

SP202000006 Ivy Exxon
Attachment 4
Information provided by DEQ

The following information has been provided by Todd Pitsenberger, Petroleum and Pollution Response Program Manager, Virginia Department of Environmental Quality - Valley Regional Office. Staff's questions to Mr. Pitsenberger are followed by Mr. Pitsenberger's responses:

1. Staff question: The BTEX study for Scott's Ivy Exxon was done before the large flood in May 2018. How did that flood impact contamination of surrounding property? Did that flood threaten area wells and future well sites and drainage fields?

Response: The flood would not be expected to have significantly impacted petroleum contamination migration or concentrations in that area. The petroleum plume is deep and still there, but concentrations have decreased as the contaminants continue to dissolve. There are two components to the petroleum contamination at these two sites (Toddsbury of Ivy and Ivy Exxon) - a shallow dissolved-phase groundwater plume approx. 10-20 feet below grade (fbg), and a deeper dissolved-phase plume approx. 80-90 fbg. Concentrations have steadily decreased since the releases at both sites were discovered due to substantial corrective action efforts at the Toddsbury site and natural attenuation at both sites.

Scott's Ivy Exxon was recently sampled around the new year Dec 2019/Jan 2020.
- Sampled February 13, 2020.

2. Staff question: How should members of the community proceed if they are concerned that their wells are now contaminated as a result of the May 2018 flood?

Response: DEQ would want to know if the well is contaminated with petroleum or E.coli or some other contaminant. You indicated on the call that a resident in the area had contacted someone with the County to report their well has become "impacted" as a result of the flood in 2018. I indicated to you that I believe DEQ is unaware of that impact at this point. If it is petroleum hydrocarbon related, I would certainly want to know and could possibly offer carbon filtration to the owner as a temporary fix until the source of the contamination is confirmed and a permanent alternate water supply can be developed.

As of now, DEQ is not aware of new supply wells that have been impacted by petroleum contamination in this area; actually three of the four wells impacted in the vicinity of the Toddsbury and Exxon sites have improved to the point that carbon filtration systems are no longer needed. The four impacted wells were located at 4226, 4260, 4282, and 4297 Ivy Road. The well at 4260 (which is a shared well serving the Exxon and a rental residence behind the station) is the only one still receiving carbon treatment at this point. If wells have been found to have petroleum contamination, DEQ can provide well owners with carbon filtration systems.

3. Staff question: Does DEQ have additional information on the leaking underground storage tank on the Toddsbury site (TMP 58A2-13)?

Response: This case has been closed. The release was found to no longer present a risk to the environment or existing users (i.e. drinking water supply wells or Little Ivy Creek or its tributaries). Case closure memo summarizing the case history, characterization, and risk assessment is attached.

4. Staff question: Given that the proposed expansion is for additional service bays only, does the expansion have any effect on the existing underground storage tank issues? The applicant estimates an additional five (5) cars would be serviced per day, which based on VA state code is about 50 gallons per day additional water usage. There is no proposed change in the number of employees.

Response: I would not anticipate the planned expansion project having any effect on the existing UST system or the groundwater contamination situation. I would not anticipate the relatively minimal expected increase in water usage to create any concerns regarding the migration or continued natural attenuation of the existing groundwater contamination.

5. Staff question: What is the typical process for reporting groundwater contamination concerns to DEQ, and DEQ's process to respond to those concerns?

Response: Typical DEQ Process for Groundwater Contaminants:

- A concern is reported
- DEQ looks into the concern
- Once the source is identified, the property owner of the "source" is responsible for assessing the risk and mitigating/cleaning
- Since contamination is below ground, DEQ using borings that serve as monitoring wells to test laterally and vertically to provide a best guess picture of ground contaminates and to characterize the extent of the plume, without impacting the site too much or unnecessarily
- DEQ doesn't have the authority to drill wells if a site is not known to be contaminated. That due diligence responsibility is left to the buyer and developer. This point is really about what DEQ requires a Responsible Party (RP) to assess and consider with regard to risk to sensitive receptors when characterizing the extent and risk of a petroleum release. DEQ does have the authority to require an RP to install wells on sites not known to be contaminated for the purpose of characterizing a release, but DEQ does not require RPs to consider the future use of a property that is currently undeveloped and/or does not have a sensitive receptor (i.e. supply well, vapor receptor such as a utility or basement, pond, etc) at the time of the characterization. So in the Ivy cases, the RPs for their respective releases at Toddsbury and the Exxon were tasked with assessing risk to the supply wells, basements, utilities, and the stream which existed when they were investigating their releases, and were not tasked with assessing the risk to the undeveloped property which you are currently considering or any other properties in the vicinity that do not have sensitive human or environmental receptors.