To: C. J. Nelsen 3720 0045

From: R. D. Thomas

Date: August 24, 1991

Subject: **Pyramid District - Recommendation for Acquisition**

319

ITEM 56

LAC

Memorandum

SUMMARY

A $55,000 AFE is requested to acquire and complete a Phase 1 evaluation of Golden Crescent Corporation's 271 claim Pyramid property in Washoe County, Nevada. Golden Crescent controls the majority of the Pyramid District, where a minor amount of gold, silver, and copper production took place during 1866-1890. Anomalous to ore grade precious metal values occur in 1-8 ft. wide northwest trending quartz veins and adjacent clay-sericite alteration zones, with combined widths from 5 to 120 feet. At least 10 vein zones with strike lengths up to 7,000 feet have been identified in an 8 square mile area. Mineralization occurs within late Oligocene-Early Miocene rhyolitic ash flow tuffs, and in the eastern part of the district, within a quartz latite intrusive. The district is zoned from a central enargite-pyrite zone on the east side through an intermediate tetrahedrite-pyrite-chalcopyrite-bornite-chalcocite zone, into an outer pyrite-galena zone to the west. Propylitic, phyllic, and advanced argillic assemblages are present. Mineralization has affinities to an acid sulfate epithermal system (eg. Goldfields, Nevada); analogies with porphyry districts such as Butte, Montana have also been cited.

A 1981 exploration program (4 rotary holes totalling 1,140 feet) addressed the porphyry copper-molybdenum potential within a large (7,000 ft. by 2,000 ft.) strongly altered area in Perry Canyon on the west edge of the district, without sufficient encouragement to continue. Two recent programs were directed at bulk mineable gold-silver targets. Battle Mountain's 1988 drill program (10 RC holes, 3,300 ft.) was restricted to a small area west of the Ruth Mine in the west part of the district. One of their holes encountered 5 ft. grading .521 opt Au, and ended in .077 opt Au (5 ft.). No follow up was done. In 1990, Gold Fields drilled 6 widely spaced reverse circulation holes, two of which intersected significant widths of anomalous gold values. The only hole at the Cinch Mine encountered 85 ft. of 237 ppb Au, but apparantly missed the best targets. 153 surface samples collected at Cinch over a 3,000 ft. strike length along en echelon structures up to 80 feet wide and 800 ft. long, averaged 425 ppb Au.

A four month Phase 1 work program in 1991 is recommended, including follow up geologic mapping and sampling at the Cinch, Nevada Dominion, and Ruth Mines, and south of Perry Canyon, as well as mapping and sampling within the intermediate and outer mineral zones of the district to define additional favorable areas for precious metal mineralization. We should offer Golden Crescent $10,000 for the first year, with a $25,000 work commitment to complete their assessment work.

INTRODUCTION AND LAND STATUS

Golden Crescent Corporation, a Nevada company, has submitted its 100 % owned mineral holdings in the Pyramid Mining District, Washoe County, Nevada (Fig. 1). Golden Crescent has three principals, each owning an equal share: Mark Emerson, President, New York, New York, Jacques Leroy, Secretary, Billings, Montana, and Frank Skelding, Golden, Colorado. Golden Crescent's land position (Fig. 2) consists of 239 unpatented lode claims, 32 patented claims (including 6 mill sites), and a 40 acre fee tract. The property encompasses an area approximately 3.5 miles long (east-west) by 2.5 miles wide (north-south), and comprises about 7 square miles. There are no underlying royalties, and Golden Crescent seeks a standard mineral lease. Two other claim groups, the Owl and Bluebird, occur in the district but are not considered critical at this time.

LOCATION

The claim block is located about 30 miles north of Reno in sections 14-17, 20-24, T23N, R21E, MDM, in Washoe County, Nevada, within several sections of predominantly BLM land between the Pyramid Lake Indian Reservation (north) and private property in Warm Springs Valley (south). Unmaintained roads off State Highway 445 provide easy access.

GEOLOGY AND MINERALIZATION

The Pyramid District is located along the northeast edge of the Walker Lane, a major northwest trending structural zone that hosts several major metal deposits in the western Great Basin, including Rawhide, Paradise Peak, Borealis, Tonopah, and Goldfield.

