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HEINRICHS GEOEXPLORATION COMPANY

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September 28, 1983

Mr. John O. Rud, Geological Consultant
1965 Athens Avenue
Yuma, AZ 85364

GEOEX Proposal #1669
Yavapai County, AZ

A. Mary Alice - George E
Target #1 - Proposal 1
B. Little Jessie (Proper)
Proposal #2

Dear Mr. Rud:

Per your phone call of 9/20/83 we received your blueline print map copy of Plate 2, 1" = 200' dated May 1983 and report of Preliminary Appraisal of the Little Jessie Mine, dated 10 August 1982.

As indicated on the map, there are apparently two sub areas of interest outlined in red, with the northernmost one of first priority interest. Before covering each area, some factors which generally will apply more or less to both areas will be discussed.

We are not absolutely certain about how to interpret the geology in detail but the primary areas of interest appear to be confined to shear zones within the granite. However, this issue is not immediately critical. What could be important at this stage, however are new geochemical results. Though not necessarily manditory, geochem prospecting often preceeds geophysics partly because of its relative lower cost. If available, such data ideally should be used (in conjunction with the geology) in order to maximize the effectiveness of the geophysics.

If not already done, we agree with the report that several thousand more dollars worth of geochem sampling should be considered. Depending on the various geophysical methods utilized, some are rather effective and readily adaptable to including simultaneous collection of geochemical samples while doing the geophysics. This particularly applies to induced polarization (IP) geophysics.

In addition to IP, other methods applicable to this environment are self potential (SP), electromagnetics (EM), magnetics and in some cases, scintillation radiometrics. Each of these methods can be experimentally

tested on a couple of short profiles each and, depending on the experimental results, decide what methods and types of coverage should be utilized and in what order of priority.

Ideally, at least some preliminary magnetic and SP coverage should be obtained either with or without any IP and/or EM coverage. Of these methods IP is most expensive. A standard four man crew will cost about $1,100 to $1,200 per field work day, turn key including final report. Magnetics and SP require only two men each and will average about $600 per work day turn key including compilation, interpretation and report. Depending on the type of EM, usually it will fall somewhere between SP, magnetics and IP in cost. IP can be done simultaneously with magnetics and geochem and normally will include SP and resistivity as standard parameters done along with the polarization measurement , however, in that case the SP stations are the same as the IP dipoles. If magnetics, scintillation, or geochem samples are simultaneously taken in conjunction with doing IP, a closer station spacing than the IP dipole lengths can be utilized but, not too close a spacing, otherwise it will excessively slow down the IP work unless additional personnel are utilized to take samples, readings, notes and to handle samples.

Our recommendation is to proceed cautiously at first and then continue with complete coverage as initial results indicate. If 400 foot maximum penetration depth is adequate then 200 foot dipole lengths for IP are recommended. Ideally, SP, Magnetics and scintillation should be on station spacing of no less than 25 feet and no more than 100 feet. EM and geochem at 50 foot or 100 foot stations should be adequate.

Field crew rate charges including geophysical and surveying equipment are as follows (plus expenses):

	40 hours per week (Regular Time) Per Hour	Over 40 hrs/week (Over time) Per Hour
One man (Professional) or Supervisor	$32.50	$39.50
Two men, (one pro & Helper)	45.00	59.00
Three men(one pro, one tech & helper or 2 helpers)	60.00	74.25
Four men (Two pros, & 2 helpers or one pro, two techs & 1 helper or one tech & 2 helpers) and pto	75.00	98.50

Per diem is $40.00 per man day or our cost which ever is greater. Vehicles are $40.00 per day plus $0.40 per mile per vehicle. Data compilation in field or office, report and office supervision are charged at $25.00 per hour plus expenses. Work days usually average about 10 hours and work weeks about 60 hours from Sunday through Saturday. Expendable supplies, outside equipment or labor, subcontracting, communications, reproductions, etc., directly incidental to the job are charged at 115% of our invoiced or pay roll cost.

We have complete IP, resistivity, SP, Mag., McPhar REM, Turam EM and total count scintillation equipment on hand and most survey items usually required and these would all be available (subject to prior commitments) at no additional cost to the above charge rates.

Depending on your budget factors, we estimate a minimum effective preliminary geophysical survey of area one or area 2 at about $5,000 each. This would allow for a maximum of two short cross lines of 200 ft. dipole IP, resistivity, SP and about four additional lines each of mag and SP only or two of geochem sampling (with the geochem analytical work extra). For a total of $7,500 a couple more lines of preliminary test EM and Scintillation could be added. Alternative to colinear dipole-dipole array lines of IP it may be technically preferable to run a gradient array instead or, depending on earliest results, to do both. Either way, it would represent a minimum of $2,500 worth of work done instead, or $2,500 more if done additionally. If done additionally, we would be talking about a total minimum preliminary program of about $10,000 for Area 1. If such a program is done, some additional more detailed coverage may be indicated or recommended.

