

RESERVOIR

Petroleum Engineering at Texas A&M University

Aggies Will Shine at SPE's ATCE

Aggies—including former students, current students, and faculty—will take center stage more than once at this October's Annual Technical Conference and Exhibition of SPE.

Leading the list will be **Steve Holditch** '69 and an adjunct professor in the department, who will be inducted

Number 1 Again!

The Harold Vance Department of Petroleum Engineering has again been ranked tops among undergraduate programs in petroleum engineering by *U.S. News and World Report*.

The publication's rankings are based on the judgments of deans and senior faculty who rated each program they're familiar with in their category on a scale from 1 (marginal) to 5 (distinguished).

The Dwight Look College of Engineering was ranked 17th among engineering schools with PhD programs.

Other A&M departments placing in the top 10 were Nuclear Engineering (4th), Industrial Engineering (7th), and Civil Engineering (10th). Nuclear and Aerospace both improved their standing from last year.

The University of Texas at Austin was ranked second. Full information about the rankings is on the web at <http://www.usnews.com/usnews/edu/college/rankings/rankengineering.htm>.

as President of the international organization. Nearby, however, will be **Mark Rubin** '81, who takes the reins as Executive Director of the organization just prior to the conference.

B.P. "Pete" Huddleston '56 and a former visiting professor, is slated to receive the Economics and Evaluation Award. **Sam Gibbs** '54, whose Aggie diplomas are in mechanical engineering and mathematics, will receive the Production Engineering Award.

Current faculty will also be spotlighted as **John Lee** is recognized as an Honorary Member of the group and **Akhil Datta-Gupta** a Distinguished Member.

Not to be outdone by former students and faculty, students will also have their chance at the spotlight. **Mack Shippen**, who actually finished his MS degree in August, will represent the Gulf Coast Section in the international student paper contest, and **Luke Saugier**, who just began his MS work this semester, will represent Gulf Coast Section at the BS level.

Although the winner of the Outstanding **Student Chapter** Award has not been revealed yet, the Aggie chapter will be recognized at the awards banquet as one of the top five entries in that competition.

Steve Holditch has spent the past year preparing for his post at the top of SPE in addition to teaching a course in

well stimulation during the summer and serving Schlumberger as a Technology Fellow.

An interview with Steve in the September issue of *JPT* delineates his vision of SPE as a vigorous, adaptable, forward-looking organization that can serve its members in each of six major technical areas: drilling and completions, reservoir description and dynamics, production operations, management and information, facilities and construction, and health, safety, and environment.

Steve considers membership in SPE critical to a successful career in the industry. "To be a professional," he said, "you have to be active in your professional society. You have to make the time."

According to the SPE website (www.spe.org), **Mark Rubin** held petroleum engineering assignments for Unocal Corp. in Houston and East Texas from 1981 to 1987. He also worked during 1987-88 as a petroleum engineer for Buttes Resources Co. in Dallas before joining API's upstream operations, which at the time were in Dallas.

Mark held a series of management positions working on federal regulatory and legislative matters as well as international standardization activities.

(For more, see "Aggies," Page 2.)

Aggies Star at ATCE

(From "Aggies," on Page 1.)

More recently, he has directed API's Upstream Segment, which focuses on Access, Royalty Management, Environmental, and Drilling and Production Operations programs. He presently is API's representative to the International Association of Oil & Gas Producers (OGP).

Founder of Huddleston and Co., Inc. of Houston, **Pete Huddleston** taught petroleum economics courses in the department from 1981 to 1996. He is being recognized for his contributions in economics and evaluation, which include 125 technical papers.

Sam Gibb's award is based largely upon his development of the downhole pump card for making accurate models of downhole conditions, wave equation methods for design and diagnosis of rod pumping installations, diagnostic and design methods for subsurface hydraulic and submersible electric pumping systems, and the wave equation method for designing and diagnosing deviated rod-pumped wells.

The Honorary Membership being bestowed on **John Lee** recognizes out-

standing service to SPE and distinguished achievement in petroleum engineering. It is limited to 0.1% of the Society's membership.

In addition to having served faithfully on SPE committees during his career, John has served as Director-at-Large of SPE and has received at least five of the organization's major awards.

A member of the faculty for more than 20 years, John has been a leader in developing and directing innovations in educational programs, including the department's current web-based master's degree program.

He has also served as a Distinguished Lecturer and has conducted numerous continuing education workshops for SPE.

Akhil Datta-Gupta was recognized last year as one of two advisors to the winner of the Cedric K. Ferguson Award for Outstanding Research by a member under the age of 33 and is himself the winner of the similar award by AIME.

Akhil joined the faculty in 1993 and now holds the R.L. Adams professorship. He heads perhaps the faculty's

most active joint industry project, which supports his research into streamline simulation technologies.

Mack Shippen will present his graduate research into the use of neural networks to predict liquid holdup in horizontal wells with multiphase flow.

A detailed comparison of his network with existing empirical correlations and mechanistic models reveals that the neural network model shows an improvement in overall accuracy and performs more consistently across the range of liquid holdup and flow patterns.

Mack's advisor in the project was Associate Professor Stuart Scott.

Luke Saugier will present his paper on the development of a spreadsheet to simplify the estimation of reserves in coalbed methane wells. Luke's paper grew out of his summer internship a year ago and his entry in the local Student Paper Contest.

Whatever the outcome of the Outstanding **Student Chapter** Award, President Gerrit Leeftink and Vice-President Jon Vacca are proud of the accomplishments of their group during the 2000-2001 academic year.