Golden Crescent's claim block is underlain predominantly by Tertiary volcanic rocks, the oldest of which are 28-21 M.Y. rhyolitic to quartz latite tuffs of the Hartford Hill Rhyolite (Wallace, 1975). This formation is up to 3,000 ft. thick, and four cooling units have been recognized. Hydrothermal alteration, however, has made correlation of cooling units difficult. The Hartford Hill Rhyolite is overlain unconformably by the 16-12 M.Y. Pyramid Sequence, which consists of tuff breccias, ash flow tuffs, and basaltic lavas. The pyroclastic rocks of the Pyramid Sequence are more mafic than the underlying Hartford Hill Rhyolite.

A quartz monzonite stock intrudes the Hartford Hill Rhyolite about 5 miles east of the property near the Guanomi Mine, where it hosts Cu-Mo mineralization. A quartz latite porphyry intrusive, with adjacent breccias, has been mapped cutting the Hartford Hill Rhyolite in Perry Canyon. Small irregularly shaped dacite stocks and plugs, and basalt dikes comprise the remainder of the intrusive rocks of the district.

Quaternary sediments cover 10% of the claim block.

Predominant structures in the district are northwest and west-northwest trending faults which occur mainly in the Hartford Hill Rhyolite. Dips are generally vertical, but dips as low as 45 south have been observed, and flat faults (10 dips) have been observed by Wallace in the underground workings. Variable displacements of 0-600 feet have been observed along the northwest faults. These structures are presumably related to strike slip tectonics of the Walker Lane, but may have been reactivated during later Basin and Range extensional tectonics. Younger north to northwest trending faults also occur in the district.

Mineralization prospected to date consists of multiple narrow quartz (barite)-sulfide veins (generally less than 1 ft. wide, but up to 8 ft.) filling west northwest and northwest trending fracture zones in the propylitized upper tuff units of the Hartford Hill Rhyolite. At least 10 vein zones have been recognized, with individual vein strike lengths up to 3,000 ft. Sericitic and/or clay alteration zones up to 120 ft. wide occur adjacent to the veins. In the central part of the district, vein selvages contain pyrophyllite, diaspore, and topaz. In Perry Canyon, a large zone of strong propylitic, argillic, and phyllic alteration with disseminated sulfides occurs adjacent to a quartz latite intrusive-hydromthermal(?) breccia complex. This alteration zone is 7,600 ft. long by 2,000 ft. wide, is elongated in an east-northeast and west-southwest direction, and is covered to the northeast by unaltered basalt flows of the Pyramid Sequence.

Mineral zoning has been recognized (Wallace, 1975), and consists of a central enargite-pyrite zone, an intermediate tetrahedrite-galena -chalcopyrite-bornite-pyrite-chalcocite zone, and an outer galena-pyrite zone.

HISTORY

According to Bonham (1969), claims were located in the Mullen Pass area as early as 1863, and the district was officially organized in 1866. Records are incomplete, but the main period of production was prior to 1890. Although there are many shafts, tunnels, and prospect pits, only about $100,000 has been produced in gold, silver, and copper, mostly from the Nevada Dominion, Jones Kincaid, Cinch and Ruth mines. A small amount of uranium has also been produced.

The patented claims in the district were purchased in 1971 by Amdec Corporation, the predecessor company to Golden Crescent Corporation. The unpatented claim block has been expanded over the years to its present size.

The first modern exploration program took place in 1981, when Richard Nielsen, consulting for an unknown company, investigated the porphyry copper-molybdenum potential in the Perry Canyon area on the east side of the property. Nielsen interpreted the large

east-northeast, west-southwest trending alteration zone referred to in the above section as a high level expression of a porphyry deposit. A 500 ft. rock chip sample grid defined a sinuous 6,000 ft. long, 500 ft. wide +100 ppb gold anomaly within this alteration. This area is also the site of an IP anomaly detected in a survey completed for ARCO in 1976. Four shallow (210 - 410 ft.) vertical rotary holes were completed. Strong clay-sericite-diaspore alteration was encountered in PC-3, the deepest hole, but economic mineralization was not encountered.

