

BATTLE MOUNTAIN GOLD COMPANY
FORTITUDE GOLD DEPOSIT

INTRODUCTION

Lac geologists visited Battle Mountain Gold Company's Fortitude ore deposit on February 14, 1986. The deposit is located in the Battle Mountain Range, in northeast Lander County, Nevada, 32 miles southwest of the city of Battle Mountain (Figure 1). Rob Benson, mine geologist, conducted the tour.

GENERAL GEOLOGY

The reader is referred to U.S.G.S. Professional Paper 459-A & B for detailed discussions of the geology of the Battle Mountain Range and its ore deposits.

Stratigraphy.

Paleozoic sedimentary rocks underlie the majority of the range. Eugeoclinal cherts and shales of the Cambrian Scott Canyon Formation and quartzites, shales, and calcareous sandstone of the Cambrian Harmony Formation are the oldest rocks in the area. These rocks are part of the Roberts Mountain thrust plate. Autochthonous, overlap sequence limestones and coarse clastics of the Pennsylvanian to Permian Antler Sequence unconformably overlie the Cambrian strata within the same range. The Antler Sequence in the Battle Mountain Range includes three units; middle Pennsylvanian, interbedded conglomerate and sandstone of the Battle Formation; Pennsylvanian-Permian Antler Peak Limestone, and; the Permian, calcareous, conglomeratic Edna Mountain Formation. Cherts and argillites of the Pennsylvanian Pumpnickel Formation are thrust over the Antler Sequence along the Golconda thrust fault. An Eocene (38.5 m.a.), weakly altered, porphyritic granodiorite pluton intrudes the Paleozoic sedimentary rocks.

