A Comparative Analysis of Contractual Considerations in Oil and Gas Contracts with an Emphasis on Iranian Petroleum Contracts
by S.N. Ebrahimi and E. Shahmoradi

About OGEL
OGEL (Oil, Gas & Energy Law Intelligence): Focusing on recent developments in the area of oil-gas-energy law, regulation, treaties, judicial and arbitral cases, voluntary guidelines, tax and contracting, including the oil-gas-energy geopolitics.

For full Terms & Conditions and subscription rates, please visit our website at www.ogel.org.

Open to all to read and to contribute
OGEL has become the hub of a global professional and academic network. Therefore we invite all those with an interest in oil-gas-energy law and regulation to contribute. We are looking mainly for short comments on recent developments of broad interest. We would like where possible for such comments to be backed-up by provision of in-depth notes and articles (which we will be published in our 'knowledge bank') and primary legal and regulatory materials.

Please contact us at info@ogel.org if you would like to participate in this global network: we are ready to publish relevant and quality contributions with name, photo, and brief biographical description - but we will also accept anonymous ones where there is a good reason. We do not expect contributors to produce long academic articles (though we publish a select number of academic studies either as an advance version or an OGEL-focused republication), but rather concise comments from the author's professional 'workshop'.

OGEL is linked to OGELFORUM, a place for discussion, sharing of insights and intelligence, of relevant issues related in a significant way to oil, gas and energy issues: Policy, legislation, contracting, security strategy, climate change related to energy.
A Comparative Analysis of Contractual Considerations in Oil and Gas Contracts with an Emphasis on Iranian Petroleum Contracts

by Seyed Nasrollah Ebrahimi¹ and Esmat Shahmoradi²

Abstract

Negotiators of petroleum contracts put great effort into understanding the very features of contractual elements which serve to respond the legal, technical and financial challenges involved. This research conducts a comparative study to delve into the contractual decisions offered by the legal systems of the oil producing countries in response to a variety of challenges faced in the oil and gas industry. In Post-Sanctions Iran, the Iranian Petroleum Contracts (IPC) are becoming increasingly attractive to foreign investors. Therefore, the rules and principles governing such contracts are the focus of this comparative study. The main material used for the analysis is the Iranian “Presidential By-laws concerning the general principles, structure and patterns of upstream oil and gas contracts”. The criteria for analysis encompasses a variety of factors including the major stakeholders, host government participation, flexibility mechanisms, and some of the most outstanding contractual considerations in oil and gas arrangements. These demands will have to be quickly handled, and ideally resolved by NIOC and the foreign contractor, and this paper can be helpful for this purpose.

The results show similarities and differences between IPC and other regional and international oil and gas contracts, especially with respect to joint arrangement mechanisms. State participation to exert national control over the oil and gas reserves is traced in the IPC with a variety of mechanisms identified including JOA, JOC, JMC and rotating management arrangements. The results also show an increasing level of flexibility and room for substantial alignment of mutuality of interest.

KEYWORDS: IPC, oil and gas contracts, state participation, flexibility, Exploration and Production

Section One: Introduction

The comparative study of international oil agreements can help discover their inherent complexities as well as their underlying rules and principles. Negotiators of petroleum contracts put great effort into understanding the very features of contractual elements each of which forms a considerable part of the negotiation challenges. Through a comprehensive approach, contract managers manage complexities, uncertainties, and multiple risks in international contracts using a dynamic, strategic, comprehensive and integrated multi-expert approach to risk identification and contract lifecycle management.

¹ Assistant Professor of Oil and Gas Law and Contracts, Faculty of Law and Political Sciences, University of Tehran. E-mail: snebrahimi@ut.ac.ir
² PhD, Faculty of Law and Political Sciences, University of Tehran. E-mail: snebrahimi@yahoo.com
To meet the above concerns, this study aims to identify and address the contractual risks and patterns in international oil and gas contracts. The main purpose of this comparative study is to provide a means to understanding the rules and principles governing the following contractual elements of petroleum contracts:

- Parties to contract (Section Two)
- Host government participation (Section Three)
- Objectives of contracts (Section Four)
- E&P phases/stages (Section Five)
- Contract regular reports (Section Six)
- Flexibility mechanisms (Section Seven)
- Time/extension of time (Section Eight)

This research conducts a comparative study to delve into the contractual decisions offered by the legal systems of the major oil producing countries in response of a variety of problems faced in the oil and gas industry; the focus, however, will be on the Iranian Petroleum Contracts. For this purpose, the survey begins with an examination of the major players with a direct or indirect say in the management of petroleum contracts.

**Section Two: Parties To Contract**

Many legal entities and business enterprises are not directly parties to the contracts yet deeply affected by it. Some of them have political and administrative positions and act in accordance with their respective state’s long term development plans.

In the LNG supply chain, for instance, multiple stakeholders contribute to the integrity of the entire chain. Potential stakeholders of LNG should consider whether they wish to participate in all or only part of the value chain. The risks and rates of return will vary at different stages of the chain and in some cases a party may not possess sufficient financial ability to participate throughout the chain. For this reason, different companies have adopted different strategies in relation to their participation in the LNG value chain. The International Oil Companies participate in the entire value chain, finding reserve, monetizing their equity gas and selling it into high value markets. Others do not have access to upstream reserves and have no plans to move further upstream. They are buyers, with shipping and regasification capacity and access to high value natural gas markets.³

The technical features of upstream systems imply that the most efficient mode of operation is by single entity central control of the system, while their economics favor involvement of multiple parties in ownership. To resolve this conflict, upstream systems are generally operated by a single operator on the basis of governing rules that stem from agreements between the upstream operator, multiple stakeholders and consumer facilities.⁴

---

⁴Selot, Ajay (2009). *Short-Term Supply Chain Management in Upstream Natural Gas Systems*, submitted to the Department of Chemical Engineering in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Chemical Engineering. Massachusetts Institute of Technology February 2009. p. 28
Pressures in reservoirs, wells and upstream networks play an important role in oil and gas production. A substantial amount of investment over the lifetime of upstream networks is devoted to maintaining flow in the network. Due to this feature, an upstream oil and gas system needs to be managed by a single operator so that all the fields are managed in coordination with each other. This coordinated operation and management makes sure that the entire collection (gathering) network keeps flowing smoothly. All this requires central management of the entire upstream network.\(^5\)