In 1988, Battle Mountain Gold leased the claims and acquired an additional 60 acres of patented ground in the vicinity of the Ruth Mine, located almost three miles west of Perry Canyon. Battle Mountain focussed their program in this area, completing rock chip sampling, soil sampling, ground magnetics, and 3,300 ft. of reverse circulation drilling in 10 angle holes ranging in depth from 140 to 460 feet. Eight of these holes were drilled in a 600 ft. by 1000 ft. area to test a zone of stockwork fracturing and alteration northwest of the Ruth Mine in Wallace's intermediate and outer mineral zones. These holes encountered scattered zones of 100-300 ppb Au over 15-20 ft. widths, with a high of 1,642 ppb over 5 ft. Battle Mountain also drilled two holes along a prominent northwest trending quartz vein west of the Ruth Mine, where they encountered 5 ft. grading .521 opt Au (310-315 ft.) on the edge of a 40 ft. zone of elevated gold values to 1,261 ppb (.035 opt). This hole, PYR-9 (-45), stopped in 5 ft. of 2,625 ppb Au (.077 opt) at 375-380 ft. Battle Mountain did no follow up on this zone; their nearest hole, PY-10, is 500 ft. away, and it is uncertain whether this hole hit the target. Battle Mountain dropped the lease in 1989, and their patented claims were acquired by Golden Crescent Corporation.

In 1990 the land package was leased to Gold Fields Mining Corporation, who staked an additional 176 claims. Gold Fields drilled six widely-spaced reverse circulation holes ranging in depth from 400 to 700 feet (3,160 ft. total) in the Perry Canyon and Cinch-Nevada Dominion areas. Four of these holes were drilled within or near Nielsen's surface geochemical anomaly and strong alteration zone, and encountered detectable gold up to 686 ppb (5 ft.), but no ore grade. None of these holes, however, tested the area of Goldfields' highest rock chip geochemistry (up to 4,726 ppb Au) in this area. Two holes were drilled near the center of the district in the vicinity of the Cinch and Nevada Dominion mines. PY-1, drilled at the Cinch Mine, intersected 5 ft. grading 1,337 ppb Au (.04 opt) within an 85 ft. section that averaged 237 ppb gold. PY-2, collared 1,850 ft. northeast of PY-1 at the Nevada Dominion Mine area, encountered two anomalous zones: 35 ft. averaging 323 ppb gold and 65 ft. averaging 195 ppb Au. Gold Fields dropped the lease in early 1991, and quitclaimed their claims to Golden Crescent Corporation.

DISCUSSION

Mineralogy and alteration zoning patterns in the Pyramid District

suggests a relationship to an acid sulfate epithermal system. These systems have produced a variety of profitable precious and base metal deposits in the Western Cordillera, including Goldfield, Nevada. Goldfield (production of 4 MM tons grading 1 opt Au) is also located along the northeast edge of the Walker Lane structural zone, and has the same 21 MY age as Pyramid. Both Wallace(1976) and Nielsen(1981) compare the zoning at Pyramid with that at Butte, Montana, where gold mineralization occurs within the outer alteration zones of a porphyry system. Another possibility at Pyramid is that the current metal signature may be the result of overlapping base metal porphyry and epithermal precious metal systems.

