60001708

Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY If different from written on document	Pershing
TITLE If not obvious	Rosebud Drill Hole File - Rosebud Property - Exploration Proposal
AUTHOR	R. Weicker; R. Tschauder
DATE OF DOC(S)	1994
MULTI_DIST Y / (N?) Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Lac Minerals, Ltd; South Zone; North Zone; East Dreamland; Dreamland; Wild Rose; White Alps; Chance; Scossa; Scossa West Nor-Gold Co.; Pegasus Gold Co.; Crofoot/Lewis; Hycroft Resources; Dozer
COMMODITY If not obvious	gold; silver
NOTES	Exploration proposal; geology; assays. handwritten notes 4 Rp. 43

Keep docs at about 250 pages if no oversized maps attached
(for every 1 oversized page (>11x17) with text reduce
the amount of pages by ~25)

SS: DD 6/5/08
Initials Date

DB: mah 7/05
Initials Date

SCANNED: NNBlue
Initials Date

Revised: 1/22/08

ROSEBUD EXPLORATION
TARGETS
(WECKER, 1994)

6000 1708 4010

60001708

Charlie
Very rough draft
see you later
in May

ROSEBUD PROPERTY - EXPLORATION PROPOSAL

MEMORANDUM TO: Rick Tschauder

FROM: Robert Weicker

DATE: May 4, 1994

SUBJECT: **ROSEBUD PROPERTY - EXPLORATION PROPOSAL**

SUMMARY]

"THERE IS NO MAP, ONLY A GUIDE. THE PATH IS DEFINED BY THE TRAVERSE"

The Rosebud deposit was discovered in 1989 by Lac Minerals Ltd. when hole RL-5 intersected 155 ft grading 0.168 o.p.t. Au and 3.13 o.p.t. Ag. Exploration drilling continued yearly until 1992, comprising 155,613 ft in 235 holes. Currently activities at the Rosebud project are reaching an important stage. A gold deposit that is completed buried and was discovered through surface drilling, is to be investigated by drifting and detailed drilling. The education forthcoming may make this summation obsolete, ironic, comical, or memorable. Nevertheless an attempt is required to interpret the data to date, with the sole objective of finding additional economic ore reserves.

The Rosebud deposit is of a epithermal quartz-sericite type hosted in Tertiary aged volcanics. The deposit occurs in tabular zones in the footwall of a major regional structure known as the Rosebud Shear zone. A distinct NW trend of multiple prospects and anomalous zones, along with the Rosebud and Crofoot-Lewis deposits, is interpreted as a deep seated , structural conduits for metal bearing fluids. The juncture of this NW feature and the obliquely cutting Rosebud shear has resulted in a widespread alteration comprising argillization, silicification and sericitzation.

Gold resources are focused into three distinct zones. The South Zone is tabular in geometry, with variable dip components and a distinct 35 degree plunge parallel to the Rosebud Shear to the NE. The mineralization occurs in the hanging wall of a major listric structure known as the South Ridge Fault. The East Zone comprises multiple, flat lying tabular zones in or below the South Ridge Fault. Both the South and East zones have average grades of 0.150 to 0.300 opt Au with significant portions of moderately high grade running 0.75 to 1.00 opt Au.

The third zone is the North Zone and occurs down-plunge of the South Zone and down-dip of the East Zone and has characteristics of both. It is slightly lower in gold grade but considerably higher in silver content. Additional exploration is required to determine if the mineralization continues down plunge to the NE.

The following is a listing of targets based on three broad categories in descending priority for each group. Type I are the targets that have potential for expanding reserves within drifting range of the proposed underground development.

i)North Zone Extension Down plunge extension of the North Zone. Target potential. 70,000 - 75,000 ounces Au.

2) North Zone Infilling Comprises several wide intersections of mineralization in the North Zone that were not detailed by Lac. . Potential Target: 35,000 - 50,000 ounces Au.

3)East Dreamland and Dreamland This targets lie in the important NW corridor but cross cutting structures are not distinct. Anomalous drill intersections warrant further investigation. Unfortunately topography is increasing, requiring deeper holes to hit projected favorable stratigraphic and the preferred elevation of 4700 to 4400 ft. target Potential 50,000 to 100,000 ounces.

4) Far East Zone Located SE of East Zone, area of significant drill intersections however erratic and discontinuous. Estimate high angle geometry, but narrow width. Higher silver content. Target: potential: 50,000 ounces Au, 2.6 million ounces of Ag.

5)Shaft Zone Interpreted as a structure similar to the SRF. Some initial encouraging drilling by Lac, but follow-up was discouraging. Requires limited drilling and sampling to see if any increase with depth that may have a bearing on GU exploration. Target potential 25,000 - 40,000 ounces Au.

Type II targets are those based on anomalous geochemistry, limited drill data, favorable structures and stratigraphy.

1) WildRose Favorable geology, widespread siliceous alteration, low grade intersections at higher elevations ,anomalous geochemistry and proximity/position to Hycroft's Brimstone deposit all contribute to make this an attractive target. The projected juncture of one or two major structures with the NW trend is also an important factor. Potential Target, a new deposit 750,000 to 1,000,000 ounces Au.

2)White Alps This target is an extension of the Dreamland prospect discussed above. However the topography has increased more at White Alps possibly requiring deeper holes. Moore (1991) has interpreted a series of NE trending faults that may form an important juncture with the NW feature. Although there is a chance of a new discovery I interpret most of the anomalous results and alteration as related to high level, steeply dipping structures. Therefore potential target 50,000 ounces Au, with Ag credit.

3) Rosebud Canyon This zone occurs in Rosebud Canyon and comprises favorable stratigraphic, is within or on the edge of the NW trend, and has several significant crossing cutting structures to form a juncture. Requires base line surveys as largely ignored by Lac. Problems are related to drill access as considerable road building is required to drill from the hanging wall of the E -W structures. Although there is potential for a new deposit the potential projected conservatively because of limited data. Potential Target: 100,000 ounces Au.

TYPE III TARGETS

1) WildRose Notch: an extension of the WildRose area but a blind, pediment target. There is the potential of discovery of a Brimstone sized deposit or its extension However the potential has been downplayed due to the unknown depth of alluvium and the low grade of mineralization. Target Potential 50,000 ounces Au.

2) Chance Area Although explored by Lac, Nor-Gold and Pegasus the favorable elevation of 4400 to 4700 may not have been tested. Further investigation is required, along with stratigraphic and structural mapping, and geochemistry.

3) Scossa and Scossa West (Santa Fe) Not enough data is available to properly evaluate these targets. As more understanding of the Rosebud ore controls are gained from the current program. A review of these targets may be warranted.

4) Other NW Trends A regional review could be initiated to identify the continuation of the current NW feature and/or other lineaments. Grass roots exploration program.

INTRODUCTION

An exploration program is proposed over a period of three to five years to cover targets on the current Rosebud property located in Pershing county. The program is divided into three broad categories:

i) Priority I Targets : targets within a short distance of the current or proposed mining activities and known reserves blocks. These target have the highest potential based on;

- known areas of mineralization (usually drill data) that are encouraging but have not been pursued by Lac.
-strong continuation trends that were not drilled by Lac due to depth of holes and/or position of claims (i.e. Equinox vs Lac), and/or anticipated poorer metallurgical recoveries. An example being the NE trend of the North Zone Other reasons that targets were not further pursued by Lac was structural complexity such as the Far East Zone.
- strong geological basis for Rosebud type mineralization.

ii) Priority II Targets: these are targets within close proximity to the proposed Rosebud mine and mill, but probably outside of direct drifting accessibility. That is they would may require there own mining infrastructure but would readily be milled at the site. They are targets usually based on favorable geology and structure, often with anomalous (but not ore grade) gold values. Many have had some drilling by Lac. The strongest of the Priority II targets should be pursued in the first two years of the program.

iii) Priority III Targets: these targets are much "longer shots" and are based largely on structural and geological projections and modeling. Also included are some regional targets that are off of the current property . Many of theses targets have been active over the past few years and may warrant a review based on new information gained through the current underground and surface (drilling) development program.

GEOLOGIC SUMMARY

The geological setting and unit descriptions of the Rosebud deposit is well documented in various reports by Lac and others (Summary Report by C. Walck appended to this report). Consequently this topic will be covered only briefly in this segment.

The Rosebud property is underlain by the Miocene Kamma Mountain volcanics which were deposited in a north trending, caldera-like, subsiding trough developed in a Jurassic-Triassic basement sedimentary sequence. These peltitic metasediments are part of the Auld Lang Syne Formation, and on the Rosebud property consist of black carbonaceous phyllites and argillites.

Unconformably overlying the Auld Lang Syne Fm. near the Rosebud deposit area, is a locally occurring, basal Teritary sedimentary unit. This is referred to, as Transitional sediments in the logs and mapping, and consists of bedded siltstones and sandstones with occasional fragments of older black shales. This unit marks the basal unit of a thick volcanic section (>7000') comprising flows, pyroclastics and epiclastic rocks, generally of quartz-latite to rhyolite composition. Away from the deposit area the base of the volcanic pile is the Oscar Sequence, which grades upgrade upwards from Triassic pebble conglomerate interbedded with tuffaceous sediments, into a series of andesitic flows.

Overlying these units is the Dozer Formation consisting of a rhyolitic flow dome complex. The Dozer is composed of component, olive green to sage green rhyolite, flows. It is generally aphyric and in the deposit area is unconformably in fault (South Ridge Fault) contact with younger units. Away from the deposit area the upper contact with the Wildrose (LBT - deposit area) is fairly sharp. Considerable topographic relief was developed on top of the Dozer Formation. Alteration comprises moderate bleaching locally. Below the deposit, moderate amounts of disseminated and blebs of pyrite are observed.

The Kamma Formation consisting of the Wildrose, Bud and Chocolate members overlie the Dozer Formation.

{INFORMATION TO BE ADDED}

PROPOSED GEOLOGIC MODEL and EXPLORATION GUIDELINES

Having discussed briefly the geology, what factors make the Rosebud deposit unique? The sequence of geological units and structural features are widespread trending NNE into the Jackson Mountains. The following are a summary of observations that are unusual or different for the Rosebud property. This based on a review of the Rosebud data and working the previous summer within the belt of volcanics extending from south of the Velvet occurrence (20 miles WNW of Lovelock) to the north end of the Jackson Mountains.

- Major Regional Cross or Oblique Cutting Structure - i.e. Rosebud Shear . The Rosebud Shear "transects the southern part of the property and appears to be a major but poorly understood control for alteration and mineralization".

- Prominence of Formational and Tectonic Breccias - The amount and variety of breccia and pyroclastic and epiclastic textures is unusual at the Rosebud property with respect to other locations in the Kamma volcanics. In reviewing the logs there is considerable variance in terminology and description of textures. It would be beneficial to relog sections to determine if subunits can be traced that would aid in sorting out the stratigraphy. Also a wide variety of tectonic, hydrothermal and sedimentary textures have been noted but not correlated between drill holes and/or surface. This was a weak point in Lac's approach on the Rosebud project, and requires some attention.