Particularly, as part of their service as hosts to the ATCE in Dallas last year, the group hosted an industry recruiting fair and dinner for all student members from around the world.

More than a dozen companies manned booths at the fair where they could talk to prospective graduates about job opportunities within their companies and collect resumes from interested students.

Dinner following the event was sponsored by **Texaco**, but because of the unexpectedly high participation, the Aggie students sponsored dinner the next evening for those students who simply couldn't fit into the restaurant the first evening.



More than 100 students participated in the Student Chapter's recruiting fair and spaghetti dinner sponsored by Texaco last year.

Datta-Gupta Wins Faculty Accolades

Akhil Datta-Gupta has been honored by the Dwight Look College of Engineering as its Marathon Oil Fellow and by the department with the R.L. Adams professorship.

The College Fellows program recognizes six outstanding faculty and researchers for their contributions in the classroom and their professional service.

Akhil's award, announced in April, was funded by a grant from Marathon Oil. Each Fellowship carries a cash stipend.

In July, Akhil was named to the department's Rob L. Adams Professorship in Petroleum Engineering. A professorship provides additional funds for use in research projects and support of graduate assistants.

Akhil has received recognition globally for his research. He has been a leader in developing new techniques for integrated reservoir characterization, incorporating a strong emphasis on geostatistical and inverse methods, development and application of high-resolution numerical schemes for reservoir simulation, and fracture zone characterization for oil recovery.

Over the past several years, he has been a leader in advising students who have reached regional and international levels in SPE student paper competition. He is a Distinguished Member and a Distinguished Lecturer of SPE and has been recognized by SPE and AIME for research writing.



John Lee (second from left) accepted one of two awards for continuing education from Bob Surovic, President of the Association of Former Students, in May. Also pictured are Ronald Douglas, Provost, and Ray Bowen, President of the university.

Lee Accepts AFS Award for Distance Learning

John Lee accepted one of two Distinguished Achievement Awards for continuing education and distance learning at the annual Association of Former Students award ceremony in May.

John has led the distance learning program in the department since its early development 8 years ago. At that time, the program centered on delivery of courses to engineers at Texaco offices through interactive video.

As that program and the technology matured, however, John recognized the need to move toward more widely available delivery methods, and two years ago led the conversion from live video to web-based education.

However, the university had not yet established procedures for delivery of degrees off campus through such technologies, and no plan existed on campus for delivering an existing degree through distance technologies.

Determined to serve the professional petroleum engineering population,

John began the proceedings to have the Master of Engineering in Petroleum Engineering delivered completely through off-campus technology.

Securing approval for the program required changes in university protocol at the highest levels and involved close cooperation with offices of the deans, provost, and newly established director of distance education.

In most of the effort, John was breaking new ground in the direction of distance learning for the university.

Valkó Granted Tenure

Dr. Peter Valkó, formerly a Visiting Professor of Petroleum Engineering, has been granted tenure by the University and appointed Associate Professor of Petroleum Engineering.

Associate Professor status typically accompanies the granting of tenure. Peter also recently was granted a green card to work in the U.S.

Former Student Heads OPEC

The President of the Conference of the Organization of Petroleum Exporting Countries is an Aggie.

Chakib Khelil earned his PhD in petroleum engineering from Texas A&M in 1968. He worked for Shell and Phillips Petroleum in Oklahoma before returning to Algeria in 1970 as head of the petroleum engineering department of Sonatrach, the Algerian national oil company, where he eventually became president.

During his term with Sonatrach, Khelil worked with DeGolyer and MacNaughton of Dallas to develop the Valhyd Plan, which brought foreign money to Algeria to establish the country as a major energy exporter.

When the Algerian presidency changed

hands in 1979 and a new minister of oil was put into place, Khelil was among the senior Sonatrach officials who relocated out of the country, himself landing a position with the World Bank in Washington in 1980.

In 1999, he retired from the World Bank to become energy advisor to Abdelziz Bourteflika, President of Algeria. One of his chief responsibilities in that position is to oversee the conversion of the state-owned Sonatrach to a privatized company.

An article by Nassir Shirkhani of *Upstream Magazine* quotes colleague Hossein Razavi describing Khelil as “an extremely nice and hard-working man [who] likes to sit back and weigh up the pros and cons of what he sets out to do.”

Garb Receives AIME Award

Forrest A. Garb (left) received the Mineral Economics Award from 2000 AIME President Robert E. Murray "For significant contributions to the development of practical petroleum economic models and computer programs and for efforts to share his knowledge with the industry."

John Lee accepted Honorary Membership in AIME at the same ceremony.



Silver Taps

Ann Cornell of Lafayette, LA, told us of the death 23 May 2000 of her father, **Drew Cornell '35**. He had a heart attack in Las Cruces, New Mexico and died there.

Ann wrote, "He was always so proud of being a Texas Aggie and always had a sticker on the car so everyone knew. He had one grandson who was an Aggie who graduated in 1976. He was very proud of him.

"Drew left 4 children, Ann, Bob and

John of Lafayette, LA and Nell Hibbetts of Eagar, AZ."

William M. "Bill" Sargent '55 died 9 September in College Station. He had worked for Cabot Oil in Pampa for many years and retired in 1993 from Ryder Scoot Petroleum Engineering, a consulting firm in Houston. He was a member of SPE and API and had served in the U.S. Air Force during the Korean conflict.