The recent trends towards vertical and horizontal integration confirm the integrated management of joint arrangements in supply chains. Joint ventures have been a common form of organization within the oil and gas industry for two reasons. First, the large investment costs associated with upstream exploration, development and production ventures makes it difficult for one single company to develop and finance the project on its own. Joint ventures are set up in order to share the risks and financial burden. Partnerships between private oil and gas companies have formed. Second, a joint venture with the incumbent NOC is likely. On the one hand, NOCs seek to retain control over oil and gas reserves; on the other hand, private majors contribute to the partnership technological knowledge and marketing channels.\(^6\)

Iranian petroleum contracts are arranged to work through joint arrangements. Such arrangements include joint ventures, joint operating companies, joint management committee and similar contractual mechanisms. A recent presidential by-law,\(^7\) further on in this paper IPC By-laws, has been ratified to stipulate the fundamental governing rules and principles of the Iranian Petroleum Contracts (IPC). Article 1 of the By-laws set down the potential parties to the Iranian contracts. The first party is the National Iranian Oil Company, accompany incorporated under the laws of the Islamic Republic of Iran ("NIOC") and the second party is the “Contractor” which is an incorporated or unincorporated joint venture or joint operation of A) qualified International Oil Company(s) B)qualified Iranian company, approved by the NIOC. At any time, Joint Venture or Joint Operation entities constituting the Contractor will be jointly and severally liable to NIOC for all obligations and liabilities of Contractor. Also, the “Operator” is the entity that is designated to conduct Petroleum Operations being the Contractor during Exploration Operations and Appraisal Operations and the Joint Operating Company (JOC) during Development and Production Operations. Under any circumstances, irrespective of the operations being conducted by the JOC, which may consist of the Iranian companies entered into an arrangement with the international company (Contractor), the responsibility remains on the Contractor. According to Article 1(21) of the IPC By-laws, “Contractor upon establishment of the Joint Operating Company (JOC)…, shall delegate the Petroleum Operations to be executed by Joint Operating Company (JOC) under responsibility of Contractor. Accordingly, the obligations of Contractor under the Contract shall remain intact.”

If any participant in the operations is an undercapitalized entity, as can be the case for the subsidiaries of the NIOC in the Iranian petroleum contracts, the joint arrangement and the foreign contractor are likely to require security, which may include guarantees from the

---

\(^5\) Selot, ibid, p. 33
\(^7\) By-laws concerning the general principles, structure and patterns of upstream oil and gas contracts (IPC By-laws); No. 104089, dated 2015/11/02; Available at: http://rc.majlis.ir/fa/law/show/944062?keyword=%D9%86%D9%81%D8%AA%DB%8C
creditworthy parent company of any undercapitalized entity. As set forth in the IPC By-laws, NIOC accepts the responsibility of its subsidiary where it fails to observe the contractor’s instructions. According to Article 11(1), in case NIOC determines that operations in any of the brown fields need to be conducted by a joint arrangement consisting of one of NIOC’s subsidiaries, a JOA will be concluded between the contractor and the subsidiary. The operations will be conducted under full responsibility of the contractor yet the subsidiary should follow the instructions of the contractor, otherwise the responsibility will rest upon NIOC.

Section Three: Host Government Participation

Models of state participation in the upstream and the downstream petroleum sectors constitute a continuum of national control over the oil and gas reserves. In many cases, the host government’s participation is exercised through a state-owned entity (SOE), though in some countries the government exercises its ownership stake via ministries or other government institutions. Degrees of state participation have been categorized below:9

1. SOE has monopoly over exploration and production, (ex. Saudi Arabia): There is total national control and the SOE is the dominant manager of all projects. However, investment in the sector will depend 100% on SOE’s financial capabilities, and lack of competition creates disincentives to strong performance.
2. SOE is “concessionaire”, (ex. Malaysia): there is guaranteed SOE leadership in the selection of partners, but there are benefits from the skills brought by private companies. However, there is risk of conflict of interest and some disincentives to performance/investment since the SOE is basing the selection of partners on its own internal goals.
3. SOE is given a guaranteed ownership stake/role in the project but another government body picks the private partners to participate in the project, (ex. Indonesia). There are some disincentives to maximum SOE performance or maximum foreign investment remains by virtue of guaranteed SOE role.
4. SOE has to compete/negotiate to participate in projects, but is given a privileged position to participate, (ex. Kazakhstan): Creates greater incentives for SOE to become competitive, but still makes it likely that SOE will have a strong role in many projects the performance incentive is more limited than in full competition.
5. Full competition – SOE has to bid on projects just like a private company (ex. Norway): Creates maximum quality of companies operating in the country, and strong incentives for SOE to develop its performance. However, it could hurt SOE’s development, especially in the early years – will be difficult for it to win competitions, and therefore limits opportunities to learn and grow.
6. No SOE, (ex. United States): Full competition – market forces and innovation can contribute to strong economic returns for the state via taxes. No opportunity for the state to use an SOE as an engine for the achievement of state development goals or local content.

Host governments have a major concern with respect to ownership and sovereignty of the national reserves. These are two legal constitutions which are in mutual relationship and host

---

8IPC by-laws- Article 11
governments seek to obtain most of these two advantages. Where there is ownership yet no sovereignty, states have no bargaining power; and where there is sovereignty but no ownership, states cannot use their reserves in the international markets. States which rely on their private sector may maintain their sovereignty and transfer the ownership to the private sector. This will ensure their national interest and permit the growth of private sector. Such policies mainly aim at ensuring enough resources for their local use. Hence, governments put the first priority on the domestic markets and only then on the international level. Meanwhile, host governments participate for the purpose of industrial and economic development. Failure to observe this criterion in their master plan will result in the sale of crude oil and the state will become a mere seller and fall into the trap of resource curse.

Depending on the type of contract, states may have different degrees of participation. In concessions, such participation is the minimum and the participation increases in service contracts. In investment and development contracts, the investor has no ownership over the resources. The rise in oil prices will be to the benefit of the host government in such circumstances while this is not the case in concession and PSC. Hence, concession is the most attractive contract for the foreign investor. The smaller is the IOC chances are less to gain a concession and more a service contract. This also depends on the host government’s bargaining power and upstream policies.

The host country and the IOC may agree on some form of state participation in the project. In this event, the NOC will be a party to the petroleum contract as well as the representative of the state granting rights to the other parties. Sometimes an affiliate of the NOC is established for the purpose of representing the NOC in the direct operations of the project; an example is the Affiliates of the National Iranian Oil Company (NIOC) which forms a joint arrangement with the IOCs to work in the E&P stages on Iran’s reservoirs. Such state participation is both one of the fiscal tools available to the state and a means to promote broader national development goals.