- NorthWest Trend - Although this feature is difficult to observe in the field, there is a remarkable trend of mineral occurrences stretching in a definite north-northwest direction from Scossa prospect to Hycroft's Crofoot-Lewis mine. On or close to the property they include (from the southeast corner, trending NW) : H &M prospect, South Ridge Adit, Far East Zone, East Zone, Dozer Hill prospects and now Rosebud deposit, Dreamland and East Dreamland, White Alps, North Equinox target, NE portion of the Chance target, WildRose and WildRose Notch targets, Brimstone and Crofoot - Lewis.

- Alteration (Argillic) - Alteration at Rosebud is characterized by widespread bleaching and sericitization. The feature most often commented on by other geologists is the high clay content of the mineralized sections. Clay alteration comprises narrow hairline fracture fillings and seams, clay veinlets (duck butter - local term) and pervasive alteration of the matrix in several rock units and mineralized sections. Silicification is common only the East Zone in the SRF structure.

Ore Controls and Deposition

Regional Setting of Mineralization

The Rosebud deposit is estimated to contain between 525,000 to 600,000 ounces of possibly minable gold and potentially 750,000 to + 1,000,000 ounces of total geologic inventory gold. The silver resource is estimated at 5.5 to 10.0 million ounces. The grade is estimated to vary between 0.170 and 0.280 o.p.t. Au depending on cutoff grades. Although low grade material does occurs (0.025 to 0.055 o.p.t. Au) the tonnage is limited, and large, low grade halos, have not been defined. The overall grade although of a better than average tenor, is not carried by excessively high grade "shoots". That is, although classed by many authors as a "bonanza" gold deposit , multi ounce intersections are rare and assays in triple digits have not been intersected. To my knowledge the highest assay in the data base is only 12.281 o.p.t. Au (RL-193). The better grade sections seem to have good correlation and reproducibility and are as spatially continuous as the average and/or low grade intervals. The current underground development project will be important in establishing the continuity.

Approximately 24,000 ft NNW of the Rosebud deposit lies the Hycroft Resources Crofoot/Lewis (C-R) mine. This is an adularia-sericite epithermal hot spring deposit hosted in Teritary to Recent clastic sediments, hydrothermal eruption breccias and sinter. Production in 1992 was 100,030 ounces Au and 323,886 ounces of Ag; and in 1993 production was 86,516 ounces of gold and 310,559 ounces of silver. Approximately 213,000 ounces of Au were produced from 1988 to 1991. Total reserves now are just slightly more than a 1,000,000 ounces Au (The Mining Record, Apr 20/94). Grades are generally very low grade, at 0.019 to 0.023 o.p.t. Au, but the ore is readily leachable. Past production and reserves would approximate 1.4 million ounces. The most recent activities have focused on the Brimstone located about 4900' ESE of the main deposits.

Therefore, within a four and half a mile NNW trend, there is the probability and **potential for in excess of 2.5 million ounces of gold** (plus silver credits) in a variety of geological and structural settings. On initial review there appears to be limited definite correlation between the two deposits. That is, the C-R represents a broad and widespread, very low grade, structurally controlled deposit hosted in young sediments The Rosebud is of a moderately high gold grade, is hosted in volcanics of Tertiary age, is restricted and largely tabular in geometry, and represents an epithermal quartz -sericite type of deposit.

Level of Mineralization

As discussed above numerous targets have a distinct NW trend. According to Bennett (1992) the C - R has a vertical thickness of about 500 ft. Consequently it would extend from about 4500 elv to 4000 elv . This represents the oxide, cyanide leachable portion only. According to the mine geologist (B. Wigglesworth, pers.com, May/94) mineralization has been intersected at depths of 1400 ' in drilling. The zone is smaller at these depths and of course much to deep for open pit as the grade has not increased appreciably. At the Brimstone the mineralization is in a different host rock (?) that was barren at the Crofoot deposit. The deposit is located at a higher topography of about 5150 elv., but it is not known what the vertical extent is. Exploration continues on the C-R property (about 100,000' drilling/yr).

At Rosebud the main deposit is estimated to extend from 5000 elv to 4400 elv or approximately 600 to 700 ft vertically. Mineralization at Dreamland is estimated to extend from 5650 to 5250, elv and at White Alps about an elv of 6050. The Chance target is estimated to range from 5350 to 4900 ft with slightly better grades starting about 300 below surface (T. Page, pers. com, May,4/94). Other mineralized zones are scattered from 5100 to 6000 elv. Scossa trenches and workings are estimated to extend from 5600 to 5100 elv. The Ag (Au) occurrence west of Scossa is estimated to extend from 5250 to 4750 elv. The NW feature would appear to have the great vertical extent and if other showings are part of the same mineralizing event would extent in some form from about 4000 to 6050 elv or over a range of about 2050 ft. Lower elevations are preferred to upper elevations. That is, only scattered, discontinuous and/or limited mineralized zones have been indicated to date at Dreamland, White Alps, Scossa, West Scossa and Chance Areas. Based on C - R and Rosebud a preferred elevation may be at 4200 to 4700 elv.

Role of Stratigraphy

Within the package of rocks at Rosebud certain units are more favorable host. The LBT unit (upper WildRose) hosts most of the South Zone above the SRF (South Ridge Fault) and the East Zone is hosted in LBT/or Dozer ? at or below the SRF. This stratigraphic position of the East Zone requires further investigation. Initially the host rock below the SRF was designated as Dozer. Upon further review and debate by Lac geologists it was subsequently changed to LBT. However I feel this renaming was partially due to the presence of widespread, and multiple zones of mineralization.

It has been suggested for some time that the Bud Epiclastic comprising a high clay content, acted as an "aquaclude" to confine and concentrate mineralizing fluids in the underlying denser, more brittle LBT unit. This idea was first proposed in by N. Brewer in 1988 and was based exploration largely in the South Zone.

Listric Faulting and the Role of the South Ridge Fault

The South Ridge Fault (SRF) is a prominent feature expressed on surface by siliceous, craggy outcrops known as the "shark fins" dipping 45 to 60 degrees towards Dozer Hill. At depth the structure flattens to 15 to 25 degrees with the fault varying from calcite-rich to clay-rich to strongly silicified breccias.

The importance of the South Ridge has long been debated, as it seems to be an arcuate structure in both the horizontal and vertical components. The surface trace of the SRF curves away from the Rosebud Shear on the SW side of Dozer Hill and flattens to an E-W strike on the north flank of Chocolate Mtn. Moore (1991) considered the SRF to an "unusual splay" of the Rosebud shear due to its shallow dip and eastward strike trend. Other geologists have considered the SRF to be a listric fault with rotation of the stratigraphy within the "bowel" shaped geometry that hosts the South Zone. It has been proposed that tabular zones of mineralization are related to tensional fractures antithetic to the SRF.

I also had considered the SRF structure to be an important ore controlling feature. Anomalous gold values are widespread and low grade and/or ore grade intersections occur frequently. Much of the East Zone is hosted in a silicified fault breccia of the SRF. However I now feel that although the SRF remains an important structural feature its is for tectonic rather than genetic reasons. The widespread gold distribution may be a result of late remobilzation and redirection of fluids. Although an important factor in the exploration evolution of the Rosebud project the controls related to ore forming controls may be relatively minor.

Another idea that was proposed some years ago, was that the South and East Zone were formed together and that displacement along the SRF has moved and rotated them to there current position. If so the influence of the NW feature in the vertical component could be in excess of 1000 ft. That is, if you couple the "chimney zone" on Sec1850 NW which extends from 4320 to 4910elv (590 '), with Hole RL-179 on 1300NW with anomalous values from 4350 to 4630 elv. If these areas were at initially unified this would

represent a vertical zone of influence of in excess of 850 ft. This may represent a feeder zone at the juncture of the NW and NE (Rosebud Shear) structures.

If the South Zone portion of the stratigraphy has been displaced and rotated along the listric SRF structure it would be reasonable to expect different strike and dip components of the volcanic units and possibly of the ore zones also. This may explain why the East Zone seems to have a very flat dip and no apparent plunge compared to the South Zone which has a distinct and significant rake to the NE and most ore zones although tabular have a complex geometry complicated by two dip components.

The current underground program will be useful in determining the characteristics and tectonics of the SRF. A further investigation of the East Zone and the geology in the footwall of the SRF is required to determine if it is LBT or Dozer.

If it is determined that displacement is only minor along the SRF and that the host is altered Dozer; this could be indicative of the influence of the NW feature. That is; the Dozer in the footwall of the South Zone is poorly mineralized with respect to gold. However if in the East Zone the host is Dozer, and is altered and mineralized (with multiple stacked lenses) it would occupy the consistent NW trend. It would also be on trend with the North Zone and the Far East Zone.

The Far East is another anomaly, comprising significant but erratic intersections over a large vertical range. This may be related to "cracks" and fractures that are narrow, irregular and discontinuous; away from the structural juncture. This may be typical of the mineralization that occurs at Dreamland, White Alps, etc.; That is, although the deep seated NW feature is responsible for fracture controlled mineralization and alteration along the entire NW trend (over hundreds or thousands of ft vertically), the lack of a major structural juncture precludes the formation of a large ore body.

PROPOSED GEOLOGIC MODEL

The strong NorthWest trend of numerous mineral occurrences and two deposits (Hycoft C-R and Rosebud) containing +/- a million ounces each, may indicate a deep seated structural feature which has acted as the conduit for metal bearing fluids. A variety of later structures have resulted in the localization and distribution of mineralized occurrences.

I feel that the metal - bearing solutions at the C - R deposit have originated from this deep seated NW trending source and are intruded along major Basin and Range faults which define the western extent of the Black Rock desert. The juncture of the NW feature and the Basin and Range structures have focused the mineralizing fluids. The combination of steeply dipping faults and porous sedimentary and breccia host rocks, results in a large aerial extended alteration zone and a widespread, very low grade, dispersed gold deposit. Because the NW feature is subtle and deep rooted the primary control on mineralization In the C - R pits, appears to be the N to NE striking, east and west dipping normal faults. These major N - S structures are projected to continue along the western flank of the Rosebud property. Spotty, discontinuous mineralization may occur solely with the Range faults such as those possibly correlating

with mineralization at Oscar and /or numerous prospect pits N of Oscar and SW of the Chance target. However a major concentration may not develop until a significant cross or oblique cutting structure creates a juncture for mineralizing fluids.

In the case of the Rosebud deposit a similar origin is proposed, but due to different host rocks and structures the resulting localization of gold mineralization is far different in character than at Crofoot-Lewis. Here the Rosebud shear represents a major regional, structure obliquely cutting the deep rooted NW feature. This early structural juncture is a favorable focus for the concentration of the metal bearing fluids resulting in a large elongated, alteration halo within the trend of the shear zone (NE) with erratic, scattered anomalous gold values (Valley target). If related to the juncture of these two structures, it is reasonable to expect a decrease in values and frequency, within the Rosebud shear, away from the NW feature. This is partially confirmed by the recent condemnation drilling along the SW trend where only scattered anomalous values of 70 - 200 ppb were returned from the shear zone.

The development of higher grade, seemly tabular zones, of better grade gold mineralization may be attributed to a complex series of multi-phase structural events. If the South Zone and East Zone were formed as one stratigraphic package and were later displaced by movement of the South Ridge Fault into there present position, this would represent a vertical favorable host of

The SRF structure may have been reactivated over a long period of time. *{INFO TO BE ADDED}*

TYPE I TARGETS

1)North Zone Extension

The South and North Zones rake in a NE direction roughly parallel to the Rosebud Shear (Refer to the old sections for this segment) On Sec 1800 N two holes intersected mineralization near the SRF, but at lower grades (0.054 opt Au). No drilling has been completed on the 1900 N section. Although two holes were drilled on the 2000 N Section, a 450 ft gap exists between the SRF intersections of these holes.