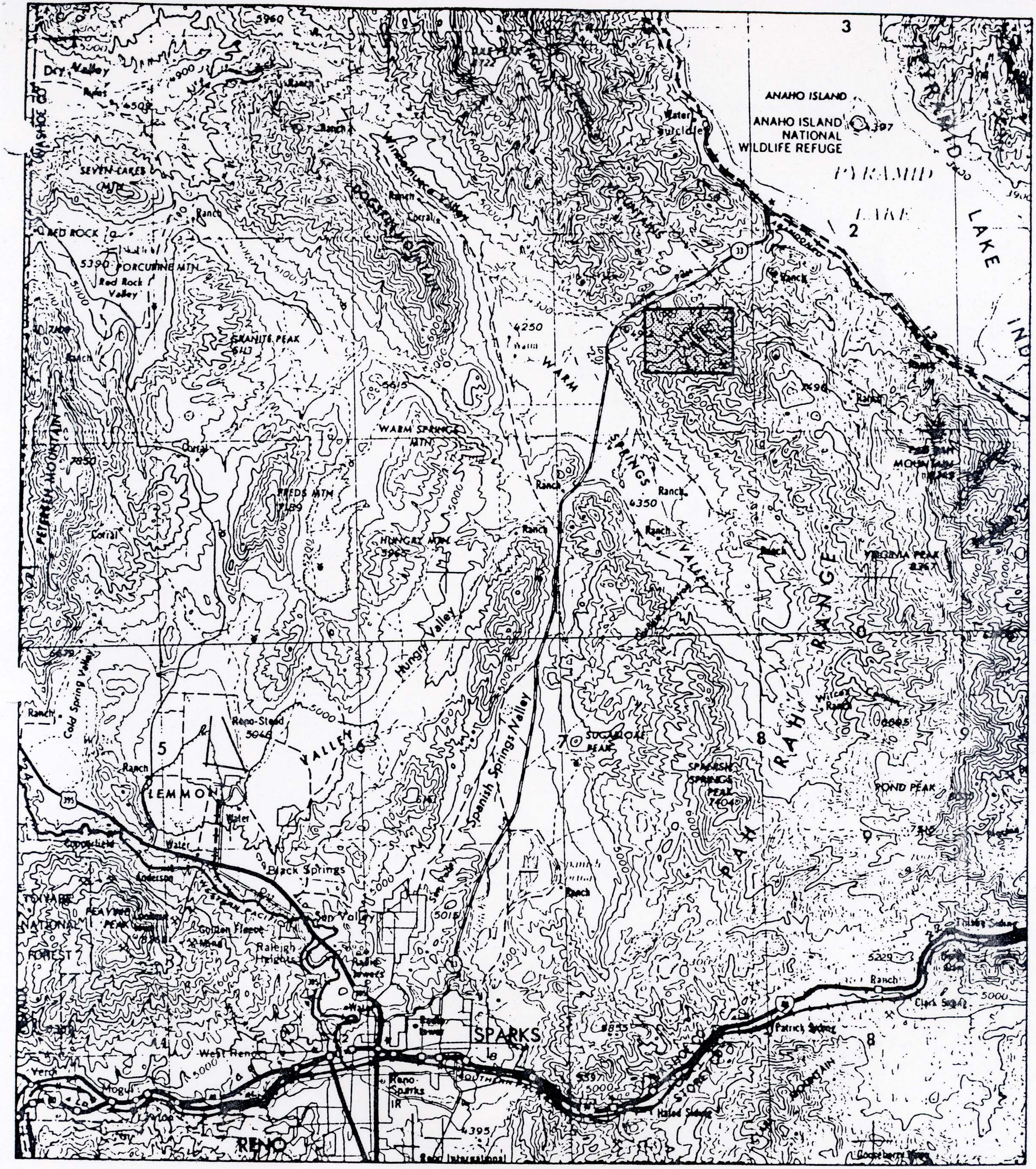
Whatever type of mineral system(s) is involved, an area about 2 miles wide(north) by 4 miles long(east-west) contains anomalous to ore grade precious and base metal values. The Golden Crescent land position covers 80 percent of this area. Previous exploration programs at Pyramid have focussed on restricted areas, with no followup on the encouraging precious metal values that were encountered. Drill targets remain from the past programs, and a relatively modest Phase 1 exploration program could potentially generate additional targets for testing.

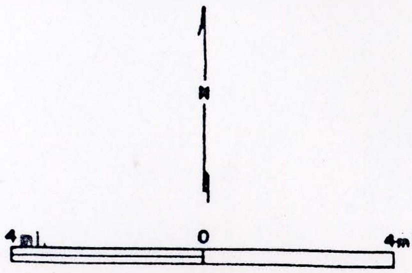
RECOMMENDATIONS

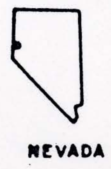
LAC should lease the Golden Crescent claim block in order to further evaluate areas where previous exploration has offered encouragement, and to identify additional target areas for gold-silver mineralization.

