



INTEGRITY EXPERIENCE ADVICE



CONSULTANTS OF CHOICE - INTERNATIONALLY

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Global Experience

Since 1994, RISC has undertaken a full range of technical and commercial evaluations around the world. The company has built an invaluable and enviable global experience base by completing multiple assignments in the following countries.

- Algeria
- Canada
- Côte d'Ivoire
- Egypt
- Guyana
- Iraq
- Korea, North
- Mauritania
- Nigeria
- The Philippines
- South Africa
- Thailand
- Ukraine
- Venezuela
- Angola
- China
- Czech Republic
- Equatorial Guinea
- India
- Israel
- Kuwait
- Mozambique
- Oman
- Qatar
- Sudan
- Tunisia
- United Arab Emirates
- Vietnam
- Australia
- Colombia
- Demark
- Gabon
- Indonesia
- Kazakhstan
- Libya
- Myanmar
- Pakistan
- Russia
- Suriname
- Turkey
- United Kingdom
- Yemen
- Cambodia
- Congo, Republic of
- Ecuador
- Greece
- Iran
- Kenya
- Malaysia
- New Zealand
- Papua New Guinea
- Singapore
- Syria
- Uganda
- United States

More specifically, RISC has carried out independent reserves determinations and audits, and has formally certified reserves in many hundreds projects using SPE-WPC, US SEC, Australian, Canadian, Malaysian (Petronas) and UK standards in the following countries:

- Australia
- Gabon
- Iraq
- Mozambique
- Oman
- Sudan
- USA
- Algeria
- China
- India
- Libya
- Myanmar
- PNG
- Thailand
- UK
- Syria
- Columbia
- Indonesia
- Malaysia
- New Zealand
- Philippines
- Turkey
- Vietnam
- Cote D'Ivoire
- Iran
- Mauritania
- Nigeria
- Qatar
- Ukraine
- Yemen

The following pages provide a sample of some of the many hundreds of client assignments that RISC has worked on around the world.

Indonesia

- Independent technical advisor to CSFB on US\$275m facility including reserves and development plans for the integrated oil and gas projects in the Kangean PSC, Indonesia. Ongoing monitoring role on company performance prior to approval of loan drawdowns and investment decision point milestones.
- Technical and commercial evaluation for acquisition of Repsol's interest in Jambi Merang PSC
- Technical and commercial evaluation of Devon Energy Corporation's interests in Jabung, South Jambi "B", Bangko, Tuban, Salawati Island, Salawati Basin PSCs
- Review of acquisition opportunities in Indonesia in support of a client's strategic growth into the region. Basin prospectivity was assessed, production assets reviewed and screened.
- Independent technical advisor to CSFB on US\$60m facility including reserves and development plans for the integrated oil and gas projects in the Udang PSC, Indonesia. Monitoring role on company performance.
- Independent advisor providing technical and commercial due diligence, project valuation and advisory role in negotiation of SPA for acquisition of 12.5% interest by CNOOC in the Tangguh LNG Project (US\$275m facility).
- Independent Technical Consultant advising CIMB as the Independent Financial Advisor for the acquisition of Pearl Energy's properties valued at over US\$500 million, which included production and exploration properties in the Salawati Island, Salawati Basin, Tungal, West Salawati, Makassar Strait and the Sebuku PSC's
- Reservoir development studies on the Sepanjang Island and Pagerungan Utara oil fields (Ngimbang Carbonate), Kangean PSC
- Reservoir development studies on the Langsa oil field (Malacca Lst)
- Reservoir development and certification studies on the Lembak gas field (BRF Carbonate)
- Certification of project reserves and costs for the acquisition of South East Sumatra and North West Java PSC's, offshore Indonesia.
- Peer review of a producing fractured Manusela carbonate oil field in Indonesia including review of all subsurface aspects, drilling performance, production technology and surface facilities. Further support was provided in development of 3D geological models.
- Acquisition & divestment analysis for a company's assets in Indonesia, Thailand and the Philippines.
- Certification of project reserves and costs in support of project finance for the acquisition of Repsol's interests in the South East Sumatra and North West Java PSC's, offshore Indonesia.
- Salawati Basin and Salawati Island Independent Reserves Assessment
- 3D geological and reservoir modelling and subsurface development plan for marginal offshore clastic and carbonate oil rims
- Preparation of appraisal and development strategy to commercial a gas discovery in central Sumatra



