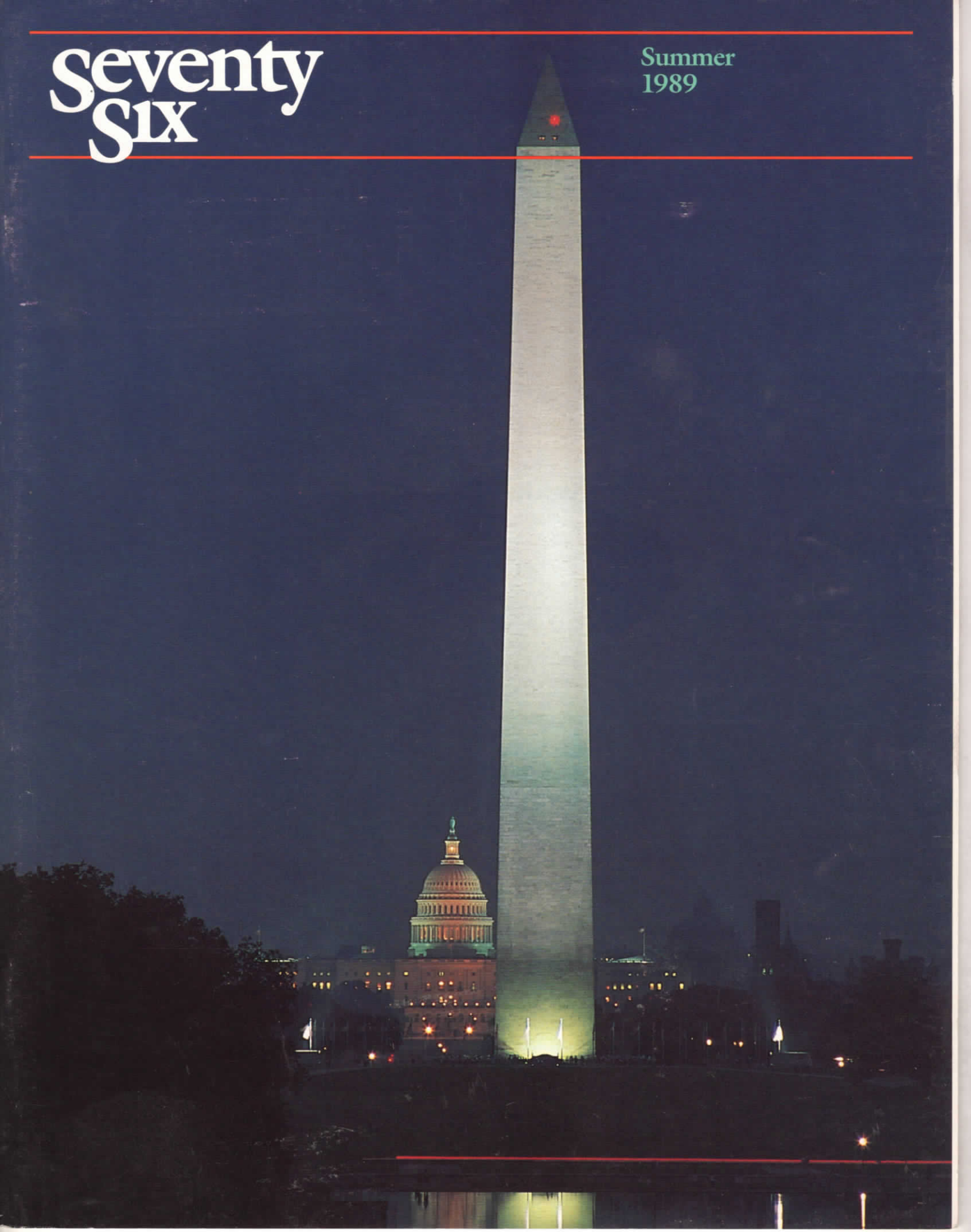


---

seventy  
SIX

---

Summer  
1989



★

# GOVERNMENT RELATIONS: A Single Voice

★   ★   ★   ★   ★

In 1973, Claude Brinegar, then president of Unocal's 76 Division, left the company to accept the post of U.S. Secretary of Transportation. As a cabinet member in the Nixon and Ford administrations, Brinegar received a crash course on the inner workings of the federal government. When he returned to Unocal two years later, Brinegar made overhauling the company's government relations efforts a top priority.

Today, the role of government relations is more pivotal than ever. Heightened environmental concerns continue to spawn an onslaught of industrial regulations on both the state and federal levels. Tax and other financial issues are also in the forefront of governmental concerns. Legislation in these and other areas can have a significant impact on Unocal and its operations—sometimes in ways not readily apparent to lawmakers.

The mission of the company's government relations effort is twofold: to analyze bills and determine what their impact may be, and to present the company's viewpoint to public policy makers. The overall goal is to help ensure that legislation affecting Unocal is as fair and as beneficial to the company as possible.



Unocal's government relations work is pursued by two groups — one based in Washington, D.C. and one in Los Angeles — which report to Brinegar. The Washington personnel comprise support staff and five lobbyists, including Unocal Corporate Vice President Tom Hairston, who heads the office. Jack Rafuse, manager of Government Relations, heads up the Los Angeles-based personnel and coordinates the formulation of company positions on state and federal issues.

Part of the Corporate Communications Department, Rafuse's staff includes Manager of State Government Relations Mike Dougherty, three lobbyists assigned to various state governments, four legislative analysts, a grassroots advocacy manager and clerical support.

In order to concentrate Unocal's lobbying efforts where they're most needed, the staff continually monitors the progress of key bills on the state and federal levels. After Unocal takes a formal stand on a proposed piece of legislation, company lobbyists advocate this position — persistently and persuasively. To provide lawmakers with information that is both accurate and useful, the staff relies on the knowledge of the company's technical and financial experts.

"We're good corporate citizens, and we have a right to make our positions known on legislative issues — a constitutional right," says Brinegar, now Unocal's executive vice president, chief financial officer and vice chairman of the board. "My Washington experience taught me that corporations can be more effective lobbyists if they speak with a single voice. So after I returned to the company, we collected our government relations personnel and placed them under my general guidance."

Previously, Unocal's government relations efforts were scattered. The company maintained lobbying staffs in Washington, D.C. and California's state capital, Sacramento. But efforts to monitor legislation and formulate company policy weren't centralized. When pending legislation threatened a particular operation, the lobbying burden often fell on divisional management. Further, legislative activity in many states went virtually unmonitored.

By consolidating government relations efforts, the company was able to institute a thorough system for tracking and analyzing bills. First, a Unocal lobbyist identifies a new state or federal measure that could affect the company and sends a copy to Rafuse's staff in Los Angeles.



*Far left, Unocal's Los Angeles-based Government Relations staff. Left to right: Mike Riehle, manager of policy analysis; Terry Larson, manager of environmental affairs; Mike Dougherty, manager of state government relations; and Jack Rafuse, manager of Government Relations.*

*At left, the Washington, D.C. staff. Clockwise from upper left: Joe Colaneri, Washington representative; Barbara Haugh, manager, federal affairs; Bill Ichord, director, federal affairs; and Vice President Tom Hairston. (Not pictured is Washington representative Francie Phelps, who was away from the office.)*

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

If the bill addresses an environmental issue, Terry Larson, manager of environmental affairs, analyzes the legislation. However, if the measure's subject matter isn't environmental—for example, a tax code change—Mike Riehle, manager of policy analysis, is in charge.

The legislative analysts prepare a written assessment of the bill, which is forwarded to management at any operating division that the bill would affect. In turn, these division managers prepare a report detailing what specific impact such a law might have on their operations and budget.

"Often three or four divisions could be affected by the same bill," Rafuse says. "Then, each division offers us its own analysis. The refining people, for example, might send us a list of equipment they'd need to buy to comply with a proposed law?"

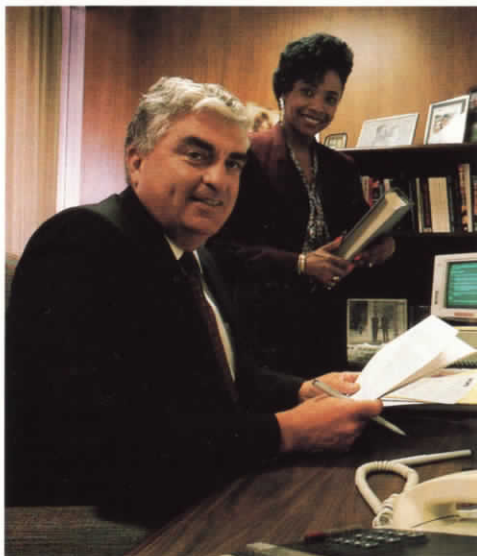
Using input from the divisions, the Government Relations staff outlines the company's position on a bill. And like the political process itself, Unocal's bill monitoring system provides for checks and balances. Company attorneys and financial analysts will often review a position report before it's sent to lobbyists.

The resulting summary of company policy is truly a collaboration of experts from all corners of Unocal. And the lobbyist delivering this report's message to legislators provides the "single voice."

To ensure that no bill escapes company scrutiny, Washington lobbyists regularly scan the *Congressional Record*, a daily publication of the proceedings of Congress. Similarly, state lobbyists keep a watchful eye on committee agendas, newly proposed legislation and proposed amendments. Both federal and state lobbyists also keep informed by meeting regularly with legislators' staff members.

But not every bill that could affect Unocal undergoes detailed study. To warrant special attention, a measure must hold the potential for a substantive impact on Unocal—either positive or negative. Moreover, the proposed legislation must have high prospects for passage.

During the 1987–88 session, Congress introduced 11,278 measures, only 713 of which became law. Unocal simply doesn't have the lobbying manpower to take a stand on every federal bill that might influence the company. And with operations in 37 of the 50 states, Unocal certainly can't take a formal position on each state bill that carries a potential impact. Los Angeles and Washington staff members alike exercise some personal judgment when setting lobbying priorities.



★ ★ ★ ★ ★ ★ ★ ★ ★ ★

“We have to know who is sponsoring the bill to have an idea of whether it’s of any importance,” Hairston explains. “If someone on the Veterans Affairs Committee introduces a bill that regulates mining, for example, chances are the bill will never go anywhere. The bill’s sponsor isn’t on the right committee. He probably has no real interest in the legislation and is merely introducing it to please a constituent.”

“We usually concentrate our efforts on high-profile bills that would impose a major financial or regulatory burden on Unocal,” Terry Larson says. The Los Angeles staff receives an average of two dozen bills from state and federal lobbyists each week. But, Larson explains, if Government Relations sent out a report on each one of these measures, staffers would be “crying wolf.” Unreasonable demands would be placed on division managers, and they would probably spend less time analyzing bills of consequence.

Typically, Unocal lobbies most intensely on bills that could affect the company in particular. For example, the Washington staff last year successfully lobbied for tax credits for Unocal’s work in alternative energy sources — the shale oil project in Parachute, Colorado and the company’s geothermal plants. Another 1988 victory was the suspension of a duty on yttrium concentrate — a mineral that Molycorp Inc., a Unocal subsidiary, imports and refines for use in the electronics and defense industries.

“Other oil companies and trade associations lobby for bills affecting the industry as a whole,” says Washington lobbyist Barbara Haugh. “But when a bill specifically impacts Unocal, the responsibility of lobbying falls on us.”

The Washington office is staffed with veterans of the Capitol Hill scene. Hairston has lobbied for Unocal 12 years. Previously, he lobbied for the Department of the Navy, serving as director of legislation for the Secretary of Navy’s Office of Legislative Affairs.

“By and large, lobbying is a unique field,” Hairston says. “You learn through experience. There’s no school for it.”

Hairston’s staff includes Haugh, a former employee of the Senate Energy and Natural Resources Committee; Bill Ichord, previously vice president of Government Relations and a legislative counsel for a public relations firm; Joe Colaneri, a former staff member of a congressman on the House Ways and Means Committee; and Francie Phelps, who once worked for the chairman of the Federal Trade Commission.

The average workday for these lobbyists is at least 12 hours long, Hairston says. Fund-raising events for congressional candidates often fill the evening hours. Very few of the 12 hours are spent behind a desk. “Our lobbyists are constantly out on Capitol Hill, working to establish rapport,” Hairston says.

Generally, lobbyists meet with congressional aides and committee staff members. Staffers are much more accessible than congressmen themselves.



*Opposite page, from left: Jack Rafuse, who supervises the Los Angeles staff, with secretary Renon Baker; a U.S. Senate subcommittee hearing in progress. This page, from left: Tom Hairston (top), who heads the D.C. office; Barbara Haugh (bottom); Bill Ichord.*

So what makes a lobbyist effective? "The number one requirement is absolute honesty," says Ichord, the Washington office's director of federal affairs. "All you've got in this business is your credibility and integrity." Another important quality, he says, is the ability to "walk in the shoes of a member of Congress." Before lobbyists begin stating their case, they should consider all the demands placed on a member of Congress — and all the voices seeking to sway that official's vote.

"Make the congressmen understand, persuade them, be an advocate for them," Ichord says. "Tell them why Unocal's position isn't only good for Unocal but is good for their constituents and the country as a whole."

Finally, a lobbyist must persevere, often in the face of frustration. "Persistence is half the battle," Ichord says. "You've got to be patient, yet aggressive. But *never* be aggressive to the point of being offensive."

Haugh, the manager of federal relations, sums up her job description as "a seller of ideas." To capably promote Unocal's positions, Haugh keeps abreast of the company's operations and philosophy. Particularly, she and her colleagues must understand and convey the arguments spelled out in lobbyist briefings prepared in Los Angeles. Such reports clearly explain whether Unocal supports or opposes a measure, and why. They also indicate what modifications, if any, a lobbyist should negotiate for.

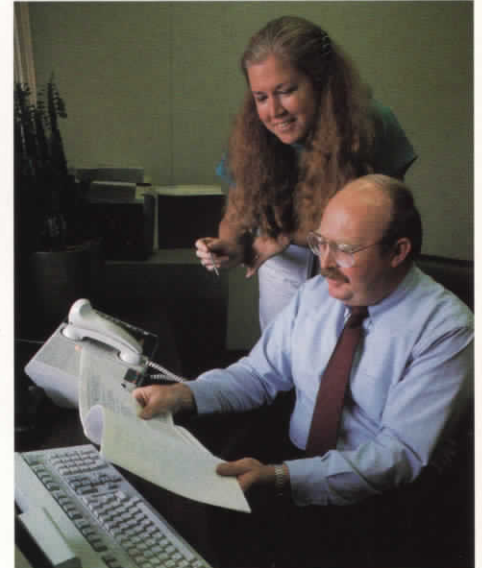
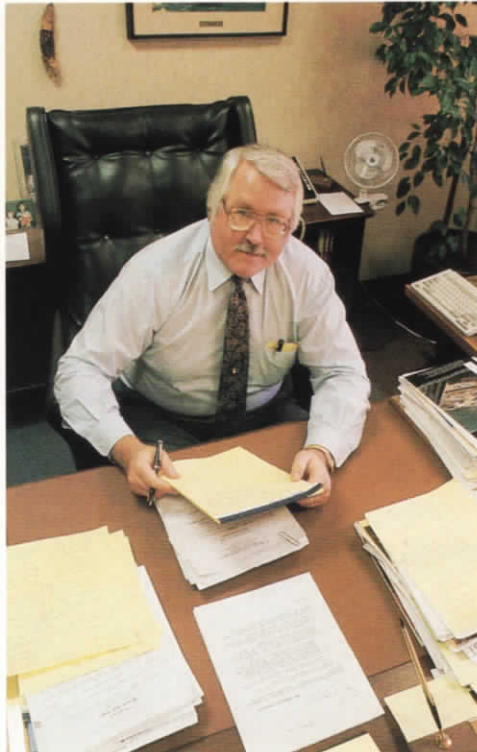
"We don't establish policy here," Hairston explains. "That's not our role. We are advocates for the policy makers at corporate headquarters. But we are also the eyes, ears and voice of the company in Washington. We must make sure Unocal knows what's happening here, so the company has a chance to participate in the decision-making process."

To better acquaint congressional staff members with the company, the Washington office conducts annual tours of Unocal facilities. The staffers invited generally work for members of Congress who sit on energy, environmental and tax committees. The tour groups are kept small — usually five from the House of Representatives and five from the Senate.

"These trips help dispel many commonly held misconceptions about the oil industry," Hairston says. "Some of the people on the tours expect the worst. We take them to an offshore platform, for example, and they anticipate oily water and noxious fumes. Instead, they find sea lions playing by the platform in clear water, under clear skies."

Other stops during the four-day tours are the geothermal plants in California's Imperial Valley, the oil shale project in Colorado, and The Geysers geothermal project in Santa Rosa, California.

In the past year, the trip led directly to money-saving legislation authorizing the extension of two geothermal leases. During a tour of a geothermal operation, a Unocal landman explained how leases in an adjacent area were about to expire. Unocal had already invested considerable capital and time in developing this area's geothermal resource. Two congressional staff members on the tour offered their help. The resulting legislation granted two five-year lease extensions.



Company state and federal lobbyists also keep legislators informed by scheduling meetings between the officials and Unocal employees. If a state assemblyman sits on a committee that's considering restrictions on offshore exploration, for example, he may benefit from a meeting with a Unocal geologist. Occasionally, these same employees subsequently testify at committee hearings.

When turning their focus toward broad, industrywide issues, Unocal lobbyists usually channel their efforts through an industry organization. Because Unocal is a diverse energy resources company, it belongs to several industry groups. Among them are the American Mining Association, the Chemical Manufacturers Association, the American Petroleum Institute (API) and the Natural Gas Supply Association.

In such groups, lobbyists from different companies pool their talents to more effectively advocate an industry-wide position. Prominent issues on the API agenda include President Bush's proposed amendments to the Clean Air Act, alternative fuel mandates, offshore drilling restrictions, wetlands preservation and oil spill cleanup regulations.

Since the Valdez spill, industry lobbyists — both state and federal — have faced growing public sentiment against offshore oil activities. "Tankers and offshore drilling shouldn't be lumped together," Rafuse says. "They're entirely different. Potential sources of domestic oil — such as the Arctic National Wildlife Refuge in Alaska — have been placed off-limits, which will only increase our dependence on foreign sources. We just hope that once the emotionalism dies down, people will be more willing to listen."

