

NOMINATION FOR IOGCC CHAIRMAN'S STEWARDSHIP AWARD
ENVIRONMENTAL PARTNERSHIP CATEGORY

Nominees:



THE UNIVERSITY OF TEXAS AT
AUSTIN

PENN STATE UNIVERSITY

COLORADO SCHOOL OF MINES

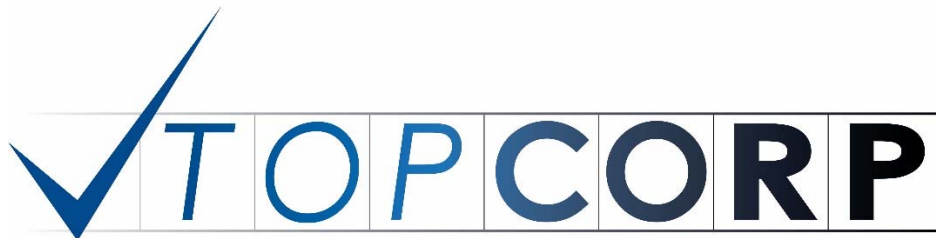
Leadership Team Rep:
Dr. Hilary Olson
Lecturer, Department of
Petroleum and Geosystems
Engineering;
Director of Education,
Training and Outreach at
the Center for Petroleum
and Geosystems
Engineering

Leadership Team Rep:
James Ladlee
Assistant Director of
Energy, Entrepreneurship,
and Community
Development Programs

Leadership Team Rep:
Dr. Azra N. Tutuncu
Professor, Director of
Unconventional Natural Gas
and Oil Institute;
Harry D. Campbell Chair

Project:

TOPCORP OIL AND GAS INSPECTOR TRAINING PROGRAM



TOPCORP Executive Director: Larry Harlan

TOPCORP Project Manager: Dori Coy

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Contact Information:

Hilary Olson, The University of Texas at Austin, holson@austin.utexas.edu, 512-653-8356

1. Brief Explanation of the Project

TOPCORP is a comprehensive, practical training program based on scientific principles for state, federal and provincial field inspectors, regulators and policy makers to improve understanding of the technologies employed in conventional, shale gas and tight oil field operations. There is no other forum, gathering or system for oil and gas inspectors to learn this information and connect with their peers.

2. Purpose of the Project: *TOPCORP is closing the knowledge gap between the people who operate and manage oil and gas fields, and the people who are responsible for monitoring and regulating them on behalf of the public.*

Innovation is a core principle in the energy industry. New technologies are continuously being developed and implemented to improve efficiency and safety as well as to maximize output from both conventional and unconventional oil and gas wells around the world. Additionally, over the last decade, shale gas production in the U.S. has increased, and improvements to the process have come at a rapid pace.

Private industry has the resources to invest in training for its engineers and field operators to learn and manage new technologies and processes in fields and wells. State, federal and provincial government agencies do not have the funding or capacity to provide comparable training. As a result, there is a knowledge gap between the people who operate and manage oil and gas fields, and the people who are responsible for monitoring and regulating them on behalf of the public. TOPCORP is closing this gap.

TOPCORP helps oil and gas inspectors, regulators and policy makers stay current with the rapidly innovating and highly technical industry tools and processes by providing a comprehensive, practical training program that delivers fact-based learning, grounded in scientific principles taught by the most knowledgeable scientists and academics in the world. Participants complete the TOPCORP program with a deeper understanding of the science and facts related to the latest technologies used in oil and gas production in order for them to better engage with industry experts when monitoring facilities, and also to better interpret and translate this work for the public citizens they represent in protecting the environment and in developing natural resources.

3. Process Taken to Complete the Project: *TOPCORP is led, designed and instructed by faculty and staff from The University of Texas at Austin, Penn State University and Colorado School of Mines, and it is provided free of charge courtesy of funding from our industry, environmental NGO and foundation partners.*

3a. Development phase of the project: In 2012, industry leaders ExxonMobil and GE Oil and Gas recommended a partnership to the three universities and provided seed funding to get the training program started. TOPCORP was established as a consortium between the universities, with governance by a three-person leadership team with one representative from each university.

To streamline the program and focus on content that would be most valuable to participants, TOPCORP leaders visited various field sites with agency inspectors in three states, partnering with regulatory agencies in CO, PA and TX, as well as the IOGCC. The universities also conducted a national survey of over 400 U.S. oil and gas inspectors to determine what information was most relevant to their work, preferred modes of learning and typical obstacles encountered in regards to training. TOPCORP was then able to structure the lessons to get maximum impact with minimal disruption to regulators' schedules. Curriculum was designed by faculty and researchers at the three universities, and the first workshop was held in fall 2013.

3b. Implementation phase of the project: Based on survey results and interactions with field inspectors and state regulatory agencies, TOPCORP designed a blended curriculum: training consists of online prerequisite lessons and a series of three-day immersive classes held in university classrooms and labs and in the field. To complete the full program, participants must complete three workshops: Petroleum Geology & Engineering and Petroleum Technology (PET); Environmental Management Technology (ENV); Emerging Concerns and Communication (ECC). The learning objectives for all workshops can be reviewed at: <http://www.topenergytraining.com/learning> (see Appendix 1 for photos of training activities)

3c. Overview of the training:

Online training: The self-guided online prerequisite lessons provide an overview of the concepts that are applied in oil and gas field technologies for the participants to get the most out of hands-on experiences during the immersive lab and field sessions. Each workshop has an online prerequisite; the cumulative total of online training can be completed in approximately 60 hrs. A two-minute overview of our online training program can be reviewed at: <https://youtu.be/jacko7adSPc>

