

**MULTIPLE FORENSIC APPROACHES USED TO EVALUATE CLAIMS
AGAINST A REFINERY THAT HAD BEEN CLOSED MORE THAN 30 YEARS**

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Multiple environmental forensic techniques were used to evaluate claims made against a refinery that had been closed for more than 30 years. The claims arose when groundwater contamination was discovered in monitoring wells downgradient of the old refinery (and downgradient of other industry that had been developed there). Chemical analyses showed that the relevant refinery monitoring wells exhibited a different suite of chemicals than did the off-site, downgradient wells. Compound specific isotope analysis of benzene in groundwater samples showed that the downgradient benzene had a different signature than a past release of benzene from the refinery. In addition, spatial and temporal analysis of groundwater contamination in the vicinity of a neighboring facility identified that facility as a more likely source of the groundwater contamination. Finally, a travel time analysis of groundwater showed that contamination from the refinery would likely have reached the suspect well many years prior. All the forensic approaches showed that a different, nearby, operating facility was the likely source of the groundwater contamination at issue.

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