



## TOWN OF OAK BLUFFS, MA PLANNING BOARD

P.O. Box 1327  
Oak Bluffs, MA 02557  
Ph. 508-693-3554 X117 Fax 508-693-5375

January 26, 2021

Adam Turner  
Martha's Vineyard Commission  
P.O. Box 1447  
Oak Bluffs, MA 02557

### **Referring to December 16, 2020 Letter**

Dear Adam,

I've already expressed concern about initiating public hearings without establishing clear expectations and limits around PFAS standards. Now I also have some questions about the first round of test results.

### **Chain of Custody**

1. From where were the GreenFields, Brock, and glue samples sent? The sample location is identified as "Edgartown."
2. Where is the paperwork showing they were sent as brand new products directly from the manufacturer and that they are the exact products proposed for the Vineyard?
3. Are there missing Chain of Custody forms? I see 1 of 1, 2 of 2 and 3 of 3. Where are 1 of 2 and 1 and 2 of 3?

### **Samples**

4. There are no weights or sample sizes listed (ex: "1 bag"). The narrative mentions limited sample volumes.
5. Page 6 of 187: For Semivolatile Organics, samples 1, 2, & 3 (carpet, pad, and fill respectively):  
*"The sample has elevated detection limits due to limited sample volume available for analysis."*  
Why did they not have sufficient sample volume? Will this be retested?
6. Why was the hold time on the samples 2 weeks? The first chain of custody form (page 185 of 187) says to *"Hold all samples until release by PM."*
7. How were the samples stored during that time?

### **Testing**

8. Page 6 of 187: In reference to question A: *"[All samples] L2052415-01 through -05 were extracted with the method required holding time exceeded."* Why was the required holding time exceeded? Why should we trust that the results for the semivolatile organics testing are not artificially low? Anything outside of required hold time should be explained or retested.
9. What was the sample preparation and who performed it?

10. Surrogate Recovery is a quality control measure intended to give an idea of extraction efficiency and to mitigate matrix effects. There is extensive reference in the Case Narrative pages 6-9 of 187, supported in the analytical results, indicating issues with the matrix effects and surrogate recovery with these samples. An analytical laboratory with the flexibility to investigate and overcome these matrix effects in order to achieve more reliable results is advised. With this much of a consistent issue, and knowing the lab had insufficient samples, these tests really should be done again. Is the lab going to re-run the tests?

Beyond these basic questions, I question Tetra Tech's approach. See "Sampling Protocol and Recommended Approach" Letter from Tetra Tech. [https://www.mvcommission.org/sites/default/files/docs/2020-11-25%20%28MVC\\_TurfAnalysis\\_ProposedApproach%29.pdf](https://www.mvcommission.org/sites/default/files/docs/2020-11-25%20%28MVC_TurfAnalysis_ProposedApproach%29.pdf)

Page 3: Regarding TCLP vs. SCLP. Tetra Tech advocates using a less aggressive leaching procedure. This does not err on the side of caution. They then advise against the TOP assay as it represents a "worst case scenario". This is not complete thinking. The reason to use TOP is because if the precursors end up in our water, our bodies will oxidize them into the bigger nastier PFAS. NOT performing the TOP assay when we know this is actively negligent with respect to water and public health protection.

Page 5: *"Massachusetts has identified inhalation, incidental ingestion (swallowing) and direct contact as the potential exposure pathways for people exposed to synthetic turf.16 The analysis of selected chemicals for their total concentrations would be sufficient to evaluate these potential exposure pathways."* When installation is over a sole-source aquifer, which requires more stringent protection standards (or should), the worry is also about the exposure pathways in the aquifer and stormwater runoff and through consumption of fish/shellfish/game/dairy/eggs/produce exposed to that water as well. Our concern must also be about the permanent fouling of an irreplaceable resource.

Page 5: *"The testing of virgin materials will likely represent the "worst case" for potential exposures associated with VOCs, SVOCs, and to a lesser extent metals. If PFAS are present, it is possible that weathering process may oxidize precursors over time and result in the formation of potentially more toxic PFAS compounds. Therefore, initial results will be compared to existing standards and/or guideline values without regard to the potential for decreases in concentrations over time."* With precursors, it is not the weathering process we should be worried about. And it is not about being lower than the regulatory standards. Again, it is about the irreversible harm to an invaluable sole source aquifer. Further, this installation assumes future carpet replacements in perpetuity. So "decrease over time" is moot.

Page 6: As to the comments about using MCP limits, the permit granting authority must analyze the proposal with respect to the potential for water pollution — NOT with the potential for it to be polluted enough to require legal intervention by MassDEP. This is an important distinction. PFAS are persistent, bioaccumulating, and biomagnifying, unlike many other contaminants. The question is not will it pollute it beyond the regulatory limit. The question is, "Is this installation likely to harm our aquifer?"

This testing was supposed to be conducted to assess the potential risk to human and environmental health posed by the specific materials being proposed by MVRHS. I trust that Horsley Whitten will share my concerns regarding Tetra Tech's testing instructions, as well as the questionable chain of custody forms, and questions surrounding the hold time, sample quantities, and surrogate recovery.

The following Phase 1 test results indicate a need for further inquiry.

Sample / report pdf page	Contaminant	Concentration
Greenfield Turf p. 14 p.16 p.17  P.17 (cont.)  p.19 p.21 p.22	Bis(2-ethylhexyl)phthalate Phenol PFBA PFPeA PFHxA PFHpA PFOA PFDS PFPeA Bis(2-ethylhexyl)phthalate Phenol	1.5 ug/L J 2.0 ug/L J 1.39 ng/L J 2.01 ng/L 0.803 ng/L J 0.545 ng/L J 0.471 ng/L J F 2.07 ng/L J F 0.148 ng/L J 370 ug/kg 160 ug/kg
Brock Shock Pad p.27	PFBA PFPeA PFHxA PFHpA PFOA	1.84 ng/L 1.52 ng/L J 1.03 ng/L J 1.00 ng/L J 0.403 ng/L J F
Brock Fill p.35 p.36  p.37  p.39 p.43	2,4-Dimethylphenol Phenol 2-Methylphenol 3-Methylphenol/4-Methylphenol Benzyl Alcohol PFHxA PFHpA PFPeA Phenol 2-Methylphenol 3-Methylphenol/4-Methylphenol	1.8 ug/L J 16 ug/L 8.8 ug/L 16 ug/L 15 ug/L 2.88 ng/L F 5.01 ng/L F 0.455 ng/L J 6900 ug/kg 310 ug/kg J 630 ug/kg J
Mapei Ultra Bond p.58 p.60	PFOA 6:2 FTS	0.395 ng/L J 0.848 ng/L J F
Method Blank Analysis p.80 p.82	PFOA PFHxA PFHpA	3.33 ng/L F 0.429 ng/L J F 1.32 ng/L J

- J = Estimated value. The target analyte concentration is below the quantitation limit, but above the method detection limit. This represents an estimated concentration for tentatively identified compounds.
- F = The ratio of quantifier ion response to qualifier ion response falls outside laboratory criteria. Results are considered to be an estimated maximum concentration.

Sincerely,

Ewell Hopkins, Chairperson  
Oak Bluffs Planning Board