Onsite training: The immersive onsite training takes place at the three universities. Each university takes on instructing a particular onsite workshop: PET workshop is taught at Mines, ENV is taught at PSU and ECC is taught at UT. Onsite training involves classroom sessions, field visits and lab experiences. For a two-minute overview of our onsite training visit: <https://youtu.be/CDMxV5WOtUE>

- *Classroom training:* No matter where the workshop is taught, the faculty consists of experts from all three universities, as well as guest experts on specific new and developing technology and methods.
- *Field visits and lab experiences:* While onsite in real-world field experiences and simulated lab facilities, participants learn how scientific principles are reflected in the facilities and equipment used on field sites, and work directly with the latest technologies to better understand the cutting-edge engineering behind oil and gas field operations. TOPCORP field trips rely heavily on our partnerships with industry and have included: EOG Resources hydraulic fracturing job near Gonzales, TX; Fortress Environmental state of the art salt water disposal injection facility near Luling, TX; Eureka Resources oil and gas wastewater management in the Marcellus; Anadarko drilling operations and water management in the Marcellus and DJ Basin; Noble Energy production simulation training facility in Greeley, CO; Seneca production site in Sespe Condor Sanctuary/Los Padres National Forest, CA. Lab activities also rely on industry partnerships as well as university facilities and have included: drilling simulator labs at UT and Mines; petrophysics labs at UT, PSU and Mines; air emissions field experiments at PSU; CalFrac fluids lab; Core Laboratories reservoir characterization labs; Halliburton cement lab.

3d. Recruitment: Participants are recruited for the program by TOPCORP through direct contact with state, federal and provincial agencies. Applications are taken online on a particular start date, and acceptances are processed by TOPCORP with selections finalized in consultation with the agencies.

3e. Costs: Sponsor funds are used to provide the program free of charge to participants, as allowed by each individual agency. This includes access to secure online courses, travel and accommodations for the classroom, lab and field immersive classes, and a completion ceremony with TOPCORP certificate.

3f. IOGCC Inspector Certification Program: The IOGCC has recently updated and re-established its Inspector Certification Program. Through surveys, personal inquiry and collaboration, TOPCORP has made sure the training program it offers to inspectors complements the breadth of topics covered as part of the IOGCC certification. TOPCORP courses can also satisfy continuing education requirements for agency specific certification or promotion.

3g. Partnerships: The program would not be possible without the broad network of partnerships established. At the leadership level, TOPCORP is a genuine partnership between three universities, sharing financial resources through official memoranda, in-kind resources and services, and personnel across what are typically difficult boundaries to cross. The project is successful because of partnerships with industry, regulatory agencies, IOGCC, environmental NGOs and foundations. To succeed financially, TOPCORP has relied on the generosity of sponsoring partners: ExxonMobil, GE Oil & Gas (now BHGE), Environmental Defense Fund and the Mitchell Foundation. TOPCORP gained important input on curriculum design and implementation through our partnership with state agencies and the IOGCC. The program would not be able to expose participants to the rich field and lab experiences that are a standard part of the curriculum without industry partners who provide in-kind support, for example, field site guided visits, lab and equipment yard tours (see Appendix 2 for a list of industry, NGO and foundation partners).

4. Project Contributions to the Environment: *A technically well-informed inspection corps is essential for good environmental outcomes in oil and gas operations.*

Participants who complete TOPCORP training have a much deeper technical understanding of how oil and gas fields and wells operate, and the variables that could impact operations. As a result, they are better equipped to consistently monitor and evaluate facilities in their jurisdiction, protecting the environment through oversight and enforcement of local regulations.

Environmental impacts are felt locally: by the communities living in the area, as well as by the industries conducting business in the region. The public wants to feel confident they are being protected by the regulations and the inspectors enforcing them. Private industry wants to be confident that regulatory activity is consistent and that peer businesses are following the rules. Well-informed oil and gas inspectors, regulators and policy makers are critical to protecting the environment, and thus, public and industry interests.

5. Project Accomplishments: *Since TOPCORP started in 2013, approximately 250 people from 30 different state, federal and provincial government agencies have participated in the program.*

TOPCORP contributes continuity across and connectivity among the profession. Participants receive:

- *Fact-based information related to core job responsibilities from unbiased subject-matter experts in academia.* During each workshop experience, participants have many opportunities to spend quality one-on-one time with the academic subject matter experts, thus, enriching their learning. Participants maintain a relationship with professors following the workshops and can contact the expert academics for discussion when faced with a unique scenario in day-to-day work.
- *A network of peers to engage for input and counsel.* An equally important outcome of the program is the peer network and comradery established during the immersive workshops, which did not exist for regulators until TOPCORP was established. Relationships develop organically in the workshops as participants share best practices and discuss regional similarities and differences in their work. They often connect after the workshop to serve as a sounding board when peers are analyzing or evaluating a field challenge. The universe of people who understand the dynamics inherent in this job and skills required to do this job are increased dramatically for participants, and they now have a wider circle of colleagues to call upon for advice or input.

Since TOPCORP started in 2013, approximately 250 people from 30 different U.S. state, U.S. federal and Canadian provincial government agencies have participated in the program (see Appendix 3 for a list of participating agencies).