W.J. Alexander '50 is a county judge in Wood County. He was elected to the county commissioners for Wood County in 1962 and 1966 and was named Engineer of the Year for the Permian Basin Chapter of TSPE in 1965.

Neil Barman '99 reports that following the acquisition of RC Squared Technologies by Veritas DGS, his new title is Senior Reservoir Engineer, RC Squared Technologies Exploration Services Division, RC Veritas DGC.

His office is in Houston.

Seongsik Yoon '00 works in the same company, although Seongsik is based in the Denver office. He was also with RC2 and now with Veritas DGC.

Iscander Diyashev '98 returned to Russia in early September. Here's his story: "Hello from Sibneft.

"Approximately 3 hours after my plane landed in Moscow, on 3 September, exactly on my 33rd birthday, I signed papers and took a position of the Chief Engineer of a major Russian oil company. Since that moment life gets incredibly interesting.

"This is the biggest challenge of my life so far. I got settled and submerged in an abundance of relevant and irrelevant information. To find my way I start with what I know best: reservoir study and field development planning.

Brooke (Bradburn) Holt '98 has a new name and address, although is still a petroleum engineer in Sherman field with Chevron North American E&P.

A week after son Aidan Michael was born, **Jennifer (Moore) Nelson '95** sent the "relevant stats":

born 20 July, 8 lb 5.7 oz, 20 in. long.

Jennifer reported, "We are all doing very well and figuring out the intricacies of being a new family."



Aidan Nelson and mom Jennifer

Dad Kris was a student worker in the department's computer group before their graduation.

Susan Overcash '00 transferred to Houston from Odessa in July, and am currently working as a reservoir engineer in South Texas for Phillips.

She reports, "I also just bought a condo in West University that's taking all my time to decorate and paint and such."

Esfand Raissi '00 (ME) is a petroleum engineer in well operations for the BP Forbes Asset in Aberdeen, U.K. following his graduation among the first students from the Reservoir Geoscience & Engineering program between A&M and IFP.

He writes, "I can see the benefits of this program and it's polyvalence everyday here at BP - Forties asset."

He has been invited to an SPE forum on water management in St. Maxime, France.

Johnny Rau '85 is a senior reservoir engineer at Devon Energy, where he is working on an exploitation team in the central Gulf of Mexico.

Johnny's wife Vicky '80 has "retired from oil and gas industry accounting to focus on our two daughters' demands!"

The daughters are Alexis, 6, and Lindsay, 4.

Ingrid Sechelski '95 has transitioned into a Business and Planning Coordinator role at Unocal. New responsibilities include assisting management with portfolio optimization for Unocal's gulf region onshore assets and closely monitoring their financial metrics.

Robert Wilbeck '97 has moved to Humble, where he is the Service Quality Coach at the Liberty Wireline District.

He writes, "My wife, Michele, and I had a baby girl on 14 May 2001. Her name is Megan Nicole. She was 8 lb 4 oz and 21 in. long."

Robert is also happy to report that the project he worked on for the Student Paper Contest helped influence a company policy at Schlumberger.

Concerned about drivers behind the wheel of Schlumberger equipment when they claimed to be too tired, Robert researched statistics on the potential for accidents among drivers in that condition.

After the contest, he presented the results to supervisors at Schlumberger, who spearheaded the drive to implement a new policy assuring drivers that the company will respect their rights not to drive when they believe their driving might be dangerous.



Megan Wilbeck



Diane (Wright) Doyle '82 say she "spends time organizing and running a family of five kids." Gordon is 13, Joseph 12, Clara 10, Alice 8, and Paddy 4. Diane's husband Pat is a commercial real estate broker with Askew Reese Investment Co. The Doyles live in Dallas.

Diane urges "all other '82 grads to write in and let us know what you are up to!"

Class of '01 Settle Into New Careers

Patrick Ash works for Devon Energy in Houston as a drilling engineer.

Chris Bairrington writes, "Everything is going great with me in Houston. Shana and I got married on 26 May, just as planned. We are now happily living in Greenspoint (North Houston) and working.

"I am with Anadarko and working in the College Station area. My area consists of Milam and Burlson County and I am directly responsible for 274 wells there. I also have 51 wells in South Texas that I am looking over.

"Work is great, life is great. I am trying to keep up with old friends but it is hard with the time restraints and the booming oil field these days. No kids and none on the way or in planning. I bought a truck that is enough for me right now. I will be sure to keep you updated on everything."

Rafael Flores writes, "I am doing just fine in my new job. I am currently with Schlumberger working on stimulation and reservoir development in Laredo, Texas...I am training right now.

"I will be in London for 2 months before I can actually do any field engineering by myself. I recently got married in may...and what else? I miss College Station a lot.

"I actually learned a lot while I was at A&M, I am really proud of being an Aggie, and for that same reason the company is

expecting a lot from me. I hope you are all doing great in the PETE department.

"Hope to see you guys soon!"

Sean Golden is working in Houston for ExxonMobil as a reservoir engineer in their Asset Enhancement group (A&D). He writes, "I recently married another Aggie (my first DG partner from Fish Camp) and got a dog in the deal. I am hoping to retire in a year or two."

Kris Jensen is working for Fluor-Daniel of Fluor Corporation. 'I am in the hydraulics division of the Pipeline Engineering and Design sector. The vision for my next promotion from within the company is to move me to the Production sector in about a year or so," he writes.