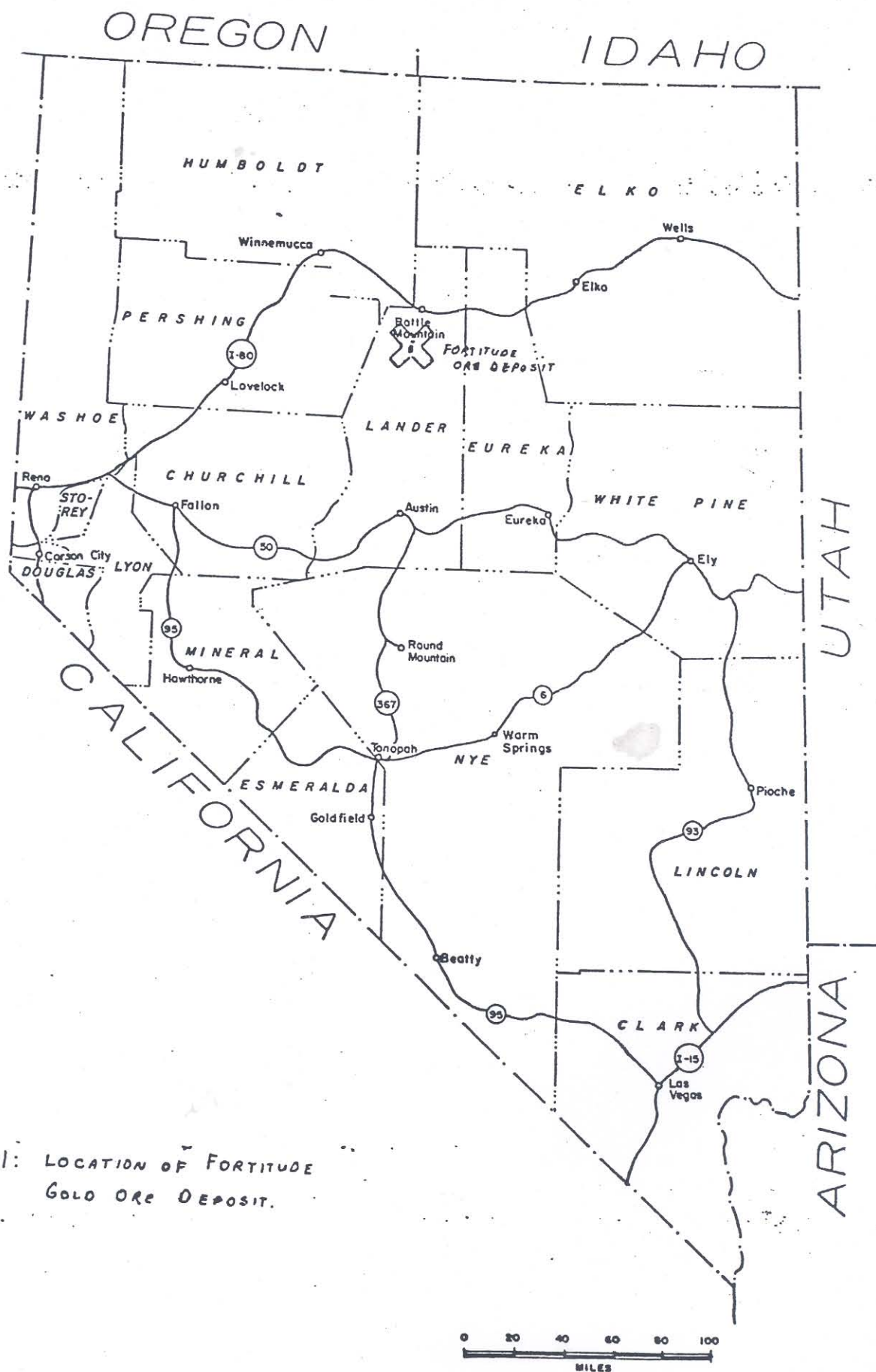


FIGURE 1: LOCATION OF FORTITUDE GOLD ORE DEPOSIT.

Structure.

Structure in the mine area is complex and records evidence of recurring orogeny that began in the Paleozoic. Folding and large-scale, eastward-directed thrusting accompanied the Devonian-Pennsylvania Antler orogeny and the Permian, Sonoman orogeny. These orogenies are responsible for the Roberts Mountains thrust & the Golconda thrust, respectively. Minor westward-directed, thrusting and folding accompanied Juro-Cretaceous orogeny. Finally, middle-Tertiary extension produced high-angle, basin and range style block faulting. Structural complexity in the region increases permeability and porosity of large areas of rocks, necessary for circulation of hydrothermal fluids, as well as provides deep-seated conduits for mineralizing fluids.

The deposit lies along a strong, northwest-directed lineament, the Eureka-Battle Mountain trend. This trend is defined by northwestward alignment of mineral occurrences, windows on the upper plate of Roberts Mountain Thrust and Oligocene-Eocene stocks.

MINERALIZATION

Base and precious metals deposits in Copper Canyon are genetically related to the 38.5 m.a. altered, porphyritic granodiorite Copper Canyon stock (see Figure 2). Mineralization occurs as disseminated and massive sulfide replacements of calc-silicated, calcerous rock units. Mineralization also occurs as sulfide veins and fissure fillings within and outside areas of calc-silicate alteration.

Mining History.

