

Daily Report 11/12/13

Tetra Tech

<u>Directive #1 – Indoor Air</u>

- Draft Concept Plan for phased approach to indoor air monitoring plus installation of alarm systems and ventilation systems was submitted to DNR on 12/13/12 for comments; the detailed Work Plan was submitted to DNR on 1/14/13 for comments.
- Installed one set of detectors at a residence. The new totals: 98 sets at 45 locations. No positive alarms have occurred to date for either % LEL or H2S.
- A total of ten monitoring pairs and associated transmitters have been provided to Assumption Parish, at their request.
- Continued monthly monitor calibration.
- Completed visual inspection and maintenance of the under slab ventilation systems. Liquids found in the systems were removed and transported to the TBC frac tank.
- Researched options for back up of the in-home monitoring systems. Cloud server option is unsuitable; currently considering Blu-Ray technology.

Plan for today:

- Continue monthly monitor calibration.
- Continue indoor air screening.
- Continue in-home air monitoring of TBC properties.
- Monitor ventilation systems.

Directive #2 – Additional Relief Wells and Directive #3 – Overall Plan

- Met with DNR/Shaw on 1/24/13; reached agreement on well designs.
- Radius of Influence (ROI) wells are installed at well pads ORW-5 & ORW-9.
- The field portion of ROI testing was completed July 21st. Report is being finalized.
- Completed daily ORW well data collection.
- WHE mobilized a second, track-mounted sonic rig to the site; set up on MRAA-05 pad and set casing to 80' for the deep well.

Plan for Today:

- Complete daily ORW well data collection.
- WHE mobilize to PMW-18 (Triche property).



Directive #4 – Operation of All Wells

- Flares #2, #3, #4, #5, and #6 are operating. One additional flare, and a trailer-mounted backup flare, are available as needed. TBC Flare #1 will require insulation repair prior to being put into service.
- Well work overs are ongoing for all low-producing and non-flowing wells.
- Barton meters have been installed on flowing wells; performed routine maintenance.
- Performed daily flare operation and maintenance.
- Performed daily relief well operation and maintenance.
- Performed pilot testing at ORW-40. Removed pump and reset it at 30'. Adjusted flow rate to maintain approximately 30' of water in the tubing, and minimize pressure in the tubing. By end of shift, well head pressure was 22.0 psi; water level at 29.31 feet.
- Rock's Trucking used limestone from the stockpile to build an access road on the east side of OGRW-1, from the pad-3 access road to the east containment berm at the southwest corner of the GEO-1 pad. Also placed additional limestone at east/south berm intersection to allow greater turning radius. Limestone was also placed in front of PMW-12-S, PMW-12-M and ORW-42 for safe access during wet conditions.
- Started Baker pumps to continue transferring water into the containment area.

Plan for Today:

- Perform daily flare, Barton meter, generator, and compressor maintenance.
- Continue pilot test at ORW-40.
- Dewater ORW-10.
- Rock's Trucking to work on access road on the Triche property: remove board mats and complete a limestone road.

Directive #5 – Sinkhole Containment

- Submitted Joint Application to OCM and COE, which included sinkhole containment design and additional ORW wells, on 2/14/13.
- Initial containment of the sinkhole area was completed.
- A pre-construction meeting was held on-site on March 27th for TBC and contractors.
- Construction of the containment system began April 1st.
- The current configuration of the sinkhole containment system is completed.
- Inspected the south berm: noted evidence of continued subsidence.
- Miller Engineers surveyed settlement plates.
- Programmed the Level Troll 300 transducer and worked with Miller Engineering to gather pressure data from three locations in the sinkhole. Readings were obtained at 180, 167, 145, 100



and 50 foot elevations. Observed/assisted in obtaining wire line elevations of the depth of the sink hole (3 locations); noted elevations of 145', 205' and 207'.

Plan for Today

• Inspect cracks on the south berm.