



# Target Exploration

Energy Geosciences Research & Development

**Target Exploration's Course TarC-3**

## Petroleum Geology and Typical Fields of the Sultanate of **Oman**

**Two Days Course**

**Instructor: Salah Al Dhahab, *PhD.***

**Dates: TBD (To be decided)**

**Venue: Somerset Hotel, Panorama Mall, Muscat, Oman**

**Organized by Target Exploration Consultants Ltd, UK.**

**[www.TargetExploration.com](http://www.TargetExploration.com)**

SALALAH MIRBAT

## Why Oman?

**Oman has been a pioneer** in identifying, exploring, discovering, developing and producing Precambrian, Cambrian and Paleozoic sourced reservoirs in the Middle East, as well as in massively producing and the first to introduce Solar Oilfields in the Middle East to produce heavy oil and unconventional oil and gas reservoirs in MENA. **Oman provides proximal analogues** for other MENA countries in innovative exploration plays, developing methods and production profiles of sub Infra-Cambrian Precambrian reservoirs, Paleozoic reservoirs (Cambro-Ordovician sandstones and Permian Khuff carbonates), Mesozoic reservoirs (Mishrif and Shuaiba Reservoirs) and Cenozoic reservoirs yet to be explored in other MENA countries.

**This course is a comprehensive** introduction to the Petroleum Geology and Oil and Gas Fields of Oman in the form of a public course focusing on the fascinating petroleum geology, exploration plays and sandstone, carbonate, glacial and volcanoclastic reservoirs of typical oil and gas fields of Oman. Petroleum Geology and Typical Fields of Oman, is the only course that provides:

- An introduction to the history, current practices and evolving strategies of Oman's Oil and Gas Industry.
  - A comprehensive regional account of the tectonic evolution, sequence stratigraphy and petroleum systems of the multiple oil and gas fields, traps and exploration plays of Oman.
  - Detailed analyses of the main producing reservoirs with emphasis on field's development challenges in Oman.
  - Detailed analysis of the exploration opportunities in Oman and analogues in onshore and offshore areas of the Arabian Gulf countries.
- The main objectives of this course are:
- Deliver a wide-ranging coverage of Oman upstream petroleum industry challenges and opportunities that are very relevant to any one working on upstream new venture, exploration of field development of Oman, as well as senior managers in the upstream sector who are interested in understanding the regional Petroleum Geology of onshore and offshore Oman.
  - Provide a common background foundation to new and seasoned geologists and petroleum engineers working in conventional, unconventional, heavy oil, light oil, gas and solar oilfields projects of the Omani upstream oil and gas industry, including but not limited to: geoscientists, petroleum engineer (drilling engineers, reservoir engineers and Petrophysicists).

**The course document is comprehensive reference** on the Petroleum Geology and typical fields of Oman for several years to come, as in addition to the regional tectonic elements and the Phanerozoic sequence stratigraphy; the course materials covers almost all of the oil and gas bearing regions, blocks fields, and reservoirs in Oman, it is a must have reference to:

- Petroleum Geologists working in or planning to work in or on Oman.
- Petroleum Engineers, Well Engineers and Drilling Engineers working in Oman.
- Newly hired or arrived staff and seasoned petroleum companies staffs who have been working on Omani fields or blocks and lost touch with recent regional developments.
- Investors and new-ventures staff interested in exploration, field developments and production operations in Oman.