"This is the direction I wish to move in within this company. So far I really like my job and have just finished my first project. Fluor is located in Sugarland, Tx and I am living with Roberto Peña in Houston."

Roberto Peña is a well systems engineer - Atlantis GOM Deep Water Development BU BP.

He writes, "Things are great out in the working environment. I am working as a Well Systems Engineer in GOM Deep Water in a project called Atlantis. This project is in the development stage and the first production wells will be drilled in 2003.

"My responsibilities deal with selection of optimal equipment for subsea operations such as trees, wellheads, subsea test trees, completion equipment, rigs, and other fun stuff. This is the equipment that will be used in this project.

'I am getting some exposure to economics as well, which is good."

Connor Risedin has moved to New Orleans where he now works for ExxonMobil as a reservoir engineer, working on fields on the continental shelf in the Gulf of Mexico. He writes, "So far I love New Orleans and my new job. I hope that everything is going great in College Station."

Luke Saugier is pursuing a masters in petroleum engineering and petroleum economics and management at TAMU and IFP, beginning in the fall of 2001.

Jonathan Vacca Is in vernal, UT, working for El Paso Energy.

Shortly after his arrival there, he wrote, "I've just finished my first week of work up here...about to head out for the weekend.

"Work's going well so far. They've had me out in the field, tagging along with pumpers, to get a feel for things out there. I'll be working the 'Altamont' field, which is predominantly heavy oil (looks like ear wax)."

Howdy, Ags!

The Harold Vance Department of Petroleum Engineering would like to keep in touch with you.

Please take a moment to fill out the form at right or drop us a note via snail mail, e-mail, voice mail, or fax letting us know where you are and what you're doing.

Send it to

RESERVOIR

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Name _____ Class Year _____

Occupation/Position _____

Company/Institution _____

Career developments, achievements, honors, family news, etc.

May we publish the information above in the **RESERVOIR**? _____

Address _____

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New Faces, New Places

Richard S. Mercier has been named director of the Offshore Technology Research Center at Texas A&M.

Mercier helped pioneer deepwater offshore platform technology during his 17 years with Shell Oil Co. He was instrumental in designing and testing Shell's deepwater offshore structures in the Gulf of Mexico.

John Lee became chair of the National Academy of Engineering section that includes Petroleum, Mining and Geological Engineers in July.

He will continue in his role as liaison to the National Research Council representing petroleum engineers.

Martha Farmer joined the department as an Accounting Assistant II effective 7 June. Martha was formerly an accounting assistant in Nuclear Engineering.

Susan Atkins has been promoted to Office Assistant. She serves several faculty members in the department, mostly assisting in the preparation of proposals and organization of events and committee work.

MPUR Attendance Shows Global Interest in Research

Nearly 100 multiphase pump users attended this year's Multiphase Pump User Roundtable (MPUR), held in conjunction with the Offshore Technology Conference in Houston in May.

The MPUR fosters interaction between oil and gas producers, engineering design companies, pump manufacturers and Texas A&M researchers.

About 40% of this year's attendees came from outside the US, including representatives from Imperial Oil, Caltex Indonesia and Sincor (Conoco/PDUSA).

Conference speakers discussed their direct experiences with multiphase pumping, with topics ranging from wet gas compression in Canada to a Cali-

fornia diatomite steamflood application.

High-interest areas for future research identified at the meeting included reliability testing, candidate selection and modeling pump/reservoir interactions.

MPUR is supported largely by sponsorship provided by Bornemann Pumps, Schlumberger, Weatherford, Framo Engineering, Robbins & Myers, Leistritz and Flowserve.

Plans are underway for MPUR-2002, which will be held in Houston immediately after the Offshore Technology Conference (OTC). Contact Dr. Scott (scott@spindletop.tamu.edu) for more information.

Distance Master of Engineering Program Continues To Grow Through Web Instruction

The possibility of earning a master of engineering in petroleum engineering from anywhere in the world is becoming a reality for a growing number of Aggies.

The distance degree program that started seven years ago as a videoconferencing program to a few engineers at Texaco offices in Houston and New Orleans now has students fanned across Venezuela, one in Kuwait, one in New England, and several closer to home in Houston.

Students can access the available courses through web-based instruction that provides course notes, assignments, and opportunities for discussion among the students or between students and teachers.

Because discussions can be held in an open forum, they offer better opportunities for interaction than courses offered by correspondence or e-mail. This has been one of the best-received parts of the courses as they give distance students opportunities to feel as if they are really a part of a class and to seek help from their classmates on course assignments.

The web software also allows faculty to post media files that allow students to hear lectures accompanied by visuals at their convenience.

General information about the program can be viewed through a model course website at <http://webct.tamu.edu/public/peteinfo/index.html>.

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On the Monkeyboard

Student Activities



Above: Representatives of nearly a dozen companies, including Schlumberger and Amerada Hess, above, staffed booths at the ATCE recruiting fair sponsored by the Aggie Student Chapter of SPE. Texaco sponsored dinner for more than 100 students after the fair. Groups of students visited the Rowan Gorilla VI (top center) and an Anadarko job site (far right), among other trips, such as one to the Discovery drill ship. Halliburton (bottom center) brought a logging truck to campus to demonstrate how it can work miles from a wellsite.





Industry Support Enables Student Outreach Efforts

Much of the value of membership in the Student Chapter of SPE comes from the opportunity to learn firsthand about the industry from its professionals, whether on job sites or in other places.