Indonesia (cont)

- Exploration development and valuation assessments of interests in the following Indonesian PSC's, JOB's & TAC's:
 - Bangkanai Block (Kalimantan)
 - Bengkulu (W Sumatra)
 - Berau, Wiriagar and Muturi (Papua) and associated Tangguh LNG project
 - Brantas (E Java)
 - Corridor (Sumatra)
 - Gebang (N Sumatra)
 - Jatirarongan (NW Java)
 - Kakap (Natuna Sea)
 - Karana (Sulawesi)
 - Langsa TAC (E Aceh)
 - Lembak (S Sumatra)
 - Madura JOB (E Java)
 - Nunukan PSC (Kalimantan)
 - Sabuku (Makassar Strait)
 - Sampang (E Java)
 - Sebuku (Sulawesi)
 - Semberah (Kalimantan)
 - Seruway (Sumatra)
 - South & Central Sumatra PSC (S Sumatra)
 - Sungai Gelam (Sumatra)
 - Tarakan PSC (Kalimantan)
 - Tuban, (East Java)
 - Udang (West Natuna)
 - Bengara (Kalimantan)
 - Bentu (Sumatra)
 - Block A (N Sumatra)
 - Bulu (East Java)
 - Cruh (Sumatra)
 - Jabung and South Jambi (Sumatra)
 - Jambi Merang (Sumatra)
 - Kangean (W Java)
 - Korinci-Baru (Sumatra)
 - Lematang (S Sumatra)
 - Lhokseumawe (N Sumatra)
 - Merangin PSC (Jambi)
 - Rimau (S Sumatra)
 - Salawati Basin and Salawati Island (Western Papua)
 - Sanga-sanga TAC (Kalimantan)
 - Sembakung TAC (Kalimantan)
 - Seram (Seram Island)
 - Simenggaris JOB (Kalimantan)
 - South Madura (Madura Is)
 - Tangguh (Papua)
 - Tomori JOB (Sulawesi)
 - Tungal (South Sumatra)
 - West Salawati (Western Papua)

South East Asia

- Independent valuation, sale strategy and dataroom management for the divestment of Malaysian PM3 PSC
- Preparation of Information Memorandum and dataroom management for BP's divestment of Malaysia/Thailand Joint Development Area Block A-18
- Optimised appraisal planning for Vietnamese field to ensure that exposure was commensurate with project development uncertainties and gas sales upside opportunities
- Evaluation of a suite of deepwater exploration prospects in the Philippines
- Undertook a resource estimation and valuation of oil column associated with a major gas field in offshore Palawan Basin, Phillipines
- Assessment of the prospectivity
- Independent Engineering Consultant to Intesa Sanpaolo SpA in support for US\$65m project finance for the Galoc Development, Philippines
- PM-3 PSC Reserves Certification, offshore Malaysia for company reporting and project finance
- IER report of ROC's West African UK and China properties for their 2006 rights issue which included the Zhao Dong project
- Independent Engineering Consultant to financiers for an acquisition of producing and exploration properties in the Bohai Basin, offshore China
- Development planning and economics of an offshore discovery in the Yellow Sea, offshore China
- Conducted a screening study on a major offshore gas discovery in central Asia to evaluate LNG, pipeline gas and CNG marketing options
- Independent review of a Field Development Plan for an offshore oil and gas development in Malaysia, which resulted in cost and risk reductions
- Project managed and provided subsurface team to prepare the Field Development Plan for an onshore waterflood project in China



FSU and Eastern Europe

- RISC has an ongoing role assessing new business opportunities in FSU for a listed oil company.
- Screening Level Review of discovered undeveloped oil field in Kazakhstan on behalf of potential new entrant.
- Independent Review of potential for gas discoveries in Bilosarayske Area, Ukraine to be developed for supply into local gas market.
- Detailed technical analysis and economic valuation of large cross border gas project involving potential sale of gas from Eastern Russia to markets in China and Korea. Scope included assessment of gas in place, reserves, production forecasts, development costs, transportation and economics.
- Technical and economic evaluation of the potential for development of a 1.5 bn barrel oilfield development in Eastern Siberia
- Assessment of suitability of gas field in Slovakia to act as the reservoir for a gas storage project to manage supply demand balance for local gas transmission scheme
- Detailed Reservoir Simulation study including production forecasting of technically challenging oil rim underlying giant gas fields in Siberia
- Review of rejuvenation potential for mature oilfield in Kurdistan for potential new entrant.
- Information Memorandum preparation and dataroom management for divestment of Interros' interests in the giant Kovytko and Verkhnechonsk gas and oil fields in Russia's Irkutsk region



