DUSTY MAC

SUMMARY

1.0

In April 2003, a joint venture between Eldorado Gold Corporation and Ecstall Mining Corporation was formed to further explore the past-producing Dusty Mac property in south-central British Columbia. During 1975-76, 93,650 tonnes of ore was mined by open pit methods from a shallow quartz breccia body, producing 19,000 oz. Au and 325,000 oz. Ag.

Ecstall recognized the geological similarities between Dusty Mac and the Republic Graben epithermal gold-silver deposits of northern Washington state and noted that narrow bonanza veins, which are the chief ore hosts in the Republic mining district, had not been targeted by previous exploration programs at Dusty Mac. Exploration below the top 50-100 m was limited and diamond drilling, which was predominantly inclined to the southwest, did not adequately test for any southwest-dipping feeder structures that might be present at Dusty Mac.

Diamond drilling was carried out during the period April 17 to May 16, 2003. Eight holes totaling 1,212.8 m were drilled. Most of the holes were inclined to the northeast to explore for deeper, southwest-dipping, bonanza feeder structures both beneath the Dusty Mac pit and nearby to the southeast and northwest. Two holes to the southeast of the pit did not reach bedrock and one very shallow hole to the northwest targeted only the near-surface extent of a mineralized outcrop. Selected intervals were sawed and samples were forwarded to ALS Chemex in North Vancouver for gold and silver analyses.

Hole 03-01A was successfully completed through deep overburden beneath a rancher's hayfield, approximately 300-400 m southeast of the pit. It was drilled to explore for extensions to some interesting quartz breccia zones encountered in two previous diamond drill holes. From 145.2-149.0 m, the hole cut a strongly silicified zone with sections of quartz breccia and 1-1.5% accompanying pyrite. The zone carried only low gold and silver values.

Holes 03-03 and 03-04 were drilled in the immediate Dusty Mac pit area to test for possible southwest-dipping, northwest-striking, high-grade feeder veins beneath the pit. Neither hole intersected a feeder vein. A possible structural complication, which may exist between the drill hole collars and the southwest edge of the pit, appears to have compromised drill hole targeting. In the lower portion of Hole 03-03, several sericite-pyrite alteration zones are spatially associated with elevated to anomalous gold values to 0.254 ppm.

Hole 03-05 was drilled approximately 300 m west-northwest of the pit. It was designed to test for the presence of possible gold-bearing structures in an area where two structural trends intersect. Although it did cut several altered and pyritic intervals, all contained only low gold and silver values. Higher in the hole, a one metre interval of heterolithic breccia containing 10% quartz fragments returned anomalous gold and silver values of 0.365 and 2.6 ppm respectively.

Holes 03-06 and 03-07 tested the sub-surface projection of a large outcrop containing zones of quartz veining and breccia about 100 m northwest of the Dusty Mac pit. The latter hole, which was collared directly on the mineralized outcrop and drilled to a depth of about 22 m, cut a 0.3 m interval from 3.2-3.5 m which assayed 1.585 ppm Au and 37.4 ppm Ag. Samples from Hole 03-06, a much deeper hole inclined to the northeast, returned consistently low gold and silver values from several silicified or chlorite-sericite-pyrite altered zones.

The conclusions and recommendations that follow in Sections 2.0 and 3.0 respectively pertain only to that portion of the property that was tested by the current drill program.

Total cost of the drilling program, including all support and report costs, was approximately \$200,000.

2.0 CONCLUSIONS

The approximately 1,200 m of drilling completed was only a partial test of the program's initial objectives. This can be attributed to three main factors: (1) substantial overburden depths (up to at least 88.5 metres vertically) encountered beneath a rancher's hayfield to the southeast of the Dusty Mac pit, which resulted in only one of two planned holes being completed to bedrock and continued to its planned total depth; (2) a possible down-dropped block of post-mineral clastic sediments to the immediate southwest of the Dusty Mac pit, which appears to have compromised drill hole targeting for the two holes collared in this area; and (3) unexpectedly high drillers' field rate and consumables charges, which decreased the cost effectiveness of the program and resulted in at least one hole less being drilled than planned.

With respect to (1) above, unless a practical solution to penetrating the deep overburden can be found, more effective and productive exploration might be carried out on other parts of the property, where nearer surface targets present less drilling difficulties.

With respect to (2) above, the inferred down-dropped block may have in the order of 250-300 m of displacement associated with it, resulting in a portion of the postulated southwest-dipping feeder vein being at a much lower elevation than anticipated.

The sericite-pyrite alteration zones with associated anomalous gold geochemistry near the bottom of Hole 03-03 may be indicating the presence of a second, sub-parallel feeder system at depth, at an elevation similar to that of the down-dropped portion of the postulated feeder vein to the Dusty Mac ore body.

One of the more prominent quartz breccia bodies present in the pit extends over a north-south distance of at least 60 m, appears to dip sub-vertically and may extend for an unknown distance beneath post-mineral cover rocks to the north. Its orientation is similar to a proliferation of minor north-south faults in the pit, and as well, its surface trace parallels several north-striking inferred faults which are shown to terminate at the south end of the pit. All of these structural features may be evidence of a larger north-south

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fault zone, the importance of which remains to be determined. Although it may not represent the main feeder to the shallowly-dipping breccia ore that was mined, its intersection with either northwest or west-northwest faults may have played a role in localizing mineralization.