Large-scale, open pit mining of copper ores from skarn

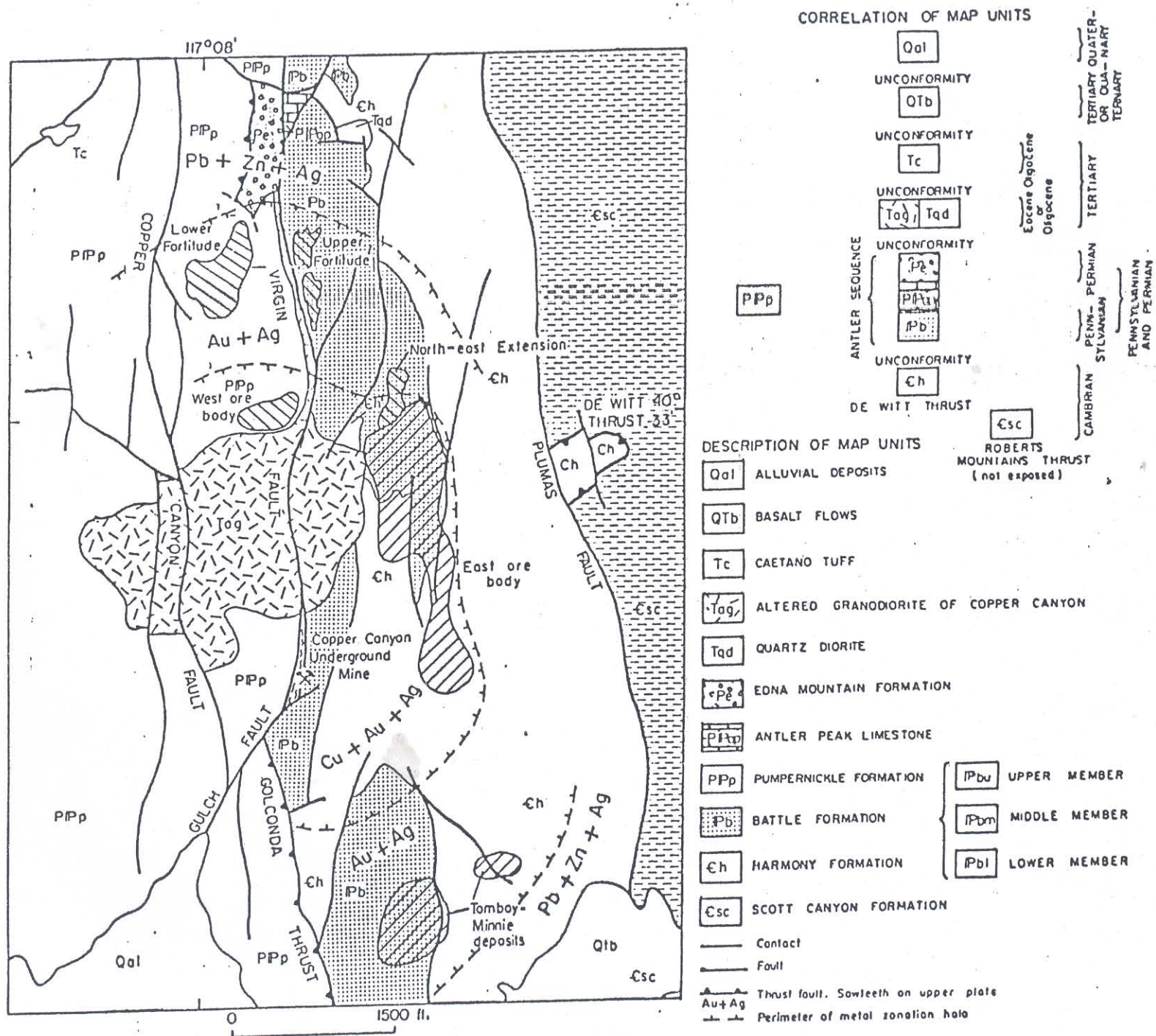


Figure 2. Generalized geologic map of the Copper Canyon area (modified from Blake et al, 1984).

adjacent to the stock was initiated by Duval Corporation in 1967. Total combined production from East and West copper pits was 16.2 st with an average grade of .79% copper, 0.72 oz/ton silver, and 0.025 oz/ton gold.

Mid-1970's gold exploration resulted in the discovery of the Tomboy-Minnie and Northeast Extension gold deposits at Copper Canyon. The Tomboy-Minnie deposits contain 3.9 st of ore grading 0.04 oz/ton gold and 0.28 oz/ton silver. These deposits occur in lenses confined to calc-silicated, oxidized, lower Battle Formation calcareous conglomerates. Mineralizing fluids infiltrated along north-south trending high angle faults and were concentrated near intersections of northeasterly-and northwesterly-trending faults. The deposits are very close to and parallel to the Cambrian Harmony Formation and Battle Formation unconformable contact. Fluid migration may be partly controlled by this structure. A similar geologic environment is responsible for gold mineralization at Battle Mountain Gold Company's unannounced Surprise prospect in the Copper Basin area. Here gold mineralization is in the Harmony Formation just below the Battle contact. Reserves are said to be 2.1 st of 0.11 oz/ton gold.

Fortitude Geology.

The stratabound and stratiform Fortitude ore deposit occurs as massive-sulfide replacement of Antler Peak Limestone. The ore body is approximately 1,600' X 600' X 100' to 175' thick (N.B. - this is about the size of a claim.) The ore zone lies near the hanging wall of the north-south trending, west-dipping, Virgin fault (see Figure 3). The Virgin fault is intruded by an altered porphyritic dike, similar to the Copper Canyon granodiorite stock. The ore zone is bounded by north-trending faults of minor displacement that dip back into the Virgin Fault. These

Figure 3 East-West vertical section showing generalized geology of the Fortitude area. View is to the north. Rock units same as Figure 2.