At the Cinch Mine, several en echelon west-northwest trending altered zones up to 80 ft. wide and 900 ft. long occur along a strike length of approximately 3,000 ft. About 150 rock chip samples collected by Battle Mountain and Goldfields along this zone averaged 425 ppb Au, with a high of 3,390 ppb Au. Five samples collected by LAC here confirmed these values (154-715 ppb Au). Chip sampling in an adit driven below a portion of the zone returned scattered values up to 441 ppb, somewhat disappointing in light of surface samples. However, the adit was not driven through the downdip extension of the best surface indications. Gold Fields hole PY-1 (85 ft. @ 237 ppb Au), drilled below the adit, is the only drill hole in the Cinch Mine area. Following detailed geologic mapping and additional rock chip sampling, additional drilling should be completed here. This area contains an open pit target, considering the width of the altered and mineralized zones at the surface.

Additional rock chip sampling and mapping, and possibly soil sampling is required in the vicinity of Battle Mountain hole PYR-9, which encountered 5 ft. grading .521 opt Au and bottomed in .077 opt Au. The additional work is necessary to determine if the values are strictly vein-related with limited tonnage potential, or if a bulk mineable target exists in this area.







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LAC MINERALS U.S.A. INC.
1303 Greg St. • Sparks, Nevada 89431

FIGURE I.

PYRAMID PROPERTY LOCATION MAP

NEVADA
WASHOE
1" = 4 miles
B. THOMAS
J. A. MUELLER
8/91

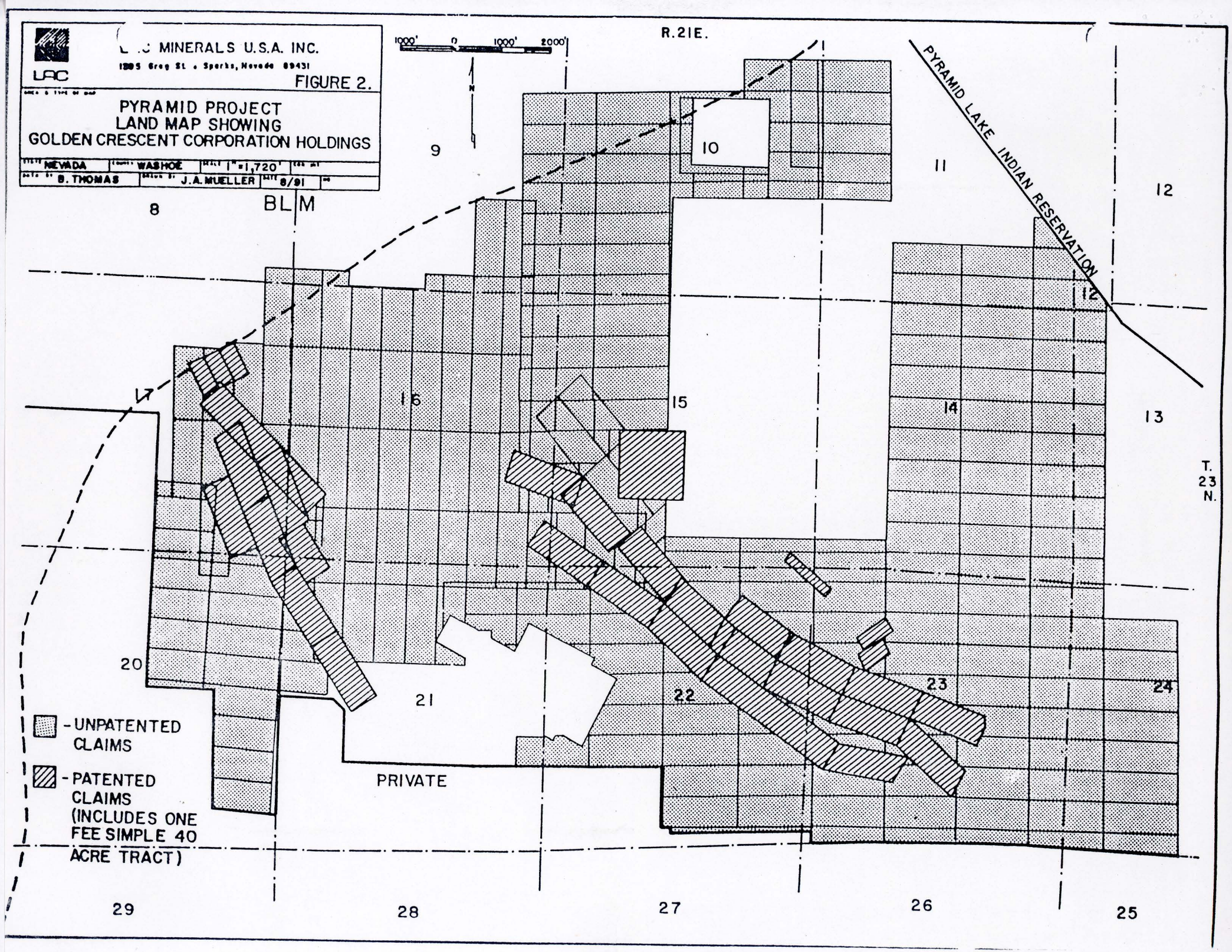
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FIGURE 2.
PYRAMID PROJECT
LAND MAP SHOWING
GOLDEN CRESCENT CORPORATION HOLDINGS
NEVADA
WASHOE
1" = 1,720'
B. THOMAS
J.A. MUELLER
8/91
1000' 0 1000' 2000'
N
R.21E.
T. 23 N.
PYRAMID LAKE INDIAN RESERVATION
BLM
PRIVATE
8
9
10
11
12
13
14
15
16
17
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21
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23
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27
28
29
- UNPATENTED CLAIMS
- PATENTED CLAIMS (INCLUDES ONE FEE SIMPLE 40 ACRE TRACT)