In addition one of RISC's Principal Reservoir Engineers was Development Team Leader for the 5 billion barrel Azeri-Chirag-Gunashli Field in the Caspian Sea. This included selection of gas injection as the optimal development concept for Azeri Field and piloting the project through select phase Project Review of ACG Phase 1 development. Another of RISC's Principal's has been involved with gas commercialisation in Uzbekistan, Russian Far East Gas Strategy and export strategy for Caspian oil discoveries.

West, East and Central Africa

- Independent technical and commercial evaluation of a company's exploration and production assets held in Sudan, Ghana, Senegal, Cote d'Ivoire, Tunisia and Egypt.
- Technical assessment of Devon Energy's assets in West Africa in support of a bid for acquisition of the assets.
- Valuation of the global exploration and appraisal assets of a major UK independent with significant assets in West Africa.
- Evaluation of a producing gas field offshore Cote d'Ivoire.
- Screening assessment of the redevelopment potential of onshore basins in Angola.
- Valuation and risking of an exploration portfolio in a major onshore/offshore basin in East Africa
- Independent Technical Specialist's report on Hardman's global oil and gas portfolio in -response to Tullow's US\$1.1 Billion takeover offer (2006) - including significant assets in Mauritania and Uganda
- Independent Technical Review Reports ROC Oil's 2006 and 2004 rights issue prospectus including assets in Mauritania and Angola
- Competent Person's Reports for Sterling Energy in support of financing of acquisition of oil and gas interests in Mauritania (2004,6)
- Provision of technical and commercial advice in support of 2 successful acquisitions in Mauritania.
- SEC Reserves audit for a company's first filing for properties in Gabon and Mozambique.
- Audit of a third party economic model of Nigerian Marginal Fields terms and preparation of a proposal to correct and improve the model.
- Technical assessment of an offshore marginal field development opportunity in Congo.
- Assessment of open exploration acreage onshore Mauritania.
- Valuation and risking of an exploration portfolio in a major onshore/offshore basin in East Africa.
- Preparation of a Field Development Plan for a billion barrel viscous oil field in Sudan.
- Evaluation of Talisman's exploration and production assets in Sudan.
- Independent valuations of PSCs A and B in Mauritania (containing Chinguetti and Banda discoveries)



Middle East and North Africa

- Valuation of Devon Energy's assets in Egypt in support of a competitive bid for acquisition of the assets.
- Reservoir modelling and assessment of reserves for the Ohanet gas condensate development in Algeria
- Independent valuation of an LNG project in Qatar for acquisition of an equity interest by an Asian NOC
- Reserves assessment and valuation of 2 onshore Libya oil fields currently under development.
- Scoping assessment of Libyan brownfield/associated gas development project
- Screening study for a major onshore oil field in Sudan
- Review of discovered assets in Sudan for a major Japanese acquirer
- Preparation of a Field Development Plan for a billion barrel viscous oil field
- Evaluation of Talisman's Sudan exploration and production assets
- Reserves certification of Sudanese fields
- Preparation of a mature field re-development plan and reserves review incorporating design of a new waterflood for the West Ayad Field, Yemen
- Independent Valuation of producing Masila block in Yemen
- Technical and commercial assessment of Oman Block 9 oil and gas production assets
- Technical studies and provision of commercial support for the negotiation of a buy-back contract for re-development of major onshore fractured carbonate oil field in Iraq. Scope included reservoir simulation, assessment of artificial lift and facilities requirements, cost estimation, schedule and assessment of upside opportunities
- Reservoir modelling and evaluation of a proposed developed plan for the large Dalan gas field located on the border between Iran and Abu Dhabi in the Persian Gulf.
- Review of reservoir modelling of the Azedegan oil field for potential acquisition
- Provision of a technical and commercial opinion on the discovered but as yet undeveloped oil and gas resources contained within blocks adjacent to the Ohanet and TFT fields onshore Algeria.
- Reservoir modelling and reserves assessment for the Ohanet gas condensate development in Algeria.
- Reserves assessment and valuation of 2 onshore oil fields under development in Libya.
- Scoping assessment of brownfield/associated gas development project in Libya
- Review of exploration potential in Algerian exploration permits
- Produced Competent Persons Report for AIM-listed company covering Middle East and African assets
- Evaluated potential farm-in onshore Jordanian acreage for major Middle East E&P client
- Evaluation of acquisition opportunities in several oil and gas properties in Yemen
- Conducted assessment of acquisition opportunity in Syria for major Middle East client
- Evaluated current performance and redevelopment potential of light oil field in Egyptian Western Desert



