Western Geco - Proposed Joint Venture Between Schlumberger and Baker Hughes

On September 6, 2000, a definitive agreement between Schlumberger and Baker Hughes was finalized and signed which would create (subject to regulatory approvals) a joint venture company called Western Geco. The agreement states that Schlumberger will pay Baker Hughes approximately $500 million to obtain 70% majority control of the joint venture. After closing, Schlumberger will have day-to-day control of the new company, and JV President Gary Jones will report to Schlumberger’s Executive Vice President of Oilfield Operations, Andrew Gould. Baker Hughes will retain an active minority interest.

Western Geophysical and Geco-Prakla provide excellent seismic solutions and a strong platform for new technology introductions. The two companies have a natural alignment of complementary markets, technologies, and cultural values. The vision behind Western Geco is to enable customers to deliver energy with lower environmental impact by geophysically imaging the world’s reservoirs. The company is committed to technology, people, and profitability.
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As you know, Baker Hughes and Schlumberger have announced their intention to combine the seismic businesses of Western Geophysical with GECO-Prakla. We’ve initiated the regulatory filing. The definitive agreement has been signed.

All these are steps we take toward closing a transaction that by year’s end would create a new player in the seismic industry — Western GECO. But between the announcement and the closing is this interim of uncertainty and doubt — and on the flip side — excitement and anticipation. It’s a time when employees from both Western and GECO wonder about their jobs and their future, and each gets the chance to see another layer of their own character. Some will wonder what kind of promotion or relocation opportunity they might get as part of the new organization; others wonder whether they’ll have a job at all.

Nobody knows the answers at this point, so these are all valid viewpoints. However, the viewpoint you choose is up to you.

The Chinese have a term, “wei-jì”, to represent the turning point we call “crisis”. This beautiful expression is a combination of two existing characters — one for “danger” and the other for “opportunity”. The duality is clear: one cannot move forward without risk, and yet, the presence of risk carries with it an opportunity, perhaps an exceptional one.

The timing of the Western GECO venture is very exciting. We project a market upturn next year, and we intend to greet it with everything we’ve got. Your skills and talents are needed in Western Geophysical today, and those same skill sets will be needed in the new venture. Some of you have been through this merging process before, and you’ve learned a lot. I urge you to help others through it.

So I’d like you to approach the next several months in the following ways:

First, as Western Geophysical, we must focus on our financial performance and meet or exceed our plan. This improves our company, and ensures a strong entry into the new venture.

In each of our product lines and work groups, I urge you to accelerate your programs and projects. For example, let’s roll out the QAS by year’s end instead of next summer; let’s implement Project Focus; let’s move forward with PDM. We need to accelerate, not slow down. Anything that can improve Western Geophysical today will be good for Western GECO tomorrow.

Individually, I encourage each of you to review your skills and competence levels. If you’re good at what you do, and are confident in your skills — whether your core competency is operations, accounting, geophysics or secretarial skill — then you have plenty to offer any organization, certainly the one we plan to have formed by December, subject to regulatory approval.

Skilled employees who are inclined to action and optimism, and can discern the opportunity present in every risk, are very valuable. These are the kind of people that have made Western Geophysical great, and they’re the kind of people we’ll need at Western GECO.

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President, Western Geophysical
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**Worldwide Land Operations**

**Rick Drake** has been named general manager of North America Land and Transition-Zone Operations. Drake began his career with Western in 1975 and has held a variety of positions in U.S. Land Operations. He was promoted to party manager in 1980, then to supervisor of West Texas, and in 1994 to manager of West Texas, Mid-Continent. He has most recently served as area manager of the West Texas, Mid-Continent, South Texas, and Southeastern U.S. regions.

**Kirk Girouard** has been named general manager of Latin America Land Operations. Girouard graduated from Lamar University with a B.S. in mathematics, and joined Western in 1973 as a data processing analyst. In 1979, he was named manager of the Bogota processing center, and in 1994 became area manager of Southern Latin America Operations. He most recently served as operations manager of Latin America.

**Ray Grimes** has been promoted to the position of manager, Engineering Support for Worldwide Land Operations. Grimes began his career with Western Geophysical in 1972 after obtaining his B.S. degree in electrical engineering from the University of California at Santa Barbara. He has worked in various capacities in operations, engineering, technical support, and applied technology. His most recent assignment was in engineering support for Eastern Hemisphere Land Operations.

**Vicki Huebler** has accepted the position of HSE / quality manager for Worldwide Land Operations. Following her graduation in 1981 from the Florida Institute of Technology with a degree in oceanographic technology, Huebler joined GSI and later came to Western with the Halliburton acquisition. She held various positions in geophysical data processing until she became a safety and environmental advisor in 1991, and in 1993, HSE training and compliance manager for Houston facilities.

**Worldwide Data Processing**

**Judy Adams** has been named general manager of Western Hemisphere Data Processing. Adams holds a Bachelor of Science degree in mathematics from Louisiana State University, and a master’s degree in education from Georgia State University. She began her career with Western in 1978 as a geophysical technician and quickly advanced to analyst and supervisor. She was named assistant manager of the Houston processing center in 1990, and promoted to manager in 1991.

**Oliver Carroll** has been named President of Geosignal. Carroll co-founded Geosignal in 1986 after extensive experience with such companies as Index Geophysical, Digicon, Digital Resources, Applied Research Concepts, and Denver Processing Company. He joined Digicon again in 1980, and moved to the UK to manage the company’s regional and dedicated processing centers in Europe, Africa, and the Middle East. He most recently served as senior vice president of data processing at Geosignal.
**Worldwide Land Operations**

**RICK DRAKE** has been named general manager of North America Land and Transition-Zone Operations. Drake began his career with Western in 1975 and has held a variety of positions in U.S. Land Operations. He was promoted to party manager in 1980, then to supervisor of West Texas, and in 1994 to manager of West Texas, Mid-Continent. He has most recently served as area manager of the West Texas, Mid-Continent, South Texas, and Southeastern U.S. regions.

**KIRK GIROUARD** has been named general manager of Latin America Land Operations. Girouard graduated from Lamar University with a B.S. in mathematics, and joined Western in 1973 as a data processing analyst. In 1979, he was named manager of the Bogota processing center, and in 1994 became area manager of Southern Latin America Operations. He most recently served as operations manager of Latin America.

**RAY GRIMES** has been promoted to the position of manager, Engineering Support for Worldwide Land Operations. Grimes began his career with Western Geophysical in 1972 after obtaining his B.S. degree in electrical engineering from the University of California at Santa Barbara. He has worked in various capacities in operations, engineering, technical support, and applied technology. His most recent assignment was in engineering support for Eastern Hemisphere Land Operations.

**VICKI HUEBLER** has accepted the position of HSE/quality manager for Worldwide Land Operations. Following her graduation in 1981 from the Florida Institute of Technology with a degree in oceanographic technology, Huebler joined GSI and later came to Western with the Halliburton acquisition. She held various positions in geophysical data processing until she became a safety and environmental advisor in 1991, and in 1993, HSE training and compliance manager for Houston facilities.

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**OLIVER CARROLL** has been named President of Geosignal. Carroll co-founded Geosignal in 1986 after extensive experience with such companies as Index Geophysical, Digicon, Digital Resources, Applied Research Concepts, and Denver Processing Company. He joined Digicon again in 1980, and moved to the UK to manage the company's regional and dedicated processing centers in Europe, Africa, and the Middle East. He most recently served as senior vice president of data processing at Geosignal.
ROY FORSHAW has been named general manager of Data Processing Technology. Forshaw graduated with a B.S. in physics with geophysics from the University of Liverpool in 1972. He began his career with Western in 1975 after earning a Ph.D. in geophysics from the University of Birmingham. In the early 1980s, he was named manager of London Technical Support, where he continued until 1993, when he became manager of Software Marketing and Training. He relocated to Houston in 1996 as general manager, SPSD, and most recently served as general manager of Geophysical Software Development and R&D.

CONNIE GOUGH has been promoted to Depth Imaging manager, Houston. She began her career at Western in 1981 as a geophysical technician in the Marine Seismic Data Processing department in Houston. She has held several positions over the years and had the opportunity to work on assignments in Venezuela and Brazil. In particular, Connie’s first foray into depth imaging was the Mahogany 3-D project in 1994. Most recently, as project manager, she has been instrumental in building high-performance teams and juggling complex logistics to deliver quality products to customers on time.

JERRY KOPOOR has been promoted to the position of director, Depth Imaging. Kapoor began his career with GSI in Croydon, England and has managed seismic data processing centers in Stavanger, Norway, Bedford, England, and Houston. Jerry spent the early part of his career acquiring and processing seismic data in Tripoli, Libya. In 1990 he began work on developing and applying technology to image steep dips and subsalt sediments. More recently, as manager of Depth Imaging, he has led the team in conducting and delivering many successful projects for clients imaging subsalt data that led to major discoveries, including Crazy Horse, Mad Dog and Atlantis.

JINNY MINTER has been appointed quality manager for Worldwide Data Processing, based in Houston. Minter has experience in processing, and more recently in working with multi-disciplinary teams involving data processing, technical support, and technology groups on production processing issues. Minter will continue to work on implementing Western’s global Quality Assurance System (QAS) to ensure the quality of our final product.

PATRICK NG has been named global general manager of Exploration and Reservoir Services (ERS). Ng began his career at Western in the R&D group in 1982. He has supervised London Special Processing and managed product development at Western Atlas Software. He has also worked on technology transfer of emerging technologies, and most recently served as general manager of Depth Imaging for Western Geophysical.

MAURICE NESSIM has been named area manager, Middle East Data Processing. Nessim joined GSI in 1980 after completing a master of science degree in nuclear physics at Cairo University. His assignments have included processing geophysicist and area geophysicist for Egypt, area geophysicist for Egypt / Jordan, area geophysicist for Egypt / Middle East, senior area geophysicist for Africa / Middle East, and most recently, general manager of the Cairo processing center.
Peter Nuttall has been named area manager of Data Processing, Europe. Nuttall joined Western’s London office in 1973 after completing a B.S. honors degree in geology, mathematics and chemistry at Aston University in Birmingham England. Since then his assignments have included DP center manager in Saudi Arabia, Marine DP manager in Calgary, Canada, DP center manager Singapore and the Far East, Marine DP manager in London, and, since 1997, area DP manager in Europe with responsibility for both regional and infield DP centers.

Steve Pickering has been named area manager of Data Processing, Far East and Australia. Pickering has a long history with Western in various technical and managerial capacities. Over the past 20 years, he has been charged with developing new opportunities and increasing Western’s market share in the Far East and Australia areas. He most recently served as regional manager of Far East and Australia, based in Perth.

John Ralph has been named processing manager for the Midland processing center. Ralph graduated from The University of Texas at Arlington with a B.S. in mathematics in 1974. He began his career in geophysics in 1975 with G.S.I., where he held several positions including party chief, area geophysicist and project geophysicist. He remained in processing through Halliburton’s purchase of G.S.I. and Western’s purchase of H.G.S. His most recent assignments were as team leader in Western’s Corpus Christi and Houston offices.

Murray Symonds has been named manager of the Luanda, Angola Data Processing center. Symonds is a geophysics graduate from Adelaide University in South Australia. Murray went to work for GSI, later HGS, in 1983. He came to Western with the HGS acquisition and became manager of the Adelaide Processing center in 1991. Several years later, Murray moved to Baku, Azerbaijan as data processing manager for Caspian Geophysical. Upon completion of that contract, he accepted the position of center manager for Western’s processing center in Luanda.

Peter Wakeling has been named area manager of Data Processing, Africa and Central Asia. Wakeling joined Western in Calgary in 1981 after completing an M.A. in natural sciences at Cambridge University and working in areas ranging from operations research to physiology. He started with Western in data processing before moving on to seismic software development in Calgary and then Houston. His most recent assignment was as Data Processing manager in Nigeria.

Worldwide Marine Operations

Joe Borg has accepted the position of worldwide fleet manager for Western Geophysical. Borg began his career with Western in 1977 and has served in various supervisory roles in the Middle East Land and Transition-zone areas. Most recently he was manager of marine operations for the Far East region, and operations manager for Eastern Hemisphere Marine Operations, based in London.
BRENT BROWN has been named manager of worldwide field support for Marine Operations. Brown began his career with Western in 1975 after attending the North Dakota College of Science. He began as an observer on a land crew and transferred to Marine Operations the same year. Since 1980, Brent has served as instrument supervisor for West Coast and Alaska Marine Operations, Gulf Coast Marine Operations, and South America Marine Operations. Brown was named manager of technical support in April, 1994.

LARRY DOWDNA has been named manager of worldwide OBC and shallow water operations for Worldwide Marine. Doudna holds a Bachelor’s degree in electronic engineering from Missouri Institute of Technology. He began his career with Western as a technician in 1982.

KERRY DOYLE has been named regional manager of Africa and will be based in London. Doyle began with Western in 1980 with land operations in Haiti and the Dominican Republic, party manager/supervisor/resident manager in Venezuela, and subsequently resident manager positions in Nigeria and Romania.

PHIL FONTANA has been named geosupport manager of Worldwide Marine. Fontana holds a B.S. in geology and a M.S. in geophysics from the University of Connecticut. He began his career with Western in May of 1984, and his most recent assignment was as manager of geophysical service, Eastern Hemisphere Marine Operations, based in London.

JEFF MAYVILLE has been named regional manager of North America (including Mexico) and will be based in Houston. Mayville joined Western in 1983 and has served as supervisor of Western Hemisphere OBC Operations since November, 1996.

JOHN SIEGFRIED has accepted the position of Worldwide Marine Operations manager. Siegfried joined Western Geophysical in 1980, and worked in offshore field positions in both Eastern and Western Hemisphere, before assuming a supervisory role in West Africa in 1990. He has since been resident manager for Western’s operations in Kazakhstan and area manager of Eastern Hemisphere Marine Operations.

MAJOR SMITH has been named regional manager of South America and will be based in Rio de Janeiro. In 1981, after earning his B.S. degree in oceanographic technology from the Florida Institute of Technology, Smith began his career with Western’s Latin America division. He worked as a junior observer aboard the Western Surf and throughout Latin America and West Africa, eventually to become party manager. In 1991, Smith was promoted to field supervisor and later to operations supervisor for transition-zone crew operating in Kazakhstan. Smith most recently served as supervisor of streamer operations for the Western Hemisphere Marine division.

CHUCK TOLES has been named vice president of Worldwide Marine for Western Geophysical. Toles began his career with Western in 1981 as a geophysical trainee and has served as assistant party manager, party manager, and supervisor of South Texas crews. In 1991, Toles transferred to Singapore as manager of operations, and subsequently spent nearly 3 years as area manager for Far East and Australia. He was later appointed general manager of China operations, and most recently, vice president of Eastern Hemisphere Marine Operations.
LARRY WAGNER has been named general manager of Worldwide Marine. Wagner joined Western in January 1975 after obtaining a degree in electronic engineering from Missouri Institute of Technology. After various positions onboard Western’s vessels, Larry moved to shore-based field support roles, becoming Western Hemisphere Navigation manager in 1984. In 1990, he assumed the role of manager, Applied Technology Navigation, and in 1992, area manager of EAME Marine. Wagner was named project manager for the new vessel construction group in 1997, maintaining this position through delivery of the Western Trident and Western Neptune, completed in January 2000. Wagner’s 25 years of service with Western has included technical as well as operational management roles in the Far East, Europe, Africa, the Middle East, and North and South America.

KEN WILLIAMSON has been named regional manager of Europe / Mediterranean and will be based in London. After receiving a degree in geophysics from the University College Cardiff in 1986, Williamson began his career with Western as a field geophysicist in the EAME Marine division. During the course of his career, he has served in a variety of EAME supervisory and management roles including supervisor of Geophysical Support, Marine Operations supervisor, OBC / Transition-Zone supervisor, area manager for Mediterranean and Middle east, and most recently, quality manager of Western Hemisphere Marine.

PAUL WINSPEAR has been appointed regional manager of Middle East / Central Asia and will be based in London. Winspear began his career with Western in 1990 as a field geophysicist on the Far East marine crews and has served as party manager and area geophysicist for the Far East & Australasia area. In 1999 Winspear transferred to London as marine regional manager for the Middle East.

Multiclient Surveys

RICHARD CIESLEWICZ has been appointed general manager, Worldwide Multiclient Data Services and Administration. Cieslewicz began his career with Western on a field crew in Alabama shortly after earning a degree from the Colorado School of Mines in 1983. He has held a number of management positions in land operations, marine operations, and data processing. He has served as manager of Southeastern U.S. Land Operations in New Orleans, and most recently, as area manager of Southeastern U.S. Operations and Data Processing.