Aside from the obvious target at the Cinch Mine, and a possible target at Ruth, the main attraction to the Pyramid District is that the area has been underexplored. Twenty drill holes totalling 7,600 ft., completed in three separate programs, directed at different targets, and scattered over such a large anomalous area, is not a definitive evaluation. Judging from the encouraging geochemistry, structural complexity, and permissive host rocks, the district has potential to contain a economic deposit and is an attractive early-stage exploration target.

The recommended program should include the following:

1. Detailed geologic mapping at the Cinch Mine and possibly the Nevada Dominion Mine to define drill targets.

2. Detailed geologic mapping, along with rock chip and soil sampling east of the Ruth Mine along Battle Mountain Golds' PYR-9 zone.

3. Detailed geologic mapping and prospecting south of Perry Canyon in the vicinity of Goldfields' better rock chip samples.

4. Geologic mapping and prospecting in the intermediate and outer mineral zones to evaluate the potential for an economic precious metal deposit zone outward from the apparent intrusive center at Perry Canyon.

5. Mapping and sampling of accessible underground workings.

This work would be geared to defining additional drill targets, and would require approximately four months to complete. Pending successful completion, a 1992 budget including drilling will be proposed. The 1991 Phase 1 budget is presented below.

PROPOSED 1991 PHASE 1 PYRAMID BUDGET

Salaries and Wages	$27,000
Geochemistry (Rock and Soil)	$ 8,000
Photos, Publications, Maps	$ 1,000
Vehicle	$ 2,000
Meals	$ 500
Field Supplies	$ 500
Property Acquisition	$15,000
Miscellaneous	$ 1,000
TOTAL	$55,000

Before embarking on this program, the Golden Crescent property should be secured with a mineral lease. I recommend $10,000 for the first year with a 4% NSR, and a minimum work commitment of $25,000 which will satisfy Golden Crescent assessment obligations.

REFERENCES

Wallace, A.B., 1975, Geology and Mineral Deposits of the Pyramid District, Southern Washoe County, Nevada: PhD thesis, University of Nevada Reno, 162 p.

Bonham, H.F., 1969, Geology and Mineral Deposits of Washoe and Storey Counties, Nevada: Nevada Bureau of Mines and Geology Bulletin No.70, 140 p.