Such emotionalism has given rise to some rather extreme legislative proposals, says Mike Dougherty, manager of state government relations. And he questions the objectives of several of these measures.

"Some of the bills recently proposed in state legislatures are vindictive," Dougherty says. "Under these bills, tremendous penalties would be imposed for oil spills — penalties that would bear little relationship to the damage done or the cleanup costs." Dougherty cites one bill from Alaska that, before amended, would have levied a fine of \$50 per gallon of oil spilled, with no upper limit.



*Opposite page, from left: Mike Riehle, Mike Dougherty, Terry Larson with secretary Roberta Treviranus. This page: Development drilling underway at Unocal's geothermal project at The Geysers, in Northern California. Alternative energy is one of the issue areas focused on by Unocal lobbyists.*

Like their federal counterparts, Unocal's state lobbyists depend on the support and strength of industry groups. The state lobbyists are Jennifer Stettner, based in Houston, Texas; Jami Warner in Sacramento, California; and Dave Henderson, based in Schaumburg, Illinois. Because Henderson is assigned to the legislatures of many key eastern states, he spends an average of three days a week on the road — but usually not lobbying directly. He sits on three government relations subcommittees affiliated with API.

"Through my work with these subcommittees, I make sure that API's state petroleum councils represent Unocal's interests," Henderson says. API maintains state petroleum councils in 33 states. The councils are based in state capitals and act as small lobbying groups.

Stettner lobbies in the Gulf states, primarily Texas, Alabama and Louisiana. Warner, who works closely with a regional industry group — the Western States Petroleum Association — lobbies exclusively in California (see accompanying story). In a few states, including Alaska, Unocal uses contract lobbyists.

Although both lobbyists and trade associations represent Unocal's interests across the nation, the company's activity does not stop there. Unocal's overall government relations program also includes grassroots political action. Qualified management-level employees are selected to participate in the political process as Key Contacts — lobbyists for Unocal.

Key Contacts lobby for Unocal positions through correspondence and direct meetings with their congressmen. Currently, the Key Contact program has more than 100 members — with no two members from the same congressional district.

"Grassroots work is very important," says Nancy Poloske, the advocacy program manager who oversees the Key Contact program. "Congressmen are too busy to accommodate everyone who wants to meet with them. But they will see constituents — and all our Key Contacts are constituents."

Each year, Government Relations compiles a list of all management-level employees who live in congressional districts without a Key Contact. This list is circulated among upper managers, who have the option of nominating individuals for the open slots. After weighing these recommendations, the Government Relations staff selects the new Key Contacts.





During an annual orientation meeting in Washington, novice Key Contacts receive instruction on how the federal government works and how to convey a position to a congressman. "Most Key Contacts have an interest in politics before they join the program," Poloske says. "They also have an understanding of company operations. Once they actually begin participating in the political process, they really enjoy getting involved."

Management-level employees can also support Unocal's government relations efforts by voluntarily contributing to the company's Political Awareness Fund. The money raised is donated to the campaigns of candidates supported by Unocal. Jack Rafuse is chairman of the trustees who oversee the fund.

Why should employees contribute to political campaigns?

"Companies aren't permitted to make contributions to a federal campaign. But federally elected officials certainly have a great deal to say about how companies operate," Rafuse says. "It's in the best interest of our employees to support candidates who are willing to listen to the company's point of view."

Because the presence of government — federal, state, and local — is felt in every aspect of Unocal's business, government relations is more important than ever for Unocal, Brinegar adds. "We work in a comprehensive, organized and honest way to help the operating groups do their jobs," he says. "We try to win public respect for Unocal and its views, and to live up to the respect that the company earns." C.S. 76

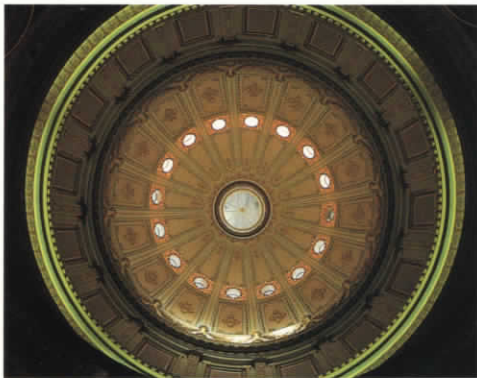


*Opposite page, from left: Joe Colaneri (right) meets with a congressional aide; U.S. Senator Pete Domenici (R-N.M.) testifies at a committee hearing on an energy-related issue. This page, from left: Advocacy Programs Manager Nancy Poloske with Key Contacts Ed Bluth (left) and Mike Thacher; Tom Hairston at work in the D.C. office; tools of the lobbying trade. Above, a view of Capitol Hill.*

# Working the Sacramento Beat

An elderly woman saunters across the green expanse of the California state capitol grounds in Sacramento, wearing a sandwich sign that reads, "Down with Poverty, Up with Dignity." Two mounted policemen guide their horses by the protester, then move past the grounds' towering cedars and weeping willows toward the capitol steps. The officers pause briefly to pose for snapshots with two tourists.

"There's always a group out here demonstrating about one issue or another," comments Unocal lobbyist Jami Warner, as she passes the protester and another woman handing out leaflets. "You should see this place whenever a bill requiring helmets for motorcyclists comes up. There are bikers everywhere, and the streets are lined with motorcycles." Toting a bulky briefcase, Warner continues her brisk walk to the state capitol—a venerable structure modeled after the nation's Capitol building.



Warner, Unocal's manager of California government relations, is acutely aware of the broad range of issues confronting the state's legislators. She routinely sifts through stacks of bills, identifying the proposed laws that might affect Unocal. Warner's principal responsibility is keeping lawmakers informed about the company's point of view on key bills. It's a job that requires perseverance and a strong grasp of the political process, as well as a thorough understanding of Unocal's operations and interests.

Approximately 1,000 lobbyists are registered with the secretary of state in California. Every one of them is jockeying for the attention and goodwill of California's 40 state senators and 80 Assembly members. Warner's challenge is to ensure that Unocal's voice isn't muffled by the crowd. Her duties include formulating lobbying strategy, gathering expert witnesses for hearings, and monitoring the progress of crucial bills each step of the way.

Today, Warner is taking time out from a hectic morning schedule to give *Seventy Six* a walking tour of the capitol, located across the street from her office. "I sometimes make this trip to the capitol 10 times a day," she says.

Unocal has maintained an office in Sacramento for lobbying purposes for about 25 years. The influence California lawmakers hold over the company is profound, since so many of Unocal's operations—as well as its corporate headquarters—are based in California.

Moreover, the impact of California's laws sometimes reaches far beyond the state's borders. California has garnered quite a reputation as a trailblazer in matters of public policy. An experiment or policy departure in California law sometimes signals a nationwide trend. It's also a state with considerable economic muscle. If California were a country, its economy would rank sixth among all the world's nations.



Each year, California's lawmakers hammer out, debate, amend and vote on a massive number of bills. In 1988, for example, the Legislature proposed 8,174 measures. Of these, 1,769 ultimately entered the state law books. Because no lobbyist could singlehandedly monitor this volume of bills, Warner often relies on the help of contract lobbyists and industry organizations.

The most notable industry lobbying group in California is the Western States Petroleum Association, composed of lobbyists from oil companies with operations in the state. Working together, members can streamline lobbying efforts on bills that hold an industrywide interest. Lobbying assignments are commonly divided between members.

"Let's say a major bill concerning motor vehicle fuel taxes is being discussed in the Assembly Transportation Committee," Warner explains. "Rather than duplicate our efforts, each of us would talk to three or four different legislators." Organizations such as the California Chamber of Commerce and the California Manufacturers Association, to which Unocal belongs, also help Warner monitor bills addressing general business concerns.

Warner has overseen the company's lobbying in California for nearly three years. The 34-year-old native Californian is the antithesis of the good-old-boy stereotype of a lobbyist, serving to demonstrate just how distorted that perception is. No, Warner doesn't do her political pitching in dark, smoke-filled rooms. This skilled negotiator earns her pay in the halls and offices of the capitol — where credibility is her most indispensable trait.

"When meeting with an Assembly member or senator, I'm always as prepared as possible," Warner says. "But if they ask me a question I can't answer, I never fake it. I'll find out the answer, and get back to them later. I must have the trust of the legislators. Otherwise, what I say means nothing to them."

Warner's power of persuasion is used not only to argue for and against bills, but to work toward reaching compromises. This give-and-take approach has helped Unocal cultivate rapport with a broad base of lawmakers. As a large and diversified corporation with a sizable California payroll, Unocal attracts the interest and respect of politicians from both parties. "We have the ability to talk to any legislator about any issue

or bill. They are all willing to listen," Warner says.

Sources of legislation range from the governor and various state agencies to lobbyists and private citizens. "Legislators generally don't sit around and try to come up with ideas for new laws," Warner explains. "They usually introduce a bill because a special-interest group wants a change in a law. And a special-interest group can represent anyone and any cause — teachers, police, children's rights...anything."

Once a legislator introduces a bill, the Rules Committee in the house of origin — either the Assembly or Senate — assigns the measure to a committee with jurisdiction over the bill's subject matter. There, committee members invite testimony from the bill's supporters and opponents alike.

After testimony, a committee has several courses of action. Often, procedure dictates that the bill be channeled to yet another committee. Or the committee members may request amendments from the author. If the members approve the measure, it may qualify for floor debate and a general vote.

*Center left, Jami Warner, manager of California government relations, pauses outside the state capitol in Sacramento. Far left, interior of the capitol rotunda. Immediate left, Unocal's Platform Gina, off the California coast. Offshore oil development has sparked considerable debate in the California Legislature.*



“Committee hearings are often very heated,” Warner says. “If there’s a bill related to an emotional issue, such as abortion or animal rights, you’ll see busloads of people come up from all over California to testify.”

Assembly Speaker Willie Brown of San Francisco appoints members to Assembly committees, while Senate leader David Roberti of Los Angeles decides who serves on Senate committees. The Senate and Assembly each have 24 “standing” committees. However, legislation is also fine-tuned in “select” committees, which are more narrowly focused, and in joint committees, composed of both Assembly and Senate members.

Not surprisingly, Warner’s tour of the capitol includes a stop at a committee hearing in session. As she approaches the chambers where the Natural Resources Committee meets, she must dodge clusters of people engaged in impromptu corridor conferences. Inside, about 200 people fill the majority of seats in the gallery. The committee members sit at a horseshoe-shaped table in front of the room.

This morning, a man arguing in favor of an increased deposit fee on beverage containers is addressing the committee. Despite the urgency in his voice, the audience is less than hushed. There’s a constant hum of subdued conversations.

While leaving the room, Warner spots Unocal’s two contract lobbyists. She asks them about the status of a bill that would restrict the rights of oil companies to operate their own service stations. “At this point, the supporters don’t have the votes to get the bill out of committee,” lobbyist Jim Neff reports. Warner, who spent the previous day lobbying against the bill along with two Unocal dealers, is pleased with Neff’s assessment.

“It’s really a busy time right now,” she says, after concluding her brief hallway meeting. “There are hearings scheduled on several major bills, all within the next three weeks. I’m coordinating testimony and witnesses, and putting forth our position on dozens of other bills.”

The issues demanding most of Warner’s attention are alternate fuels and offshore drilling. “For the second straight year, alternate fuels has been the biggest legislative issue for the oil industry in California,” Warner says. Because methanol has some ardent advocates in the Legislature, bills mandating its use have found their way to committee dockets. Since Unocal views methanol as an experimental fuel, Warner has lobbied against such methanol mandates, in favor of a more cautious approach.

“There are several problems with methanol,” Warner says. “For one thing, it is extremely toxic. It’s also far more expensive for consumers than gasoline. And a methanol mandate would increase our dependence on foreign energy. Methanol is made from natural gas, and most of the world’s major natural gas reserves are in the Middle East.”

Another controversial issue is offshore drilling. In spite of California’s insatiable appetite for gasoline, offshore drilling has drawn considerable opposition from those viewing it as an environmental threat.



“Right now there are dozens of environmental bills dealing with offshore drilling,” Warner says. “These will be difficult to work with now, in light of the Valdez incident. But people must realize that offshore production is not related to tanker movements.” Further, Warner argues, offshore drilling expansion would strengthen national security. “The more we explore for and develop domestic energy sources, the less dependent we are on imported foreign oil—virtually all of which must be shipped here in tankers.”

The oil industry made great strides over the past decade in improving its public image, Warner continues. But the spill in Alaska has thrust the industry back into the “forefront of the Legislature’s field of vision.” As a result, even the most routine legislation affecting oil production now prompts intense scrutiny.

Warner meets with lawmakers—formally and informally—on a daily basis. She supplements her lobbying sessions in the capitol with frequent appearances at campaign fundraising events. Like other lobbyists, she’s continually striving to establish rapport with legislators.

“I’m constantly trying to increase my recognition,” she says. “I sometimes have to reintroduce myself—over and over—to the same legislators. That can be the hardest part of this job—getting to the point where you’re identified with your company or client.”

There are many other difficult aspects to the job of lobbying, of course. One of the biggest challenges facing Warner involves the pressure of having too little time. “Imagine walking into an assemblyman’s office and being told you have 30 seconds to state your arguments about a complex bill,” she explains. “This is not an uncommon occurrence.”

When Warner’s tour of the capitol reaches the Assembly chambers, she explains that the gate leading to the chambers is a good place to contact legislators who are on the floor. “You can give the sergeant at arms a message to hand to a legislator. Then, if he wants to, he’ll come out to the gate to meet with you. But you never have much time to make your argument.”

The Assembly chambers, decorated in shades of green, exhibit an incongruous mixture of ornate antiques and modern-day equipment. At the front of the cavernous room, at either side of an

immense portrait of Abraham Lincoln, are two electronic screens that automatically tally votes.

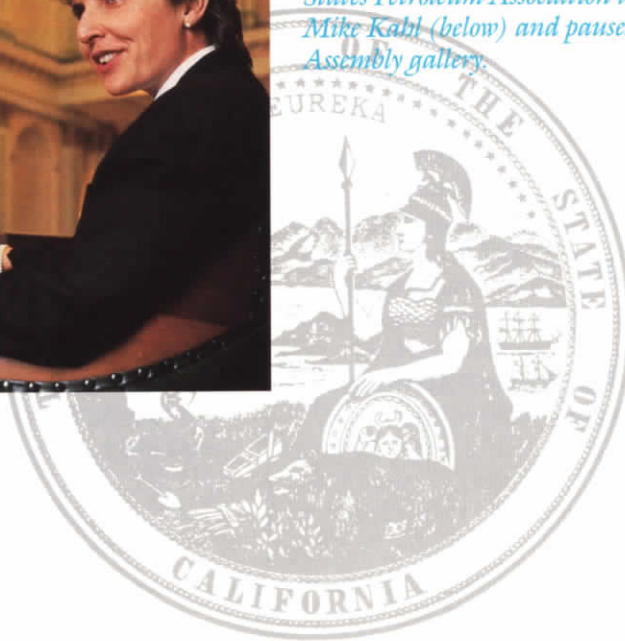
Warner motions to the gallery in back, which is now empty. “Toward the end of a session, it’s traditional to sit there until it’s all over,” she says. “Once I was here until 1 a.m. You never know what someone might try to sneak into a bill at the last minute.”

Back in her office, Warner resumes the unending task of wading through stacks of new and amended bills. After identifying a measure that could have an impact on Unocal, she sends a copy to corporate headquarters for further analysis.

When she finishes scanning a number of bills, Warner pauses to look up from her desk. “Bail, substance abuse, mobile homes, assault weapons, radon gas, horse racing, eating disorders...” She smiles and shakes her head. “The variety of issues that the state Legislature deals with is truly mind boggling. Obviously, legislators can’t be experts on all of these matters. That’s the real value of lobbyists—we help provide the information legislators need to make responsible public policy decisions.” C.S. ☺



*Opposite page, from left: Warner meets with Assemblyman Richard Katz; a view of the Assembly chamber. This page, from left: a view of the capitol rotunda at night (top); Warner confers with Western States Petroleum Association lobbyist Mike Kahl (below) and pauses in the Assembly gallery.*



Jeff Attebery has become an expert on brown pelicans. He knows their eating, mating and birthing habits. Attebery's face becomes animated as he describes how brown pelicans incubate their eggs. "They don't sit on them like other birds, they stand on them and grip them with their webbed feet," he says.

As district land manager for Unocal's Oil & Gas Division's Land Department in Ventura, California, Attebery made it his business to learn a lot about brown pelicans. He intended to ensure that a proposed offshore project wouldn't threaten the birds' environment.



*Unocal came up with two primary solutions to accommodate the pelicans. The company offered to delay drilling until the birds migrated south for the winter. Unocal also pledged to equip its platform with floating oil containment equipment to guard against damage arising from any spillage.*

Ornithology isn't Attebery's only area of expertise. As a Unocal landman, Attebery must know a great deal about a variety of subjects — from wildlife preservation to contract law. A landman's primary duties are to find the owners of land and mineral rights in areas the company is interested in exploring, then negotiate with them for permission to drill. Landmen also acquire offshore leases from state and federal government agencies — often in joint ventures with other oil companies.

## ALL IN A DAY'S WORK



From Alaska to the Gulf of Mexico, landmen represent the company and act as liaisons between Unocal and the local communities. It's a complex and wide-ranging job. A good landman has to be part salesman, contract attorney, detective, environmentalist, businessman, historian and diplomat. And to be effective in these roles, he must be an excellent communicator.

*Above, Unocal landman Larry Vavra (right) reviews a contract with a landowner in California's San Joaquin Valley.*

"We have to be ready to think on our feet and anticipate problems before they occur," says Attebery, who was recently promoted to Western Region land manager. When they aren't thinking on their feet, landmen are sometimes spotted running.

The Western Region's nine landmen (including one female), have amassed a wealth of stories about their dealings in the field. One was chased into a pasture by a gun-toting widow. Another helped a farmer deliver one of his dairy cow's calves. And an Alaska-based landman was attacked by a moose while driving in a snowstorm.



can expert from the University of California, Davis. The landman discovered that pelican eggs are subject to thinning if the mothers' feet are soiled during the incubation process. If thinning occurs, the embryo is likely to die. He also learned that the birds will abandon the nest when their food source is disrupted.