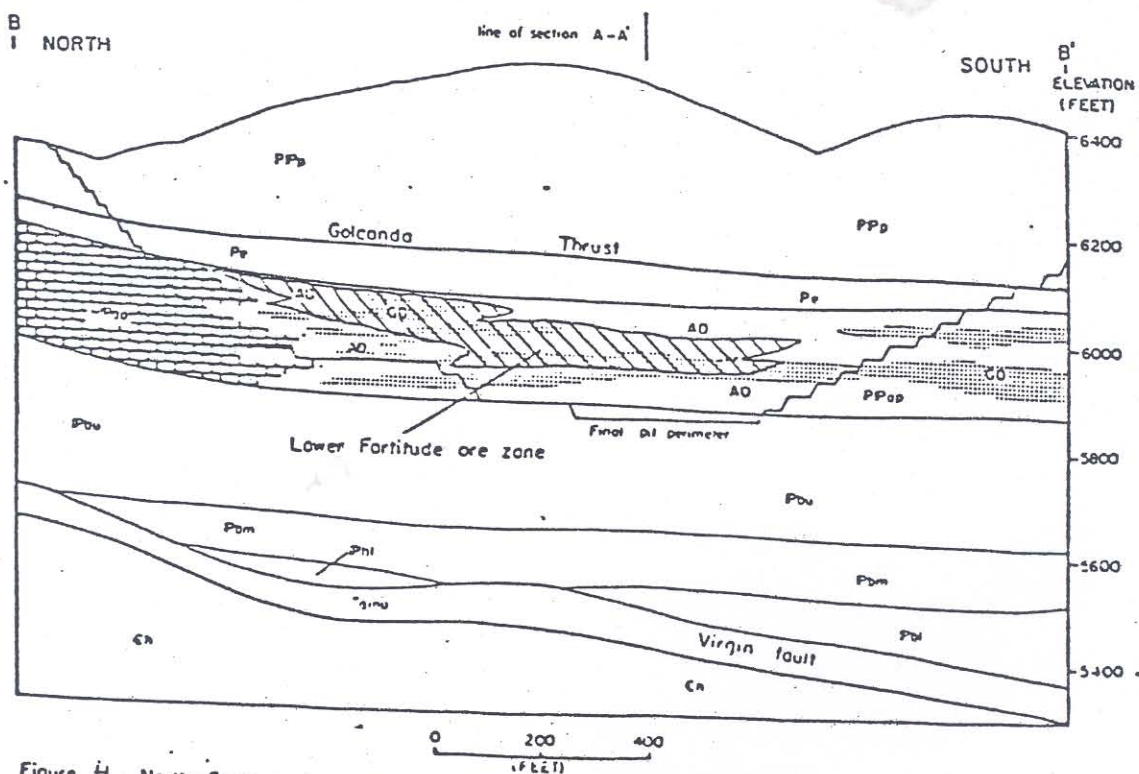


Figure 4. North-South vertical section showing geology and alteration types in the Lower Fortitude ore zone. View is to the east. GD = garnet dominant alteration (stippled pattern), AD = actinolite dominant alteration, block patterns: marbled/recrystallized limestone. Rock units same as Figure 2.

faults are believed to be antithetic faults to the major Virgin fault. Fluids probably ascended the Virgin fault and were trapped by these smaller faults.

The ore body lies in a distal skarn zone (Figure 4). An early, isochemical, garnet-dominant assemblage is replaced locally by actinolite-dominant hydrothermal alteration assemblage with minor associated pyrrhotite-chalcopyrite-pyrite-sphalerite-galena. A pyrite-marcasite-arsenopyrite-chlorite alteration assemblage along with the majority of gold mineralization replaces the calc-silicate alteration. Fluid inclusion data indicates that hydrothermal fluids responsible for the actinolite-assemblage and chlorite-assemblage alteration events had temperatures near 200°C. The gold in the ore occurs as free particles at intergrain boundaries between sulfides and free gold absorbed onto pyrrhotite. The ore is unusual when compared to Carlin-type deposits in its coarseness. 10% to 15% of the gold is recovered by gravity concentration.

The successive alteration-mineralization assemblages reflect the transformation from magmatic- to meteoric-derived fluid flow as well as cooling of the fluids. Late stage fluids responsible for chloritization, sericitization, and gold mineralization are dominantly meteoric in origin. These plumes are set into broad scale convective circulation by heat from cooling stock along a pervasively fractured zone associated with stock emplacement.

Fortitude Mining & Production - Facts & Figures

The Fortitude ore deposit contains reserves of 7 million tons of ore grading 0.282 oz/ton gold and 0.82 to 1 oz/ton silver. On the average, 92% of the gold and 50% of the silver is recovered by carbon-in-pulp, cyanide-leach methods. Thirty-two hundred to thirty-five hundred tons of ore are

processed daily by the mill. Mining costs are \$11 to \$12 per ton. Overall production costs are \$220 per ounce. This figure is expected to decrease to \$200 per ounce with decreased stripping ratio. Stripping ratio will average 7:1 through mine life. The company expects to extract 26,000 ounces of gold yearly. Appendix B is a copy of a recent article from EM & J describing mining, milling and recovery in detail.

EXPLORATION STRATEGY

Geochem.

A suite of 18 samples were taken from altered host sediments, bounding fault zones, ore zones, and distal, weakly altered sediments (see Appendix A for geochem results and sample descriptions). The samples were taken from the 6075' level which is approximately 200' from the surface (Figure 5). In general, base, precious metals, and pathfinder elements concentrations are elevated in zones of intense alteration, increased sulfide content, and/or structures. The deposit was a blind ore body covered by 300' or more of sediments. A deep-seated, mineralized fault with gold mineralization cutting a favorable stratigraphic package is the best geochemical evidence for a Fortitude-type deposit.

Geophysics.

