

February 23, 2017

Tim Cazier Colorado Division of Reclamation, Mining and Safety 1313 Sherman Street, Room 215 Denver, Colorado 80203

RE: Zephyr Gold USA Ltd (Zephyr) Dawson Gold Project P-2013-002 NOI Modification, Revision No. MD-3 Response to Second Notice of Deficiencies dated January 24, 2017

Dear Mr. Cazier,

On January 24, 2017, Environmental Alternatives Inc. (EAI) received the Division's Second Notice of Deficiencies for NOI Modification, Revision No. MD-3. Please accept this correspondence as response to deficiency items.

### Application

<u>Item No. III.12.F and G, pages 4 and 5 old Form 2.</u> Assuming the Division is referring to Item No. III.6 of new Form 2, New Roads and Total Project Area, Zephyr concurs with the Division that road width including road cut material is an average of 40 feet and accepts the subsequent increase of total project disturbance.

a. The proposed road length was revised to 7,150 linear feet (Figure 3) with approximately 540 ft. (0.5 acres) proposed on public land. Approximately 1,330 ft. of the bonded 1700 ft. of road has been constructed to date. The proposed maximum total disturbance for all exploration, performed to date and proposed, is approximately 7.8 acres.

Because the project is located in an area of Cathedral rock outcrop, the majority of the road cuts are stable rock faces. During reclamation, road cut material that was pushed onto the repose area during construction will be pulled from the slope, placed in the road cut using a 324DL excavator with a 60 ft. reach, compacted and shaped with the excavator bucket. The mountainside road scenario limits operating space for what would typically utilize multiple pieces of equipment to perform reclamation. The 324DL excavator was chosen not only for its reach capability but also for its maneuverability in tight situations (Figures 4, 5 and 6).

1107 Main Street, Cañon City, CO 81212 e-mail: eai@bresnan.net Phone: 719-275-8951

Environmental Alternatives Inc.

In consideration of the Division's concerns regarding slope and reclamation stabilization, Andy Jesik of Jesik Consulting visited the site on January 27, 2017. Some lengths of the mountain road cut through colluvium that has the potential to slide. The engineer's stability report and rock buttress design is enclosed. Approximately 175 feet of the current road cuts are displaying slide potential and erosion. Based on road construction to date, it is anticipated up to 1000 total linear feet of rock buttress will be constructed during reclamation.

- b. Page 7 of 14 of the new Form 2 is enclosed with the revised proposed new road length of up to 7,150 linear feet and total acres of disturbance for all activity of 7.8 acres. The total acres disturbed includes approximately 1.2 acres disturbed to date as 1330 linear feet of road (average width 40 ft.).
- c. The applicant's mailing address changed in late 2016. The new address is 1300-1959 Upper Water Street, Purdy's Wharf Tower 1, Halifax, Nova Scotia, Canada B3J 3N2.

### Agency Comments from US Bureau of Land Management dated January 25, 2017.

- The Figure 2 cross section provided in DRMS deficiency response dated January 9, 2017 is typical of all proposed roads in steep terrain. The referenced existing road north of the proposed road on BLM land is approximately 23% grade. The proposed road grade will be between 8% and 10% which will be less challenging to reclaim and safer for exploration personnel.
- 2. The total disturbance proposed on public lands is approximately 540 linear feet and approximately 40 feet wide, or 0.50 acres.
- As stated in Item 1, the proposed road on public land will provide a safer road to exploration sites on westwardly located patented claims. Other locations were considered but the 30% grade of the hillside does not provide an alternative that is less steep with less road cut.
- 4. Road cut material will be placed down slope at the angle of repose as presented on Figure 4. The material will be replaced on the road cut and contoured to the natural slope during reclamation. Photo 1 is the drill pad constructed in 2013 showing natural revegetation of the repose material. Photo 2 is the same drill pad from the road below illustrating the steep grade, natural revegetation success and minimal erosion.
- 5. No bulk material will be removed or has been removed to date. All testing is performed using drill core samples. Zephyr will submit the appropriate agency notifications in the event bulk sampling is necessary in the future.
- 6. As presented in Photo 1, exploration drillers use plastic tubs for mud cuttings and water storage. Mud pits have not been used and will not be used.

The proposed reclamation bond is presented in Table 1. Tasks 030 and 040 address the increased road width and recommended rock buttress for slide areas, respectively. Total proposed road is the sum of road lengths in Tasks 030 and 040.

Lastly, Zephyr intends to perform the required Rule 6.5 geotechnical investigation in this proposed disturbance in order to submit a complete application.

Thank you in advance for your time and attention. Please contact me directly with any questions.

Respectfully submitted,

Angela M. Bellantoni Ph.D.

Enclosures:

Figure 3: Proposed Exploration Roads Figure 4: Proposed Drill Road Typical Cross Section Figure 5: Proposed Drill Road Reclaimed Road Ballast Cross Section Figure 6: Proposed Drill Road Reclamation Jesik Consulting geotechnical memo New Form 2 page 7 of 14 Photos 1 and 2: 2016 Exploration Activity Table 1: Reclamation Cost Estimate Summary

Cc via email: Loren Komperdo Will Felderhof Dave Felderhof Stephanie Carter BLM













102-D Oneida Street Pueblo, Colorado 81004 (719) 582-5588 www.jesik.us

February 9, 2017

Loren Komperdo Zephyr Gold USA Ltd.

