Preliminary Data Assessment of the New Albany Shale in the KGS #1 Blan Well, Hancock County

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Gas Show on Mud Log
Bioturbation
@ 1886.5
X-Ray Diffraction Mineralogy

Clays
Pyrite
Quartz
Carbonate
Other

- Illite (46%)
- Mixed Layer (1%)

- 47% Clays
- 32% Quartz
- 13% Other
- 6% Mixed Layer
- 2% Carbonate
Devonian Shale of Kentucky (networked version)

Shale Identification
WELL: 16091013960000 (233 samples)

RhoMax = 2.62
(Schmoker)

GR = (-1.297 62713235)*RHOB + 3386.124
Corr=-0.750
StdErr=68.0513
Median TOC from core = Median Adjusted TOC
Devonian Shale of Kentucky (networked version)

Mean TOC 7.8%

TOC = 55.822*((2.748/RhoB)-1)
Storage Calculations

• Preliminary
  – 10% storage efficiency
  – 181 tons CO$_2$ per acre
Observations

• CO$_2$ storage appears possible

• Major regional seal
  – Low permeability ($<\mu$d)
  – Adsorb CO$_2$ migrating from lower storage zones

• Shale gas possibility (+/-)
  – Gas show on mud log
  – Good gas saturations, TOC, low maturity
  – Horizontal completions