# **LEGAL & ECONOMIC ASPECTS OF** PRODUCTION SHARING CONTRACTS

Presented by Dr Pedro Van Meurs & Mr Tom Valentine

**Module One:** 2-Day Legal Analysis of PSCs Terms & Issues (Mr Tom Valentine)

**Module Two:** 3-Day Economic & Fiscal Analysis of PSCs (Dr Pedro Van Meurs)

Rio de Janeiro

# What will this course cover?

This course will analyze in depth the key legal, fiscal and commercial aspects of Production Sharing Contracts. These complex agreements have often a number of fiscal formulas. This means understanding the way they work is crucial to ensure a smooth contract implementation. By utilizing a powerful economic model, participants will be able to carry out in-depth computer analysis of 35 countries around the world and enhance their understanding of Production Sharing Contracts.

# What will you learn?

- > Engage in thorough analysis of PSC's; which will aid in your negotiation or evaluation process
- > Learn the main PSC fiscal terms and ensure project commercial success
- > Benchmark successful PSC agreements from around the world and understand the pitfalls to avoid
- ➤ Enhance your ability to manage the implementation of PSC's
- > Learn the right PSC risk management strategies to ensure a successful project

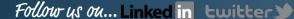
# Who will benefit?

- ➤ Government officials
- ➤ Country managers & external affairs ➤ Commercial advisers
- ➤ Managers
- ➤ CFOs & CFOs
- ➤ Tax advisers & fiscal issues planners
- ➤ Legal counsels
- ➤ License administrators
- ➤ Negotiators

- ➤ Executive strategy & planning managers
- ➤ Accountants
- ➤ Business development & corporate
- ➤ New ventures managers
  - ➤ Engineers & geophysicists
  - ➤ Lawyers
- > Economists & business analysts

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# Day 2 Module One: Legal Aspects of PSCs

# **Exploration & Production of Hydrocarbons in Brazil**

The Constitution, the Legislation and the Regulations.

The Regulation of Oil & Gas Activities: Administration in Brazil.

An overview of risks to the State: Risk Identification and Mitigation.

- > Minimum Work Programme
- > Counter-Party Risk: Joint & several liability &
- > Performance and Fiscal Guarantees
- ➤ Unitisation
- ➤ Good Oilfield Practices
- > Abandonment and Decommissioning Risks

# Title to Natural Resources

- > Concepts & terms: Understanding ownership & transfer of title
- > The concept of in situ mineral ownership
- > The Concessionary Model (an overview of Brazil)
- > Production Sharing Contracts (the new model agreement)

# Production Sharing Contracts in Brazil: A detailed Examination of the Agreement

- Clause 1: Definitions
- Clause 2: Purpose of the Agreement
- Clause 3: Contract Area
- Clause 4: Duration
- Clause 5: Cost Recovery in Oil
- Clause 6: Royalties
- Clause 7: Expenses Qualified as Research and Development and Innovation
- Clause 8: Taxes
- Clause 9: Sharing of the Profit Oil
- Clause 10: Exploration Phase
- Clause 11: Financial Guarantee of Exploratory Activities
- Clause 12: Discovery and Evaluation
- Clause 13: Declaration of Commerciality
- Clause 14: Production Phase
- Clause 15: Development Plan
- Clause 16: Date of Commencement of Production and Annual Production
- Schedules
- Clause 17: Measurement and Availability of Production Sharing
- Clause 18: Individualization of Production
- Clause 19: Implementation by the Consortium Members
- Clause 20: Control of Operations and Assistance by ANP and the Contractor

# Clause 21: Annual Work and Budget Schedule

- Clause 22: Data and Information
- Clause 23: Goods
- Clause 24: Staff, Services and Subcontracts
- Clause 25: Local Content
- Clause 26: Operational Safety and Environment
- Clause 27: Insurances
- Clause 28: Currency
- Clause 29: Accounting and Auditing
- Clause 30: Assignment of Rights and Obligations
- Clause 31: Relative Non Fulfillment and Penalties
- Clause 32: Termination and Resolution of the Contract
- Clause 33: Unforeseeable Circumstances, Force Majeure and Similar Causes
- Clause 34: Confidentiality
- Clause 35: Notifications, Requests, Communications and Reports
- Clause 36: Legal Regime
- Clause 37: Final Provisions

