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SYEDA AREEBA AYAZ

Geoscientist

Summary

Goal-driven and results-oriented geologist equipped with international experience of both, conventional and unconventional hydrocarbon exploration. A team player utilizing a multidisciplinary approach to various challenges and able to utilize both the focused approach and multitasking capabilities.

Education

- 03/2012 - 07/2016
Ph.D. Unconventional Geosciences
The University of Queensland, Australia.
- 01/2009 - 12/2009
M.Sc. Petroleum Geoscience
The University of Karachi, Pakistan.
- 01/2006 - 12/2008
B.Sc. (Hons.) Geology
The University of Karachi, Pakistan.

Professional Experience

Geoscience Consultant – 01/2017 to date

Independent Consultant, Canada.

Providing exploration and development geology solutions, formation evaluation and basin analysis. Projects include:

- Formation evaluation of southern Alberta Fields for Silverleaf Resources Ltd.
- Analysis of tuff - rich reservoirs – Bowen-Galilee-Sydney Basins, with University of Queensland, Brisbane.
- Evaluation of depositional rate variation with subsidence/ or basement topography, insights from Bowen Basin and Western Canadian Sedimentary Basin.

Research Fellow Ph.D. - 03/2012 - 12/2015

The University of Queensland, Brisbane, Australia.

Accomplished low permeability reservoir exploration and development projects in collaboration with the University of Queensland. Projects include:

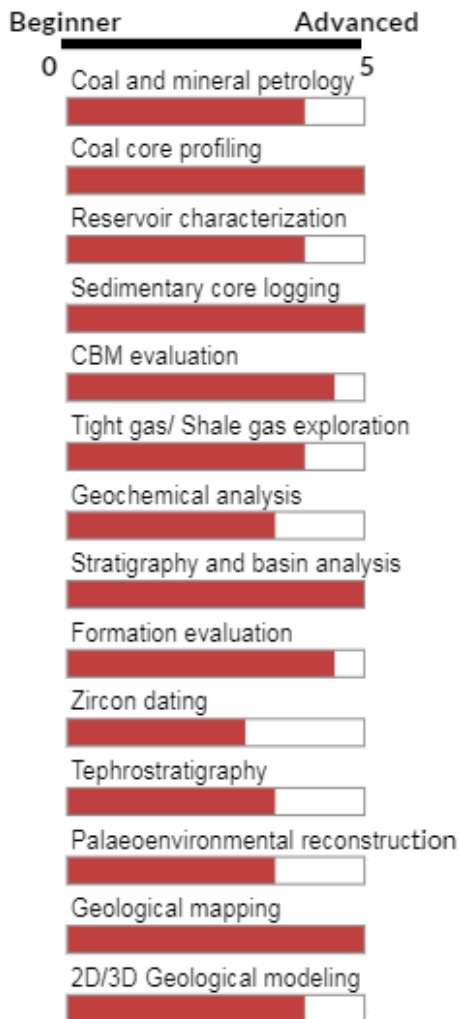
- **BMA -BHP Alliance project** for developing a stratigraphic framework and mapping of tuffaceous reservoir at Goonyella mine.
- **Rio - Tinto project** for structural and stratigraphic analysis of coal measures at the Permian Bowen Basin.
- **QGC-BG unconventional exploration project** as part of doctorate degree, which involved regional stratigraphy, sedimentology, paleoenvironment, geochemistry, zircon age dating and gas analysis of **low permeability reservoir**.

Teaching Assistant - 08/2012 - 05/2015

The University of Queensland, Brisbane, Australia.

- Taught Formation evaluation and Petroleum geoscience course to Petroleum engineering, master's level.
- Taught Ore body modeling, basic mapping and mineralogy course to Geology, undergraduate level.

Professional Competencies



Interpersonal Competencies

- Critical thinking
- Perserverance
- Flexible
- Time management
- Decision making
- Teamwork
- Excellent oral and written communication
- Optimistic approach

Technical Assistant - 04/2013 - 05/2013

QGC-BG Company, Brisbane, Australia.

- Worked with team of **unconventional exploration** department and accomplished subsurface correlations, mapping and modeling of highly structured Permian strata in the Bowen Basin.

Petroleum Geologist - 09/2011 - 02/2012

Weatherford Oil Tools M.E. Ltd, Pakistan.