JERRY PETERSON has been named general manager of Marine and OBC Data Sales and Program Development. Peterson began his career with Western in 1975 as a marine electronics technician in New Orleans. He moved up though the Marine department to the position of supervisor, Western Hemisphere Marine Operations until 1990, when he was transferred to the Spec Data Sales department. He became manager of the Spec Sales department in 1992, and has served as area manager of Marine and OBC Multiclient Data since February, 1998.

JIM WHITE has been named vice president, Multiclient Surveys. White joined Western in 1982 after completing a degree in geology from Penn State University. He has served as party manager in West Texas and in a variety of supervisory positions in West Texas, Denver, and Michigan. In 1992 he was named manager of program development in Houston and in 1995 was promoted to general manager of North American Land Operations. In 1998, he was named general manager, Western Hemisphere Speculative Data and later that year was named vice president, Multiclient Library, Western Hemisphere.
CHARLIE YANEZ has been named general manager of Land and Transition Zone Data Sales and Program Development. Yanez joined Western in 1980 after earning a bachelor’s degree in geology from Texas A&M University. He started as a geophysical trainee assigned to field operations in South Texas. He served in a variety of supervisory and managerial positions within the South Texas Land Operations area until 1998 when he transferred to the Spec Data Sales department as area manager of Land and Transition Zone.

Worldwide Technology

LEE BELL has been named vice president of Worldwide Technology for Western Geophysical. Bell obtained his undergraduate degree in physics from the University of California San Diego and his master’s and Ph.D. from Stanford University before joining Mobil Oil R&D in 1976. After some years in research and interpretation for Mobil in Dallas, he joined Digicon to participate in and eventually direct its contract research group for Aramco in the UK. In 1984 he co-founded Entropic Geophysical and became its president, and in 1991 Entropic merged with Geosignal. Bell held the post of vice president of research until Geosignal was acquired by Western Atlas in 1997, when he became president of the Geosignal division.

LUIS CANALES has been named general manager of Worldwide Research and Development. Canales received his B.S. in civil engineering from the University of Mexico and M.S. and Ph.D. degrees in geophysics from Stanford University. He was a professor at the Advanced Research Center in Ensenada, Mexico and at Stanford University. He has worked for Mobil Oil, Digicon Geophysical, and CogniSeis. At Western, he has been manager of the Applied Imaging group and, most recently, manager of Houston R&D.

BILL DRAGOSET is named manager, Data Acquisition R&D. Dragoset received his bachelor’s degree in physics from Auburn University in 1972 and joined Western in 1979 as a research geophysicist. He earned his master’s and Ph.D. from Rice University in 1975 and 1978, respectively. He became a senior research geophysicist in 1981 and was promoted to senior scientist in 1992.

TOM FLEURE has been named manager, Special Projects. Fleure joined Western in 1983 after earning his B.S. in geophysical engineering from the Colorado School of Mines. Tom has served in various positions, including QC geophysicist, party manager, area geophysicist, resident manager, managing director, manager of Applied Technology Land, and most recently, operations manager of Western Hemisphere Marine.

KIP HUMBERT has been named general manager of Applied Technology. Humbert joined Western in 1973 after obtaining his MSEE from Rice University. He spent his early career working in marine operations and field support. Humbert then earned his MBA from the University of Houston and began his own software company. In 1989, Kip returned to Western to manage the Navigation department in Houston. In 1995, he moved to London to become supervisor of EAME Marine Operations and has since served as operations manager for EAME and as regional manager for Near and Far East.
ANDY KUSHNER has been named general manager, Geophysical Software Development (GSD). Kushner began his career with Western Geophysical in 1974 on a field crew in Michigan after graduating from Duquesne University with a B.S. in mathematics. He has held various positions in land data processing, training, software testing, and programming. In 1991 he became manager of Software Systems Development and in 1996 he transferred to Western Hemisphere Data Processing as manager of Software Support.

Finance & Administration

RAKESH ADIAH has been named finance manager, Eastern Hemisphere Land. Adiah holds a BA in accountancy and law from Southampton University. He began his career with Western in May, 1996 and has served as finance supervisor of Eastern Hemisphere Land and as accountant for Nigeria Land Operations.

NICK BATTAGLINO has been named finance manager of Worldwide Data Processing. Battaglino earned a degree in geophysical engineering from the Colorado School of Mines and a MBA in finance from the University of Houston. He began his career with Western in 1990 as a field clerk in Venezuela, and has since worked as a party manager, technical coordinator, manager of new ventures, and most recently as finance and administration manager for Technology and R&D.

GERALD CRADER has been named finance director for Worldwide Land. Crader holds a BBA in accounting from the University of Louisiana at Lafayette. He joined Hughes Tool Company in 1991 and has held various positions within the Tax department at Hughes Christensen, Baker Hughes INTEQ and Baker Hughes Corporate and was most recently senior tax manager, EAME for Baker Hughes in the UK.

JOE DANTE is named manager of Global Networking and Desktop Support. Dante holds a bachelor’s degree in computer science and mathematics from St. Mary’s University in San Antonio, Texas. He began his career with Western in July of 1983.

COMA GAAR has been named finance manager for Worldwide Multiclient Data Services. Gaar began her career with Western Geophysical in 1978 in the Billing department. She transferred to the Multiclient Data Sales group in April of 1998 as supervisor of finance.

ALLEN GIBSON has been named finance manager, Western Hemisphere Land. Gibson received his BBA in business from Southern Methodist University and a MBA from the University of Houston. He spent several years working with “big six” accounting firms and joined Western in 1991 as an accounting manager for manufacturing operations in Houston. He has since held several financial management positions in the Houston Accounting department.

SCOTT MCFARLANE has been named finance manager, Technology. McFarlane received his degree in business and economics from McMaster University in Ontario, Canada. He spent several years with a major oil company and joined Western Geophysical 1982 as controller of Western Atlas Canada. He has held a number of financial management positions in Canada, Houston, and the Far East, and was most recently appointed area manager of Finance and Administration, Western Hemisphere.
Mary Moore has been named manager of Financial Planning and Reporting. Moore received her BBA in accounting from the University of St. Thomas. She joined Western in September, 1995 as a financial analyst and was promoted to senior financial analyst in July, 1996.

Andy Puhala has been named tax manager for Western Geophysical. Puhala joined Baker Hughes in 1996 and has held various positions within the Tax department. He received a BBA in accounting and an MPA in tax from the University of Texas at Austin. Prior to joining Baker Hughes, Andy worked in a tax consulting practice of Arthur Andersen in Houston.

Worldwide Marketing and Business Development

James Andrew has been named account manager of Africa. Andrew will be responsible for marketing and business development in Africa and also will act as client coordinator BP Amoco Eastern Hemisphere. Andrew has a B.S. in geology from Warwick University. He joined Western from Shell in 1997 as an account manager in New Ventures responsible for non-exclusive seismic sales in Africa & Norway.

John DeBruyne has been named account manager for Latin America. DeBruyne’s career in the seismic business spans more than 35 years, 7 of those with Western Geophysical. He has held a variety of management positions in field operations, safety and quality, serving most recently as global quality manager for Land and Transition Zone Operations.

Gavin Hills-Jones has been named general manager of account management for Marketing and Business Development. In addition, he will manage Europe and Asia Pacific accounts directly. After graduating from Bath University with a degree in applied geophysics, Gavin joined HGS where he worked his way up to managing director of the Bedford Processing Center. Since joining Western, he has served in varying capacities from new ventures to marketing.

Marion Hirsch has been named global director of Marketing Communications. Hirsch is a graduate of Trinity University in San Antonio, Texas. She joined Western in 1980 as a marine seismic data processor, and in 1994 she became worldwide training coordinator for the Quality department. She has served as marketing manager for Western Geophysical since 1998.

Dominic Lowden has been named account manager for the Middle East and Central Asia. After graduating in geology from Reading and an M.S. in sedimentology from the University of Guelph, Ontario, Lowden joined EnTec Energy Consultants in 1983. With EnTec, he became technical director and spent 15 years developing and coordinating systems for specialized well log analysis, seismic-related rock physics, acoustic modeling, inversion, and reservoir characterization. When EnTec became part of Western Geophysical in 1986, Dominic managed business development for Western’s ERIS group before taking up his current position marketing all product lines. He has presented at many conferences and published a number of papers that address the integration of seismic and well data for inversion and reservoir characterization.
Mike McCormic has been named vice president of Marketing and Business Development for Western Geophysical. McCormic began his career with Western Geophysical in 1964, following graduation from Louisiana State University with a degree in electrical engineering. He has held a variety of management positions in Western’s field operations, data processing and multiclient program development / marketing, including manager of North America Marine Operations, general manager of New Ventures, Western Hemisphere, and general manager of New Ventures, Europe, Africa, and the Middle East. In 1997, McCormic transferred to Western Atlas and subsequently to Baker Hughes as vice president of Corporate Business Development.

Duncan Riley has accepted the position of general manager, Marketing Research and Strategic Planning. Riley began his career with Western in 1986 as an assistant party manager in Venezuela after receiving his degree in geophysical engineering from the Colorado School of Mines. During his career with Western, he has worked in land, transition-zone, and marine operations in a variety of supervisory and management roles. His most recent assignment was as manager of Western Hemisphere Marine Operations.

Chris Tutt has been named account manager for the United States and has begun to form regional business development teams within his region. Tutt most recently served as director of Industry Relations for Western Geophysical. His prior experience includes 10 years of operational experience and 7 years of marketing and data sales knowledge.

Chuck Ward has been named account manager for Canada and has begun to form regional product line business development teams there. Ward graduated from the University of Texas at Austin in 1977. He started with Western in 1993, and has served as Marine Spec Data Sales manager and Spec Data Services manager. Previous employment includes Halliburton Geophysical and Ward Exploration.

**Human Resources, HSE, Quality & Training**

Linda Bly has been named manager of Human Resources for Western Hemisphere. Bly began her career in human resources handling employment and recruiting responsibilities. She then moved into supervisory and management roles with divisions of NL Industries for 12 years. While with NL, Western Atlas acquired the division she was working for. Bly served as benefits manager for 10 years with the WALL corporate Benefits department. She most recently has been working with Baker Hughes Business Support Services.

Rhonda Boone has been named director of Employee Communications. Boone began her career with Western in 1974, and has progressed through the ranks from staff artist and writer to manager of Corporate Communications for Western Atlas and then Baker Hughes, following the merger. She is a graduate of the University of Texas and a Certified Business Communicator.

Martin Duley has been named director of Quality for Western Geophysical. Duley started with GSI’s computer operations group in Perth, Australia in 1980. He worked in Croydon, UK and then Sydney, Australia as a supervisor and eventually computer center manager. In 1988, Duley transferred to Marine Operations as a quality / technical coordinator for the Far East and Australia region. Since 1992, he has held various positions, most recently project manager, building the global Quality Assurance System (QAS) in the Far East for all product lines.
FRAN GOLOWAY has been named global manager of Quality and HSE for Data Processing. Goloway began her career with Western in 1981 as a programmer for SPSD. Over the past several years, she has held positions with Eastern and Western Hemisphere Data Processing as well as SPSD in Houston and in London.

DAVE GOODMAN has been named manager of HSE compliance for Worldwide Marine Operations. Goodman started with Western in 1965 as a Helper onboard P-72. He worked up through the ranks and came ashore as a party manager in 1973, spending 1-1/2 years in Keil, Germany and 1 year in Rotterdam, Holland, as project manager for vessel conversion projects. In 1993, he became HSE Supervisor, Transition Zone, and then HSE supervisor, Western Hemisphere Marine Operations.

KATHY MOREL has accepted the position of global quality / HSE manager for the Worldwide Multiclient Surveys, Finance & Administration, and Business Services groups. She will work with the respective managers and quality coordinators in each area to coordinate, facilitate, and support quality assurance and improvement activities as well as HSE issues. Morel joined Western in 1983 as secretary for the Southeastern U.S. Operations group. She later advanced to office manager where she directed activities for 11 years until she was named manager of the New Orleans data storage facility. Morel’s most recent assignment was as the manager of Quality.

LINDA PEDERSON is named manager of Human Resources and will handle compensation-related issues. Pederson has been with Baker Hughes since 1990, where she began as a payroll administrator with Baker Sand Control. During her time with BHI, she has held various roles of increasing responsibility in Payroll and Human Resources. For the past three years, she has been a core team member on the implementation of HR/payroll/benefits for Project Renaissance. Her knowledge of SAP processes will be critical to our success in either cutting over to the new SAP payroll/HR system with the joint venture or the cutover of our domestic payroll to SAP with BHSS. She also will be responsible for completing and maintaining our current compensation programs.

SHAWN RICE has been promoted to general manager, Business Services. In this newly created position, Rice will have responsibility for Western’s worldwide HSE, human resources, quality, and training efforts. Rice has over 15 years experience with Western, including management assignments in both land and marine data acquisition, data processing, and spec program development.

MAURICE STEEL has been named HSE and quality manager for Worldwide Marine Operations. Steel graduated from Arizona State University with a bachelor’s degree in business administration. During his 19 years with Western Geophysical he has worked as a party manager, supervisor, and area Marine Operations manager in the Far East area. He joined the Quality department as the global quality manager upon inception of the department in 1997.

LARRY WILLIAMS has been named Worldwide Marine HSE manager based in London. Williams began his career in the marine seismic industry in 1976 with GSI in the Far East region. He spent 5 years onboard, in a variety of positions, before moving to an onshore position of administrator in 1981. He was promoted to vessel supervisor in 1990, moved to the OBC product line as party manager in 1993, and in 1996 relocated to London as OBC supervisor. In 1997 he became part of the (London) Marine HSE department as HSE supervisor, and in 1998 was promoted to marine HSE manager, Eastern Hemisphere.
Product Development and Management (PDM) Kick-Off

An Integrated Approach to Efficient and Effective Product Development

In February 2000, Western launched the new Product Development and Management (PDM) program, designed to get effective products from “concept to customer” in the most efficient way possible. PDM is a Baker Hughes corporate-wide program being implemented at Western Geophysical to identify and evaluate market opportunities, design and develop products, and launch and manage the life cycle of those products.

The PDM implementation team will be in place until the new PDM process is rolled out and in use at Western. Reardon Smith, former Western Geophysical software marketing manager and now the division’s PDM process owner leads the group, assisted by Jim Roddy from Baker Oil Tools. On the team, either full- or part-time, are Antoon Athmer, Nigel Bennett, Jim Cain, Debra Dishberger, Laurent Meister, Mike Nguyen, Earl Snyder, Martin Stupel, Jane Troutner and Noel Zinn. Together, they have experience in the areas of applied technology, computer systems, data processing, land and marine operations, multiclient data, R&D, and SPSD.

Planning and scoping began February 1, 2000 followed by a company-wide development assessment phase. Detailed design and customization of the process is currently in progress to ensure company and client needs are met. Roll-out is scheduled for July and August 2000, and the targeted completion for the implementation is September 15, 2000. From that point on, all significant development activities within Western will follow the new PDM process. For more details on the progress of the team and some of the milestones of the implementation, employees are encouraged to view the PDM department’s site on Western’s intranet.

Western Wins ADCO Contract

Western Geophysical has won a 2-year, 2000 sq. km 3-D seismic survey contract awarded by the Abu Dhabi Company for Onshore Operations (ADCO). “This contract award represents an extension of our long-term relationship with our Abu Dhabi clients,” said Chris Fox, Western Geophysical’s General Manager for Land Acquisition.

Western Geophysical is also currently acquiring the 1000 km2 Bu Hasa 3-D survey, where the integration of leading-edge data acquisition and processing technology has been instrumental in meeting ADCO’s exploration and development requirements.
Western to Use New Satellite Technology for High-Speed Data Transmission

Western Geophysical is planning to use the latest satellite communications technology for high-speed transmission of seismic data from offshore vessels to onshore data processing centers.

Western’s marine seismic vessel, Western Patriot, is being fitted with the first-of-a-kind SeismicStar™ terminal, the world’s fastest commercial satellite data transmission system from SpaceData International. SpaceData worked with Western to specify and test the SeismicStar system. The system is optimized for marine seismic operations to enable the automatic transmission of large amounts of information, including uncompresses raw seismic field data.

SeismicStar terminals aboard the Western Patriot are designed to automatically transfer the data from the vessel’s remote survey location every day at 311 megabytes per second by “broadband-on-command” service. The onboard terminals transmit the data through a series of unique geostationary satellites to ground stations. Fiber optic cables provide the final high-speed link from the ground stations to Western’s marine data processing center in Houston.

