

13053

**SCS ENGINEERS**

June 1, 2010  
File No. 02199312.02-8

Mr. Lee Squires, P.E.  
Facility Manager  
Wake County Solid Waste Management Division  
PO Box 550  
Raleigh, NC 27602



Subject: Landfill Gas Monitoring Probe Installation – March 25, 2010  
North Wake County Landfill – Raleigh, North Carolina

Dear Lee:

SCS Engineers, PC (SCS) is pleased to present the attached record documentation for the landfill gas (LFG) monitoring probe installed at the North Wake County Landfill (Solid Waste Permit No. 92-09). On March 25, 2010, Quantex Well Drilling installed one LFG monitoring probe along the north boundary of the Unlined Closed Cell at the subject site. The LFG monitoring probe was installed in accordance with NCDENR's e-mail correspondence to Wake County, dated 2/9/10. The probe will be used to monitor subsurface LFG characteristics and pressure at the Facility Permit Boundary adjacent to the Unlined Closed Cell.

The new probe identified as M-3R serves as a replacement for probe M-3, which has remained out of compliance for the past three (3) quarterly probe monitoring events. The new probe M-3R was relocated to the northwest to be between the LFG perimeter migration control system and the facility boundary chain-link fence as compared to the location of the former probe M-3, between the Unlined Landfill and the LFG perimeter migration control system. This LFG monitoring probe is being incorporated into the LFG monitoring network and effectively replaces M-3, which will remain for informational purposes.

The as-built location for LFG monitoring probe M-3R was surveyed by Taylor, Wiseman, and Taylor (TWT) on 4/9/10, and the table developed by TWT presenting the coordinates and elevations for this probe is attached. Also, the well construction diagram prepared by SCS for the new LFG monitoring probe is attached. A drawing of the surveyed as-built location for the LFG monitoring probe based on the TWT survey data is also included.



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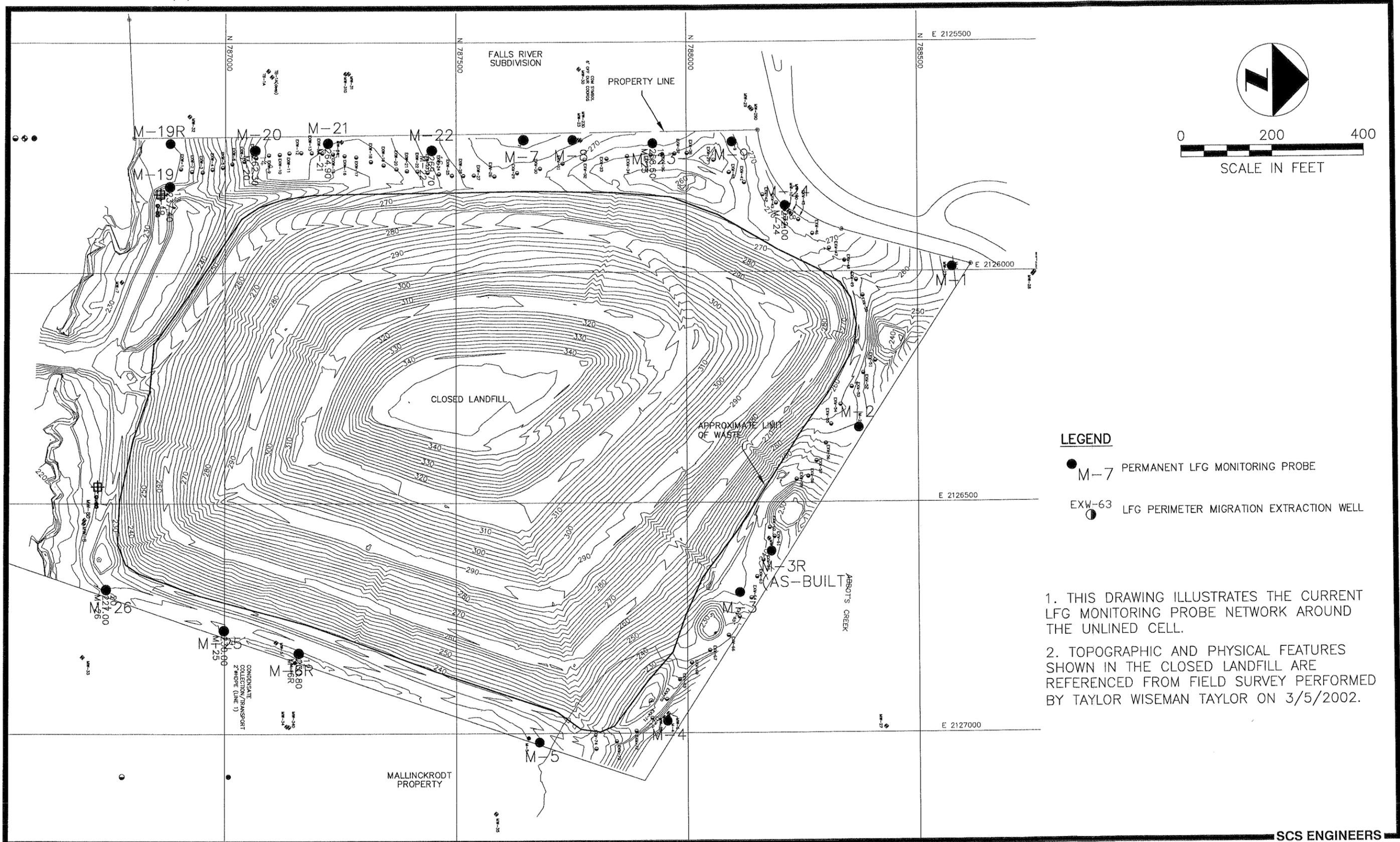
Environmental Consultants  
 15521 Midlothian Turnpike  
 Suite 305  
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 804 378-7440 FAX 804 378-7433

