

APPENDIX VI

COMPARISON OF SAMPLES WITH VISIBLE GOLD

Comparison of Assay Results
With Samples Containing Visible Gold

Assay Procedure

After rolling and homogenizing the whole sample of crushed material, a 500 gram subsample was obtained using a Jones riffle sampler. This subsample was pulverized and screened to -150 mesh and the +150 mesh material was examined for metallics. If no metallics were recovered, a one assay-ton (29.167 grams) portion of the -150 mesh fraction was assayed for gold by conventional gravimetric fire assay.

If metallics were recovered in the +150 mesh fraction, they were weighed and assayed separately for gold. The final gold assay reported was a total of the two values, taking into account the weight of the metallics recovered.

Discussion

Underground diamond drilling resulted in 86 samples from 36 holes which contained visible gold. Quite often it was found that the assay results of these samples (derived by Barringer Magenta Laboratories (Alberta) Ltd.) were lower than that which was to be expected from the amount of visible gold present. Occasionally, the assay was higher than expected. It was assumed that these discrepancies were due to the small sample split (500 grams) which was pulverized and screened to -150 mesh.

For these reasons, it was felt that a more representative result would be obtained if the entire sample was pulverized and screened to -150 mesh; subsequently, the rejects were sent to Chemex Laboratories Ltd. for this treatment.

A simple method of comparison between the two results was devised whereas the grades from each laboratory were summed and the percentage difference calculated using the formula:

$$(\text{Chemex total gold} - \text{Barringer total gold}) / (\text{Barringer total gold})$$

The results, for several populations, are as follows:

Total Samples (86):

$$(44.394 - 38.349) / 38.349 = 15\%$$

Samples between 0.1 oz/ton and 1.0 oz/ton (32):

$$(14.377 - 9.765) / 9.765 = \underline{47\%}$$

Samples above 1.0 oz/ton (10):

$$(25.223 - 26.991) / 26.991 = -6.5\%$$

It is important to note that within the most significant subset, as far as the Gordon Lake Deposit is concerned, the Chemex results are almost 50% higher than those from Barringer. It is therefore recommended that future assay techniques include pulverizing and screening the entire sample in order to obtain a more representative result.

Following is a list of the samples submitted to Chemex:

| <u>Sample Number</u> | <u>DDH</u> | <u>Interval</u> | <u>Visible Gold</u> | <u>Barringer Assay</u> | <u>Chemex Assay</u> |
|----------------------|------------|-----------------|---------------------|------------------------|---------------------|
| 40923 | U861B-08 | 4.7-7.6 | B1,Z5 | .0013 | .0060 |
| 40949 | U861BC-12 | 55.8-58.3 | Z1 | .036 | .020 |
| 40964 | | 93.0-95.5 | Z1 | L.005 | .006 |
| 40985 | U861C-15 | 29.3-31.8 | Z1 | .03 | .074 |
| 40987 | | 34.3-36.8 | Z2 | .059 | .034 |
| 41001 | | 67.5-70.0 | B2,Z3 | .21 | .304 |
| 41002 | | 70.0-72.5 | Z1 | .08 | .098 |
| 41004 | | 75.0-77.5 | Z1 | .06 | .068 |
| 41007 | | 82.5-85.0 | Z1 | .01 | .058 |
| 41057 | U861CD-20 | 60.2-62.7 | Z1 | .27 | .022 |
| 41061 | | 70.2-72.7 | Z1 | L.005 | .10 |
| 41074 | | 102.0-105.2 | Z1 | .12 | .137 |
| 41076 | | 107.7-110.2 | Z1 | .21 | .474 |
| 20504 | U861H-23 | 22.5-25.0 | B6 | .058 | .041 |
| 20512 | U861H-25 | 12.0-14.7 | B1 | .021 | .114 |
| 20548 | U861GH-28 | 15.9-17.4 | B3,Z5 | .005 | .006 |
| 20584 | U861G-31 | 78.3-79.8 | Z3 | .599 | 2.848 |
| 20588 | U861G-32 | 12.9-15.4 | B6,Z5 | 3.051 | 4.980 |
| 20623 | U861F-35 | 18.6-21.1 | B1,Z3 | L.005 | .028 |
| 20624 | | 21.1-23.6 | B1 | .304 | .025 |
| 20646 | U861F-36 | 15.2-17.7 | Z1 | .12 | .090 |
| 20648 | | 20.0-22.0 | Z1 | .036 | .050 |
| 20661 | U861F-37 | 10.9-13.4 | Z3 | .01 | .046 |
| 20690 | U861F-38 | 15.3-17.2 | Z2 | .049 | .098 |
| 20698 | | 31.8-34.3 | Z11 | .783 | .208 |
| 20700 | | 36.8-39.3 | Z1 | 1.119 | 1.366 |
| 20701 | | 39.3-42.3 | Z2 | .025 | .066 |
| 20732 | U861E-40 | 28.9-31.4 | B2,Z1 | .596 | .361 |
| 20733 | | 31.4-33.9 | B1 | .051 | .086 |
| 20742 | U861E-41 | 32.0-34.5 | Z1 | 1.798 | .631 |
| 20743 | | 34.5-37.0 | Z1 | .21 | .584 |
| 20744 | | 37.0-39.5 | B2 | .14 | .326 |
| 20745 | | 39.5-42.0 | Z1 | .041 | .040 |