RE: Exploration Road Stabilization For Zephyr Gold Fremont County, Colorado

Project No: 17-7244

Dear Mr. Komperdo,

Andy Jesik of Jesik Consulting completed a site visit with Ms. Angela Bellantoni of Environmental Alternatives of the project site on January 27, 2017 to observe the existing exploration trails and their respective cuts. Cut heights are generally low with some extending up to approximately 8 feet in height with most of the cut areas extending through rock. No significant movement in the rock cuts are expected over time.

The areas of the road that do not extend through the rock generally cut through lenses of colluvium material underlain by rock. This colluvium does have a potential to slide along the rock contact in the cut areas due to the removal of the colluvium material. The colluvium generally consists of clay, silt, sand and angular cobbles up to 6 inches in diameter. No significant layering or separation of material types were observed within the colluvium and there were no signs of groundwater near the surface or in the cut areas.

To minimize colluvium/rock contact slippage a soil and rock buttress should be placed in the areas of the exploration trails that extend through the colluvium material. The rock buttresses should extend a minimum of 20 feet from each side of the colluvium material. An example rock buttress is shown on the attached Figure 1.

Sincerely,

Joseph A. Jesik, P.E Chief Engineer

Attachment A - Rock Buttress Figure





# E. Other Disturbances (please describe)

| F. Indicate Chemical store.                                          | ls and Fuels used or | stored on site. List t | ype, quantity an | d method to |  |  |  |
|----------------------------------------------------------------------|----------------------|------------------------|------------------|-------------|--|--|--|
|                                                                      |                      |                        |                  |             |  |  |  |
|                                                                      |                      |                        |                  |             |  |  |  |
| G. New Roads:<br>Significantly                                       | Length (ft):         | Up to 7150             | Width (ft):      | 40 average  |  |  |  |
| Upgraded Roads                                                       | Length (ft):         |                        | Width (ft):      |             |  |  |  |
| Are culverts or other crossings proposed? If so, please describe:    |                      |                        |                  |             |  |  |  |
|                                                                      |                      |                        |                  |             |  |  |  |
| H. Total project area to be disturbed (acres) Up to 7.8              |                      |                        |                  |             |  |  |  |
| I. Describe the equipment to be used for the prospecting operations: |                      |                        |                  |             |  |  |  |
|                                                                      |                      |                        |                  |             |  |  |  |
|                                                                      |                      |                        |                  |             |  |  |  |
|                                                                      |                      |                        |                  |             |  |  |  |
|                                                                      |                      |                        |                  |             |  |  |  |

Form 2 – Public File

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Photo 1: 2013 drill pad reused in 2016. Note natural revegetation of road surface, road cut material and road cut. Erosion channels are not present on the drill pad or road cut material. Drill cuttings are contained in plastic tubs



Photo 2: 2013 drill pad in Photo 1 viewed from exploration road below the drill pad. The steep slope and road cut material do not show signs of erosion and are naturally revegetating.

# Table 1: Reclamation Cost Estimate Summary

# RECLAMATION COST SUMMARY

Date: 2/22/2017 Permit No.: P-2013-002

Site: Dawson Gold Project

Description: Reclaim exploration activity

## DIRECT COSTS TASKLIST

| Description                                           |  |  |
|-------------------------------------------------------|--|--|
| Drill Hole Sealing/Abandonment                        |  |  |
| Grade 3 pads approximately 100 surrounding topography |  |  |
|                                                       |  |  |

| Task # | Description                                                                                                           | Task Hours | Cos | st        |
|--------|-----------------------------------------------------------------------------------------------------------------------|------------|-----|-----------|
| 010    | Drill Hole Sealing/Abandonment                                                                                        | 20 holes   | \$  | 35,192.00 |
| 020    | Grade 3 pads approximately 1000 sq. ft. to blend with surrounding topography                                          | 0.31       | \$  | 26.26     |
| 030    | Soil and rock buttress construction in slide areas -<br>approximately 1000 linear feet x 40' wide road<br>disturbance | 25         | \$  | 3,525.00  |
| 040    | Replace road cut material in 40'x 7,400' road disturbance                                                             | 155.4      | \$  | 20,357.40 |
| 050    | Revegetate 7.8 acres                                                                                                  | 14         | \$  | 6,090.00  |
| 060    | Mobilization and demobilization                                                                                       | 3.56       | \$  | 2,698.00  |
| 061    | Intra-site Mobilization and demobilization                                                                            | 1.66       | \$  | 2,069.00  |

**SUBTOTAL** \$ 69,957.66

## INDIRECT COSTS

OVERHEAD AND PROFIT

| Liability insurance:                             | 2.02% | \$<br>1,413.14  |
|--------------------------------------------------|-------|-----------------|
| Performance bond:                                | 1.05% | \$<br>734.56    |
| Job superintendent                               | 26.24 | \$<br>1,972.20  |
| Profit: 10%                                      |       | \$<br>6,995.77  |
| CONTRACT AMOUNT (DIRECT AND O&P)                 |       | \$<br>81,073.32 |
| LEGAL-ENGINEERING-PROJECT MANAGEMENT             |       |                 |
| Engineering work and/or contract/bid preparation | 0.00% | \$<br>-         |
| Reclamation management and/or administration     | 5.00% | \$<br>4,053.67  |
|                                                  |       |                 |

**TOTAL BOND AMOUNT** \$ 85,126.99