# Challenges Facing Brazil: Lessons Learned from Around the Globe. Workshop Review and Issue Checklist.

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# Day 3 Module Two: Economic Aspects of PSCs

# Discussion of Course Advanced Software

Inputs, outputs, price and cost sensitivity

### **PSC** - Introduction

- · The original Indonesian Model
- · Use of PSCs in various countries
- · Profit Oil, fixed and sliding scales
- · Cost Oil, cost limits and cost calculation
- Production and valuation of production
- · Payments in kind and in cash
- · Interest recovery

# Use of Bonuses and Rentals in PSCs

- · Signature and Production Bonuses
- Rentals
- · Recovery of Bonuses and Rentals

# **Government Take analysis**

- · Reference Case
- · Analysis of the PSC of the Philippines
- · Government Take analysis
- · Level of Government Take Introduction

# **PSCs and Geological Risk**

- · Geological Risk Sharing
- · Geological Risk Sharing Index
- GRSI and Corporate Income

# **PSCs and Timing of Government Take**

- · Front End and Back End Loading
- · Front End Loading Index

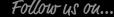
## Sharing of Resource Wealth

- · Progressive, regressive and neutral systems
- · Volume, price a cost progressivity
- · World overview of resource wealth sharing concepts
- · Progressivity concepts in PSCs

# **Volume Progressivity**

- · Volume progressivity per field or contract area
- Styles of volume progressivity
- · Analysis of daily production scale of Liberia
- · Analysis of cumulative production scale of Nigeria





- Windfall profit style features with profit oil, Malaysia
- · Price caps, Pakistan
- Analysis of PSC with volume and price progressive scales of **Trinidad and Tobago**
- Daily well production and price progressive scale of Brazil Pre-Salt

# **Cost Progressivity**

· Uplifts, Angola, deemed interest, China

Excess cost oil, Analysis of the PSC of Egypt

# **Profit Progressivity**

- IRR based concepts, Russia Sakhalin, Azerbaijan
- Analysis of IRR scale of Angola, Mexico
- R-factor scales, Nigeria, Iraq (Kurdistan)
- Analysis of R-factor scale of Azerbaijan

# Main types of PSCs considering other fiscal features-Overview

12 different types of PSCs

### **PSCs with Royalties**

- · Fixed royalties
- · Regional differentiation of royalties, Nigeria
- · Sliding scale based on volume, Vietnam
- · Other sliding scales, Pakistan, Guatemala
- Inter-action of PSCs and royalties, Malaysia, Gabon, Pakistan, Egypt

Analysis of PSC of Syria

# **PSCs with Corporate Income Tax**

- · Consolidation and Ring-fencing
- · Gross revenue determination
- · Deduction of payments to government and bonuses
- Deduction of operating costs and capital costs
- · Deduction of interest and loss carry forward, uplifts

Inter-action of PSCs and Corporate Income Tax, Egypt, Cote d'Ivoire, Indonesia, China, Nigeria

- Analysis of PSC of China
- · Analysis of PSC of Nigeria

# **PSCs and JOAs**

- IOA discussion, Carried Interest
- Fixed carried interests: Indonesia, Gabon, Malaysia, China
- · Participation Options
- PSCs and JOA styles
- · Analysis of PSC of Azerbaijan
- · Analysis of PSC of Gabon
- · Analysis of PSC of Libya

# **Day 5** Module Two: Economic Aspects of PSCs

# **PSCs and Windfall Profit Features**

· Windfall profit features

# **PSCs and Export Duties**

- Export Duties
- · Analysis of PSC of Vietnam
- · Analysis of PSC of Malaysia

# **PSCs and Resource Taxes**

Resource Taxes, Tanzania, Timor Leste

# Resource Wealth Sharing (detailed)

- PSC examples of volume progressivity
- PSC examples of price progressivity
- · PSC examples of cost progressivity