**For in-house version of this course and other Target Exploration's courses and field-trips contact:**  
**Dr Muhammad W. Ibrahim, via Tel. (+44) (0) 2073712240 or [mw.ibrahim@targetexploration.com](mailto:mw.ibrahim@targetexploration.com)**

# Course Agenda

## Day One

- HSE moment and course presenter introduction
- Participants introduction and pre-Day-1 questions
- Oman oil and gas history (1925 to 2015+)
- The story behind the sustained growth rate of Oman oil production
- The evolution of Oman oil and gas industry
- Oman Petroleum Geology: Regional surface and subsurface stratigraphy
- Oman Petroleum Geology: Regional petroleum plays and their distribution
- Oman Petroleum Geology: Origin and distribution of hydrocarbon source rocks,
- Oman Petroleum Geology: regional structural geology
- Regional Cretaceous stratigraphy of Oman
- Upper Shuaiba reservoirs
- Lower Shuaiba reservoirs
- Natih reservoirs
- End of day 1 discussions

## Day Two

- Review of Day-1 and Pre-Day-2 discussions
- Regional Permian stratigraphy of Oman
- Khuff reservoirs
- Gharif reservoirs
- Regional Carboniferous stratigraphy of Oman
- Al Khlata reservoirs
- Regional Ordovician stratigraphy of Oman
- Haima super-group
- Barik reservoirs
- East Flank Mahatta Humaid Group
- Regional Pre-Cambrian stratigraphy of Oman
- Athel Silicilyte
- Ara Salt – carbonate stringers
- Regional Tertiary Stratigraphy of Oman
- Unconventional shale oil and gas: focus on Natih B
- EOR projects and deployment of new technology (e.g. Solar Oil Fields of Amal)
- Oman oil and gas upstream: the way forward – Discussion
- End of Day 2 discussions
- Final course questions, and Course Evaluation Forms filling



## Participants Take-home:

- A. Course materials with up to date key reference list per section
- B. Certificate of course completion

## Course Logistics

Date	Venue
TBD	<a href="#">Somerset Hotel, Panorama Mall, Muscat, Oman</a>
Timing	Course starts at 08:00 am and ends at 16:00 pm
Language	English
Format	4 sessions of 1.5hr each, 2 Refreshments and 1 Lunch breaks/Day
Ideal Number	19 Participants

## The Instructor

### Dr. Salah Hafidh Hashim Al Dhahab, *PhD.*

Earned his PhD on Fractured Reservoirs of Oman from Heriot Watt University and his BSc (Honors) in Petroleum Geology from the Imperial College, UK. Dr. Salah has over 20 years' experience in international oil and gas industry. He joined PDO as operation and development geologist in charge of well proposals to FDP, then moved to E&P research and worked on deployment of new technologies. Then, as chief geologist, petroleum manager to upstream technical advisor. He is currently the appointed Senior Geological Advisor and Chief Geologist of Daleel Petroleum of Oman. His impressive CV includes:



- Work for PDO, Shell EPT, Knowledge Reservoir petroleum consulting company, Oman Oil (upstream investment company), OOCEP (established by NOC) and Daleel Petroleum (operating in Oman).
- Hands-on work experience on several types of field developments including primary pure depletion, to secondary water flooding to Tertiary thermal GOGD & thermal flooding. Analyzed data at several scale from well scale to field scale to regional scale.
- Work on many oil and gas fields, including but not limited to the following: Most of PDO north & central Oman fields, West Bukha offshore Oman, Rima field, Block 60 deep tight gas reservoir, Block 42 exploration and Block 5 (Daleel Field). Internationally, on UAE (Bab field), Qatar (North Dome), Iraq (Kirkuk field) and Caspian (Kashagan).
- Review of several assets including: Oman blocks (3, 4, 15, 17, 30, 36, 38, 51, 54, 55, 56, 61, 63, 64 and 65), as well as blocks in Yemen, Egypt, Albania, Iraq, Syria, East Africa and Turkmenistan while working as technical advisor within OOC/OOCEP's new venture's acquisition team.

Dr. Salah represented OOC/OOCEP (as investors) in exploration of offshore Oman Sea (block 18/41), Kareem Small Field and Rima satellite fields (Oman PDO service contract), Oman Block 53 Mukhazina steam flood project, Block 62, Kazakhstan Dunga and Pearls assets. Last but not least Salah is blessed with good interpersonal and managerial skills; managed several projects (resources: budget and manpower) over the years, and has an established track record of excellent performance and results.