Rumor has it that the ore body was discovered during a dump condemnation drilling program. The hole was chosen to test a magnetic anomaly. The anomaly was intense but very small. Obviously a variety of geophysical methods pioneered during copper porphyry exploration could help identify

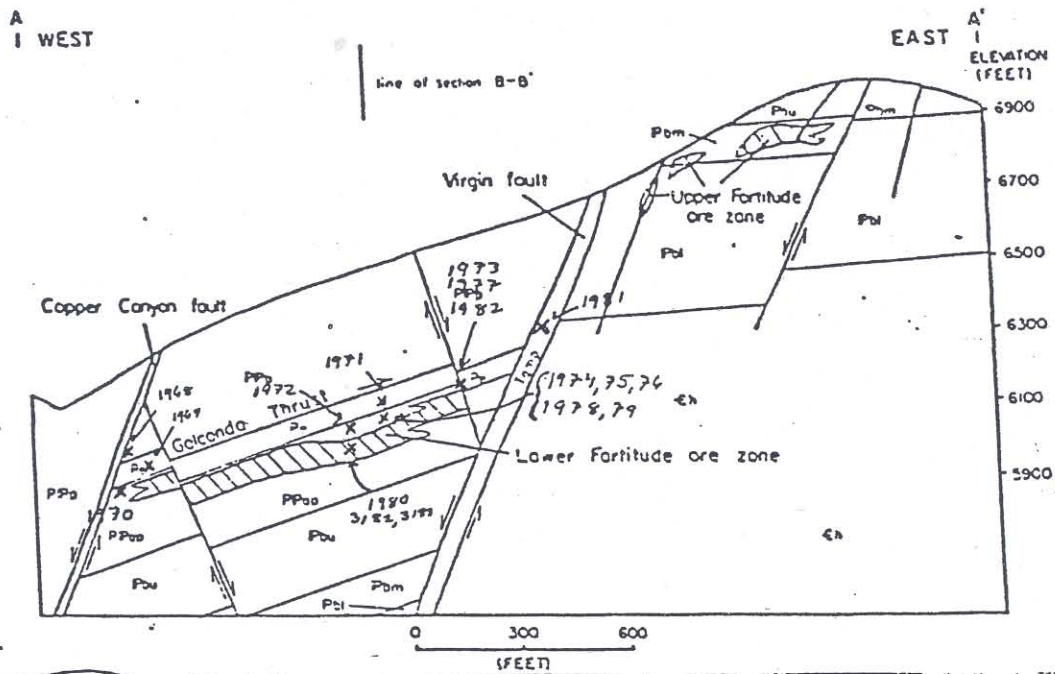


FIGURE 5: APPROXIMATE SAMPLE LOCATIONS.

sulfide-rich replacement bodies, fault structures, alteration zones, and stratigraphy/igneous rock types.

Geologic Model.

The following are important criteria for a Fortitude-style, gold-rich, replacement body.

1. 37-40 m.a. porphyritic granite to granodiorite stocks, that have associated base-metal mineralization and fairly strong, porphyry-style alteration. This time interval is consistent with a strong pulse of igneous activity and gold mineralization in Nevada. The Battle Mountain-Eureka mineralized trend has a number of plutons of this age.

2. Evidence for a strong, widespread, late-stage epithermal alteration event. Alteration assemblages indicative of such an event include, chlorite, sericite, pyrite, quartz \pm gold.

3. High and low angle structures which provide fluid pathways and structural traps, respectively.

4. Exploration of the concentric, gold-rich zones peripheral to a copper and base metal-rich zone surrounding an altered stock. This zoning has been recognized surrounding the Copper Canyon stock and possibly the Eureka stock in the Eureka district.

EXPLORATION TARGETS

Eureka District.

Ratto and Windfall occur in a peripheral zone surrounding the Eureka stock. Further examination in the peripheral zone south of Ratto is warranted. Ratto is currently being offered for sale by Amselco. Geologic reserves of 4 to 5 million tons of 0.08 oz/ton have been established, although mining reserves are significantly less. Information about the property has been requested.

Ely District.

An extensive, late-stage quartz-sericite-pyrite alteration assemblage occurs in the Ely copper district. Silver King has mineable reserves in this area.

Iron Point.

Bruce Miller says moly mineralization in a stock was encountered in deep drill holes. The stratigraphy of the area is such that the Antler Peak should occur at depth and could be mineralized adjacent to buried stock. Iron-stained and widespread clay alteration at surface suggest a large-scale hydrothermal system existed in the area.

Bullion District.

NICOR has 1.1 million tons of 0.1 oz/ton gold mineralization in the crest of the Piñon anticline. The mineralization is related to small plugs and dikes, probably offshoots of a shallowly buried intrusive.