State participation in oil, gas and mining may occur through the involvement of state owned companies in key extractive projects. When participating properly, states can create financial benefits, promote capacity building, and improve monitoring of the oil, gas and mining sectors. However, state participation can also create obstacles to private investment, or create opportunities for patronage and corruption. Parliaments should enforce rigorous oversight of state-owned enterprises to ensure that these entities manage valuable national resources efficiently and support national development goals. The same concerns have recently hindered the parliament approval of the new model for Iran Petroleum Contracts, or the so-called IPC.

While governments need to prepare a national master plan for the energy sector where they stipulate the related policies concerning their natural resources, in Iran, such a comprehensive plan has not yet been prepared by an upstream document; however, the oil and gas contracts insert provisions on this concern. Article 2(7) of the IPC By-laws specifies that the Contractor should provide the funding for and carry out the Petroleum Operations “in the name and on the host government’s behalf.”

---

10See IPC By-laws- Article 11(1)
11Peirano, Marta and Grenzfurthner, Johannes (2012), Oil Contracts: How to Read and Understand a Petroleum Contract, Times Up Press
12It is generally believed that corrupt mechanisms may be established where a local entity is imposed on an IOC seeking to enter into petroleum agreements with the host government.
13See The Natural Resource Governance Institute, op.cit.
behalf of N.I.O.C”. IPC, therefore, is not considered as a production sharing contract but as a joint arrangement to conduct the operation under a JOC, JOA, or other joint arrangements. It is only certain services comprising Project management and Reservoir(s) engineering study which may be conducted by the Contractor. The rest of the operations, are therefore conducted through joint operation.

State participation has been stipulated in the local content arrangements of the new Iranian contracts. In IPC, the Contractor acknowledges that it has entered into this Contract in the capacity of an Incorporated/Unincorporated Joint Venture /Joint Operating Company (JOC) that had been established between international and Iranian competent companies. Pursuant to Article 4(1) of the IPC By-laws, in order to enhance the capacity of Iranian companies capable to carry out the oil and gas Projects, to be able to operate in the regional and international markets, to transfer the advanced and modern technology, the management skills and particularly the Reservoir engineering skill, Contractor (i.e. the joint of qualified foreign oil company and Iranian competent company as approved by the NIOC) will execute the Contract accordingly.

State participation is also implemented by means of rotating management arrangements. As per Article 4(4), of the IPC By-laws, in order to facilitate the transfer of technology and management skills to the joint Iranian company, the organization chart of the JOC (whether as an incorporated company or agreement) will be, during the Production Operations of the Contract, based on the rotated arrangement.

Article 8(4) of the IPC By-laws define “Joint Management Committee” ("JMC”) as the committee consisting of the equal members of NIOC and Contractor to be established by the Parties for supervising and monitoring the execution of the Petroleum Operations including the Capacity Pressure Maintenance of Oil (CPMOO) and EOR/IOR operations for Crude Oil Field. Each Party will be titled to cast one vote per member on matters to be decided by the Joint Management Committee (JMC).

**Section Four: Objectives Of Contracts**

Parties to a petroleum contract normally set a variety of commercial, political and other goals as the objectives of their petroleum contracts. There are certain goals and objectives which may act as the criteria for the host government to enter into an agreement with a foreign contractor; such criteria may act as the fundamental principles governing the petroleum contracts dictated by the local laws including the constitution. Similarly, the contractor has certain criteria which act as the incentives to look for such contracts.

Contractor’s objectives may relate to geological, financial, political, social and many other risks. Geological features and behavior of the reservoir and the field may make a reservoir hard and expensive for exploitation. Financial attraction of the proposed contract is a major incentive as contracts in which all the risks are proposed to be borne by the contractor, are far from attractive. Higher rate of return is among the financial incentives for the operator. In case of political risks, including economic sanctions, the proposed rate of return will be higher. Corporate Social Responsibility (CSR) is nowadays used as a medium by contractors to enhance their acceptability within the local communities and in competition with other IOCs to maintain their benefits through winning petroleum contracts.

---

14 See IPC by laws- Article 8(6) and its note
Host government’s objectives also include a variety of factors which act as the indispensable principles governing the oil and gas contracts. Project financing is the major objective host governments pursue through fiscal tools such as the lower rates of return\textsuperscript{15}. The fiscal tools can be of legal and contractual nature. Legal and regulatory fiscal tools include taxes and levies made obligatory by the legislators. Foreign investors have to study these tools before deciding to enter into an agreement. Contractual fiscal tools refer to the type of contract; i.e. whether the contract is a concession, PSA, or service contract, each have their specific fiscal tools, which have to be taken into consideration by the foreign investor before entering into an agreement with the host government.

Parties may design their goals and objectives in isolated drafts, dictated by the national master plans, and wait for the negotiation processes to finalize them. This is the case in the draft IPC contract. As per Article 2.10., of one of the draft versions\textsuperscript{16} of Iranian Petroleum Contracts, which is closest in terms of content to the IPC By-laws “Contractor shall conduct all activities in order to achieve objectives of the Petroleum Operations under the Contact and its Appendices while observing the Maximum Efficient Rate of wells and Reservoir and maximum recovery of reservoirs, as may be applicable.”

The objectives of the contract determine the degree of permissible changes which can be implemented by the contractor. Pursuant to Article 18.8 of the draft IPC:\textsuperscript{17}

\textit{After the approval of the annual Work Program...Contractor may make minor changes to that annual Work Program and Budget if those changes have no effect on the objectives of the Petroleum Operations, as described in the EOP, AOP and DPP.}

Efficiency of operations is one of the objectives of the Iranian Petroleum Contracts. This is stipulated in Article 3(6) of the IPC By-laws which makes it necessary that the contractor is to conduct all activities in order to achieve objectives of the Petroleum Operations while observing the Maximum Efficient Rate (MER) of wells and Reservoir, as may be applicable.

Due to the high risks at the exploration phase, the contractor undertakes to work minimally to avoid the contractor’s bankruptcy in case of failures in the establishment of commercial discovery and exploration. This is provided in Article 1(13) of the IPC By-laws; accordingly, “Minimum Exploration Expenditure Obligation” and “Minimum Exploration Works Obligation” is provided for the execution of Geological, topographical, geophysical, petrophysical, geochemical surveys, 2D and/or 3D seismic studies and acquisition, drilling exploration well(s) operations and Reservoir evaluation.