Unocal came up with two primary solutions to accommodate the pelicans. The company offered to delay drilling until the birds migrated south for the winter. Unocal also pledged to equip its platform with floating oil-containment equipment to guard against damage arising from any spillage.




*"A good landman can anticipate problems before they occur," says Western Region Land Manager Jeff Attebery.*

The Department of Interior, the federal office that governs leases three miles or more offshore, granted Unocal a permit to drill two wells near Anacapa. "If we're willing to be mitigators and determine where we can compromise, we can usually come to an amicable agreement" says Attebery. "Whether it's with the federal government or a farmer, we have to hear their concerns and work out mutually acceptable terms."

Attebery's introduction to the brown pelican occurred while he was permitting the drilling of an offshore exploration well. The targeted well site was just off Anacapa Island in the Santa Barbara Channel, where Unocal's Gina and Gilda platforms are located.

Brown pelicans, an endangered species, inhabit the island because there are no predators. The birds' main food source, anchovies, is also abundant along Anacapa's shoreline. To qualify the project for approval, Unocal had to prove that a well posed little threat to the birds' environment. Attebery promptly consulted a brown peli-

 The Unocal landman was chased into a pasture by a gun-toting widow. Another helped a farmer deliver one of his dairy cow's calves. And an Alaska-based landman was attacked by a moose while driving in a snowstorm.

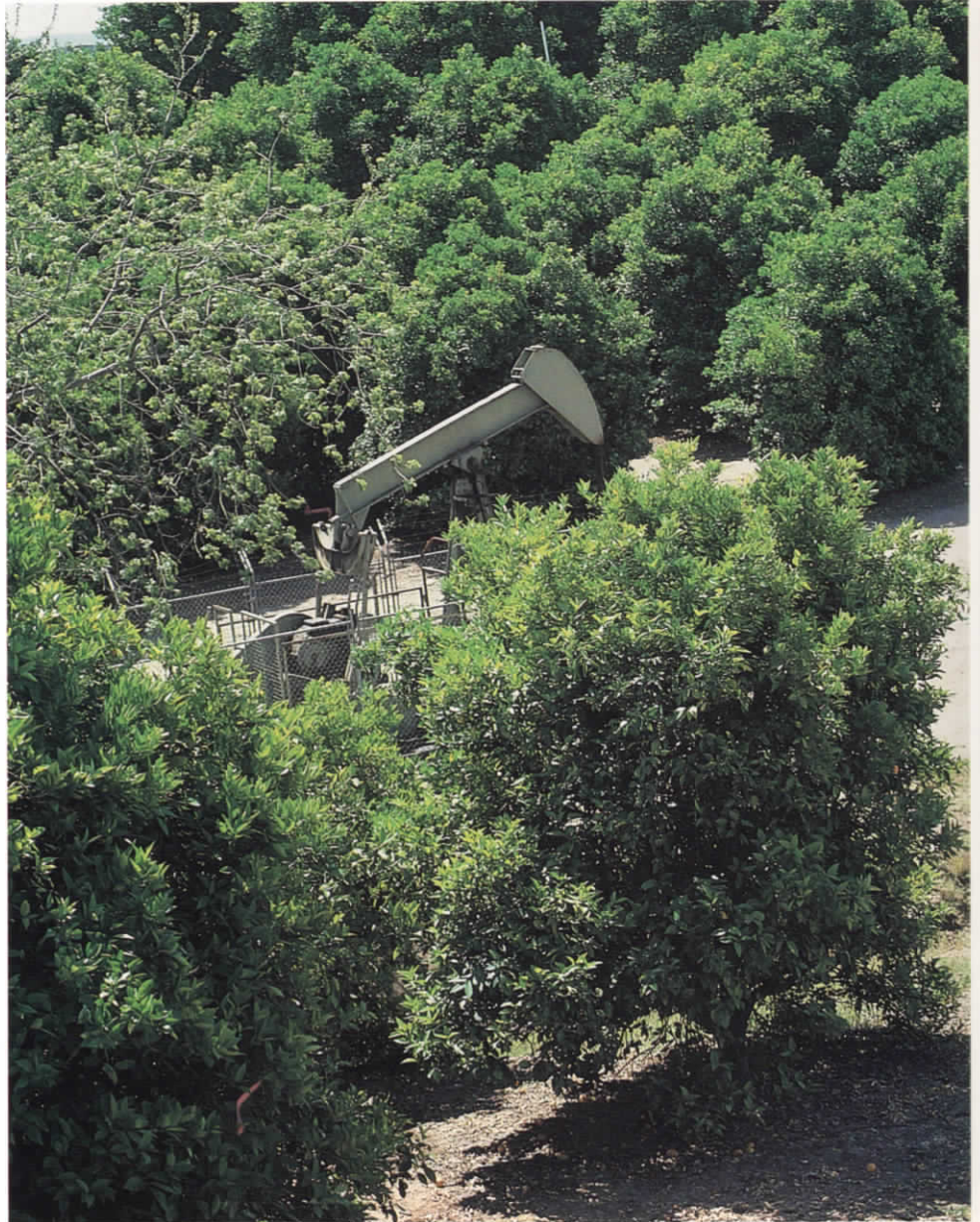
Larry Vavra, a Unocal landman based in Bakersfield, California, has solved his share of conflicts in the 20 years he has worked for the company. A recent example occurred in May, when he signed a lease to drill an exploratory well in a farmer's watermelon patch, located just outside Fresno.

"The geologists wanted to drill the well smack in the middle of the melon patch," says Vavra. "Well, the owner wouldn't go for that, so I talked to our geophysicists. They determined that we could move the well 200 feet south. The owner was so pleased that he offered to level the ground for us. He wanted the well to succeed as much as we did."



*Above, landman Randy Shipley (right) consults a geologist about an exploration site. Right, wells are often located on agricultural land, such as this California orchard.*

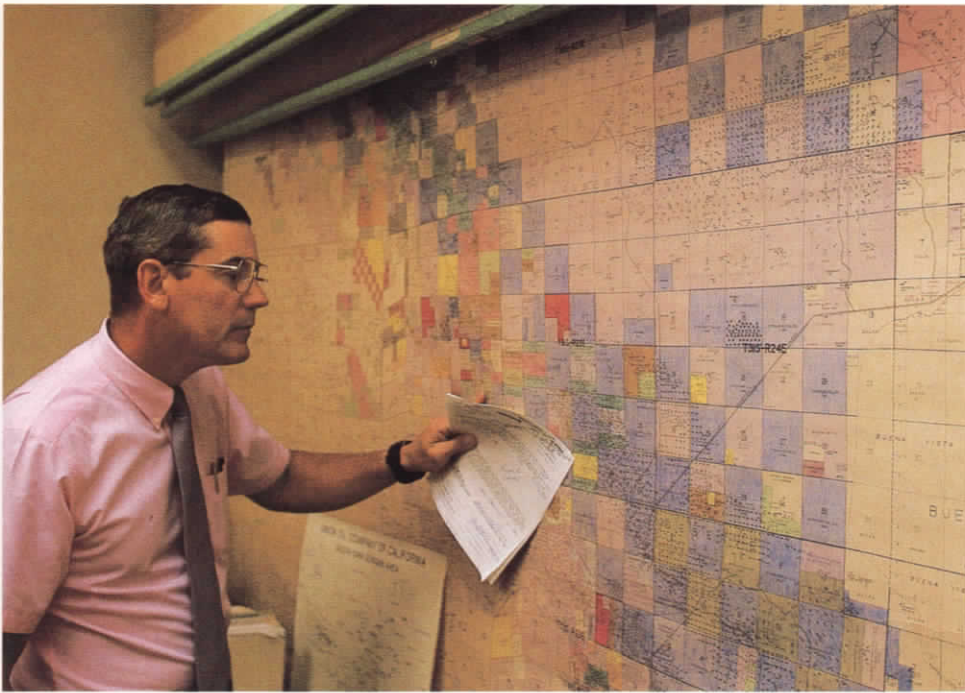
And with good reason. If a well strikes oil or gas, landowners receive a percentage of the production in the form of royalty checks. Landowners also receive annual rental payments for allowing exploration on their property. "It puts us in a good position because we're not just approaching people with something to sell," says Vavra. "They stand to make money from the deal."



Negotiating with private landowners is only one aspect of a landman's job. On any working day, a Unocal landman can be found on the phone securing drilling rights on a government lease or negotiating a contract with co-venturers. He also spends a good deal of time at his desk, scrutinizing records detailing the company's mineral rights for thousands of acres. When he's not in the office, he's often at a town meeting, trying to assure community leaders that the company shares their concerns about the environment and other pertinent issues.

A landman's work usually begins with the company's explorationists. Typically, Unocal geologists and geophysicists will come to the land department with a potential exploration site in mind. Then, a landman will try to determine who owns the land and mineral rights to the targeted property. This could mean spending long hours in an archive researching title records that can go back for generations. Then the landman begins the task of tracking down the current owners. Sometimes these hunts will take him clear across the country.





“Running title checks is one of the most fascinating parts of my job,” says Randy Shipley, a company landman in Ventura. “You learn a great deal about an area’s history.” During one title check, Shipley traced nine generations of Ventura County settlers, only to wind up the search by hand-delivering a lease agreement to a living heir in Seattle, Washington. “In this case, the property went through so many changes of ownership that the current heir didn’t even know he owned the land,” says Shipley.

Locating an heir or a landowner is only the beginning of a long maze that may eventually lead to oil production. Acquiring leasing rights for exploration can be a painstakingly slow process, requiring a great deal of patience. “In the past, you couldn’t sign leases fast enough,” says Shipley. “Quite often, it took only a handshake, or a note scrawled on a paper napkin. But today’s climate is considerably different. We waded through a lot of paperwork.”

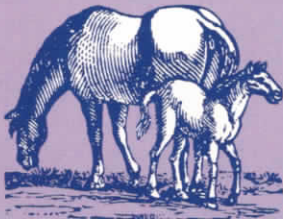
Landmen spend much of their time sifting through permitting documents, contracts and environmental regulations. “Our objective is to avoid any surprises,” Shipley says. “To do so, we have to read a lot of fine print.”

When contracts are approved and signed by the company, a landman’s job is still not finished. On a Unocal-operated project site, landmen make sure that work crews abide by all provisions outlined in permits. “We routinely check to see if anything is amiss on our leases,” says Vavra. “We act as the company watchdog and try to spot problems early.” Additional time is devoted to maintaining the rights to operating wells and to property that Unocal has leased but hasn’t begun to explore.

*“We routinely check to see if anything is amiss on our leases,” says Larry Vavra.*

Another part of the landman's job is to maintain peace with property owners who do not own the mineral rights to a particular drill site. "These people live on or near a production site, but are not receiving royalty checks from Unocal," says Vavra. "An important part of my job is to maintain a good rapport with them."

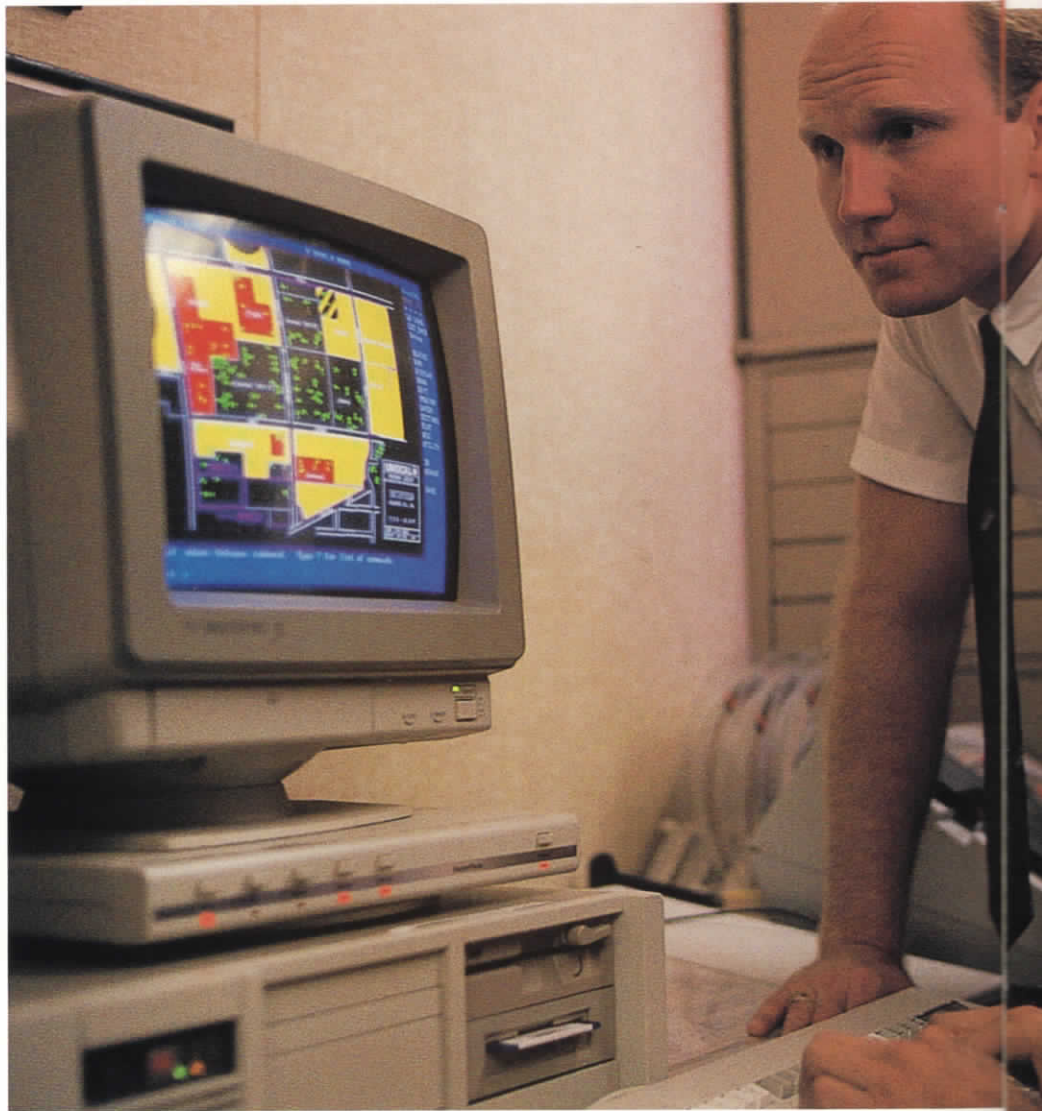
Vavra recalls receiving a phone call from a farmer in Derby Acres, California. The man was concerned that noise from a nearby well would cause his pregnant mare to go into labor prematurely.



*Landman Larry Vavra once received a call from a farmer who feared that noise from a nearby well might cause his pregnant mare to give birth prematurely. Unocal agreed to build a shelter around the well to muffle the noise.*

Vavra decided to meet with the man personally to work out a solution. When he arrived at the farmhouse, he was greeted by an angry pit bull who eyed Vavra's ankles with great interest. Vavra ran back to his car with the dog in pursuit, and began honking the car's horn to get the farmer's attention.

The farmer opened the door and casually called his pet into the house. The man explained to Vavra that he and "Chainsaw" hadn't been expecting any guests. With the pit bull secured in the house, Vavra and the farmer came to a mutual decision that Unocal would build a wooden shelter around the well to help contain any noise. Vavra recently learned that the horse gave birth to a healthy filly.



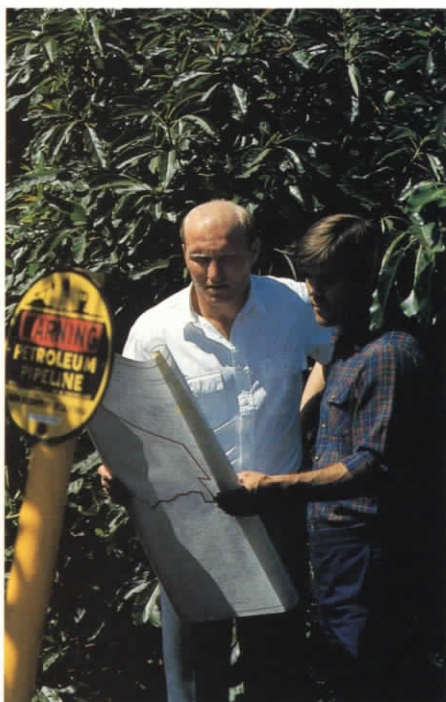
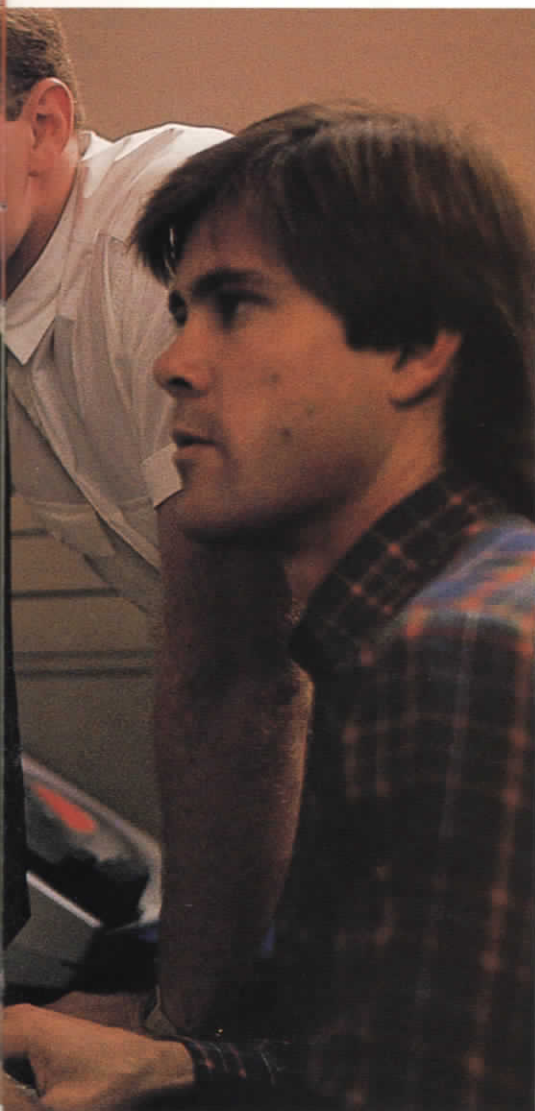
Randy Shipley received a crash course in the art of negotiating when he first began working as a Unocal landman seven years ago. In the early '80s, Unocal geologists had targeted a very promising exploration site in Los Angeles. Shipley and 10 other landmen-in-training were assigned to the new project.