# World PSC oil production

· Review of world PSC oil production

### Fiscal Health

- · Encouraging maximum resource recovery
- · Encouraging cost efficiency
- · Gold Plating
- · Analysis of PSC of Angola
- Encouraging market price efficiency

# **Comprehensive Fiscal/Economic Analysis**

· Detailed analysis of Pre-Salt PSC of Brazil with discussion of pre-salt production and cost economics

# **Accounting Procedures**

- · Organization, Chart of Accounts
- Non-recoverable costs
- · Revenue credits
- Cost Allocation
- · Cost Control Procedures

Abandonment Costs

# **New Models**

- · The gross split contract of Indonesia
- · The gross revenue contract of India

### **Fiscal Stability**

- · Open ended and fixed systems
- Components of fiscal terms
- · Methods to enhance fiscal stability

# **Level of Government Take**

- · Mechanism to determine the level of government take
- Factors influencing the level of government take
- · Rating of PSCs

# PSCs for Oil and for Gas

- · Profit gas and cost gas definitions
- Separate terms for oil and gas
- · Trend towards more attractive gas terms
- Gas pricing mechanisms
- · Ratings of PSCs for Gas

# World Rating of PSCs for Oil

· Overview of world rating for PSCs for Oil

### **Booking of Reserves**

· Booking of Reserves

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Course Participants will receive a perpetual license to the advanced course Excel based software, including the input sheets. The price of this software is included in the course fee. Below is the description of inputs and outputs of the model.

# **Project Inputs**

- > 6 examples of Deep Water Oil Fields, based on constant costs and scoping analysis
- 6 examples of Deep Water gas Fields, based on scoping analysis
- 6 examples of Shallow Water Oil Fields, based on constant costs and scoping analysis
- 6 examples of Onshore Oil Fields, based on constant costs and scoping analysis
- > 4 estimates of the Brazil Pre-Salt Libra field

# Fiscal System Inputs

Angola, Azerbaijan, Brazil (Pre-Salt), Egypt, Gabon, India, Indonesia, Kenya, Liberia, Libya, Malaysia Nigeria, Philippines, Russia (Sakhalin), Syria, Trinidad & Tobago and Vietnam.

### **Economic Outputs**

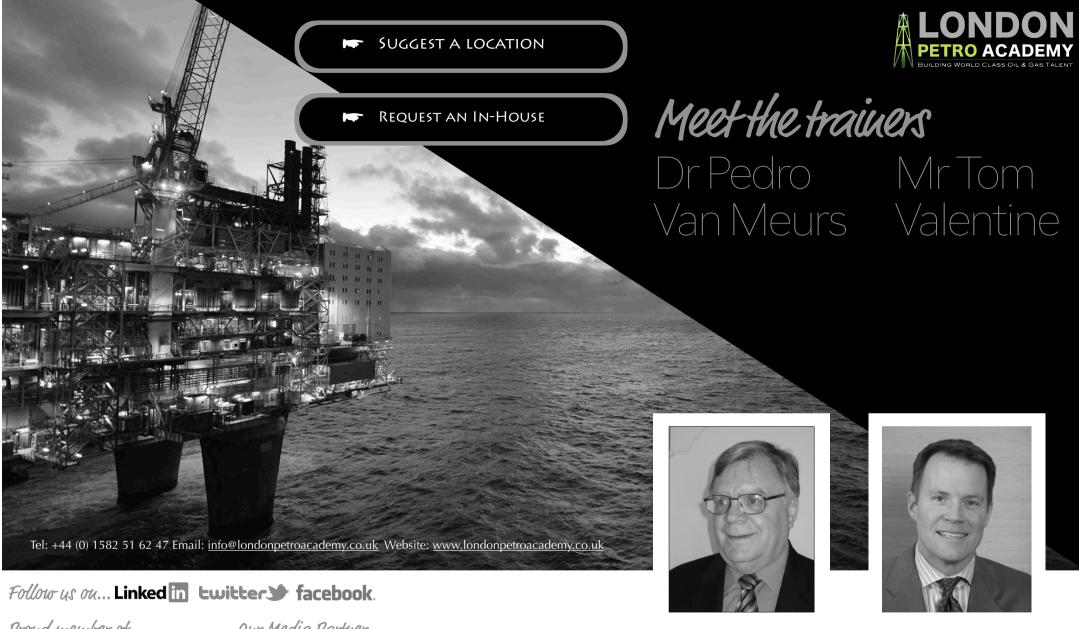
Detailed cash flow of corporate results, Results at every selected discount rate, IRR, NPV, NPV/BOE, Profit/ Investment Ratio, Risk Investment Ratio, Maximum Sustainable Risk, Payout Time, NPV/Discounted BOE