Geology Field Trip, CO



Frac Job, Noble Energy Wellsite, D-J Basin



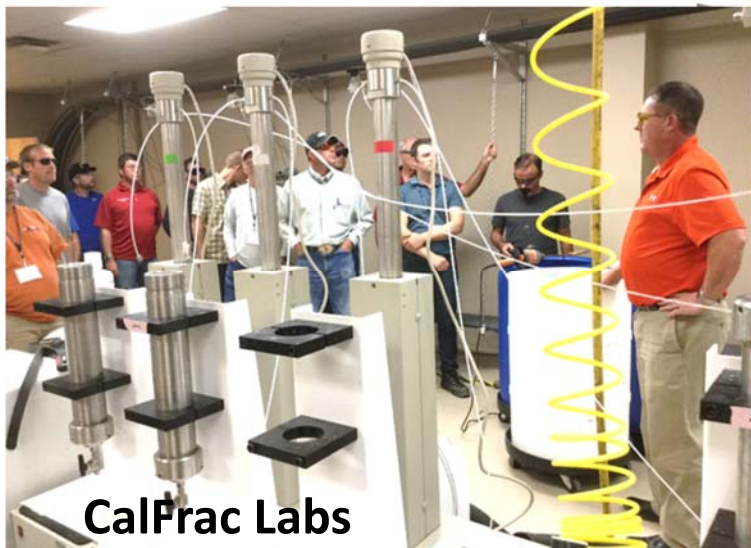
Geology Field Trip, TX



Niobrara Quarry Visit



Saltwater Disposal Well, Fortress Environmental



CalFrac Labs



University Drilling Mud Lab



Production Facilities at Sespe Field, Seneca Resources

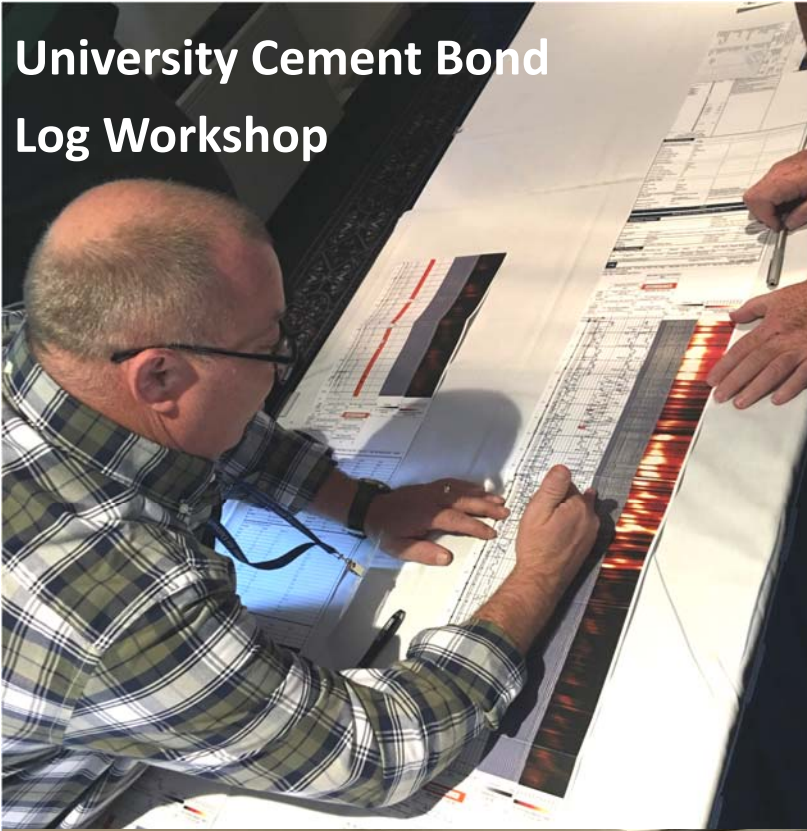


University Petrophysics Lab



**Noble Energy
Equipment Display**

University Cement Bond Log Workshop



University Petrophysics Lab

Core Workshop at Core Laboratories

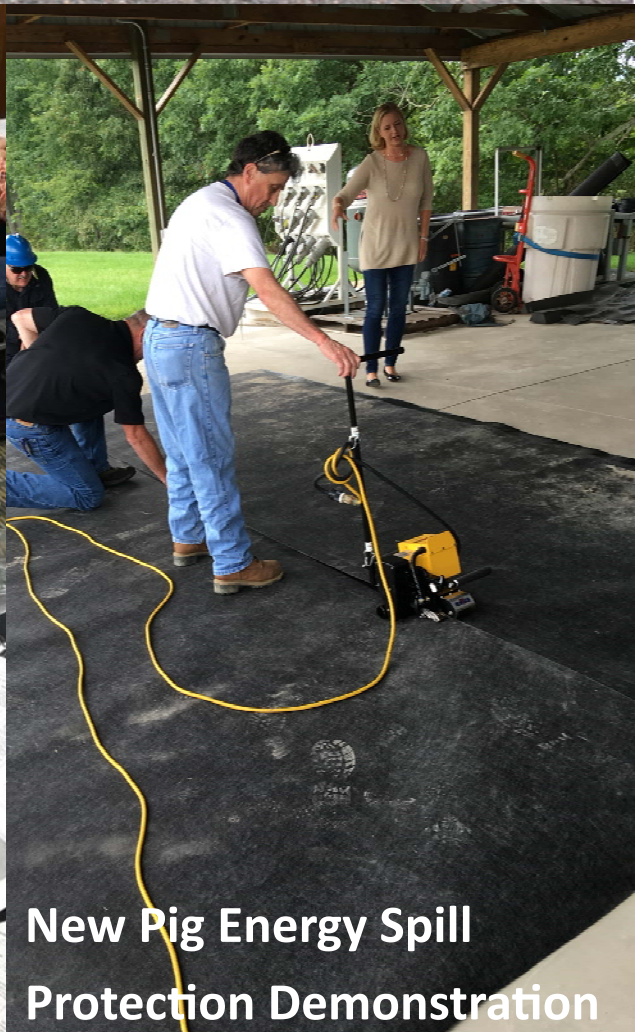




Anadarko Marcellus Operations in PA



Log Interpretation
Classroom Workshop

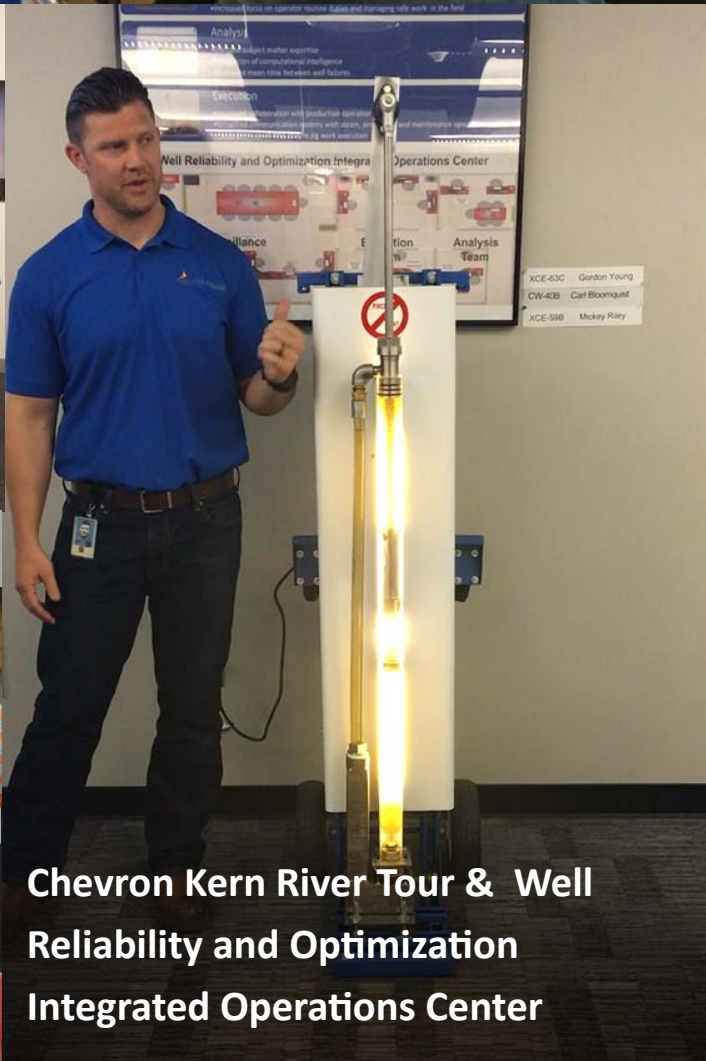


New Pig Energy Spill
Protection Demonstration

EDF Presentation, Halliburton Lab & Equipment Tour



Lecture Session on Completions



30 Different Agencies



Chevron Kern River Tour & Well Reliability and Optimization Integrated Operations Center

Appendix 2 – List of Industry, NGO and Foundation Partners

LIST OF INDUSTRY, NGO AND FOUNDATION PARTNERS

Anadarko Petroleum

Baker Hughes, a GE Company (original support from GE Oil & Gas)*

Bonanza Creek Energy

CalFrac

Chevron

Clean Earth

Core Laboratories

EDF, Environmental Defense Fund*

Ensign

EOG Resources

Eureka Resources

Fortress Environmental Services

Halliburton

Mitchell Foundation*

New Pig Energy

Noble Energy

Precision Drilling

Seneca Resources

Shell Appalachia

TerrAqua Resource Management

TriCan

ExxonMobil*

*provided financial support in addition to in-kind support

Appendix 3 – List of State, Federal and Provincial Participating Agencies

LIST OF STATE, FEDERAL AND PROVINCIAL PARTICIPATING AGENCIES IN THE TOPCORP PROGRAM

U.S. State Oil & Gas Regulatory Agencies (24)

Alabama

Arizona

Arkansas

California*

Colorado

Florida

Illinois

Indiana

Kansas

Michigan

Nebraska

Nevada

New Mexico

New York

North Dakota

Ohio

Oklahoma

Pennsylvania

South Dakota

Texas

Utah

Virginia

West Virginia

Wyoming