One of the basic principles and objectives ruling the Iranian petroleum contracts is concerned with the recovery of petroleum costs. Pursuant to Article 3(3) of the IPC By-laws, Petroleum Costs and the Fees all are paid to Contractor out of i) the maximum fifty percent (50\%) of the Revenue(s) generated from the Field, as a result of the successful Petroleum Operations carried out by the Contractor under the Contract. However, according to Article 3(4) of the By-laws, in case the allocated revenues generated from the field is not enough for contract term, a longer duration will be defined and specified in the contract for cost recovery.

\textsuperscript{15}The range is 15-25 percent maximum
\textsuperscript{16}IPC (E&P) / final version / steering committee / 11.18.15
\textsuperscript{17}Ibid
Local content and technology transfer as the major objectives of oil and gas contracts have been stipulated in Article 4 of the IPC By-laws. Accordingly, Contractor shall maximize the utilization of qualified and experienced Iranian citizens to carry out the Petroleum Operations, in accordance with the laws of Iran. Contractor shall, during the Term of the Contract, transfer technology and knowhow to Iran. Contractor shall conduct and provide training for Iranian employees and trainees engaged in this Project as introduced by the NIOC from time to time, and shall bear the costs of such training. The type and budget of training, as well as the level, duration, time and place of training shall be approved by the NIOC, respectively, in such a way that it shall result in the transferring of know-how and technology, the upgrading of the respective knowledge and skills of the Iranian employees and trainees, and the acquiring or upgrading the necessary know-how and technology to enable them to assume and perform the responsibilities and tasks for which they are being properly trained as required for the successful conduct of Petroleum Operations in the Contract Area.

Article 4(3) of the IPC By-laws deals with joint R&D mechanisms. Accordingly, training and research program for the promotion and modernization of the current research and development (R&D) centers in the Country and the establishment of the R&D or execution of the R&D project(s), appropriate to the Exploration, Appraisal, initial and future Development and Production, including CPMOO (e.g. EOR and IOR) for each phase of the life cycle of the Field/Reservoir, shall be proposed by the Contractor and incorporated in the annual Work Program and Budget.

Section Five: E&P Phases/Stages

The oil and gas extraction industry can be classified into the four major processes of exploration, well development, production, and site abandonment. The main stages and activities associated with the petroleum product life cycle include upstream E&P Process, Midstream, and Downstream which are conducted through prospecting, access, drilling, developing and producing, transportation, processing and refining, as well as marketing and sales. Oil and gas contracts must accurately define the phases and stages in which the IOCs carry out the operations. A variety of joint arrangements can be conceived where foreign companies are entrants not for the whole E&P but for the exploration or development alone. A Joint Development Agreement, for instance, defines the scope of work when the exploration and appraisal ends, while contracts may define a Joint E&P which covers all the phases and stages. Accordingly, different joint arrangements such as Joint Development Agreement (JDA), Joint Exploration Agreement (JEA), Joint Production Agreement (JPA), Joint Operation Agreement (JOA), etc. are conceivable, for which it is necessary that contracts specify the accurate phases and stages. Needless to say, some countries such as Iran have regulatory disciplines concerning the PSC and contract type which may be a barrier to sharing the products and entering into ownership relationship concerning the natural resources.

One of the challenges of the oil and gas contracts is that the E&P phases are so long and there is the need for a huge plan to implement such a big project. Therefore, the oil and gas contract is divided into phases and stages for better management of the project. One of the

---

18 Article 4(2)- IPC by-laws
19 Article 9- IPC by-laws
problems with the previous Iranian buy-backs was that the cap of the obligations were fixed and a big master development plan was supposed to be implemented while IOCs were seeking to go phase by phase and add flexibility to their contracts depending on the reservoir and field behavior and new information.

In IPC By-laws, three types of contracts can be concluded by the foreign contractor: (1) E&P contracts which is meant to be an integrated Exploration, Appraisal, Development and Production Service Contract in respect of Contract Area, (2) D&P, which includes development and production phases, and (3) IOR/EOR which are meant for the production stage. Accordingly, several stages and operations have been set forth including “Development Operations”, “Development and Production Operations” (“DPO”), “Enhance Oil Recovery (EOR)”, “Exploration Operations”, and “Production Operations”.

EOR/IOR as a principle and objective has been mentioned in Article 11(1) and 11(3) of IPC By-laws. Accordingly, the necessary operations for the EOR/IOR will be carried out by means of joint arrangements. Articles 1(24) and 1(25), too, deal with IOR and EOR”. “Capacity & Pressure Maintenance Operations for Oil” (“CPMOO”), including Improved Oil Recovery (IOR) and Enhanced Oil Recovery (EOR), as the case may be, means as part of the Development and Production Operations, proposed by the Contractor and approved by the NIOC and performed by the Contractor including work-over of the wells, acid/hydro fracture, infill/horizontal drilling, electrical submersible pump/gas lift, reservoir heating, in-situ combustion, gas/water/chemical/steam/bacteria injection, construction and installation of additional facilities, replacements of any part of the production facilities and other works and services, as may be required under the CPMOO plan, in order to, as the case may be.

Force majeure has been governed by certain principles in IPC. Where performance of an obligation is suspended because of force majeure for the development and production phases, which may lead to termination or suspension of the contract, Contractor shall be entitled to Petroleum Costs incurred and paid by the Contractor only when force majeure ends. In any event, Contractor’s outstanding Petroleum Costs will be paid out of the Revenue(s) generated from the production of Petroleum from the Field.

Section Six: Contract Regular Reports

IPC By-laws in Article 1(4) specify the need for regular KPIs for determining the commercialization of the field. Such indicators will be determined by the NIOC and announced in the bid and inserted in the contract.

Regular reports are provided for in oil contracts through a list of indicators, mainly checklists, which aim at making quantifiable monitoring of the petroleum operations. Often, there are some key performance indicators (KPIs) which serve as monitoring tools used to bring focus on critical aspects of the phases of the operation. Mutually agreed KPIs may be established annually and monitored regularly, and may form part of the contract. A Key Performance Indicator is a selected indicator considered key for monitoring the performance of a strategic objective, outcome, or key result area important to the success of an activity and growth of

---

20 Article 2- IPC by-laws
21 Articles 1.25 and 1.73- IPC(E&P)/ final version/ steering committee/11.18.15
22 Article 3(9)- IPC by-laws
23 Schlumberger Limited, Contracts and KPIs, available online at: http://www.slb.com/resources/supply/supplierinfo/contracts.aspx
the organization overall. KPIs make objectives quantifiable, providing visibility into the performance of individuals, teams, departments and organizations and enabling decision makers to take action in achieving the desired outcomes.24

Key performance indicators (KPIs) are commonly used by oil and gas organizations to evaluate success. But success can be defined in very different ways. Choosing the right KPIs needs a good understanding of what is important to the organization.25 Having proper KPIs in place increases the ability to generate up-to-date performance data that can help assess alignment to short-, mid- and long-term goals and objective. The visibility on capital project performance, in terms of cost, schedule, risks, resources, return is improved. Other advantages of setting up KPIs are the enhanced ability to measure and address vendor performance but also to better assess compliance to health, safety, security and environment (HSSE) standards.26

For BP, key performance indicators include a range of key financial and non-financial measures and indicators.27 For instance, “refining availability” measure shows the percentage of the year that a unit is available for processing after deducting the time spent on turnaround activity and all mechanical, process and regulatory downtime. Refining availability is an important indicator of the operational performance of the downstream businesses.