Assuming some such program is completed first on Area 1 (Target 1) then a more straight forward and routine a program for similar costs can be run over Area 2, with a similar multiple method of coverage or with more coverage but utilizing fewer methods.

In reviewing the existing geochem data, we feel that additional geochem work could prove to be extremely important. This is based partly on apparent semi-random (?) samples WLJ-16 and WLJ-28 both of which ran over 0.2 oz. Au per ton. Since we were only asked for geophysical proposals a straight geochem proposal is also herewith volunteered. Roughly we tentatively envision approximately 150 to 200 samples taken on three or four lines on stations about 100 feet apart. Collecting samples would cost about $2,500. Analytical work, depending on which trace or associated elements chosen and how many are run, will cost $10.00 to $15.00 per sample or $1500.00 to $3,000.00 . Plotting and presentation in standard format will cost about $1,500.00 Elapsed time will depend on the work load of the analytical lab will average about three to four weeks. Collection will take two men about one week and analysis about one week and compilation about one week after receiving the results. Thus, about six weeks over all should be allowed. .

Depending on the program or proggrams chosen. we will require substantial advances on account and/or operating funds deposited in a local escrow account on which we can draw as the work progresses. Receipt of a customary minimum advance of $5,000.00 will serve as firm notice to us to proceed in your behalf.

Right now, subject to prior commitments, at least one crew can be available on a few days notice. Usually availability is no more than three to four weeks.

We welcome your questions and comments on this proposal at any time and look forward to being of service.

Sincerely,

Heinrichs GEOEXploration Co., Inc.

Walter E. Heinrichs, Jr.
Geological Engineer - Geophysicist
P. E. & C. P. G. S

WEH/jh

Enclosure: Extra copy.

JOHN O. RUD
Geological Consultant

1965 Athens Ave.
Yuma, Arizona 85364
602 - 782-9976

10 Aug 1982

PRELIMINARY APPRAISAL OF THE LITTLE JESSIE MINE

Introduction

The Little Jessie mine is situated in the Big Bug mining district, Yavapai County, Arizona. The mine is approximately four miles northwest of Humbolt and 24 miles east of Prescott in Section 30, T. 13 N., R. 1 E., and Section 25, T. 13 E., R. 1 W.

Access

Access is provided by Highway 69 to Humbolt, Arizona. The road to the Little Jessie mine area is via the Iron King mine road to Galena Gulch passing the McCabe mine. The road is passable for two-wheel drive vehicles but may be impassable for a few days after seasonal rains.

Legal Status

The property consists of four patented and 10 located mineral claims. The claims discussed are listed below:

PATENTED MINERAL CLAIMS	
Little Jessie	Survey No. 1125
Little Grace	Survey No. 1126
Ella	Survey No. 1129
Dividend	Lot No. 39
LOCATED MINERAL CLAIMS	
Mary Alice No. 1	AMC No. 134297
Mary Alice No. 2	AMC No. 134298
Mary Alice No. 3	AMC No. 134299
Mary Alice No. 4	AMC No. 134300
Mary Alice No. 5	AMC No. 140712
Mary Alice No. 6	AMC No. 140713
Mary Alice No. 9	AMC No. 160786
George E. No. 1	AMC No. 134301
George E. No. 2	AMC No. 134302
George E. No. 3	AMC No. 134303

At this time a legal search of title status has not been completed. It is recommended that a title search be completed and validity regarding the patented and located mineral claims be established.

Mining History

The Little Jessie mine was discovered in 1867. Records indicate the mine began producing in 1880 and continued through 1915. Reported production from the Little Jessie during this interval was $750,000 or approximately 36,000 ounces of gold. U.S.G.S. Bulletin 782, "Ore Deposits of the Jerome and Bradshaw Mountain Quadrangles, Arizona" by Waldemar Lingren dated 1926 states that "the Little Jessie mine was worked more of less continuously from 1903 to 1915. Up to 1903 the Little Jessie produced $750,000 in gold. Between the 500 and 600 foot levels a high-grade auriferous pyrite was encountered. The shaft is 659 feet deep. The ore contains from $10 to $20 in gold to the ton with very little silver."

University of Arizona Bulletin No. 140, dated February 15, 1936 reports that the Little Jessie mine has produced $950,000 in gold and $50,000 in silver between 1880 and 1926.