They soon learned that they had their work cut out for them. "The targeted exploration area was in the heart of Hollywood, with the primary drill site centered in the Paramount Studios parking lot," explains Shipley. They also determined that the exploration area was divided into 5,000 separate

lots. To compound the situation, the landmen discovered that most of the lots were owned individually by homeowners who lived on the property.

This meant that the company would have to contact thousands of different people to see if they were interested in signing leases. "We had to sign a minimum of 75 percent of the leases before we could consider exploration," he says.

*A day's work for a landman might include meeting with a Unocal draftsman, consulting a farmer about a well location, or making a trip to an offshore platform.*



Unocal began by mailing out contract information to the owners detailing the company's interest and explaining royalty fees. The response was disappointing; Unocal only received 10 percent of the leases back, which left Shipley and his co-workers with another 65 percent to sign up.

The company rented office space in Hollywood, and the team began its campaign. Shipley set up appointments to meet with residents and also walked door to door during the day. He recalls that Los Angeles was in the midst of a serious heat-wave that summer. "Here I was, trying to appear fresh and professional in 100-degree weather," he says.

Shipley braved the heat in a suit and tie and became an impromptu door-to-door salesman. "I didn't know what kind of reaction to expect," he recalls. But Shipley soon found himself watching Dodger games with residents and looking at family photo albums. "When people understood why I was there, most of them welcomed me," he says.

Far away from Hollywood, in the frigid waters of Alaska's Cook Inlet, sit several oil platforms which represent further examples of projects involving landmen — joint ventures. Primarily in offshore areas, Unocal landmen work with co-venturers in pursuing oil and gas exploration projects. This

helps spread the economic risk of exploration, as well as the high costs of operating offshore — particularly in difficult, frontier environments.

"Forming joint ventures is a common way to share the risk when bidding for an offshore lease," says Unocal's Chief Landman Herb Harry. "A joint venture begins with an initial bidding meeting, where we and our co-venturers decide which tracts of land or offshore blocks we're interested in."

After this meeting, each company separately determines its own bid estimations. "During this stage, we consult closely with Unocal's exploration personnel Harry explains. "If the lease site is in a sensitive area, we also have to determine how environmental requirements will affect our operations. It's our job to make sure all the bases are covered before continuing negotiations with our co-venturers."

Once the companies have signed a joint-bidding agreement, each party shares its geological and technical information. If a bid is successful, one of the companies is chosen to serve as operator.

"We make a lot of calculated decisions, and we always have an alternate plan ready if a lease agreement falls through," says Harry. "A landman can't be satisfied with the quick answer. He must always be prepared to handle new developments that can spring up during any lease-play."

Jeff Attebery is well versed in the art of sound preparation, and his face lights up with pride when he talks about his own department's successes. Back in his Ventura office, he leans forward in his chair and points out the window. A spring rain has just ended and the clouds are beginning to lift away from the ocean. "Look, you can see platform Gina from here," he remarks. The smile on his face says the rest. *H.S.* 76

# Raising Safety Awareness

A clown sporting baggy, plaid shorts stood juggling three basketballs, as a handful of aspiring Magic Johnsons studied him like devoted apprentices. Nearby, other children waited patiently under the afternoon sunshine for the chance to sit behind the wheel of a real fire engine. Inside, adults and children alike roamed the confines of the blue and white striped circus tent, munching on hot dogs and popcorn, pausing to view exhibits and greet friends.

No, the carnival hadn't rolled into town. Rather, the scene was an example of the upbeat approach that Unocal Chemicals' Petrochemical Group is taking to safety education and awareness. The occasion was Safety Awareness Day, held on a Saturday afternoon in the parking lot of the group's chemical distribution center and polymer plant in La Mirada, California.

To many, safety may seem an unlikely theme for such a festive gathering. However, the Petrochemical Group's new safety improvement process is a pioneering endeavor, demanding unconventional approaches. The program's ultimate goal is to eliminate employee accidents entirely.

The group's management isn't merely aiming to educate employees about industrial safety measures. The managers intend to inspire, challenge and cajole the group's employees to make safety a personal priority — not only on the job but at home.

The Petrochemical Group manufactures and markets a wide variety of solvents, polymers, specialty chemicals and services. Headquartered in Schaumburg, Illinois, the group employs nearly 1,000 people in 32 locations across the country.

The La Mirada safety event featured exhibits and demonstrations on earthquake preparedness and fire safety at home. Medical personnel from a local clinic were also on hand to administer blood pressure and cholesterol tests.

An inspector from the Los Angeles County Fire Department demonstrated the flammability of household items that are widely assumed to be innocuous — ranging from hair spray to baking powder. Following this exhibit, a singing cowboy puppet warned children of the perils of playing with matches.



The Petrochemical Group is sponsoring similar safety days at facilities across the nation for employees and their families. "We want to change employee attitudes about safety," explains Brad Marsh, the group's quality and training administrator. "To do that, we have to address safety overall, not just at the workplace. If someone isn't safety conscious at home, chances are he won't be safety conscious on the job."

Management at the group level has given managers and employees at the branch offices plenty of leeway in deciding which safety issues to highlight at the events, Marsh says. And employee response has exceeded expectations.

"I've received a great deal of positive feedback about our safety day," says Brian Holmes, the senior branch manager at the La Mirada facility. "In particular, the puppet show was a big hit with the kids." The program drew 65 percent of the La Mirada employees, most of whom brought their families. Total attendance numbered about 180 people — rather impressive for a sunny Saturday afternoon.

"We came to learn more about safety and to have fun at the same time," said Ron Freston, the branch's administration manager. Freston was accompanied by his wife Lauren and their two children — Ameer, 4, and David, 1.

"Ameer's old enough now that she needs to be more aware of home safety," Freston commented.

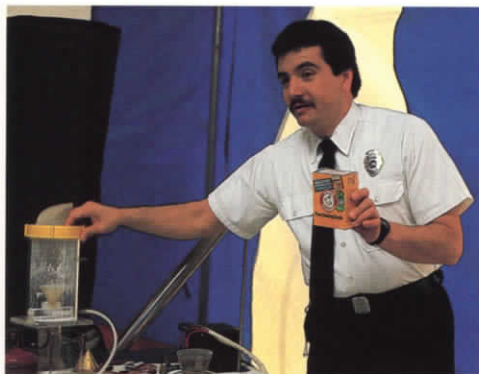
Shortly after the event's conclusion, branch employees were already making final arrangements for the next safety program in La Mirada — a presentation of the new Safety Improvement Process for all branch employees and their spouses.

"We can't measure the success of these programs just in terms of dollars or statistics. The benefits go beyond that," says Steve Findlay, the Petrochemical Group's Schaumburg-based manager of loss prevention. "When employees see that Unocal places a high priority on their safety and the safety of their families, they sense a real commitment from the company. It's great for morale."

The safety days are the brainchild of Bill Murphy, the group's vice president of chemical distribution. His idea was first tried in February of 1988 at the distribution center in Twinsburg, Ohio. There, employees selected the event topic. Although defensive driving, substance abuse and first aid registered some interest, the subject chosen was cardiopulmonary resuscitation. The local fire department provided the instruction.

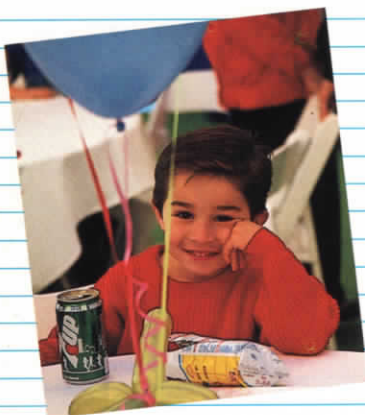


*The program's ultimate goal is to eliminate employee accidents entirely.*



*The Petrochemical Group has set out to raise safety awareness among its 1,000 employees. Above, a fire inspector demonstrates household hazards during a safety event at the La Mirada, California, polymers plant and sales facility. Top right, a young attendee enjoys a snack.*





*“We must set tough, concrete objectives to challenge ourselves.”*

“All 19 of our employees attended our CPR seminar, and the response was excellent,” says Terri Shiminsky, a Twinsburg employee who coordinated the two-hour session. “At the end of the instruction, all of our employees knew how to help keep a heart attack victim alive until emergency help is available.”

Several employees brought along spouses and teenage children to the class. Nine months later, nearly all of the same people attended a four-hour course on first aid, sponsored by the American Red Cross. Participants received training on subjects such as the Heimlich maneuver, how to treat shock and how to treat poison victims.

In Houston, the group’s employees and their families received hands-on training on how to extinguish a fire. “A pan filled with solvent was repeatedly set on fire, and everyone over 13 had a chance to put it out with an extinguisher,” explains C. E. Cook, the group’s regional general manager in Houston. Nearly 90 percent of the group’s Houston employees attended the event.

The Safety Awareness Days are a function of the Petrochemical Group’s newly implemented safety improvement process — an ambitious undertaking that applies proven concepts to safety efforts. The group formally launched the new process early this year during a two-day meeting in Schaumburg. Ninety petrochemical managers from plants and offices across the country attended.

“Improving performance in safety — eliminating accidents and losses — is the number one goal for the division and for me personally,” Chemicals Division President Thomas Sleeman told the participants. “The Petrochemical Group has a good start toward achieving that goal because of its commitment to the quality process. Nothing fits the definition of quality performance better than an accident-free workplace.”

Nick E. Lynam, the group’s senior vice president, then explained how a safety program can fit neatly under the umbrella of the group’s existing Quality Improvement Process. In the quality process, quality performance comprises four absolutes — conformance to requirements, measurement of the cost of quality, prevention of errors and adoption of a zero-defects standard. Applying these concepts to safety is quite straightforward, Lynam pointed out.



*Unocal petrochemical facilities across the country are sponsoring events highlighting safety at home and at the workplace.*



In the safety process, employees must define and then conform to all safety regulations, track the cost of unsafe acts and take preventive measures. In addition, employees must adopt a new attitude toward safety, rejecting the mindset that accidents are inevitable. This change — to an attitude that all accidents are preventable — is crucial to the success of the process, Lynam said.

"I expect a full commitment to this safety process from each one of you," he told managers attending the meeting. "You will commit to direct involvement, to active participation and, most importantly, to a new attitude."

Progress toward these goals will be meticulously tracked. For example, Brad Marsh is now involved in charting the incidence and cost of company vehicle accidents that could have been avoided.

Lynam and a staff of five act as a safety council, meeting every two weeks to discuss the group's progress in meeting its goals. The council members have appointed nine employees to a safety committee, which formulates specific policies, programs and materials.

"The committee members are from facilities across the country," Marsh explains. "They do the real hands-on work, and then submit their proposed programs to the council for consideration."

Recent committee projects have included compiling a list of laboratory safety procedures, defining the minimum standards for a preventive maintenance program for all plants, and determining what emergency equipment should be mandatory in company vehicles.

Each branch office also maintains its own safety improvement team, which meets weekly. Although these teams can influence group policies by consulting with the safety committee, team members can also act autonomously.

"For instance, if safety team members at a branch office decide there's a need for CPR training at their facility, they can set that up without any roadblocks from the committee or council," Marsh says. "They are also encouraged to conduct safety inspections on a regular basis, providing support to the audits that our environmental and health engineers oversee."


At the managers' meeting, Lynam announced the Petrochemical Group's safety objective for 1989: a 50-percent reduction in accidents. "This is an ambitious goal," Lynam said. "But we must set tough, concrete objectives to challenge ourselves." C.S. ☺



*“Nothing fits the definition of quality performance better than an accident-free workplace.”*



*"Petroleum marketing has become increasingly competitive in the 1980s. In response, we've expanded the scope of our training programs."*



## A School for SUCCESS

Seated around a table in a small conference room, the four business associates exchange uneasy glances. This, they each know, is going to be a meeting of consequence.

Not that there is undue cause for alarm. Indeed, the company's chain of convenience store ("c-store") outlets is thriving. Sales volume — both in gasoline and convenience items — has steadily increased over the past three years, and two new stores have recently been opened. But on this summer morning, the future looks uncertain. Traffic in the stores is beginning to fall off, and the company is facing increasing competition from a pair of rival c-store chains. Critical business decisions must be made — and quickly.

By mid-morning, the group has identified several options for responding to the changing business environment. They can add more gasoline pumps to their outlets, increase the selection of convenience items, extend the stores' operating hours, and lower (or raise) prices.

Each option has costs and drawbacks, however. Installing new pumps would eat up valuable parking space. Enhancing the selection of in-store items would lock up money in inventory, and might require the redesign of store interiors. Extending hours of operation would mean added personnel, overhead and insurance costs. Lowering prices would erode profits, while raising them could drive away customers. On the other hand, doing nothing could prove to be the costliest option in the long run.

After much discussion and debate, the four agree on a course of action. They will add new pumps and enhance in-store selection, but keep the same hours and maintain current prices.

Ordinarily it would take weeks to implement such changes, then weeks more to assess the bottom-line impact. But in this case, a few quick taps on a computer keyboard instantly reveal results: three months down the road, both sales and profits will have increased. The new business strategy looks good — at least for now.

The company described above does not really exist, and the business scenario is purely hypothetical. But the lessons learned are real and valuable. Welcome to Convenience Store Management Simulation, one of the most popular classes offered by Unocal's Marketing Training Department.

A part of the company's Schaumburg, Illinois-based Eastern Marketing organization, the Marketing Training Department dates back to the 1960s, when classes in service station management and petroleum products were offered to Unocal-branded service station dealers in the east. "Dealer Development" and "Basic Products" are still being taught today. But the range of classes offered by the department — and the number of attendees — has grown substantially in recent years.

"Petroleum marketing has become increasingly competitive in the 1980s," says Howard Hoffman, manager of marketing training and educational programs. "Marketing has also changed dramatically during the past decade, particularly here in the east. In place of the corner service station, you've got everything from c-stores and quick lubes to mini-car washes. In response to these changes, we've expanded the scope of our training programs."

In the east, Unocal distributes and sells most of its products through a network of marketers. These are independent companies that purchase petroleum and other products and resell them to dealers or through their own locations.

Marketers sell more than 85 percent of the gasoline and a large share of the other petroleum products, tires, batteries and accessories sold east of the Rockies. This is largely because the east has more cities and towns than the west, and communities tend to be more diverse. Utilizing marketers enables Unocal to operate with a high degree of efficiency and flexibility.



Utilizing marketers enables Unocal to operate with a high degree of efficiency and flexibility.



Unocal's Marketing Training Department offers a range of classes for the company's marketers in the east. Left and below, training specialist Mark Kesmodel leads a seminar for convenience store operators.



*The response to Merchandising for Success was excellent, and before long marketers were requesting more specialized training seminars.*

**T**he company's network of marketers, which accounts for over 85 percent of Unocal's product sales in about 30 eastern states, presently numbers over 400. While some of these marketers are exclusively wholesalers, most own and operate retail outlets as well. Unocal's training programs are designed to address their needs.

"We want to help our marketers be successful, because our success goes hand in hand," Hoffman explains. "One way of providing support is to maintain an effective training program."

The success of the company's training programs has been nationally recognized. Unocal has won the "Best Educational Programs" award from the Petroleum Marketers Association of America each of the three times it has been presented.

"One of the strengths of our training program is that it's continually evolving," says Bernie Ullrich, supervisor of educational program development. "We listen to the marketers, because they're the ones out on the front lines. They identify problems and needs, and we work together to develop ways to attack them."

The effectiveness of this approach is evident in the development of Unocal's training classes focusing on convenience store operations. The growth of c-store outlets has been explosive in the 1980s, particularly in the east. To compete in this new arena, petroleum marketers needed to learn — and then apply — a new set of marketing and management principles. The Schaumburg training staff responded by developing classes specifically designed to acquaint marketers with this emerging marketing segment.

"We began by educating ourselves," Ullrich explains. "We studied trade association material, watched what the competition was doing, and tapped our own experience. One of the first things we learned was that the convenience store of the 1980s is not just a gas station with bread. Operators need to understand c-store retailing to succeed — and one of the major needs expressed by our marketers was for increased c-store training."

The first class to be developed was called Merchandising for Success. Initially offered in 1981, the two-day workshop covers subjects such as general retailing principles, store design and layout, inventory control and working with vendors. Students explore customer buying habits and shopping patterns, learn what products to stock based on demographics, and learn how to optimize the appearance of their outlets through effective use of signs and graphics.

The response to Merchandising For Success was excellent, and before long marketers were requesting more specialized training seminars. The result was a pair of three-day Convenience Store Simulation classes — one designed for individual c-store managers, and one for executives who oversee a group of outlets.

The heart of each of these classes is a unique computer game that simulates the convenience store environment. Split up into competing teams, students must make strategic business decisions on everything from pricing, merchandising and personnel to product ordering, inventory and capital spending. A specially designed computer program then evaluates those decisions. Results come in the form of quarterly operating statements, with the focus on profitability and market share.

"The simulations cover a time span of two years," explains training specialist Mark Kesmodel. "The goal is to give marketers a feel for how their business decisions affect the bottom line — and what kinds of factors should weigh in those decisions?"

Kesmodel and fellow training specialist Felecia Wimbish are the teacher-moderators for the c-store classes. Some sessions are held at the company's training center in Schaumburg, but Kesmodel and Wimbish spend much of their time taking the classes on the road.

"Traveling gives us the opportunity to reach interested marketers who might not have the time to come to Schaumburg," Wimbish says. "We've held classes all over the east."

The students have a variety of business backgrounds and levels of experience. "Some are brand new to c-store marketing, while others have been in the business for years, but are fine-tuning their operations," says Ullrich.

In addition to computer simulations, class instruction includes lectures and video presentations. "We ask a lot of questions, and encourage the students to talk about their own experiences," says Kesmodel. "That way they can learn from each other as well as from us."

