

Old Fashioned Integrity

BISON ENGINEERING

Cutting Edge Technology



A hand holding a lit candle in a dark cave, illuminating a rock wall with a hand-drawn diagram. The candle is lit, and the flame is bright yellow. The hand is holding the candle by the top. The rock wall is dark and textured, with a hand-drawn diagram in white or light-colored paint. The diagram consists of several lines forming a complex shape, possibly a cross-section or a flowchart. The overall scene is dimly lit, with the candle providing the primary source of light.

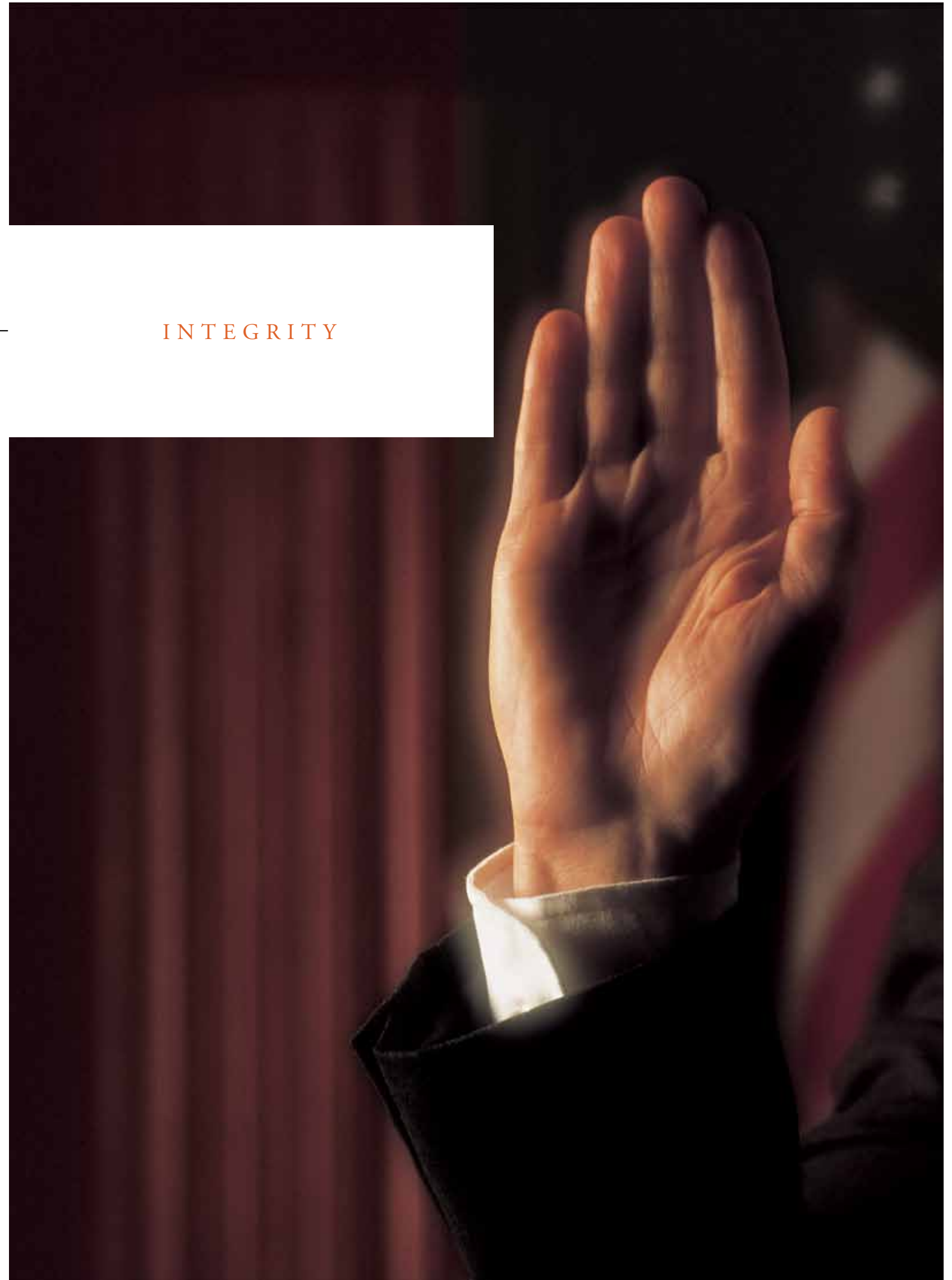
**W**hen you need enlightened failure analysis of indisputable, scientifically supportable accuracy, your most dependable choice is Bison Engineering, Inc. Whether your application lies in the gas, electrical, petrochemical, legal, or insurance industry, our experience and expertise can be of shining importance as we examine the pieces of each puzzle, determine the facts, then present them in a manner that can make the difference between success and failure in the courtroom. We stake our reputation on the precision and clarity of work that is delivered by talented and experienced engineers, hand-picked consultants, and expert witnesses whose breadth of knowledge has earned them the respect of clients and competitors alike. Through onsite investigation, offsite reconstruction, and state-of-the-art laboratory analysis, Bison offers unlimited testing capabilities to its clients, augmented by extraordinary computer graphics and 3-D animation techniques that transform scientific data into simplified illustrations for juror review.