SpaceData International will control and maintain the complete system from remote terminal to delivery to the processing center. “This complete data transfer service, from boat to processing center, is intended to enable Western to provide an exceptionally fast turnaround and efficient service to its customers,” said Craig Beasley, Western Geophysical vice president for data processing.

New Marketing Department Organization

Western’s marketing department has been organized into three separate, but closely related groups: account management, marketing communications, and market research/strategic planning. The managers of these three groups have a wide range of experience in operations, data processing, quality, and marketing functions.

Duncan Riley is general manager of Market Research and Strategic Planning. Duncan and his group will assist Western’s product lines and the executive management team with development and implementation of strategic business plans.

Marion Hirsch is global director of Marketing Communications, responsible for articulating Western’s message to customers and investors using a number of communications tools. Their objective is to increase awareness of Western’s product lines, technology, and multilient library.

Gavin Hills-Jones is general manager of Account Management. This group will work with Western’s product lines to coordinate and participate in a client contact program. They will also coordinate sales efforts, develop regionally focused business growth strategies, and coordinate the information flow between clients, product lines, and strategic planning. The Account Managers are: Chris Tutt – United States; Chuck Ward – Canada; John DeBruyne – Latin America; Dominic Lowden – Middle East; James Andrew – Africa; Gavin Hills-Jones – Europe and Asia Pacific. Account managers are currently meeting with the product lines to form their teams.

John Waggoner

Exploration & Reservoir Services (ERS)

John Waggoner has been selected by the Society of Petroleum Engineers (SPE) to be a Distinguished Lecturer for the 2000-2001 season. The SPE Distinguished Lecturer program helps the SPE keep members informed of recent developments in engineering practices and techniques. Each year, approximately two dozen lecturers are chosen to speak on a range of topics of current interest to SPE sections around the world. John’s lecture, “Integrating Time-Lapse (4-D) Seismic Data with Reservoir Simulation,” will draw extensively from Western Geophysical’s 4-D experience and recent R&D activities. He is the Reservoir Engineering Manager with the Exploration and Reservoir Services (ERS) group in London.
Can-Do Award Winners — First Quarter 2000

Data Processing

Mike Ayres, London for presenting a plan to achieve savings of $1 million per year on telecommunications costs. Richard Barnwell, Kuala Lumpur, and Ng Swee Leng, Perth for a complex 4-C processing job. These were some of the first data of this type collected in the region, and both Swee Leng and Richard had to teach themselves the necessary processing methods in addition to completing the project. In doing so, both individuals developed processing techniques that were presented and recognized as unique at the recent 4-C workshop in Houston.

John Byrne, London for taking on additional responsibilities for printroom and tape transcription as a result of the computer operations move from Bedford to Isleworth.

Mike Byrne, London for taking on additional responsibilities for printroom and tape transcription as a result of the computer operations move from Bedford to Isleworth.

Barbara Card, Houston Marine Processing for being instrumental in preparing bids and securing jobs awarded to Crew 904. Houston Marine Processing has been awarded 4 jobs from a major client in the past 2 months.

David Derharoutian, Ken Fulps, Terry Johnson, Kam Kanhalangsy, Jim Larson, Richard Peoples, and Bob Works, all from Houston for monumental effort, early delivery, and positive client feedback on the Walker Ridge 1,3,4,5 survey.

Ron Frosh and Jim Minter, Houston Marine Processing, and Melanie Ianniello, Houston SPSD for putting in long hours, including nights and weekends, working on the 3-source problem.

Awad Guirguis and Dana Zajac, Houston Computer Systems and Support for working on Friday and Saturday (Easter weekend) to repair an electrical problem.

Pete Mooney, London for completing a difficult and complex project on time.

Anatoly Osadecky, Perth for developing a processing flow to create highly spatially sampled velocity fields. This has subsequently been marketed in the Far East / Australia region as “DVA.” The technique was fully developed by Anatoly, and his innovative approach has improved our current process of time domain velocity analysis. Several other centers are now appraising and testing the method.

Mark Robinson, London for doing an outstanding job on a complicated job. With extreme partner involvement and no senior analyst in the group, Mark stepped up to the challenge.

Land Operations

Phil Andrews and Paul Hicking, Oman in recognition of the extraordinary effort they put forth in winning our major Oman contract.

Oman Resident Manager Alan Tavender (left) presents Operations Supervisor Paul Hicking with his Level 3 “Can-Do” award.

Jim Benton, Algeria for demonstrating outstanding leadership in training crew members and Algerian nationals in QC procedures.

Tim Marples, Houston for outstanding work preparing model QC systems for our field crew under tight time constraints.

Field Service Engineer Phillip Andrews (right) receives his Level 2 “Can-Do” award from Oman Resident Manager Alan Tavender.

William Rojas, Roberto Olaza, Jorge Guzman, Jimmy Jumbo, Carlos Hoyos, Guillermo Roca - Party 332, Mexico for over 4 million manhours without a lost time injury, and a total recordable case frequency (TRCF) rate of 1.67.
Chris Verret, Buenos Aires for extra effort involved in coordinating Crew 799's infield DP system repair, averting a "crew shutdown" situation.

Marine Operations

Gary Bone, London for many hours of extra effort when his GIS mapping group was reduced from three people to one.

Kris Clauson, Houston for exceptional service to internal and external customers.

Martin Hill, M/V Western Atlas for devoting extra time in getting GPS monitoring on small craft, an idea that will be considered for the entire fleet as it improves efficiency and safety.

Debbie Hunt, London for being instrumental in the consolidation of marine support groups.

Mads Orbach and Hans Thomsen, M/V Western Trident for jointly developing a very efficient water heating system, saving the company at least $100,000 per year in fuel costs.

Mark Shelley, London for outstanding performance on a special project for global marine operations targeting crew morale.

Robert Winstead, London for working long hours to support marine operations financially without complaint.

Robert Chan, Frances Jackson, Dave Shaffer, and Mona Cowman, Houston for developing the Processing Project Manager regression testing model for the Omega® Software Testing group.

Qing Liu, Houston for continuing efforts to provide a standard interface to the general attribute table (GAT) access files for Expeditor; created 3-D land and marine poststack interfaces for GAT entry.

Greg McCordle, Houston for quick response to problems and efforts during installation for Multiclient Data Sales and Management groups in Houston and the U.K.

Heather Mize, Houston for her efforts in putting Thrift / PSP Fund Sheets on our database to allow employees to see how the funds are managed and invested.

Robert Steinhaus, Houston for work on development of the Western bi-vane, and for developing testing procedures for this as well as other vanes we use.

Craig Topham, Houston for exemplary work in producing training textbooks on the Omega System.

Dongbong Wang, Houston for continuing efforts in testing, documenting, and establishing import procedures documentation to be included in the Expeditor 1.4 release.

Carl Winnefeld, Houston for single-handed efforts to resurrect and deliver all the Eastern Hemisphere marine gravity and magnetic data to a major client.

Multiclient Data Sales and Services

David Baker, London for working tirelessly to promote our offshore Turkmenistan multiclient data at the recent Turkmenistan conference.

(Left to right) Western Geophysical President Gary Jones presented "Can-Do" awards to Margaret Farag, Barbara Barnhart, Phil Cremer, Helen Torres, and Diana Kucera at the First Quarter Employee Review Meeting in April.
Safety Sells

Western Geophysical won a major 2-year, $21-million contract in Oman for Petroleum Development Oman (PDO). The winning crew had recently set a safety record, completing more than 8 years (8 million manhours) without a lost-time incident. Chris Fox, general manager of worldwide land acquisition, said the award allows Western to “extend our 37-year relationship and provide state-of-the-art acquisition solutions to PDO and the Sultanate of Oman.”

(Left to right) Multiclient Data VP Jim White, Marketing Representative Greg Reid, Marketing Representative Patty Evans, Canada Multiclient Data Manager Bill Drew, Multiclient Data General Manager Charles Yanes, and Program Development Supervisor Daryl Robbins gathered for presentation of “Can-Do” Awards to Greg, Patty, and Daryl, and 5-year service award to Daryl.

Brigid Bartosh, Cheryl Oxsbeer, Diana Kucera, Margaret Farag, Phil Cremer, Helen Torres, Craig Golden, Barbara Barnhart, Houston for working together to expedite an order for a client under extreme time pressure.

Mike Bertness, Houston, Joe Rosas, Houston, Martha George, Midland, Daryl Robbins, Calgary, Don DuBose, New Orleans for meeting 1999 Plan objectives.

Peter Elliott, London for persevering in licensing an OBC multiclient survey for $1.2 million in December 1999.

Patty Evans, Houston. Working part-time in sales, Patty was responsible for over $1 million in sales in 1999, in addition to finding and correcting discrepancies in accounts receivable / payable resulting in significant savings.

Lyndon Findley, Houston, Mark Glasshof, Dallas, Greg Reid, Calgary, Dan Scott, Houston, Diana Shaw, Houston, and Scott Tinley, Houston for meeting and exceeding 1999 North America Land & Transition Zone Sales Plan objectives.

Martha George, Midland for helping put new technology to work through the advent of Western’s first multi-component speculative project in New Mexico.

Simon Hayter, London for sustaining patience and professionalism in dealing with the operating groups offshore Angola and consistently demonstrating a “can-do” attitude.

Belva Hunt, Houston for working diligently to create and manage an efficient filing and archiving system for the Data Services group.

Daryl Robbins, Calgary for creating “score cards” to evaluate the speculative potential in projects.

Joe Rosas, Houston for developing over 300 square miles of new data in South Texas and effectively controlling the cost of speculative programs in South Texas.

Scott Timley, Houston for finding and securing sales in excess of $1.5 million from new clients.

Finance & Accounting, Business Support Services

Mary Moore, Linda Bailey, Dorothy Brumlow, Paula Davis, Sondra Dittmar, Cheryl Chodaniecky, Rob Jones, Eileen Penrod, Troy Schmidt, David Lockard, and Diana Lackey, all from Houston for their extra effort related to Y2K Plan.

Jerry Dresner, Houston for demonstrating leadership in developing and redesigning the financial reporting structure in support of the new product line organization. Jerry showed initiative and approached the challenge with a great deal of enthusiasm.
Crew 769 Sets Health, Safety, and Environmental (HSE) Standards

Party 769 has worked in the United Arab Emirates for many years and is presently engaged in its most challenging contract to date. Working in an established oilfield spread out over 900 sq. kilometers (558 miles) of hostile desert, the crew is continually battered by harsh, hot winds. The desert is covered with natural hazards such as large sand dunes, hot sun, and desert fog. Shamals, or north winds, are particularly hazardous, often reducing visibility to a few meters. In summer, temperatures can reach 50° C (122° F). Being in an established oilfield adds to the challenge a number of man-made hazards: pipelines, power lines, rigs, other contractors, processing plants, and new construction sites.

The crew uses a Sercel SN388 to record 2,432 live channels. 3490 cartridges are interfaced to a SeisNet computer, which backs up the data to 36 Gbyte hard drives and enables the Observer to perform QC checks on the data. Ten bulldozers cut line through the sand dunes and 10 vibrators provide the seismic energy. To perform successfully in this complex operation, system operators use comprehensive quality procedures.

HSE Training and Awareness

Party 769's safety program is centered on their Health, Safety, and Environmental Management Systems manual. This book contains policy statements, goals and objectives, training guidelines, job

The High-Profile Award goes to Crew 769 — Abu Dhabi

Congratulations to Crew 769 on winning the High-Profile award! They have set the standard for other crews with outstanding efforts and achievements in Health, Safety, and Environment (HSE).

Thanks to all the crews who submitted nominations for their time and effort, and also for their accomplishments. The nominations were reviewed by area managers and presented to Western Geophysical President Gary Jones. He selected Crew 769 as the High-Profile award recipient for this quarter.

The High-Profile award is only one of many programs designed to recognize outstanding HSE performance at Western. Please continue your efforts to recognize those individuals, departments, and crews who excel in HSE performance.

Highlights of Western Geophysical's Commitment to Health, Safety, and Environment

SAFETY FIRST

Western Geophysical is proud of the Health, Safety, and Environment (HSE) accomplishments of all its crews. This section of Profile recognizes crews achieving significant HSE safety records. Congratulations to each and every member of these crews for your effort, commitment, and a job well done.

Crew Safety Record - Without a Lost-Time Incident (LTI)

Party 58 - Western Inlet - 4 years
Party 131 - Western Horizon - 1.5 million manhours
Party 142 - Western Legend - 1 million manhours
Party 769 - Abu Dhabi - 3 million manhours
Party 771 - Egypt - 2 million manhours
Party 772 - Algeria - 2 million manhours
Party 788 - Oman - 3,000 days

Business Services Manager, Shawn Rice, presents P-769's Assistant Party Manager, Alan Stobart, with the High Profile Award.
Quality Recognition Awards — Fourth Quarter 1999

Western Geophysical’s Quality Award program recognizes and rewards individuals for excellence and promotes sharing of best practices and procedures throughout the company. Four Western Geophysical employees received Quality Awards during the fourth quarter of 1999.

Best Practices in Data Processing

Ken Dingwall and Graham Hamilton have made dedicated efforts to implement best practices for data processing and software evaluation, and to further the education needed to optimally select parameters to meet Data Processing’s needs for geophysical data. Utilizing members of R&D, SP5D, and Data Processing, they have formed a “blueprint” for interdepartmental/product line cooperation with a team concept. One of the products of this effort is establishment of a library of appropriate synthetics to evaluate DMO, Residual Statics, SCAC, and ZAP. These synthetics, along with best practices and set-ups, are available to everyone and are on the Houston Land Intranet page.

CMV Adapted for Solid Streamers

Since 1996, the cable maintenance vessel (CMV) has been used on Western Geophysical’s multistreamer 3-D seismic vessels, greatly reducing cable fault downtime. With the introduction of the Sentry® solid streamer cable, the CMV could no longer execute established procedures. A new method was needed.

With input from experienced marine field personnel, John Perkins and Richard Price designed and developed new equipment and methods that allow solid cable sections to be changed out using CMVs. With a connector comprised of three cable section connection heads (affectionately dubbed the “three-headed monster”), the equipment is towed behind the boat to change sections. Not only did this solve the problem, it also reduced the time needed to complete the task and minimized hazards to people and equipment.

The prototype and new procedures were tested thoroughly under controlled conditions at the CMV Training Facility in Isle of Wight, UK. A training video and written procedures were created so that CMV workboat personnel could be prepared to use this new piece of equipment. Since the first solid streamer cable section replacement onboard the M/V Western Regent, several successful section changes have been made. The equipment is now on its way to all multistreamer vessels equipped with the CMV workboat.
Quality Recognition Awards — First Quarter 2000

Effective First Quarter 2000, the Quality Committee has approved an increase in the cash incentive for Quality Recognition Award winners. Recipients will now receive cash awards of US $2000. Checks and commemorative plaques are distributed quarterly by product line and sent to the respective Quality Coordinators/Managers for presentation to recipients. Teams, groups, and crews divide the awards proportionally. The Quality Committee has selected five individuals and one land crew as recipients of the First Quarter 2000 Quality Recognition Award.

Land Operations

Land Inventory Management System

Ike Miller was instrumental in developing the Land Inventory Management System (LIMS) database, a Lotus Notes®-developed database currently used by the Fixed Assets department, Applied Technology, land crews, and management. LIMS replaced Excel® and paper Fixed Asset Transaction (FAT) forms.

The database was designed to streamline and track the transfer and location of all assets for land operations. It has progressed into a tool used by management to identify available equipment and associated costs, including expensive non-capitalized items that do not appear on the asset register. This often eliminates the need to purchase new equipment, since management can now identify and use existing, idle equipment. LIMS is linked to the SQL server, and can provide up-to-date asset information to users about transfers and financial data, including monthly depreciation. The LIMS database is an extremely useful tool that helps control crew costs and increase efficiency.

Modified V-Drag

Crew 787 had a serious problem with damage to line equipment caused by rats and cattle chewing on the cables. Various attempts were made to slow the damage, but with minimal results. After several brainstorming sessions, Party 787 took a new approach to an old problem. Using a modified “skidder” designed for planting pine trees, the crew dug a small, 8- to 10-inch trench in which to place the cable. After several attempts with less than satisfactory results, a modified, weighted V-drag was designed. This allowed the crew to bury the cable quickly and easily, with little or no slow-down in operations.