*"We listen to the marketers, because they're the ones out on the front lines. They identify problems and needs, and we work together to develop ways to attack them."*



*Unocal's c-store training classes are designed to help marketers succeed in this highly competitive arena.*



*"We want to help our marketers be successful, because our success goes hand in hand."*



*Below, training specialist Felecia Wimbish (third from left) reviews a c-store "plan-o-gram" with students. In addition to lectures, the training classes employ computer simulations, role-playing exercises and videos. The goal is to provide information and ideas that marketers can apply to their own operations.*



# Family TIES

Sometimes the student feedback can lead to the formation of a brand new class. For example, Wimbish and Kesmodel noted that one of the biggest problem areas identified by c-store operators was personnel — more specifically, how to attract quality workers, how to train and manage them effectively, and how to minimize employee turnover.

In response, the Training Department designed a new two-day seminar on Personnel Management. The class covers such subjects as recruiting and interviewing techniques, effective training methods, motivating and counseling employees, and time management. Students also take part in role-playing exercises, during which they interview each other and conduct mock performance evaluations. The sessions are videotaped and then reviewed by the class.

“The role-playing exercises are a great learning tool,” says Kesmodel. “Students can evaluate their own performance as job interviewers and counselors, and get a more direct feel for the employees’ point of view.”

“What we stress is that managers should try to develop a personal relationship with employees — even at the job interview stage,” Wimbish adds. “That’s one of the keys to attracting and retaining quality workers.”

Although the training classes last only two to three days, the process doesn’t end there. The Training Department conducts regular follow-up surveys to learn how students are applying the course concepts.

“We also ask them to try various tests at their outlets, and let us know the results,” Wimbish says. “For example, we might suggest that a c-store manager spend a day doing a ‘traffic survey’ — noting how many customers come in, and where they go once inside the store. If people aren’t passing by certain items or shelves, the manager might try altering his product placement.”

The suggestion to monitor customer traffic paid off for Jonathan Arnett, a Unocal-branded marketer who manages a chain of eight convenience store outlets in eastern Kentucky. After noting that relatively few customers were passing by a candy display at one store, Arnett had the manager move the display to the front counter. Candy sales immediately increased as a result.

“I’ve picked up a lot of valuable ideas from Unocal’s training classes,” says Arnett, who has completed three. “I’m relatively new to the business, and the classes have been a tremendous help to me. I’ve managed to apply just about everything I’ve learned.”

As petroleum marketing continues to diversify and become more competitive, Unocal’s Marketing Training Department aims to continue providing support and new ideas to the company’s marketer network. Two new classes are currently in the development stage: one on customer complaint handling, and one on sales strategy. The latter is specifically formulated for marketers who sell petroleum products in bulk to fleet and industrial accounts.

“This is a business of rapidly changing dynamics,” says Hoffman. “We want to help equip our marketers for success, whatever their particular niche may be.” T.S. ®

*Many petroleum marketers in the east are family-run companies that have been in business for generations. Unocal’s relationship with some of these marketers is equally long-standing, and the company’s Marketing Training Department offers a unique program specifically designed for these firms. Called the Young Marketers Training Program, it primarily enrolls the children or grandchildren of Unocal marketers.*

*The eight-week course, held every other year, is designed to give trainees a thorough grounding in petroleum marketing. Numerous aspects of the business are covered, from retail operations (including service stations, c-stores and truckstops) to commercial sales, facility maintenance, real estate, terminal operations and government regulations.*

*The program combines classroom-study at the Schaumburg training center with workshops, home study assignments and hands-on training in the field. Participants tour Unocal’s Chicago refinery and visit a bulk terminal, a truckstop and the company’s eastern credit center. The course ends with a graduation ceremony held in Schaumburg.*

*“The response to the Young Marketers Program has been absolutely fantastic,” says Bill Redding, Unocal’s manager of marketer relations. “This is a truly unique program. No other oil company does anything like this, and our marketers appreciate it.”*

*Seventeen trainees were enrolled in the most recent class, which held its graduation at the end of 1987. “Our trainees come from many different states and business backgrounds,” Redding says. “They learn a lot about the relationship between supplier and marketer, and how we work together to achieve success.” ®*

---

---

# BRINGING SCIENCE TO THE OIL FIELD

---

---



he year 1899 was an important one for the fledgling Union Oil Company of California (now Unocal).

Along with other American businesses, the company had been hit hard by a nationwide financial panic a few years earlier. As a result, Unocal had been forced to shut down most of its oil wells and cease exploration activity. But now the economic climate was improving, and oil companies in the west were scrambling to regain their footing. To survive in this hotly competitive environment and resume its growth, Unocal needed to find and produce more oil — and quickly.

The company responded to the challenge by focusing on land acquisition and exploration. As part of this effort, Unocal's directors took a step that no other oil company had yet taken — they hired a geologist. It was a move that would prove to be a master stroke. The geological surveys of the man they hired — one William Warren Orcutt — would ultimately lead to the discovery of millions of barrels of oil for Unocal.

At the time Orcutt was hired, the principles of geology weren't being widely applied to oil exploration. Most explorationists were rough-hewn wildcatters who drilled only in areas where oil was visibly seeping up out of the ground. The nature of the earth's subsurface neither interested nor guided them. But William Orcutt was about to change all that.

Orcutt's interest in geology was spawned by the natural oil seeps he found as a youth on the mountains around his home town of Santa Paula, California — the same town where Unocal was founded in 1890. But unlike most wildcatters, he had an insatiable curiosity about the earth's subsurface. He wanted to determine where those seeps were coming from, and what was happening to cause the oil to percolate up.

In 1891, Orcutt enrolled at Stanford University, where his interest in geology intensified. But although he studied the subject avidly, Orcutt didn't think he could make a living in the field. When he left Stanford in 1895 — a member of the university's first graduating class — he departed with a degree in civil and hydraulic engineering.

Orcutt returned home to Santa Paula and rented an office in Unocal's headquarters building, where he set up a civil engineering and surveying business. Unocal's co-founder Lyman Stewart took a special interest in the young man, who was a childhood friend of Stewart's son Will. Aware of Orcutt's keen interest in geology, Stewart began to mull over the idea of applying geological theories to petroleum exploration. He urged Unocal's directors to offer Orcutt a job, which they did in 1899.

Orcutt seized the opportunity to join Unocal, and accepted a job as superintendent of the company's San Joaquin Valley operations. Thus began a career that would span over 40 years.

Orcutt began his tenure with Unocal by making a thorough geological survey of the Santa Maria basin. Dissatisfied with the hit-and-miss nature of oil exploration, he looked for surface indications of underground formations that could harbor oil traps.

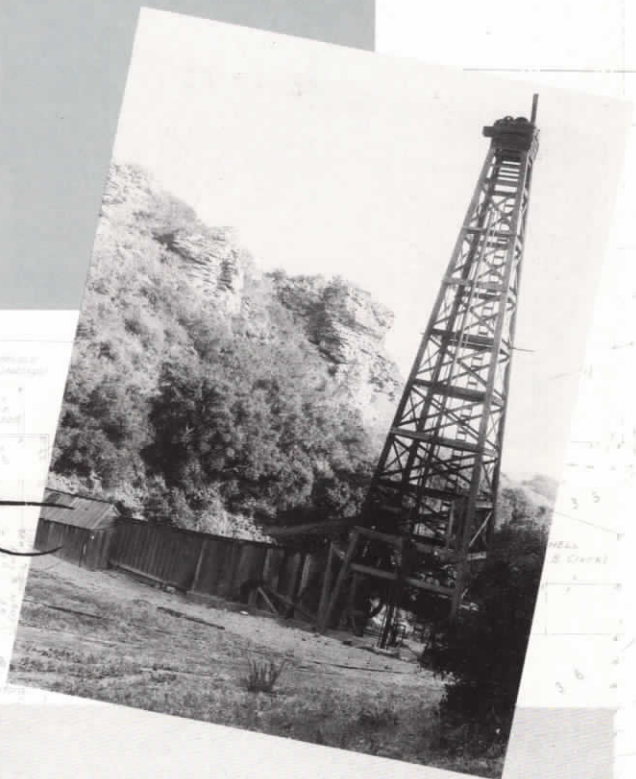
"Orcutt had the knowledge and perception to apply the 'anticlinal theory' to oil exploration," says Sam Grinsfelder, a retired Unocal vice president of exploration who worked for Orcutt for 16 years. "That kind of scientific approach had never been taken before."

Developed in the late 1800s, the anticlinal theory holds that certain types of subsurface geological structures in sedimentary rocks are good indicators of potential oil reservoirs. These underground formations, known as anticlines, rise to rounded peaks that resemble inverted spoons. Hydrocarbon fluids, usually lighter than water, will naturally migrate upward into the folded strata of an anticline — and can be trapped by an impermeable rock layer in the anticline's cap.

During his spare time, Orcutt scouted the Santa Maria basin on foot and on horseback, looking for surface indications of anticlines. These often appear as raised "bubbles" on the earth's surface, and can be very subtle or quite extreme. He kept all his notes on a folding map, which soon became filled with jottings and diagrams.

Demonstrating his faith in Orcutt, Lyman Stewart persuaded the company's board of directors to acquire over 70,000 acres of land in the Santa Maria basin. It was a risky move at the time, given the company's still-tenuous financial health. But Stewart's faith in the young geologist proved to be well-founded. Exploration wells drilled on the new land — often at sites specifically recommended by Orcutt — began to strike oil with increasing regularity.

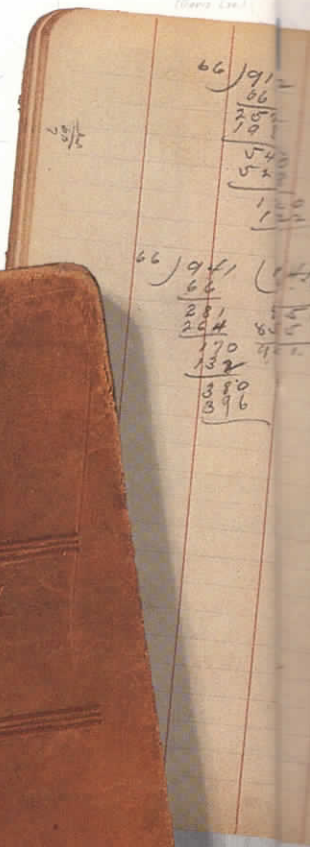
*William Orcutt's early geological surveys led to the discovery of millions of barrels of oil for Unocal. Left, Orcutt circa 1910. Below, early photos of the Orcutt field near Santa Maria.*



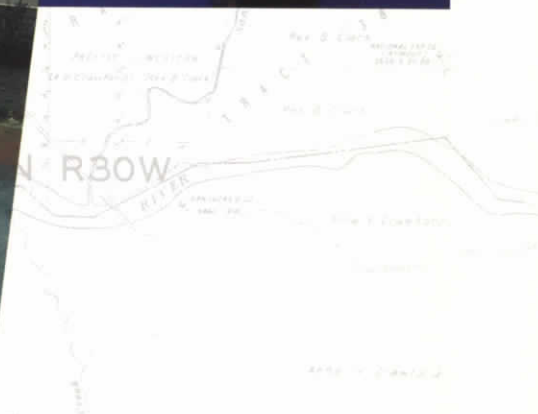
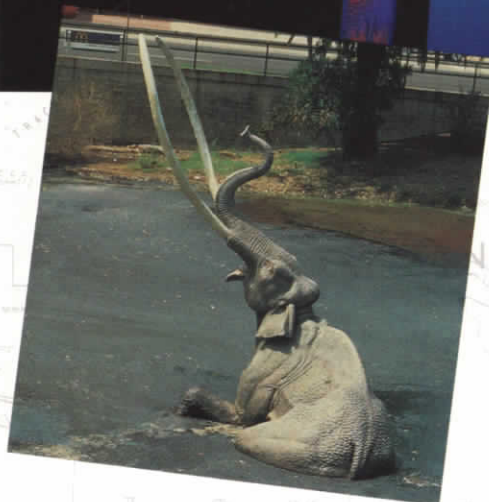
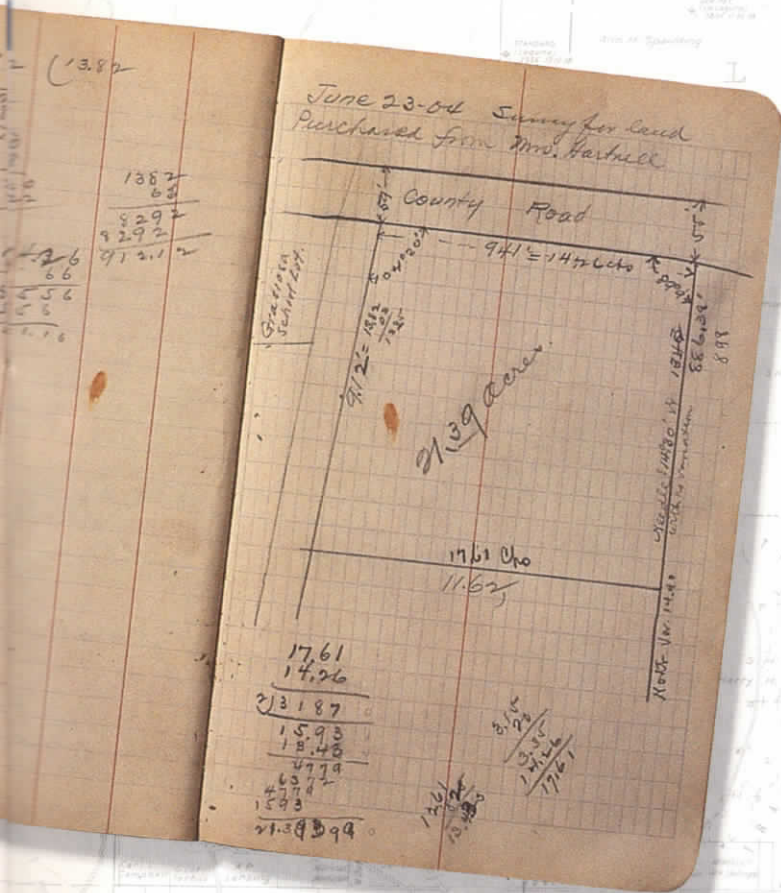
*W. W. Orcutt*



Clockwise from right: William Orcutt pictured in 1940; Orcutt's field book from 1904; a current production site in the San Joaquin Valley; company geophysicists use computers to create three-dimensional maps of underground formations; an exhibit at Los Angeles' La Brea Tar Pits, a major prehistoric fossil bed discovered by Orcutt; reviewing color-enhanced seismic data; the Los Angeles oil field pictured at the turn of the century.







One well drilled in the Santa Maria field in 1904, nicknamed "Old Maud," became one of Unocal's biggest producers. It came in at 12,000 barrels of oil a day—an unheard of production rate at the time—and yielded a million barrels in just three months.

Not surprisingly, Orcutt's early geological map became the company's official guide for exploration in central California. It led to the discovery of the Lompoc field in 1903, and the development of the Orcutt field, near the Ventura County town named in the geologist's honor, shortly thereafter.

Development of this new acreage was principally responsible for a continual upsurge in Unocal's production during these turn-of-the-century years. In fact, the company's annual production nearly tripled in just three years, increasing from 750 barrels of oil per day to 2,050 between 1901 and 1904.

Greatly impressed with Orcutt's success, Lyman Stewart asked him to come to Los Angeles, where the company had moved its headquarters. Stewart named Orcutt Unocal's chief geologist, and had him organize a geology department for the company—the first such department ever formed by an oil company in the west.

The new department soon began to fill up with bright young geologists—all of them eager to apply their knowledge and skills to the exciting business of oil exploration. Under Orcutt's direction, the geology department played a vital role in the discovery of such major Southern California oil fields as Santa Fe Springs, Dominguez, Richfield and Montebello.

During his tenure at Unocal, Orcutt cultivated numerous friendships with people affiliated with the oil business. "He was a born leader, no question about it," recalls Grinsfelder, who began working for Unocal in 1923. "He was the type of boss you could easily approach. People trusted and respected him."

Orcutt's personable nature also benefited Unocal in more tangible ways. In 1910, the company was awarded a contract to transport and market oil from the Independent Oil Producers Agency, which consisted of 150 small California-based oil companies. The organization's members chose to market their oil with Unocal largely because its representatives trusted the integrity of Orcutt, who had gotten to know many of them over the years. The high standard of integrity embodied by Orcutt remains a key element of Unocal's culture and success today.

During his early years with the company, Orcutt also made a significant contribution to the field of paleontology—quite by accident. It happened one morning in 1901, when the geologist rode out to a West Los Angeles well site on horseback. While he was exploring the site, located in an area of extensive natural oil seeps, Orcutt spotted something that piqued his interest. According to his notes, he noticed a "mosaic of white bones, uniform in shape, lying in an exact pattern... a beautiful contrast with the black surface of the hard asphaltum."

This discovery excited paleontologists throughout the world, and an excavation was promptly begun. Before it was completed, hundreds of skeletons of prehistoric creatures were unearthed from what came to be called the La Brea Tar Pits. The ancient mammalian fossils were from the late Pleistocene epoch, dating back approximately 40,000 years.

Today, thousands visit these unique tar pits annually. In recognition of Orcutt's discovery, a species of extinct coyote was named in his honor, *Canis orcutti*.

As the years went by, Unocal continually promoted its prized geologist. In 1908, he was named manager of the Land Department, elected to the board of directors and appointed to the executive committee. By 1922, Orcutt was serving as vice president of both the Geology and Land departments.

These impressive titles and responsibilities didn't keep Orcutt out of the field, however. Possessing an adventurous spirit, he travelled far and wide to search for oil—from the tundra of Alaska to the jungles of South America. In addition to his California discoveries, Orcutt was partly responsible for the discovery and development of oil fields in Colorado and Wyoming, some of which are still producing for Unocal today.

By the time Orcutt retired in 1938, he had left his mark not only on Unocal, but on the oil industry as a whole. Unocal had grown to become a major west coast oil company, positioned solidly on the road for future growth. And the science of petroleum geology, which Orcutt pioneered, was not only embraced by oil explorationists—it was leading the industry to unimagined success.