Districts Related to Intrusive Rocks in Eastern Assemblage Carbonates:

Ferber
Currant
Spruce Mountain

Dolly Varden
Cedar Mountains
Deep Creeks, Utah

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- Wotruba, P. R., R. G. Benson, and K. W. Schmidt, in press, Geology of the Fortitude gold-silver deposit, Copper Canyon, Lander County, Nevada; Preprint for 1986 SME-AIME Annual Meeting, New Orleans, Louisiana, 7 p.

APPENDIX "A"

Geochemical

Analysis

Report

TO: Mr. Robert E. Bennett
Long Lac Mineral Exploration
1475 Greg St.

Sparks, NV 89431 tel: 702/356-8058

Lot Identity: LOA-60307B

Digest: 5.0 gram

Report Date: 03/07/86

Sample ID	#	Ag	As	Au	Cu	Hg	Mo	Pb	Sb	Tl	Zn
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
B 3182	1	76.01	18.60	64.88	2168.	0.582	1.016	523.6	2.444	0.948	243.
B 3183	2	1.492	67.73	.1335	69.08	0.491	3.971	359.9	3.811	0.932	723.
B 1968	3	1.477	506.2	.0558	62.87	0.481	1.167	709.7	5.629	0.963	1511
B 1969	4	20.41	61.79	.0399	482.1	0.477	4.765	2192	17.05	0.994	1385
B 1970	5	75.28	35.37	32.96	3729	0.122	0.492	2095	4.266	1.330	136.
B 1971	6	1.058	19.77	.1337	144.3	0.490	2.655	101.7	6.155	0.980	101.
B 1972	7	.7961	133.7	.0681	28.59	.7756	1.580	49.23	4.831	0.965	50.0
B 1973	8	33.15	768.5	.3874	817.8	0.431	5.571	1894	32.33	0.963	2092
B 1974	9	.2534	19.98	.0275	10.00	0.486	1.113	24.40	0.972	0.972	29.6
B 1975	10	9.335	1169.	.0365	461.5	0.477	13.77	459.9	71.84	0.954	489.
B 1976	11	.9603	741.6	.2246	32.43	2.455	12.88	47.32	5.931	0.932	267.
B 1977	12	.2721	81.59	.0169	9.663	0.488	1.250	13.96	7.398	0.976	2297
B 1978	13	.1137	6.454	.0299	3.340	0.494	2.312	10.03	.9993	0.988	76.1
B 1979	14	.6666	5.018	.1940	21.69	0.491	14.97	14.25	0.982	2.042	15.1
B 1980	15	64.56	12.96	3.006	1929.	0.607	0.486	803.1	2.168	0.972	88.1
B 1981	16	5.265	962.3	.2218	946.4	1.682	.6156	59.81	5.990	1.206	66.
B 1982	17	14.28	1983	.0885	227.3	0.999	11.51	823.9	29.38	0.974	617

Battle Mountain

Red: Indicates data above high standard and may not be quantitatively accurate.

This report has been reviewed and approved by:

W. Folsom

Date: 3/7/86

William B. Henderson, Lab Director/Chemist

3 LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring A. Field Trip B 01982

SAMPLER CW

STATE NV COUNTY Lander DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Battle Mtn Au

6050' level

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL

SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L 5' VERT HORIZ W. SIZE 3lbs

REMARKS: 5' channel of heavy

material + oxidized + chip

float zone from major

east antiform fault

Field notes as file

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring A. Field Trip B 01981

SAMPLER CW

STATE NV COUNTY Lander DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Battle Mtn Au

6050' level

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL

SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L VERT HORIZ W. SIZE

REMARKS: sampled area of

tephritic and dioritic

material - mostly

strongly altered

Field notes as file

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring A. Field Trip B 01980

SAMPLER CW

STATE NV COUNTY Lander DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Battle Mtn Au

6050' level

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL

SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L 5' VERT HORIZ W. SIZE 3lbs

REMARKS: one large sample from

alter peak and floor of

sump

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring A. Field Trip B 01979

SAMPLER PM

STATE NV COUNTY Lander DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Battle Mtn Au

6050' level

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL

SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L 5' VERT HORIZ W. SIZE 3lbs

REMARKS: sampled area of

tephritic and dioritic

material - mostly

strongly altered

Field notes as file

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring A. Field Trip B 01978

SAMPLER PM

STATE NV COUNTY Lander DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Battle Mtn Au

6050' level

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL

SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L 5' VERT HORIZ W. SIZE 4lbs

REMARKS: sampled area of

tephritic and dioritic

material - mostly

strongly altered

Field notes as file

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring A. Field Trip B 01977

SAMPLER CW

STATE NV COUNTY Lander DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Battle Mtn Au

