KEY STEPS IN RESPONDING TO THE 2016 SINKHOLE

Mosaic Fertilizer is taking steps above ground and below to respond to the sinkhole that formed at its New Wales facility in September 2016.

Since the sinkhole,
Mosaic Fertilizer has pumped from the Floridan aquifer using a groundwater well to recover impacted groundwater. Mosaic Fertilizer also constructed a standby recovery well which will operate, if needed.

RECOVERY WELL DIMENSIONS:

- **RECOVERY WELL**
  - **OPERATION**
  - **RECOVERY WELL**
  - **OPERATION**

Mosaic Fertilizer built a circular working foundation around the sinkhole.

Mosaic Fertilizer stockpiled phosphogypsum and compacted it to create a solid, stable work area for foot and heavy mobile equipment traffic.

Much like the foundation of a house, the work pad is flat, strong and supports weight and movement on top of it.

APPROXIMATELY 750,000 CUBIC YARDS OF PHOSPHOGYPSUM have been moved to improve access to the gypstack and prepare its surface for heavy equipment use.

PREPARING THE GYPSTACK FOR SINKHOLE REPAIRS

During stabilization grouting, Mosaic Fertilizer deposited grout in the base of the sinkhole cavity to stabilize the area in which Mosaic Fertilizer subsequently will inject high pressure cement-grout mix.

Mosaic Fertilizer then will drill multiple angled holes to different depths. These holes will allow Mosaic Fertilizer to inject the cement-grout mixture to plug the base of the sinkhole. When those efforts are complete, monitoring instruments will confirm changes to water levels in the gypstack. Increasing levels will indicate that the sinkhole has been repaired successfully.

TECHNOLOGY & SAFETY

Mosaic Fertilizer has employed new technologies, such as a light detection and ranging system (LiDAR) to measure the size of the sinkhole and to monitor our repair efforts.

That also allowed Mosaic Fertilizer to define a safety perimeter atop the gypstack.

The safety perimeter is 150 feet beyond the cavity’s circumference.

APPROXIMATELY 750,000 CUBIC YARDS OF PHOSPHOGYPSUM have been moved to improve access to the gypstack and prepare its surface for heavy equipment use.

REPAIRING THE SINKHOLE

Following the sinkhole formation, Mosaic Fertilizer started testing water in residents’ wells, looking for impacts to well water related to the sinkhole.

More than 1,000 well tests have been conducted either by Mosaic Fertilizer (in conjunction with Environmental Consulting & Technology) or the Florida Department of Environmental Protection (DEP). All results show that private drinking water wells have not been impacted by the sinkhole.

WELL TESTS & MONITORING

- **WELL TESTS & MONITORING**
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SINKHOLE CAVITY CIRCUMFERENCE

- 150 feet
- 150 feet

LiDAR

Mapping

The safety perimeter is 150 feet beyond the cavity’s circumference.

INCHES IN DIAMETER

FEET IN DEPTH

(APPROXIMATE)