These photos show some of the ways industry has contributed to the activities of the chapter over the past year, whether by participating in activities like the recruiting fair at the ATCE last fall, hosting student field trips, bring-

ing equipment or making presentations on campus, or sponsoring student activities such as tailgate parties, barbecues, or teams for the spring golf tournament.

Companies or individuals wishing to participate in sponsoring or hosting student activities can contact the student chapter officers through their web site at <http://pumpjack.tamu.edu/spe/index.html>.



Several companies sponsored picnics and barbecues, including the senior farewell crawfish boil (center) at the home of Department Head Chuck Bowman and Lynn Holleran, sponsored by Sperry-Sun.

Annual Ceremony Adds Awards for Grads

Jonathan Vacca accepted the Robert L. Whiting Award for the department's outstanding senior for 2001 at the departmental awards ceremony in May. Jon served as vice-president of SPE this year, taking much of the responsibility for organizing and directing the student activities at the SPE ATCE in Dallas in October and the Doug Von Gonten Memorial Golf Tournament in the spring.

Elizabeth Potter received the Faculty Award of Excellence for Outstanding Scholarship for her GPA of 3.97, which placed her as the department's only Summa Cum Laude graduate. Beth also was active in SPE activities this year.

Mack Shippen and **Fidel Enrique Moreno** shared the Faculty Award of Excellence for Graduate Research. Mack's project on neural networking also won him first place in both local and regional student paper competition.

Fidel's research explored the main parameters responsible for sand consolidation using a high-temperature alkaline solution.

Seniors **Chris Bairrington** and **Chris Tomlinson** accepted the department's first awards for the PETE 403 Investment Stocks Contest. Each student in the class was given \$100,000 in virtual money to invest. Chris Tomlinson's investment grew to a virtual \$1.3M and Chris Bairrington's to \$165,000.

Students in the PETE 400 Reservoir Description course, which is part of the senior design sequence, also provided an award for outstanding design teams.

First place winners in this contest were the team of **Leslie May, Beth Potter, Federico Soliz, Mekhti Yusifov,** and **Nigyar Samadova**. The second place team included **Brian**

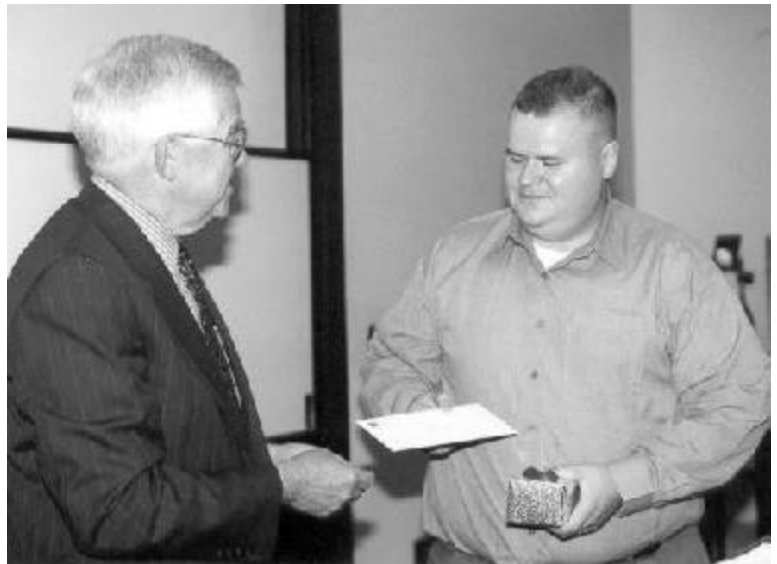
Cassens, Ben Kirkpatrick, Juan Marco, and Jonathan Vacca.

The winner of the Albert B. Stevens Memorial Award was **Wesley Stout**. The Stevens award helps deserving students with financial need to make the transition from student to practicing engineer.

Also new to this year's ceremony was the announcement of other university-recognized graduates. **Julian Carrillo** and **Erin Long** earned Magna Cum Laude (GPR of 3.7-3.9) standing, and **Sean Golden, Shaun Gordy, Luke Saugier** and **Shanna Teinert**, Cum Laude (GPR of 3.5-3.6).

The Harold Vance Award for the Most Improved Senior went to **Rafael Flores**, who had an overall improvement of 0.84. The award recognizes the a student's success at overcoming a weak beginning on his or her college career.

Jon Vacca accepted the Robert L. Whiting Award for Outstanding Student from Department Head Chuck Bowman at the end-of-year ceremony in May. Jon served as the vice-president of the Student Chapter of SPE during his senior year.





Mack Shippen accepted the Faculty Award for Outstanding Research at the Master's Level during ceremonies in May. Mack's research also placed him in SPE International Student Paper competition following his win at Gulf Coast Regional competition in April.

Aggie Style Wins at Regional Paper Contest

Five of Six Entrants Win, Place, or Show

Five of the six Aggies who competed at the Gulf Coast Regional Student Paper Competition in April returned as winners, and two of them will represent the region at International competition in October.

In the undergraduate division, **Luke Saugier** won first place with his paper on the development of a spreadsheet for estimating reserves in coalbed methane reservoirs.

Chance Jackson placed third with his paper on innovations in drilling technologies.

At the master's level, **Mack Shippen** placed first with his paper on the use of neural networks to evaluate multiphase flow in horizontal wells.

Tabiyat Ildiz placed second with his work on the development and application

of a transient well index.