- **Achieved core behavior award** for initial shale gas work in Pakistan. Published part of the work as *Haider, B.A., Aizad, T., Ayaz, S.A. and Shoukry, A., 2012. A comprehensive shale gas exploitation sequence for Pakistan and other emerging shale plays, SPE (163123).*
- Performed wireline log analysis on various client projects.
- Actively participated in business development of conventional and unconventional resource projects in Pakistan including client management, presentation delivery, and technology assessment.

Trainee Geologist - 01/2011 - 08/2011

Weatherford Oil Tools M.E. Ltd, Pakistan.

- Achieved excellence in advanced wireline log processing and interpretation.

Intern Geologist - 01/2010 - 02/2010

Weatherford Oil Tools, Karachi & Thar region, Pakistan.

- Performed field based study on **CBM Prospects of Thar Coal, Sindh**, including coal core logging techniques and coal analysis. The laboratory work was conducted at the University of Karachi and in collaboration with Centre of pure and applied geology, University of Sindh, Jamshoro.

Intern Operations Geology - 06/2009 - 07/2009

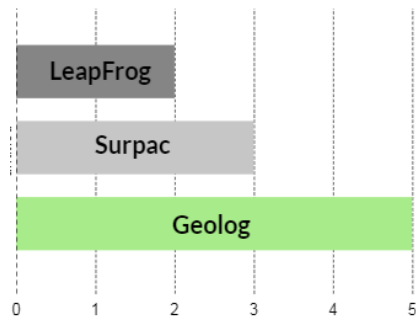
BP Exploration and Production Inc., Pakistan.

- Acquired training for a wellsite geologist at Badin field, Sindh.
- Prepared well completion reports and learned reservoir volumetric calculations.

Software Skills

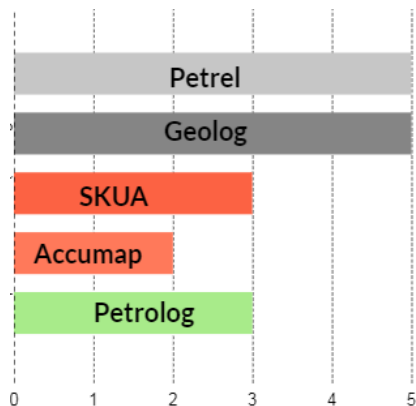
Mining

(Level 0-Beginner to 5- Advanced)



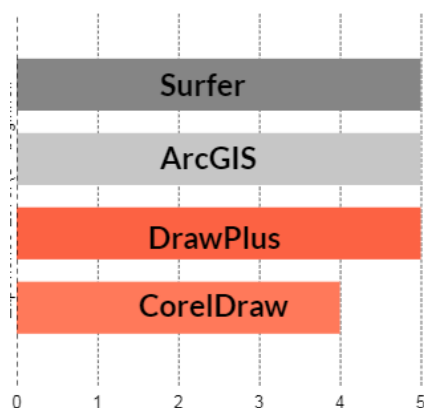
Geological modeling & formation evaluation

(Level 0-Beginner to 5- Advanced)



Mapping & Drawing

(Level 0-Beginner to 5- Advanced)



Training/ Courses

- **CBM Stimulation course:** what every geoscientist should know about fracturing design, execution and evaluation for CBM reservoirs.
By Dr. Ray Johnson, The University of Queensland, Australia.
- **Coal Petrology Training.**
By Dr. Walter Pickel and Prof. Claus Diessel, International committee for coal and organic petrology at CSIRO Australia.
- **Scanning Electron Microscopy and EDS training.**
By Centre of microscopy and microanalysis, The University of Queensland, Australia.
- **Shale gas geology and evaluation from the perspective of Duvernay and Montney shale.**
By Canadian Society of Petroleum Geologists.
- **Shale Gas Geomechanics:** drilling optimization and production.
By Dr. Hamed Soroush, Weatherford Oil Tools M.E. Ltd.
- **Sedimentology and stratigraphy of fluvial systems.**
By Prof. Adrian Hartley, The University of Aberdeen, UK.
- **Clastic depositional systems.**
By Prof. Mike Bum University of Kansas, US.
- **Open Hole Petrophysics 1.**
By Paul Kalathingal, Weatherford Abu Dhabi Technology Centre.
- **Well Site Operations**
By Geo-Axis Company, Pakistan.