Recommendation: It is possible that the zone continues down plunge and 2 holes are proposed to test this target. These should be angled holes to test stratigraphy and will be approximately 1300 ft in depth.

This is a target that has been suggested for two years (see attached memo) and which Lac had proposed one hole in there 1994 program before the property was acquired by Equinox.. They were reluctant to drill the holes as they were deep, were 100 % Lac costs and because of poorer North metallurgy. If successful could continue the Main Zone trend to the NE but at greater depths. Target size estimate equivalent to Lac's Jan 1992 reserves on 1700 - 2000 N (cutoff 0.055 opt) sections **i.e. 70,000 - 75,000 ounces Au.**

2) North Zone Infilling Comprises several wide intersections of mineralization in the North Zone that were not detailed by Lac. (refer to Memo Nov. 30/92-attached). It was not a priority at the time as this area was 100 % Lac financed, the North Zone had lower indicated recoveries, and the continuity and geometry was

more variable. This is a priority area that requires relogging, compilation, and drilling from surface or UG. Potential Target: 35,000 - 50,000 ounces Au.

3))East Dreamland and Dreamland This targets occurs in the NW corridor and includes Lac's areas of Dreamland and East Dreamland. Anomalous drill intersections warrant further investigation.
The Dreamland comprises the old workings and prospects over four lode claims. The area has a broad alteration halo and historical production of silver and lesser gold (3,700 ounces) were produced from high angle, E-W trending clay "cracks" and veins, and low angle structures. These claims are not currently part of the Rosebud property. Lac has completed considerable drilling at defining additional reserves in the area of the old workings, with discouraging results. Most of the drilling has been shallow within the Chocolate formation.
Lac has completed several drill programs over the East Dreamland . Most recently Holes RI-293 and RL-294c were drilled late in 1992. RL-293 encountered significant alteration throughout the 617 depth, but only scattered anomalous gold values. RL-294c was aimed at favorable stratigraphy but due to hole deviation, the target may not have been tested.
At both these targets the topography is higher than at Dozer Hill, requiring deeper holes to hit projected favorable stratigraphy and the preferred elevation of 4700 to 4400 ft.
Recommendations: compile sections over this area, with reference to Dozer Hill mineralization. Determine favorable geological and structural targets. requires deep holes i.e. +1,500 ft. Potential 50,000 to 100,000 ounces.

4) Far East Zone This target was explored extensively in late 1992, and is located SE of East Zone. Wide intervals of significant intersections were encountered initially but were difficult to correlate from hole to hole. Mineralization was also scattered over a considerable vertical extent and was higher in silver content (see memo Nov.30/92).I interpreted the zone as a high angle structure or clay "crack", hosted largely in Chocolate Fm. I feel that we should have drill more angled core holes, as steep RC tended to smear the intersection and were often drilled oblique to the near E-W- strike. The silver content is considerably high with a Ag:Au of 55 vs about 10 for the entire Rosebud deposit. Based on a 305,000 block at 8.7 opt Ag represents 47 % of the silver that were in Lac's reserves. Target: potential: 50,000 ounces Au, 2.6 million ounces of Ag.
5)Shaft Zone Interpreted as a structure similar to the SRF. Some initial encouraging drilling by Lac, but follow-up was discouraging. Requires limited drilling and sampling to see if any increase with depth that may have a bearing on GU exploration. Target potential 25,000 - 40,000 ounces Au.

Shaft Zone

East Dreamland and Dreamland

White Alps

Valley

TYPE II TARGETS

WildRose Target

Located on the north central art of the property, this area is accessed by the road that goes to Wild Rose spring in this prominent WNW trending canyon. The area is underlain by Wildrose Fm. rhyolite and Knob Gulch pyroclastic breccia (refer to Moore, 1991 mapping). To the NE of the main anomalous areas is a silver of Bud Epliclastic and Chocolate-like rhyolite. Strongly silicified breccias with pyrite and alunite in HW of NW dipping low angle structures were reported by Brewer. Pervasive bleaching and silicification was mapped over a large area, of approximately 2000 ft in diameter (Moore, 1991). This suggests a fairly strong plumbing network . In additional Wild Rose Canyon is a major drainage and may represent a significant WNW structure. If so, this juncture of the NW deep seated trend, with the WNW drainage lineament and +/- the proximity of N-S Range faults make this an attractive structural setting.

Exploration Summary: rock chip geochemistry and mapping in 1988, 89 (1040 ppb Au). Four holes were drilled in 1990 (RL-118,119,120 & 157). according to Brewer terrain did not allow for proper testing of low angle structure. Best intercepts are in RL-120; 20' @ 0.015 opt Au at about 5060 elv., and RL-157; 40' @ 0.010 opt at about 4870 elv. Hole RL-118 was the deepest at 640 ft at - 45 degrees testing from the collar at 5576 elv to about 5125 elv.

Referring to the 1":2000 ' map it is interesting to note that the Wild Rose target lies about same distance in a SE direction from the Brimstone deposit as the Brimstone is from the main Crofoot deposits. If the same large-scale, but subtle NW trending feature is the source of the mineralizing fluids, then the secondary structures and host rocks might define the character of the deposit. That is; if widespread, low grade mineralization in young sediments is the expression at Brimstone; then higher grade, more discrete mineralized zones are the target at WildRose in Tertiary volcanics.

Recommendation: additional mapping and rock sampling in alteration area; investigate the sliver of "mine stratigraphic" to the NE; visit to Hycroft Brimstone and structural /reconnaissance mapping to trace Range Front faults unto Rosebud property; initial drill program to test the previous intersections (above) at lower, more favorable depths (i.e. 4600 to 4400 elv). I feel that this is top priority Type II target and should probably be initiated this year (mapping etc.) with a significant drill program planned for 1995. The target size here is a new discovery on the scale of Rosebud and/or Brimstone i.e. **750,000 to 1,000,000 ounces Au**.

TYPE III TARGETS

WildRose Notch

Refer to Moore for a description of this target. Recent activities in the last year have been the development of the Brimstone deposit as a mineable resource located about 5000 ft to the north. The only additional This area is range-front pediment and as such, would be a blind target.

Recommendations: This target will be assessed based on data from the WildRose program. Recommend geophysics to help determine the depth of alluvium and to define targets. Pegasus drilling on the pediment on the Chance target last year intersected in excess of 250 ft of gravels in some locations. Target size, assuming extension to WildRose **150,000 - 250,000 ounces Au**

CONCLUSIONS

{INFO TO BE ADDED}

MEMORANDUM TO: Rick Tschauder

FROM: Robert Welcker

DATE: May 4, 1994

SUBJECT: ROSEBUD PROPERTY - EXPLORATION PROPOSAL

SUMMARY

"THERE IS NO MAP, ONLY A GUIDE. THE PATH IS DEFINED BY THE TRAVERSE"

The Rosebud deposit was discovered in 1989 by Lac Minerals Ltd. when hole RL-5 intersected 155 ft grading 0.168 o.p.t. Au and 3.13 o.p.t. Ag. Exploration drilling continued yearly until 1992, comprising 155,613 ft in 235 holes. Currently activities at the Rosebud project are reaching an important stage. A gold deposit that is completed buried and was discovered through surface drilling, is to be investigated by drifting and detailed drilling. The education forthcoming may make this summation obsolete, ironic, comical, or memorable. Nevertheless an attempt is required to interpret the data to date, with the sole objective of finding additional economic ore reserves.

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Gold resources are focused into three distinct zones. The South Zone is tabular in geometry, with variable dip components and a distinct 35 degree plunge parallel to the Rosebud Shear to the NE. The mineralization occurs in the hanging wall of a major listric structure known as the South Ridge Fault. The East Zone comprises multiple, flat lying tabular zones in or below the South Ridge Fault. Both the South and East zones have average grades of 0.150 to 0.300 opt Au with significant portions of moderately high grade running 0.75 to 1.00 opt Au.

The third zone is the North Zone and occurs down-plunge of the South Zone and down-dip of the East Zone and has characteristics of both. It is slightly lower in gold grade but considerably higher in silver content. Additional exploration is required to determine if the mineralization continues down plunge to the NE.

The following is a listing of targets based on three broad categories in descending priority for each group. Type 1 are the targets that have potential for expanding reserves within drifting range of the proposed underground development.

i)North Zone Extension Down plunge extension of the North Zone. Target potential. 70,000 - 75,000 ounces Au.

2) North Zone Infilling Comprises several wide intersections of mineralization in the North Zone that were not detailed by Lac. . Potential Target: 35,000 - 50,000 ounces Au.

3)East Dreamland and Dreamland This targets lie in the important NW corridor but cross cutting structures are not distinct. Anomalous drill intersections warrant further investigation. Unfortunately topography is increasing, requiring deeper holes to hit projected favorable stratigraphic and the preferred elevation of 4700 to 4400 ft. target Potential 50,000 to 100,000 ounces.

4) Far East Zone Located SE of East Zone, area of significant drill intersections however erratic and discontinuous. Estimate high angle geometry, but narrow width. Higher silver content. Target: potential: 50,000 ounces Au, 2.6 million ounces of Ag.

5)Shaft Zone Interpreted as a structure similar to the SRF. Some initial encouraging drilling by Lac, but follow-up was discouraging. Requires limited drilling and sampling to see if any increase with depth that may have a bearing on GU exploration. Target potential 25,000 - 40,000 ounces Au.

Type II targets are those based on anomalous geochemistry, limited drill data, favorable structures and stratigraphy.

1) WildRose Favorable geology, widespread siliceous alteration, low grade intersections at higher elevations ,anomalous geochemistry and proximity/position to Hycroft's Brimstone deposit all contribute to make this an attractive target. The projected juncture of one or two major structures with the NW trend is also an important factor. Potential Target, a new deposit 750,000 to 1,000,000 ounces Au.

2)White Alps This target is an extension of the Dreamland prospect discussed above. However the topography has increased more at White Alps possibly requiring deeper holes. Moore (1991) has interpreted a series of NE trending faults that may form an important juncture with the NW feature. Although there is a chance of a new discovery I interpret most of the anomalous results and alteration as related to high level, steeply dipping structures. Therefore potential target 50,000 ounces Au, with Ag credit.

3) Rosebud Canyon This zone occurs in Rosebud Canyon and comprises favorable stratigraphic, is within or on the edge of the NW trend, and has several significant crossing cutting structures to form a juncture. Requires base line surveys as largely ignored by Lac. Problems are related to drill access as considerable road building is required to drill from the hanging wall of the E -W structures. Although there is potential for a new deposit the potential projected conservatively because of limited data. Potential Target: 100,000 ounces Au.

TYPE III TARGETS

1) WildRose Notch: an extension of the WildRose area but a blind, pediment target. There is the potential of discovery of a Brimstone sized deposit or its extension However the potential has been downplayed due to the unknown depth of alluvium and the low grade of mineralization. Target Potential 50,000 ounces Au.

