
TITO SATRIA PUTRA PERDANA

PRESENT POSITION

Senior Geologist

EXPERTISE

- Fracture and fault characterization: reproduce fine reservoir fractures and faults by evaluating near-well models and detailed images from wireline tools and LWD measurements
- Borehole imaging for completion optimization: quantify and differentiate natural and induced fractures, identify hard streaks that may contain fracture propagation, and reduce possibility of sanding
- Multiscale structural interpretation to better illuminate the subsurface in the most complex environment by collaborating with petrotechnical experts that build 3D near-well structural models from the highest-quality reservoir data
- Comprehensive geomechanical analysis of subsurface data by integrating structural and wellbore image log data with other logging results and core data
- Unconventional reservoir characterization using wellbore image data to characterize fractures and faults, determine *in situ* stress orientation, and undertake integrated analyses that combine the image log interpretation with core and sonic log data
- Geologic mapping and structural analysis
- Development of geoscientific databases
- Sales, marketing, job planning, monitoring, QC and advising on many aspects of Schlumberger's geology logging tools
- Sedimentary feature identification and textural analysis of reservoir rock, including facies determination, palaeocurrent indication, deposition process and depositional environment using high-resolution resistivity and acoustic images from wells
- Carbonate porosity analysis using high-resolution borehole electrical images to quantify the porosity distribution and determine the importance of vugs to the overall effective porosity and permeability, and develop an improved understanding of the drivers for reservoir production in complex heterogeneous carbonate reservoirs

EDUCATION

B.Eng. in Geological Engineering (Cum Laude), Gadjah Mada University, Jogjakarta, Indonesia, 2006

Thesis: The Mechanism of Landslides in Pendoworejo and Banjararum Villages, Kulon Progo Regency, Special Region of Yogyakarta, Indonesia

Fluent in English, Bahasa Indonesia, Javanese, and Malay.

EXPERIENCE

Senior Geologist, GeothermEx, Inc., Richmond, California, 2016 to present

- Evaluation of hydraulic stimulation techniques used in the oil & gas industry and their application in geothermal projects
- Conceptual modeling, pre-feasibility and feasibility evaluation, and assessment of operational issues for geothermal resources in Ethiopia, Kenya, Indonesia, Turkey and the United States
- Resource due diligence evaluation for risk mitigation and financing for geothermal projects in Kenya
- Geologic interpretation of single and multiple wells using wellbore image and other logs to assess geological structures, identify stress orientations from drilling-induced tensile features, and identifying and characterizing fractures in geothermal reservoirs

Data Services Technical Team Lead / Senior Geologist – Schlumberger’s Software Integrated Solutions (SIS), California Basin, Bakersfield - California - USA, 2014 - 2015

- Responsible for technical sales for new projects and regular interaction with clients in California
- Planning, scheduling, designing and assigning work for California Data Services team members
- Ensuring timely completion of the projects
- Identifying and organizing approaches to job responsibilities and solving problem that arise
- Supervising, participating in and analyzing the interpretation products developed by the California Data Services team
- Making independent studies, analyses, interpretations and conclusions to deliver answer products to customers
- Writing documentation and technical reports explaining the adopted solutions, analyzing and discussing results and drawing conclusions
- Keeping abreast of technological developments in area of expertise to ensure a high quality in products delivered to customer
- Championing the development of new answer products and workflows
- Proposing existing or potential problem areas to be investigated and offering solutions
- Interfacing with other Product Lines, Marketing / Technical staff, the Field, Clients, and other Schlumberger Groups in the development of new products
- Providing technical support for existing products and services

- Providing technical advice and guidance to other employees, managing, and coaching California Data Services team
- Establishing visibility in the industry with leadership in external organizations like SPWLA and AAPG plus regular involvement in technical paper presentations at these organizations
- Representing California Data Services team at Service Quality meeting, forums and conferences and actively communicating with internal and / or external customer to ensure service levels meet expectations
- In charge of borehole image structural interpretation and fractures / faults characterization of complex diatomite heavy oil reservoir in the North Midway Sunset Field, Kern County, California

Senior Borehole Geology Specialist / Devonian Carbonate Specialist, Schlumberger's PetroTechnical Services, Calgary – Alberta – Canada, 2011 – 2014