Because of a decrease in downtime, the crew’s production increased. The process also extended the life of cables and reduced repair costs.
Applied Technology

Bivane Development

Western's goal of reliably towing more streamers in wider configurations depended on our ability to reduce total system drag on marine vessels. To this end, Western developed a new paravane that not only increases overall streamer separation, but also produces less drag than commercially available devices.

The bivane project became reality because of the combined efforts of Applied Technology Marine and Marine Operations personnel. Glen Barker, Bivane Project Manager, is credited with the development and successful deployment of one of the most significant advances in marine operations since deployment of the solid streamer. Glen coordinated the nine-month timeline, and communicated project requirements and status within Western Geophysical.

Marine Operations

Effective Streamer Testing

Crew 142 had problems providing realistic tensioning to cable sections that were repaired on-board. After repair, some sections were not adequately tested and were failing when re-deployed, causing additional downtime.

Edward Wooldridge, Master of the Western Legend, determined that cable sections required extra drag to make testing more realistic. After analyzing the situation, he applied several drogues to a repaired section and trailed it over the back deck roller into the water. This technique increased the drag and tension on the cable and ensured accurate testing. With help from his fellow crewmembers, Edward successfully developed and put into practice this method for effective streamer testing.

Techno-Float Soft Bridle

Chris Hayden and Dave Remillong were the driving forces behind development of a soft bridle used to tow Flotation Technology Floats (Techno-Floats). The soft bridle is a more secure way to attach the Techno-Float to the lead-in to get peak performance. Without the joint area of the previous arrangement, the soft bridle has a stronger, safe working load. This will prevent breakdown of the towing harness, damage to the towing bridle, and/or disconnection from the lead-in, which would result in loss of flotation and loss of production. The soft bridle can be installed on all vessels that use Techno-Floats.

For more information on any of these accomplishments, contact your Quality Coordinator.
Western Inlet Crew Completes Marine Firefighting Course

Crewmembers from the M/V Western Inlet (Party 58) recently completed a marine firefighting course at Texas A&M’s Galveston facility. Pictured in front of the William H. Allen, a WWII liberty ship used during the course, are (left to right) First Engineer Benno Carlsen, First Mate Dannie Larsen, Compressor Mechanic Bub Stevenson, Chief Engineer Jens Bisgaard, Navigator Mike Morley, Captain Harley Miller, Gun Mechanic Dennis "Bossman" Bible, Coordinator Tim Gonzalez, Party Chief Frank Gonzalez, and Chief Mate Andrzej Malec.

Crewmen close in on a starboard side flange fire spewing gasoline onto the deck.

Houston

The annual meeting of the HSE Group was held in Houston June 7-9. Pictured are: Tim Griffiths, Ron Spady, Larry Williams, Kathy Morel, Maurice Steel, Tim Granlie, Dave Goodman, Paul Bishop, Judy Smith, Gerry Scheunert, Vicki Huebler, Chris Wilkes, John Barret, Mike Crane, Carl Danley, Tom Atkins, Steve Sohrensen.
Prospecting in the Last Frontier
Western Geophysical’s Alaska Operations

By Peter Van Borssum
Alaska is known for its many superlatives — largest state, tallest mountain, largest glaciers, strongest earthquakes — to name a few. It is not surprising then, that Alaska has two of the largest producing oil fields in the United States and is the only region on the North American continent where large, on-shore oil-bearing formations are still being found. In the last decade, exploration in Alaska has yielded discoveries varying in size from 50 to 400 million barrels.

In 1957 — one year before the Alaska Territory became a state — the first commercial quantities of oil were drilled, marking the real beginning of oil history in the region. That same year, Western Geophysical established operations in Alaska.

In those early days, Western Geophysical’s seismic data acquisition services typified the frontier spirit and determination needed to operate in the Alaska Territory. Each morning, Western employees were flown to work across the Cook Inlet in a helicopter and they worked in isolation throughout the day. Recording instruments were usually mounted inside the helicopter. After all of the personnel and equipment were staged, the helicopter with recording instruments would land and the day’s production would begin.

As these initial portable operations moved into interior regions less accessible from Anchorage, Western Geophysical brought in camps to house personnel. Crews often worked completely isolated for extended periods, with the only news and supplies from home coming on a company-dispatched airplane.

Northern Alaska is divided by the Brooks mountain range which runs east-west. The area north of the Brooks Range slopes towards the Beaufort Sea and is referred to as the North Slope. The North Slope is an arctic desert and annual snowfall is minimal. Western Geophysical crews began surveying on the North Slope in 1963 and have provided continuous, quality seismic data acquisition services there ever since.

Early operations on the North Slope required crews and equipment to be trucked to Fairbanks and then flown over the Brooks Range to the Colville River Delta. It wasn’t until years later that the “gravel haul” road, now called the Dalton Highway, was constructed. It was due to the lack of infrastructure, combined with few geologic indications of large oil and gas reserves, that a lease sale held in 1984 on the National Petroleum Reserves-Alaska (NPR-A) drew no bids.

The NPR-A encompasses 23 million acres of the North Slope, and data acquisition is conducted only during winter months when the thousands of small lakes and tundra are completely frozen. The fragile tundra is a moist plain with permanently frozen subsoil. Except for small bushes called willows, found primarily along rivers and creeks, the tundra is treeless. It supports abundant low-growing vegetation, however, including a variety of flowers, mosses and lichens. Government regulations prohibit vehicular traffic of any type on the tundra until the ground is frozen to a minimum depth of 12 inches and covered by at least 4 to 6 inches of snow.

Operating seismic vehicles in hazardous arctic conditions requires special precautions such as measurement of ice thickness to verify adequate support for the heavy vehicles. Over the last several seasons, Western Geophysical has increased the number of rubber-tracked
To help protect natural habitats, Western Geophysical and its clients enthusiastically sponsor ongoing environmental studies to determine what, if any, long-term effects seismic exploration activities have on the complex arctic ecosystem. During the 2000 winter season, Crew 794 conducted a first-of-its-kind field experiment in which the energy released from a vibrator array was measured while operating on a frozen lake. The crew placed calibrated hydrophones beneath the lake’s 50-inch-thick ice canopy and then recorded a series of vibrator energy pulses (sweeps) at various distances from the energy source.

Preliminary data indicates that the pressure changes sensed by the hydrophones are much slighter than those caused by other types of energy sources. Once compiled and analyzed, this information will be presented to the native communities and to fish and wildlife authorities with jurisdiction in the NPR-A. Collectively, Western and the other groups will decide what mitigation measures may be taken to eliminate any potential harm to the fish that “over winter” in the area’s many lakes.

As with any Western Geophysical seismic operation, safety is of primary concern. Because of the harsh arctic environment and challenging conditions, Western’s crewmembers receive specialized training in North Slope protocol. Special attention is given to proper disposal of food wastes and other camp refuse. Since the NPR-A region is primarily a wetlands area, mechanics and fuelers must follow proper procedures for refueling vehicles and handling spent fluids. Employees learn how to identify and avoid animal dens, and also are instructed on how to identify archaeological sites and what to do if they encounter artifacts.

In addition to showing concern for the environment and the native community, North Slope seismic crews must maintain their equipment in prime condition and be responsible for their own well being. North Slope crewmembers also must learn about arctic-related precautions to do their jobs safely and properly. During the winter season, the Alaska HSE department is fully engaged in training as well as verifying that crews adhere to strict permit regulations.

Western’s North Slope crews operate from three mobile base camps that can accommodate up to 120 persons each. The camps, specially fabricated trailer modules linked together and mounted on skis, are moved approximately every three days, depending on the progress of recording operations. They have most of the modern conveniences of home, with satellite television and sophisticated communications systems, as well as limited physical exercise equipment. The crews’ kitchen staffs do a wonderful job of providing each employee with nourishing meals, which is very important considering the thousands
of calories consumed daily working in the extreme cold.

The camps’ most vital resources, and the ones most difficult to maintain, are fuel and water. Fuel requirements average 3,300 gallons per day. Fuel sleighs hold approximately a 5-day supply of fuel, but with 30 vehicles in the field and at least 100 people to sustain, the party manager is always mindful of the status of the fuel truck.

Drinking water requirements average 100 to 150 gallons per day, while potable water needs are around 1,000 to 1,500 gallons per day. Potable water is made from melted snow. Drinking water either is made from purified snowmelt, or brought in on fuel trucks or fixed-wing aircraft.

When field operations cannot be reached by road, personnel and supplies also are transported by fixed-wing aircraft, usually turbine-powered DeHaviland Otters. Nearby lakes are used as makeshift airstrips.

Large-scale 3-D seismic operations are difficult in most regions, but imagine the challenges faced by crews working miles from the nearest logistical support center and in dangerously low temperatures. Wind-chills can make temperatures feel as low as minus 70° F, and other weather systems can reduce visibility to zero. The low temperatures mean crewmembers must wear layers and layers of cumbersome arctic clothing.

For the first two months of the winter season, crews work without daylight. Under typical whiteout condi-
tions, there is no visible horizon—nothing to distinguish ground from sky. The sensation is one of being inside a giant styrofoam cup, and the “flat light” conditions make depth perception virtually impossible. In contrast, nothing compares to the sight of a stunning blue sky touching the vast and sparkling tundra at the crisp edge of the arctic horizon.

Survey design is initially handled in Anchorage prior to the season start-up. Each crew is assigned a QC Geophysicist who assists in modifying the survey as conditions dictate. All survey operations on the North Slope use DGPS (differentially corrected global positioning system) signals. Western crews record up to 4.5 square miles of data per day and typically work 14- to 16-hour days. They have approximately 3,000 channels of ground equipment to maintain on a regular basis. Layout crews move, pick up, or lay out approximately 800 channels per day, with the recording crew constantly “nipping at their heels.”

Surveyors act as eyes and ears for the entire operation. They point out hazardous terrain, mark known animal dens, cordon off areas containing archeological artifacts, and mark areas of private ownership (known as Native Allotments). They also measure ice thickness to ensure a safe transit from one point to the next.

Mechanics are never idle and frequently find themselves in the field repairing engines or changing tires in the numbing cold. The mechanics somehow manage to keep everything running throughout the season and relish the end of the season when they can shut down the power plants and catch their breath.

The senior observer on each crew carefully manages the recording operations with guidance from the party manager and technical backup from the Deadhorse Base Camp. The Deadhorse Base Camp is a small city in itself during the winter season. A half-dozen permanently assigned employees, and the Anchorage support staff, move in for the winter season to operate the camp. Each day, 300 employees cycle through on their way to and from work in the field. The Deadhorse camp supports all of the electronic, mechanical and logistical requirements of each crew. It also maintains a data processing group that performs preliminary data processing and quality control functions for Western’s crews and clients.

All the pieces of this monumental effort come together in only 100 operating days. Then, operations quickly wind down into a maintenance phase for the off-season.

During the summer and fall months, a group of mechanics, observers, and administrative personnel conducts preventive maintenance on more than 100 seismic vehicles and three mobile camps. This group systematically repairs each vehicle, every piece of camp equipment,
between 50 and 300 million barrels of oil each, as compared to the several billion-barrel North Slope giants, Prudhoe Bay and Kuparuk.

Western Geophysical has played a critical role in making these smaller reservoirs identifiable through the acquisition and processing of high-quality 3-D seismic data. Western was the first geophysical contracting company to record a 3-D multiclient speculative data set in the NPR-A, and over the past several winters, Western crews have acquired 3-D proprietary data and recorded several hundred miles of 2-D multiclient speculative data in the NPR-A. Phase one of this project has been completed and is named the Teshekpuk Lake 3-D Survey.

This winter, Crew 794 collected over 200 square miles of 3-D seismic data in an 80-day period in the Teshekpuk Lake area. (See story on page 46.) This data set will complement existing 3-D surveys conducted in the area, and plans are to add contiguous 3-D coverage to Phase One of this survey in future winter seasons. With Western’s high-quality 3-D seismic data, clients are able to carefully evaluate and identify potential oil-bearing structures, thereby minimizing the possibility of drilling dry holes.

As today’s operations move west into the NPR-A and away from the support of Prudhoe Bay, Western’s crews once again journey into a new frontier. This time, they are equipped with cutting-edge technology to provide first-class seismic data for clients, and with the knowledge and best equipment available to provide safe and healthy working conditions for employees and the natural environment.

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See related story on Crew 794 in the Party Pickings Section

Alaska Facts

• In 1867, Secretary of State William H. Seward convinced the U.S. Congress to purchase Alaska from Russia for $7.5 million. The unpopular deal was called “Seward’s Folly.” Newspapers referred to Alaska as “Walrussia” and “Seward’s Ice Box.”

• Early native inhabitants called Alaska “Alyeska,” meaning “The Great Land.” Also called “Land of the Midnight Sun” and “The Last Frontier,” Alaska is great indeed, encompassing 587,878 sq. miles.

• The National Petroleum Reserve-Alaska (NPR-A) was set aside by the Harding administration in 1923 to ensure a future supply of petroleum for naval vessels that were beginning to switch from coal power.

• Geologists surveying the area in the late 1920s discovered the distinguishing anticlines that indicate huge petroleum potential. They also found gas seeps, oil residue, and sheens on lakes. Until modern times, natives of the region fueled lamps with oil that bubbled from the ground.

• Although Alaska is geographically the largest state in the union, it still ranks 49th in population.

• Alaska’s highest recorded temperature is 100°F, and its lowest recorded temperature is -80°F.

• Alaska boasts 33,904 miles of shoreline, over 3 million lakes, and more than 3,000 rivers. 4% of the state is covered by ice fields.

• Alaska is home to the highest peak in North America – the majestic 20,320-foot Mt. McKinley, also called “Denali,” or “The High One.”
Global Product Line Management
Western Geophysical Reorganizes

Photos courtesy of Padre Island National Seashore
As a worldwide organization, Western Geophysical knows that developments in Singapore can impact business in Saudi Arabia or San Angelo. Traditional boundaries are diffused or eliminated and we have become, in a very real sense, one world. Western’s recent reorganization into global product lines was a natural extension of this reality. Whereas Western was previously structured – and in some ways divided – into eastern and western hemispheres, the new global organization permits faster mobility, improved efficiency, and a shift from internal competition to a greater sense of the common good.

Western Geophysical President Gary Jones initiated the change to a global product line organization early this year. “This type of organization is new to us,” he said. “But without question, it will enable quicker response and better operating efficiencies. It also will contribute to better capital and crew utilization by making it easier for us to move our people and assets to the best available opportunities. Our global product line organization also provides clear focal points for our customers in each of the four lines.”

Previously, Western’s four product lines were duplicated in a twin hemisphere organization. These are the businesses that actually generate revenue for the company – marine operations, land operations, data processing, and multiclient surveys. Though critical to Western’s success, technology and the other support groups are not considered formal product lines.

Jim White, vice president of Multiclient Data Sales and Services, has already seen benefits from the reorganization. “We were able to transfer some extra capital from a crew operating in Africa to a crew in Canada,” he said. “Previously, the capital most likely would have been held in a particular geographic region for future use, even though they were needed elsewhere for an immediate project,” he explained.

The global reorganization of the multiclient group also has simplified the data license transfer processes. When client companies merge, such as Total / Elf / Fina and ExxonMobil, there are transfer fees associated with the data each has licensed from Western. Having a single point of contact within Jim’s group has made the potentially complex process much easier.

The marine organization benefited most immediately from the product line structure, but it also faces the most challenges during the transition. “We had been structured into hemispheres for so long that it was a challenge for us to think globally,” says Larry Wagner, general manager of Worldwide Marine. “We would sometimes trip over the old geographies in simple
ways, like someone would say ‘they should do something about such and such,’ meaning someone in London. But there is no ‘they’ anymore. It’s all ‘we’.

“Meanwhile,” Larry continued, “we’ve accomplished a lot toward standardizing procedures, which is one of the primary objectives of having a worldwide fleet. We’ve rolled out the Quality Assurance System (QAS) onboard the Western Horizon in Singapore, and all the vessels will have it by year end. This system allows us to implement best practices, so everybody knows how to do any given task in the best and most efficient way.”

“I see many benefits associated with our global realignment,” Marine Vice President Chuck Toles agrees.

“The new structure improves internal communication, utilization of assets and personnel, and it strengthens our geographic presence and our customer relationships through regional managers,” Chuck said. “It also lets us take a more strategic approach to the business, so we can achieve better financial accountability, reduced overhead, and enhanced vendor management.”

The reorganization also benefited Land Operations in several ways. “In the past month we’ve had more movement of personnel across hemispheres than we previously had in years,” said Chris Fox, general manager for Worldwide Land. “We are also much better tuned in to what equipment is available from other areas. We now can utilize our stacked assets instead of purchasing new gear. All the areas have been very positive and cooperative in this regard and this makes us more competitive in the market. The global product line organization also gives us more flexibility in offering people positions in other regions because the barriers are gone.”

