

Gaffney  
Cline

Experts in China



# GaffneyCline

GaffneyCline is a global consultancy that has been offering technical, commercial, and strategic advice to the oil and gas sector since 1962. GaffneyCline's reputation demonstrates that the advice delivered, together with its industry insights, is of high-quality, impartial, technically based, and commercially astute. GaffneyCline is well known as one of the leading suppliers of Reserves and Resources assessments, which are required for many purposes including statutory reporting, stock exchange listing, development planning, project finance, and asset valuation.

In addition, GaffneyCline offers a full range of upstream, midstream and downstream technical and commercial consultancy services. These range from seismic interpretation, static and dynamic reservoir modelling, field development planning, facilities and pipeline engineering, gas monetization, LNG/GTL, mergers and acquisitions, economics and project finance, unitization & redetermination, expert witness work, exploration prospect assessment, fiscal & regulatory advice, negotiation support, strategic consulting on energy matters, carbon intensity assessments, new technology assessments, and site visit assessments.

GaffneyCline operates worldwide from three main offices located in London, Houston and Singapore, and supported by offices in Buenos Aires, Sydney and Dubai.

## China

GaffneyCline's role as a trusted advisor to Chinese companies is demonstrated by its extensive experience in working on projects inside China, as well as on projects outside of China for Chinese companies. GaffneyCline has built a strong relationship with a number of leading Chinese companies, including NOCs, SOEs, and listed companies both on the Hong Kong Stock Exchange and the Shanghai Stock exchange. Projects typically consist of either Reserves and Resources assessments to satisfy external requirements (eg for SEC filing, or for project finance requirements), Due Diligence for M&A support, Technical and/or Commercial Studies, or Unconventional Resources assessments. GaffneyCline is able to offer clients a technical team with fluent Mandarin capability to conduct Chinese projects.

Partial summaries of selected projects that GaffneyCline has completed are outlined on the following pages.



## China

**Reserves Assessment:** GaffneyCline was retained by an independent Chinese oil company to provide an independent Reserves assessment for an oilfield located in the Heilongjiang Province in China. The report was required for project financing purposes.

**Reserves Assessment:** GaffneyCline was retained by a Chinese oil company listed on the Hong Kong Stock Exchange (HKEx) to conduct an independent Reserves assessment of a heavy oilfield located in the Bohai Bay Basin, China. The assessment was required in preparation of a potential HKEx disclosure. The project was one of the pioneer onshore, industrialised large-scale fire flood projects in China.

**Exploration study:** GaffneyCline was retained by an independent Chinese oil company to perform a technical review of an exploration block in the Chaoshui Basin, Gansu Province, Northwest China. The review was required to support internal decision making regarding further exploration investments.

**Gas Infrastructure Project:** An international development bank requested GaffneyCline to perform a comprehensive technical review of a company distributing natural gas in China. The technical review encompassed the following:

- A review of the city piped gas and natural gas sector in China.
- An appraisal of the company's technology, expertise, and investment strategy to acquire, construct, and operate city gas distribution networks.
- A review of the company's budgeting and procurement procedures.
- An analysis of the company's business strategy to acquire concessions and grow its natural gas business.
- An analysis of the technical input data, results and sensitivities of the company's financial model.
- A review of the company's compliance with environmental and social safeguards.
- A recommendation of operating parameters to be monitored.
- Identification of project risks and mitigation measures.

**CBM Due Diligence:** GaffneyCline was retained by a Private Equity firm to assess the risks associated with a potential investment in a CBM project in the Ordos Basin, China. The GaffneyCline review provided commentary on the following:

- The proposed completion techniques; vertical wells vs. horizontal wells.
- The reasonableness of the business plan (including production forecasts, development costs, de-watering and schedule)
- Key remaining areas of risk and uncertainty.

**Lender's Due Diligence:** GaffneyCline was commissioned by an international financial institution to conduct a technical review of certain CBM assets located in the Shanxi Province, China. This review was part of the lender's due diligence concerning the possible financing of the overall development plan for the CBM permit.

The project included:

- A site visit.
- Geological and petrophysical evaluation.
- Analysis of pilot production, well modelling, production forecasting.
- A review of proposed development plan and associated capital expenditure.