U.S. Federal Agencies (2)

Bureau of Land Management*

Environmental Protection Agency*

Canadian Provincial Oil & Gas Regulatory Agencies (4)

Alberta

British Columbia

Nova Scotia

Saskatchewan

*agencies not allowed internally to accept free training, and therefore paid for their training costs

LETTERS OF SUPPORT

International (Industry and NGO)

Paul Krishna
Manager - Environmental, Health & Safety
Issues
XTO Energy Inc.

Adam Peltz
Senior Attorney
Environmental Defense Fund

Paul Doucette
Global Government Affairs & Policy
Baker Hughes, a GE Company

United States – State Agencies

Scott Dawson
IOGCC New Mexico Associate Rep
State of New Mexico Energy, Minerals and
Natural Resources Department

Lucas Keeler
Inspection Specialist
Wyoming Oil and Gas Conservation Commission

Bruce Hicks
Assistant Director
North Dakota Oil and Gas Division

David Lawrence
Senior Geologist
Oil, Gas and Minerals Division, Michigan
Department of Environmental Quality

Robert Randall
Executive Director
Colorado Department of Natural Resources

Tammy Shelton
Lead Technician
Railroad Commission of Texas

Canada – Offices & Agencies

Sara Wilshaw
Consul General in Dallas
Foreign Affairs, Trade and Development Canada

Rhonda Busch
Learning and Development Coordinator
Alberta Energy Regulator



August 1, 2017

Stewardship Awards
IOGCC
P.O. Box 53127
Oklahoma City, OK 73152-3127

Re: IOGCC Chairman's Stewardship Awards

XTO Energy is pleased to submit this letter of support on behalf of TOPCORP's nomination for the 2017 Chairman's Stewardship Awards. Since its inception in 2012, XTO has partnered with TOPCORP to make its training programs in petroleum geology and engineering, petroleum technology, environmental management, and emerging topics and communications available to oil and gas regulators, inspectors and policymakers across the country. TOPCORP's specific work in the area of environmental management makes it an excellent candidate for this year's award in the Environmental Partnerships category.