"The impact that William Orcutt had on oil exploration is substantial," says Sam Grinsfelder. "Today's geologists and geophysicists have many sophisticated tools that Orcutt never dreamed of. But the advances all go back to the foundation that he laid." H.S. ⑥



## THE RIGHT CHEMISTRY FOR A SAFER HARVEST

When the environmental movement gained momentum in the early 1970s, the future appeared uncertain for many agricultural chemicals that had been staple products on the nation's farms. With each new government ban of a pesticide or herbicide, the crevice in the lucrative agricultural chemicals market grew wider. Anticipating an enduring trend, Unocal seized the opportunity to break into this market and began developing environmentally preferred agricultural products.

Today, the company's foresight is beginning to pay dividends. Innovative products developed by the Chemicals and Science & Technology Divisions are providing farmers with environmentally safer fertilizers and weed control chemicals. Two new products — ENQUIK® a weed killer; and UNOCAL PLUS® a fertilizer — have diversified the product line offered by the Chemicals Division's Nitrogen Group.

This departure from the group's traditional products — commodity nitrogen fertilizers — is also broadening the division's customer base in commercial agriculture. For example, Enquik sales look promising in the Southeast, particularly among Georgia's peanut growers. Previously, the Nitrogen Group didn't market any products in the Southeast.



"Although we're relative newcomers in some of these markets, we can still be competitive," says Charles Merrill, senior vice president of the Nitrogen Group. "Enquik and Unocal Plus have unique qualities, and they're environmentally safe alternatives. Acceptance in the Southeast may come slowly because Unocal lacks name recognition there as an agricultural chemicals supplier. But customer response has been very encouraging."

*Above, a helicopter sprays a pepper field with Unocal Plus, an environmentally preferred foliar fertilizer developed and marketed by Unocal.*

When sprayed directly on weeds, Enquik kills the unwanted growth by chemically breaking down the cell walls of plant tissue. Unocal began marketing the product in 1988. Because foliage treated with Enquik dries out, the product is classified as both a desiccant and herbicide. After Enquik destroys plant tissue and reaches the soil, the chemical decomposes into nitrogen and sulfur compounds, which act as soil nutrients.

"Enquik works much like a solvent," explains the product's inventor Dr. Donald Young, senior staff consultant at S&T. "It can dissolve cellulose, which is the basic skeletal structure of all plants."

As its name implies, Enquik wastes no time. In fact, growers using the product can start to see results minutes after application. Enquik's effectiveness is also less influenced by inclement weather than most herbicides.

Like Enquik, Unocal Plus represents an innovation in agricultural product development. Unocal Plus is essentially a purified form of urea, a highly effective nitrogen-based fertilizer. S&T's Agricultural Chemicals Research section, which developed both Enquik and Unocal Plus, perfected a process for virtually ridding urea of a byproduct. This byproduct, biuret, is potentially toxic to plants when applied to foliage.

The advantage of biuret-free urea is that it's suitable for foliar application. In other words, it can be sprayed directly on a crop's leaves.

"Any way you look at it, applying a fertilizer through the ground isn't nearly as efficient as applying it directly to the leaves," says Jay Selover, who heads the S&T Agricultural Chemicals Research section. "With foliar application, the fertilizer is absorbed much more readily."



When fertilizer is applied to soil, the nutrients must reach a plant's roots to augment any growth. This occurs when the fertilizer is driven to the roots — by irrigation, for example — or when the roots grow enough to encounter the fertilizer in the soil. But with foliar application, absorption of nutrients is immediate and fewer are lost to the soil.

Urea is one of the most reliable fertilizers applied to the ground, Selover says. Unpurified urea normally doesn't pose a threat to plant life, unless the chemical is applied directly to green foliage. Then, the biuret can damage the crop. Typically, commercial urea contains 1 to 2 percent biuret.

In addition to being virtually biuret-free, Unocal Plus also controls the formation of free ammonia, an impurity arising from urea breakdown in solution. Free ammonia can harm plant tissue. Unocal Plus includes a dye that changes color — from yellow to red — in the presence of free ammonia. If free ammonia has been generated during storage, a grower can readily discern this by observing the red color. The addition of a buffering agent easily counteracts the impurity and restores the yellow color.

"By controlling both biuret and free ammonia, Unocal has created a premium foliar fertilizer," says Jim Saake, manager of domestic agricultural marketing for the Nitrogen Group. "A grower can use Unocal Plus feeling confident that the fertilizer will be effectively absorbed into the plant tissue. And there's no risk to his crop."

Unocal Plus, manufactured in Brea, California, was first marketed commercially in 1987. Enquik's production facilities are in Fresno, California and Kennewick, Washington.



Demand for both Enquik and Unocal Plus figures to rise as environmental standards become more stringent. In particular, concerns about herbicide residues are likely to buoy Enquik sales. Unlike many herbicides, Enquik leaves no harmful residue. The chemical decomposes into naturally occurring compounds that are soil nutrients. Shortly after Enquik works, there's no chemical evidence that it was ever used, Don Young says.

And because Unocal Plus is sprayed foliarly, little of the product ever reaches the soil. Like Enquik, Unocal Plus also quickly breaks down into naturally occurring compounds.

Enquik's benign nature is already responsible for its growing acceptance among Georgia's peanut growers. In late 1987, the Environmental Protection Agency (EPA) banned the use of a chemical widely employed to kill weeds in Georgia peanut fields. The weeds consume moisture and nutrients that would be beneficial to the peanut plants. Moreover, weeds shade peanut plants from sunlight.

Enquik has proven to be an ideal substitute for the now-banned chemical. This year, Enquik has been successful destroying weeds between rows of peanuts — and within the rows themselves. Although Enquik temporarily slows the peanut plants' growth, it doesn't otherwise harm them. That's because in the early stages of growth, peanuts have a waxy coating that helps protect them from the effects of Enquik.

Also in the Southeast, specifically Florida, Enquik is controlling weed growth between rows of tomatoes. Enquik can even control Florida's most troublesome weed, black nightshade.



*Potato vines pictured before the application of Enquik (top) and five days later. A desiccant that kills the vines without harming the potato crop, Enquik decomposes into naturally occurring compounds that are soil nutrients.*

"We've made a real strong marketing effort in the Southeast this year," says Phil Dedge, manager of chemical products. "We also see the potential for use of Enquik on other Southeastern crops, including citrus fruits, eggplant and peppers." Dedge is coordinating the marketing of Enquik in the Southeast.

Because Unocal isn't a widely known agricultural chemical supplier in this part of the country, Dedge markets Enquik through a distributor based in Albany, Georgia — Chemnut, Inc. "Chemnut is highly respected in the Southeast's agricultural community," Dedge says. "The firm's involvement has increased Unocal's visibility in this market. Also, Chemnut has an extensive dealer network for distribution to farmers."

The Nitrogen Group is complementing Chemnut's efforts with an advertising campaign. In addition to touting Enquik's attributes, the advertisements aim to establish an identity for Unocal — that of a leading agricultural chemicals supplier. The ads have run in key trade publications.

In the Pacific Northwest and Midwest, Enquik has drawn support from potato growers in Idaho, Washington, North Dakota and Oregon. Farmers use Enquik as a desiccant to kill potato vines. Also, Enquik has been applied to a number of other crops in the Pacific Northwest — grass seed and onions among them.

"Potato vine desiccation or killing is widely practiced in the Northwest, with over half of the potato acreage receiving some form of chemical vine killer," says Steve Petrie, a Unocal agronomist.



The potato vines are killed for a variety of reasons. For one, desiccation enables a grower to control when the skin on the crop of potatoes is set. Potatoes must be dead for a time before their skins become firm. If the skins aren't properly set, the potatoes become scuffed and bruised during harvesting. Desiccation also helps growers control when the potatoes go to market. Moreover, the elimination of the cumbersome vines makes harvesting easier.

Marketing in the Pacific Northwest relies heavily on the Chemicals Division's established customer base and network of dealers. Many Enquik dealers in this region have sold Unocal's fertilizer products for years.

"Because we already had experienced Unocal personnel in place in the Pacific Northwest, Enquik was able to make a rapid entry into that market," Jim Saake says. Saake is in charge of Enquik's marketing in Oregon, Washington and Idaho.

In Oregon, Enquik has even helped eradicate a plant disease that plagues peppermint crops. The peppermint plant's foliar material can host the growth of spores that lead to the disease, known as rust. By destroying foliar growth, Enquik disrupts the disease's development cycle, Saake says.

Historically, farmers have battled rust by burning their mint fields in the early spring. Similarly, Oregon growers of grass seed traditionally burn their fields to control plant disease and to stimulate seed growth. However, the future of field burning is now in question. Oregon environmentalists — as well as some state legislators — have attacked the practice, arguing that it results in unnecessary air pollution. Enquik is being evaluated as an alternative to field burning.

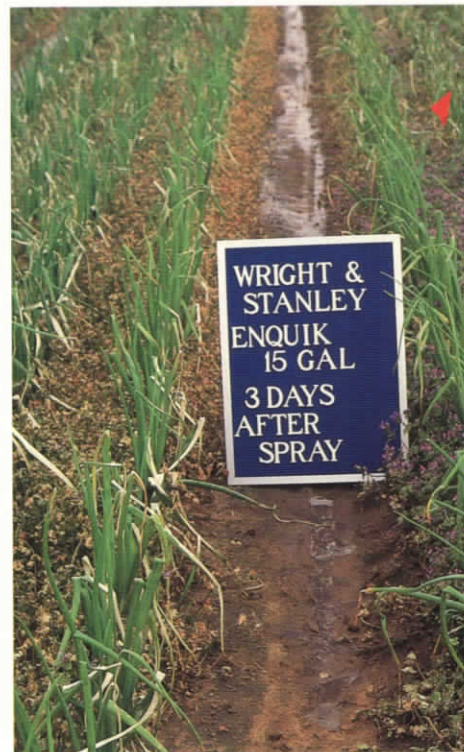


Unocal Plus is marketed primarily in California and Arizona. The major crops benefitting from the fertilizer are citrus fruits and cotton. In particular, cotton is a prime candidate for foliar application of a fertilizer.

"We've found that during peak growing periods, demand for nutrients really increases in some varieties of cotton," Saake says. "Without supplementary nutrients, a cotton plant may shed some of its bolls. The plant's absorption of nutrients through its root system simply can't support high yields."

---

*"Shortly after Enquik does its job, there's no chemical evidence that it was ever used," says Dr. Donald Young, S&T senior staff consultant.*



The Agricultural Chemicals Research section, based at the Fred L. Hartley Research Center in Brea, has also conducted tests to demonstrate the use of Unocal Plus as a frost retardant. "One of the things that stimulates frost damage is a certain type of bacterium that lives on plants," Don Young says. "Unocal Plus can alter the behavior of that bacterium to retard frost formation."

Both Unocal Plus and Enquik make use of other Chemicals Division products. Unocal Plus is composed primarily of urea manufactured in the company's Kenai, Alaska plant. Enquik makes use of a new compound derived from urea, as well as sulfuric acid. The sulfuric acid for Enquik's production comes from a Unocal plant in Los Angeles. Research and development for Unocal Plus and Enquik can be traced to the 1970s.

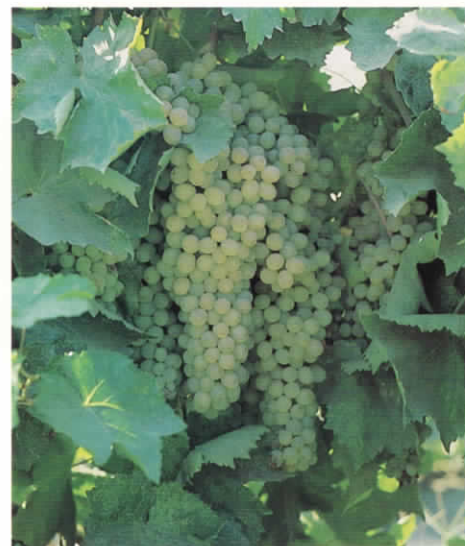


Enquik's development arose out of an exploratory research effort. "We were looking at some fundamental chemistry, attempting to mitigate the dangerous properties of sulfuric acid," Young recalls. "We decided to try combining it with certain classic compounds, including urea, in order to change the aggressive nature of sulfuric acid without reducing its acid properties."

After running several experiments, Young and his colleagues found that one of the new compounds had the ability to dissolve cellulose. This discovery eventually spawned Enquik. Unocal Plus, on the other hand, resulted from a more deliberate effort.

Today, the wisdom of pursuing the development of Enquik and Unocal Plus is obvious, in light of the public's demand for environmental safety. But in the 1970s, when these projects were in their infancy, there was no guarantee of ultimate success. "The risks taken back then eventually propelled the Chemicals Division to a new role," Selover says. "The division is no longer solely a commodity fertilizer marketer; it's an agricultural marketer offering environmentally preferred products."

"In the early 1970s, many agricultural chemicals were in political trouble," Young adds. "The market was wide open. We knew we could compete if we developed effective, environmentally safer chemical products. We've succeeded." C.S. ☉



*Clockwise from bottom right: Unocal Plus was used as a fertilizer for this healthy grapevine; applying Enquik to a potato field; Dr. Donald Young (left) and agricultural technician Charles Grochowski at work in their Brea lab.*

# UNOCAL 76

## CORPORATE

- 35 YEARS George Karapetian, Unocal Center
- 30 YEARS John R. McKeag, Los Angeles, Ca.  
Duane C. Wiechmann, Schaumburg, Il.
- 25 YEARS H. Wayne Maxwell, Unocal Center  
Richard F. Miller, Unocal Center  
Sue M. Yee, Unocal Center
- 20 YEARS Arne T. Adams, Unocal Center  
Robert C. Allison, Houston, Tx.  
Donald A. Dinkelman, Unocal Center  
Russell E. Gray, Unocal Center  
Peter G. Krejci, Jr., Unocal Center  
Lidia E. Mendez, Unocal Center  
Kathleen H. McBride, Schaumburg, Il.  
Esther P. Yee, Unocal Center
- 15 YEARS Julie A. Galvan, Unocal Center  
Joe G. Gonzalez, Unocal Center
- 10 YEARS Phillip J. Boutte, Unocal Center  
Ann R. Davila, Unocal Center  
James S. Du, Unocal Center  
Victor E. Fitzmaurice, Unocal Center  
Griselda A. Morales, Unocal Center  
Vivian M. Pedroza, Unocal Center  
Richard L. Standage, Burbank, Ca.  
Newell A. Stevens, Unocal Center

## SCIENCE & TECHNOLOGY

- 45 YEARS William Showalter, Brea, Ca.
- 40 YEARS William C. Loeffers, Brea, Ca.
- 35 YEARS John H. Duir, Brea, Ca.  
Ryden L. Richardson, Brea, Ca.
- 25 YEARS John D. Crandall, Brea, Ca.
- 20 YEARS Douglas W. Brink, Brea, Ca.  
Dennis J. Brumback, Brea, Ca.  
Neal C. Burmaster, Brea, Ca.  
Wilbur G. Herman, Brea, Ca.  
Thomas H. Herren, Brea, Ca.  
Gloria M. Okasako-Oshiro, Brea, Ca.  
Thomas W. Tippet, Brea, Ca.  
Kenneth E. Whitehead, Brea, Ca.
- 15 YEARS George Barnes, Brea, Ca.  
Gregory E. Brooks, Brea, Ca.  
Daniel R. Farrell, Brea, Ca.  
Ronald J. Grabyan, Brea, Ca.  
Craig P. Harvey, Brea, Ca.  
Robert G. Hickman, Brea, Ca.  
Gary W. Phillips, Brea, Ca.  
Michael K. Thomas, Brea, Ca.  
Sandra L. Tilman, Brea, Ca.  
Michael E. Urt, Brea, Ca.
- 10 YEARS Catalina S. Armas, Brea, Ca.  
M. Gaile David, Brea, Ca.  
Merton E. Hill, Brea, Ca.  
Peter J. Jessup, Brea, Ca.  
James D. Mercer, Brea, Ca.  
Huyen N. Phan, Brea, Ca.  
William E. Snysman, Brea, Ca.  
Barbara L. Whitney, Brea, Ca.

## ENERGY MINING

- 20 YEARS Timothy L. Heckel, Parachute, Co.
- 15 YEARS Jacob J. Graeber, Parachute, Co.
- 10 YEARS Gary R. Denault, Parachute, Co.  
David Karlinsky, Parachute, Co.  
Paul B. Ternovacz, Parachute, Co.

## ENERGY RESOURCES

### OIL & GAS

- 40 YEARS Joseph C. Broussard, Lafayette, La.
- 35 YEARS V. L. Cummings, Bakersfield, Ca.  
John R. Murphey, Jr., Unocal Center
- 30 YEARS Jimmie R. Hughes, Midland, Tx.
- 25 YEARS William D. Adams, Houston, Tx.  
Donald W. Appelgate, Mobile, Al.  
John D. B. Avitia, Orcutt, Ca.  
James V. Broda, Santa Paula, Ca.  
Leonard R. Lockhart, Coalinga, Ca.  
Walter E. Nellis, Unocal Center  
Elton R. Wilkerson, Houston, Tx.
- 20 YEARS Fred N. Austin, Santa Fe Springs, Ca.  
Rickey H. Baugh, Van, Tx.  
Suzanne Bechynne, Midland, Tx.  
David C. Bennett, Midland, Tx.  
Rosa Maria Dennis, Unocal Center  
Roger A. Dombrowski, Moab, Ut.  
James E. Ellis, Unocal Center  
Jerrold R. Lohr, Unocal Center  
Robert G. Lopez, Coalinga, Ca.  
Michael A. Marinovich, Midland, Tx.  
Jon M. McLennan, Oklahoma City, Ok.  
Martin F. Miller, Lafayette, La.  
William B. Mueller, Midland, Tx.  
Donnie D. Pere, Abbeville, La.  
Van N. Schultz, Santa Fe Springs, Ca.  
Alan D. Sharpnack, Bakersfield, Ca.  
Francis M. Steckel, Midland, Tx.
- 15 YEARS Gerald W. Daigle, Lafayette, La.  
James M. Freeman, Houston, Tx.  
Steven H. Gault, Midland, Tx.  
Gary M. Grabil, Orcutt, Ca.  
Janet M. Harshman, Casper, Wy.  
Randolph C. May, Kenai, Ak.  
Wilbert B. Mitchell, Jr., Lafayette, La.  
Stanley E. Obrecht, Cisne, Il.  
Roselily C. Ramirez, Unocal Center  
David L. Salzman, Bakersfield, Ca.  
James A. Shew, Orcutt, Ca.  
Edward E. Thomas, Houma, La.  
Carl R. Weniger, Cutbank, Mt.
- 10 YEARS William R. Abercrombie, Houston, Tx.  
Philip M. Ayer, Santa Paula, Ca.  
Mary K. Bell, Houston, Tx.  
Robert D. Bokenkamp, Houma, La.  
Mary E. Burkhardt, Houston, Tx.  
Craig C. Cobb, Houston, Tx.  
Justin V. Devery, Houston, Tx.  
Patricia A. Dewitt, Midland, Tx.  
Thomas H. Doneth, Anchorage, Ak.  
Constance G. Flournoy, Lafayette, La.  
Norman Froboese, Houston, Tx.  
Davis R. Green, Houston, Tx.  
Robert F. Hopkins, Sr., Oklahoma City, Ok.