**Annual SEC Reserves Audit:** GaffneyCline has undertaken the annual assessments of Reserves and Resources of certain international assets for a number of NOC subsidiaries since 2004. The reports included assets in Kazakhstan, Iraq, Trinidad & Tobago, Chad, Algeria and Venezuela.

**Red Flag Review:** GaffneyCline conducted a high level review, of a field located offshore North Sumatra, Indonesia and some oil/gas fields located offshore Western Australia; as precursors to potential investments by Private Equity companies based in Hong Kong. The objectives of GaffneyCline's study were to identify key sources of risks and uncertainty, and to provide qualitative analysis of their potential impacts.

## China

### **Peer Reviews and Expert Advisory:**

GaffneyCline made a high level review of some selected assets in Pakistan related to a potential claim against another third party consultant's overestimation for a completed transaction. The focus of this review was on understanding the approach adopted by the previous consultant and an assessment of whether it appeared reasonable or not, rather than considering the actual reserves volumes themselves.

GaffneyCline's work had concentrated solely on reserves / volumes, and not the potential impact on NPV that could result.

**Independent Technical Report (ITR) for the Shanghai Stock Exchange:** GaffneyCline was engaged by two Shanghai Stock Exchange listed companies, respectively, to conduct independent Reserves assessments of some blocks in Kazakhstan and Eagle Ford shale gas in America complying with the SPE PRMS standard.

**Independent Technical Reports for the Hong Kong Stock Exchange:** GaffneyCline was retained by several Chinese companies listed or to be listed on the Hong Kong Stock Exchange (HKEx) who had planned to acquire blocks in the Songliao Basin, Bohai Bay Basin, Erlian Basin, Ordos Basin and Tarim Basin, respectively. The reports were required to support announcements to the HKEx in respect of this, and/or to increase the Company's authorised share capital.

The Independent Technical Reports provided by GaffneyCline were intended to be included in the Prospectuses (Circulars or IPOs) in connection with those applications. Some also requested Valuation Reports in addition to Competent Persons Reports (CPRs).

The reports were prepared in compliance with Chapter 18 of the Listing Rules of the Hong Kong Stock Exchange.

**Independent Technical Report for the Toronto Stock Exchange:** GaffneyCline was retained by a Chinese company to conduct an independent Reserves assessment of a block located in the Songliao Basin, Northeast China, and to provide a subsequent Independent Technical Report to support a potential listing on the Toronto Stock Exchange (TSX).

### **Offshore Pipeline Operational**

**Assessment:** A conducted a technical review of a gas pipeline operation from offshore blocks in the Andaman Sea to the domestic Myanmar gas market for a potential farm-in by a Chinese investment company. GaffneyCline focused on the pipeline throughput capacity and related pipeline costs.

### **Farm-out Technical Assistance:**

GaffneyCline conducted a technical review of a North African onshore project to assist a Chinese NOC on its potential farm-out. GaffneyCline made a detailed Technical Evaluation of the assets, commented on the economic feasibility of further development on the non-producing areas/fields, and re-estimated the Reserves/potential recoveries and NPVs.

### **Annual SPE Reserves Audit:**

GaffneyCline has conducted the annual assessments of Reserves of certain Pakistan assets for a HKEx listed company, also provided annual update of Reserves of a block in the Erlian Basin for another HKEx listed company.

### **Acquisition Support and Technical Due Diligence:**

GaffneyCline was engaged by several companies based in Hong Kong, Shanghai, Beijing and Calgary to conduct multiple technical due diligence studies associated with the potential investments of Target assets in Australia, Bangladesh, Indonesia, Iraq, Thailand, Vietnam, Congo, Angola, Kyrgyzstan, and Myanmar.

GaffneyCline also prepared a CPR associated with an energy company purchase by a HKEx listed company. The target assets are located in several Middle East countries. Since then GaffneyCline has become the resources estimation advisor on the transacted oil and gas assets.

GaffneyCline was also engaged by a state-owned electric power group to provide a DD study on an offshore gas field in East Africa for its potential acquisition.



For more information about GaffneyCline's integrated services, please contact your local GaffneyCline office.

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