Bruce Clulow, resident manager in the UAE, agrees. In his area of operations, some key field-based personnel needed a transfer to U.S. domestic operations. “Our ability to accommodate them meant that Western retained some very valuable employees,” Bruce said.

Will Forrest, vice president of Worldwide Land Operations, offers a unique perspective. During his tenure as Western Hemisphere senior vice president, Will considered creating a product line organization for his hemisphere. “Two areas seemed very natural for it,” he said, “Data Processing and Marine.”

Data Processing is inherently a global product line, he said, because of the registrations and support required. And even though there may have been little communication between the management groups, there was plenty of communication among the technical people. “They had networked themselves and were functioning as a global line already,” Will concluded. “Why not formalize it?”

“A global structure also made sense in Marine,” Will said, “where boats are registered for any ocean, and equipped and staffed similarly. For the most part it was already one big Marine party – running between hemispheres.”

Land Operations, however, have less in common. “No two land crews are alike,” Will said. “The equipment is configured to solve geophysical problems in unique ways.
With crews from Alaska and South America, Texas, and Turkmenistan, everything’s different: the culture, terrain, climate, the client base, he said. “So for us, a global product line organization is very complex.”

“In fact, this makes my life easier,” Will continued. “With such a diverse operation, I have to push responsibility for client management, staffing, and operations all the way down to the general, regional, and country managers,” he explained. “I’m happy with the global organization because it means less bureaucracy, a simpler network, and, we don’t micromanage it. Our organization has to have a very strong regional focus.”

Craig Beasley, vice president of Data Processing, said, “One of the main benefits of the reorganization in Data Processing was that it created a unified support system. All sustaining technology and systems support are now under data processing.”

“The reorganization took significant technology elements out of the overhead groups to work in the product lines,” he said, “and that’s critical. Technology transfer is a global function, and it must be driven by the product line itself. Having technology people under the product lines ensures greater accountability and provides a direct link between the business unit and the technology transfer.” Craig added, “The group also keeps a loose matrix so people can flow into the areas of responsibility where they are most needed.”

“With a flatter structure, there is more responsibility at each level,” Craig said, “and each person has a variety of things to do. The structure fits very well with the people we have now.”

As Western’s employees worldwide adapt to our new global product line organization, the company enters the next phase of growth and success. The key to this success is our employees’ ability to work together across product lines.

“The product lines, if not managed with open teamwork, run the risk of becoming islands,” says Western Geophysical President Gary Jones. “The glue that binds them together is made up of several essential elements, the most important being teamwork between product lines at local, regional and area levels. The second essential element is the global marketing group, which seeks to present one Western Geophysical face to the customer by means of account management and regional coordination teams. The third essential element is the support, coordination, and teamwork provided by the Applied Technology and R&D groups as well as the Finance and Administration groups.

Altogether, you can see that networking and communication in an open, supportive, team environment is what we are achieving. It makes a huge difference when done well.”

Andy Szescila, President, Baker Hughes Oilfield Operations, said recently that the “fundamentals are stronger in this industry today than any time in the last decade.” Western Geophysical plans to capitalize on that potential. Embracing globalization provides a clear path to a positive and profitable future.
Western Women
On Life in the Field

Today, women have more career options and avenues available to them than ever before. This certainly is true at Western Geophysical. Women are involved in the company's operations in the field as well as in the office. Some have done both.

Holli Sanderson began her career with Western in July of 1993 as a secretary in the North America Marine Operations department. In 1995, she was promoted to operations assistant, where she traveled to various crews assisting as needed. She was named assistant party manager in 1997, and over the next two years was assigned to the Western Hercules, Western Atlas, and Western Spirit. In the summer of 1999, when Western Hemisphere Marine Operations switched to a party chief system, Holli's schedule consisted of 3-week rotations between the office, the boat, and break. As of June 2000, she is assigned to the Western Spirit full time with a six weeks on, six weeks off (on break) schedule.

Onboard, she believes she is treated like any other member of the crew, set apart more by age and experience than anything else. Although as party chief her duties and schedule are different from those of the crew, she works 12-hour days and is required to perform many of the same physical duties as any other crewmember. A hard and fast rule on the crew is, "If you want to eat, you help unload the groceries," says Holli.

When asked what she found most difficult about working offshore, she says that it's missing her family and special occasions on land. And as a single person, there is undoubtedly a strain on her social life. However, when asked what she enjoys most about working on a boat, the list is longer: No make-up, no pantyhose, no dry cleaning, and being able to get from her bunk to her desk in 15 minutes! Furthermore, she enjoys interaction with the crew and says they often share each other's trials and tribulations. The result is usually good advice, new insight, or at least a new perspective. The situation seems to demand a delicate balance between personal and professional behavior.
Holli’s quarters onboard the Western Spirit afford her nearly all the luxuries of home. “I have my own room with a TV, VCR, and shower,” she says. On some boats, showers are shared facilities. Women have to schedule their shower times and place a sign on the door. Since bunk space is always at a premium, every effort is made to pair women up on crew rotations. There are times, however, when this is not possible.

Patty Hirsch has worked on land crews as well as marine, and there were times when special arrangements had to be made for the women on the crew. Special partitions were erected in sleeping tents, locks were installed on restroom doors, and the women had an assigned “shower hour.”

Hirsch began her employment with Western Geophysical in the Houston Land Data Processing department in 1987. She has had a remarkably diversified career and broad experience, including a lot of travel on behalf of the company. In 1993, she, Liz Rosso, and Celia Armour, were sent to South America to work on land crews. They are believed to be the first 3 women to travel internationally to work for Western in the field. Patty was sent to Bolivia to do front-end processing for Crew 707 using the Omega® Seismic Processing System. From there, she went to Paraguay, and then to Argentina for approximately a year to work on other land crews. Afterwards, she was transferred to the Bogota office, where she was stationed for nine months on a special project.
Returning to Houston's Infield Data Processing group, she did front-end processing, trained employees on processing systems, and gained valuable exposure to system administration. Shortly thereafter, she went to work in the Software Testing department, where she tested Omega's interaction with the Prospect Data Logging (PDL) software, trained end-users, and gave feedback to programmers. She trained end-users on marine vessels all over the world as well as in Houston, London and Bedford.

Eventually, Patty became a marine crew systems administrator for Houston's Technical Support team. Currently, she is part of the Houston Systems Support team, where she administers Houston Data Processing's computers.

Hirsch credits the diversity of her career to having worked in the field. "When you're out in the field, there's a lot of opportunity to learn new things," she states. In her capacity as an in-field processor, she was sometimes called upon to handle things she had never been exposed to before. With help from Houston support personnel who walked her through problems and procedures, she learned a lot. Initiative is an essential trait in the field.

Remembering her travels fondly, Hirsch points out that field work is not for everyone. In Bolivia, she spent weeks in the Alti Plano Mountains, ~17,000 feet above sea level. "In Bolivia," she says, "we didn't have access to e-mail. Satellite phone calls cost $10 per minute, and I didn't speak as much Spanish as I thought! At times I felt isolated, but the work was never dull and new experiences seemed endless."
Angie Bates was hired in February of 1997 after graduating from college with a degree in geology. Surfing the Internet for anything other than an "office job", she spotted Western's ad for a field geophysicist. The position required some surveying experience and familiarity with geodetic parameters or survey mapping, which Bates had covered with her college course work. It also required work in the field and the ability to travel anywhere, anytime. This sounded just like what Angie was looking for.

Bates worked on Western's marine crews for two years before being promoted to Navigation Field Supervisor. Though she is currently stationed in the Houston headquarters facility, she is still required onboard for job start-ups and training sessions. She enjoys her current position and the fact that it still allows her to get out in the open and see different places.

Cathy Tomac went to work for Western after receiving her BS in geophysics from Montana State University. She is currently a senior geophysical analyst and in-field QC coordinator based out of the Denver office. In-field QC coordinators check seismic and survey data and merge them together. They work on-site with the field crews, in close conjunction with data processors and clients.

Cathy has spent three winter seasons on the North Slope of Alaska and is presently preparing for her fourth. She has worked in Alberta and Saskatchewan, Canada, California, Wyoming, Colorado, and also spent several shifts on the M/V Western Monarch, offshore Nova Scotia.

“My favorite place to work is Deadhorse Alaska,” says Tomac. “It’s a different world there — harsh conditions, incredible Star Wars-like vehicles, fantastic Northern Lights, great people to work with. I’ve flown in an Otter (airplane) over the white, desolate tundra and landed on skis on a frozen lake numerous times. I’ve been out on a tundra base camp when it was over 100° below zero with wind chill. I’ve seen a lunar eclipse on the tundra, and I’ve seen grizzly bears.”

Western Geophysical has taken great strides to accommodate women on field crews. Still, not as many women have chosen to work in the field as men, but according to Gary Jones, we hope to change that. Those who do are pioneers, and true to the pioneer spirit of Western Geophysical employees, they are establishing new traditions and carving new paths in today’s — and tomorrow’s — work force.
E-Commerce has transformed procurement at Western Geophysical. Automated electronic purchasing of goods and services over the Internet has streamlined the purchasing process and reduced Western's per-order transaction costs by a phenomenal 80 percent. And that is only the beginning of the story.

Western Geophysical uses Intelsys' IEC-Enterprise system and an Internet web browser to link employees worldwide with suppliers and their on-line catalogs. Intelsys provides the means for electronic product selection, requisitioning, approval, fulfillment, delivery, and financial settlement - from any Western Geophysical desktop (with Internet access), anywhere in the world. Last fall, Western made history when crewmembers aboard the M/V Western Legend made the first live Internet purchase from a ship at sea.

Before employing Intelsys, Western had taken steps to improve efficiency by using Lotus Notes and electronic data interchange (EDI). By 1993, the Purchasing department had reduced their average processing time per line item from 7-8 days to approximately 2 days. But the system was still far from ideal. Paper-based supervisor approvals and routing were required, pricing and detailed part information were unavailable, and there were no standards for item descriptions or part numbers. Catalogs were distributed manually, and this alone caused many problems for purchasing agents. By the time suppliers provided their catalogs and Purchasing distributed them worldwide, many of the items in the catalog were obsolete, discontinued, or part numbers had changed.
Purchasing agents often had to research orders for parts that no longer existed or were no longer carried by a supplier. Meanwhile, crews waited for requisitioned items, wondering about the status of their order. Often, being uncertain about when and how an order would arrive, they ordered more than they needed at the time. In other words,

too much of the company’s money was sitting on shelves.

Furthermore, the company was spending more than $100 to handle each purchase order (PO) from requisition to paid invoice, whether for a $2 box of pencils or a $100,000 piece of heavy equipment. Those POs were spread out among hundreds of active suppliers, creating a huge vendor base for the Accounting department to maintain and deal with on a daily basis.

And purchasing agents were drowning in paperwork. A staff of seven buyers and three support personnel were processing more than 8,000 line-items and 2,400 POs monthly, and there was a continual backlog of more than 3,500 items. Dave Durham, manager of Purchasing, was told that he could hire more people to do the work, but this would only perpetuate inefficiency. Instead, he began to search for ways to completely automate the process with a system that would meet all of the company’s requirements. This would not be easy. Durham and other officers at Western shopped around extensively and even considered hiring a local company to write software for them, but Martin Wiltshire, manager of Logistics for Western, wanted to do more than shift work from one area of the company to another. “We
will not do this unless it will eliminate steps from the purchasing process,” said Martin.

Finally, in 1998, Western learned that Intelisys shared its vision of web-based procurement. No sales pitch was necessary. The Intelisys system eliminated catalog management from the purchasing staff’s duties and gave control of the transaction to the end user in the field – at a cost the company could justify. After a successful pilot program, Western licensed Intelisys software to automate and integrate the procurement process, from requisition to delivery of goods, to payment. They hosted a conference for 175 of their key suppliers to inform them about Intelisys functions and benefits. Suppliers learned how to build electronic catalogs and receive transactions electronically. They were shown how Intelisys would improve their profitability by reducing sales and distribution costs.

Within two months, more than 40 suppliers had built and tested electronic catalogs and were ready for business with 3,000 Western Geophysical end users. Intelisys had been integrated with Western’s internal systems, and employees in Houston took two-hour training courses and made the first on-line purchases. By the end of 1999, more than 70 suppliers representing more than 70 percent of all company spending had joined Western’s new e-procurement system. Intelisys had been rolled out to offices in five countries – Australia, Singapore, United Arab Emirates, the United Kingdom, and the United States – as well as to field crews on 13 ships off the coasts of Africa, South America, Canada, and in the Gulf of Mexico.

Employees using the Intelisys system have crew or cost center numbers assigned to them, and pre-approved spending limits are established. If spending limits are exceeded, approvals can be obtained as quickly as data can be transmitted. And since Intelisys is linked to WG accounting systems, the process of physically matching POs and approvals with invoices and receiving paperwork is eliminated. The company’s supplier base has been reduced from 1400 to 200, and the procure-to-pay process is more efficient both administratively and financially.

With requisitioning now in the hands of end-users, not only was the middle-man eliminated and the potential for human error reduced, but also transaction time was cut in half. Most importantly, requisitioners now had all the information at their fingertips, including a picture or diagram of the part being ordered, cost information, and estimated ship date. Procurement costs went from $100 to less than $10 per transaction.

Suddenly, Western’s purchasing agents were free from time-consuming manual processing and redundant phone conversations. They now were able to concentrate on strategic sourcing opportunities, such as negotiating preferred supplier deals and other value-added tasks. In the past year, they have strategically sourced 12 commodities, resulting in a 15 percent reduction in the cost of items purchased. “The magic part of this,” says Durham, “is that we had a group of people who were negotiating nickels and dimes, and now they’re negotiating millions.”

Western’s purchasing staff was reduced 30 percent, but this was accomplished by reassigning people to other areas of the company. Several people went to Project Renaissance, and some remained under the Purchasing umbrella but were given new assignments. For instance, Iain Kinloch was charged with managing the Intelisys rollout, and Steven Munoz was given the opportunity to train employees in the field on the use of Intelisys software. Purchasing employees now had better, more fulfilling jobs.

Purchasing also has formed multifunctional teams with the Quality and Business Information Systems departments to analyze Intelisys transaction information. Not only do they use these statistics to find best-in-class suppliers, but they also can check vendor inventories and internal processes, and see how backorders are handled. According to Dave Durham, “Western is miles ahead of the pack when it comes to e-procurement.”

Intelisys is a powerful tool that may also prove useful in other areas of the company. In one year, the system has paid for itself and then some. Future changes will take advantage of Intelisys’ ability to track inventory levels and trigger requisition when certain supplies are low. This is particularly valuable to field crews and should translate into reduced wait time and higher productivity at the crew or operations level, which is the real reason procurement exists at Western Geophysical.
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Crew 363 moved from Breckenridge, Texas to Roswell, New Mexico in mid-November to begin work on the Buffalo Valley 3-D/3-C speculative survey. The planned survey would cover approximately 17.5 square miles in Chavez County, New Mexico, approximately 9 miles east of Hagerman. The majority of the survey area was pastureland.

Brenda Lopez was the permit agent for this prospect. There were Bureau of Land Management (BLM) lands, State of New Mexico lands, and private land, all of which require different types of permits. When the required permits had been obtained, surveyors began to lay source and receiver stations using GPS packs.

Since BLM and state lands were involved, an archaeological study was required. The study was performed by Don Clifton, an archaeological consultant who has worked with Western on many prospects in the past. During the course of the study, 17 archaeological sites were encountered. Each of the sites was flagged so that no vehicles would enter, and surveyors had to offset any vibrator points that had been laid out in the areas. The crew was allowed, however, to carry in the cables and phones by hand.

On a 3-D/3-C job, the geophones must be level and each one must point in a precise direction. This is done with an electric compass and a special tool used to plant the geophones. On a straight 3-D job, none of this has to be done.

Since this was the first time Crew 363 had worked with 3-component geophones, Field Supervisor Mark Hudson and Instrument Supervisors John Moffet and Darrel Johnson held a short training session. They demonstrated how to use the planting tool and the electronic compass to deploy the 3-C phones. Kevin Werth, an area geophysicist from the Oklahoma City office, also was on hand to help explain how the 3-C phones worked where conventional recording techniques may not. The crew picked up the procedure quickly and began laying out lines that afternoon.

Methodically, they laid out one receiver line completely before beginning any others. This was recorded as a 2-D line, using three different sweeps, then sent to the Midland processing center to determine which of the sweeps should be used for the 3-D survey. Meanwhile, the crew laid out receivers for the 3-D lines to be shot.