**NORTH WAKE COUNTY LANDFILL**  
**RALEIGH, NC**  
 Project No. 02199312.02-8

**LFG MONITORING WELL**  
**M-3R**  
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BORING LOG		SAMPLES	RECOVERED	PID	GROUNDWATER	USCS	DESCRIPTION	REMARKS
Depth in Feet								
+1	Steel Cover							
0	Concrete							
-1								
-2	Bentonite							
-3							Mostly yellow silty sand (0-20 feet). No bedrock encountered.	
-4								
-5								
-6								
-7								
-8								
-9								
-10								
-11	Washed Aggregate							
-12								
-13								
-14								
-15	Perf. PVC (15 ft. total)							
-16								
-17								
-18								
-19								
-20								Terminated at 20 feet
-21								Depth to water not encountered.
-22								
-23								
-24								
-25								
-26								
-27								
-28								
-29								
-30								
-31								
-32								
-33								
-34								
-35								

Drilling Company:	Quantex Well Drilling	Date Started:	3/25/2010	Time Started:	NA
Drilling Method:	Hollow Stem Auger	Date Ended:	3/25/2010	Time Ended:	NA
Logged By:	B. King	Boring Diameter:	7-inch	Elevation:	235.15 feet
		Well Diameter:	1.0-inch	Total Depth:	20.0 feet
		Casing Material:	SCH 40 PVC		



**LEGEND**

- M-7 PERMANENT LFG MONITORING PROBE
- EXW-63 LFG PERIMETER MIGRATION EXTRACTION WELL

1. THIS DRAWING ILLUSTRATES THE CURRENT LFG MONITORING PROBE NETWORK AROUND THE UNLINED CELL.

2. TOPOGRAPHIC AND PHYSICAL FEATURES SHOWN IN THE CLOSED LANDFILL ARE REFERENCED FROM FIELD SURVEY PERFORMED BY TAYLOR WISEMAN TAYLOR ON 3/5/2002.

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DRAWING 1 - LFG MONITORING PROBE NETWORK - CLOSED CELL - NORTH WAKE COUNTY LANDFILL (SOLID WASTE PERMIT NO. 92-09) - RALEIGH, NC