- Responsible for job planning, processing and interpretation of geological data measured with either wireline or LWD tools
- Integrating the knowledge from borehole measurements with seismic, petrophysical evaluations and engineering analyses to get a field level picture of the reservoir
- Making independent studies, analyses, interpretation of borehole image data to determine formation structural and stratigraphic properties
- Actively promoting the integration of borehole image data with other static and dynamic data particularly from high technology tools
- Evaluating new services and techniques under field test and applying technical and analytical skills to develop new methods and solutions
- Offering technical guidance to geoscientists or technicians assigned to work on a common project
- Organizing client seminars, lunch and learn, and workshops related to Schlumberger's interpretation services for geology in Canada
- In charge of borehole image log interpretations of complex Devonian carbonate reservoir in Saleski Field, NE of Alberta, Canada which include:
 - fractures and fault characterization
 - sedimentary feature identification and carbonate facies determination
 - borehole imaging for completion optimization: identifying drilling induced fracture, borehole breakout, and hard streaks that may contain fracture propagation
 - multi-wells structural interpretation
 - porosity analysis in carbonates using Techlog's Porotex module, and

- comprehensive analysis of subsurface data to understand the influence of facies, tectonic processes, and karstification on porosity development and distribution
- Performed caprock integrity study using borehole images and other subsurface data combined with mechanical earth model to understand the development of natural fractures, faults, drilling induced fractures and critically stressed fractures in Grand Rapids, Joli Fou, Viking, Westgate, Fishscale, Belle Fourche, White Specks, and Colorado Formations in NE Alberta, Canada

Borehole Geologist, Schlumberger's Data and Consulting Services, Ahmadi – Kuwait, 2011

- Natural fractures and faults identification and characterization using borehole images and other subsurface data to evaluate the fracture distribution and potential for Jurassic fractured carbonate reservoirs in Kuwait
- Adopted multi-wells approach to resolve Lower Cretaceous carbonate lateral heterogeneity using horizontal and vertical wells in combination
- Performed detailed carbonate heterogeneity analyses, provided vital information on vuggy and mouldic porosities developments and distributions; and permeability analysis using BorTex* and PoroSpect* modules on GeoFrame* software platform to determine the relationship between carbonate facies, porosity development and distribution, and permeability

Borehole Geologist, Schlumberger's Data and Consulting Services, Jakarta – Indonesia, 2008-2011

- Technical contributor working in the area of geology with expertise in single and multi-wells open hole and image logs geological interpretation including geological structures, sedimentology and sequence stratigraphy interpretations, and fractures – faults identification and characterization
- Performed detailed Sedimentology and Sequence Stratigraphy analyses using image logs and other subsurface data for Oligo-Miocene carbonates and Miocene clastics reservoirs in Indonesia
- Actively involved in basement rocks reservoir characterization projects which include fracture study, sonic and production logs interpretations, and geomechanics analysis
- In charge of some geothermal reservoir evaluation projects using borehole images, mud log, sonic log, and production log
- Supporting Schlumberger Wireline's operational for borehole image log real time monitoring jobs
- Established the LWD image log interpretation business in Indonesia
- Organizing client seminars, lunch and learn, and workshops related to Schlumberger's interpretation services for geology in Indonesia

Junior Borehole Geologist, Schlumberger's Data and Consulting Services, Balikpapan – Indonesia, 2007

- Processing and interpreting geological data measured with wireline tools
- Performed detailed Sedimentology and Sequence Stratigraphy analyses using Oil-Base MicroImager (OBMI*) for Miocene clastics reservoirs in East Kalimantan - Indonesia
- Providing on-site geologist support for Schlumberger Wireline's operational in Balikpapan - Indonesia