- Marvin L. Ivey, Jr., Anchorage, Ak.  
Philip F. Johnston, Ventura, Ca.  
Judy L. Keegan, Mobile, Al.  
Jeffrey C. Leblanc, Abbeville, La.  
John C. Liput, Ventura, Ca.  
Frederick E. Mazzella, Houston, Tx.  
Barry W. McKay, Houston, Tx.  
Cynthia W. Metcalfe, Houston, Tx.  
Michelle Eason Mooney, Pasadena, Ca.  
H. Rene Moulinet, Midland, Tx.  
Irene C. Myers, Ventura, Ca.  
Larry S. Nichols, Houston, Tx.  
Dewayne M. Reamy, Hominy, Ok.  
Louis J. Rothenberg, Houston, Tx.  
Fredrick J. Shimek, Pasadena, Ca.  
Julie M. Snail, Pasadena, Ca.  
Wilford G. Sowell, Jr., Houston, Tx.  
Cheryl L. Sraga, Unocal Center  
Pam L. Thibodaux, Lafayette, La.  
Dave C. Thompson, Van, Tx.  
Thomas L. Todd, Houston, Tx.  
James E. Vanderveen, Moab, Ut.  
Robert G. Vicars, Lafayette, La.  
Andrew C. Warford, Anchorage, Ak.  
Gregory P. Yvarra, Orcutt, Ca.

## INTERNATIONAL OIL & GAS

- 40 YEARS Robert R. Roethke, Unocal Center
- 35 YEARS Vane E. Suter, Thailand
- 30 YEARS Harry C. Lee, Unocal Center  
Gene R. Ward, Jakarta, Indonesia
- 25 YEARS Richard C. Keller, Thailand
- 20 YEARS Gary V. Awad, Unocal Center  
John A. Briffett, Unocal Center  
James W. Lemm, Unocal Center  
Robert J. Loewecke, Norway
- 15 YEARS Allan H. Armitage, Norway  
Steven R. Belgard, Unocal Center  
Arthur M. Bracci, Netherlands  
William D. Gray, Thailand  
Keith G. Lindsell, Jakarta, Indonesia  
Patrick H. Malue, Balikpapan, Indonesia
- 10 YEARS Keith Brown, Aberdeen, Scotland  
Robert D. Dook, Sunbury, England  
Daniel W. Dukes, Unocal Center  
Beryl R. McCormack, Sunbury, England  
Linda A. Pfeifer, Unocal Center  
Gregory W. Plate, Unocal Center  
Morgan R. Quennell, Aberdeen, Scotland  
Danny R. Williamson, Balikpapan, Indonesia

### Unocal Thailand, Ltd.

- 10 YEARS Thanyaluck Lertnantapanya  
Teresita A. Piyarom  
Hathaya Tantrakul  
Orawan Vongsayan

### Unocal Singapore, Ltd.

- 15 YEARS Angeline Chang Ming Yu



## Unocal Indonesia, Ltd.

15 YEARS Ardiansjah  
Husain  
Makrup  
Maskur  
Mesak  
Nuryadi  
Soekani  
Soepriyadi  
Soeyono  
Sudijono  
Sudirin  
Sukliwon  
Sutadjiono  
Suwari  
Tardjono  
Yachman  
A. Aziz  
Julius Arungbua  
Niniek Asmaniat  
Sujitno B.  
Sijang Batang  
Tori Bunjamin  
Petrus Djomulyo  
Didi Achmad Djunaedi  
Kasri Eryanto  
Mardi Hardjo  
Rusli Hartono  
Raphael Indradi  
Muhammad Jambari  
Lopu Rantepadang Johannescrf  
Mrs. Johana Kortman  
Likkas Mappa  
R. Nawawi  
Valentinus Noobe  
Mohamad Noor  
Andarias Paramban  
Jusup Pare  
Peter Patadungam  
Altin Theodorus Pratasik  
Wahab Said  
Idris Salman  
Abdul Sani  
Mrs. Rosdiana Simorangkir  
Weynand Van Slooten  
Paulus Soemarso  
Slamet Subagio  
Anna Chandra Wiranto  
Pitut Yunanto

10 YEARS Zainir  
Slamet Djunaedi  
Suparnadi Franciscus  
Hoedoro Koento  
Hendra Sukotjo  
Dennis Sumartono  
Dendy Sunaryo  
Bambang Budi Utomo  
Ridwan R. Winterstein

## Unocal U.K., Ltd.

15 YEARS Trevor Hands, London, England  
10 YEARS Archie Cook, Aberdeen, Scotland  
Pam Hayle, London, England  
Lorna Ponti, London, England  
Lesley Sievwright, Aberdeen, Scotland  
John Summersgill, Aberdeen, Scotland

## UNOCAL CANADA, LTD.

35 YEARS Donald B. Jarrett, Calgary, Alberta  
20 YEARS Joseph F. Ferguson, Calgary, Alberta  
Chiu-Lin (Julian) Ho, Calgary, Alberta  
David R. Noel, Calgary, Alberta  
John A. Shomody, Grande Prairie, Alberta  
15 YEARS Gordon H. Hardcastle, Calgary, Alberta  
10 YEARS Herbert Kam, Calgary, Alberta  
Alexander W. Knox, Calgary, Alberta  
Jack A. MacArthur, Calgary, Alberta  
Nazir A. Meghani, Calgary, Alberta  
Frank W. Schneider, Calgary, Alberta  
Neil L. Taylor, Grande Prairie, Alberta  
Stewart T. Ward, Calgary, Alberta  
Thea M. Young, Calgary, Alberta

## GEOTHERMAL

35 YEARS Neil J. Stefanides, Unocal Center  
25 YEARS Anthony J. Chasteen, Philippines  
Judith M. Hughes, Unocal Center  
15 YEARS Betty A. Becker, Santa Rosa, Ca.  
Warner A. Rushing, The Geysers  
10 YEARS Dolores G. Delgado, Santa Rosa, Ca.  
Richard H. Flowers, Imperial Valley  
Steven D. Furry, The Geysers  
Ron S. Maxwell, Imperial Valley  
Theodore W. McNeill, The Geysers  
Jose M. Perez, Imperial Valley  
Michael R. Shelton, The Geysers  
Charles W. Stephens, II, Imperial Valley  
Bradley E. Wendt, Philippines

## Philippine Geothermal, Inc.

15 YEARS Gregoria C. De Luna, Makati  
10 YEARS Edilberto M. Alvarez, Bulalo  
Edgardo A. Anacay, Makati  
Salome C. Arazas, Tiwi  
Francisco Balleras, Jr., Tiwi  
Purito M. Barquez, Tiwi  
Ramon A. Barreda, Tiwi  
Romeo M. Bautista, Tiwi  
Julieta C. Belsonda, Bulalo  
Titus B. Bermundo, Tiwi  
Iniego B. Binalla, Tiwi  
Rolando B. Binamira, Tiwi  
Celestino O. Blanca, Bulalo  
Hernando C. Borbor, Tiwi  
Serio C. Brucales, Tiwi  
Bernadette H. Cabarles, Bulalo  
Milanio C. Canale, Tiwi  
Beltran A. Canales, Bulalo  
Bonifacio Candolea, Jr., Tiwi  
Jocelyn S. Canezo, Tiwi  
Gregorio B. Cantes, Tiwi  
Benjamin B. Carito, Tiwi  
Guillermo A. Carpio, Bulalo  
Godofredo Cas, III, Tiwi  
Almario M. Castro, Bulalo  
Miguel C. Cellona, Tiwi  
Bienvenido C. Celorico, Bulalo  
Solomon R. Cenit, Tiwi  
Jose C. Cerdeno, Tiwi  
Gerundio B. Cernechez, Tiwi  
Wenifredo B. Cilo, Tiwi  
Florencio C. Cirio, Tiwi  
Tomas V. Ciruelos, Tiwi  
Rodolfo C. Cirujales, Tiwi  
Solano T. Clapis, Tiwi  
Rogildo S. Claudio, Tiwi  
Vicente C. Clavercillas, Tiwi  
Arnulfo N. Clerigo, Tiwi  
Elias B. Clutario, Tiwi  
Jesus V. Colina, Tiwi  
Ramon B. Collao, Tiwi  
Jose B. Competente, Tiwi  
Rodrigo C. Consuegra, Tiwi  
Jaime C. Cope, Tiwi  
Jose M. Cornel, Tiwi  
Senen C. Corral, Tiwi  
Santos H. Cortez, Bulalo  
Jesus C. Corteza, Tiwi  
Jenny C. Cos, Tiwi  
Celso C. Costrua, Tiwi  
Felipe C. Credo, Tiwi  
Mario C. Crisol, Tiwi  
Diosdado B. Cruz, Jr., Tiwi  
Teotimo C. Cruz, Tiwi  
Teresa B. Cruz, Tiwi  
Romulo C. Dacillo, Tiwi  
Vicente C. Dacir, Tiwi  
Dominador C. Dacoco, Tiwi  
Onofre C. Dacuya Jr., Tiwi  
Rogelio D. Dacuya, Tiwi  
Eleuterio C. Dalde, Tiwi  
Jesus A. Datun, Tiwi  
Joel C. De Guzman, Tiwi

Lorenzo C. Deocareza, Tiwi  
Romeo D. Elizan, Tiwi  
Antonio A. Enconado, Tiwi  
Leopoldo A. Endaya, Bulalo  
Remedios A. Fabillon, Makati  
William A. Fajardo, Tiwi  
Florino G. Faustino, Bulalo  
Pio R. Flores, Bulalo  
Andres B. Galang, Bulalo  
Domingo S. Gapit, Bulalo  
Amelia Jaurigue, Bulalo  
Bernardino A. Lana, Tiwi  
Benedicto M. Lapitan, Bulalo  
Aurelio D. Lovedorial, Tiwi  
Avelino D. Lovedorial, Tiwi  
Eleuterio B. Magayanes, Tiwi  
Floro R. Malihan, Bulalo  
Danilo G. Mayuga, Makati  
Pablito C. Montablan, Bulalo  
Rey C. Nacion, Tiwi  
Ariston P. Narvaja, Tiwi  
Leopoldo L. Nodalo, Jr., Tiwi  
Danilo M. Palla, Bulalo  
Narciso G. Pangilinan, Bulalo  
Herman C. Patriarca, Tiwi  
Ma. Victoria C. Rayos, Makati  
Jesus C. Salazar, Tiwi  
Segundo B. Sapo, Tiwi  
Francisco S. Segubiense, Tiwi  
Alexis R. Sevilla, Tiwi  
Gil G. Torrecampo, Tiwi  
Abner M. Villegas, Bulalo  
Antonio F. Yee, Bulalo

## REFINING & MARKETING

40 YEARS Robert D. King, Memphis, TN.  
35 YEARS Harlon J. Adrian, Andrews, Tx.  
Charles P. Blackwell, Van, Tx.  
Evelyn M. Burnley, Los Angeles, Ca.  
Donald W. Debusse, San Francisco Refinery  
Ronald B. Graves, San Francisco Refinery  
Richard T. Green, Walnut Creek, Ca.  
William W. Lough, Los Angeles, Ca.  
Dorothy L. Madsen, Schaumburg, Il.  
Gale E. Newton, Richmond, Ca.  
Gene G. Pederson, Portland, Or.  
30 YEARS R. R. Anderson, Schaumburg, Il.  
Lawrence M. Barr, Los Angeles, Ca.  
Larry D. Dolan, Los Angeles Refinery  
Raymond L. Funk, Los Angeles, Ca.  
Daniel C. Gabrielson, St. Paul, Mn.  
Robert K. James, Minneapolis, Mn.  
Donald W. Kaminga, Houston, Tx.  
Regina M. Kochesky, Los Angeles Refinery  
Walter B. Krueger, Schaumburg, Il.  
R. P. Martinelli, Jr., Richmond, Wa.  
Richard E. McCants, Los Angeles, Ca.  
Charles C. Row, Los Angeles, Ca.  
Robert C. Sherman, Los Angeles, Ca.  
Alan L. Taylor, Seattle, Wa.  
James H. Turnipseed, Los Angeles, Ca.  
Richard J. Wheeler, Houston, Tx.  
25 YEARS Dennis W. Anderson, Avila Beach, Ca.  
Shelia L. Berlin, Schaumburg, Il.  
Donald L. Chaffin, Los Angeles, Ca.  
Donald L. Culver, Los Angeles, Ca.  
William T. Elder, Jr., Tallmadge, Oh.  
Donald L. Fields, Santa Maria, Ca.  
Edythe J. Jackson, Sacramento, Ca.  
Raymond J. Jerge, Wheeling, W.V.  
Erich A. Kroening, Milwaukee, Wi.  
Ronald J. Mertz, Los Angeles, Ca.  
Michael I. Miller, Schaumburg, Il.  
Susan L. Murphy, Schaumburg, Il.  
Cora J. Potter, Schaumburg, Il.  
Hilton Reeves, Schaumburg, Il.  
Marilyn J. Seidler, Schaumburg, Il.  
Joseph N. Sicuro, Schaumburg, Il.  
Paul F. Siebert, Schaumburg, Il.  
Dennis F. Siebold, Schaumburg, Il.  
K. E. Waegner, Jr., Schaumburg, Il.  
Fielding L. Walker, Los Angeles, Ca.  
David D. Way, Atlanta, Ga.  
Robert L. Williams, Griffin, Ga.  
Loren G. Woods, San Luis Obispo, Ca.  
Robert D. Yates, Walnut Creek, Ca.

## SERVICE AWARDS



**20 YEARS** Raymond S. Bahou, San Jose, Ca.  
 Donal R. Barr, Frankston, Tx.  
 Gary K. Cook, San Francisco Refinery  
 William R. Cullison, Los Angeles Refinery  
 Jay T. Dean, Los Angeles Refinery  
 Douglas N. Denton, Los Angeles, Ca.  
 Elsa N. Durbin, Schaumburg, Il.  
 John L. Dyer, Santa Maria Refinery  
 Bessie L. Fort, Van, Tx.  
 Grant D. Freeding, Schaumburg, Il.  
 Phillip Garcia, Beaumont Refinery  
 Ethel A. Hagen, Edmonds, Wa.  
 C. Mareath Hales, Seattle, Wa.  
 Bobbie L. Hardy, Beaumont, Tx.  
 Albert Hines, Jr., Phoenix, Az.  
 Jimmie G. Holmes, Taft, Ca.  
 Lee T. Horton, Los Angeles, Ca.  
 Robert G. Houchins, San Francisco Refinery  
 Ronald L. James, San Luis Obispo, Ca.  
 Richard M. Johnson, Omaha, Mo.  
 Geraldine C. Jurewicz, Schaumburg, Il.  
 John H. Kaufman, Jr., Beaumont Refinery  
 Stephen G. Keller, Chicago Refinery  
 Mathias A. Krubski, Los Angeles, Ca.  
 Jimmie R. Laprade, Frankston, Tx.  
 Larry P. Lewis, Los Angeles Refinery  
 Brian P. Loftus, San Francisco Refinery  
 Larry J. Lubbers, Walnut Creek, Ca.  
 John H. Maize, Los Angeles Refinery  
 Jim D. Marks, San Francisco Refinery  
 Mary E. Maroney, Atlanta, Ga.  
 Floyd W. McCormick, Beaumont Refinery  
 Ralph C. Mercer, Schaumburg, Il.  
 Harold D. Miller, Schaumburg, Il.  
 Glenn M. Nakaguchi, Schaumburg, Il.  
 Henry A. Norris, Beaumont Refinery  
 James B. Ormbrek, Edmonds, Wa.  
 John R. Pasma, Seattle, Wa.  
 Floyd E. Pearson, Fresno, Ca.  
 Joseph A. Puentes, San Francisco Refinery  
 James C. Rasmuson, Portland, Or.  
 Russell L. Richards, Los Angeles, Ca.  
 Robert P. Ritner, Spokane, Wa.  
 Larry L. Rober, Los Angeles, Ca.  
 Raymond Rodriguez, Beaumont Refinery  
 Joseph P. Spruill, Nederland, Tx.  
 George L. Stiehl, III, Los Angeles, Ca.  
 Richard C. Suk, Schaumburg, Il.  
 Carl Tapps, Los Angeles Refinery  
 Anthony C. Urbas, Schaumburg, Il.  
 Roy E. Viar, Chicago Refinery  
 Larry J. Weathers, San Francisco Refinery  
 Daniel B. Weir, Los Angeles, Ca.  
 Roger A. Werner, Los Angeles, Ca.  
 Rhoda A. Wilson, Schaumburg, Il.  
 Jack K. Wine, Los Angeles Refinery  
 Leonard Young, Beaumont Refinery  
 Robert J. Young, Beaumont Refinery

**15 YEARS** Gary A. Bleamel, San Francisco Refinery  
 Noel C. Boretti, Schaumburg, Il.  
 Hattie L. Bradley, Chicago Refinery  
 Paula R. Brooks, Pasadena, Ca.  
 Dan H. Brown, Bloomington, Ca.  
 Elaine R. Brown, Richmond, Ca.  
 Carolyn S. Chinderle, Chicago Refinery  
 Robert D. Dawson, San Francisco Refinery  
 Roger A. Donley, Monticello, Il.  
 Randal M. Fukuda, San Francisco Refinery  
 Lawrence A. Fullerton, Albany, Ga.  
 Joseph Garcia, Jr., Los Angeles Refinery  
 William T. Hanus, Chicago Refinery  
 Jean E. Harback, Schaumburg, Il.  
 Jo Ann Hill, Schaumburg, Il.  
 Dennis C. Hunt, San Francisco Refinery  
 Benedict W. Kekuewa, Honolulu, Hi.  
 Dorothy Langill, Los Angeles, Ca.  
 John G. Lewis, Los Angeles Refinery  
 Judith A. Lindley, Phoenix, Az.  
 Veronica Luna, Los Angeles, Ca.  
 Charles A. McLuen, Orange, Ca.  
 Don A. Miller, Beaumont Refinery  
 Les W. Miller, San Francisco Refinery  
 Robert L. Miller, San Francisco Refinery  
 Jose T. Nazareno, Los Angeles Refinery  
 Chester E. Olson, San Francisco Refinery  
 James P. O'Neill, Jr., Pasadena, Ca.  
 Lee Doris Owens, Schaumburg, Il.  
 Joan M. Pagliai, Schaumburg, Il.  
 Norman D. Paul, Los Angeles Refinery  
 Francisco A. Perez, Avila Beach, Ca.  
 Theodore R. Rachlitz, Chicago Refinery  
 Angela O. Santos, Schaumburg, Il.  
 William C. Schramm, Schaumburg, Il.  
 Israel Sopher, Los Angeles Refinery  
 Daniel R. Stanley, Chicago Refinery  
 Kenneth L. Tracy, Los Angeles, Ca.  
 Ned J. Voigt, Jr., Norwalk, Ca.  
 John L. Ward, Chicago Refinery  
 Linda C. Wickham, Schaumburg, Il.  
 Jeffrey C. Wilkes, Los Angeles Refinery  
 Keith L. Wilson, Chicago Refinery  
 Roland Wilson, Santa Maria, Ca.  
 Peter R. Woodward, San Francisco, Ca.