XTO believes that a strong regulatory system is fundamental to providing the public with confidence that the criteria for safe and environmentally protective operations are in place, administered, and strongly enforced. Effective regulations also create a level playing field for all industry participants. TOPCORP's faculty-led and originally developed training programs are helping ensure that regulators across the country have access to the latest technology and operational expertise to assist in their important oversight of unconventional resources development.

The TOPCORP program stands out as an integral and live-functioning example of the IOGCC's States First Initiative. The collaboration and opportunity for sharing learnings across states that comes as a result of TOPCORP's training courses is allowing regulators to develop and implement effective regulations that reflect state-specific needs. By equipping state policymakers, regulators, and inspectors with the knowledge and tools they need to address their own local needs, TOPCORP is furthering the States First goal of ensuring that state regulatory programs provide the best mechanisms for ensuring environmental protection and appropriate regulation.

We applaud the work of Larry, Hilary, Jim and Azra and the commitment the University of Texas at Austin, the Colorado School of Mines, and Penn State University bring to this collaboration.

Sincerely,

A handwritten signature in blue ink that reads 'Paul P. Krishna'.

Paul Krishna
XTO Energy Inc.



VIA Email

August 1, 2017

To: IOGCC Chairman's Stewardship Awards Committee
Sir/Madame:

I would like to nominate The University of Texas at Austin, Penn State and Colorado School of Mines to receive the IOGCC Chairman's Stewardship Award under the category of Environmental Partnership. Their work on the TOPCORP training program for oil and gas inspectors reflects the importance of partnerships between non-industry groups, in this case higher education institutions, and industry to achieve the highest standards of Environmental Stewardship regarding oil and gas operations.

Rapid technology development in shale and tight-energy development has led to state regulatory agencies having to staff up quickly over the past decade. There has also been a steep learning curve for experienced regulators and in some regions a public atmosphere of protest, fear and misunderstanding. TOPCORP has risen to answer these challenges by developing, teaching and continually advancing a robust curriculum on operational technology specifically tailored for oil and gas inspectors.

Regulators and the industrial communities that they regulate are often at odds. One of the elements of that disconnect is industry's view that regulators don't appreciate the day-to-day work requirements of being on the job and regulator's view that industry doesn't understand the need for the regulations. By creating the key partnership that emerged from TOPCORP, regulators, industry and even ENGO groups come together to create a common understanding of industry operations. The outcome of this partnership is a better-informed collaboration, based on shared understanding of the realities of the oil field, among the various stakeholders.

TOPCORP was formed by a collaboration of three universities who have partnered with industry, regulatory agencies and environmental groups to create and deliver a fact-based, research-supported training program that combines online learning with face-to-face learning. This learning environment includes a myriad of field experiences, interactive engagement and collaboration between state regulators. TOPCORP has also tackled hot topics that arise in this industry like induced seismicity, methane migration, water contamination, and TENORM. The program gives oil and gas inspectors from states and



provinces in North America the opportunity to learn, network and experience with university experts as well as share experiences with each other.

Legacy GE O&G, now Baker Hughes, a GE Company, was an initial financial supporter of TOPCORP. Envisioned as a fully on-campus experience, TOPCORP leadership was both flexible and innovative by adopting a great deal of on-line content to reflect the new reality of the world we live in. The team was responsive to the needs of the stakeholders and adopted this innovation without losing the key value added concepts of the program.

Feedback from industry and the regulated community has been consistently positive and beyond our expectations. We made the investment in TOPCORP to promote a sound and cost-effective balance between the regulated community and industry with the expectation that the result would be better formed and better enforced regulations to the benefit of all. We have not been disappointed.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Paul Doucette', with a large, sweeping flourish that loops back to the left.

Paul Doucette
Global Government Affairs and Policy

July 20, 2017

Stewardship Awards
IOGCC
P.O. Box 53127
Oklahoma City, OK 73152-3127

EDF wholeheartedly endorses TOPCORP for IOGCC's Chairman Stewardship Award in the category of Environmental Partnerships. TOPCORP (of which EDF is a co-sponsor) plays a critical role in ensuring that the nation's hundreds of state oil and gas inspectors have external educational and training opportunities. TOPCORP's course provides inspectors with a broad-based curriculum covering geology, engineering, emerging technologies and practices, environmental considerations, history, policy implications, and public communications related to oil and gas development through online modules, interactions with experts in small classroom settings, lab work, and field visits. Perhaps just as importantly, TOPCORP enhances professional development by facilitating the interaction of inspectors across states. These front-line professionals face many of the same issues in the field, and as they learn from each other, they all become better inspectors.

TOPCORP's work is multi-stakeholder and cross-cutting, combining the funding, time, expertise and field sites of industry, academia and non-profits to help make the oil and gas inspectors as well-trained as they can be for their difficult but critical job. EDF participates in the TOPCORP program because we believe that a top-notch inspection corps is essential for good environmental outcomes. As oil and gas agency's boots on the ground, they interpret and enforce the rules that keep the environment protected, a desirable outcome that all share. TOPCORP's work helps make this happen, and would be a worthy recipient of this award.



Adam Peltz
Senior Attorney
Environmental Defense Fund

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary-Designate

Matthias Sayer
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division



July 25, 2017

Stewardship Awards
IOGCC
P.O. Box 53127
Oklahoma City, Oklahoma 73152-3127

RE: IOGCC 2017 Environmental Partnership Stewardship Award
Nomination For TOPCORP

Attn: IOGCC Chairman Asa Hutchinson, Governor of Arkansas

Dear Governor Hutchinson,

The New Mexico Oil Conservation Division would like to nominate TOPCORP Energy Training for the 2017 Chairman's Environmental Partnership Stewardship Award.

