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September 2, 2004

Mr. Mack G. Croft 10562 N. 6250 W. Highland, UT 84003

RE:

Johnson Pass Quadrangle Tooele County, Utah

Geologic Mapping Project, Contract #98-0116

## Mack:

Don Clark and I have met and decided how we will handle the Johnson Pass quadrangle geologic mapping project. As you know, we have had recent discussions regarding the differences between the adjacent 1:24,000-scale mapping of the Johnson Pass (south) and Deseret Peak East (north) quadrangles.

In order to sort out these differences, Don Clark conducted a review of the maps, did significant background research, discussed the mapping with other UGS staff, met with you and Dr. Jim Evans, and conducted several days of fieldwork along the border of the quadrangles.

Our conclusion is that your map constitutes a significant improvement over previous maps of the quadrangle. However, a fair amount of work is still needed before it can be open-filed and published. Perhaps most significant are: (1) the border match - there are too many units and contacts that don't match across the border with Deseret Peak East. After Don's field checks, it is evident that problems exist in both quadrangles. We feel that significant detailed field mapping needs to be done all along the border area of the two quadrangles, (2) Don also noted questions with some of the structures that need more detailed field mapping to more accurately place the structures and to resolve discrepancies between folds and faults, (3) we would like to see more detail in some of the surficial deposits, and (4) some of the contacts don't fit the base map as precisely as they should (V- over ridges and washes, and follow topographic contours where they should).

We have met with Jim Evans and he has agreed to do additional field mapping in his quadrangle. That leaves the question of how to finish Johnson Pass. We recognize that you probably can't do the needed additional field mapping in the extremely rugged



terrain. In addition, we may need to bring in a Quaternary expert to resolve some of the questions with the surficial deposits. Considering these facts, we think the best solution is to set your map aside for a few years. The 1:100,000 Rush Valley 30'x60'quadrangle that contains the Johnson Pass quad will be one of our top priority projects in a just a few years. At that time, we will have the personnel, budget, and time to conduct the detailed mapping that is needed to resolve the remaining problems and complete your map. We would work to open-file and publish the quadrangle with you as a coauthor. Although we consider this an unfortunate delay, we would like to emphasize that your mapping has immediate value. It will be a key part of the 1:100,000 mapping, and we will make it available to any workers in the area (we expect to see additional Utah State students working in the area). In any case, we will make sure you receive proper credit for your efforts on Johnson Pass.

We thank you for your time and commitment to this project, and for your assistance with evaluation of the work. Hopefully, you will find this plan acceptable. Your map will be a key part of future mapping of the area.

Sincerely,

Grant C. Willis

Geologic Mapping Program Manager

cc:

Donald Clark

Bob Biek, Asst Program Manager

Grant's file on Johnson Pass