Development

The Little Jessie mine has been developed by an inclined shaft sunk on the vein to a depth of 659 feet. The upper 285 feet consists of a two compartment shaft. Six levels have been driven in a east-west direction on 100 foot intervals. The total amount of reported working in the Little Jessie mine is 6,000 feet, including shafts, drifts and raises.

Since the early 1930 no reported development or production has been reported from the Little Jessie mine. In recent years interest has been expressed in the mine dumps and attempts have been made to process the dumps for their gold content.

Geology

The Little Jessie mine area is underlain by the Yavapai schist of Precambrian age. This choritic-sericite schist has a gray to light green color and weathers to a white-light brown color. The schist contains feldspar crystals up to four millimeters in length. This formation is believed to represent metamorphosed andesitic tuffs and sedimentary eugeosynclinal rocks.

Mineralization

The Little Jessie mine has been developed on a lenticular vein system that exhibits strong structural control. The exposed mineralized zone consists of abundant quartz, pyrite, chalcopyrite, arsenopyrite, galena, and breccia fragments of the Yavapai schist. The mineralized zone exhibits the normal pinch and swell characteristics associated with the fissure faults vein systems in the Big Bug district. Production from the Little Jessie mine has been reported to be from an ore shoot that ranges in width from four to twenty feet and 250 feet in length with a 600

foot depth. Samples taken by numerous mining companies indicate gold values from the Little Jessie vein system range from .008 to 1.61 ounces/ton.

Recommendations

It is recommended that a program to evaluate the economic potential of the Little Jessie mine and related located claims be initiated. This opinion is based on the assumption that satisfactory financial terms for the purchase of this property can be arranged.

The evaluation recommendation is based on the following data:

(1) The Little Jessie mine has produced over 36,000 ounces of gold between 1887 and 1915.

(2) Average grades of ore mined ranged from one-half to one ounce of gold per ton.

(3) The mine workings appear to be located within one ore shoot ranging in width from four to twenty feet, 250

feet in length, and has a 600 foot depth. Additional ore shoots along the strike of the Little Jessie vein is highly probable and can be delineated by geological data and state-of-the-art geochemical and geophysical techniques.

(4) Available data indicates no attempts have been made to delineate additional ore reserves by modern geological, geochemical, and geophysical techniques.

(5) The Little Jessie mine is in the vicinity of the Iron King mine, a massive sulphide deposit that has produced over five million tons of ore. The reported similarities between the Little Jessie and the Iron King mine include similiar host rock, age of mineralization, and numerous structural and mineralogical features.

Evaluation Program

The evaluation program will include the investigation of the reported occurrence of backfill in the old Little Jessie mine workings. Numerous historical reports indicate the Little Jessie mine contains approximately 100,000 tons of 'gob' or backfill. It is believed that the backfill is

similar to the dump material at the collar of the main shaft. This is further corroborated with data that indicates the majority of mine working are on the Little Jessie mineralized zone and a minimum of crosscutting and development work within the host formation was completed during the production period of the Little Jessie mine.

Samples taken by numerous mining companies indicate the dump material ranges from .01 to .31 ounces/ton in gold. It is assumed that the backfill will also contain gold values in this range. Therefore, it is recommended that a program be initiated to collar the old mine shaft and construct a hoist-bullet arrangement to determine backfill tonnage and grades in the old Little Jessie mine workings.

Estimated cost of the above program is $15,000. This cost is based on the assumption that the shaft is open and no major damage has occurred to block passage to the 400-500 foot level.

It is also recommended that a geological mapping program be completed on the Little Jessie mineral claims. This would included delineating and sampling all mineralized structures and related features that may have affected the

mineralization within the claim group.

Estimated cost for the sampling and geological mapping program is $8,000.00.

To coincide with the geological program it is recommended that research be initiated to determine the optimum geochemical program and geophysical methods to delineate areas of mineralization. This would included preliminary geochemical sampling and geophysical evaluation lines over known areas of mineralization to determine various applicable methods of delineating future drilling targets.

Estimated cost for the above research is $2,000.00.

The objective of the evaluation program is to determine the economic potential of the Little Jessie mine area. If the above program is successful in determining the grade and tonnage of backfill along with techniques to delineate additional primary ore reserves within the Little Jessie mine area, a follow-up program of exploration, mine development, and production recommendations will be outlined and submitted.

