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November 30, 2009

Tumila, LLC  
3250 Old Murfreesboro Road  
Lebanon, TN

Re: **Field Observations**  
**Tumila Dam**  
**TTL Project No. 25111**

Gentlemen,

In response to your requests representatives of TTL, Inc. visited the above referenced site on various days to monitor construction activities associated with the re-construction of the earthen dam. Initial activities included the excavation of a "keyway" into the underlying bedrock. The keyway was extended to a depth of about 20 feet in order to penetrate the weathered bedrock, and measured approximately 24 feet in width. Clayey fill material was placed and compacted to construct the embankment. The clay fill was placed in 8 inch loose lifts and subsequently compacted. Nuclear density tests were used to determine compaction percentages of each lift in accordance with ASTM D-6938. Compaction criteria required at least 95 percent of the soil maximum dry density as determined by (ASTM D-698) standard Proctor.

During the construction, a 30 inch ductile iron drawdown pipe was installed; anti-seep collars were formed around the pipe and soil fill was placed and compacted. In order to control any seepage through the earthen dam, toe drains were installed to discharge water at the downstream base of the dam.

In our opinion, the construction process was performed in general accordance with standard procedures. All daily test reports are on file at our Nashville, Tennessee office.

We trust that this letter meets your immediate needs. If you have any questions or require additional information at this time, please do not hesitate to contact us.

Sincerely,  
TTL, Inc

  
Daniel D. Terranova, PE  
Vice-President

