

FAX MEMO:

January 20, 2002

TO: Mr. Todd Franssen (303-833-3613)

FROM: P. Brock Williams, Ph.D.

RE: Testing of bacterial survival with composition under simulated conditions

Dear Mr. Franssen:

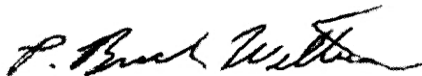
As you are aware we have been examining the survival of bacteria with your composition under a number of different conditions. In brief, we have sterilized soil, made it 26% moisture content added crude oil, and your composition at 16mg/gm of dirt. This was then incubated at various temperatures for two days and the mixtures were plated out and enumerated.

Our preliminary results indicated no difference in the number of bacteria recovered when the mixture was incubated at room temperature and at 4 degrees centigrade for two days. When this experience was repeated at **minus -20 degrees** Celsius the number of bacteria was significantly diminished but still plentiful. These experiments were performed in duplicate with similar results. In addition, the material with the added bacteria again had very **good survival at -20° C** but were **destroyed at -70° C**.

The survival under these later conditions was quite surprising to us and is our first indication that your composition may be responsible for this enhanced survival.

There are of course a number of different controls and further experiments to verify these findings but the preliminary experiments are quite promising for your proposed application.

Best regards,



P. Brock Williams, Ph.D.