Section Seven: Flexibility

For a country deciding to promote petroleum activities, contractual terms have to be designed in order to encourage the participation of international oil companies willing to quickly commit meaningful exploration budgets, while safeguarding the country’s long-term interests.28 To conclude a long term petroleum contract which can endure the duration of project, flexible mechanisms, such as renegotiation clauses or some fiscal formula, have to be provided in contractual clauses. This is due to the fact that no local or international expert or authority is ever able to predict the oil prices for the contract lifecycle. Failure to observe such contractual mechanisms will lead to renegotiations or even the unilateral measures by the host governments which are not necessarily favorable to the foreign investor.

Ironically, the contracting parties try to sign not only complete rigid contracts in order to avoid renegotiations but also flexible contracts in order to adapt contractual framework to unanticipated contingencies and to create incentives for cooperative behavior. This gives rise to multiple adjustment provisions and to a tradeoff between rigid and flexible contracts. Such

24On Key Performance Indicators (KPIs), SmartKPIs.com, Available online at: http://www.smartkpis.com/key-performance-indicator-KPI
26 Ibid
Tradeoff is formalized with an incomplete contract framework, including *ex post* maladaptation and renegotiation costs.29

Flexibility is often introduced to contracts with relational methods, relying on good personal relationships between business partners or negotiation power and negotiation skills. Contract documents often do not contain mechanisms for dealing with contingencies, or “soft” contract terms. The following reasons may explain this. First, firms heavily rely on model contracts to develop their own templates and the lack of contract models in new business areas hinders firms to develop their templates. Second, unfamiliarity with using soft elements makes it difficult to use them. Additionally, in some cases firms may prefer using relational capability.30

Rigidity and flexibility of oil contracts can be considered in the following circumstances: Under certainty, rigid contracts are efficient and there is no room for grievance. With uncertainty, there is the need for a compromise between rigidity and flexibility. Under uncertainty, rigid contracts often call for renegotiations. When the size of the reserve is low, the company wants to renegotiate. When oil quality is very high, the State wants to renegotiate. Drafters of petroleum contracts should make the contract more flexible to reduce this renegotiation-type grievance.31

The above relational methods may lead to mutual agreement for renegotiation. According to Section 16 of the Presidential Decree of the Kazakh Republic with the Force of a Law on Oil, until the signing of a contract, the content of a licence may be changed only by mutual agreement between the licensor and the licence holder. After a contract has been signed, the terms of a licence can only be changed by mutual agreement between the licensor and the parties to the contract. Changing a licence necessarily entails changing the contract accordingly.

Further, pursuant to Article 15.13.1 of Caspi-Kazakhstan (2006) Contract32, the Parties may agree on adjusting the terms of taxation as set forth in this Contract due to changes in the tax legislation. Where, as a result of changes in the tax legislation, the terms of taxation applicable to the Contractor have been either improved or worsened, the terms of taxation as set forth in the Contract shall be amended with a view to reinstating the economic interests of the Parties.

A major source of conflict between host governments of developing countries and multinational oil companies derives from the preoccupation of multinational oil companies with stability and predictability in contractual relations on the one hand, and the persistent

---


32 Contract For Production Of Hydrocarbons in South Alibek Oil Field Located within the Limits of Blocks xxii-23 A (Partially), D (Partially), and E (Partially) in the Territory of Mugalzh (Mugodzh) Region, Aktyubinskaya Oblast, Republic Of Kazakhstan, between the Ministry of Energy and Mineral Resources of the Republic of Kazakhstan (the “Competent Body”) and Joint-Stock Company CaspiNeftTme (the “Contractor”) Astana – 2006
demands of host governments for a more flexible contractual regime on the other. This is because the underlying objectives of the two parties are significantly divergent. While host governments aim at promoting economic growth and development through such foreign investment, the multinationals are merely concerned with maximization of profit at the least risk.

The host government’s need for the flexibility to amend contracts in response to changing circumstances is contrasted by the foreign oil company’s need for contractual stability. From the FOC’s point of view, contract terms once fixed should remain stable, and it is the usual practice for these investors to negotiate for the inclusion of stabilization clauses in petroleum development agreements as a contractual defense against political risks and unilateral government action. Therefore unilateral contractual amendments made by HGs in a bid to capture optimum government take are an unwelcome change to FOCs not only because of the breach of contract involved but most importantly because of the implications of the changes to their estimated profit margins. Hence, any failure to make appropriate flexibility clauses, leading to unilateral amendments by the HG, indicates the drafters’ failure to conduct an integrated contractual management which should have taken into consideration flexibility as a contractual consideration.

While circumstances naturally change over the contract term, which is normally long, the question is how governments secure a fairer share of the economic benefits of petroleum production activities without breaching their contractual obligations and disregarding the investors’ need for stability and predictability? How can governments achieve a fiscal system which is sensitive to profitability and is open to “tax increases” without the need for renegotiation? How can flexibility and stability be incorporated into fiscal policies in such a way as to align the interest of both government and investor? Questions of this kind can be answered by a variety of methods including insertion of renegotiation clauses and providing for sliding scales in the contract.

Parties to international investment contracts usually insert renegotiation clauses to define the change of circumstances. Parties can overcome the pacta sunt servanda principle only if the contract contains a renegotiation clause. For example Petroleum production agreement between the Government of Ghana and Shell Exploration and Production Co. provides:

\[
\text{It is hereby agreed that if during the term of this Agreement there should occur such changes in the financial and economic circumstances relating to the petroleum industry, operating conditions in Ghana and marketing conditions generally as to}
\]

\[36\text{Ibid, p. 2}
materially affect the fundamental economic and financial basis of this Agreement, then the provisions of this Agreement may be reviewed or renegotiated.