6050' level

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL

SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L 5' VERT HORIZ W. SIZE 2 1/2 lbs

REMARKS: sampled area of

tephritic and dioritic

material - mostly

strongly altered

Field notes as file

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring A. Field Trip B 01976

SAMPLER CW

STATE NV COUNTY Lander DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Battle Mtn Au

6050' level

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL

SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L 2' VERT HORIZ W. 3' SIZE 3lbs

REMARKS: sampled area of

tephritic and dioritic

material - mostly

strongly altered

Field notes as file

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring A. Field Trip B 01975

SAMPLER CW/PM

STATE NV COUNTY Lander DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Battle Mtn Au

6050' level

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL

SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L VERT HORIZ W. SIZE 3lbs

REMARKS: sampled area of

tephritic and dioritic

material - mostly

strongly altered

Field notes as file

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring Field Trip B 01974

SAMPLER CIN

STATE NJ COUNTY LANCER DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Barre Mine Area
6075' Bench

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL
SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L 5' VERT 2' HORIZ W. 2' SIZE 316

REMARKS:
CHARACTER SAMPLE OF
MANUFACTURED PAPER (ANALYZER
PLANT) ABOUT 50-75' BELOW
GROUND AND CONTAINS ABOUT
10% MINIMUM TO 20%

FIELD NOTES AS FS

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring Field Trip B 01973

SAMPLER PEM

STATE NJ COUNTY LANCER DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Barre Mine Area
6075' Bench

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL
SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L 2' VERT 2' HORIZ W. 2' SIZE 216

REMARKS:
MINOR CHIP ACROSS
MINOR FAULT THRU
ZONE - CUMULATIVE ANOMALY

FIELD NOTES AS PEM2

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring Field Trip B 01972

SAMPLER CIN

STATE NJ COUNTY LANCER DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Barre Mine Area
6075' Bench

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL
SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L 5' VERT 2' HORIZ W. 2' SIZE 316

REMARKS: ABOUT 50' STRATIGRAPHICALLY
BELOW CONTACT W/ FORD MINE
IN MANUFACTURED PAPER MINERAL
MINOR ANOMALY TO 20%

FIELD NOTES AS F1

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring Field Trip B 01971

SAMPLER PEM

STATE NJ COUNTY LANCER DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Barre Mine Area
6075' Bench

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL
SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L 5' VERT 2' HORIZ W. 2' SIZE 216

REMARKS: REPRESENTATIVE CHIP JUST
ABOUT 100' PAPER CONTACT

FIELD NOTES AS PEM1

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring Field Trip B 01970

SAMPLER CIN

STATE NJ COUNTY LANCER DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Barre Mine Area

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL
SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L 5' VERT 2' HORIZ W. 2' SIZE 316

REMARKS:
HIGH GRADE OF CHL-AS-PO-PY
POD OR VERT REPLACEMENT
AT CONTACT OF FORD MINE
AUTOMATED PAPER
TOTAL 4X FIDES = 15%
PO > AS > PY

FIELD SAMPLE F3

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring Field Trip B 01969

SAMPLER CIN

STATE NJ COUNTY LANCER DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Barre Mine Area
6075' Bench

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL
SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

SAMPLE DIMENSIONS: L 5' VERT 2' HORIZ W. 2' SIZE 216

REMARKS: FINAL MINERAL CONCENTRATION
MANUFACTURED AND USED WITH
CH-AS MINERAL TO MINERAL
APPROXIMATE

SAMPLE NOTED AS F2

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W

LONG LAC MINERAL EXPLORATION - U.S.A.

PROJECT Spring Field Trip B 01968

SAMPLER CIN

STATE NJ COUNTY LANCER DATE 2/14/86

QUAD T. R. S.

