I, James Wells, declare:

1. I have been retained by The Law Firm of Taft Stettinius & Hollister LLP on behalf of The Town of Andrews and residents of Andrews to provide scientific input and expert opinions concerning contamination in the Town's drinking water. As described in more detail below, it is my opinion that there currently exists an emergency with the Town's drinking water supply that requires immediate action.

2. I am familiar with the environmental issues in the Town of Andrews based upon my work in another case, Houlihan vs United Technologies Corporation, et al. In 2019, my colleague, Dr. Lorne Everett and I submitted an expert report in the Houlihan case that covers many environmental issues relevant to the current emergency. Our expert report is incorporated here as Attachment 1.

The Current Drinking Water Crisis

3. The water being supplied to the homes of Andrews, Indiana is laced with toxic chemicals. Use of this water for drinking, cooking and bathing poses an immediate health threat to the residents of Andrews. The current emergency was caused by the contamination of the Town of Andrews' drinking water by United Technologies Corporation's (UTC) industrial chemicals and by UTC's failed efforts to treat the water.

4. The Town's sole source of drinking water is groundwater, supplied through three shallow water supply wells. All three of these wells (but particularly Municipal Well 1 or MW-1) have been impacted at one time or another with UTC's chemicals. This fact has been known for many years. UTC has never tried to clean up the portion of its toxic plume that impacts the Town's wells. In 1994, UTC was required by the Indiana Department of Environmental Management (IDEM) to install a treatment system intended to strip its contaminants from the Town's drinking water (after it has been pumped from the wells but before delivery to the Town's residents). This system—known as an air stripper—does not include redundant safety features and has not been managed properly,

such that it goes off-line with alarming frequency. The Town does not have the luxury of shutting down the water supply to the whole town while it waits for UTC to repair the air stripper. Thus, during these periods, the Town's residents are exposed to drinking water containing potentially dangerous levels of vinyl chloride (a known human carcinogen) as well as other chemicals such as cis-1,2-dichloroethene (cis-1,2-DCE).

5. According to Mr. Harshbarger, the President of the Town Council for the Town of Andrews, the Town shut down MW-1 in 2012 because of the known contamination and in response to taste and odor complaints from residents[1] and subsequently relied solely on MW-2 and MW-3. The current emergency arose in May of this year when the pumping capacity of MW-2 and MW-3 had decreased, and the Town was no longer able to meet the overall demand using just these two wells. In response, the Town reactivated MW-1 on May 7, 2020[2] and began producing water from the contaminated well. About the same time, there was a disruption in UTCs air stripper,[3] leaving the Town in the impossible situation of needing to supply water to its customers but having no way to ensure that the water is safe to drink.

6. This is just the most recent and perhaps most severe example of a problem that has been plaguing the Town's water system for many years. Town of Andrews employees Ed Asher and Brian Cochran explained that it is not uncommon for the air stripper to break down.[4] Only UTC or its consultant have access to the air stripper building so the Town is entirely reliant on UTC for responding to these failures of the air stripper. During the periods in which the air stripper is down for maintenance or not functioning properly, there is ineffective treatment for toxic volatile contaminants like vinyl chloride in the Town's water.

7. UTC has supposedly been trying to clean up the groundwater problem since

[1] Affidavit of John Harshbarger, June 17, 2020, paragraphs 11-16.
[2] Affidavit of John Harshbarger, June 17, 2020, paragraphs 18-19.
[3] Affidavit of John Harshbarger, June 17, 2020, paragraphs 21-22.
[4] Deposition of Brian Cochran, January 22, 2020; Deposition of Edmond Asher, January 10, 2020.

1995 and yet, in spite of UTC's remediation efforts, contamination in municipal well MW-1 has gotten worse in recent years, For example, the highest concentration of vinyl chloride detected in any Town well was 27.0 ug/L in August 2018 (see Exhibit 7 of our expert report, included here as Attachment 1). For comparison, this is more than 10 times higher than the state and federal drinking water standard for vinyl chloride of 2.0 ug/L. Inexplicably, UTC's efforts have not focused on the City's water wells, but instead UTC has concentrated its efforts far upgradient, nearer to the UTC facility. In a recent monitoring report,[5] upgradient groundwater concentrations were as high as 10,700 ug/L for trichloroethene or TCE and 755 ug/L for vinyl chloride. Groundwater bearing these concentrations are gradually making thier way to the Town's drinking water wells, so more likely than not, the situation is getting worse, not better.

8. To this day, groundwater from nearly all parts of the plume is drawn into the Town's drinking water wells. This is a striking example of how UTC and the regulators have failed to address this environmental problem in a comprehensive way, and instead are relying on the Town's drinking water wells to capture UTC's contamination. It is contrary to standard practice in the field of environmental science to rely on municipal water supply wells as part of a groundwater remediation strategy. Groundwater remediation is generally designed to prevent impacts to drinking water supplies, not to encourage impacts. This is a testament to the inadequacy of UTC's remediation program and to UTC's cavalier attitude toward the health and safety of the residents of Andrews.