## Earlier Courses Feedback

**Salah Al Hajari, Ministry of Oil and Gas Oman, Muscat, Oman, 2016:** *“Really I think this course is distinguished among the courses that I have attended. It is more like a proposal of a book of the petroleum geology of Oman. Moreover, I think this course will be highly beneficial for new graduates joining different operators in Oman.”*

**Saif Al Balushi, Ministry of Oil and Gas Oman, Muscat, Oman, 2016:** *“Very useful to investors in Oman’s open acreage by introducing Oman Petroleum Systems. I recommend increase of audiences to improve communications among Jr. & Sr. multidiscipline technical people from different companies, MOG and other governmental entities.”*

**Safia Al Sinani, Ministry of Oil and Gas Oman, Muscat, Oman, 2016:** *“My background is geology and this course was valuable to me especially the linking between the formations and their locations in Oman map. I recommend this course for new employees of the Oil and Gas sector in Oman.”*

**Marie-Célia JIMENEZ, EP/EXPLO/MENA/Arabia-Zagros, Total, Paris, France, 2017:** *“An excellent course that provides a complete and clear vision of the geology of Oman and the main oil and gas fields geology and development. Highly recommended for Explorationists and reservoir geoscientists.”*

**Erik Palmlov, Svenska Petroleum Exploration AB, Stockholm, Sweden, 2017:** *“Really good course, excellent instruction, good interaction with audience, lets questions you have asked and explains them.”*

**Najla Moosa, BP Exploration (Epsilon) Limited, Muscat, Oman, 2017:** *“Very useful and interesting training. I learned a lot and gained a good overview of Oman’s Oil & Gas.”*

## Covid-19 Pandemic Protections Measures

The Covid-19 Pandemic may be over well before this event, otherwise the following conditions applies:

1. Bring a recent (< 4 days) PCR Test Certificate with you to the event’s registration desk.
2. Body temperatures of managers, catering staff, lecturer(s) and attendees will be monitored by a certified professional at the registration desk and during the event.
3. Minimum seating distance arrangement of 2+ meters will be maintained throughout the event and tea/lunch breaks.
4. Face masks and sanitation fluids will be provided free of charge by the event organizer, to be used by all attendees during the event.
5. Only disposable plates, cutlery, cups and napkins will be used during the event.



## Registration Form

### Course TarC-3: Petroleum Geology and Typical Fields of Oman

Date	Venue	Select
TBD	Somerset Hotel, Panorama Mall, Muscat, Oman.	

#### PERSONAL DETAILS

Delegate	Name	Delegate	Name
1 <sup>st</sup> Delegate		6 <sup>th</sup> Delegate	
2 <sup>nd</sup> Delegate		7 <sup>th</sup> Delegate	
3 <sup>rd</sup> Delegate		8 <sup>th</sup> Delegate	
4 <sup>th</sup> Delegate		9 <sup>th</sup> Delegate	
5 <sup>th</sup> Delegate		10 <sup>th</sup> Delegate	

#### PAYMENT DETAILS

Registration fee is US\$ 3,500 per participant. There is escalating group registration discounts as in the table below.

Number of participants	Registration Fee in US\$ /Participant
One to Five Participants (1 - 5)	3,500
Six to Ten Participants (6 - 10)	3,250
More Than Ten Participants (> 10)	3,000

Bank Transfer: Send Bank Account Details of Target ECL to: \_\_\_\_\_

To register, please fill and e-mail this registration form to: [target@targetexploration.com](mailto:target@targetexploration.com).

Course registration payments should be credited to Target Exploration Consultants bank account no later than 30 days before course date. Payment receipts are proof of course registration.

For any other information, contact Dr. Muhammad W. IBRAHIM, Target Exploration Consultants. 65 Kenton Court, London W14 8NW, UK. Tel: +44 (207) 371 2240, [m.ibrahim@targetexploration.com](mailto:m.ibrahim@targetexploration.com).

**No refund for cancellation within 30 days of the course date**