At the doctoral level, **Leonardo Vega** placed second with his work on reservoir pressure. Leonardo represented A&M and the Gulf Coast Section at the International competition last fall in Dallas.

The sixth Aggie traveling with the team was **Adel Malallah**, who presented his work on using Markov random fields to integrate as many scales as required by the available data without any significant increase in computational expense.

Although Adel did not place, he expressed his appreciation for the competition and the opportunity to travel with the team.

He has since returned to Kuwait National University where he is on the faculty and expects to share his experience in developing and presenting papers with his students.

New SPE Officers Pledge Continued Chapter Activity

SPE Officers for the 2001-2002 school year pledged to continue many of the chapter's traditional activities and to strive for an even stronger group during this year.

President **Nathan Shahan** thanked last year's officers and pledged to see "SPE continue to be the lively organization it has come to be."

To help make that happen, Vice-President **Kyle Eastman** hopes to improve the system of mentoring younger students, participation in community service activities, and more social activities.

Treasurer **Josh Froelich** is charged with monitoring cash flow,

which starts with funds left from last year's active search for support from a variety of sources.

Secretary **Robin Keith** hopes to keep the other officers—and the group's activities—organized. In addition to pledging to apprise students and faculty of upcoming opportunities, Robin wants to maintain the group's scrapbook through the year as a record for future classes to follow.

Associate Professor **Walt Ayers** is the group's faculty sponsor this year.

Any organization wishing to support the group can contact them through their e-mail address, spetamu@spindletop.tamu.edu.



Tito Hoskins donned a white wig for his impersonation of Larry Piper during the festivities following the Student Paper Contest in February.

For the past two years, the students have turned the tables on faculty in spirited re-creations of scenes from classes in the department. Each faculty member spoofed by the students has received a gift from the students to "commemorate" the event.

Former Students' Gifts Support Students, Programs

Joann and Michael Cone '60 of Houston have endowed two petroleum engineering scholarships and a state-of-the-art classroom in the Joe C. Richardson Jr. Petroleum Engineering Building.

The \$200,000 contribution will create two Joann H. and Michael M. Cone '60 Endowed Scholarships in Petroleum Engineering and the Cone Classroom, a high-tech computerized teaching facility.

The classroom is especially configured to teach asset-team integrated reservoir studies courses with potential for teaching petroleum engineering distance learning courses in the department's global master of engineering degree program.

The Cones have previously provided the financial support for purchase of a drilling simulator, which allows students to simulate both land-based and offshore drilling problems.

J.L. "Corky" Frank '58 has donated \$115,000 to endow a seminar series. The J.L. "Corky" Frank '58 Seminar Series in Petroleum Engineering will provide additional funding to enhance and improve an existing seminar series.

Corky recently retired as executive vice

president of Marathon Oil after a long career with the company.

A previous contribution to the department resulted in the naming of the student lounge and SPE office area in Corky's name.

J. Kelly Elliott Sr. '51 and his son **J. Kelly Elliott Jr. '74**, executives of Elliott Oil and Gas Co. in The Woodlands, have endowed a Nelson Scholarship.

The Douglas Von Gonten Memorial Scholarship is named in honor of Texas A&M's late petroleum engineering department head. The Nelson Scholars Program was established in 1997 to attract exceptional freshman students to the petroleum engineering profession. It targets scholastically superior students with high leadership potential and financial need.

Al Byington '58 and his wife, **Margot** of Kingwood have endowed the Margot and Al Byington '58 Scholarship in Petroleum Engineering. The criteria for the award includes a minimum cumulative grade point average of 3.0 or top-quarter standing in high school graduating class for freshmen.

Al is a 28-year veteran of Mobil Oil Corporation. He retired from the company in 1995 as vice president of trading for North America.

Nelson Program Recognizes Top Scholars

Top students entering the department are eligible for the prestigious Nelson Scholarships, which are equivalent to the university's President's Endowed Scholarships.

Here are this year's scholarship holders, their sponsors, and sponsors of other scholarships they may hold from the department.

Michael Corbett – Terry W. Rathert '75 (also Dallas Section SPE)
Lucas Dragoo – Roger J. Wolfe
Eric Grottheim – Grey Wolf Drilling (also Hess)
Emna Lemkecher - Grey Wolf Drilling (also Hess)
David Martinez – Grey Wolf Drilling (also E.C. Broun Jr.)
Ryan Price – Grey Wolf Drilling (also Benny Altman Memorial)
Jessica Prowse – Joy and Ralph Ellis
Christi Reid – Merit Energy
Melissa Schindler - Grey Wolf Drilling
Steven Sowers – Newfield Exploration
Ammi Tan – Grey Wolf Drilling Co. (also Schlumberger)
Kristen Wahlberg - Joseph A. Marek '57

Generous Contributions Help Students Continue Studies

Approximately one-fourth of the department's students receive financial aid through the department because of the generosity of friends and former students who have funded a robust scholarship program.

Generally, students who maintain a grade point average of 3.0 or better have at least some portion of their expenses covered by departmental scholarship funds. Students may receive multiple scholarships to meet financial needs.

Endowed scholarship programs assure the department of continuing funds for scholarship support. Financing of such funds can be arranged through the development offices of the College of Engineering or the University.

Donors specify the name of the scholarships they establish. In many cases, the scholarships that follow are named in honor or in memory of another individual rather than of the donors themselves.

The names of this year's scholarship holders and their scholarships follow.