Background and Qualifications

9. I have over 25 years of experience in environmental science, hydrology and subsurface contamination, including groundwater, surface water, soil and soil vapor. Currently, I am Principal Geologist and Chief Operating Officer for L. Everett & Associates, LLC, an environmental hydrogeology and remediation company. I am a

[5] Stantec, September 6, 2019, Quarterly Status Update - Second Quarter 2019.

Professional Geologist (CA PG #7212), licensed by the California Board for Professional Engineers, Surveyors and Geologists. I received a PhD in Geological Sciences from the University of Washington in 1990. I received a Master's of Science Degree in Geological Sciences from the University of Washington in 1986. I received a Bachelor's Degree in Earth Sciences from Dartmouth College in 1981. I have testified about environmental matters at legislative hearings in the California State Assembly in Sacramento as well as the U.S. House of Representatives in Washington, D.C. More details about my relevant experience can be found in our Expert Report cited above (see Attachment 1) as well as in my resume which is included here as an attachment to our expert report.

Background on UTC's Contamination in Andrews, Indiana

10. UTC operated a manufacturing facility[6] on the east side of town from 1974 to 1992, during which it released large quantities of toxic chemicals to the environment. TCE is UTC's main contaminant of concern. TCE is an industrial solvent and parts degreaser that is a known human carcinogen. Other contaminants of concern, such as cis-1,2-DCE and vinyl chloride are daughter products which are formed from the breakdown of TCE once released to the environment. The resulting groundwater, soil, soil gas and surface water contamination spread across the Town of Andrews and largely remains to this day. Eventually, contamination from UTC was mapped as extending over 2,500 feet in groundwater across the central portion of Andrews, reaching the Town's water supply wells which are located on the far west side of town.

11. The residents of Andrews are threatened by UTC's contamination via multiple exposure pathways. In addition to the risk of contaminated drinking water, (which is the main subject of this affidavit) UTC and IDEM have known for decades that the groundwater plume poses a risk of vapor intrusion[7]. When they belatedly sampled indoor

[6] The UTC facility is sometimes referred to as United Technologies Automotive or "UTA."

[7] Vapor intrusion is a process in which vapors of contaminants from the subsurface seep into overlying buildings, degrading the quality of indoor air and posing an inhalation

air in 2006, they found unsafe levels in numerous homes, with TCE concentrations up to 207 micrograms per cubic meter (ug/m^3), nearly 100 times above the IDEM residential criteria of 2.1 ug/m^3. Surface water, including Loon Creek, has also been contaminated by UTC's chemical releases.

12. The contamination that now permeates Andrews was caused by a combination of purposeful and accidental releases at the UTC facility. As described in our expert report (Attachment 1), there were accidents relating to chemical delivery, there was an incident in which an above ground storage tank ruptured, spilling TCE onto the ground; there were multiple instances in which waste TCE and other chemicals were poured into floor drains at the facility; it was routine practice to dump industrial wastes onto a grassy area of the UTC property, behind the building.

Opinion

13. The Town of Andrews urgently needs a more reliable system for keeping UTC's chemicals out of the town residents' drinking water. In my expert opinion, there are two main components of a durable and reliable remedy. First, there must be major upgrades to the Town's water supply and treatment system, including new water supply wells that are vertically or horizontally separated from UTC's toxic groundwater plume. This will require a hydrogeologic study to identify viable well locations and depths. The air stripper system needs built-in redundancy, such that during inevitable malfunctions or required operation and maintenance shut-downs, the necessary water treatment can still be accomplished. The air stripper should also be better integrated into the overall operations the Town's water system. It is needlessly inefficient and potentially dangerous that the

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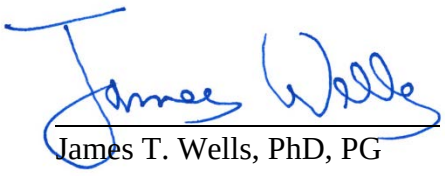
exposure risk for occupants of those buildings. Volatile chemicals are generally released to the environment as liquids, but they give off hazardous vapors in the subsurface. These vapors can migrate through the soil column and enter buildings through cracks in the floor and utility conduits. See EPA, 2015, Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air, OSWER Publication 9200.2-154.

Town is not even informed when the air stripper is down. If and when new wells are brought on-line, operation of the air stripper will likely not be needed. In that event, I would still recommend leaving the idled air stripper system in place in case the new wells should become contaminated in the future.

14. The second component of a durable and reliable remedy is to implement an aggressive groundwater cleanup of UTC's plume to remove once and for all the cause of the Town's water quality problems. This will require substantially more effort than UTC's disappointing remediation program thus far.

15. The steps outlined above will take time to complete. Therefore, as an interim remedy and to ensure the residents of Andrews are receiving safe drinking water during the time needed to complete the recommended upgrades, I believe the residents should be supplied with bottled water for drinking, cooking and bathing.

I declare under penalty of perjury under the laws of the Untied States and the State of California that the foregoing is true and correct and that this declaration was executed by me on June 18, 2020 in the City of Santa Barbara, in Santa Barbara County, California.



James T. Wells, PhD, PG