Once the production sweep had been picked, Darrell Johnson and Ken Wood tested the vibrators to ensure that everything was operating properly. While Darrell and Ken were working on the vibrators, Observers Chuck Davis and Israel Prieto checked the lines and got them ready for production.
Finally, testing was completed. On November 18th, the crew began shooting the 3-D survey. The line crew became very efficient at laying out and picking up the 3-C phones, and the recording crew never had to wait on them. Data were collected and transcribed daily by Gabriel Gloria and Charles Claudrick, who then passed it on to Todd Hibbits, the in-field QC operator for this prospect. Technicians Darrel Johnson and John Moffet conducted testing required to master/slave our recorder and the VSP recorder. They were assisted by Baker Atlas Seismic Field Engineer Bryan Harvey, Alistair Millns, Sr. Operator Jim Darby, and General Operator Louis Perez.

When timing was correct between the two systems and the VSP equipment had been lowered to a depth of 7,000 feet, VSP data could be recorded. Most of the VSP data were collected during normal production throughout the remainder of the 3-D/3-C survey. However, there were a couple of areas where some additional vibrator points were needed for the VSP. The crew took advantage of two days when it was too windy to shoot 3-D and shook these extra points for the VSP. Both the 3-D/3-C and the VSP projects were completed by mid-December.

794 Alaska

The North Slope of Alaska is a broad, flat coastal plain where dry arctic wind blows endlessly. A land of paradoxes, very little in the Alaskan arctic matches the expectations of newcomers.

The opportunity to conduct a 3-D survey in this challenging environment was presented to Crew 794 when the federal government opened parts of the previously off-limits National Petroleum Reserve-Alaska (NPR-A) to oil and gas leasing. The petroleum reserve encompasses 37,000 square miles to the west of the giant Prudhoe Bay and Kuparuk oilfields.

In the winter there is a deceptive moon-like appearance that covers the lush summer vegetation and disguises the abundance of wildlife present. Caribou, musk ox, bears, foxes, ravens, wolves, wolverines, and lemmings are just some of the animals that the crew encountered this winter. Bears are obviously dangerous, but the deceptively cute and cuddly-looking foxes were probably the greatest animal threat to the crew. Foxes on the North Slope are infected with the rabies virus at a rate of about 80 percent. Consequently, the crew was trained to avoid, and if necessary, manage and report contacts with wildlife.

Concern for wildlife in the area was only one aspect of conservation that the crew had to consider. Despite harsh outward appearances, this is one of the most fragile ecosystems on the planet. The tundra has a tenacious, but thin, bond with the soil below. Disturbing this fragile alliance can easily leave scars that take generations to heal. Once exposed, bare soil heats up faster than the surrounding tundra and stays thawed longer. Standing pools of water then develop, growing into ponds and small lakes in a few seasons. For this reason, the crew was not permitted to move camp to the prospect until there was 12 inches of frozen ground to adequately protect the tundra.

On January 10, a little later in the season than in past years, the crew received word that conditions
The mechanic team got their first taste of the season at startup. Led by Scott Gallegos, George Gregory, and Jeff Cottle, they had all of the equipment thawed and ready for work on the second day. Throughout the season, the crew (Donn Burge, Ron Booth, Matt Kishbaugh, Shawn Meiller, Thure Scheig, and Adam Fender), replaced and repaired engines, transmissions, axles, electronics, and every part in-between. All of the work was done outside in the elements, no matter how cold, dark, or how hard the wind was blowing.

Once the equipment was released from the deep freeze, the full crew contingent was brought in from Western’s base camp at Deadhorse, to move the crew’s camp to the first prospect in the NPR-A ‘99 program.

Work in this arctic environment presented many challenges. There were the standard arctic weather conditions: -50° F, blizzards, wind chills to -125° F, ice fog, and near perpetual darkness for much of the season. Paramount to the success of the operation was the ability to maintain dependable supply lines, because the crew was working up to 80 miles from any roads. Without adequate fuel supplies, the crew could have faced life-threatening situations as temperatures plunged to -54° F.

The supply transport team consisted of Tom Owens, Dan Munkres, Pierre Tremblay, and Keith Chadwell. They drove Delta III fuel trucks nearly around the clock to supply the 3500 gallons of fuel the camp used each day in production. The camp had a fuel storage capacity of about three days, and the potential for five-day storms could immobilize the supply trucks at any time, so the transport team had to plan carefully and execute flawlessly to avoid a disaster.

Early in the season, a chartered Otter aircraft supplemented the supply trucks. The charter brought out groceries, shutdown parts, and ferried the crew in and out of camp. As the season progressed and the Delta run became faster and more reliable, the charter was alleviated and all supplies and personnel were carried on the Deltas.

Once the equipment was ready, the surveyors joined the crew and immediately began to stake the prospect. Mitch Liddel, Craig Davey, Pete Dunkel, and Simon Cottrell surveyed in the field, while Phil Helps and John Harding did survey and vibrator QC at camp. Surveyor Jeremy Livingston aided the recorder team, working as the vibrator navigation QC person in the field.

The numerous lakes, rivers, and creeks that crisscross the landscape complicate work in this area. Before the 30 five-ton vibrators or the CATS could do their work, the crew had to drill the ice to measure thickness for safety. Surveyors Terry Graham and Stephan Morgan handled the job of drilling. Both Terry and Stephan have proven to have an uncanny knack for finding thin ice and natural gas seeps.

With drilling done, the SPECs department, headed by John Snyder and Brian Brigandi, processed the ice thickness data and designed a 3-D grid to maximize the quality of the data.

The line crew was led by Forrest Burkholder. As chief observer, he oversaw all aspects of daily production. Day Observer Kip Kackman, Night Observer
Dennis Hannan, and Jr. Observer Chris Graves assisted him. Cable Pushers Rob Steele and Nick Summerland were the eyes and ears in the field, assisted by Troubleshooters John Pedersen, Byron Rogers, and James Pehron. Back to Alaska for the first time after several years overseas, Observer Mark Vevera was a relief cable pusher, troubleshooter, cable repair, and battery man, using his vast experience to fill in wherever needed.

Production started slowly this season, as the first days of production were hampered by weather. The line crew had to stand by while the first cables they laid out were buried in a three-day snowstorm. When it finally quit blowing, temperatures plummeted, freezing the cable in drifts up to 11 feet deep. Digging out the cable tested the endurance of the cable crew and the cable repair crew, Gerry Wakimoto and Sam Stadler. However, having suffered the worst that Mother Nature could dish out at the beginning of the season, nothing else seemed quite as difficult.

Despite a late start and obstacles created by the weather, the line crew had extraordinary success this season, which is shown in two ways. First, the crew moved an average of 943 receiver groups each day. Much of the credit for this must be shared with Cable Truck Drivers Nick John, Tony Patea, Charles Faracci, Jim Philadelphia, and Mike Whitlatch, as well as Helpers Frank Roeoe, Bill Jackson, Don Felix, Chris Ness, and many others. Their tireless motivation and attention to detail and safety was the difference between a good year and a great one. Second, the production achieved this season was record-setting for this configuration on the North Slope. The source for the data was 10 vibrators split into two sources. The vibrators were kept in continuous operation by mechanics Stuart Rauckman and Lee Berzanske, aided by Gary Gregory and Jack Maness. The vibe operators were Paul Upham, Jack Alcorn, Jack Lusoro, Jason Moyer, Edgar Elegino, Reuben Edwin, Paul Bush, Andrew Dunkin, Rodney Schlapman and Todd Jantzi.

Besides pulling out stuck vehicles, the job of the “Cat Skinners” was to make ramps across rivers and creeks, break trails for camp moves, build runways, collect snow to be run through the water maker, and pull the strings of ski-mounted trailers on camp moves. They were Butch Loyer, Rodney Theisen, Jim Potter, Kevin Barnhart, Shawn Lamere, and Walter Lanigan.

Back in camp, Cooks Mike Messing, Ramiro Escarono and Phon Sithiphong, Bull Cook Don Conrad, and Camp Attendants Jaime Lopez and Johnny Luis worked to make everyone’s living conditions as pleasant as possible. During the 1999 season, Crew 794’s HSE team, led by Randy Dowd and Mark Wright, were kept busy orienting new crewmembers and visitors, conducting training, auditing, and assuring safety in the field. New to the crew this season was an on-site medic. The medics were contractor-supplied EMT IIs, with special training and equipment to treat injuries and illnesses in remote camps.

Another new HSE program, the DuPont Stop Card Program, proved to be a valuable tool for communication among crewmembers and for relating HSE issues to the HSE department.

The first prospect was finished early in March. By then, Assistant Party Manager James Nunley had joined the crew and led the camp to the second prospect, several days east. The rest of the season went smoothly, with the return of the sun bringing warmer weather that occasionally hampered production. By May 2, the second prospect was finished and the camp was moved to the summer stack site at Franklin Bluffs.

1999 was a very good year for crew 794. Veterans had another safe and prosperous year to notch in their belts, and newcomers to the Slope, including geophysical trainees Ryan Szescia and Chris Monaco, got their first taste of real Alaska. Cable Pusher Nick Summerland found that his first visit to Alaska wasn’t anything like he expected. He summed up the year when he said, “Alaska isn’t like I thought it was going to be. It’s actually a good place to work. There are no fences to work around, no hills, and no angry farmers to deal with. Except for a little cold and wind, there’s nothing here to keep you from doing your job.”
Anniversaries

ERIS Manager Surinder “Jerry” Kapoor (third from left) celebrates 35 years of service with (left to right) ERIS General Manager Patrick Ng, Vice President of Data Processing Craig Beasley, and Vice President of Exploration and Reservoir Services Gary Fair.

Operations Manager Kip Humbert congratulates Applied Technology Engineering Manager Otis Johnston (right) on 30 years of service.

General Manager of Eastern Hemisphere Land Operations Chris Fox presents Kuwait Resident Manager V.V. “Joe” Vagt (left) with his 30-year service award.

Area Manager of Software Marketing Bill Rimmer congratulates Sr. Geophysicist James Chong on 30 years of service.

P-778 QC Geophysicist Tony Armato (center) receives his 25-year service award from General Manager of Eastern Hemisphere Land Operations Chris Fox (right) as Field Supervisor Robin Guscetto looks on.

Egypt Resident Manager Mick Gillespie (right) receives congratulations on 30 years of service from General Manager of Eastern Hemisphere Land Operations Chris Fox.

**THEY SERVE**

**Service Anniversaries — January – June, 2000**

* indicates interrupted service

If you have questions regarding your service date, please call the payroll department in your area to update your records.

**48 Years**

Gehring, Carl *

**36 Years**

Edwards, Charles A. *

**35 Years**

Andrews, Philip
Bivin, David D.
Goodman, David P.
Kapoor, Surinder
Roberts, Richard L.

**34 Years**

Lopez, Aurelio A.
Patel, Manu C.

**33 Years**

Durham, David P.
Mason, Nigel
Massey, Derek
Smith, Terry
Swaroop, Brahmana N.

**32 Years**

Byrne, John
Jones, Henry C. *

**31 Years**

Chegwinn, Robert A.
Bernal, George A.
Darwish-Alia, Roshanally
Knevitt, David
Privett, Robert

**30 Years**

Ayres, Michael
Chong, Chong H
Chua, Kim
Gaines, Carroll M.
Gillespie, Mavor
Johnston, Otis A.
McTernan, William J.
Vagt, Volker
Ward, William

**29 Years**

Brown, David
Jauwena, Rudy
Kaul, Kenneth K.
McCleary, John A.
Rodriguez, Hector T.
Sadeh, Roger D.
Winnefeld Jr., Carl H.

**28 Years**

Clegg, Joseph F.
Dunham, Scott S.
Grimes, Harvey R.
Harris, Philip
McCusker, Jack L.
Morgan, Paul M.
Teran, Raul
Thielvold, Dean W.
Venkataraman, Kannan

**27 Years**

Benton, James W.
Bolt, Joe
Cerquera, Agustin
Gauger, Larry A. *
Giron, Mark L.
Goldberg, Stanley S.
Hamilton, Graham
Humbert, Hugh L.
Humphreys, Sally
Kinlaw, Barbara F.
Mullens, John
Nuttall, Peter
Olivera, Aidee
Wilson, Ronald J.

**26 Years**

Ainsworth, Lowell
Allmandinger, Walter E.
Bell, Elizabeth E.
Carney, Frederick G.
Curtis, Richard P.
Dawson, William
Findley, Lyndon C.
Hickam, William M.
Lara, Eduardo
Paquette, Claude R.
Phillipson, Rhona M.
Posey, Dan R.
Snowman, Leo F.
Stevan, Teetsa
Tarpley, Terry E
Thaves, William
Ware, Christine
Zubay, Erick

**25 Years**

Brown, Brent R.
Brown, Paul
Davis, Steven
El-Shammas, F.
Mohaymen
Esquivel, Nieves C.
Halbe, David C.
Kavia, Dhiraaj
Kelty, Barbara M.
Marley, Bernard
O’Meara, Raul
Ralph, John G.
Reid, Derek
Swea, Saaed S.
Taylor, Brenda J.
Wagner, Lawrence E.

**24 Years**

Bauer, Clayton J.
Billips, David R.
Bryant, Virgie M.
Elou, Olaf K.
Anniversaries

They Serve

Service Anniversaries — January – June, 2000

* indicates interrupted service

If you have questions regarding your service date, please call the payroll department in your area to update your records.

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36 Years
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Bivin, David D.
Goodman, David P.
Kapoor, Surinder
Roberts, Richard L.

34 Years
Lopez, Aurelio A.
Patel, Manu C.

33 Years
Durham, David P.
Mason, Nigel
Massev, Derek
Smith, Terry
Swaroop, Brahma N.

32 Years
Byrne, John
Jones, Henry C. *

31 Years
* Chegwins, Robert A.
* Bernal, George A.
Darwish-Alli, Roshan
Knevet, David
Privett, Robert

30 Years
Ayers, Michael
Chong, James H
Chua, Kim
Gaines, Carroll M.
Gillespie, Mayor
Johnston, Otis A.
McTernan, William J.
Vagt, Volker
Ward, William

29 Years
Brown, David
Jauvama, Rudy
Kauk, Kenneth K.
McCleary, John A.
Rodriguez, Hector T.
Schaefer, Roger D.
Winnefeld Jr, Carl H.

28 Years
Clegg, Joseph F.
Denham, Scott S.
Grimes, Harvey R.
Harris, Phillip
McCutchan, Jack L.
Morgan, Paul M.
Teran, Raul
Thielvold, Dean W.
Venkataraman, Kannan

27 Years
Benton, James W.
Boles, Joe
Cerqua, Agustin
Gauger, Larry A. *
Girouard, Kirk L.
Goldberg, Stanley S.
Hamilton, Graham
Humbert, Hugh L. *
Humphreys, Sally
Kilaw, Barbara F.
Mullen, John
Nuttall, Peter
Olvera, Aidee
Wilson, Ronald J.

26 Years
Ainsworth, Lowell
Allmandinger, Walter E.
Bell, Elizabeth E.
Carnes, Frederick G.
Critt, Richard P.
Dawson, William
Findley, Lyndon C.
Hickam, William M.
Lara, Eduardo
Paquette, Claude R.
Phillipson, Rhona M.
Posey, Dan R.
Snowman, Leo F.
Stavlas, Teetsa
Tarpley, Terry E.
Thaves, William
Ware, Christine
Zubay, Erick

25 Years
Brown, Brent R.
Brown, Paul
Davis, Steven
El-Shammam, F.
Mohaymen
Esquivel, Nieves C.
Halbe, David C.
Kavia, Dhiraaj
Kelby, Barbara M.
Marley, Bernard
O'Meara, Raul
Ralph, John G.
Read, Derek
Sweha, Saad S.
Taylor, Brenda J.
Wagner, Lawrence E.

24 Years
* Bauer, Clayton J.
Billips, David R.
Bryant, Virgie M.
Elou, Olaf K.

ERIS Manager Surinder “Jerry” Kapoor (third from left) celebrates 35 years of service with (left to right) ERIS General Manager Patrick Ng, Vice President of Data Processing Craig Beasley, and Vice President of Exploration and Reservoir Services Gary Fair.

PDM Manager Reardon Smith (left) receives his 30-year service award from Manager of Software Development, Roy Forshaw, with Reardon’s wife Joan, present.

Operations Manager Kip Humbert congratulates Applied Technology Engineering Manager Otis Johnston (right) on 30 years of service.