Jose Arevalo - J. L. Burkhart '57, B. J. Reid '79, BRG Petroleum, Inc.
Thomas Belsha – Baker-Hughes Foundation
Jennifer Campana - Chevron / Dallas Section, SPE
Mark Cooper – Henry Gilbert Memorial, Houston API
William Crosley – BP Amoco
Kennon Doyal – Marathon
Stephen Dubois – Phillips, Dallas Chapter AADE
Kyle Eastman – Texaco, IADC, Dallas Chapter AADE
Keith Felderhoff - Gary A. Bird '82
Michael Fitzsimmons – Chevron
Stephanie Gaudiano – Henry Gilbert, Houston API
Brian Hansen – Doug and Glenda Otten '65
Justin Heiner – Jimmie Harrington
Benjamin Israel - Joyce Whiting and M. Scott Kraemer '43
Robin Keith – Conoco
Jeffrey Knight – Pat and Jerry B. Davis '52
Benjamin Laechelin – Unocal
Debra Lee – Powell and Margo Campbell '66
Jenny Maury – Henry Gilbert Memorial, Houston API
Amy Maxwell – Ernest F. Dean '54
Robert Partlow – Powell and Margo Campbell '66
Jason Peterson – Mr. and Mrs. Horace Spiller
Christopher Pletcher – Henry Gilbert Memorial, Houston API
Eric Pulpan – IADC, Dallas Chapter AADE
Frank Reddick – Marathon
Michelle Reynolds – Hess
Vicki Rummel – Phillips
Paul Ryza – Fred M. Lege, III
Nathan Shahan – Texaco, IADC, Dallas Section SPE
Eric Stolpman – B.D. O'Neal '53
Virginia Urban - Mr. & Mrs. Horace G. Spiller
Aaron Wade – Shell, Fred M. Lege III
Danny Walzel – Chevron, Dallas Chapter AADE
Brian Ward – Doug and Glenda Otten '65
Amanda Wheat – Jimmie Harrington
Jordan Wiggins – Doug Von Gonten Memorial
Brian Wilbanks – Phillips, Dallas Section SPE

Research Initiatives Among Faculty

Saudi Aramco and Texas A&M U. have set up a joint collaborative project for the development and application of technologies related to dynamic data integration into high-resolution reservoir models.

The \$120K/year project will center around field data provided by Saudi Aramco and will be jointly carried out by Saudi Aramco geoscientists and researchers at the Texas A&M.

A direct benefit to Saudi Aramco will be the training of their geoscientists in the leading-edge technology related to dynamic data integration and also targeted technology developments to fulfil the specific needs of Saudi Aramco.

Akhil Datta-Gupta will serve as principal investigator on the project, which may be renewed for up to three years.

This project is in addition to the joint industry project Akhil spearheads into investigations of streamline simulation and methods of coping with data of different levels of compatibility.

Artificially Fractured Cores

The Naturally Fractured Reservoir Group led by **David Schechter** has been awarded a 3-year DOE contract for \$937K to examine artificially fractured cores of reservoir rock using X-ray computerized tomography.

The objective of this experimental project is to determine the interaction of fractures and matrix during water and CO₂ injection. The results will be applied to achieve more efficient CO₂ flooding and reduce the amount of oil being bypassed in fracture-dominated reservoirs.

Management Practices

The group has also been awarded a DOE contract for \$500,000 in the PUMP program (Preferred Upstream Management Practices) to optimize waterflood management in the naturally fractured Spraberry Trend in west Texas.

This project is in cooperation with Pioneer Natural Resources, who will match the award with \$1.5 million.

Leak Detection

Stuart Scott and **Maria Barrufet** have initiated a project to investigate worldwide assessment of industry leak detection capabilities for single and multiphase pipelines.

This project is funded by the DOI Minerals Management Service (MMS) and will focus on determining how existing leak detection technology will function under multiphase flow conditions and what role multiphase metering can play in reducing risks for sub-sea operations.

The study will provide information necessary for decision makers to develop strategies for special testing, inspection, and monitoring requirements of deepwater pipelines.

Sand Consolidation

Daulat Mamora is involved in research into sand consolidation that is estimated to save some \$100,000 for a 4,000-ft-deep well by eliminating conventional gravel packs.

Findings from a related steam/propane injection study have been very promising. Compared to pure steam injection, steam/propane injection significantly accelerates the start of oil production, increases injectivity, and in some

cases enhances in-situ crude oil upgrading, with obvious potential economic benefits in the field.

Sequestering Carbon Dioxide

Daulat is also investigating a new concept for sequestering carbon dioxide, which is a focus of concern because of its contribution to global warming.

Daulat proposes to inject the gas under supercritical conditions into depleted or abandoned gas reservoirs. Besides sequestering carbon dioxide, the method may produce a significant amount of natural gas—hitherto unrecoverable—defraying the costs of injection. The project has total funding from the DOE in excess of \$386K.

Blowout Intervention

Jerome Schubert and **Peter Valkó** have been awarded a contract by the DOI Minerals Management Service for the development of a blowout intervention method and dynamic kill simulator for blowouts occurring in ultra-deepwater.

The goals of this project are to determine the likelihood of a well bridging during a well blowout, develop a dynamic kill simulator and blowout containment methods for these wells, develop a cost estimator for ultra-deepwater blowouts to be used in risk analysis, and finally provide the simulator along with a final report containing the results of the study to the industry.

MMS will provide \$400K of the proposed \$850K project.