The question however, is what if an express renegotiation clause is not embodied in the agreement? It may be recalled that by Resolution No. XVI. 90 of 1968, OPEC declared that governments have a right to renegotiate contracts with multinational oil companies.

There are a variety of flexibility mechanisms in addition to renegotiation clauses which can limit the rigidity of long term petroleum contracts. The contract type, for instance, can be in direct connection with the contractual element of flexibility. PSCs are adopted by some governments because of its flexibility and adaptability. Under this concept, it is very easy to ‘tailor’ the production split to the real petroleum interest of each country and to local conditions; and thus to have a flexible split by varying the IOC's share of production. The traditional license agreement does not have the same flexibility.

Flexibility in concession contracts can be created through progressive royalty scheme based on some profitability indicators. Flexibility in PSAs through non-linear schemes for sharing profit-oil.

Flexibility can be provided through the fiscal regime governing the contract. Progressive taxes can be the ideal instruments in achieving the stability and flexibility needed for the equitable distribution of oil profits between governments and investors. Oil projects make very large profits. To ensure fairness in division of these profits, fiscal systems should be flexible and progressive. A flexible fiscal regime is one in which the government take is adjusted to the changing levels of profitability. Crude oil prices are very volatile. Sliding scales are a mechanism which can be used to introduce flexibility into different tax instruments such as royalties, taxes and profit oil splits in production sharing contracts. The three main types are production based sliding scales, ‘R’ Factors and Rate of Return systems. With production based sliding scales each level is subject to its own royalty rate or profit oil split. The scales could either be incremental in which case only the incremental production is subject to the higher royalty, or slab in which the new rate is applied to the whole production.

Flexibility and renegotiation can be considered as the underlying feature of oil and gas contracts. As mentioned above, this is confirmed by the international instruments and also practiced globally. This is because of the fact that appropriate means to providing a dynamic contract is beneficial in a number of ways. To host governments, it provides a medium for revision of contractual terms to meet changed economic conditions that could not have been reasonably foreseen at the time of concluding the agreement. For multinational oil companies, it ensures security of investment by preventing unilateral adaptation of contractual terms by the government.

---

42TijjaniMato, Hadiza (2012), op.cit.
The main advantage of the new Iranian petroleum contracts (IPC) over the previous buybacks is said to be more contractually flexible. Iran declares its readiness to practice an unprecedented level of flexibility in oil contracts with foreign companies and put forward more appealing deals.\textsuperscript{44} Article 1(14) of IPC By-laws permits the reviewing and adjustment of development plan through a variety of factors. In IPC, an overall lifecycle forecast plan will be set forth for the Petroleum Operations which includes initial and general assumptions, strategies, concepts, principles, procedures and presumed main activities related to the lifecycle Petroleum Operations of the Field, and such plan will be the base for the preparation and submission of the Development and Production Plan(s) and any adjustment(s) to it for the entire Petroleum Operations of the Field. Such adjustments will naturally reduce the rigidity of the Contract.

What needs to be known at the beginning of contract drafting is the overall knowledge of the principles and these are specified in preambles; it is not possible to determine the costs of development of the field five years in advance; therefore, agreements can be based on fee per barrel\textsuperscript{45} or rate of return which can add to the flexibility of the contract. The fee per barrel is the mechanism used in IPC.

In Iranian contracts, there is no flexibility concerning the ownership and sovereignty of petroleum resources and these are absolutely within the control of the government. The IPC By-laws, in line with the upstream laws of Iran explicitly mentions that the Government of Islamic Republic of Iran, through the Ministry of Petroleum of Iran, exercises exclusive rights of sovereignty and ownership over the Petroleum resources, reserves or produced, and wishes to promote and encourage the exploration, appraisal, development and production operations of Petroleum resources in the Contract Area.\textsuperscript{46} Under this Contract, Contractor has no property rights to any natural resources including the hydrocarbons in the ground, which are and at all times will remain the property of NIOC.

The Open Capex specified under Article 1(27) of the IPC By-laws reinforces the flexibility of capital expenditure depending on the field behavior and the need for further investment. Article 1(28) also permits the adjustments necessitated by the actual circumstances. Accordingly, Direct Capital Costs, estimated by the Parties and determined in the annual Work Program and Budget in accordance with the actual requirements of the Petroleum Operations of the Field/Reservoir including the Field Performance, Reservoir’s behavior and required costs and expenditures, are illustrated and defined and will be charged into the Project Accounts in accordance with the Accounting Procedures.

Article 3(10), ensures the contractor that the adjustments and changes to the production level will not negatively affect the contractor’s rights. Accordingly, in the event NIOC decides to restrict production for any political or social reason(s), such restrictions will be on the production of fields and reservoirs other than those on which the contractor is working. In any event, such restriction shall not affect Contractor’s entitlement to recover Petroleum Costs and the Fee under the Contract.

\textsuperscript{44} Iran Ready to Show More Flexibility in Oil Contracts”, TEHRAN Mar 17 (Shana); available at: www.shana.ir/.../Iran-Ready-to-Show-More-Flexibility-in-Oil-Contracts-...
\textsuperscript{45} Article 1(20) and 6(2) IPC by-laws
\textsuperscript{46} Article 3(1) IPC by-laws
Other flexibility mechanisms in the IPC are with respect to the local content requirement, as well as the costs and scope of work. The local content requirement is expected to be compatible and in line with the project’s stages and phases and need a flexible mechanism. Therefore, Article 4(3) requires such compatibility with the project lifecycle. The costs and scope of work are also required to be in line with the reservoir’s behavior according to Article 8(2).

**Section Eight: Time And Extension Of Time**

The claiming and granting of extensions of time in oil and gas projects is often a complicated process. Extension of time can have financial or non-financial implications for the parties to an oil contract. Any delay and disruption in EPC projects in oil and gas can have devastating consequence for the parties. Extension of time in upstream contracts, however, are not always of negative consequences, and may serve to the commercial advantage of both parties. Sometimes the extension of time becomes a matter of fact in the project and to make performance possible, it becomes necessary that the extension of time (EOT) clauses provide an extensive list including causes of unpredictability and force majeure as rules and principles in oil contract.

The contractual management of the risks presented by delay, disruption and extensions of time, therefore, is a necessity in oil and gas projects. Such a contractual management requires the analysis of the host government and the IOC, or the Contractor's and the Employer's obligations with regard to completion. It addresses the importance of giving timely notice in respect of both time and money and explains the fundamental purpose of extensions of time provisions and what happens when things go wrong. The causes of delay and disruption on EPC oil projects need to be considered by contract drafters in detail and the various methodologies for demonstrating critical delay and loss of productivity provided for. Disputes may be avoided by careful drafting of contracts and the accurate provision of EOT clauses.