**10 YEARS** Thomas E. Addleman, Portland, Or.  
 Marilyn Aqui, San Francisco, Ca.  
 Anthony P. Armstrong, Portland, Or.  
 Jerry R. Barba, Los Angeles, Ca.  
 Albert L. Baugh, Wildwood, Fl.  
 George F. Bland, Chicago Refinery  
 Bruce P. Buckley, Chicago Refinery  
 William A. Carleton, Los Angeles, Ca.  
 William T. Cary, Jr., Chicago Refinery  
 George F. Casey, III, Los Angeles, Ca.  
 Jo Ann Consolo, San Francisco, Ca.  
 Samuel R. Dean, Beaumont Refinery  
 Mennen L. Delapena, Schaumburg, Il.  
 Michael S. Dong, Seattle, Wa.  
 Donnie J. Ellison, Meridian, Ms.  
 Leslie J. Fejer, Los Angeles Refinery  
 Peggy A. Frakes, Richmond, Ca.  
 Richard J. Gaugler, Los Angeles Refinery  
 Gary F. Gerstner, Los Angeles, Ca.  
 Beverly J. Gibson, Chicago Refinery  
 Adelheid J. Goebel, Los Angeles Refinery  
 Christine M. Harris, Oregon, Oh.  
 David B. Huckabay, San Francisco, Ca.  
 Paul O. Hughes, Los Angeles Refinery  
 Elizabeth Y. Ipac, Schaumburg, Il.  
 Garriel D. Johnson, Beaumont Refinery  
 Timothy S. Jordon, Edmonds, Wa.  
 Elliot E. Justice, Los Angeles, Ca.  
 J. L. Kellems, Bloomington, Ca.  
 Mary A. Kelley, San Diego, Ca.  
 Bonnie F. Kirk, Schaumburg, Il.  
 Rita A. Klepitch, Schaumburg, Il.  
 Derek F. Kruk, Schaumburg, Il.  
 Sixto Laxa, San Francisco, Ca.  
 Robert O. Leger, Beaumont Refinery  
 William M. Mampre, Houma, La.  
 Michael F. Marie, Schaumburg, Il.  
 Terence J. Martinek, Chicago Refinery  
 Ursula H. McNicol, Los Angeles, Ca.  
 Perry J. Morris, Beaumont Refinery  
 Gene J. Mosbrucker, Portland, Or.  
 Rodney G. Motley, Santa Maria Refinery  
 Shirley M. Nichols, Edmonds, Wa.  
 James S. Oliver, Frankston, Tx.

Kathleen J. O'Neill, Portland, Or.  
 Donald D. Opie, Beaumont Refinery  
 Gregg M. Parker, Chicago Refinery  
 Michael Peralta, San Francisco, Ca.  
 Frank E. Perry, Jr., San Luis Obispo, Ca.  
 Andrew Z. Pollak, Chicago Refinery  
 John M. Press, Chicago Refinery  
 Malcolm E. Prince, Los Angeles, Ca.  
 Drew M. Robbins, Beaumont Refinery  
 Priscilla B. Sabido, Schaumburg, Il.  
 Rolando D. Santos, San Francisco, Ca.  
 Calvin J. Sellers, Beaumont Refinery  
 Eddie L. Sewell, Los Angeles Refinery  
 Needham E. Shotwell, Beaumont Refinery  
 Tina L. Simms, Schaumburg, Il.  
 Carl R. Skager, Schaumburg, Il.  
 Dina Slobodnick, San Francisco, Ca.  
 Stephen A. Spangler, Chicago Refinery  
 James A. Tancredi, Chicago Refinery  
 Richard A. Teran, Los Angeles Refinery  
 Carmen M. Tuazon, San Francisco, Ca.  
 Jon E. Van Sluyters, Los Angeles, Ca.  
 Charles A. Vasquez, Los Angeles Refinery  
 Arthur D. Walter, McKittrick, Ca.  
 Lucretia Whorton, Schaumburg, Il.  
 James R. Widrig, San Francisco Refinery  
 Wade G. Wilkinson, Los Angeles Refinery  
 Marie E. Wilson, Walnut Creek, Ca.  
 Virginia R. Woods, Chicago Refinery  
 Mark M. Yanez, Santa Paula, Ca.  
 Clarence B. Young, III, Schaumburg, Il.

### MARKETERS & DISTRIBUTORS

**60 YEARS** A. G. Rutland & A. C. Kneec, Ridge Spring, S.C.

**55 YEARS** Shamlu Oil Co., Inc., Silver Lake, Mn.

**45 YEARS** Bauer Built, Inc., Durand, Wi.

**30 YEARS** Ward Oil Co., Inc., Griffin, Ga.

**25 YEARS** R. G. Lee, Coalinga, Ca.  
 River Front 76 Oil Co., Inc., Cook, Mn.  
 Sparks Oil Co., Inc., Reidsville, N.C.

**20 YEARS** Chabot Petroleum Distribution, Inc., Portsmouth, Oh.

**15 YEARS** Martin Distributing Co., Inc., Haleyville, Al.  
 Tri-State Petroleum, Inc., Marshall, Mn.

**10 YEARS** C. L. Bryant, Los Banos, Ca.  
 James Oil Company, Enumclaw, Wa.

### CHEMICALS

**40 YEARS** Vernon A. Clark, Kansas City, Mo.

**35 YEARS** Edwin J. Houghton, Kennewick, Wa.  
 Roland C. Raymond, Kenai, Ak.  
 Thomas B. Sleeman, Unocal Center

**25 YEARS** Don H. Beck, Brea, Ca.  
 F. R. Daugherty, Clark, N.J.  
 Edward J. Underhill, Clark, N.J.

**20 YEARS** Kenneth W. Carlton, La Mirada, Ca.  
 Michael L. Ghareeb, W. Sacramento, Ca.  
 Robert L. Hall, Brea, Ca.  
 David Hansen, Newark, Ca.  
 Kenneth E. Healy, E. Providence, R.I.  
 Robert S. Kalapos, Brea, Ca.  
 Richard A. Roerig, Unocal Center  
 Leonard W. Shirah, Charlotte, N.C.  
 John H. Snyder, Atlanta, Ga.  
 Helen H. Strange, Charlotte, N.C.

**15 YEARS** Jerome C. Atchison, Kenai, Ak.  
 Jerry F. Corcoran, Kenai, Ak.  
 Varble R. Darrow, Kenai, Ak.  
 William V. Gollhofer, Brea, Ca.  
 Duane J. Latta, Kenai, Ak.  
 Paul W. Lemonta, Chicago, Il.  
 Ronnie T. Mathews, Tampa, Fl.  
 Eugene McNeil, Arroyo Grande, Ca.  
 Edwin L. Mitchell, Kennewick, Wa.  
 Mark J. Robles, Arroyo Grande, Ca.  
 Rodolfo G. Villegas, La Mirada, Ca.

10 YEARS Robert N. Baldwin, Schaumburg, Il.  
Douglas K. Hallmark, Kenai, Ak.  
Allen A. Hughes, Kennewick, Wa.  
Melvin L. Jackson, Houston, Tx.  
Dallas A. Kirkendol, Schaumburg, Il.  
Carolyn E. Klepitsch, Lemont, Il.  
Robert A. Kudlicki, Fullerton, Ca.  
Roger L. Liljequist, Twinsburg, Oh.  
Susan E. Lindley, Schaumburg, Il.  
Judy J. Love, Charlotte, N.C.  
Daniel S. Murad, Clark, N.J.  
Anthony J. Ponzi, Lemont, Il.  
James H. Saling, Kenai, Ak.  
Danny R. Stevens, Kenai, Ak.  
Daphne T. Stowe, Tucker, Ga.  
Henry Torres, Unocal Center  
James F. Tumsuden, Kenai, Ak.  
John A. Vialpando, Rodeo, Ca.

#### MOLYCORP, INC.

20 YEARS Andy J. Manzanares, Mountain Pass, Ca.  
Emilio J. Martinez, Questa, N.M.  
Laudes Romero, Jr., Mountain Pass, Ca.

15 YEARS Edmund C. Barnum, Unocal Center  
William B. Bridges, Mountain Pass, Ca.

10 YEARS Henry E. Aldorf, Paris, France  
Robert Johnson, Mountain Pass, Ca.  
Donald R. Pretasky, Mountain Pass, Ca.  
Shelley A. Schutterle, Rawlins, WY.  
Curtis R. Serviss, Jr., Louviers, Ca.  
Paul Silzell, Mountain Pass, Ca.

#### RETIREMENTS

##### Corporate

Edwina Carnahan, September 30, 1974  
Walter F. Guy, March 21, 1977  
Helen E. Jones, March 30, 1959  
John T. Newton, March 1, 1972

##### Chemicals

Alfred Amaral, June 1, 1972  
Robert Thomas Burkes, November 30, 1973  
David A. Gauler, October 22, 1962  
Gregory A. Gibson, October 5, 1948  
Philip J. Martinez, January 23, 1959  
Thomas W. Norriss, Jr., April 28, 1977

##### Refining & Marketing

Jesse C. Avila, August 21, 1944  
Junius W. Barkley, November 8, 1970  
Lois M. Chittenden, October 19, 1967  
Vance E. Cloepfil, March 14, 1950  
Charles Cooley, December 19, 1974  
Norma R. Frank, January 7, 1974  
Samuel S. Fujinaka, September 5, 1972  
Richard T. Green, May 17, 1954  
Floyd J. Hewitt, January 2, 1979  
Melvin D. Jackson, February 3, 1969  
John E. James, April 22, 1968  
Veeda S. Lapham, February 1, 1971  
James L. Markey, December 1, 1955  
Lucy J. Mitchell, April 20, 1959  
Gale E. Newton, July 12, 1954  
Robert G. Trapp, March 11, 1957  
James T. Williams, October 10, 1972  
Grayce M. Wilkinson, March 9, 1977

##### Geothermal

Lyle E. Shaffer, February 7, 1972  
Henry T. Snow, November 1, 1951

#### IN MEMORIAM

##### EMPLOYEES

##### Refining & Marketing

Robert H. Hunter, June 16, 1989  
Leonard Karver, May 13, 1989

##### Chemicals

Chloe D. Dey, April 15, 1989

##### Molycorp, Inc.

Ray E. Brown, February 27, 1989

#### RETIREES

##### Corporate

Jerry Chappell, May 13, 1989  
Robert A. McGough, April 24, 1989  
Charles W. Lindsey, April 8, 1989  
Albert Stephen Markwick, May 14, 1989

##### Refining & Marketing

Donald Bahn, April 23, 1989  
Thomas F. Baird, March 25, 1989  
Ray F. Baker, May 13, 1989  
Robert C. Beardon, March 30, 1989  
Robert C. Blum, May 6, 1989  
Delores M. Bode, April 23, 1989  
Lewis E. Boxell, May 26, 1989  
Edward Brandenberry, June 3, 1989  
Mathew Braykovich, April 20, 1989  
James H. Burke, June 13, 1989  
James R. Cannon, April 5, 1989  
Roland G. Cardinal, April 9, 1989  
Warren Cline, May 12, 1989  
Kathryn E. Cooper, May 17, 1989  
Samuel P. Derrick, April 13, 1989  
Beatrice M. Dial, May 2, 1989  
Jessie Dixon, April 1, 1989  
Jessie R. Freeman, March 17, 1989  
Ruth T. Frogge, June 5, 1989  
Addison E. Gibbs, February 28, 1989  
Carl G. Gose, April 9, 1989  
Ruth B. Hanks, May 5, 1989  
Paul F. Haumesser, April 12, 1989  
Robert L. Hawkins, September 6, 1988  
Green D. Hilson, April 25, 1989  
John J. Horvath, May 16, 1989  
Donald L. Johnson, March 19, 1989  
Louise Elizabeth Kimmich, March 29, 1989  
Harrison Die Lane, March 19, 1989  
John R. Lorge, June 1, 1989  
Forest R. Lowrey, April 12, 1989  
Eugene Marchini, April 19, 1989  
Dave W. McCann, May 7, 1989  
James A. Mitzel, June 6, 1989  
Jeanette M. Nemes, April 7, 1989  
Carl V. Nissen, April 26, 1989  
Edward F. O'Brien, May 3, 1989  
Mary R. Papach, April 11, 1989  
Lawrence M. Prather, April 7, 1989  
Nellie P. Price, March 31, 1989  
Walter Ramazzini, June 13, 1989  
Raymond E. Riggert, April 26, 1989  
Booty Ritter, April 23, 1989  
Peter J. Sartori, April 16, 1989  
Ralph C. Satchell, April 22, 1989  
Fred J. Schottke, April 13, 1989  
Clarence Shaffer, April 6, 1989  
Thelma H. Sharp, May 24, 1989  
Olive Myrtle Shepard, March 29, 1989  
Herbert L. Swern, March 28, 1989  
Charles P. Van Yperen, April 21, 1989  
Harry S. Warfield, April 21, 1989  
Clarence L. Wildman, May 7, 1989  
Livingston E. Woodley, May 16, 1989

##### Pure Transportation, Inc.

Carmon L. Glover, November 2, 1988

##### Oil & Gas

Worthing C. Freitas, May 3, 1989  
Fernando Garcia, May 24, 1989  
Plinio Gnesa, June 13, 1989  
Clarence B. Gump, March 6, 1989  
Dale V. Porterfield, June 5, 1989  
Cecile H. Reaves, May 11, 1989  
John C. Simon, May 9, 1989  
Walter E. Travis, June 17, 1989  
John R. Webb, April 9, 1989

##### International Oil & Gas

Carl A. Flaathen, April 13, 1989

##### Science & Technology

Earl Jack Ross, March 30, 1989

##### Chemicals

Edward K. Giese, March 27, 1989  
Reba S. Gilkey, May 25, 1989

The Spring 1989 issue of *Seventy Six* listed several Unocal retiree clubs. Since the issue's publication, *Seventy Six* has learned of two more company alumni clubs, located in the Houston and Santa Maria areas. For information about these groups, contact the chairpersons listed below.

#### HOUSTON

Allen DuPont  
5946 Valkeith  
Houston, Tx. 77096  
(713) 729-3769

#### SANTA MARIA VALLEY

Arthur Silva  
1002 North Rosalind Drive  
Santa Maria, Ca. 93454  
(805) 925-6666

GARY L FOY  
16823 LIGGETT STREET  
SEPULVEDA CA 91343

P

## CONTENTS



1



18



33

**Government Relations: Page 1**  
**A Single Voice**

Unocal's federal and state government relations efforts help to ensure that the company's viewpoint is weighed by lawmakers.

**Working The Sacramento Beat Page 8**

The life of a Unocal lobbyist is anything but sedate. To get an up-close view of what the job involves, *Seventy Six* spent a day with Jami Warner, Unocal's manager of California government relations.

**All In A Day's Work Page 12**

As a salesman, detective, diplomat and problem solver, the landman plays an important role in Unocal's oil and gas operations.

**Raising Safety Awareness Page 18**

The Petrochemicals Group is taking an upbeat approach to safety education by sponsoring special "Safety Awareness Days" for employees and their families.

**A School For Success Page 22**

The company's Eastern Marketing organization offers a unique, nationally recognized training program for Unocal-branded marketers.

**Bringing Science To The Oil Field Page 28**

Hired as Unocal's first geologist back in 1898, William Orcutt revolutionized the methodology of oil exploration.

**The Right Chemistry For A Safer Harvest Page 33**

Unocal has developed and begun marketing a pair of new, environmentally preferred agricultural products.

**Service Awards Page 38**

**Cover:** At night in the nation's capital, the Washington Monument and Capitol rotunda—historic symbols of our republic—appear as dream-like apparitions. Unocal's Washington, D.C. office and its Los Angeles-based Government Relations Department serve as the eyes, ears and voice of the company in public policy matters. Story on page 1. *Photo by David Luttrell.*

*Seventy Six* is published by the CORPORATE COMMUNICATIONS DEPARTMENT, Unocal Corporation, Box 7600, Los Angeles, California 90051. **Karen Sikkema**, Vice President, Corporate Communications; **Tim Smight**, Editor; **Cathy Stephens**, Assistant Editor; **Heidi Siegmund**, Editorial Assistant; **Ray Engle and Associates**, Art Directors.

**Seventy Six**  
VOL. LXVIII  
NUMBER 3  
SUMMER 1989

*Use of the name "Unocal" in Seventy Six may refer to either "Unocal Corporation" (a Delaware corporation) or "Union Oil Company of California" (its wholly owned subsidiary) or, at times, to subsidiaries of either of these companies.*