| <u>Sample Number</u> | <u>DDH</u> | <u>Interval</u> | <u>Visible Gold</u> | <u>Barringer Assay</u> | <u>Chemex Assay</u> |
|----------------------|------------|-----------------|---------------------|------------------------|---------------------|
| 20798 | U861DE-45 | 14.3-16.8 | Z8 | .739 | .490 |
| 20799 | | 16.8-19.3 | Z3 | .33 | .200 |
| 20801 | | 21.8-24.3 | Z1 | .022 | .050 |
| 20807 | | 35.7-37.9 | Z $\frac{1}{2}$ | .058 | .044 |
| 20813 | | 50.1-52.6 | Z1 | .12 | .411 |
| 20860 | U861D-48 | 7.5-10.0 | B1,Z2 | .051 | .573 |
| 20926 | U861GH-50 | 84.2-86.7 | Z1 | .30 | .476 |
| 20942 | U861GH-51 | 48.0-50.5 | Z1 | .03 | .020 |
| 20945 | | 56.0-58.5 | Z1 | .045 | .208 |
| 20966 | U861G-52 | 40.9-43.4 | Z4 | .085 | .044 |
| 20985 | | 105.2-108.1 | B3,Z4 | 1.492 | 2.993 |
| 20989 | U861G-53 | 2.0-3.9 | B2 | .27 | .483 |
| 21003 | | 48.2-49.9 | Z2 | .09 | .034 |
| 21015 | U861G-54 | 34.8-37.3 | Z3 | 1.352 | .004 |
| 21022 | | 52.3-54.9 | Z2 | .28 | .312 |
| 21042 | U861F-55 | 33.7-35.7 | Z1 | .029 | .026 |
| 21057 | | 71.2-73.7 | Z1 | .09 | .024 |
| 21062 | | 84.7-87.2 | B1 | .058 | .177 |
| 21066 | | 94.2-96.1 | Z2 | .60 | .780 |
| 21078 | U861F-56 | 23.1-26.0 | Z4 | .21 | .463 |
| 21100 | | 77.2-79.6 | B1,Z5 | 1.357 | 1.380 |
| 21111 | | 126.0-128.5 | Z2 | .065 | .118 |
| 21138 | U861E-57 | 76.0-78.5 | Z4 | .13 | .182 |
| 21142 | U861DE-58 | 11.4-13.9 | B1(?) | .19 | .056 |
| 21162 | | 57.2-59.0 | B1 | .15 | .491 |
| 21173 | | 82.0-84.5 | Z2 | .539 | .298 |
| 21176 | | 96.7-99.7 | B1,Z1 | 1.3 | .830 |
| 21199 | U861DE-59 | 50.6-53.1 | Z4 | 1.243 | 2.847 |
| 21200 | | 53.1-55.6 | B1,Z1 | .416 | 1.225 |
| 21204 | | 62.0-64.5 | B1,Z1 | .24 | .457 |
| 21212 | | 79.9-82.3 | Z1 | .035 | .022 |
| 21221 | | 101.9-103.3 | Z2 | .011 | 1.119 |

| <u>Sample Number</u> | <u>DDH</u> | <u>Interval</u> | <u>Visible Gold</u> | <u>Barringer Assay</u> | <u>Chemex Assay</u> |
|----------------------|------------|-----------------|---------------------|------------------------|---------------------|
| 21253 | U861CD-60 | 91.9-94.4 | Z1 | .02 | .014 |
| 21258 | | 105.3-107.8 | Z2 | .048 | .056 |
| 21260 | | 110.6-112.9 | B1 | .026 | .084 |
| 21261 | | 112.9-115.4 | B1 | .023 | .068 |
| 21271 | U861CD-61 | 37.8-40.4 | Z3 | L.005 | .004 |
| 21272 | | 40.4-42.6 | B4,Z18 | 12.669 | 9.577 |
| 21273 | | 42.6-45.1 | Z7 | 1.29 | 1.570 |
| 21274 | | 45.1-47.8 | Z1 | .12 | .145 |
| 21332 | U861CD-62 | 72.2-74.7 | B1,Z3 | .13 | .560 |
| 21348 | | 119.6-121.1 | B1 | .15 | .276 |
| 21365 | U861C-63 | 45.5-48.0 | Z1 | .045 | .086 |
| 21389 | | 117.0-119.5 | Z1 | .018 | .043 |
| 21410 | U861C-64 | 71.2-73.7 | Z1 | .03 | .024 |
| 21411 | | 73.7-76.2 | Z1 | .036 | .042 |
| 21429 | U861BC-65 | 24.0-24.5 | Z2 | .14 | - |
| 21448 | U861BC-66 | 105.5-107.5 | Z1 | .22 | 1.194 |
| 21460 | | 136.3-137.8 | B1,Z4 | .37 | .278 |
| 21498 | U861AB-68 | 107.1-110.2 | Z4 | .579 | .382 |
| 21536 | U861A-70 | 89.5-92.0 | Z2 | .14 | .176 |
| 21541 | | 100.9-103.9 | Z15-20 | .29 | .564 |
| 21542 | | 103.9-107.2 | B2,Z1 | 1.61 | .637 |