Some of the issues to be stipulated by oil contract negotiators with a view to the integrity of contractual management include risk assessment (for the lifecycle of the project) in respect of delay and disruption; defining, interpreting and monitoring delay and disruption; interpreting the individual causes of delay related to contract provisions; the effects of concurrent delays and dealing with consequential delays; notification of intermediate milestone completion dates and the significance of the overall construction program to interface subcontractors; a contractor's entitlement to extensions of time; utilization of float 47; delays after the completion date or extended completion date; liquidated damages and/or penalties; contractor's program showing early completion; controlling variation and change with recourse to contract mechanisms; acceleration 48 rescheduling and out of sequence working.

---

47 In critical path analysis, float is the period of time by which the duration of an activity may be extended without affecting the overall time for the process. Oxford Dictionary of English Angus Stevenson (edited by) - 2010 - OUP Oxford

48 An acceleration clause is a contractual provision which allows the holder to declare the remaining balance due and payable immediately upon the occurrence of a default in the obligation. It is a clause used in an installment note, mortgage, or deed of trust, which gives the lender the right to demand payment in full upon the happening of a certain event, such as failure to pay an installment by a certain date, change of ownership without the lender's consent, destruction of the property, or other event which makes the loan repayment insecure. US Legal
With unclear provisions the contractor is left more exposed to the risk of not being granted the extension of time requested, and consequently the risk of wrongfully bearing liquidated damages for delay. The standard list of events that would relieve the contractor from its obligation to complete the works by the contractual deadline may be limited to the events of failure to give possession of the site, additional or extra works and some ambiguous events defined as “special circumstances” or “beyond the contractor’s control”. On some infrequent occasions, the contractor may succeed in including straightforward provisions in the list of events allowing extension. However, in most other scenarios, the contractor is often left uncertain as to what its exact rights are. For instance, what if the employer stops paying the contractor which disrupts the progress of the works and causes a delay? What if the employer asks for a variation or suspends the works and then does not approve the extension of time claim of the contractor? What if multiple factors or parties cause the delay? The wording of the oil contract has to answer the above questions.50

Nevertheless, contractors who have signed contracts with unclear provisions can rectify the situation, subject to agreement of the parties. A side letter could be signed with the employer, in which the unclear extension of time clause is reworded to cover all possible events of delay and to clearly state the procedure for evaluating the extended time duration for each event. A well-drafted extension of time clause would benefit both parties, by guaranteeing the respect of the contractual time for completion of the works, protecting contractors’ rights in the event of delays caused by the employer, and, preserving the rights of the employer to liquidated damages.51

Regardless of the damaging consequences of delay and disruption discussed above, in E&P contracts, extension of contract duration can provide access to prolific exploration areas to the foreign investor. Tethys Petroleum Limited, for instance, received approval from the Ministry of Oil & Gas of the Republic of Kazakhstan for the extension its Production Contract for a further 15 years to June 2029. This Contract extension will give Tethys significantly more time to produce natural gas from this attractive area.52

Most EPC contracts in oil and gas projects must provide for the contractor to be granted an extension of time when it is delayed by the acts or omissions of the project company. Project companies have limited ability to intervene when problems occur during construction. The more a project company interferes during the construction, the greater the likelihood of the contractor claiming additional time and costs. The contractor's entitlement to an extension of time is not absolute. It is possible to limit the contractor's rights and impose pre-conditions on the ability of the contractor to claim an extension of time. A relatively standard extension of

---


51 Ibid

time (EOT) clause would entitle the contractor to an EOT for (1) an act, omission, breach or default of the project company; (2) suspension of the works by the project company (except where the suspension is due to an act or omission of the contractor); (3) a variation (except where the variation is due to an act or omission of the contractor); and (4) force majeure, which cause a delay on the critical path and about which the contractor has given notice within the period specified in the contract.53

Most standard forms of contract provide that the contractor will be entitled to an extension of time in the event of instructed variations or changes, suspensions, force majeure and changes in law. Depending on the type of project, and the parties’ respective bargaining power, the contractor may also succeed in adding certain other neutral events to the list of events giving rise to an extension of time.54 A well-drafted extension of time clause will benefit both parties by maintaining a contractual time for completion; preserving the employer's right to liquidated damages; and giving the contractor relief from its strict duty to complete the works on time in the event that delays are caused by specified neutral events.55

Extension of time is treated slightly differently in upstream oil and gas projects. Pursuant to Article 14 (2) of the Indonesian Law on Petroleum and Natural Gas (2001), business entities or permanent establishments can apply for the extension of the validity period of the joint cooperation contracts as meant in paragraph (1) to another term of 20 (twenty) years at the maximum.

In compliance with Article 13, the Draft Iraq Oil and Gas Law (2007), except if additional time is needed to complete the operations to assess a Discovery, the exclusive Exploration and Production right shall be granted as follows: 1- First Period shall be a maximum of four years. 2- Subject to having fulfilled all commitments by the holder, the specialized entity may grant a Second Period of two years provided however that a substantial work programme is committed to under this period. A Third Period of Exploration can for special considerations of continuity be granted by the specialized entity provided however that such extension is justified by the quality and substance of the work programme and does not exceed two years. In the event of a Discovery, the exclusive Exploration and Production right may be retained by the holder for the purposes of completing the operations initiated within a specified area to assess or determine the commercial value of a Discovery for an additional period of two years or, in the case of a non-associated Natural Gas Discovery, for an additional period not to exceed four years. On the basis of a Field Development Plan prepared and approved in accordance with this law and the relevant contract, INOC and other holders of an Exploration and Production right may retain the exclusive right to develop and produce Petroleum within the limits of a Development and Production Area for a period to be determined by the Federal Oil and Gas Council not exceeding 20 years dating from the date of approval of the Field Development Plan, depending on considerations related to optimal oil recovery and utilisation of existing infrastructure. In cases which for technical and economic considerations warrant longer Production period, the Council of Ministers, on newly negotiated terms, has the authority to grant an extension not exceeding 5 years. The

55 Ibid
remaining acreage outside the Development and Production Area shall be relinquished at the end of the Exploration and Production right.