General Manager of Eastern Hemisphere Land Operations Chris Fox presents Kuwait Resident Manager V.W. “Joe” Vogt (left) with his 30-year service award.

Area Manager of Software Marketing Bill Rimmer congratulates Sr. Geophysicist James Chong on 30 years of service.

P.778 QC Geophysicist Tony Armstrong (center) receives his 25-year service award from General Manager of Eastern Hemisphere Land Operations Chris Fox (right) as Field Supervisor Robin Gusset looks on.

Egypt Resident Manager Mick Gillespie (right) receives congratulations on 30 years of service from General Manager of Eastern Hemisphere Land Operations Chris Fox.
Milestones

Anniversaries

Geoffre, Mike C.
Godden, Paul
Groves, Paul M.
Hamad, Merrah
Hickmott, Nicholas
Jeze, Debbie L.
Lloyd, Philip
McFarland Jr., Richard
Mistry, Shashi
*Moers, Cheryl A.
Ness Jr., Raymond R.
Nurse, Martin H.
Raczuk, Enrique
Sullivent, Robert C.
Thierjung, John
Wade, Gordon
Youakim, Hoda I.

23 Years
Alain, Lionel
* Bulo, Ramiro J.
Cree, Douglas G.
El-Fakrany, Reda T.
Eady, Benny D.
* Exito, Fe Esperanza B.
Fang, Magaret N.
Gabriel, Hilmi
Gatsos, Trevor J.
Grace, Steven
* Harkness, Michael L.
Hill, Harvey F.
Kor, Ismail S.
Luna, Andrew
* Maxville, Jeffry N.
McMinn, John L.
Meister, Lee W.
Montague, Jean
Sander, Terence N.
Sohrensen, Steven E.
Todhunter, David
Villa, Nestor
Walsdon, Michael J.

22 Years
Aaron, James
Aldrich, Reuben J.
Andrews, Sibyl
Baragan, Carlos A.
Belgrave, Ethan
Bertolin, Frank C.
* Cooper, Daniel
Dahayak, E.
May
Dubose, Don A.
Guiguis, Awad W.
Hare, Colin
Hewitt, Rick W.
Houllihan, Michael T.
Hughes, Marshall R.
* Juarez, Antonio A.
Lauve, Jeffrey P.
Lawson, Jerry L.
* Mann, Rocky S.
McLendon, Charles D.
Mothershead, Bryan L.
Moya, Ray V.
Munro, David
* Opie, Jr., Rufino
Ortega, Luis L.
Puri, Sushil
Sims Jr., Joe C.
Strahl, Roger D.

* Tobar, Domingo D.
Van Borssum, Peter W.
Ward, Rod
Wrigley, Robin

21 Years
Allman, Jeremy
Artwood, Alice M.
Bailey, Linda A.
Bell, Cynthia S.
Bell, Geoffrey
Braun, James W.
Butler, John
Broussard III, Joseph A.
Chang, Nai-Ching
Colley, Stephen
Dolan, John
Dragoset, William H.
Fleming, Michael
Hughes, David
James, Patrick A.
Khan, Malik
Knox, Peter
* Landau, Marcela L.
Livingston, Allen G.
Lombard, Arthur G.
Lopez, Brenda S.
Lovejoy, Janet A.
Luthra, Anil
Mahoney, Thomas L.
McGill, Francine
Palmer, James
* Patrick, Kevin
Phillips, Sharon E.
Roberts, Philip L.
Rue, William R.
Schutz, Andrew
Shroud, John H.
States, Leslie J.
Strickland, Neal
Wells, Scott
White, James C.
Winzele, Marsha F.

20 Years
Alder, Christopher
Ashron, Mark
* Atkins, Thomas L.
Berrill, Graham
Bible, Dennis J.
Bird, Ronald B.
Blackwood, William J.
Buhfam, Wayne
Craven, Andrew
Cree, Theodore C.
Davis, Lawrence J.
Dennison, Michael
* Drake, Kevin H.
Dreiner, Jerry D.
Evans, Patricia
Evans, Philip
Fisher, Charles
Francis, Malcolm
Gaffney, Joseph B.
Garate, Danielle E.
Guyton, William A.
Hassett, Micheal
Hazelrig, Barbara
Hirsch, Marion T.
Hosteiner, Dan
Howard, Lawrence G.

Manager of Navigation Stuart Porteous presents Field Positioning Analyst David Yeary with his 25-year Service Award.

Infield Services Area Manager Rhona Phillipson presents Lead Field Processing Geophysicist William Graves with his 25-year service award.

Multiclient Services General Manager Richard Cieslewicz congratulates 3-D Multiclient Services Supervisor Danielle Garate on 20 years of service.

Sr. Geophysicist Arturo Ramirez (left) receives congratulations on 20 years of service from General Manager of Reservoir Services Patrick Ng.

General Manager of Eastern Hemisphere Land Operations Chris Fox congratulates Geophysics Manager Michael Fleming (left) on 20 years of service.

Director of Western Hemisphere Data Management Rick Johnston (left) and Area Manager Patrick Peck (right) congratulate Head Computer Operator Craig Golden on 20 years of service.

Doug Kurtz (second from left) receives his 20-year service award from (left to right) Western Hemisphere Land VP Will Forrest, President Gary Jones, and WH Land General Manager Rick Drake.

Supervisor Sharon Phillips (left) and Computer Operator Manager Dave Strickland congratulate Tape Librarian Donna Myers on 20 years of service.
Anniversaries

Sr. A/V Graphic Designer Miles Wortham (left) is congratulated on 20 years of service by former BHI Vice President & General Counsel Larry O’Donnell.

Sr. Design Engineer Robert Fischer (third from left) celebrates 20 years of service with (left to right) Sr. Research Engineer Robert Welsche, Navigation Supervisor Phil Roberts, and Director of Engineering Paul Morgan.

Programming Supervisor Bob Kearney (center) is congratulated on 20 years of service by General Manager of Software Development Roy Forshaw (left) and Geophysical Software Development Manager Bob Hardy.

Joined by Operations Consultant Billy McNew (left) and Field Supervisor Carlos Nakladal (right), Geophysicist/Chief Seismologist Larry Davis (second from right) receives his 20-year service award from Argentina Resident Manager Jim Sledzik.

Manager Dan Wisecup congratulates Field Service Engineer Leonard Hays (right) on 20 years of service.

P-746 Field Supervisor Laurie Williams (right) receives his 20-year service award from General Manager of Eastern Hemisphere Land Operations Chris Fox.

Ishak, Magdy
Jaco, Richard M.
Johnson, James K.
Johnson, John
Jones, Allan
Kleinsasser, James A.
Klitzing, Jon R.
Kinz, Douglas W.
Lacker, Deara A.
Leighty, Terry
Loeffler, Kenneth
Love, Joe S.
Macknight, Kathleen M.
Malik, Mohammed
McElhenny, Patricia J.
Mitchell, Walter C.
Mollon, Harold D.
Moore, Gradly L.
Mullen, John S.
Myers, Donna L.
Nassif, Emil W.
Nelson, Edward J.
Nichols, Joe M.
Oakley, Paul D.
Palumbo, Aine F.
Paskalis, Paul B.
Perez, Narciso
Perk, Roger A.
Petersen, Cathy
Ramirez, Arturo
Rasmussen, Martin D.
Remlinger, Dennis J.
Reyna, Belen
Riyat, Manjit
Roberts, James A.
Rose, David
Salazar, Jose H.
Salter, John
Sayvill, Jeremy
Schnell, Elizabeth R.
Schroeder, Stephen R.
Schultz, Paul R.
Sherry, Mark D.
Slowik, Janet
Smithers, Mark
Stevens, Ryan
Stoney, John
Su, Gena H.
Swanson, Christopher
Tortorich, Robert M.
Tou, Jang
Turner, Gregory P.
Turner, John
Virdi, Parmjit
Wilkinson, Freya
Williams, Laurence

19 Years
Aal, Ahmed A.
Albers, Timothy J.
Alexander, David C.
Allott, Colin
Arkins, Joseph A.
Atkinson, Stephen J.
Barlow Jr., George E.
Barry, Michael D.
Beal, Carol J.
Beasly, Craig J.
Bowden, John T.
Brooks, Timothy J.
Brown, Trevor
Burgess, Scott H.
Buswell, Gregory D.
Call, Patrick A.
Carragher, Mark
Cejka, Darrell G.
Chandler, John Q.
Chang, Tsum
Clarke, Patrick
Clare, Malcolm
Claridge, Vera
Cooney, Michael C.
Crock, Gordon
Dawson, Phillip J.
Deamer, Charles
Deppe, III, John E.
Dickinson, Willie M.
Dill, Rebecca A.
El-Araby, Sayed
El-Fouly, Khaled
Esquivel, Mario F.
Gandara, Ramon
Ghafour, Gamal A.
Gowans, William
Green, Jack E.
Gussette, Robin L.
Hanson, Charles
Hares, Michael J.
Harris, Stephen
Harwood, John C.
Hennigian, Patricia
Hooke, Michael
Horn, Richard
Huebler, Vicki
Humber, Eric
Hutchinson, Michael
Johnston, Richard C.
Jorgenson, Peter A.
Joseph, Savannah
Kavanagh, Gerard
Kamb, Susan P.
Lansky, Vera S.
Lin, Cecilia
Macdonald, Rory C.
Macdonald, Scott R.
Marshall, Robert S.
McCoy, Roger A.
Melcher, Steven J.
Milne, Graham
Moore, Neil
Morrison, Michael
Musgrove, William M.
Pankhania, Pragji
Phillips, Peter
Phillips, Robert
Raia, Ronald A.
Rimmer, William J.
Roberts, Christopher
Roberts, Michael A.
Rokick, John L.
Roper, William B.
Ruth, Rodney K.
Schembri, George
Schneider, Curt
Scott, Daniel J.
Shady, Faiza
Sims, Paul M.
Smith, Griffith C.
Smith, John R.
Snyder, Mark S.
17 Years
Allen, David R.
Barnes, John
Bivens, Gregory J.
Buckcross, Paul
Butler, Daniel O.
Cieslewicz, Richard M.
Clark, Richard
Den Boer, Lennert
Dischberger, Debra M.
Dumsday, Michael
Edwards, Margaret C.
Fleure, Thomas J.
Goodman, Perry M.
Gottshall, Wayne K.
Hallmark, Joe I.
Hardy, Robert E.
Heslop, Robert
Hodgins, James J.
Miller, Kathy L.
Noll, John E.
Oganesian, Mary E.
Sharpe, David
Stevens, Toni J.
Watts, David W.
Wright, Carey
Yisma, Powell B.

16 Years
Ahmad, Ijaz
Anderson, Trent A.
Anhauser Jr., Leonard J.
Baran, Gary P.
Bell, Lee
Chubak, Taisa S.
Cook, Stephen W.
Corley, Wilson
Cousere, Giles
Diamond, Floyd
Dowling, Stephen
Ducante, Juliet E.
Eagles, James W.
Fitzsimmons, Barry M.
Flores, Larry T.
Fontana, Philip
Furlough, Andrew J.
Furido, Chris Y.
Grey, Matthew C.
Gunderson, Eric A.
Hart, Douglas I.
Hereford, Michael G.
Hermes, Paul M.
Hooper Jr., Milton L.
Johnson, Colin
Jones, Kevin W.
Kast, Murray D.
Kasha, Randall R.
Khan, Mohammed
Lee, David

* Sato, Gonzalo G.
* Splawn, Patricia J.
* Steel, Maurice G.
* Summers, David O.
* Taylor, Randy D.
* Thomas, Steven
* Tien, Dan D.
* Toles, Charles
* Topham, Craig M.
* Traglin, Jeffrey S.
* Vogler, Raymond E.
* Waterman, Robert
* Wilbar, Thomas L.
* Wilk, Robert A.
* William, Mournir
* Williams, James O.
* Wood, Timmy
* Yarath, Prameela D.
* Yarbrough, Terry L.
* Yasser, Mouhamad
* Youssef, Samy

18 Years
Andrews, Kamal
Bakewell, Kenneth
Blankenship, David W.
Bramwell, Stephen
Campbell, David B.
Carlisle, Antony
Coe, Robert J.
Dawson, John
Doud, Lawrence D.
Draffin, Martin
Elliot, Scott
Forbes, Stephen
Garrett Jr., George L.
Gauder, Greg
Gilbert, Mark
Gulunay, Necati
Hamill, William J.
Hansen, Erik V.
Hardy, Warren A.
Hargreaves, Robert
Herro, Riley M.
Hootman, Bruce W.
Hughes, Hugh
Johnson, Lee
Key Jr., Anthony F.
Kie, Steven L.
Lehmann, Terry
Machinski, Helen E.
McCamble, Mark A.
McFarland, Brian
McSwain, Michael M.
Millis, Samuel F.
Ng, Patrick Y.
Ng, Swee Leng
Ragland, Kevin E.
Reed, Gary W.
Roberts, Vincent
Rowe, Robert
Saunders, Michael R.
Schamrock, Charles T.
Shaffer, David B.
Sheridan, Martha A.
Siegrist, John
Sims, Ashok
Smith, Michelle
Sophus, Roland W.
Staropoulous, David J.
Steffen, Todd

* Saut, Richard
* Thomas, Roy A.
* Thomson, Jeffrey K.
* Trainor, Patrick
* Urlaub, Randall C.
* Vannatter, Darrel F.
* Vaskic, Paul B.
* Virobik, Daniel L.
* Welch, Haland W.
* Williams, Sylvester
* Wright, Laurence

[Left to right] Party Chief Bob White, Coordinator Thomas Gonzalez, and Coordinator Shaun Shaver congratulate Gun Mechanic Dennis Shane on 20 years of service.

P-778 Party Manager John Storey (center) is congratulated on 20 years of service by General Manager of Eastern Hemisphere Land Operations Chris Fox (right) and Field Supervisor Robin Guscette.

General Manager of Eastern Hemisphere Land Operations Chris Fox congratulates P-771 Chief Technician Tyler Peters (center) on 20 years of service.

Equipment and Personnel Coordinator Peter Knox (left) receives his 20-year service award from General Manager of Eastern Hemisphere Land Operations Chris Fox.

Documentation Supervisor Susan Rowlett (left) celebrates her 20-year service anniversary with GSD Section Leader Debra Dishberger and General Manager of Geophysical Software Development Roy Forshaw.

Global Marketing Communications Director Marion Hirsch celebrates 20 years of service with Vice President of Business Development Mike McCormick.

John Krull (second from left) receives his 15-year service award from (left to right) Western Hemisphere Land General Manager Rick Drake, President Gary Jones, and Western Hemisphere Land VP Will Forrest.

Infield Services Area Manager Rhona Phillipson congratulates Houston Processing Supervisor Emil Nassif on 20-years of service.
P.771 Chief Mechanic Douglas Brown receives his 15-year service award from General Manager of Eastern Hemisphere Land Operations Chris Fox.

Facilities Manager Frank Bertolino (left) and Manager of General Services Andy Luna (right) congratulate Sylvester "Sly" Williams on 15 years of service.

Celebrating Network Support Supervisor Don Blake's 15-year anniversary are (left to right) Network Administrator Chris Knox, Network Services Manager Joe Dante, Sr. System Administrator Rusty Allen, Sr. Application Programmer Bob Powell, Don Blake, Applications Programmer Chressa Carnahan, and Help Desk Specialist Ray Louvier.

General Manager of Eastern Hemisphere Land Operations Chris Fox presents P.771 Chief Vibrator Technician Burke Zollinger (left) with his 15-year service award.

Tsau "Ava" Cheng (center) celebrates 15 years of service with Supervisor Sharon Phillips and Computer Operator Manager Dave Strickland.

London Computer Operations Shift Leader Eamon Redmond (left) accepts his 15-year service award from Computer Operations Manager Alan Alcock.

Infield Services Area Manager Rhona Phillipson presents Processing Geophysicist Camille Ward with his 10-year service award.