Respectfully submitted,

John O. Rud
August 10, 1982

EXPLANATION

- PE_{gr} Granite, PreЄ
- Y_{sc} Schist, Yavapai
- A_nP Andesite Porphyry
- TG Slate, Texas Gulch
- Sh Shale
- V_{an} Volcanics, (Andesite)
- Q_a Soils, Stream Sediments
- Shear Zone, Inferred
- Contact
- Strike and Dip Symbols
- Adit, Prospect, Dump, Shaft
- Claim Corner, 1/4 Section Monument
- OLJ-21 Sample Location w/ Number
- Road
- Proposed Drill Hole Locations
- Forestry Fence Line
- ▲ WLJ-27 Sample Location and Number, taken by Wagner

N

ASSAY RESULTS		
Sample No.	oz Au	oz Ag
LJ4E183	0.014	0.07
LJ4E283	0.006	0.10
LJ4E383	0.160	0.11
LJ4E483	⊖	0.18
LJ4E583	0.022	0.04
LJ4E683	0.196	1.04
LJ4E783	1.636	1.99
LJ4E883	0.040	0.40
LJ4E983	0.056	⊖
LJ4E1083	0.004	0.22
LJ4E1183	0.048	0.15
LJ4E1263	0.022	0.02
LJ4E1383	0.12	0.48
LJ5E1483	0.042	0.18
LJ5E1583	0.150	0.06
LJ5E1683	0.080	0.47
LJ5E1783	0.028	0.09
LJ5E1883	0.282	2.71
LJ5E1983	0.183	Trace
LJ5E2083	0.060	0.03
LJ5E2183	⊖	⊖
LJ5E2283	0.004	Trace
LJ18E2383	0.082	0.40
LJ18E2483	0.070	0.33
LJ18E2563	0.062	0.39
LJ18E2683	0.088	0.81
LJ18E2783	0.070	0.75
LJ18E2883	0.024	Trace
LJ18E2963	0.278	Trace
LJ18E3063	0.084	0.34
LJ18E3183	0.052	0.39
LJ19E3283	Trace	0.12
D19E3383	0.072	0.16
D19E3463	0.042	0.08
LJ19E3583	0.060	0.24
LJ19E3683	0.072	0.93
LG19E3783	0.038	0.26
LJ19E3863	No Assay	No Assay
D19E3963	0.010	0.79
LJ19E4083	0.094	0.79
LJ25E4183	0.074	⊖
LJ25E4283	0.106	0.02
LJ25E4383	0.042	0.02
LJ25E4463	0.004	0.18
LJ25E4583	Trace	0.06
LJ26E4683	Trace	0.06
LJ26E4783	0.034	0.03
LJ26E4883	0.018	0.02
LJ26E4983	0.024	0.06

ASSAY RESULTS		
Sample No.	oz Au	oz Ag
WLJ 3	0.102	0.06
WLJ 4	0.052	0.09
WLJ 5	Trace	0.02
WLJ 6	0.008	0.05
WLJ 7	0.012	⊖
WLJ 8	Trace	Trace
WLJ 9	0.184	0.12
WLJ 10	Trace	Trace
WLJ 11	⊖	Trace
WLJ 12	1.010	2.99
WLJ 13	0.136	3.05
WLJ 14	Trace	Trace
WLJ 15	0.026	⊖
WLJ 16	0.254	0.01
WLJ 17	0.428	0.71
WLJ 18	Trace	0.32
WLJ 19	1.604	5.02
WLJ 20	Trace	0.16
WLJ 21	0.18	0.22
WLJ 22	0.018	0.16
WLJ 23	0.058	⊖
WLJ 24	0.028	0.13
WLJ 25	0.044	0.14
WLJ 26	0.060	0.78
WLJ 27	0.022	⊖
WLJ 28	0.24	⊖

MIZPAH

Geophysical Boundary NE

ARIZONA-YAVAPAI

MILL SITE

UNION MINE

MARY ALICE 6

MARY ALICE 5

MARY ALICE 4

MARY ALICE 1

GEORGE E 1

GEORGE E 2

GEORGE E 3

MARY ALICE 2

MARY ALICE 3

TARGET #1

PROPOSAL #1

~200' TO 400'

PROPOSAL #2

~200 TO 400 Ac.

LITTLE GRACE MINE

DIVIDEND

DIVIDEND MINE

LITTLE JESSIE MINE

LITTLE JESSIE

MARY ALICE 7/MARY ALICE 8

LITTLE GRACE

MARY ALICE 10

Geophysical Boundary SW

Geophysical Boundary SE

AMSTAR ARIVACA

LITTLE JESSIE MINE

BIG BUG MINING DISTRICT
YAVAPAI CO., AZ

Geologic Map

SCALE: 1" to 200'

MAY, 1983

PLATE 2

JCO