Time is a factor in adding volatility to petroleum contracts as the lengthier contract term increases the risk of market and change of prices, and change of laws, which by themselves reduce the performability of the contract. However, in case the contract is too flexible, there is more risk of multiple interpretations which undermines the reliability and certainty of the contract. Therefore, it is the art of draftsmen to make a balance between stability and flexibility of the contract. Accordingly, in IPC By-laws, Article 7, the total duration of execution of the Development and Productions Operations Phase will be maximum twenty (20) Years from the date of approval of the Development and Production Plan (DPP) by the NIOC. Such duration, where further Petroleum Operations and/or IOR/EOR operations is necessarily required, may be extended by the mutual agreement of the Parties for up to a maximum of five (5) Years. The IPC By-laws specify that in the integrated E&P contracts, the Exploration period will be added to the contract term.

With a view to the oil contracts under study, there seems to be difference between extension of time clauses in the upstream and downstream contracts. A majority of claims concerning downstream EOT clauses can be pursued or defended under FIDIC contracts, and the examples investigated show that EOTs are granted as a result of an external factor such as force majeure, or employer’s intervention or other factors discussed above. In the upstream projects, on the other hand, most extensions are mainly extending the ‘term of the contract’ granted to the contractor during the exploration or other stages in order to enable the contractor to establish the commercial nature of the project. In upstream, integrity of oil contracts requires that extension be justified by the quality and substance of the work programme; in other words, technical and economic considerations warrant longer Production period. Under any circumstance, in the event of the authorization of EOT, the appropriate amendments should be made to the contract.

Section Nine: Conclusion

The complexities of the oil and gas contracts can be revealed through a comparative analysis of the risks provided and responded by means of contractual clauses. Negotiators of petroleum contracts put great effort into understanding the very features of contractual elements each of which forms a considerable part of the negotiation challenges. This research was a comparative study to delve into the contractual decisions offered by the legal systems of the major oil producing countries in response to a variety of problems faced in the oil and gas industry.

In the Post-Sanctions Period, the Iranian Petroleum Contracts are becoming increasingly interesting to foreign investors. Therefore, the rules and principles governing such contracts have to identified. As at the moment, there is no final version of the IPC ratified by the Iranian Parliament, this paper delved into the different threads of the recent Iranian “Presidential By-laws concerning the general principles, structure and patterns of upstream oil and gas contracts”. In comparing IPC and other petroleum contracts, by following the thread of how contractual considerations are inserted, how a contractual risk develops and how the contracts respond to such risks, many similarities and many differences between IPC and other contracts are found.
Topics on IPC’s checklist of factors to take into consideration were discussed in the form of contractual clauses under a variety of headings including host government participation, objectives of contract, E&P phases and stages and several others. These demands will have to be quickly handled, and ideally resolved by NIOC and the foreign contractor, and this paper can be helpful for this purpose. More broadly, contractual discussions in this paper guide the reader on how to enter into an agreement with NIOC and quickly find the challenges. For a country deciding to promote petroleum activities, contractual terms have to be designed in order to encourage the participation of international oil companies willing to quickly commit meaningful exploration budgets, while safeguarding the country's long-term interests.

The financial, commercial, and certain other challenges of IPC were examined in comparison with other regional and international oil and gas contracts:

From the viewpoint of IPC, the two legal institutions of ownership and sovereignty center on joint arrangements issues, as evidenced by the desire to establish state-owned entities which form JOA and JOA with the foreign contractor. Many nations, including Iran, view their resources as an asset not belonging to any private party, and this is reflected in the IPC By-laws, as dictated by the constitution. This paper illustrated how state participation is implemented in IPC using a variety of mechanisms such as JOA, JOC, JMC and rotating management arrangements.

In some cases, IPC seeks to attract the participation of international companies with the resources and expertise to help Iran exploit and market its energy resources, yet as IOCs are possessed of stronger negotiation skills, some of the contractual elements become a matter of negotiation. Therefore, this study also focused on flexibility mechanisms in oil and gas contracts with some instances from IPC.

Parties to a petroleum contract normally set a variety of commercial, political and other goals as the objectives of their petroleum contracts. There are certain goals and objectives which may act as the criteria including fiscal, technical objectives, local content, technology transfer, as was examined in IPC and other petroleum contracts.

One of the challenges of the oil and gas contracts is that the E&P phases are so long and there is the need for a huge plan to implement such a big project. Therefore, this paper illustrated how the IPC is divided into phases and stages for better management of the project. The three general types of contracts in IPC were identified and discussed.

To conclude a long term petroleum contract which can endure the duration of project, flexible mechanisms, such as renegotiation clauses or some fiscal formula, have to be provided in contractual clauses. Flexibility mechanisms or rigid areas of the IPC were therefore discussed in this paper.

If oil and gas contracts, including IPC, are efficiently and appropriately crafted, there should be substantial alignment of mutuality of interest as soon as the contract is signed. By properly providing for contractual considerations such as efficiency, flexibility, in balance with stability, as discussed above, the parties will enjoy greater financial benefits, and this paper can be a contribution to this purpose.
References


Beredjick, Nicky (1989), Petroleum Investment Policies in Developing Countries, Springer Science & Business Media


By-laws concerning the general principles, structure and patterns of upstream oil and gas contracts (IPC By-laws); No. 104089, dated 2015/11/02; Available at: http://rc.majlis.ir/fa/law/show/944062?keyword=%D9%86%D9%8C

Contract For Production Of Hydrocarbons in South Alibek Oil Field Located within the Limits of Blocks xxii-23 A (Partially), D (Partially), and E (Partially) in the Territory of Mugalzhar (Mugodzhar) Region, Aktyubinskaya Oblast, Republic Of Kazakhstan, between the Ministry of Energy and Mineral Resources of the Republic of Kazakhstan (the “Competent Body”) and Joint-Stock Company CaspiNefiTme (the “Contractor”) Astana – 2006


IPC (E&P) / final version / steering committee / 11.18.15

Iran Ready to Show More Flexibility in Oil Contracts”, TEHRAN Mar 17 (Shana); available at: www.shana.ir/.../Iran-Ready-to-Show-More-Flexibility-in-Oil-Contracts-...


On Key Performance Indicators (KPIs), SmartKPIs.com, Available online at: http://www.smartkpis.com/key-performance-indicator-KPI

Oxford Dictionary of EnglishAngus Stevenson (edited by) - 2010 - OUP Oxford


Selot, Ajay (2009). *Short-Term Supply Chain Management in Upstream Natural Gas Systems*. Submitted to the Department of Chemical Engineering in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Chemical Engineering. Massachusetts Institute of Technology February 2009


US Legal Inc. “Acceleration Clause Law & Legal Definition”, available online at: http://definitions.uslegal.com/a/acceleration-clause/