

2023 STLE Houston Section Lube School

Speaker Biographies and Abstracts

Track A

Lubrication Fundamentals – David Turner / Marty Graves

David Turner is a Sr. Technical Services Representative with the Lubricants Fluid Technology group of CITGO Petroleum Corporation in Houston, Texas. David is a graduate of Lamar University in Beaumont, Texas, holding a Bachelor of Science degree in Chemical Engineering. He has more than 40 years of experience in the lubricants industry, in formulation, manufacturing, selection, application, and technical service of lubricants and greases. He is a member of STLE and ASTM and has authored several papers for NLGI. He is the chairman of ASTM D02.G on Lubricating Grease and is co-chair of the NLGI Technical Committee. He is the recipient of the NLGI Clarence E. Earl Memorial Award (twice), the ASTM Award of Excellence, the NLGI Meritorious Service Award, the NLGI Fellows Award, the NLGI Chevron Lubricants Award, the NLGI Shell Lubricants Award for Instructor Excellence, the ASTM Eagle Award, the NLGI Award for Achievement, the NLGI Golden Grease Gun Award (twice) and the ASTM Sidney D. Andrews Scroll of Achievement. He is an NLGI Certified Lubricating Grease Specialist (CLGS), an STLE Oil Monitoring Analyst (OMA I), and an STLE Certified Lubrication Specialist (CLS).

Marty Graves is a recent retiree from the petrochemical industry, having had a long career with Amoco, BP, Castrol Industrial and INEOS Oligomers in a variety of different positions. His many assignments have ranged from R&D, performance testing, and technical support of synthetic lubricant base stocks to sales and technical support of industrial lubricants and metalworking fluids. A member of STLE since the last millennium, he holds both CLS and CMFS certifications. He graduated from DePaul University with an MBA in Leadership and Change Management and Elmhurst College with a BS in Business Management. He is an avid motorcyclist and, also, serves on local City Council.

This course will provide an overview of lubricants and their use. Major topics are lubrication fundamentals (wear, functions of a lubricant, lubricant composition, lubricant properties, types of lubricants), contamination control (water, particulates, air, other lubricants, built-in, added, breathers) and reliability topics (proper oil sampling, condition monitoring, lubricant tests and their meaning). Because of the nature of the class and the reference notes provided, this class is an all-day (morning + afternoon) class.

Track B

The Advanced Tribology of Automotive Applications and Components– Michael Holloway, 5th Order Industries

Michael D. Holloway has over 35 years' experience in industry. Michael started 5th Order Industry as the independent content development vehicle for competency development and certification preparation classes as well as projects ranging from ghostwriting, technical marketing, DIY articles and building learning management systems.

Education

University of Connecticut, Material Science, PhD Candidate

University of Massachusetts, Polymer Engineering, Master of Science

Salve Regina College, Newport, Rhode Island, Chemistry, Bachelor of Science

Salve Regina College, Newport, Rhode Island, Philosophy, Bachelor of Art

Salve Regina College, Newport, Rhode Island, Associate of Art

Certifications:

Six Sigma Green Belt, Black Belt trained through General Electric Plastics

CLGS – Certified Lubricating Grease Specialist, National Lubricating Grease Institute

MLE – Machinery Lubrication Engineer, International Council for Machinery Lubrication

CLS – Certified Lubrication Specialist, Society of Tribologists and Lubrication Engineers

OMA – Oil Monitoring Analyst, Society of Tribologists and Lubrication Engineers

MLT I, II – Machinery Lubrication Technician Level I & II, International Council for Machinery Lubrication

MLA I, II, III – Machine Lubricant Analyst Level I, II & III (ISO 18436-4, I, II, III), International Council for Machinery Lubrication

LLA I, II – Laboratory Lubricant Analyst Level I & II (ISO 18436-5), International Council for Machinery Lubrication

VPR – Varnish & Deposit Prevention and Removal, International Council for Machinery Lubrication

VIM – Varnish & Deposit Identification and Measurement, International Council for Machinery Lubrication

CRL – Certified Reliability Leader, Association of Asset Management Professionals

Authored the Following Books:

Spend Analysis and Specification Development Using Failure Interpretation, CRC Press, 2011

Dictionary of Industrial Terms, Wiley-Scrivener, 1st Ed. 2012, 2nd Ed. 2020

Process Plant Equipment: Operation, Reliability and Control, J Wiley, 2013

Journal of Sustainable Energy Engineering, Vol. 1, Issue 1, Wiley-Scrivener, 2014

Fracking: The Operations and Environmental Consequences of Hydraulic Fracturing, Wiley-Scrivener, 2015

