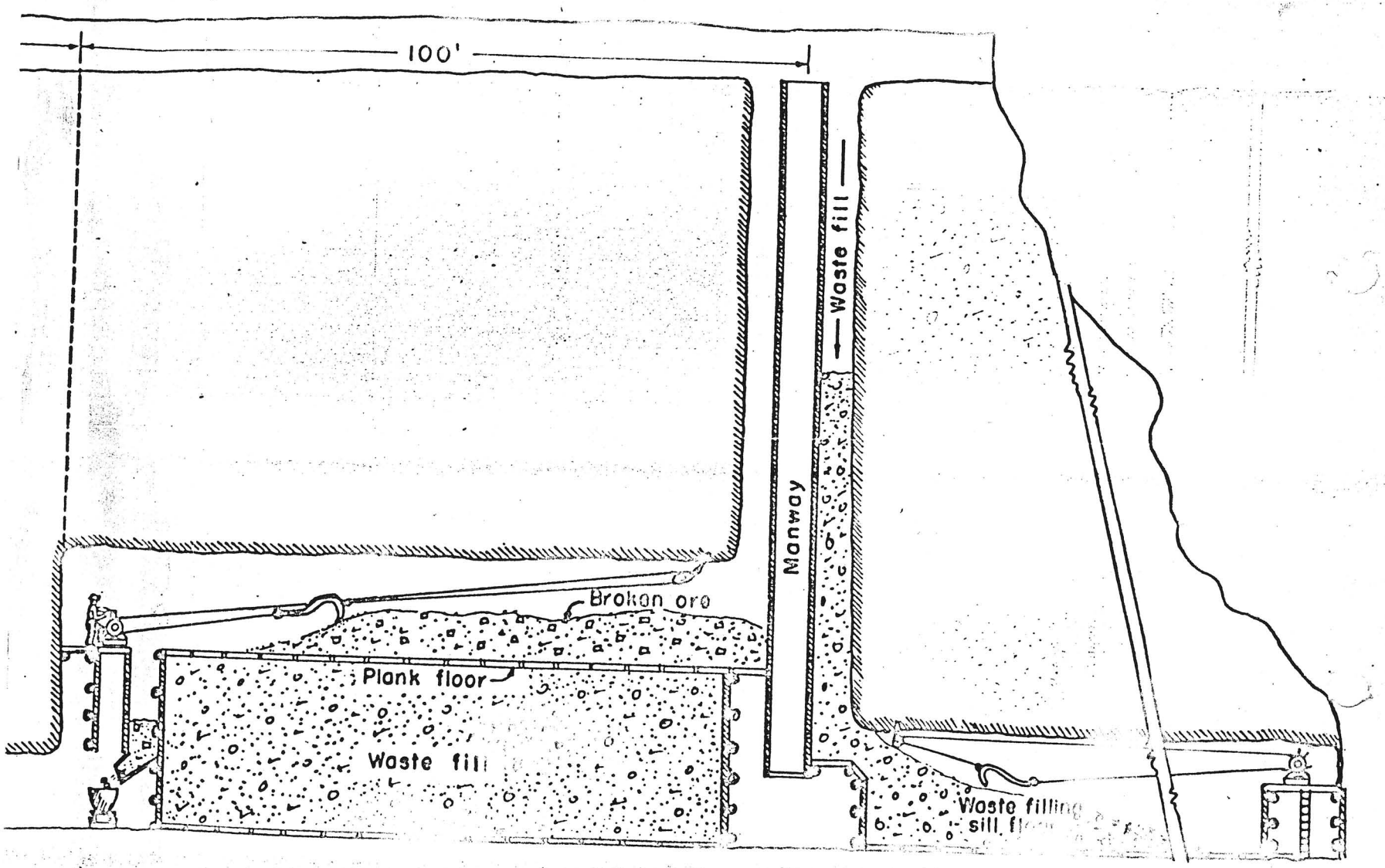
Figure 7. - Stoping method.



SEQUENCE:

1. FOOTWALL DRIFTS AND CROSS CUTS ARE DRIVEN
2. ORE DRIFT FOLLOWS 300 FEET BEHIND CROSS CUTS
3. AS ORE DRIFT PASSES ONE CROSS CUT, [illegible] STARTED IN CROSS CUT 100 FEET BACK
4. SUB LEVELS ARE DRIVEN ON [illegible] RAISES ARE DRILLED WITH LONG HOLE MACHINE AND COMPLETED WITH ONE BLA[illegible]
5. LONG HOLE DRILLING, SLUSHER DRI[illegible] TIMBERING, BLASTING, ORE WITHDRAWAL AS ABOVE
6. AFTER ORE WITHDRAWAL IS COMPLETE[illegible] [illegible] WILL BE SELF FILLED BY WALL ROCK AND GOB FROM STOPES ABOVE.

PLATE NO. 1


100'
Waste fill
Manway
Broken ore
Plank floor
Waste fill
Waste filling
sill fl

Maps:

(2) Maps - Geophysics 900 Cycle Survey Boggs Venture Butternut Area

(1) Map - 4 pages - Tenure of Mineral Rights, Iron King North Area, Big Bug Mining Dist.

(1) Map - 3 pages - Consolidated Mining & Smelting Co. of Canada, Limited, Area NE. of Iron King Mine, Humboldt, Az.

(1) Map - Iron King Branch, Iron King North Prospect, Vertical Cross Section, Looking N53°50'E Sec. 10, T13N, R1E

(1) Map - Montana Phosphate Products Co., Iron King North

(1) Map - Surface Geology, Boggs Vicinity

(1) Map - 8 pages - Consolidated Mining & Smelting Co. of Canada, Limited, Geologic Map Brown Shaft to Dewey, Yav. Co., Az.

(1) Map - Geology of the Lone Pine Mine