The New Mexico Oil Conservation Division (NMOCD) has 4 district offices (Hobbs, Artesia, Aztec and Santa Fe). Several New Mexico Inspectors have attended TOPCORP *sponsored* training, geared towards regulatory (primarily oil and gas inspectors) and policy-making personnel. These courses cover Petroleum Geology & Engineering Concepts, Petroleum Technology, Environmental Management Technology and Emerging Topics and Communication.

TOPCORP's target audience is new regulatory (primarily oil and gas inspectors) or policy-making personnel with less than 18 months of on-the-job or other related experience.

Because technology is ever changing, it is sometimes difficult to keep up with the rapidly changing nature of the oil and gas business and technology improvements in drilling, completing and developing oil and gas fields. TOPCORP has designed their training to specifically train field personnel in a classroom/lab/field component.

In regards to NMOCD's staff development and training - TOPCORP provides online material as background for the field component of training. TOPCORP's material and training consists of visits to wellsites, oil and gas operations facilities, water recycling facilities, wastewater injection sites. Some courses also have lab activities as part of the field component.

July 27, 2017

Page 2

New Mexico Inspectors that have had the opportunity to attend the TOPCORP training have gained thorough knowledge of many topics including cement labs, types of cement utilized in oil and gas operations, cement compressive strengths and uses, frac fluid technology, seismology, hydrostatic pressures, mud labs, well control, downhole drilling review and monitoring, produced water reuse and recycling, well production life and plugging techniques. Basically, TOPCORP covers all aspects of drilling and completing oil and gas wells and the conditions, expectations and important role of regulatory inspectors and their interaction with field personnel.

Our inspectors in New Mexico have given us rave reviews of the TOPCORP program. We have greatly benefited from the great training not only on the regulatory side but also with on-site applications.

Our inspectors who are taking or have completed the course also feel much more accomplished, professional and confident in completing their daily office and field workloads. Our staff is now more knowledgeable and environmentally aware while completing their tasks both in the office and field.

All the staff at TOPCORP from the, Director, Assistant Director, UT Austin Program Lead, Researcher and Lecturers and the classroom and field instructors have been very professional, courteous and outstanding throughout our training modules. We greatly owe them for their professionalism, excellence and spot-on training.

Another very valuable aspect of the training modules and some of the best feedback we have heard from our inspectors is the ability for our inspectors to meet regulators from other states and to gain knowledge and review how other state inspectors do work in their respective states. Every state seems to have their own unique issues, and discussing and interacting with other inspectors has been vital and indispensable for our staff.

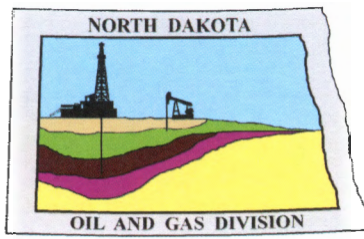
We could go on and on about how invaluable TOPCORP has been for our staff, and are looking forward to working with TOPCORP in the future. We believe the top-notch, excellent instruction and professional training provided from TOPCORP has made our inspectors some of the best oil and gas inspectors in the nation.

For these reasons, NMOCD is asking that you please choose TOPCORP Energy Training for the 2017 Chairman's Environmental Partnership Stewardship Award.

Sincerely,

Scott Dawson
IOGCC New Mexico Associate Rep

/sd



Oil and Gas Division

Lynn D. Helms - Director

Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.dmr.nd.gov/oilgas/

July 28, 2017

Ms. Hilary Clement Olson, Ph.D.
The University of Texas at Austin
200 E. Dean Keeton STOP C0304
Austin, TX 78712

**RE: IOGCC Chairman Stewardship
Environmental Partnership Award
Letter of Support**

Ms. Olson,

You indicated TOPCORP is submitting a nomination for the IOGCC Chairman Stewardship Award in the category of Environmental Partnership.

TOPCORP provides a sponsored training program for oil and gas regulatory field inspectors. The program is funded by industry and interest groups and faculty from the Colorado School of Mines, Penn State, and The University of Texas at Austin participate in instructing four courses. The North Dakota Industrial Commission, Department of Mineral Resources, Oil and Gas Division recently participated in two courses offered. All of our field inspectors participating in the TOPCORP training have indicated their technical knowledge has improved, they enjoyed the peer-to-peer discussions with inspectors from other states and provinces, and have an appreciation for being selected to participate in the TOPCORP program. We have appreciated the opportunity to participate in this program and look forward to participating in future TOPCORP training courses.

The Environmental Partnership Award recognizes innovative projects lead by non-industry organizations with the cooperation and participation of industry. We believe TOPCORP is a great fit for this category and we support their quest for IOGCC's Chairman Stewardship Environmental Partnership Award.

Sincerely,

Bruce E. Hicks
Assistant Director



COLORADO
Department of Natural Resources

Executive Director's Office
1313 Sherman Street, Room 718
Denver, CO 80203

August 1, 2017

Chairman
Interstate Oil & Gas Compact Commission
PO Box 53127
Oklahoma City, OK 73152-3127

Re: Chairman's Stewardship Awards for Environmental Partnership: TOPCORP

Dear Governor Hutchinson:

TOPCORP consists of a consortium of expert faculty of the Colorado School of Mines, Pennsylvania State University, and the University of Texas that came together in 2013 to develop a program to train oil and gas field inspectors on new technologies associated with shale gas and shale oil. The Colorado Oil and Gas Conservation Commission (COGCC) has participated in TOPCORP since the program's early inception, and I am pleased to support TOPCORP's application for the IOGCC Chairman's Stewardship Award for Environmental Partnership.

During its early phase, the TOPCORP program was expanded to include multiple stakeholders and topics, including a forum for policy makers and other regulators to learn about the oil and gas industry. Through this expansion, a unique partnership of academia, oil and gas professionals, state regulatory agencies, and non-profit organizations emerged to develop an innovative and world-class training program. A number of COGCC work groups have participated in TOPCORP including the field inspection, environmental, and engineering groups, plus local governmental liaison staff. The COGCC sends as many of its inspectors through the program as can be accommodated, but there is a significant demand from other states for this valuable program.

