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| **Measuring particulates in the air is one way to determine if we have clean air in our environment; another way is to photograph the movement of gases off the hydraulic fracturing fields in the United States as flaring occurs or as compression stations are in action.**  |

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| ***......keeping watch on the industry*** |
| **Issue: #380** **Date: July 28, 2021**  |

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| At night |
| **Residents in Northwest Wisconsin have been besieged with hot hazy days with smoke particulates coming into our state from Canadian and western sources in the past several weeks. Storms of great intensity are a threat to us and we are concerned. Particulates from the frac sand industry most likely combine with the smoke-filled atmosphere producing unsafe conditions particularly for those whose health conditions are compromised. In the picture above, you will see particulates coming off a frac sand processing site near Hixton, WI photographed at night.****Some Purple Air Monitors have been installed in NW Wisconsin through Project Outreach and readings can be obtained online at purpleair.com** **Families can read results at their own location and that of their neighbors and friends if they have WiFi and a computer. If you live close to a frac sand facility and would like a free purple air monitor installed, please call me or Dr. Pierce at UW-EC.** **Purple Air Monitors from throughout the world can be seen at the above site. Measurements can be found in "real time" or during a given range. Just let the site know what you would like to do to capture PM2.5 readings.** **Using a FLIR GasFinder 320, photographs taken at various hydraulic fracturing sites are also available for viewing. A $100,000 camera is specially calibrated to detect methane and other VOCs, and is used by industry and regulators for that purpose.** **You can watch invisible oil & gas pollution become visible through**[optical gas imaging videos](https://r20.rs6.net/tn.jsp?f=001Ty9N0Mpve61V5lrGUqsK7TkqLTscMdrZyOhGZvpi5nLGTlJy9-iw5weT5W7jThS69AhKKzpWsBHT0VgKAXjatkRaxXBVJ5HjoFp8LL0fYkeu6af-_y9lqktFH_WsL8FdRJY8gBYK7xOxB0bhiq0clm1iPo8TwikNSYB74pRYlcVqvDCBrKY7yqI5-NAI2w7_QfOcOOroGcCFB8AKjzn9gQ==&c=KIch0LojCvUB0kHQpExYzS2hXFIYYEr_CXKFckcD508CASLXXUy7Ow==&ch=OQflK0PIib-2pL1v-fV8VMsWDQPbXCMs_ZDsY8Izz500azr-iC_f5g==)**These videos were taken as part of the Earthworks Community Empowerment Project. Shortlink:** [**http://bit.ly/CEPvideos**](https://r20.rs6.net/tn.jsp?f=001Ty9N0Mpve61V5lrGUqsK7TkqLTscMdrZyOhGZvpi5nLGTlJy9-iw5weT5W7jThS6vBG9_CTkZQ4S_438QQlQKB_AfYN60vgjOa27h8so-lQ5A6KFrkaVI0cHBs-LZ3JyxBPpyoE9ShkKT7dHSsQecE3LkHwhrkNyTH8ldE1peeq0aKx87tKUEi0SKlnAP__EQMgpOAG0MVgBKaWF_Y1kPkoxoy3SzsiTVtDak38O9a7A5t5fDQRwbBCIr0NiwzZbwtapPp655q4eAqGZMp4jjwuEJFjAjM7g715vesU4H3Ki28qbr5CqQYZWF4CnaNuOce8FSHxx7RXfWvPwCg6ybqecBS9ihgGtcbOid-BMejSZRkSv6X25dYeokwfdadwJ4kubpBcZVnW6YqP8gztOk1wMSpOEGTmIlFS_Ez1_f-KjO4ICk92gwttQG97PYAeseoUNCBComyYc2fY6NIEnd7hnz5_6hsuKdUMDP3tNwNUgZKSD55jJWf0EXIoGMU93OshEbemtgVrIMYPa11bOc8iI5cKBtCkKY60h5Tsyntk=&c=KIch0LojCvUB0kHQpExYzS2hXFIYYEr_CXKFckcD508CASLXXUy7Ow==&ch=OQflK0PIib-2pL1v-fV8VMsWDQPbXCMs_ZDsY8Izz500azr-iC_f5g==)**﻿**[**Community Empowerment Project**](https://r20.rs6.net/tn.jsp?f=001Ty9N0Mpve61V5lrGUqsK7TkqLTscMdrZyOhGZvpi5nLGTlJy9-iw5weT5W7jThS6Q8W4nT9HMmMD8y5qKJJEfSiVdI0i9pbEDTNF9DrigF2cAUzkF8cGi_YY4WTlEsRC9vrmLC2I6xqnhBwIvWVsC-M0E-RGqGSro2zuTmDoTJY2AGbDk6nQkBn8dB1XbAj3Y438iUY9zmU4tJzxsUz7l9dggG_DtBfAIFnP7ehtHuM=&c=KIch0LojCvUB0kHQpExYzS2hXFIYYEr_CXKFckcD508CASLXXUy7Ow==&ch=OQflK0PIib-2pL1v-fV8VMsWDQPbXCMs_ZDsY8Izz500azr-iC_f5g==)**1,470 videos 22,526 views****Last updated on Jul 19, 2021****All video taken by a certified thermographer with an industry standard optical gas imaging camera, the FLIR GasFinder 320.** **For more info on the Community Empowerment Project and the FLIR GF320 optical gas imaging camera:** [**http://cep.earthworks.org**](https://r20.rs6.net/tn.jsp?f=001Ty9N0Mpve61V5lrGUqsK7TkqLTscMdrZyOhGZvpi5nLGTlJy9-iw5weT5W7jThS61R36NtMW_sE8YTwfW8E8HOJGXLnQg9X-gz1sWNbIFFsa7IB3ml3V9I-sCfb02W3IwnGaeIvG-uQQQNQ1K4OdC0Hv0AseeWDa0J7cfzF-3dfmotmOsqQ4hdM8fjObxcKfbdr0CfXy4ydooVBaCADzpx8jFxYMf4ADZxk5ehfDtz7VDcCqX9WO4T4On7WLuDkXFkZoQRTqOCKgXqTXRALSsQ3LbFIb-gJmf2YZKqA3if61uxB3_is7axYGoJ1nTpm6QJKS2KHXx1ukWPtGFbIsyXmddsyLjsky8EvfjRfKqHi1nPTprfyAzFBZO2pawzL7PzrXO3ZQm3PO4WwWgars_UYr_z2tgzjFrfhSteUn7CTRIrRGqKsq0PZIkulfLjF-o5P4n7JjilpHf-fRnATRuACZKITize2fFbXs4qEpPAp8rbsnLYo4MYclI6L0vp348WrRzm2DTOALJHwFcmUzQs9sUzSqkMUKAGThZbB9J8s=&c=KIch0LojCvUB0kHQpExYzS2hXFIYYEr_CXKFckcD508CASLXXUy7Ow==&ch=OQflK0PIib-2pL1v-fV8VMsWDQPbXCMs_ZDsY8Izz500azr-iC_f5g==)**Sharon Wilson | Sr. Field Advocate & Optical Gas Imaging Thermographer**[Earthworks](https://r20.rs6.net/tn.jsp?f=001Ty9N0Mpve61V5lrGUqsK7TkqLTscMdrZyOhGZvpi5nLGTlJy9-iw5weT5W7jThS6Bf4eCwrLRkbEJrmHjnHizN7gbm74lp3nqpE1bjaPRZ0lVxRP8cM-lp9V0mPN6mvnF_pEnYNysAI_vPTMYPsVR8wls0R6HsP1&c=KIch0LojCvUB0kHQpExYzS2hXFIYYEr_CXKFckcD508CASLXXUy7Ow==&ch=OQflK0PIib-2pL1v-fV8VMsWDQPbXCMs_ZDsY8Izz500azr-iC_f5g==)**| 940-389-1622  | @TXsharon** **If you have not viewed videos taken with the FLIR before, please do so to develop an understanding of what is being put into our air on a regular basis by the industry.** **Patricia Popple  715-723-6398**sunnyday5@charter.net***Welcome to the Frac Sand Sentinel, a newsletter highlighting resource links, news media accounts, blog posts, correspondence, observations and opinions gathered regarding local actions on, and impacts of, the developing frac sand mining and processing industries.******The content of this newsletter is for informational purposes only. The editor of the Frac Sand Sentinel does not accept any responsibility or liability for the use or misuse of the content of this newsletter or reliance by any persons on the newsletters' contents.*** |