TRAININGS AND CERTIFICATIONS

- Schlumberger's OFS-1 Training for Field Engineer and Geoscientist, Dubai and Abu Dhabi, U.A.E., 2007
- Schlumberger's BUILD IT 1 Borehole Geology Training – Abu Dhabi, U.A.E., 2007
- Schlumberger's DEEP BLUE 2 Borehole Geology Training on Clastics Interpretation and Fieldtrip, Utah, U.S.A, 2008
- Schlumberger's DEEP BLUE 3 Borehole Geology Training on Structural Interpretation and Fieldtrip, Castellane and Nice, France, 2009
- Schlumberger's OFS-3 Training on People Management, Kuala Lumpur, Malaysia, 2009
- Gadjah Mada University's Geothermal Course, Yogyakarta, Indonesia 2010
- Schlumberger's QSHE 2 Training, Jakarta, Indonesia, 2010
- Nautilus' training and fieldtrip on Complex Carbonate Reservoirs: Influence of Facies and Tectonic Processes on Porosity Development, Southern Italy, 2012
- Schlumberger's NExT Training on Sequence Stratigraphy: Principles and Applications, Calgary, Canada, 2014
- Schlumberger's geological training and fieldtrip on Unconventional Reservoir, Rocky Mountain, Banff, Canada, 2014
- Schlumberger's Borehole Geology New Technology Training – Techlog 2014.3, Clamart, France, 2014
- Adult CPR

SELECTED AWARDS AND ACHIEVEMENTS

- The first winner of Indonesian Geological Science Competition in well log analysis & interpretation, joint measurement, and geotechnical analysis, 2005
- The first winner of Indonesian Geological Olympiad in 2006
- Representing Indonesia in Asian Young Leaders Festival in Singapore, 2006
- The first winner of South East Asia Petroleum Exploration Society (SEAPEX) Student Poster Competition, 2006

- Graduated *Cum Laude*. Mr. Perdana was the best student in his class at Geological Engineering Department, Gadjah Mada University. He was also recognized as the first candidate to complete undergraduate studies under 4 years (3 years and 9 months).
- Received a reward from the Vice President of Schlumberger Data and Consulting Services Middle East and Asia for Excellence and Execution in recognition for 2008 Borehole Geology revenue growth in Indonesia
- Nominated by SPE Indonesia for Outstanding Young Member for SPE International Award, 2010
- Received a reward from Schlumberger Indonesia Data and Consulting Services for FMI* interpretation projects in Tiung Biru Field, East Java for Pertamina EP
- The first winner of Schlumberger Indonesia Reservoir Symposium 2011
- Received a general award from Schlumberger Indonesia Data and Consulting Services, 2011
- Nominated by SPE Indonesia for Outstanding Young Member for SPE International Award, 2011
- Pointed by SPE International to serve as a Young Professional Coordinating Committee (YPCC) 2011-2014 representing Asia Pacific Region
- Won the Schlumberger InTouch Knowledge in Action for Q3 2012, representing North America Land
- The first winner of Schlumberger Canada Reservoir Symposium 2013, and representing Canada on North America Reservoir Characterization in Houston, Texas, USA
- Received an emerald reward from Schlumberger Canada PetroTechnical Services for FMI* Husky and Sherritt FMI* Projects 2014
- Received a total of 16 recognition letters / emails from various clients in Indonesia, Kuwait, and Canada

PUBLICATIONS AND PRESENTATIONS

Perdana, T., 2016. Image Logs: Everything You Wanted to Know But Were Afraid to Ask.

Presentation to California San Joaquin Well Logging Society, California, USA, June 2016.

Yamada, T., Quesada, D., Etchecopar, A., Le Nir, I., Delhomme, J.P., Perdana, T., Russel-Houston, J., 2013. Revisiting Porosity Analysis from Electrical Borehole Images: Integration of Advanced Texture and Porosity Analysis. SPWLA 54th Annual Logging Symposium, New Orleans.

Netherwood, R., Perdana, T., Djuang, D., Prasetya, A., 2008. An Integrated Approach to Single Well Stratigraphic Interpretation of Carbonate Using Electrical Borehole Images: A Case Study Batu Raja Formation, West Java, Indonesia. IATMI Carbonate Reservoir Characterization Workshop, Jogjakarta, Indonesia.

Netherwood, R., Perdana, T., Djuang, D., Prasetya, A., 2008. Volcanics and Volcaniclastics Reservoir Characterization Using Electrical Borehole Image: An Example from West Java, Indonesia. SPWLA 2008 SE Asia / Japan / Australia Technical Forum, Bangkok, Thailand.

In addition to those listed above, Mr. Perdana has delivered a total of 20 guest lectures/presentations at various universities in Indonesia, and United States, including 2 guest lectures at Stanford University in 2015 and 2016.

MEMBERSHIPS

Geothermal Resources Council
Society of Petroleum Engineers

CITIZENSHIP

Indonesian