Detailed cash flow of all government payments, Payments at every selected discount rate, Government Revenues, Discounted Government Revenues, Government Take, Discounted Government Take, Risked Government Take, Government Income and Participation, JV State Company cash flow and profitability.

Price sensitivity analysis for 12 price levels for all corporate and government economic outputs, Cost sensitivity analysis for 16 cost levels for all corporate and government economic outputs, Marginal NPV, Cost Savings Index, Price Incentive Index, Front End Loading Index, Government Risk Sharing Index







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Thomas E. Valentine

# Senior Partner: Energy

Practicing as a Partner with Norton Rose Canada (previously Macleod Dixon) Tom has more than 25 years of experience in the oil and gas industry, both as a barrister and as a solicitor.

Tom's focus is on international energy projects, with a particular emphasis on gas and LNG. In 2002 and 2003 Tom and his family lived in Doha, Qatar, where Tom was Senior Counsel (Projects) with Qatar Petroleum, the national oil and gas company for the State of Qatar. While in Qatar Tom acted for Qatar Petroleum, as well as both Qatargas and RasGas.

Since returning to Canada Tom has continued his work on LNG projects around the globe. He has advised both governments and project sponsors on LNG projects in Canada, the U.S.A., Peru, Cyprus, India, Australia, Uruguay, Nigeria, Yemen, the UAE, and Iran.

Tom also offers three and four day training seminars around the world on LNG Contract Law and LNG Project Structuring appearing regularly in Doha, Dubai, London, Houston, Brazil and Singapore.

Year of call Alberta 1987 Law school LL.M., London School of Economics, 1989 LL.B., Dalhousie University, 1986 Education B.A., University of British Columbia, 1983

# Speaking engagements

- "World Legal Systems for Repsol: 4-day Course" (course leader), London Petro Academy, London, 23-26 April 2018
- "Gas and LNG Contract and Negotiations: 5-day Course" (course leader), London Petro Academy, London, 27 Nov 1 December
- "World Legal Systems for Repsol: 5-day Course" (course leader), London Petro Academy, In-House for SONATRACH & ALNAFT, Algeria, 21-25 May 2017.
- "Oil & Gas Tendering & Contracts: 3-day Course" (course leader), London Petro Academy In-House for SONATRACH & ALNAFT Algeria, 18-20 September 2016 and 23-25 October 2016.
- "Production Sharing Contracts Advanced Master Class for Petrobras: 5-day Course" (course leader), CWC School for Energy, Rio de Janeiro, Brazil, June 29-July 3, 2015.
- "Production Sharing Contracts: 3-day Course" (course leader), CWC School for Energy, Rio de Janeiro, Brazil, May 27-29, 2015.
- "NAPE" (North American Prospect Expo) (key speaker and presenter), Houston, Texas, February 10-11, 2015.
- "Gas & LNG Contracts: 2-day Course" (course leader), CWC School for Energy, Doha, Qatar, January 21-22, 2015.
- "Gas & LNG Contracts: 3-day Course" (course leader), CWC School for Energy, Singapore, December 3-5, 2014.
- "Production Sharing Contracts: 3-day Course" (course leader), CWC School for Energy, Rio de Janeiro, Brazil, October 6-10, 2014.