Papua New Guinea

- Independent technical evaluation and economic valuation of the interests of Interoil to support a farm-in proposal
- Technical and commercial support to the appraisal and proposed farmout programme for a forelands gas-condensate discovery
- Independent Valuation of Chevron's sale of PNG assets. The scope of work includes, reserves/costs, financial modeling and a review of the PNG gas project.
- Independent Review of the business planning, staffing, tools & systems and organizational capability assumptions including a review of the PNG assets in support of a corporate strategic planning assessment.
- Independent Audit of a financial model of the PNG Gas Project.
- Review of PNG Exploration portfolio for a leading exploration company
- Reservoir Simulation studies of the Kutubu, Moran and Hides oil and gas fields in support of development planning. The Hides study included evaluation of a gas recycling strategy
- Lead Ready For Start Up audit team on behalf of the PNG Oil Project JV for handover of operations from Chevron to Oil Search.
- Non-exclusive study of the Eastern States Gas Market including the PNG Gas Project. The study included price-constrained supply and demand modeling of the gas market to form a view on the likely timing and pricing of future gas supply into the market.
- Created an Integrated Production Forecasting tool for a major offshore oil and gas development (Australia) and also for a cluster of oil and gas fields sharing production infrastructure (PNG).



Australia/New Zealand

- Technical and commercial due diligence support for potential buyers of Delhi Petroleum's Cooper Basin oil & gas fields, onshore Australia
- Gas market analyses and advice to potential purchasers of Duke's and Epic Energy's Australian gas infrastructure assets.
- Independent technical advisor on reserves and associated development plans and costs and completion test for the Casino Gas Field Development, offshore Australia.
- Assessment of regional exploration potential of all major sedimentary basins and emerging frontier areas in Australia.
- Assessment of potential development options of a multi-TCF Australian gas discovery.
- Audit of reserves, preconstruction phase documentation and project monitoring of Tui Oil Field development for Commonwealth Bank of Australia.
- Led multidisciplinary team to revise gas field sub-surface model and assess infill drilling opportunities in mature Australian fractured carbonate gas field.
- Created an integrated reservoir/process model to optimise Australian field performance and oil production.
- Review of gas contracting strategies and supply options to deliver the minimum life cycle cost of gas to a major West Australian minerals processing project.
- Independent Engineering Consultant to BOS International, advising on reserves, pre-construction phase engineering, environmental effects and completion test of the Maari Oil Field development, offshore New Zealand
- Review of gas supply pricing and contracting advice to a potential supplier to the Northern Territory gas market.
- Comprehensive, non-exclusive reports into the Eastern Australian Gas Market Study 1998-2020 and West Australian Domestic Gas Market 1996-2015 providing projections of gas demand prices and supplier opportunities.
- Advice to proponents of a major petrochemical project on gas contracting strategy including the sharing and management of risks through structure of key terms and conditions.
- Assessment of gas contracting strategies designed to achieve target wellhead and transmission prices to a significant West Australian industrial plant.
- Analysis of cost of supply of gas in Western Australia.
- Preparation of Independent Specialist reports for Deloitte Corporate Finance's Independent Expert's Report on the value of Woodside in response to Shell's Revised Merger Proposal.
- Review of Environmental, Social and Economic factors of major LNG project proposal for Western Australian Government.
- Advice to the South Australian Government on the long-term gas supply prospects and on exposure to short term supply disruption to support privatisation of the State's energy assets and gas market policy development.
- Engaged as expert witness for a major gas contract price dispute including technical and commercial support to the development of legal argument.