2) Chance Area Although explored by Lac, Nor-Gold and Pegasus the favorable elevation of 4400 to 4700 may not have been tested. Further investigation is required, along with stratigraphic and structural mapping, and geochemistry.

3) Scossa and Scossa West (Santa Fe) Not enough data is available to properly evaluate these targets. As more understanding of the Rosebud ore controls are gained from the current program. A review of these targets may be warranted.

4) Other NW Trends A regional review could be initiated to identify the continuation of the current NW feature and/or other lineaments. Grass roots exploration program.

INTRODUCTION

An exploration program is proposed over a period of three to five years to cover targets on the current Rosebud property located in Pershing county. The program is divided into three broad categories:

i) Priority I Targets : targets within a short distance of the current or proposed mining activities and known reserves blocks. These target have the highest potential based on;

- known areas of mineralization (usually drill data) that are encouraging but have not been pursued by Lac.
-strong continuation trends that were not drilled by Lac due to depth of holes and/or position of claims (i.e. Equinox vs Lac), and/or anticipated poorer metallurgical recoveries. An example being the NE trend of the North Zone Other reasons that targets were not further pursued by Lac was structural complexity such as the Far East Zone.
- strong geological basis for Rosebud type mineralization.

ii) Priority II Targets: these are targets within close proximity to the proposed Rosebud mine and mill, but probably outside of direct drifting accessibility. That is they would may require there own mining infrastructure but would readily be milled at the site. They are targets usually based on favorable geology and structure, often with anomalous (but not ore grade) gold values. Many have had some drilling by Lac. The strongest of the Priority II targets should be pursued in the first two years of the program.

iii) Priority III Targets: these targets are much "longer shots" and are based largely on structural and geological projections and modeling. Also included are some regional targets that are off of the current property . Many of theses targets have been active over the past few years and may warrant a review based on new information gained through the current underground and surface (drilling) development program.

GEOLOGIC SUMMARY

The geological setting and unit descriptions of the Rosebud deposit is well documented in various reports by Lac and others (Summary Report by C. Walck appended to this report). Consequently this topic will be covered only briefly in this segment.

The Rosebud property is underlain by the Miocene Kamma Mountain volcanics which were deposited in a north trending, caldera-like, subsiding trough developed in a Jurassic-Triassic basement sedimentary sequence. These peltitic metasediments are part of the Auld Lang Syne Formation, and on the Rosebud property consist of black carbonaceous phyllites and argillites.

Unconformably overlying the Auld Lang Syne Fm. near the Rosebud deposit area, is a locally occurring, basal Teritary sedimentary unit. This is referred to, as Transitional sediments in the logs and mapping, and consists of bedded siltstones and sandstones with occasional fragments of older black shales. This unit marks the basal unit of a thick volcanic section (>7000') comprising flows, pyroclastics and epiclastic rocks, generally of quartz-latite to rhyolite composition. Away from the deposit area the base of the volcanic pile is the Oscar Sequence, which grades upgrade upwards from Triassic pebble conglomerate interbedded with tuffaceous sediments, into a series of andesitic flows.

Overlying these units is the Dozer Formation consisting of a rhyolitic flow dome complex. The Dozer is composed of component, olive green to sage green rhyolite, flows. It is generally aphyric and in the deposit area is unconformably in fault (South Ridge Fault) contact with younger units. Away from the deposit area the upper contact with the Wildrose (LBT - deposit area) is fairly sharp. Considerable topographic relief was developed on top of the Dozer Formation. Alteration comprises moderate bleaching locally. Below the deposit, moderate amounts of disseminated and blebs of pyrite are observed.

The Kamma Formation consisting of the Wildrose, Bud and Chocolate members overlie the Dozer Formation.

{INFORMATION TO BE ADDED}

PROPOSED GEOLOGIC MODEL and EXPLORATION GUIDELINES

Having discussed briefly the geology, what factors make the Rosebud deposit unique? The sequence of geological units and structural features are widespread trending NNE into the Jackson Mountains. The following are a summary of observations that are unusual or different for the Rosebud property. This based on a review of the Rosebud data and working the previous summer within the belt of volcanics extending from south of the Velvet occurrence (20 miles WNW of Lovelock) to the north end of the Jackson Mountains.

- Major Regional Cross or Oblique Cutting Structure - i.e. Rosebud Shear . The Rosebud Shear "transects the southern part of the property and appears to be a major but poorly understood control for alteration and mineralization".

- Prominence of Formational and Tectonic Breccias - The amount and variety of breccia and pyroclastic and epiclastic textures is unusual at the Rosebud property with respect to other locations in the Kamma volcanics. In reviewing the logs there is considerable variance in terminology and description of textures. It would be beneficial to relog sections to determine if subunits can be traced that would aid in sorting out the stratigraphy. Also a wide variety of tectonic, hydrothermal and sedimentary textures have been noted but not correlated between drill holes and/or surface. This was a weak point in Lac's approach on the Rosebud project, and requires some attention.

- NorthWest Trend - Although this feature is difficult to observe in the field, there is a remarkable trend of mineral occurrences stretching in a definite north-northwest direction from Scossa prospect to Hycroft's Crofoot-Lewis mine. On or close to the property they include (from the southeast corner, trending NW) : H &M prospect, South Ridge Adit, Far East Zone, East Zone, Dozer Hill prospects and now Rosebud deposit, Dreamland and East Dreamland, White Alps, North Equinox target, NE portion of the Chance target, WildRose and WildRose Notch targets, Brimstone and Crofoot - Lewis.

- Alteration (Argillic) - Alteration at Rosebud is characterized by widespread bleaching and sericitization. The feature most often commented on by other geologists is the high clay content of the mineralized sections. Clay alteration comprises narrow hairline fracture fillings and seams, clay veinlets (duck butter - local term) and pervasive alteration of the matrix in several rock units and mineralized sections. Silicification is common only the East Zone in the SRF structure.

Ore Controls and Deposition

Regional Setting of Mineralization

The Rosebud deposit is estimated to contain between 525,000 to 600,000 ounces of possibly minable gold and potentially 750,000 to + 1,000,000 ounces of total geologic inventory gold. The silver resource is estimated at 5.5 to 10.0 million ounces. The grade is estimated to vary between 0.170 and 0.280 o.p.t. Au depending on cutoff grades. Although low grade material does occurs (0.025 to 0.055 o.p.t. Au) the tonnage is limited, and large, low grade halos, have not been defined. The overall grade although of a better than average tenor, is not carried by excessively high grade "shoots". That is, although classed by many authors as a "bonanza" gold deposit , multi ounce intersections are rare and assays in triple digits have not been intersected. To my knowledge the highest assay in the data base is only 12.281 o.p.t. Au (RL-193). The better grade sections seem to have good correlation and reproducibility and are as spatially continuous as the average and/or low grade intervals. The current underground development project will be important in establishing the continuity.

Approximately 24,000 ft NNW of the Rosebud deposit lies the Hycroft Resources Crofoot/Lewis (C-R) mine. This is an adularia-sericite epithermal hot spring deposit hosted in Teritary to Recent clastic sediments, hydrothermal eruption breccias and sinter. Production in 1992 was 100,030 ounces Au and 323,886 ounces of Ag; and in 1993 production was 86,516 ounces of gold and 310,559 ounces of silver. Approximately 213,000 ounces of Au were produced from 1988 to 1991. Total reserves now are just slightly more than a 1,000,000 ounces Au (The Mining Record, Apr 20/94). Grades are generally very low grade, at 0.019 to 0.023 o.p.t. Au, but the ore is readily leachable. Past production and reserves would approximate 1.4 million ounces. The most recent activities have focused on the Brimstone located about 4900' ESE of the main deposits.

Therefore, within a four and half a mile NNW trend, there is the probability and **potential for in excess of 2.5 million ounces of gold** (plus silver credits) in a variety of geological and structural settings. On initial review there appears to be limited definite correlation between the two deposits. That is, the C-R represents a broad and widespread, very low grade, structurally controlled deposit hosted in young sediments The Rosebud is of a moderately high gold grade, is hosted in volcanics of Tertiary age, is restricted and largely tabular in geometry, and represents an epithermal quartz -sericite type of deposit.

Level of Mineralization

As discussed above numerous targets have a distinct NW trend. According to Bennett (1992) the C - R has a vertical thickness of about 500 ft. Consequently it would extend from about 4500 elv to 4000 elv . This represents the oxide, cyanide leachable portion only. According to the mine geologist (B. Wigglesworth, pers.com, May/94) mineralization has been intersected at depths of 1400 ' in drilling. The zone is smaller at these depths and of course much to deep for open pit as the grade has not increased appreciably. At the Brimstone the mineralization is in a different host rock (?) that was barren at the Crofoot deposit. The deposit is located at a higher topography of about 5150 elv., but it is not known what the vertical extent is. Exploration continues on the C-R property (about 100,000' drilling/yr).

At Rosebud the main deposit is estimated to extend from 5000 elv to 4400 elv or approximately 600 to 700 ft vertically. Mineralization at Dreamland is estimated to extend from 5650 to 5250, elv and at White Alps about an elv of 6050. The Chance target is estimated to range from 5350 to 4900 ft with slightly better grades starting about 300 below surface (T. Page, pers. com, May,4/94). Other mineralized zones are scattered from 5100 to 6000 elv. Scossa trenches and workings are estimated to extend from 5600 to 5100 elv. The Ag (Au) occurrence west of Scossa is estimated to extend from 5250 to 4750 elv. The NW feature would appear to have the great vertical extent and if other showings are part of the same mineralizing event would extent in some form from about 4000 to 6050 elv or over a range of about 2050 ft. Lower elevations are preferred to upper elevations. That is, only scattered, discontinuous and/or limited mineralized zones have been indicated to date at Dreamland, White Alps, Scossa, West Scossa and Chance Areas. Based on C - R and Rosebud a preferred elevation may be at 4200 to 4700 elv.

Role of Stratigraphy

Within the package of rocks at Rosebud certain units are more favorable host. The LBT unit (upper WildRose) hosts most of the South Zone above the SRF (South Ridge Fault) and the East Zone is hosted in LBT/or Dozer ? at or below the SRF. This stratigraphic position of the East Zone requires further investigation. Initially the host rock below the SRF was designated as Dozer. Upon further review and debate by Lac geologists it was subsequently changed to LBT. However I feel this renaming was partially due to the presence of widespread, and multiple zones of mineralization.

It has been suggested for some time that the Bud Epiclastic comprising a high clay content, acted as an "aquaclude" to confine and concentrate mineralizing fluids in the underlying denser, more brittle LBT unit. This idea was first proposed in by N. Brewer in 1988 and was based exploration largely in the South Zone.

Listric Faulting and the Role of the South Ridge Fault

The South Ridge Fault (SRF) is a prominent feature expressed on surface by siliceous, craggy outcrops known as the "shark fins" dipping 45 to 60 degrees towards Dozer Hill. At depth the structure flattens to 15 to 25 degrees with the fault varying from calcite-rich to clay-rich to strongly silicified breccias.

