



ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY

MEMORANDUM

**TO:** Caleb Osborne, Associate Director, Office of Water Quality 

**COPY:** Harbor Environmental and Safety, Inc.

**FROM:** Bob Blanz, P.E., Ph.D.; Acting Sr. Operations Manager, Office of Water Quality 

**SUBJECT:** Change of parameters for the C&H Hog Farm Drilling Study Work Plan

**DATE:** September 20, 2016

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Following discussions with Lessie Radican, Senior Manager, Technical Services (ADEQ Laboratory) it became apparent that Nitrates should be replaced with Total Nitrogen (TN) as a more appropriate surrogate to compare waste lagoon water with any subsurface water encountered during the drilling operation (Table 2.1 in the Drilling Study Work Plan).

The waste lagoons at C&H were sampled on July 27, 2016 and NO<sub>3</sub>-N was reported as <50.0 mg/L in the lagoons. Total Nitrogen was present at levels of 1,710 to 4,900 mg/L in earlier BCRET data taken on May 27, 2016.

Based on literature values and the above mentioned factors, it is my recommendation that a field change be made to the sampling and analysis plan to replace Nitrates as an AOI (Analyte of Interest) with Total Nitrogen in Table 2.1. This change also reduces the time crunch that was going to be needed to take the samples, return them to North Little Rock, prepare for analysis, and complete the analysis for nitrates within the 48 hour holding time.