Awards

- **University of Queensland international (UQI) Ph.D. Scholarship**
- **QGC-BG Research fellowship**
- **Core behavior award of innovation**
From Weatherford Oil Tools M.E. Ltd, on [coal and shale gas work](#).
- **Gold medal awards of year 2010 and 2011.**
Highest GPA Score 4.0/4.0 in masters from University of Karachi.
- **Top scorer scholarship from Youth Pakistan**
Highest GPA Score 4.0/4.0 in bachelors from University of Karachi.
- **Federal government high merit scholarship.**
For scoring highest marks in bachelors from University of Karachi.

Professional Affiliations

Organizing Committee Member

- Geowomen Calgary, Division of Canadian Society of Petroleum Geologists

Active Member

- Canadian Society of Petroleum Geologists (CSPG)
- Association of professional geoscientists Ontario (APGO)

Geoscience Communication

Peer reviewed publications

- *Ayaz, S.A., Esterle, J.S. and Martin, M.A., 2015. Spatial Variation in the Stratigraphic Architecture of Fort Cooper and Equivalent Coal Measures, Bowen Basin, Queensland. Australian Journal of Earth Sciences, 62(5): 547-562.*
- *Ayaz, S.A., Esterle, J.S. and Martin, M.A., 2015. Stratigraphic architecture of the Fort Cooper and Equivalent Coal Measures, Bowen Basin. In: Beeston, J.W. (Editor), Bowen Basin Symposium 2015-Bowen Basin and Beyond. The Geological Society of Australia Inc. Coal Geology Group and Bowen Basin Geologists Group, Brisbane, pp. 165-170.*
- *Ayaz, S.A., Martin, M.A., Esterle, J.S., Amelin, Y. and Nicoll, R.S., 2016. Age of the Yarrabee & Accessory Tuffs: Implications for the Late Permian sediment accumulation rates across the Bowen Basin. Australian Journal of Earth Science, 63(7): 843-856.*
- *Ayaz, S.A., Rodrigues, S., Golding, S.D. and Esterle, J.S., 2016. Composition and Palaeoenvironment of the Volcanolithic Fort Cooper Coal Measures, Bowen Basin, Australia. International Journal of Coal Geology 166:36-46.*

Presentations

- Variability in sediment accumulation rates of the Permian strata in the Bowen Basin, using absolute zircon dating. [Geoconvention 2019, Calgary, Canada.](#)
- Regional stratigraphic architecture validated through key tuff horizons. [Bowen Basin Symposium, 2015, Brisbane, Australia.](#)
- Paleoclimatic reconstruction of a low permeability reservoir in the eastern Queensland, using carbon isotope analysis. [Technical Society of organic petrology, 2015, Indonesia.](#)
- Spatial variation in character and composition of the reservoir, using petrological techniques. [Technical Society of organic petrology, 2014 Australia.](#)

- Bowen Basin Geological group (BBGG)
- American Association of Petroleum Geoscientists (AAPG)
- Pakistan Association of Petroleum Geologists (PAPG)
- Karachi University Geological Alumni Association (KUGAA)

Languages

Urdu

Native



English

Proficient



French

Advanced



Sindhi

Intermediate



- Age of the Yarrabee tuff Member and its significance towards the reservoir stratigraphy.
[Australian Earth Science conference, 2014, Newcastle, Australia.](#)
- Tephrostratigraphy techniques to evaluate coal architecture and impact on mining.
[Technical meetings \(BBGG -AIG, Australia\) at various mine sites, QLD, Australia.](#)
- Unconventional resource plays in Pakistan.
[International geological conference 2012, Brisbane, Australia and AAPG GTW 2012, Singapore.](#)
- Coal Field familiarization course.
[Petroleum engineering department, NED University Karachi.](#)

Geological Fieldwork

Australia:

- Newcastle Coal Measures, Sydney Basin, Newcastle 2014
- Daunia coal mine visit, 2014
- Tarong coal mine visit 2012.

Pakistan:

- Allah Bano and Manghopir areas, Indus Basin, Karachi, for geological and structural mapping in 2009.
- Bela ophiolite and associated mineralization in Baluchistan Basin, Pakistan in 2009.
- Geological Fieldwork at the Salt Range in Upper Indus Basin, Pakistan in 2008.
- Gadani Mélanges, Baluchistan in 2009.
- Well site visit of Tandojam well-1, Badin Block, Sindh, Pakistan in 2009.