The importance of the South Ridge has long been debated, as it seems to be an arcuate structure in both the horizontal and vertical components. The surface trace of the SRF curves away from the Rosebud Shear on the SW side of Dozer Hill and flattens to an E-W strike on the north flank of Chocolate Mtn. Moore (1991) considered the SRF to an "unusual splay" of the Rosebud shear due to its shallow dip and eastward strike trend. Other geologists have considered the SRF to be a listric fault with rotation of the stratigraphy within the "bowel" shaped geometry that hosts the South Zone. It has been proposed that tabular zones of mineralization are related to tensional fractures antithetic to the SRF.

I also had considered the SRF structure to be an important ore controlling feature. Anomalous gold values are widespread and low grade and/or ore grade intersections occur frequently. Much of the East Zone is hosted in a silicified fault breccia of the SRF. However I now feel that although the SRF remains an important structural feature its is for tectonic rather than genetic reasons. The widespread gold distribution may be a result of late remobilzation and redirection of fluids. Although an important factor in the exploration evolution of the Rosebud project the controls related to ore forming controls may be relatively minor.

Another idea that was proposed some years ago, was that the South and East Zone were formed together and that displacement along the SRF has moved and rotated them to there current position. If so the influence of the NW feature in the vertical component could be in excess of 1000 ft. That is, if you couple the "chimney zone" on Sec1850 NW which extends from 4320 to 4910elv (590 '), with Hole RL-179 on 1300NW with anomalous values from 4350 to 4630 elv. If these areas were at initially unified this would

represent a vertical zone of influence of in excess of 850 ft. This may represent a feeder zone at the juncture of the NW and NE (Rosebud Shear) structures.

If the South Zone portion of the stratigraphy has been displaced and rotated along the listric SRF structure it would be reasonable to expect different strike and dip components of the volcanic units and possibly of the ore zones also. This may explain why the East Zone seems to have a very flat dip and no apparent plunge compared to the South Zone which has a distinct and significant rake to the NE and most ore zones although tabular have a complex geometry complicated by two dip components.

The current underground program will be useful in determining the characteristics and tectonics of the SRF. A further investigation of the East Zone and the geology in the footwall of the SRF is required to determine if it is LBT or Dozer.

If it is determined that displacement is only minor along the SRF and that the host is altered Dozer; this could be indicative of the influence of the NW feature. That is; the Dozer in the footwall of the South Zone is poorly mineralized with respect to gold. However if in the East Zone the host is Dozer, and is altered and mineralized (with multiple stacked lenses) it would occupy the consistent NW trend. It would also be on trend with the North Zone and the Far East Zone.

The Far East is another anomaly, comprising significant but erratic intersections over a large vertical range. This may be related to "cracks" and fractures that are narrow, irregular and discontinuous; away from the structural juncture. This may be typical of the mineralization that occurs at Dreamland, White Alps, etc.; That is, although the deep seated NW feature is responsible for fracture controlled mineralization and alteration along the entire NW trend (over hundreds or thousands of ft vertically), the lack of a major structural juncture precludes the formation of a large ore body.

PROPOSED GEOLOGIC MODEL

The strong NorthWest trend of numerous mineral occurrences and two deposits (Hycoft C-R and Rosebud) containing +/- a million ounces each, may indicate a deep seated structural feature which has acted as the conduit for metal bearing fluids. A variety of later structures have resulted in the localization and distribution of mineralized occurrences.

I feel that the metal - bearing solutions at the C - R deposit have originated from this deep seated NW trending source and are intruded along major Basin and Range faults which define the western extent of the Black Rock desert. The juncture of the NW feature and the Basin and Range structures have focused the mineralizing fluids. The combination of steeply dipping faults and porous sedimentary and breccia host rocks, results in a large aerial extended alteration zone and a widespread, very low grade, dispersed gold deposit. Because the NW feature is subtle and deep rooted the primary control on mineralization In the C - R pits, appears to be the N to NE striking, east and west dipping normal faults. These major N - S structures are projected to continue along the western flank of the Rosebud property. Spotty, discontinuous mineralization may occur solely with the Range faults such as those possibly correlating

with mineralization at Oscar and /or numerous prospect pits N of Oscar and SW of the Chance target. However a major concentration may not develop until a significant cross or oblique cutting structure creates a juncture for mineralizing fluids.

In the case of the Rosebud deposit a similar origin is proposed, but due to different host rocks and structures the resulting localization of gold mineralization is far different in character than at Crofoot-Lewis. Here the Rosebud shear represents a major regional, structure obliquely cutting the deep rooted NW feature. This early structural juncture is a favorable focus for the concentration of the metal bearing fluids resulting in a large elongated, alteration halo within the trend of the shear zone (NE) with erratic, scattered anomalous gold values (Valley target). If related to the juncture of these two structures, it is reasonable to expect a decrease in values and frequency, within the Rosebud shear, away from the NW feature. This is partially confirmed by the recent condemnation drilling along the SW trend where only scattered anomalous values of 70 - 200 ppb were returned from the shear zone.

The development of higher grade, seemly tabular zones, of better grade gold mineralization may be attributed to a complex series of multi-phase structural events. If the South Zone and East Zone were formed as one stratigraphic package and were later displaced by movement of the South Ridge Fault into there present position, this would represent a vertical favorable host of

The SRF structure may have been reactivated over a long period of time. *{INFO TO BE ADDED}*

TYPE I TARGETS

1)North Zone Extension

The South and North Zones rake in a NE direction roughly parallel to the Rosebud Shear (Refer to the old sections for this segment) On Sec 1800 N two holes intersected mineralization near the SRF, but at lower grades (0.054 opt Au). No drilling has been completed on the 1900 N section. Although two holes were drilled on the 2000 N Section, a 450 ft gap exists between the SRF intersections of these holes.

Recommendation: It is possible that the zone continues down plunge and 2 holes are proposed to test this target. These should be angled holes to test stratigraphy and will be approximately 1300 ft in depth.

This is a target that has been suggested for two years (see attached memo) and which Lac had proposed one hole in there 1994 program before the property was acquired by Equinox.. They were reluctant to drill the holes as they were deep, were 100 % Lac costs and because of poorer North metallurgy. If successful could continue the Main Zone trend to the NE but at greater depths. Target size estimate equivalent to Lac's Jan 1992 reserves on 1700 - 2000 N (cutoff 0.055 opt) sections **i.e. 70,000 - 75,000 ounces Au.**

2) North Zone Infilling Comprises several wide intersections of mineralization in the North Zone that were not detailed by Lac. (refer to Memo Nov. 30/92-attached). It was not a priority at the time as this area was 100 % Lac financed, the North Zone had lower indicated recoveries, and the continuity and geometry was

more variable. This is a priority area that requires relogging, compilation, and drilling from surface or UG. Potential Target: 35,000 - 50,000 ounces Au.

3))East Dreamland and Dreamland This targets occurs in the NW corridor and includes Lac's areas of Dreamland and East Dreamland. Anomalous drill intersections warrant further investigation.
The Dreamland comprises the old workings and prospects over four lode claims. The area has a broad alteration halo and historical production of silver and lesser gold (3,700 ounces) were produced from high angle, E-W trending clay "cracks" and veins, and low angle structures. These claims are not currently part of the Rosebud property. Lac has completed considerable drilling at defining additional reserves in the area of the old workings, with discouraging results. Most of the drilling has been shallow within the Chocolate formation.
Lac has completed several drill programs over the East Dreamland . Most recently Holes RI-293 and RL-294c were drilled late in 1992. RL-293 encountered significant alteration throughout the 617 depth, but only scattered anomalous gold values. RL-294c was aimed at favorable stratigraphy but due to hole deviation, the target may not have been tested.
At both these targets the topography is higher than at Dozer Hill, requiring deeper holes to hit projected favorable stratigraphy and the preferred elevation of 4700 to 4400 ft.
Recommendations: compile sections over this area, with reference to Dozer Hill mineralization. Determine favorable geological and structural targets. requires deep holes i.e. +1,500 ft. Potential 50,000 to 100,000 ounces.

4) Far East Zone This target was explored extensively in late 1992, and is located SE of East Zone. Wide intervals of significant intersections were encountered initially but were difficult to correlate from hole to hole. Mineralization was also scattered over a considerable vertical extent and was higher in silver content (see memo Nov.30/92).I interpreted the zone as a high angle structure or clay "crack", hosted largely in Chocolate Fm. I feel that we should have drill more angled core holes, as steep RC tended to smear the intersection and were often drilled oblique to the near E-W- strike. The silver content is considerably high with a Ag:Au of 55 vs about 10 for the entire Rosebud deposit. Based on a 305,000 block at 8.7 opt Ag represents 47 % of the silver that were in Lac's reserves. Target: potential: 50,000 ounces Au, 2.6 million ounces of Ag.
5)Shaft Zone Interpreted as a structure similar to the SRF. Some initial encouraging drilling by Lac, but follow-up was discouraging. Requires limited drilling and sampling to see if any increase with depth that may have a bearing on GU exploration. Target potential 25,000 - 40,000 ounces Au.

Shaft Zone

East Dreamland and Dreamland

White Alps

Valley

TYPE II TARGETS

WildRose Target

Located on the north central art of the property, this area is accessed by the road that goes to Wild Rose spring in this prominent WNW trending canyon. The area is underlain by Wildrose Fm. rhyolite and Knob Gulch pyroclastic breccia (refer to Moore, 1991 mapping). To the NE of the main anomalous areas is a silver of Bud Epliclastic and Chocolate-like rhyolite. Strongly silicified breccias with pyrite and alunite in HW of NW dipping low angle structures were reported by Brewer. Pervasive bleaching and silicification was mapped over a large area, of approximately 2000 ft in diameter (Moore, 1991). This suggests a fairly strong plumbing network . In additional Wild Rose Canyon is a major drainage and may represent a significant WNW structure. If so, this juncture of the NW deep seated trend, with the WNW drainage lineament and +/- the proximity of N-S Range faults make this an attractive structural setting.

Exploration Summary: rock chip geochemistry and mapping in 1988, 89 (1040 ppb Au). Four holes were drilled in 1990 (RL-118,119,120 & 157). according to Brewer terrain did not allow for proper testing of low angle structure. Best intercepts are in RL-120; 20' @ 0.015 opt Au at about 5060 elv., and RL-157; 40' @ 0.010 opt at about 4870 elv. Hole RL-118 was the deepest at 640 ft at - 45 degrees testing from the collar at 5576 elv to about 5125 elv.

Referring to the 1":2000 ' map it is interesting to note that the Wild Rose target lies about same distance in a SE direction from the Brimstone deposit as the Brimstone is from the main Crofoot deposits. If the same large-scale, but subtle NW trending feature is the source of the mineralizing fluids, then the secondary structures and host rocks might define the character of the deposit. That is; if widespread, low grade mineralization in young sediments is the expression at Brimstone; then higher grade, more discrete mineralized zones are the target at WildRose in Tertiary volcanics.

Recommendation: additional mapping and rock sampling in alteration area; investigate the sliver of "mine stratigraphic" to the NE; visit to Hycroft Brimstone and structural /reconnaissance mapping to trace Range Front faults unto Rosebud property; initial drill program to test the previous intersections (above) at lower, more favorable depths (i.e. 4600 to 4400 elv). I feel that this is top priority Type II target and should probably be initiated this year (mapping, etc.) with a significant drill program planned for 1995. The target size here is a new discovery on the scale of Rosebud and/or Brimstone i.e. **750,000 to 1,000,000 ounces Au**.