Lowden, Dominic
Mathewson, John
Mayhew, Graham
Mobley Jr, Everett C.
Obay, Robert
* Omvig, John J.
Pedsley, Lawrence
* Reeder, Ronald P.
Reitz, Lawrence T.
Rice, Shawn L.
* Salazar, Juan M.
Stevens, Christopher Tachon, Richard
* Thompson, Mark A.
Trevino, Araceli L.
Van Dok, Richard R.
Vickers, Jay
Wiggins, James W.
Williams Jr, Wilbur

13 Years
Armstrong, David
Berry, Harvey E.
* Bly, Gayla R.
Bray, Sean P.
Brown, Patricia A.
Charles, Connie
Cole, John B.
* Domínguez Jr., Justo R.
Drea, Paul
* Estrada, Pedro C.
Foussac, Jacques B.
Fowler, Paul
Gates, Barbara
Garrett, Martin
Hirsch, Patricia M.
* Jones, Richard J.
Marr, Steven
McIntyre, Michael J.
* Merrill, William W.
Murillo, Emilio
Newell, Duncan
Norbeck, Guy
Pierce, Peter
Ramon, Jimmy
Robinson, Charles
Salazar, Jose C.
Segura, Pedro
Shaw, Diana K.
Smith, Stephen
Teck, Lim
Walker, Jeffrey R.
Williams, Peter
Williamson, Kenneth

12 Years
Abbbott, Michael
Abrahim, Solomon
Affum-Appa, Anthony
Beringer, Timothy M.
Bertness, Michael S.
Bishop, Paul
Bonilla-Ruiz, Nelson
Bont, Andrew
Boyce, Timothy
Brown, Gillian
Chang, Steven D.
Chou, Huang-Ying
Corbet, Beth A.
Coughlin, David
Dudukle, Roger
Eilings, Gary J.
El-Sharkawy, Ragab
Eppler, Patricia
Fuller, Jeri T.
Gaddis, Jerry W.
Garay, Miguel
Milestones
Garcia, Joe H.
Geller, Bill
Gonzalez, Alfonso
Grabiec, John
Holyman, Cheryl
Homiah, Dawn
Hougham, James R.
Hudson, Gordon
Joffre, Juan
Johnson, Terry B.
Junc, Louis J.
Koechener, Betty J.
Kolar, Warren
Marsden, Paul
Martin, Robert
Martinson, David M.
McEwen, Noreen
Mezzano, Larry J.
O'Halloran, Christine
Owsheer, Cheryl K.
Pabbistety, Mythili S.
Phillips, Donald
Rattray, Roland
Rockhold, Peggy C.
Ryan, Kris A.
Sanchez, Max A.
Scroggins, Eric
Sedano, Jairo
Shanduk, Les
Shorey, Mark
Silver, Neil
Simpson, Stefan
Singh, Raj
Strum, Tom L.
Stupel, Martin
Surnm, Anne
Timperley, Henry
Turton, David
Vickers, Paul
Williams, Carey E.
Works, Robert A.
Worsley, Paul
Macdonald, Adrian
Mackay, Scott W.
Marques, Tim
Marshall III, John T.
McDaniel, Evelyn M.
McGregor, Kent
Nguyen, Michael K.H.
Noffke, Lothar
Oster, Steven B.
Owen, Russell
Palaniappan, David R.
Pena Plata, Alvaro
Sanerkin, Timur
Seong, Tan King
Tavender, Alan
Turner, Paul
Villanueva, Edmundo
Welton, Ian
Wherton, Mark
Wilcox, Stephanie
Wilkie, Peter A.
Williams, Simon
Wood, Ken T.
Woods, Teresa
Yale, Mark W.
Young, John A.S.

** 10 Years **

Adams, Craig A.
Armstrong, Emnett C.
Atkins, B. L.
Arnold, Larry
Bell, Thomas A.
Brown, James K.
Brown, Richard
Bunting, Timothy
Caballero, Aldo
Cardoza, Michael
Cartier, Robert
Clarke, Miles
Comeaux, Denise J.
Conner, Deborah D.
Cottle, Jeffrey W.
Cowin, Lynall
Cuevas Jr., Urbano
Davila, Jorge
Demer, William
Degel, Tomislav
Dickinson, Murray
Dumazeil, Christian
Elliott, Stephen
Fergusson, Alastair
Flower, John
Garza, R. B.
Gilcrease, Damon R.
Goddard, Christopher
Guzman, Ana
Harney, Edmond
Harrison, Todd
Herron, Robert L.
Hibbert, Randolph E.
Heredia, Pablo
Hewart, Christopher
Hieb, Galen G.
Hottman, Brian S.
Humbard, Lorraine M.
Jacka, John E.
Jones, Steven C.
Jones, Roger D.
Kerr, John
King, Kieran

** 11 Years **

Barrett, Leicester
Barth, Mark A.
Bell, Jonathay
Bernal, Jairo
Bonile, Art E.
Bruce, David
Callaghan, Maureen
Clark, Vickie L.
Coil, Brian L.
Creaven, Fiona
Dawson, John
Donnelly, Brian
Doughty, Graham
Espinoza, Ovaldo G.
Furber, Andrew
Galant, Frank R.
Garcia, Oscar
Gomez, Theresa C.
Green, Julian
Harrison, Randall V.
Hoffman, John D.
Hurtado, Eligio
Jensen, Kris E.
Keifer, Lisa R.
Keeling, Ray
Knudsen, Ann
Lang, Carl

Emmett Armstrong [center] celebrates 10 years of service with Shift Supervisor Al Livingston [left] and Asst. Operations Manager Terry Sander.

Manager of General Services Andy Luna (left) and Shipping and Receiving Supervisor Sylvester Williams congratulate Shipping & Receiving Clerk Ramon Torres [center] on 10 years of service.

Applied Technology General Manager Kip Humbert congratulates Manager of Applied Technology Marine Mark Zajac [right] on 10 years of service.

Eastern Hemisphere Land HSE instructor Peter Wilke [right] receives his 10-year service award from EH Land General Manager Chris Fox.

Processing Geophysicist Tony Marek receives congratulations from Houston Marine Processing Supervisor Lynn Rodriguez on 10 years of service.

Party Chief Bob White [left] and Marine Administrator Frank Gonzalez [right] congratulate Compressor Mechanic Philip "Bub" Stevenson on 10 years of service.

Houston Processing Supervisor Don Keck [left] and Area Manager of Houston Land Processing Sam Dobbs [right] celebrate Jr. Analyst William Musa’s 10-year anniversary.
General Manager of North America Data Processing Judy Adams presents Area Manager of Houston Land Processing Sam Dobbs with his 10-year Service Award.

Houston Marine Processing Supervisor Randy Hebert (right) congratulates Team Leader Thomas Dittrich on his 10-year service anniversary.

Team Leader James Ligon (left) celebrates 10 years of service with Supervisor of Houston Marine Processing Kerry Taylor.

General Manager of Eastern Hemisphere Land Operations Chris Fox (right) and Field Supervisor Robin Guscente (left) congratulate P778 Chief Mechanic Richard White on 10 years of service.

General Manager of Eastern Hemisphere Land Quality Control Supervisor Tim Marples (right) receives his 10-year service award from General Manager of Eastern Hemisphere Land Chris Fox.

Lachaux, Chris
Levering, William R.
Ligon, James L.
Makarem, Walid
Martinez, Luis
Martinez, Roberto
McMahon, Christopher
Means, Tommy J.
Morais, Jorge
Musa, William S.
Nguyen, Randy V.
Ortiz, Eugenio
Palomo, Delia
Parish, Darrell
Perez, Jose R.
Pierce, Thomas W.
Pivonka, David
Pletcher, Robert
Powell, Andrew
Rehfeld, John
Russell, Kyle S.
Saunders, Brian
Simioni, Paolo
Skinner, Wade
Smith, Mark
Sotelo, Gilbert P.
Stevenson Jr, Philip B.
Stratton, Richard H.
Thompson, Raymond
Tiller, Michael
Torres Jr, Ramon
Ward, Camille A.
Warren, Alan
Whitehead, Michael A.
Whitfill, Gary R.
Williams, Jennifer
Williams, Larry
Windmeyer, Michael W.
Winterberg, Kent D.
Wood, James
Zajac, Dana
Zinn, Noel D.

French, Steven
Garcia, Jose G.
Garratt, Geoffrey
Gonzales, Edward
Hamilton, Robert C.
Hansen, Kolby
Harrison, Robin
Hennan, Ian
Holliday, Julia A.
Howes, Jacqueline
Ianniello, Melanie A.
Ioffe, Orlando
Kite, Tina M.
Koren, George F.
Lara, Ricardo
Leija, Eau H.
Lessar, Daniel G.
Lewis, Rudy
Lizotte, Rhonda A.
Long, Karen L.
Lue, Tim, Sandra M.
Mallick, Subhash
Matthews, Mark
Medrano, Jesus O.
Mitchell, John A.
Mize, Heather M.
Morgan, Jo Ann P.
Morgan, Richard
Morrison, Ian
Nached, Ramez
Olajuy, Roberto
Parker, Charles R.
Paul, William S.
Poche, Alan D.
Rathbone, Peter
Ramey, Julian
Rapport, Chantell R.
Rcky, Nirmalj
Rizo, Jorge E.
Rodriguez, Elizabeth
Rodriguez, Jerry G.
Rosario, Edgardo
Rosenthal, Dennis J.
Rountree, William J.
Rueda, Omar
Rutherford, David D.
Sandberg, Louise
Sandoz, Chris P.
Simpson, Gregory
Smith, Tommy X.
St Andry, Rachel G.
Stanton, Larry
Turner, Alison
Vervalin, Michael E.
Warren, Jonathan M.
Wilson, Paul
Woodward, Charles
Wright, Vaughan
Zhao, Zhi

Ashby, Andrew
Augustin, Leslie P.
Barnhart, Barbara L.
Bayn, Halis
Beauchamp, Philip J.
Blackhall, Nigel
Bolanos, Agustin J.
Boudesouque, Remy M.
Boxshall, Matthew
Bredar, David
Browett, Jeremy
Browne, Noel E.
Budinger, Steven E.
Burns, Steven
Campbell, Glenn
Carreon, Virgilio
Chowdhury, Mahidur R.
Coleman, Philip
Cooper, Leonard
Cooper, Robert
Cramer, Gerald
Curry, Edward
Eagleston, Shawn
Earney, Michael
Esposito, Miguel
Folks Jr., William R.
Freitas, Simplicio

Alokh, Alan
Anderson, Daniel J.
Areiza, Nicholas
Aznar, John
Bulder, Stephen
Chatoor, Julian A.
Dann, Roger
Deregon, Swavek M.
Fielding, Giles
Fowler, Paul J.
Franklin, Clive
Fursman, Dave
Gaiser, James E.
Gil, Edith
Halaj, Stefan
Hester, Jr., Don D.
Hill, Marvin D.
Ho, Boon
Hughes, John
Issa, Amar
Kennedy, Lee
Matutina, Narcisco
McCann, James
Mirza, Hyder
Morton, Richard
Montez, Pedro
Ollada, Emmanuel
O’Meara, Michael
Ovido, Soterio
Page, Richard A.
Pattberg, Diana
Patterson, Phil
Patterson, Ralph E.
Pena, Joel
Preiz, Karl
Ray, Michael
Romagnoli Jr., Richard
Rowe, Michael
Sadler, Terry
Saks, Joseph M.
Scott, John
Shehrawat, Ayman E.
Shelley, Mark
Skiving, Martin
Sommer, Richard J.
Sparkes, Robert
Stewart, Charles
Stoodley, Belwyn
Sy, Albert L.
Tamayo, Albeiro
Torres, Jorge
Veitch, James
Watson, Judge W.
Wigle, Laurence
Wilkinson, James J.

7 Years

Coxine, Lloyd A.
De Bruyne, John K.
Els, Barry
Erijavec, Tomislav
Ferguson, Neil
Fienny, Kenneth T.
Forder, Nicholas
Furry, Michael L.
Gainer, Kermit D.
Galloway, Janie E.
Geoghan, John
Gregory Jr., George
Guadino, Marco A.
Harrison, James N.
Hutchinson, Max
James, John F.
Kaye, Carolyn L.
Kelleher, Brendan
Leon, Kelly L.
Mares, Norberto
Moreno, Javier
Morris, Christopher L.
Morrison, Rhodri
Morrow, John Robert

Ozen, Abdurrahman
Psaila, David
Rivas, Miguel
Rodriguez, Daniel
Safford, Ann W.
Snyder, Earl H.
Sullivan, Mark D.
Tormaust, Kenneth W.
Troutman, Joe M.
Warwick, Harry
White II, Robert L.

6 Years

Amezcua, Adan A.
Andrews, Philip
Armendariz, Ernesto M.
Armendariz, Jesus R.
Arzu, Ruben Enrique
Baeza, Ismael V.
Balderas, Jose Bueno
Bloor, Robert Ian
Bosarge Jr., Phillip D.
Boudreau, Allen J.
Callahan, Ronald J.
Cabral Jr., Ernesto
Cardenas, Jose G.
Carrasco, Santos G.
Childers, Chuck C.
Christiansen, Grant
Cosio, Jose M.
Curry, Julie
Daniels, Rodolfo M.
Dickinson, Danny D.
Dominguez, Rogelio L.
Downie, Susan P.
Enriquez, Flavio L.
Fried, Jonathan G.
Garza, Larry
Garza, Daniel L.
Gomez, Juan M.
Gonzales, Arthur K.
Hinojosa, Gilberto R.
Hise, Alfred
Holguin, Damaso J.
Jones, Lee
Keller, Michael W.
Khuck, Richard D.
Lee, Dominic
Lee, Jay E.
Lemaster, James D.
Llewellyn, Glynn
Lopez, Isidro M.
Lozano, Rudy L.
Madrid, Jose G.
McGuinness, Ronan
Moore, Steven N.
Munoz, Jose C.
Navarrete, Manuel
Navarrete, Pedro G.
Nunez, Marilyn C.
Olague, Simon S.
Pelaiz, Ricardo
Perez, Wayne A.
Pascik, Frank
Pineda, Juan
Reichmuth, Douglas
Rodriguez Jr., Oscar R.
Rodriguez, Israel R.
Rojas-Duarte, William
Romero-Delara, Gonzalo
Ryan, Larry J.

Houston Marine Processing Supervisor Lynn Rodriguez congratulates Team Leader Mike Windmeier on 10 years of service.

Facilities and Administration Manager Bob Jones presents London office receptionist Iris McDouall with her 3-year service award.

Manager of Navigation Services Stuart Porteous (left) and Supervisor Steve Kraenbuehl (right) congratulate Processing Geophysicist Paul Schultz on 5 years of service.

Retirements

Richard Yarnold

Houston Processing Geophysicist Richard Yarnold retires after a 26 year-career with Western Geophysical. He was a 1969 graduate with a bachelor’s degree in geology from Arkansas Tech. He started in marine seismic processing as a geophysical technician, then became a junior analyst, and finally an analyst, with the velocity interpretation team where he worked with every seismic production crew in Houston.

Ugo Picchiani

Ugo Picchiani has retired from Western Geophysical after 40 years of service, during which he has made many contributions to the company spanning many product lines. Western Geophysical wishes to thank Ugo for his years of dedication and hard work. Good luck with your future endeavors, Ugo!
In Memoriam

With profound sadness, Western Geophysical acknowledges the loss of several employees during recent months. Some were veterans of the company, and others were still early in their careers. They will all be missed.

Victor C. Boyd (retired) – Houston, TX
Gerald Bright – Surrey, England
Tim Granlee – Blanding, UT
Stephen Grosell – Hull, England
Howard Peters – England
Abram Sandoval – Pecos, TX

Carter J. Lewis

Carter J. Lewis, age 48, passed away on April 14, 2000 doing one of the things he loved most: riding his BMW motorcycle. Carter began his career with Western in Michigan on January 12, 1988 as a permit agent. After several years, Carter left the company to pursue other interests. In 1994, seismic work lured him away from the Black Hills of South Dakota that he was so taken with. Carter worked on Crew 780 from then until the untimely day of his death. He held a variety of jobs, from field operator to field clerk, and was always willing to do whatever was needed to get the job done. His last position was as assistant crew manager for P-780.

Carter will always be remembered for his hearty laugh and wonderful sense of humor, as well as the practical jokes that all were either the target or co-conspirator of. We, the members of Crew 780, and all who had the privilege to work with Carter, will greatly miss him. Carter is survived by his Aunt Connie and his cousins, Cathy and Carol.

Margarito Zarate

Margarito Zarate, 43, and Cesarsantos Soriano, 28, both recording line crew helpers with Party 780, were killed on May 4 in a helicopter accident in southeastern Utah. Margarito had been with Western about one year, and Cesarsantos had been with the company about one week, when the accident occurred. Cesarsantos’ father and brother are also employees on the crew. Also killed in the accident was Sandy Vamos, a pilot with Peace Helicopters in Edmonton, Canada.

Evelyn Ortega

Evelyn Ortega, beloved wife, mother, daughter, sister, friend, and former secretary in Western’s Latin American Operations group, died in a tragic auto accident Sunday, July 2, 2000. A beautiful lady both inside and out, she will be missed by all who knew and loved her.