

Former ExxonMobil Chemicals Shawnee Films Site

(9/30/2016)

Location: 41501 Wolverine Road, Shawnee OK (a/k/a 555 E Wolverine St.)

Background: Manufacturer of plastic composite films. Contaminated soil was found in 1984 when removing a solvent UST. Facility is now owned and operated by Jindal Films.

Air: No known air quality concerns.

Soil: Soil visibly contaminated with 1,1,1-Trichloroethane (1,1,1-TCA) was found when removing a solvent tank in 1984. Much of the contaminated soil was removed as an Interim Measure (IM) in 2009, but contaminated soil was left in place under the facility building, under resin silos, and under a utility corridor between the plant and the chillers to the east.

Surface Water: Two intermittent streams, one north of the facility building and the other to the south, both drain feed an unnamed intermittent stream draining to the northeast, which feeds Rock Creek two miles to the east. The one north of the facility building has been dammed to form a pond. Dissolved solvents have been observed in small pools that occasionally form in the streambeds. This is thought to be associated with a high perched water table.

Groundwater: Perched groundwater contains the chlorinated (CVOC) compounds 1,1,1-TCA, Tetrachloroethene, Trichloroethene, 1,1-Dichloroethane, 1,1-Dichloroethene and Vinyl Chloride (respectively PCE, TCE, 1,1-DCA, 1,1-DCE and VC) as well as 1,4-Dioxane.

The distribution of degradation products 1,1-DCA, 1,1-DCE and VC suggest the 1,1,1-TCA, PCE and TCE may be attenuating naturally in the perched groundwater. The 1,4-Dioxane, historically used as a stabilizer for 1,1,1-TCA, is not attenuating but is thought to be delineated in the perched ground water on site.

A plan for long term monitoring of the perched zone and additional sampling of wells installed in a deeper zone, part of the Oscar Group, was approved and ongoing.

Private/Public Wells: Oklahoma Water Resources Board shows seven wells within 0.5 miles of the site. These appear to be screened in the Oscar Group. In addition, two Wellhead Protection Areas exist northeast of the site, approximately 1.0 and 1.5 miles away, respectively.

Vapor Intrusion to Indoor Air: Not addressed. Large, high ceiling, industrial buildings.

Key Questions:

- **Have all known groundwater contaminant plumes been adequately evaluated and delineated?** Yes, but only in the shallow, perched aquifer. The deep zone is still being evaluated.

- **Has the site been sampled for an adequate list of analytes?** Yes
- **Does soil or waste need to be cleaned up?** Potentially. Accessible contaminated soil has been cleaned up, but contaminated soil covered by plant building or silos, or too close to underground power and cooling water lines, has been left in place.
- **Has the surface water been sampled?** Yes.
- **Has soil at the site been cleaned up to levels protective of groundwater?** No.