Charlie
Very rough draft
see you later
in May

Post-It™ brand fax transmittal memo 7671 | # of pages ▸ 13

To Charlie	From Don
Co.	Co.
Dept.	Phone #
Fax #	Fax #

ROSEBUD PROPERTY - EXPLORATION PROPOSAL

MEMORANDUM TO: Rick Tschauder

FROM: Robert Welcker

DATE: May 4, 1994

SUBJECT: ROSEBUD PROPERTY - EXPLORATION PROPOSAL

SUMMARY]

"THERE IS NO MAP, ONLY A GUIDE. THE PATH IS DEFINED BY THE TRAVERSE"

The Rosebud deposit was discovered in 1989 by Lac Minerals Ltd. when hole RL-5 intersected 155 ft grading 0.168 o.p.t. Au and 3.13 o.p.t. Ag. Exploration drilling continued yearly until 1992, comprising 155,613 ft in 235 holes. Currently activities at the Rosebud project are reaching an important stage. A gold deposit that is completed buried and was discovered through surface drilling, is to be investigated by drifting and detailed drilling. The education forthcoming may make this summation obsolete, ironic, comical, or memorable. Nevertheless an attempt is required to interpret the data to date, with the sole objective of finding additional economic ore reserves.

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The third zone is the North Zone and occurs down-plunge of the South Zone and down-dip of the East Zone and has characteristics of both. It is slightly lower in gold grade but considerably higher in silver content. Additional exploration is required to determine if the mineralization continues down plunge to the NE.

The following is a listing of targets based on three broad categories in descending priority for each group. Type 1 are the targets that have potential for expanding reserves within drifting range of the proposed underground development.

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Type II targets are those based on anomalous geochemistry, limited drill data, favorable structures and stratigraphy.

1) WildRose Favorable geology, widespread siliceous alteration, low grade intersections at higher elevations ,anomalous geochemistry and proximity/position to Hycroft's Brimstone deposit all contribute to make this an attractive target. The projected juncture of one or two major structures with the NW trend is also an important factor. Potential Target, a new deposit 750,000 to 1,000,000 ounces Au.

2)White Alps This target is an extension of the Dreamland prospect discussed above. However the topography has increased more at White Alps possibly requiring deeper holes. Moore (1991) has interpreted a series of NE trending faults that may form an important juncture with the NW feature. Although there is a chance of a new discovery I interpret most of the anomalous results and alteration as related to high level, steeply dipping structures. Therefore potential target 50,000 ounces Au, with Ag credit.

3) Rosebud Canyon This zone occurs in Rosebud Canyon and comprises favorable stratigraphic, is within or on the edge of the NW trend, and has several significant crossing cutting structures to form a juncture. Requires base line surveys as largely ignored by Lac. Problems are related to drill access as considerable road building is required to drill from the hanging wall of the E -W structures. Although there is potential for a new deposit the potential projected conservatively because of limited data. Potential Target: 100,000 ounces Au.

TYPE III TARGETS

1) WildRose Notch: an extension of the WildRose area but a blind, pediment target. There is the potential of discovery of a Brimstone sized deposit or its extension However the potential has been downplayed due to the unknown depth of alluvium and the low grade of mineralization. Target Potential 50,000 ounces Au.

2) Chance Area Although explored by Lac, Nor-Gold and Pegasus the favorable elevation of 4400 to 4700 may not have been tested. Further investigation is required, along with stratigraphic and structural mapping, and geochemistry.

3) Scossa and Scossa West (Santa Fe) Not enough data is available to properly evaluate these targets. As more understanding of the Rosebud ore controls are gained from the current program. A review of these targets may be warranted.

4) Other NW Trends A regional review could be initiated to identify the continuation of the current NW feature and/or other lineaments. Grass roots exploration program.

INTRODUCTION

An exploration program is proposed over a period of three to five years to cover targets on the current Rosebud property located in Pershing county. The program is divided into three broad categories:

i) Priority I Targets : targets within a short distance of the current or proposed mining activities and known reserves blocks. These target have the highest potential based on;

- known areas of mineralization (usually drill data) that are encouraging but have not been pursued by Lac.
-strong continuation trends that were not drilled by Lac due to depth of holes and/or position of claims (i.e. Equinox vs Lac), and/or anticipated poorer metallurgical recoveries. An example being the NE trend of the North Zone Other reasons that targets were not further pursued by Lac was structural complexity such as the Far East Zone.
- strong geological basis for Rosebud type mineralization.

ii) Priority II Targets: these are targets within close proximity to the proposed Rosebud mine and mill, but probably outside of direct drifting accessibility. That is they would may require there own mining infrastructure but would readily be milled at the site. They are targets usually based on favorable geology and structure, often with anomalous (but not ore grade) gold values. Many have had some drilling by Lac. The strongest of the Priority II targets should be pursued in the first two years of the program.

iii) Priority III Targets: these targets are much "longer shots" and are based largely on structural and geological projections and modeling. Also included are some regional targets that are off of the current property . Many of theses targets have been active over the past few years and may warrant a review based on new information gained through the current underground and surface (drilling) development program.

GEOLOGIC SUMMARY

The geological setting and unit descriptions of the Rosebud deposit is well documented in various reports by Lac and others (Summary Report by C. Walck appended to this report). Consequently this topic will be covered only briefly in this segment.

The Rosebud property is underlain by the Miocene Kamma Mountain volcanics which were deposited in a north trending, caldera-like, subsiding trough developed in a Jurassic-Triassic basement sedimentary sequence. These peltitic metasediments are part of the Auld Lang Syne Formation, and on the Rosebud property consist of black carbonaceous phyllites and argillites.

Unconformably overlying the Auld Lang Syne Fm. near the Rosebud deposit area, is a locally occurring, basal Teritary sedimentary unit. This is referred to, as Transitional sediments in the logs and mapping, and consists of bedded siltstones and sandstones with occasional fragments of older black shales. This unit marks the basal unit of a thick volcanic section (>7000') comprising flows, pyroclastics and epiclastic rocks, generally of quartz-latite to rhyolite composition. Away from the deposit area the base of the volcanic pile is the Oscar Sequence, which grades upgrade upwards from Triassic pebble conglomerate interbedded with tuffaceous sediments, into a series of andesitic flows.

Overlying these units is the Dozer Formation consisting of a rhyolitic flow dome complex. The Dozer is composed of component, olive green to sage green rhyolite, flows. It is generally aphyric and in the deposit area is unconformably in fault (South Ridge Fault) contact with younger units. Away from the deposit area the upper contact with the Wildrose (LBT - deposit area) is fairly sharp. Considerable topographic relief was developed on top of the Dozer Formation. Alteration comprises moderate bleaching locally. Below the deposit, moderate amounts of disseminated and blebs of pyrite are observed.

The Kamma Formation consisting of the Wildrose, Bud and Chocolate members overlie the Dozer Formation.

{INFORMATION TO BE ADDED}

PROPOSED GEOLOGIC MODEL and EXPLORATION GUIDELINES

Having discussed briefly the geology, what factors make the Rosebud deposit unique? The sequence of geological units and structural features are widespread trending NNE into the Jackson Mountains. The following are a summary of observations that are unusual or different for the Rosebud property. This based on a review of the Rosebud data and working the previous summer within the belt of volcanics extending from south of the Velvet occurrence (20 miles WNW of Lovelock) to the north end of the Jackson Mountains.

- Major Regional Cross or Oblique Cutting Structure - i.e. Rosebud Shear . The Rosebud Shear "transects the southern part of the property and appears to be a major but poorly understood control for alteration and mineralization".

- Prominence of Formational and Tectonic Breccias - The amount and variety of breccia and pyroclastic and epiclastic textures is unusual at the Rosebud property with respect to other locations in the Kamma volcanics. In reviewing the logs there is considerable variance in terminology and description of textures. It would be beneficial to relog sections to determine if subunits can be traced that would aid in sorting out the stratigraphy. Also a wide variety of tectonic, hydrothermal and sedimentary textures have been noted but not correlated between drill holes and/or surface. This was a weak point in Lac's approach on the Rosebud project, and requires some attention.

- NorthWest Trend - Although this feature is difficult to observe in the field, there is a remarkable trend of mineral occurrences stretching in a definite north-northwest direction from Scossa prospect to Hycroft's Crofoot-Lewis mine. On or close to the property they include (from the southeast corner, trending NW) : H &M prospect, South Ridge Adit, Far East Zone, East Zone, Dozer Hill prospects and now Rosebud deposit, Dreamland and East Dreamland, White Alps, North Equinox target, NE portion of the Chance target, WildRose and WildRose Notch targets, Brimstone and Crofoot - Lewis.

- Alteration (Argillic) - Alteration at Rosebud is characterized by widespread bleaching and sericitization. The feature most often commented on by other geologists is the high clay content of the mineralized sections. Clay alteration comprises narrow hairline fracture fillings and seams, clay veinlets (duck butter - local term) and pervasive alteration of the matrix in several rock units and mineralized sections. Silicification is common only the East Zone in the SRF structure.

Ore Controls and Deposition

Regional Setting of Mineralization

The Rosebud deposit is estimated to contain between 525,000 to 600,000 ounces of possibly minable gold and potentially 750,000 to + 1,000,000 ounces of total geologic inventory gold. The silver resource is estimated at 5.5 to 10.0 million ounces. The grade is estimated to vary between 0.170 and 0.280 o.p.t. Au depending on cutoff grades. Although low grade material does occurs (0.025 to 0.055 o.p.t. Au) the tonnage is limited, and large, low grade halos, have not been defined. The overall grade although of a better than average tenor, is not carried by excessively high grade "shoots". That is, although classed by many authors as a "bonanza" gold deposit , multi ounce intersections are rare and assays in triple digits have not been intersected. To my knowledge the highest assay in the data base is only 12.281 o.p.t. Au (RL-193). The better grade sections seem to have good correlation and reproducibility and are as spatially continuous as the average and/or low grade intervals. The current underground development project will be important in establishing the continuity.

Approximately 24,000 ft NNW of the Rosebud deposit lies the Hycroft Resources Crofoot/Lewis (C-R) mine. This is an adularia-sericite epithermal hot spring deposit hosted in Teritary to Recent clastic sediments, hydrothermal eruption breccias and sinter. Production in 1992 was 100,030 ounces Au and 323,886 ounces of Ag; and in 1993 production was 86,516 ounces of gold and 310,559 ounces of silver. Approximately 213,000 ounces of Au were produced from 1988 to 1991. Total reserves now are just slightly more than a 1,000,000 ounces Au (The Mining Record, Apr 20/94). Grades are generally very low grade, at 0.019 to 0.023 o.p.t. Au, but the ore is readily leachable. Past production and reserves would approximate 1.4 million ounces. The most recent activities have focused on the Brimstone located about 4900' ESE of the main deposits.

Therefore, within a four and half a mile NNW trend, there is the probability and **potential for in excess of 2.5 million ounces of gold** (plus silver credits) in a variety of geological and structural settings. On initial review there appears to be limited definite correlation between the two deposits. That is, the C-R represents a broad and widespread, very low grade, structurally controlled deposit hosted in young sediments The Rosebud is of a moderately high gold grade, is hosted in volcanics of Tertiary age, is restricted and largely tabular in geometry, and represents an epithermal quartz -sericite type of deposit.

