

BENZENE FACT SHEET

- Methane is an odorless gas that is the primary component of natural gas. On January 15, 2016, the South Coast Air Quality Management District posted the results of a Preliminary Evaluation for Potential Health Impacts that concluded: “the current levels of community exposure to the leaking gas are not expected to cause a significant increase in overall risk of health effects from either short-term or long-term exposure to air toxic pollutants typically found in outdoor air in Southern California.” [SCAQMD, 01/15/2016] The Department of Public Health has stated that “inhalation in this setting at the levels detected does not pose a significant health risk.” [LA County Dept. Public Health 12/01/2015]
- While benzene is a trace component of natural gas, the biggest contributors of benzene in the Los Angeles area are mobile sources – that is, cars, trucks, ships, and the like.¹
- Trace amounts of benzene have been detected in Porter Ranch by the community air monitoring data program* put in place after the Aliso Canyon leak began. The air sampling data, taken as a whole, reflect benzene levels consistent with background levels of benzene found in the Los Angeles area.**
 - The average of the benzene levels detected in the Porter Ranch area for the benzene data as of January 16, 2016 are less than 0.39 parts per billion (ppb), below the 0.46 average ppb reported at the California Air Resources Board’s Burbank monitoring station. The Burbank air monitoring station is part of the State’s air toxics monitoring network.
 - The California Environmental Protection Agency’s Office of Environmental Health Hazard Assessment (OEHHA) stated on January 14, 2016: “[n]early all measured benzene concentrations in the Porter Ranch community during the leak are similar to background levels generally found in the Los Angeles area, including at the nearest long-term monitoring station in Burbank.” [OEHHA, 01/14/2016]
 - SCAQMD’s January 15, 2016, Preliminary Evaluation for Potential Health Impacts concluded that significant increases in overall risk of health effects from either short-term or long-term exposure to the leaking gas are not expected as compared to air toxic pollutants typically found in outdoor air in Southern California. [SCAQMD, 01/15/2016]
 - Out of over 1,350 community air samples, benzene results have been above 1 ppb fifteen times on ten days: eight days in November, one day in December and one day in January. These fifteen results range from 1.05 to 5.55 ppb, with only three samples above 2.0 ppb. Each individual short-term sample provides only a snapshot of the chemical concentration at that location, and can be influenced by a number of factors, such as the exhaust from a passing car or truck. The numerous short-term samples collected over time across the community provide a better picture of the overall air quality in Porter Ranch.

1 <http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf?sfvrsn=7>

* Air sampling at the SoCalGas facility and in the community of Porter Ranch began on October 30, within 7 days of the discovery of the leaking gas well. Air samples are taken twice per day at multiple locations on the SoCalGas property and in the community-- more than 1,500 air samples to date. Air samples are collected in the late evening and early morning hours, when odors have been reported to be the strongest. The analytical results for these samples are reported to the health agencies and also are posted on the SoCalGas website at [AlisoUpdates.com](http://www.socalgas.com/AlisoUpdates). Additional community air sampling is being conducted by SCAQMD and ARB. SCAQMD and ARB air monitoring data can be found at [insert link]

** http://oehha.ca.gov/public_info/emergency/alisocanyon.html and [http://www.aqmd.gov/home/regulations/compliance/aliso-canyon-update/health-impacts-estimates/long-term-\(chronic\)-and-cancer-risk](http://www.aqmd.gov/home/regulations/compliance/aliso-canyon-update/health-impacts-estimates/long-term-(chronic)-and-cancer-risk)



The benzene levels are not expected to result in chronic health effects, according to evaluations independently conducted by OEHHA and SCAQMD.**

- To evaluate long term health issues, health agencies look at the overall quality of the air over an entire period of exposure, not individual samples collected on any given day.
- The average benzene levels detected at Porter Ranch is well below OEHHA's Reference Exposure Level (REL)² of 1ppb.
- OEHHA has stated: "[c]urrent measured exposures to benzene are below the level of concern for chronic health effects." [OEHHA, 01/14/2016]
- SCAQMD conducted an evaluation of all available 24-hour integrated samples collected by SCAQMD in the community, assumed a six-month constant exposure, and found that "the levels of toxic pollution found at this location in the community is at the low end of the range typically seen throughout the Southern California region." In evaluating long-term risks, SCAQMD also concluded that "the non-cancer risks from the leaking well are well below the chronic REL." [SCAQMD, 01/15/2016]

The benzene levels are not expected to result in acute health effects, according to independent evaluations of OEHHA and SCAQMD.

- None of the community benzene air results exceed the 8 ppb acute health level established by OEHHA.
- OEHHA has stated that: "[o]verall, the available air monitoring data does not indicate that an acute health hazard exists from any of the volatile organic chemicals measured, including benzene, in the Porter Ranch neighborhood as a result of the Aliso Canyon natural gas leak." [OEHHA, 01/14/2016].
- According to SCAQMD: "[based upon the highest level of 5.55 ppb measured by SoCalGas on November 10, 2015 out of the over 1000 instantaneous grab samples they have collected to date] ...the risk would still be approximately two-thirds of the acute REL, still below the levels where adverse health effects are expected to occur." [SCAQMD, 01/15/2016]

SoCalGas continues to monitor the air in the community twice daily and has added six 12-hour samples to the monitoring program at the facility perimeter closest to the community as well as at three other locations within the facility. The sample results are posted to the SoCalGas website, for public review at <https://www.AlisoUpdates.com/health-facts>. To date, the levels of benzene detected in the 12-hour samples are well within background levels and below the levels determined by the State to be protective of long term chronic noncancer health effects.

2 RELs are established at the concentrations of chemicals in the air at or below which adverse health effects are not expected to occur, including those who are more sensitive to these effects than the general population. Exposure to a concentration that is higher than its REL does not automatically cause health problems, because the RELs are based on several substantial uncertainty factors.