



BAKER-SHIFLETT, Inc.

Geotechnical, GeoEnvironmental, Engineering Geology, Construction Materials

Engineers

February 26, 1991
Project No. 902845

Mr. Steve Merritt
Roadbond Service Company
P.O. Box 1355
Weatherford, Texas 76086

Re: Preliminary Laboratory Testing with EN-1

Steve:

Attached is a technical summary of preliminary laboratory testing using EN-1 water as a wetting agent. The actual fluid used for testing was the diluted product you provided to our office.

As we have previously transmitted to you, two soil samples were tested by ASTM D 698, standard Proctor moisture-density relationship. The soil sample labeled JC-1 yielded essentially the same results when varying the wetting agent from top water to EN-1 (diluted) as was also the case for the sample labeled JC-2.

In an attempt to monitor the effect of EN-1 upon the remolded strength of a particular soil, a modified bearing ratio test has been performed. These tests should be considered as preliminary since an extensive test series which would substantiate repeatability, has not been performed. Although the test procedure was formatted from ASTM D 1883, California Bearing Ratio, the remolded samples were sealed but not submerged, and allowed to cure for 21 days after remolding, before the resistance to penetration test was performed. These two variations were used based upon your comments that the material needed about 3 weeks to significantly increase in strength, and should not be submerged in water. We could follow ASTM D 1886 completely on subsequent tests.

A detailed description of the procedures is attached. The results to note are:

- 50% strength increase at 0.1-inch penetration;
 - 37% strength increase at 0.2-inch penetration; and
 - 25% strength increase at 0.3-inch penetration,
- when considering the average values of each pair of samples.

Mr. Steve Merritt
February 26, 1991
Page 2

Although of preliminary nature, we trust this data will be of some benefit.

Sincerely,

BAKER-SHIFLETT, INC.

A handwritten signature in cursive script that reads "Michael M. Shiflett". The signature is written in black ink and is positioned above the printed name.

Michael M. Shiflett, P.E.

MMS/kh

Attachments:

Modified Bearing Ratio Test Notes (A.1 - A.5)
JC-1 and JC-2 Proctors (A.6 - A.9)