Level of Mineralization

As discussed above numerous targets have a distinct NW trend. According to Bennett (1992) the C - R has a vertical thickness of about 500 ft. Consequently it would extend from about 4500 elv to 4000 elv . This represents the oxide, cyanide leachable portion only. According to the mine geologist (B. Wigglesworth, pers.com, May/94) mineralization has been intersected at depths of 1400 ' in drilling. The zone is smaller at these depths and of course much to deep for open pit as the grade has not increased appreciably. At the Brimstone the mineralization is in a different host rock (?) that was barren at the Crofoot deposit. The deposit is located at a higher topography of about 5150 elv., but it is not known what the vertical extent is. Exploration continues on the C-R property (about 100,000' drilling/yr).

At Rosebud the main deposit is estimated to extend from 5000 elv to 4400 elv or approximately 600 to 700 ft vertically. Mineralization at Dreamland is estimated to extend from 5650 to 5250, elv and at White Alps about an elv of 6050. The Chance target is estimated to range from 5350 to 4900 ft with slightly better grades starting about 300 below surface (T. Page, pers. com, May,4/94). Other mineralized zones are scattered from 5100 to 6000 elv. Scossa trenches and workings are estimated to extend from 5600 to 5100 elv. The Ag (Au) occurrence west of Scossa is estimated to extend from 5250 to 4750 elv. The NW feature would appear to have the great vertical extent and if other showings are part of the same mineralizing event would extent in some form from about 4000 to 6050 elv or over a range of about 2050 ft. Lower elevations are preferred to upper elevations. That is, only scattered, discontinuous and/or limited mineralized zones have been indicated to date at Dreamland, White Alps, Scossa, West Scossa and Chance Areas. Based on C - R and Rosebud a preferred elevation may be at 4200 to 4700 elv.

Role of Stratigraphy

Within the package of rocks at Rosebud certain units are more favorable host. The LBT unit (upper WildRose) hosts most of the South Zone above the SRF (South Ridge Fault) and the East Zone is hosted in LBT/or Dozer ? at or below the SRF. This stratigraphic position of the East Zone requires further investigation. Initially the host rock below the SRF was designated as Dozer. Upon further review and debate by Lac geologists it was subsequently changed to LBT. However I feel this renaming was partially due to the presence of widespread, and multiple zones of mineralization/

It has been suggested for some time that the Bud Epiclastic comprising a high clay content, acted as an "aquaclude" to confine and concentrate mineralizing fluids in the underlying denser, more brittle LBT unit. This idea was first proposed in by N. Brewer in 1988 and was based exploration largely in the South Zone.

Listric Faulting and the Role of the South Ridge Fault

The South Ridge Fault (SRF) is a prominent feature expressed on surface by siliceous, craggy outcrops known as the "shark fins" dipping 45 to 60 degrees towards Dozer Hill At depth the structure flattens to 15 to 25 degrees with the fault varying from calcite-rich to clay-rich to strongly silicified breccias.

The importance of the South Ridge has long been debated, as it seems to be an arcuate structure in both the horizontal and vertical components. The surface trace of the SRF curves away from the Rosebud Shear on the SW side of Dozer Hill and flattens to an E-W strike on the north flank of Chocolate Mtn. Moore (1991) considered the SRF to an "unusual splay" of the Rosebud shear due to its shallow dip and eastward strike trend. Other geologists have considered the SRF to be a listric fault with rotation of the stratigraphy within the "bowel" shaped geometry that hosts the South Zone. It has been proposed that tabular zones of mineralization are related to tensional fractures antithetic to the SRF.

I also had considered the SRF structure to be an important ore controlling feature. Anomalous gold values are widespread and low grade and/or ore grade intersections occur frequently. Much of the East Zone is hosted in a silicified fault breccia of the SRF. However I now feel that although the SRF remains an important structural feature its is for tectonic rather than genetic reasons. The widespread gold distributi may be a result of late remobilzation and redirection of fluids. Although an important factor in the exploration evolution of the Rosebud project the controls related to ore forming controls may be relative minor.

Another idea that was proposed some years ago, was that the South and East Zone were formed toget and that displacement along the SRF has moved and rotated them to there current position. If so the influence of the NW feature in the vertical component could be in excess of 1000 ft. That is, if you co the "chimney zone" on Sec1850 NW which extends from 4320 to 4910elv (590 '), with Hole RL-179 1300NW with anomalous values from 4350 to 4630 elv. If these areas were at initially unified this wo

represent a vertical zone of influence of in excess of 850 ft. This may represent a feeder zone at the juncture of the NW and NE (Rosebud Shear) structures.

If the South Zone portion of the stratigraphy has been displaced and rotated along the listric SRF structure it would be reasonable to expect different strike and dip components of the volcanic units and possibly of the ore zones also. This may explain why the East Zone seems to have a very flat dip and no apparent plunge compared to the South Zone which has a distinct and significant rake to the NE and most ore zones although tabular have a complex geometry complicated by two dip components.

The current underground program will be useful in determining the characteristics and tectonics of the SRF. A further investigation of the East Zone and the geology in the footwall of the SRF is required to determine if it is LBT or Dozer.

If it is determined that displacement is only minor along the SRF and that the host is altered Dozer; this could be indicative of the influence of the NW feature. That is; the Dozer in the footwall of the South Zone is poorly mineralized with respect to gold. However if in the East Zone the host is Dozer, and is altered and mineralized (with multiple stacked lenses) it would occupy the consistent NW trend. It would also be on trend with the North Zone and the Far East Zone.

The Far East is another anomaly, comprising significant but erratic intersections over a large vertical range. This may be related to "cracks" and fractures that are narrow, irregular and discontinuous; away from the structural juncture. This may be typical of the mineralization that occurs at Dreamland, White Alps, etc.; That is, although the deep seated NW feature is responsible for fracture controlled mineralization and alteration along the entire NW trend (over hundreds or thousands of ft vertically), the lack of a major structural juncture precludes the formation of a large ore body.

PROPOSED GEOLOGIC MODEL

The strong NorthWest trend of numerous mineral occurrences and two deposits (Hycoft C-R and Rosebud) containing +/- a million ounces each, may indicate a deep seated structural feature which has acted as the conduit for metal bearing fluids. A variety of later structures have resulted in the localization and distribution of mineralized occurrences.

I feel that the metal - bearing solutions at the C - R deposit have originated from this deep seated NW trending source and are intruded along major Basin and Range faults which define the western extent of the Black Rock desert. The juncture of the NW feature and the Basin and Range structures have focused the mineralizing fluids. The combination of steeply dipping faults and porous sedimentary and breccia host rocks, results in a large aerial extended alteration zone and a widespread, very low grade, dispersed gold deposit. Because the NW feature is subtle and deep rooted the primary control on mineralization In the C - R pits, appears to be the N to NE striking, east and west dipping normal faults. These major N - S structures are projected to continue along the western flank of the Rosebud property. Spotty, discontinuous mineralization may occur solely with the Range faults such as those possibly correlating

with mineralization at Oscar and /or numerous prospect pits N of Oscar and SW of the Chance target. However a major concentration may not develop until a significant cross or oblique cutting structure creates a juncture for mineralizing fluids.

In the case of the Rosebud deposit a similar origin is proposed, but due to different host rocks and structures the resulting localization of gold mineralization is far different in character than at Crofoot-Lewis. Here the Rosebud shear represents a major regional, structure obliquely cutting the deep rooted NW feature. This early structural juncture is a favorable focus for the concentration of the metal bearing fluids resulting in a large elongated, alteration halo within the trend of the shear zone (NE) with erratic, scattered anomalous gold values (Valley target). If related to the juncture of these two structures, it is reasonable to expect a decrease in values and frequency, within the Rosebud shear, away from the NW feature. This is partially confirmed by the recent condemnation drilling along the SW trend where only scattered anomalous values of 70 - 200 ppb were returned from the shear zone.

The development of higher grade, seemly tabular zones, of better grade gold mineralization may be attributed to a complex series of multi-phase structural events. If the South Zone and East Zone were formed as one stratigraphic package and were later displaced by movement of the South Ridge Fault into there present position, this would represent a vertical favorable host of

The SRF structure may have been reactivated over a long period of time. *{INFO TO BE ADDED}*

TYPE I TARGETS

1)North Zone Extension

The South and North Zones rake in a NE direction roughly parallel to the Rosebud Shear (Refer to the old sections for this segment) On Sec 1800 N two holes intersected mineralization near the SRF, but at lower grades (0.054 opt Au). No drilling has been completed on the 1900 N section. Although two holes were drilled on the 2000 N Section, a 450 ft gap exists between the SRF intersections of these holes.

Recommendation: It is possible that the zone continues down plunge and 2 holes are proposed to test this target. These should be angled holes to test stratigraphy and will be approximately 1300 ft in depth.

This is a target that has been suggested for two years (see attached memo) and which Lac had proposed one hole in there 1994 program before the property was acquired by Equinox. They were reluctant to drill the holes as they were deep, were 100 % Lac costs and because of poorer North metallurgy. If successful coul continue the Main Zone trend to the NE but at greater depths. Target size estimate equivalent to Lac's Jan 1992 reserves on 1700 - 2000 N (cutoff 0.055 opt) sections **i.e. 70,000 - 75,000 ounces Au.**

2) North Zone Infilling Comprises several wide intersections of mineralization in the North Zone that we not detailed by Lac. (refer to Memo Nov. 30/92-attached). It was not a priority at the time as this area w 100 % Lac financed, the North Zone had lower indicated recoveries, and the continuity and geometry w

more variable. This is a priority area that requires relogging, compilation, and drilling from surface or UG.

Potential Target: 35,000 - 50,000 ounces Au.

3))East Dreamland and Dreamland This targets occurs in the NW corridor and includes Lac's areas of Dreamland and East Dreamland. Anomalous drill intersections warrant further investigation.

The Dreamland comprises the old workings and prospects over four lode claims. The area has a broad alteration halo and historical production of silver and lesser gold (3,700 ounces) were produced from high angle, E-W trending clay "cracks" and veins, and low angle structures. These claims are not currently part of the Rosebud property. Lac has completed considerable drilling at defining additional reserves in the area of the old workings, with discouraging results. Most of the drilling has been shallow within the Chocolate formation.

Lac has completed several drill programs over the East Dreamland . Most recently Holes RI-293 and RL-294c were drilled late in 1992. RL-293 encountered significant alteration throughout the 617 depth, but only scattered anomalous gold values. RL-294c was aimed at favorable stratigraphy but due to hole deviation, the target may not have been tested.

At both these targets the topography is higher than at Dozer Hill, requiring deeper holes to hit projected favorable stratigraphy and the preferred elevation of 4700 to 4400 ft.

Recommendations: compile sections over this area, with reference to Dozer Hill mineralization. Determine favorable geological and structural targets. requires deep holes i.e. +1,500 ft. Potential 50,000 to 100,000 ounces.

4) Far East Zone This target was explored extensively in late 1992, and is located SE of East Zone. Wide intervals of significant intersections were encountered initially but were difficult to correlate from hole to hole. Mineralization was also scattered over a considerable vertical extent and was higher in silver content (see memo Nov.30/92).I interpreted the zone as a high angle structure or clay "crack", hosted largely in Chocolate Fm. I feel that we should have drill more angled core holes, as steep RC tended to smear the intersection and were often drilled oblique to the near E-W- strike. The silver content is considerably high with a Ag:Au of 55 vs about 10 for the entire Rosebud deposit. Based on a 305,000 block at 8.7 opt Ag represents 47 % of the silver that were in Lac's reserves. Target: potential: 50,000 ounces Au, 2.6 million ounces of Ag.

