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*Air Today – Gone Tomorrow: A Comprehensive Study of Hydraulic Fracturing and the Effects on Air Quality, Phase I*

Living in the middle of Weld county unusual oil field smells are emitted from rig-sites, we wanted to find out if those smells were hazardous.

Using glass jars we isolated 12 different specimens (3 each per test – control/sulfuric acid/methanol) at one time insuring consistency in the test process. After one week we weighed soda lime and compared that weight to its pre-test weight to determine the difference. Results were conclusive: those jars containing control did not vary - but those with known fracking chemicals showed organism deterioration. Loss of viability appeared to be strictly contributed to the chemical. At no time did the chemical leave its container and contaminate the soil or specimen directly. Introduction of chemical was solely through the air.

We conclude that it is highly possible that chemicals used in the hydraulic fracturing process can indeed have an adverse effect on air quality around horizontal drilling sites and nearby properties. The most harmless of the vast list of chemicals reported to be used in the fracking process made an impact on the viability of a living organism that is exposed to small amounts of the chemical in the air. Contamination research should be directed towards hazards present due to the volatile nature of dangerous chemicals emitted into the air either through misting pits or chemicals accidentally emitted into the air during a spill or well “explosion”. Future studies will be conducted in Phase II of this experiment on other known chemicals to dispute or strengthen this argument.