



Shenandoah County LFG Project

Status Report to Board of Supervisors
May 13, 2014





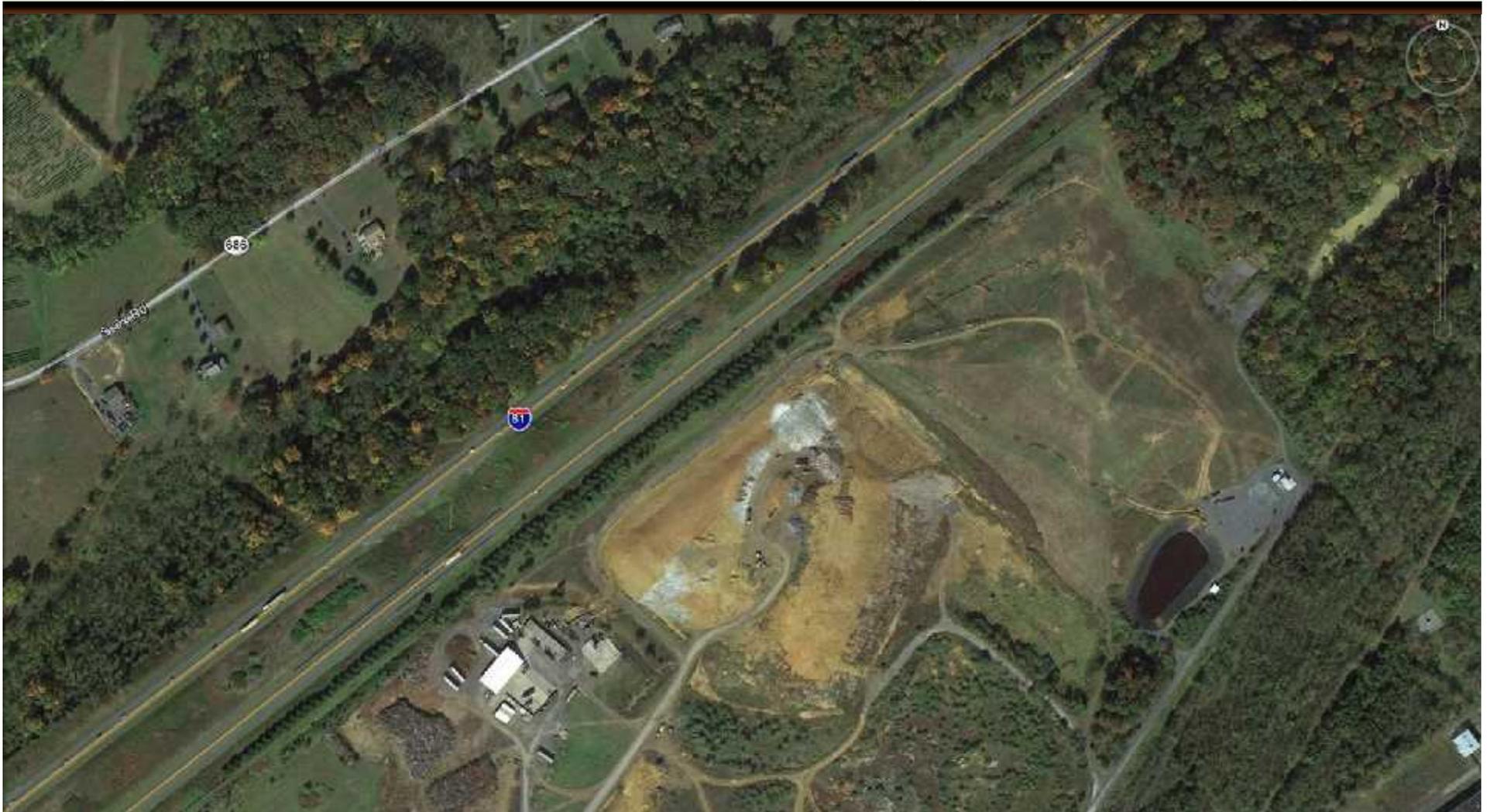
Shenandoah County LFG Project

- ▶ JOYCE Contracted with the County to:
 - Develop a Landfill Gas Collection & Control (GCCS)
 - Develop potential Gas to Energy Project for County
- ▶ GCCS System Designed and Installed
 - Utilized County Resources – Reduce Costs
 - Installation Completed – November 2013
- ▶ Support for Gas Migration Problem
 - Provided Assistance as Requested





Shenandoah County LFG Project





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- ▶ **County Led Construction Effort**
 - 30 Wells/Cleanouts are Attached to System
 - Condensate Removal System (Pumps/Pipes/Air)
 - Almost 8,000 LF of Pipe Installed
 - Brad Dellinger and Staff Self Performed Significant Portion of Project
 - Saved the County Over \$300,000
- ▶ **Challenges Overcome**
 - Coordination for Final Construction Effort (Skid/Harvest (Pipe)/Electrical/Etc.)
 - Weather Delays
 - Air Compressor – Warranty Issues



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▶ Balance System to Optimize Gas Quality & Quantity

Current Balancing System to Clean up Boundary Probes

Connected to 5 Soil Vents Between Landfill and Boundary

Sporadic Improvements Observed in Probes

Gas Quality Reduced Due to Soil Vent Impact

Not Optimizing Gas Quality Until Facility is in Compliance

Currently Unable to Define Schedule





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- ▶ **Anticipated System Operation:**

 - Pro forma Developed - 250 scfm

 - Pump Tests - Approximately 300 scfm

 - Currently ranging between 300 - 400 scfm

 - Percent Methane - Predicted 45%; Currently 40%

- ▶ **After Compliance Attained**

 - Balance System to Optimize Quantity/Quality of LFG

 - Finalize Pro forma on Gas to Energy Project Options



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Comments or Questions

