

## Hogelin, Thomas G.

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**From:** Dave Nicholson <dknicholson@q.com>  
**Sent:** Friday, April 21, 2017 1:07 PM  
**To:** Thomas Hogelin  
**Cc:** Derek Johnson  
**Subject:** Evaluation of Nutrient Levels in Long Ridge J-15 and M-15 landfarms

Tom

The lab report for the nutrients for the Long Ridge J-15 and M-15 landfarms shows that nitrate is present in excess (and possibly toxic) concentrations at both sites, indicating that considerable nitrate is being formed due to nitrification processes. TOC, ortho-phosphate, and potassium are also present in excess amounts at both sites.

For the LR J-15, ammonia was not detected, but nitrate is at 206 mg/kg. Nitrate levels above 30 mg/kg are considered to be excessive. Ortho-phosphate is present at 70.3 mg/kg, or about 3.5 times the ideal concentration of 20 mg/kg. The ratio of organic carbon, nitrogen, and phosphorous is 714:10:3.4., indicating a good ratio between nitrogen and phosphorous. For the LR M-15, ammonia is present at 8.30 mg/kg and nitrate is at 142 mg/kg. Ortho-phosphate is present at 37.4 mg/kg, or about 1.9 times the ideal concentration. The ratio of organic carbon, nitrogen, and phosphorous is 1,180:10:2.5., indicating a decent ratio between nitrogen and phosphorous.

No fertilizer should be applied to either landfarm this year. Fulvic/humic acid may help nutrient bioavailability as we have discussed.

Dave

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