TOPCORP's training is highly valuable for the COGCC due to its provision of technical expertise, inclusion of hands-on field training, opportunity to network and share information, and focus on emerging issues. COGCC field inspectors, during the normal course of their work, touch on a broad array of oil and gas industry issues. The increased technical knowledge available through TOPCORP allows them to more fully understand and communicate potential issues to engineering and environmental staff. Additionally, the hands-on component of the program allows for even more effective communication with oil and gas operators. Nationwide, and in Colorado, the industry and other outside entities have at times questioned the training of oil and gas inspectors. However, with the TOPCORP program as part of COGCC's training and development program, questions as to our training are quickly reduced to an appreciation and



respect for the quality of our staff's knowledge and expertise. The training and certification available through TOPCORP thus leads to respect from industry, increases public confidence, and gives the COGCC field inspectors a sense of pride and confidence upon completion of the program.

I would be happy to provide additional information on the value and benefit that TOPCORP provides for the COGCC. Please do not hesitate to contact me or Margaret Ash, COGCC Field Inspection Unit Manager, at 303-894-2100 x5110 or margaret.ash@state.co.us, if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Robert Randall". The signature is fluid and cursive, with the first name "Robert" and last name "Randall" clearly legible.

Robert Randall
Executive Director



Governor Matthew H. Mead, Chairman Mark Watson, State Oil & Gas Supervisor
Commissioners Bridget Hill Thomas A. Drean Mark Doelger Tom Fitzsimmons

July 17, 2017

IOGCC Chairman Stewardship Award Committee,

As a participant and graduate of the TOPCORP energy training program, it is with great pleasure that I find myself writing this letter of recommendation endorsing TOPCORP's nomination for the 2017 Chairman's Stewardship Environmental Partnership Award. Geared towards oil and gas regulatory inspectors and policy-making personnel, TOPCORP's training program is a non-industry educational partnership between Colorado School of Mines, University of Texas at Austin, and Penn State University. Partnering closely with industry and numerous U.S. states and Canadian provinces, the TOPCORP program exemplifies the perfect blend of training for both newcomer and experienced regulatory professional alike. While ensuring that the protection and enhancement of our natural resources and the training needs of regulatory agencies are met, TOPCORP has greatly enhanced my technical skills, abilities, and confidence in carrying out my responsibilities related to environmental and public protection.

Like so many individuals who make the western United States their home, my background has always centered on the agriculture and oil industries. When I wasn't in school, I was training ranch dogs, herding sheep, or working in the oil field. In 1992 I became officially employed for the first time painting the tank batteries and pumping units of local operators. Soon after, I began working as a pumper and roustabout. Eventually this led me to start a permitting company where I became more involved with regulatory and environmental compliance. In 2011 my career with the Wyoming Oil and Gas Conservation Commission began, and I've held many responsibilities pertaining to environmental compliance and policy since. One of the most challenging issues that I soon encountered was the lack of in depth and up to date training offered to state employees. That was, until the opportunity to participate in the TOPCORP program was offered to me. As our industry moves forward, TOPCORP's training continually evolves as well by using the latest technology by providing online and classroom courses that cover petroleum geology and engineering concepts, petroleum technology, environmental management technology, and emerging industry topics. The educational product offered by TOPCORP provides training for regulatory professionals of all levels of experience and knowledge. Throughout the program's three modules, I continuously found myself learning new things and being presented with new ideas that I feel will allow me to broaden my skill set and understanding of our industry.

The faculty and researchers of the universities that make up TOPCORP have put together an educational program that should serve as a shining example for others in industry, government and the public. The program personifies what true environmental partnership is all about and what benefits it offers to all, and would make a worthy recipient of a Chairman's Stewardship Award.

Sincerely,

A handwritten signature in blue ink that reads "Lucas Keeler". The signature is fluid and cursive.

Lucas Keeler
Wyoming Oil and Gas Conservation Commission
Inspection Specialist

The University of Texas Austin
200 E. Dean Keeton STOP C0304
Austin, Texas 78712
July 26, 2017

Dear IOGCC Chairman Stewardship Awards Committee:

It is with great pleasure and honor that I nominate TOPCORP for consideration for the category of Environmental Partnership in recognition of their outstanding work and meticulous attention to detail in their energy training program. I have been through all three of the exemplary courses in their program. I have had a significant amount of training within Michigan since I started with the State. The program that TOPCORP has put together has taken quality and detail to another level that should be a nationwide standard. It is my opinion that the excellence that has been achieved in the program would not have been possible without a strong partnership between industry and the three universities.

The classroom and field courses were extremely well done and it was obvious that industry and the regulators were thoroughly involved in the selected course material. There had to be a high level of careful planning to coordinate such a well-done program at each of the three states that I visited. The online course portion of the program was very professionally done. On my first trip, another inspector indicated he had little training in his state. Because of his background he had learned a significant amount from the online courses and was extremely grateful to be a part of the group.

Each aspect of the program was well thought out; one of the most important highlights was the networking provided as a part of the training. Not enough can be said about how important the networking portions were. I made strong connections with inspectors from other parts of North America. I have been in contact with many peer inspectors since my time in the program. This may not have been possible without the networking during my time there. I recently communicated with another inspector from Colorado about an issue in Michigan and it helped achieve a solution to the problem.

It was obvious during my time in the program that TOPCORP has a high level of commitment to take every attendee's experience seriously, and there is a strong desire to improve an already powerful program. I could not think of a more perfect example of Environmental Partnership when it comes to recommending TOPCORP for this category. I hope that this letter helps in the decision process for the nomination in this category. If there are any questions please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "David Lawrence", with a stylized flourish at the end.