# **Publications**

"The Law and Business of Liquefied Natural Gas" (book review), Journal of Energy and Natural Resources Law, spring 2008.

"Liquefied Natural Gas: The Law and Business of LNG" (book review), November 2007.

"The World is Watching: Increased Interest in Alberta's Oil Sands," Oilweek, October 2004.

"LNG Project: A Legal Framework," Oilweek, September 2004.

"Canada's West Coast Positioned for LNG Success," Oilweek, August 2004.

"The World LNG 14 Conference: Another Success Story for Qatar," Oilweek, May 2004.

# Biography

Mr Tom Valentine





During the last 40 years Pedro has worked on fiscal oil and gas issues with more than 80 governments around the world.

Born

February 14, 1942 in The Netherlands

Education:

1970 PhD (Cum Laude) Economic Geology

State University, Utrecht, The Netherlands

Languages:

English, French, Dutch, Spanish and some German and Russian

Professional Associations:

Royal Geological and Mining Society of the Netherlands

Canadian Institute of Mining and Metallurgy, Petroleum Section

Employment History:

1974 - to date, President of Van Meurs & Associates Limited and subsequently, Van Meurs Corporation

1970 - 1973, Chief, International Petroleum Developments Division, Department of Energy, Mines and Resources, Federal Government of Canada

1967 - 1970, Assistant Professor, State University, Utrecht The Netherlands

**Honorary Appointment:** 

Honorary Lecturer with the University of Dundee Centre for Energy, Petroleum and Mineral Law and Policy

Books:

1971, "Petroleum Economics and Offshore Mining Legislation"

1981, "Modern Petroleum Economics"

**Publications:** 

Most recent publication: "World Fiscal Systems for Oil" - 2002

**Training Courses:** 

Provides yearly a course in London and Singapore for London Petro Academy in World Fiscal Systems for Oil and Gas. Also provides yearly in-house courses for Shell and Statoil.

Conference Organization:

Organized and co-authored publications for several conferences:

"Natural Gas Clauses in Petroleum Arrangements", UNCTC 1985, Bangkok, Thailand

"Fiscal and Administrative Strategies for Petroleum Exploration and Development", UNCTC, 1991, Kuala Lumpur, Malaysia

Major Accomplishments:

- Negotiated terms and conditions of the provincial offshore leases of Newfoundland (1974-80) and is currently assisting in developing new fiscal terms for gas
- Negotiated Inuvialuit Final Agreement (1976 84), one of Canada's largest aboriginal land claims settlements
- Was key advisor to the Chinese National Offshore Oil Corporation (CNOOC) (1980 84), in preparation of model contract and organization of bidding rounds.
- Was main author of the first comprehensive Canadian energy policy document "An Energy Policy for Canada", 1974
- Was main consultant in Thailand for the redrafting of the Thai petroleum law and fiscal system (1979 1987)
- Was chief consultant on the reorganization of the petroleum sector in Guatemala (1975 80)
- Was key contributor to the petroleum diagnostic study for Gabon (1991 1993)
- Was advisor with respect to the drafting of the Law on Concessions and Production Sharing Contracts in Russia (1992 1993)
- Was President of IPC, a small Alberta petroleum company, increasing production from 350 to 4000 barrel of oil per day equivalent between 1987 and 1993, entirely from
  cashflow.
- Was main advisor with respect to the new petroleum law in Bolivia (1994 1996) and the related capitalization of YPFB
- Is currently chief economic advisor to KOC with regard to determining fiscal terms for the North Kuwait oil fields
- Was main economic consultant for PEMEX on the Multiple Services Contracts.
- Was lead economic advisor on the Alaska Pipeline Project and PPT legislation.
- Was senior economic advisor on the implementation of the PRT law in Algeria.



Dr Pedro Van Meurs