5)Shaft Zone Interpreted as a structure similar to the SRF. Some initial encouraging drilling by Lac, but follow-up was discouraging. Requires limited drilling and sampling to see if any increase with depth that may have a bearing on GU exploration. Target potential 25,000 - 40,000 ounces Au.

Shaft Zone

East Dreamland and Dreamland

White Alps

Valley

TYPE II TARGETS

WildRose Target

Located on the north central art of the property, this area is accessed by the road that goes to Wild Rose spring in this prominent WNW trending canyon. The area is underlain by Wildrose Fm. rhyolite and Knob Gulch pyroclastic breccia (refer to Moore, 1991 mapping). To the NE of the main anomalous areas is a silver of Bud Epiclastic and Chocolate-like rhyolite. Strongly silicified breccias with pyrite and alunite in HW of NW dipping low angle structures were reported by Brewer. Pervasive bleaching and silicification was mapped over a large area, of approximately 2000 ft in diameter (Moore, 1991). This suggests a fairly strong plumbing network . In additional Wild Rose Canyon is a major drainage and may represent a significant WNW structure. If so, this juncture of the NW deep seated trend, with the WNW drainage lineament and +/- the proximity of N-S Range faults make this an attractive structural setting.

Exploration Summary: rock chip geochemistry and mapping in 1988, 89 (1040 ppb Au). Four holes were drilled in 1990 (RL-118,119,120 & 157). according to Brewer terrain did not allow for proper testing of low angle structure. Best intercepts are in RL-120; 20' @ 0.015 opt Au at about 5060 elv., and RL-157; 40' @ 0.010 opt at about 4870 elv. Hole RL-118 was the deepest at 640 ft at - 45 degrees testing from the collar at 5576 elv to about 5125 elv.

Referring to the 1":2000 ' map it is interesting to note that the Wild Rose target lies about same distance in a SE direction from the Brimstone deposit as the Brimstone is from the main Crofoot deposits. If the same large-scale, but subtle NW trending feature is the source of the mineralizing fluids, then the secondary structures and host rocks might define the character of the deposit. That is; if widespread, low grade mineralization in young sediments is the expression at Brimstone; then higher grade, more discrete mineralized zones are the target at WildRose in Tertiary volcanics.

Recommendation: additional mapping and rock sampling in alteration area; investigate the sliver of "mine stratigraphic" to the NE; visit to Hycroft Brimstone and structural /reconnaissance mapping to trace Range Front faults unto Rosebud property; initial drill program to test the previous intersections (above) at lower, more favorable depths (i.e. 4600 to 4400 elv). I feel that this is top priority Type II target and should probably be initiated this year (mapping, etc.) with a significant drill program planned for 1995. The target size here is a new discovery on the scale of Rosebud and/or Brimstone i.e. **750,000 to 1,000,000 ounces Au**.

TYPE III TARGETS

WildRose Notch

Refer to Moore for a description of this target. Recent activities in the last year have been the development of the Brimstone deposit as a mineable resource located about 5000 ft to the north. The only additional This area is range-front pediment and as such, would be a blind target.

Recommendations: This target will be assessed based on data from the WildRose program. Recommend geophysics to help determine the depth of alluvium and to define targets. Pegasus drilling on the pediment on the Chance target last year intersected in excess of 250 ft of gravels in some locations. Target size, assuming extension to WildRose **150,000 - 250,000 ounces Au**

CONCLUSIONS

{INFO TO BE ADDED}

ROSEBUD PROJECT - EXPLORATION TARGETS (continued)

TARGET	DESCRIPTION	WORK TO DATE	POTENTIAL
Schoolbus Canyon High priority	12,000 feet WSW of Dozer Hill. Favorable LBT-Wild Rose stratigraphy is bleached at the mouth of the canyon adjacent to cover, and contains up to 159 ppb Au. Possible blind Dozer Hill-style target adjacent or within Rosebud Shear Zone at intersection with Lantern-Oscar NW structural trend.	Exploration in this area has been limited to reconnaissance mapping and limited rock chip sampling. The inferred target area is almost entirely covered by Quaternary (post-mineral) alluvium. North end of Oscar ground magnetics survey covers SE portion of target area.	Favorable indication is that the altered rocks are equivalent to host rocks at Dozer Hill, and is adjacent to the Rosebud Shear Zone. Moderate potential for South zone-type ore body on the opposite (NW) side of the Rosebud shear zone - 200,000-250,000 oz.
Wildrose Moderate priority	Located 16,000 feet NNW of Dozer Hill, within strongly silicified breccias with pyrite and alunite within HW of moderate NW dipping structure. Pervasive bleaching, large soil anomaly and strong IP anomaly.	Four holes completed, best intercept is 20 ft. @ 0.015 opt Au (RL120) and 40 ft. @ 0.010 opt Au (RL157). Further work necessary to properly evaluate this target along with adjacent North Kamma target to north.	Moderate potential for 50,000-100,000 oz ore body.

E 470000 E 475000 E 480000 E 485000

N 2225000 N 2220000 N 2215000 N 2210000 N 2205000 N 2200000 N 2195000

NORTH KAMMA

GATOR

WILDROSE

CHANCE

NORTH EQUINOX

NORTH ROSEBUD PEAK

SHORT SHOT

WHITE ALPS

EAST DREAMLAND

DREAMLAND

DEGERSTROM

SHAFT FAULT ZONE

NORTH ZONE

EAST ZONE

MAIN ZONE

217 ZONE

273 ZONE

272 ZONE

DOZER HILL

CHALCEDONY

SCHOOLBUS CANYON

VALLEY

SOUTH RIDGE

OSCAR

HIGH WAY 48

SOUTH KAMMA

EXPLANATION

TARGET AREAS

SURFACE PROJECTION OF ORE ZONES

2000' 0 2000' 4000'

SCALE 1"=2000"

LAC MINERALS U.S.A. INC.

1395 GREG ST. - SPARKS, NEVADA 89431

ROSEBUD PROJECT TARGET MAP

STATE	COUNTY	SCALE	CON.INT.
NEVADA	PERSHING	1:24000	

DATA BY	DRAWN BY	DATE	NO.
T.O.KUHL	J.A. MUELLER	6/92	

TYPE III TARGETS

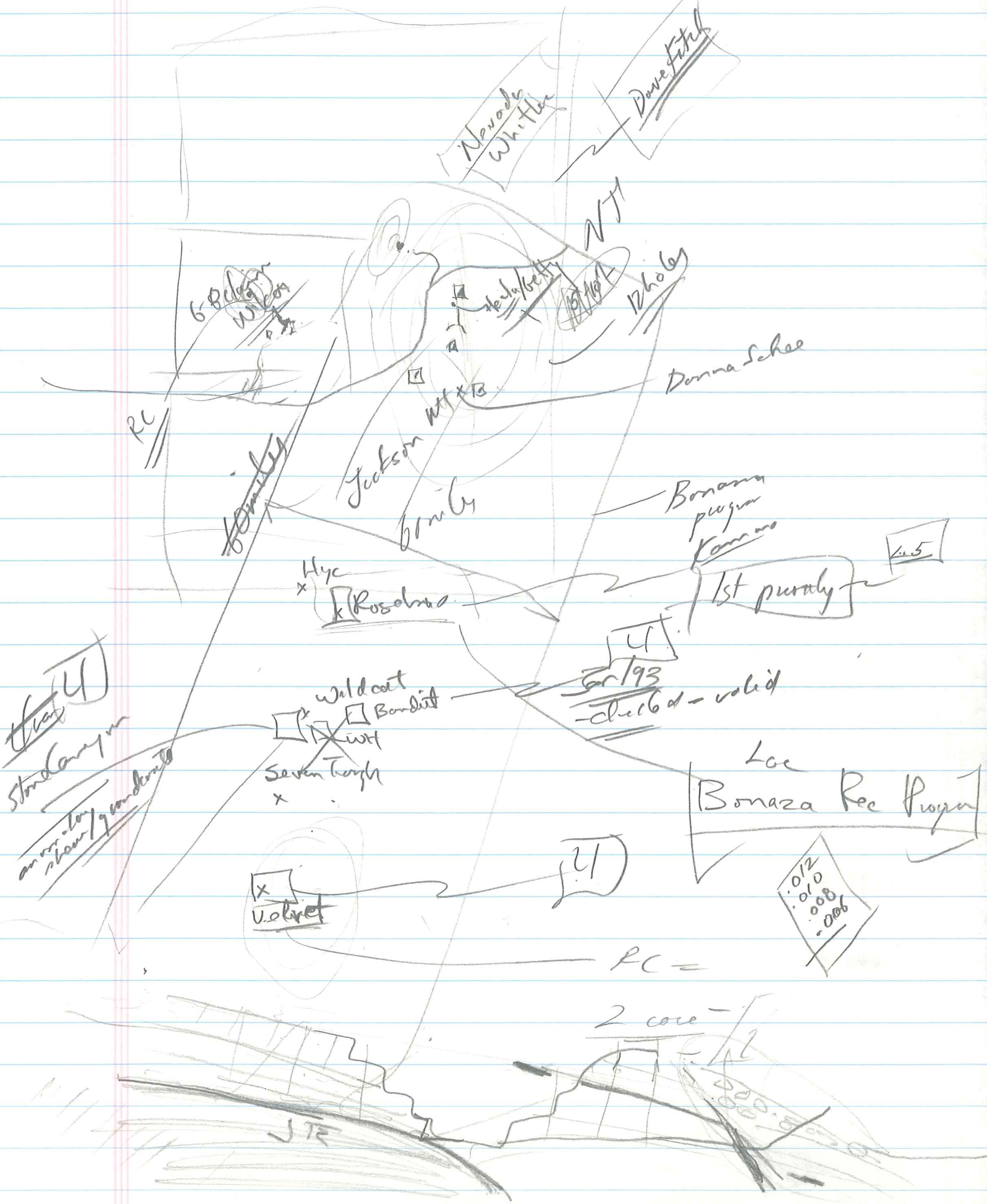
WildRose Notch

Refer to Moore for a description of this target. Recent activities in the last year have been the development of the Brimstone deposit as a mineable resource located about 5000 ft to the north. The only additional This area is range-front pediment and as such, would be a blind target.

Recommendations: This target will be assessed based on data from the WildRose program. Recommend geophysics to help determine the depth of alluvium and to define targets. Pegasus drilling on the pediment on the Chance target last year intersected in excess of 250 ft of gravels in some locations. Target size, assuming extension to WildRose **150,000 - 250,000 ounces Au**

CONCLUSIONS

{INFO TO BE ADDED}



Nevada Whitley
Dave Fitch
NJ
12 holes
Donna Schee
RC
Jackson WH
6 miles
Bonanza program
Hyc
Rosebud
1st penalty
4
Sep/93
check - valid
Wildcat
Bandit
WH
Seven Trough
Stone Canyon
4
Loc
Bonaza Rec Progm
.012
.010
.008
.006
4
RC =
2 core