Microbially-Enhanced Polymers

Maria Barrufet is working on a project to enhance oil recovery from low-volume oil wells by adding microbes to long-chained polymers that

Demonstrate Drive To Serve Industry

can be injected into oil reservoirs to increase recovery. The novel technology will study bacteria that can produce both additional polymers and surfactants.

Maria will receive approximately \$50K from the DOE-supported project.

Subsea Production Assessment

Stuart Scott has been awarded a \$90K research project which is funded by the DOI Minerals Management Service (MMS) to provide decision makers with the information necessary to assess the technical, operational and safety issues associate with subsea production systems.

The project will assess the current state of the art in subsea production and well systems then tackle one of the higher priority needs, in areas such as subsea processing, multiphase pumping, and well monitoring and intervention.

Twin-Screw Pumps

Stuart is also leading research sponsored in part by the Global Petroleum Research Institute to develop a mechanistic model of multiphase flow in twin-screw pumps that can be incorporated into existing production system models (both steady-state systems analysis models and the OLGA transient simulator).

Proposed Projects

In response to increasing interest in the subsea deployment of multiphase pumps as operators search for methods to improve recoveries and economics for subsea completed wells, **Stuart** has proposed the construction of a subsea test facility at Texas A&M.

Modern multiphase production

systems produce subsea wells through long flowlines, which add significant backpressure that reduces flow rates and results in abnormally high abandonment pressures.

A subsea test facility constructed at the Texas A&M Riverside Campus will consist of a subsea test chamber of sufficient size to allow insertion of the Kvaerner multiphase pump module and to simulate water depths up to 3000 m (working pressure rating of 300 bar, or 4,400 psig).

The facility constructed in this project will provide a much-needed resource for subsea qualification work in the Gulf of Mexico and enable testing of other subsea equipment after the completion of the project.

Maria Barrufet has begun work on a process to purify wastewater from oilfields to a quality that might be usable in irrigation, especially in arid areas such as west Texas. Her approach would involve preliminary filtration followed by reverse osmosis, and the project would be highly

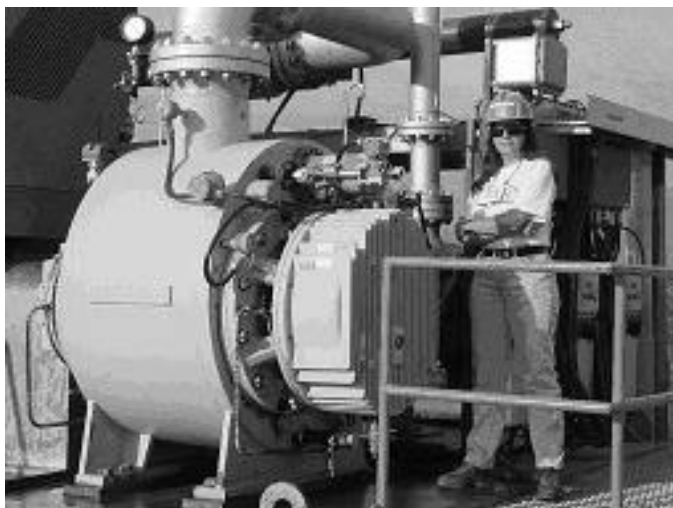
multidisciplinary.

Jerome Schubert is working to increase study into deepwater drilling technologies. His proposals range from determining safe applications of underbalanced drilling to the Gulf of Mexico to studying the ignition temperature and source of downhole fires during air drilling to developing and assessing well control procedures for extended-reach and multilateral wells.

He also hopes to examine the possibilities of using hydrate plugs to contain blowouts in wells drilled in moderate to ultradeep water and to study the reliability of deepwater subsea blowout preventer equipment.

Jerry Jensen is conducting research with a probe permeameter, which is giving his teams a better way of correlating permeability with the geology and making reservoir evaluations more reliable and more economical.

Rosalind Archer is developing a program of research in reservoir simulation and modeling.



PhD candidate Ana Martin assists with Stuart Scott's study of multiphase pump operations in the Petrozuata field, Venezuela.

Calhoun Honored for Lifetime Achievement

John C. Calhoun will be given an Engineering Program Lifetime Achievement Award at a celebration luncheon on 5 October.

The luncheon, a 125th anniversary event for the university, will feature John's presentation on the history of engineering at Texas A&M. John has lived much of that history in his career here beginning in 1955. He is Deputy Chancellor for Engineering Emeritus and Distinguished Professor Emeritus of Petroleum Engineering.

The award is given at the discretion of the Vice-Chancellor and Dean of Engineering. It recognizes contributions to engineering and recognition brought to the university by an individual who has served as a part of the Dwight Look College of Engineering or its associated programs. Only two other engineers—Charles Holland and Jack Kilby—have received the recognition.

John authored one of the earliest textbooks on reservoir engineering.

Brown Ranks Among Outstanding Alumni

Kermit E. Brown '48, retired professor of petroleum engineering and former vice president for research at Tulsa University, was honored with an Outstanding Alumni Award by the Dwight Look College of Engineering in April.

Kermit still gives training seminars around the world in production optimization and artificial lift. He is a member of the National Academy of Engineering (NAE), a distinguished member of the American Institute of Mining and Petroleum Engineers (AIME), and an honorary member (equivalent of fellow) of AIME and the Society of Petroleum Engineers (SPE).

Kermit has also received numerous teaching awards from the University of Texas and Tulsa University and is a member of the Department's Academy of Distinguished Graduates.

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