Kirk-Othmer Encyclopedia of Chemical Technology, Chapter on Fracking Operations, Energy Section, J Wiley, 2016

Environmental Aspects of Oil & Gas Production, Chapters 5, p. 62-84, Wiley-Scrivener, 2017

Fracking 2nd Edition: Investigations into the Environmental Consequences of Hydraulic

Fracturing, Wiley-Scrivener, 2018

Published 152 Commissioned Articles on DIY repair projects for a Mercedes Benz 450SL and vintage Porsche 911 including engine, transmission, and electrical repair, 2015-2017

Hydraulic Fracturing and Well Stimulation, a Primer on Hydraulic Fracturing Concerning Initiatives on Energy Sustainability, J Wiley – Scrivener, 2019

Machinery Lubrication Technician Level I & II Exam Preparation Guide, Industrial Press, 2022

The combustion engine and transmission sets used in ground transport have evolved into wondrous albeit complicated machines. The moving parts are made of intricate tolerances and novel alloys all while representing all the known aspects of tribology be it various wear mechanisms and lubrication regimes. This class takes a close look at the various scenarios, applications and tribological solutions with these systems.

Metalworking Fluid Additives – Steven Tang, Colonial Chemicals

Steven Tang - Bio

This presentation will cover an overview of performance additives used in the metalworking fluids (MWF). The emerging technology trend and the ongoing regulatory challenges for certain MWF additive technologies will be discussed in this presentation as well.

Root Cause Analysis – Identifying Friction and Wear Problems – John Cummins, Hydrotex

John Cummins is Executive Vice President of Product Technology and Investing Partner of Hydrotex LLP a Texas specialty lubricant and chemical company founded in 1936. Responsible for Research and Development, Technical Services and Dean of Hydrotex Lubrication University

40+ years of experience in the Lubrication Industry and 26 years of experience in the Grease Industry.

Retired Captain in the Naval Reserves with a military career spanning Vietnam through Desert Storm.

He is a member of Society of Tribologists and Lubrication Engineers (STLE), a Certified Lubrication Specialist (CLS™), member of the Society of Automotive Engineers (SAE) and the National Lubricating Grease Institute (NLGI)

He is a Contributing Writer for: TLT Tribology & Lubrication Technology (STLE); Compoundings (Magazine of the Independent Lubrication Manufacturers Association); Lube & Greases Magazine; and Reliability Magazine

This presentation will cover an overview

Applications of Artificial Intelligence (A.I.) in Oil Analysis – Aaron Payan / Sean LeTard, MRT Laboratories

Aaron Payan is the Director of Technology Development for MRT Laboratories. He holds a B.Sc. in Geology from Texas A&M University and is currently pursuing a M.Sc. in Computer Science at Georgia Institute of Technology. Mr. Payan has 6 years of experience working in chemical and oil analysis laboratories, and 4 years of experience in software development. His primary area of focus in software has been applications of artificial intelligence in scientific fields.

Sean LeTard is the Director of Operations for MRT Laboratories. He holds a B.Sc. in Forest Management from Louisiana State University. Mr. LeTard has 15 years of experience working in chemical and oil analysis laboratories. His primary area of focus is process management and process improvement. Mr. LeTard is a Certified Lubrication Specialist through the Society of Tribologist and Lubrication Engineers.

In this presentation, we discuss applications of AI towards oil analysis, with a specific focus on techniques that work to improve laboratory productivity and reliability of test results. We also discuss methods aimed towards automated detection of potential fluid/equipment issues, which can assist analysts and machine operators on targeted preventative maintenance."

Keynote Address

Breaking boundaries with bio-based - Taking the planet's original lubricant feedstock and proving you don't have to compromise on performance – Scott Porter, Dynamic Green Products

Scott Porter has been in sales, business development and manufacturing for 25yrs. He started his professional career in semiconductors but became interested in the lubricant space 14yrs ago. In 2016 Scott founded Dynamic Green Products (DGP) in CA, with the premise of changing industries through performance driven bio-based lubricants. In 2018 Scott relocated his family to Katy TX and moved the company HQ to Houston. As a bio-based lubricant manufacturer and marketer, Scott will share his insights on what he's experienced over the past few years, the good and less than good, and where they are headed. He wants you to know that this discussion is not a promotion of bio-based being the end-all-be-all but an important tool in your toolbox for more reasons than you might think.

This presentation will cover how bio-based lubricants can add value to your organization, your employees and your customers through performance and marketing. Shatter the market myth of compromise and reduce a bit of friction in the world.