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| ***CHECK OUT THE WEBSITE:*** [***wisair.wordpress.com***](https://r20.rs6.net/tn.jsp?f=001Ty9N0Mpve61V5lrGUqsK7TkqLTscMdrZyOhGZvpi5nLGTlJy9-iw5wbVJV8rJG9Ctt_nNNJ-lObOusHozzW-9ukaSNvgckewODmvjT9IjV0cSYB36UJBrS3KnOSmkUOTwHOldSBsHKdIqPIPCHMpLA==&c=KIch0LojCvUB0kHQpExYzS2hXFIYYEr_CXKFckcD508CASLXXUy7Ow==&ch=OQflK0PIib-2pL1v-fV8VMsWDQPbXCMs_ZDsY8Izz500azr-iC_f5g==) ***and for additional information,*** [***click here***](https://r20.rs6.net/tn.jsp?f=001Ty9N0Mpve61V5lrGUqsK7TkqLTscMdrZyOhGZvpi5nLGTlJy9-iw55SJYsgiBKaoSAE47Hbma3qBletwzU_86j4ITa9SukpTq7wl3UUXMmqRdYL0z24265w8ka0D8fDGN4l85rk4ZK4=&c=KIch0LojCvUB0kHQpExYzS2hXFIYYEr_CXKFckcD508CASLXXUy7Ow==&ch=OQflK0PIib-2pL1v-fV8VMsWDQPbXCMs_ZDsY8Izz500azr-iC_f5g==) ***for panoramic aerial views of frac sand mines, processing plants, and trans-load facilities.*** [***FracTracker.org***](https://r20.rs6.net/tn.jsp?f=001Ty9N0Mpve61V5lrGUqsK7TkqLTscMdrZyOhGZvpi5nLGTlJy9-iw5wbVJV8rJG9CNLIJmcEnrl288RBiHUS01pz2IHFpQIX_cXtVKFJw0mkjG8yTg9PtR04xqn-fsuLNJDpHcrYqCqQeTV8m-gg2FA==&c=KIch0LojCvUB0kHQpExYzS2hXFIYYEr_CXKFckcD508CASLXXUy7Ow==&ch=OQflK0PIib-2pL1v-fV8VMsWDQPbXCMs_ZDsY8Izz500azr-iC_f5g==)***is also an excellent source of information.***  |

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