RECOMMENDATIONS

The following work, all in the immediate pit area, is recommended:

3.0

- (1.) Prior to any further drilling in the pit area, detailed pit mapping and sampling be carried out to: (a) better define potential steeply-dipping feeder structures oriented in any direction that may warrant later drill testing; and (2) provide additional structural information that may assist in the resolution of the down-dropped block problem discussed above.
- (2.) Drill at least one inclined hole in an easterly direction to test for the possibility that feeder structures may be oriented more northerly, rather than northwesterly.
- (3.) Collar a hole on the northeast side of the pit, at or near the collar location of Hole DM-13. This proposed hole would be drilled to the southwest at an inclination of -45°, to a planned total depth of about 180 m. It would pass directly beneath the pit, scissor Hole 03-03 and bottom in andesitic feldspar porphyry flows and volcanic breccias similar to those encountered near the bottoms of Holes 03-03 and 85-1. If it encounters fine to coarse clastic strata roughly in the position as shown in Figure 9 in the main body of the report, and if such strata is in fault contact with structurally higher andesite feldspar porphyry (either of the fine or coarse plagioclase porphyry variety), then there may be sufficient confidence to carry out a test of the postulated feeder veins at depth.
- (4.) Pending the results of (1) through (3) above, a deeper test could be collared at or near the collar of Hole 03-03 and drilled steeply (for example, -70°) to the northeast to a depth of about 350 m. A shallower test of the near-surface segment of postulated Feeder Vein A (see Figure 9) should precede the deeper test. A steeply inclined hole collared near the southwest lip of the pit would adequately test the near surface segment.



3. U. Bower June 16/03. Section 7.3 briefly comments on quartz breccia bodies that remain exposed in the pit.

7.2 Interpretation of Section 03-03, DM-13 and 85-1

A summary of the salient geological features presented in Figure 9 is as follows:

- (1.) The stratigraphic sequence, from the lowermost Marama dacite unit in the lower part of Hole DM-13 to the uppermost heterolithic breccia unit in the top portions of all three holes, follows closely the description of local stratigraphy summarized in Section 5.3.1. In particular, the upwards progression of andesitic flows and volcanic breccias to coarse plagioclase porphyry to mudstone and wacke to heterolithic breccia seen in Hole 85-1 is very similar to that observed in Hole 03-03. Admittedly, in Hole 03-03, there is only one narrow, coarse plagioclase porphyry interval present, but importantly, it is in the same stratigraphic position as similar rock in Holes DM-13 and 85-1, and in the Dusty Mac pit.
- (2.) Given the stratigraphic similarities between Holes 03-03 and 85-1, it seems reasonable to conclude that the heterolithic breccia and mudstone and wacke units encountered in Holes 03-03 and the middle portion of DM-13 correlate with similar rocks mapped by Lewis (2003) on the northeast side of the Dusty Mac pit. If such is the case, then it appears that there is a down-dropped block of fine to coarse clastic strata lying between the collar of Hole 03-03 and the southwest edge of the pit.
- (3.) The location of the fault plane along which there would have been displacement in the order of 250-300 m is uncertain. Its placement along the Main Pit Fault seems unlikely, as this fault zone appears to sub-parallel the stratigraphy, at least as interpreted on the section. The logical choice for its placement is as shown, and that is at the base of a sequence of andesitic feldspar porphyry flows at a down-hole depth of about 150 m in Hole DM-13. However, at this depth in the hole, no fault zone is recorded in the Minnova drill log.
- (4.) The position of postulated, southwest-dipping feeder veins on the section, although highly speculative, is consistent with the structural model put forward by Lewis (2003), with modifications made to accommodate the possibility of a down-dropped block to the immediate southwest of the pit. Feeder Vein A, which near surface is shown to be truncated by the same fault responsible for the offset of local stratigraphy, may have been displaced to a much lower elevation as depicted in Figure 9. The presence and location of Feeder Vein B is based mainly on the alteration features and associated anomalous gold geochemistry encountered near the bottom of Hole 03-03

One suggestion is to consider collaring a hole on the northeast side of the pit, at or near the collar location of Hole DM-13. This proposed hole would be drilled to the southwest at an inclination of -45°, to a planned total depth of about 180 m. It would pass directly beneath the pit, scissor Hole 03-03 and bottom in andesitic feldspar porphyry flows and volcanic breccias similar to those encountered near the bottoms of Holes 03-03 and 85-1. If it encounters fine to coarse clastic strata roughly in the position as shown in Figure 9,

and if such strata is in fault contact with structurally higher andesite feldspar porphyry (either of the fine or coarse plagioclase porphyry variety), then their may be sufficient confidence to carry out a deeper test of postulated Feeder Veins A and B.

The deeper test could be collared at or near the collar of Hole 03-03 and drilled steeply (for example, -70°) to the northeast to a depth of about 350 m. A shallower test of the near-surface segment of postulated Feeder Vein A should precede the deeper test. A steeply inclined hole collared near the southwest lip of the pit is recommended.

7.3 Quartz Breccia Bodies in Pit

As mentioned in Section 5.3.2 and shown on Figure 3, one of the more prominent quartz breccia bodies present in the pit extends over a north-south distance of at least 60 m, appears to dip sub-vertically and may extend for an unknown distance beneath post-mineral cover rocks to the north. Its orientation is similar to a proliferation of minor north-south faults in the pit, and as well, its surface trace parallels several north-striking inferred faults (Evans, 1990a) which are shown to terminate at the south end of the pit. All of these structural features may be evidence of a larger north-south fault zone, the importance of which remains to be determined. Although it may not represent the main feeder to the shallowly-dipping breccia ore that was mined, its intersection with either northwest or west-northwest faults may have played a role in localizing mineralization.

Lewis (2003) did suggest that at least one drill hole be inclined to the east to test for the possibility that feeder structures may be oriented more northerly, rather than northwesterly. The writer concurs, but recommends that prior to any further drilling in the pit area, detailed pit mapping and sampling be carried out to better define potential steeply-dipping feeder structures oriented in *any* direction.



8 h Bow : 16/03 June 16/03