LOCATION Fortitude Pit - Barre Mine Area
6075' Bench

CHANNEL PANEL CHIP OUTCROP FLOAT STREAM SOIL
SELECT (REP/HIGH-GRADE) COMPOSITE DUMP WORKING

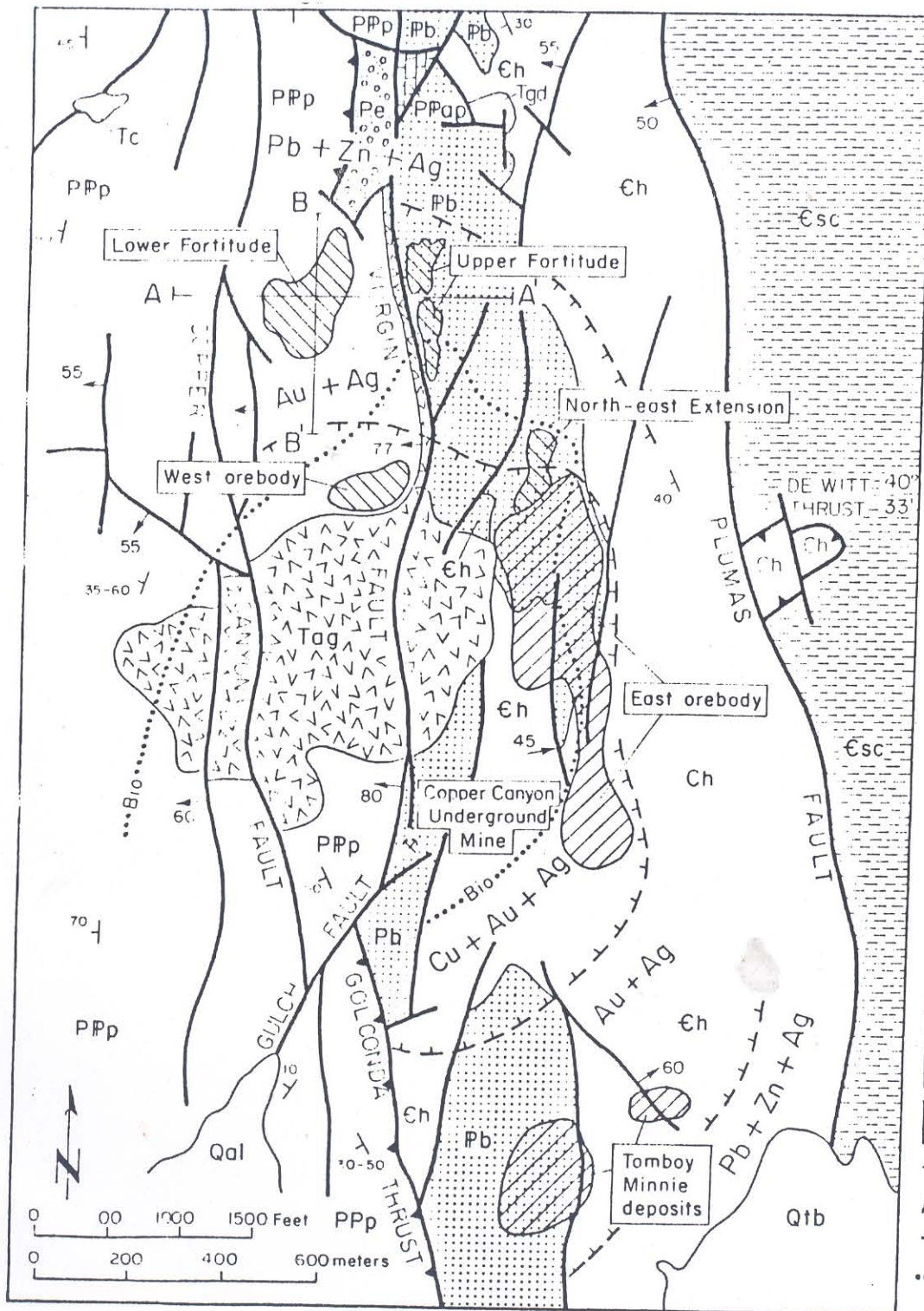
SAMPLE DIMENSIONS: L 6" VERT 2' HORIZ W. 2' SIZE 316

REMARKS: CHIP OF THIS VERT CONTACT
MANUFACTURED FORD MINE - POSSIBLE
FEEDER CONDUIT

MANUFACTURED LIKEWISE TRANS
MANUFACTURED FORD MINE
ZONE

FIELD NOTES AS F1

Assay For: Au Ag As Sb Hg Ti Cu Mo Pb Zn W



DESCRIPTION OF MAP UNITS

- Qal ALLUVIAL DEPOSITS
 - Qtb BASALT FLOWS
 - Tc CAETANO TUFF
 - Tag ALTERED GRANODIORITE OF COPPER CANYON
 - Tgd QUARTZ DIORITE
 - Pe EDNA MOUNTAIN FORMATION
 - PPop ANTLER PEAK LIMESTONE
 - PPp PUMPERNICKEL FORMATION
 - Pbu UPPER MEMBER
 - Pb BATTLE FORMATION
 - Pbm MIDDLE MEMBER
 - Pbl LOWER MEMBER
 - Ch HARMONY FORMATION
 - Esc SCOTT CANYON FORMATION
- Contact — Fault Thrust fault
 Sawteeth on upper plate

Au + Ag

— — — — — Perimeter of metal zonation halo.

..... Bio..... Perimeter of potassic alteration.
 Chiefly secondary biotite.