David T. Lawrence
Senior Geologist
Oil, Gas, and Minerals Division
Michigan Department of Environmental Quality
Gaylord Field Office
Phone: 989-705-3419
lawrenced@michigan.gov

To whom it may concern,

I am writing this letter in support of TOPCORP's nomination for the IOGCC Chairman Stewardship Award in the category of Environmental Partnerships.

I had the privilege of participating in TOPCORP's program in 2015 (Denver, Colorado), 2016 (Pennsylvania) and 2017 (Austin) and found the program highly beneficial. I have been employed at the Railroad Commission of Texas as a field inspector since 2005. The TOPCORP training, with its unique format of online, classroom and field components, provided a refreshing opportunity to expand my knowledge of the oil and gas industry.

I believe the unique aspect of TOPCORP derives from three universities, Colorado School of Mines, Penn State and the University of Texas at Austin, partnering closely with industry to deliver a highly skilled training program. The opportunity to travel to other states for field components of this training was instrumental in reinforcing the information provided.

The online component of the training was straightforward, and I enjoyed the ability to cover the material at my own pace. At Penn State I received field training on the interpretation of cement bond logs. The information was highly specific and has enabled me to excel in my current profession. The classroom component of TOPCORP's training offered many types of highly specialized training through different simulation labs that is not typically available to field personnel at the Railroad Commission of Texas.

The opportunity to participate in TOPCORP training has resulted in a great advantage to my understanding of the actual processes undertaken by the oil and gas industry. I also believe the networking provided by the classroom training enhanced my understanding of other governmental regulatory agencies and their efforts.

Thank you for your consideration of my letter of support.

Best wishes,
Tammy Shelton
Lead Technician
Railroad Commission of Texas



August 01, 2017

The Honorable Asa Hutchinson
Chairman, Stewardship Awards Committee
Interstate Oil and Gas Compact Commission
PO Box 53127
Oklahoma City, Oklahoma 73152

RE: The 2017 Chairman's Stewardship Awards

Dear Mr. Chairman:

We take this opportunity to recommend the nomination of the TOPCORP and its Energy Training program for the Chairman's Stewardship Award for Environmental Partnership, 2017.

The Government of Canada's goals to reduce the impact of fossil fuel emissions while transitioning to a low-carbon economy, as outlined in our Federal Sustainable Development Strategy, benefits from the contribution to environmental stewardship between U.S. and Canadian regulators.

TOPCORP has a unique vision: assisting in improving the environmental performance of the oil and gas sector via training provided by a consortium of three academic institutions with deep expertise in the sector, and funded by a diverse group of industry, regulatory agencies, foundations and environmental groups.

Canada has six provinces and one territory as International Affiliates of the IOGCC, and TOPCORP has enlarged its vision to include Canadian Provincial oil and gas regulators in its program. Several Canadian provincial regulatory agencies responded enthusiastically and Canadian participation over the past three years has included inspectors from Alberta (3), British Columbia (2), Nova Scotia (1) and Saskatchewan (1).

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August 01, 2017
The Honorable Asa Hutchinson
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The inclusion of Canadian regulatory officials could not have come at a more opportune time. The North American energy sector is becoming more integrated, enhancing the economies of all three NAFTA partners.

We commend TOPCORP for its work in bringing theoretical and hands-on expertise to inspectors in the field to enhance environmental stewardship across North America, which is a goal that the Government of Canada shares. The training that TOPCORP has provided helps all of us to achieve those goals.

Yours sincerely,



Sara Wilshaw
Consul General of Canada

SW/cl

July 31, 2017

Medicine Hat Field Centre
302, 346 - 3 Street SE
Medicine Hat, Alberta T1A 0G7
Canada

Dear IOGCC Chairman Stewardship Committee:

NOMINATION FOR ENVIRONMENTAL PARTNERSHIP

tel 403-527-3385
fax 403-529-3103

On behalf of the Alberta Energy Regulator (AER), we would like to nominate the TOPCORP Energy Training program for the IOGCC Chairman Stewardship award in the category of "Environmental Partnership".

www.aer.ca


The Alberta Energy Regulator ensures the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle. This includes allocating and conserving water resources, managing public lands, and protecting the environment while providing economic benefits for all Albertans.

Over the last 4 years, the AER has had several inspection staff participate in the inspector training program, attending workshops as well as accessing the online learning tools. The feedback from attendees has been extraordinary. Staff are impressed that this opportunity enables regulators to not only continue with their learning and development but enable a network of other oil and gas regulatory inspectors that often experience similar challenges to the ones that our organization faces. The greatest benefit is through the interaction of inspectors that experience similar challenges as ourselves in their respective regulatory agency.

Another key aspect of the training is the materials and sessions are not intended to be about policy. Instead they are focused on the science, technology, risks, and environmental issues in the oil and gas industry that are the same or similar no matter where you regulate in North America. This makes this a unique and diverse training program as it focuses on the "what" and "why" of the energy industry, leaving out the "how/policy" making this valuable training on energy development no matter where you are from; be it Canada or the United States. The design and delivery is also utmost quality, being that the 3 universities collaborate to develop stellar tools and resources.

As the AER strives to be an effective and credible regulator for Albertans, we look forward to expanding our involvement with the TOPCORP Inspector Training program and greatly appreciate the opportunity to be involved. Through networking and collaborating with partners in energy regulation, collectively we will continue to improve our balance of environmental protection as we develop our energy resources.

We believe TOPCORP is very deserving of this award. It takes a lot of time and effort to implement such a robust training program and we appreciate the opportunity to be involved. If you require any further perspective, please contact myself at 403-952-0070 or Rhonda.Busch@aer.ca.



Rhonda Busch

Learning and Development Coordinator