#### COMMITMENT

Bison Engineering is committed to finding facts that cannot be impeached - not facts as they are wished to be. Each assignment is approached with a dedication to absolute objectivity. Bison uses all available resources to determine the most accurate and scientific explanation of each incident in question. By doing so, clients are given valuable information that helps them resolve issues in the most practical manner.

**B**ison Engineering undertakes each new assignment with an open mind. We are dedicated to producing unbiased, objective results in every case, every time. Our findings are as accurate as today's science can determine, and are compiled and documented in a manner that will withstand the closest scrutiny. By maintaining one simple standard of truth, we provide our clients with information that can help them make intelligent decisions regarding issues that may involve hundreds of thousands, if not millions of dollars. This commitment to impartiality is key to our present and future success, and it is our assurance to clients that the results—and honesty—of their investigations will be beyond reproach.

#### INTEGRITY



There is no substitute for experience in the pursuit of forensic engineering, and Bison's is second to none. The company has investigated over 500 fuel gas incidents of all types, and researched hundreds of cases involving auto accidents, mechanical and electrical failures, explosions, and numerous other events that require meticulous analysis and reconstruction to document what happened and why. Our engineering staff brings to each case a body of knowledge and years of personal observation that enable them to immediately determine the most effective and efficient path to clarity. In all incidents, the collected data is thoroughly analyzed by discipline-specific engineers, then assessed from a rigorous multidisciplinary perspective. When we are convinced of the accuracy and objectivity of our findings, we then work to present those conclusions to our clients in an easy-to-comprehend format.

#### CASE STUDY

Experience was a key factor in determining the cause of a large compressor station fire. Decades of familiarity with lightning, metallurgy, valve operations, sensing equipment, fire spread, and other important elements helped engineers quickly determine the most likely paths of investigation, discovery, and documentation. Their seasoned backgrounds and expertise produced accurate and valuable findings in a most efficient manner.



EXPERIENCE

**B**ison Engineering clients can be assured that nothing less than state-of-the-art technology will be used in their investigations. Our engineering staff's educational diversity, training, and seasoned judgment enable them to not only identify the right equipment and software to use in any given case, but also to design new equipment, when needed, to better determine the facts. Bison commonly draws from the fields of mechanical, electrical, and civil engineering; metallurgical, biomechanical, petrochemical engineering and more in the course of its investigations. When new technologies in any of these fields emerge, Bison engineers know it, and consider each new development as a potential tool for improving the efficiency and thoroughness of their work. This desire for knowledge, excellence, and innovation has been applied to investigations involving fires, explosions, electrical failures, mechanical failures, materials failures, personal injury and all other issues where documentation and accuracy are imperative.

#### CASE STUDY

Bison technology helped to uncover the mysterious cause of an apartment house fatality. Using a proprietary, high-tech CO monitoring system, engineers detected abnormal carbon monoxide readings in the apartment only when the AC unit was in operation. The fatality's cause was then associated with the exposure of abnormal exhaust gases caused by incomplete combustion of a gas operated appliance pulled in by the HVAC from a nearby water heater closet.



TECHNOLOGY



**BISON** ENGINEERING  
*Forensic Engineers*

- |  |                                     |
|--|-------------------------------------|
| Forensic Engineering                   | Failure Analysis                    |
| Fuel Gas Incident Investigation        | Fire & Explosion Investigation      |
| LPG/Natural Gas Ignitions & Explosions | Electrical Failures                 |
| Electrocutions and Electrical Contacts | Hydraulic Failures                  |
| Mechanical Engineering                 | Carbon Monoxide Poisoning Incidents |
| Pump Failures                          | Pipelines and Piping                |
| Origin and Cause Investigation         | Industrial Accidents & Explosions   |
| Metallurgical Engineering              | Oilfield Failures                   |
| Accident Reconstruction                | Computer Graphics                   |
| Gas Equipment and Appliances           | Building Codes                      |
| Soil Gas Migration                     | Biomechanical Analysis              |
| Lightning Strikes                      | Automobile Equipment Failures       |

Bison engineers, consultants, and graphics specialists are waiting to provide your company with the finest forensic engineering services available. To learn more about our time-tested, courtroom-proven, client-appreciated expertise, call toll free [888-502-4766](tel:888-502-4766) or visit our website at [www.bisonengineering.com](http://www.bisonengineering.com). We are ready to assist you.

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