SOME TURNKEY CONTRACT CONSIDERATIONS

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ABSTRACT

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Drilling Contracts have evolved over the years with turnkey contracts becoming more popular in the most recent downturn in the up and down rig utilization cycle.

Most contract writer experience extends only to the 1970's early 1980's boom. Expectations of contracting parties are changed as are Operator-Contractor relations. Though some provisions are more important to one party then the other some are of universal concerns. Simplicity and a clear divisions of responsibility, minimum well defined specifications, compliance with governmental regulations and financial responsibility must be addressed by every contract.

INTRODUCTION

Drilling contracts in their form, interpretation and execution have evolved materially through the last several drilling activity cycles. When rig activity increases contractors take less risk and responsibility, i.e. the proportion of daywork contracts increase, when the rig count goes down the opposite is true and more footage and turnkey contracts are written. While there is an excess of drilling rigs available operators find contractors who are willing to take unwarranted risks or who will work for prices that will not provide for equipment maintenance and replacement much less retire debt. When those contractors fail a new group replaces them and the process continues and will until the number of rigs available matches the work to be done. Oil and gas exploration and production business has been cyclical since its start. Contract drilling follows its parent. More recent cycles have had a shorter period due to a greater volatility in oil pricing. The average price of oil has trended downward for a long period as has the average number of rigs operating. As major rig components are worn out and idle rigs are cannibalized more smaller contractors will drop out of the business and larger ones will merge. Many unfortunate circumstances develop which have been repeatedly described and bemoaned in numerous articles and talks in every drilling related forum that will allow it.

Footage contracts have become much more complicated in form and interpretation over the past twenty years. They are much different in form and function from footage contracts of earlier years. In many cases interpretation makes them operate much like a turnkey contract with the operator furnishing many of the materials and services. As a result the frequency of disagreements and lawsuits has multiplied. When a well is drilled without trouble, there are no accidents and it is completed as a fair producer contract problems seldom arise. On the other hand when well problems are encountered, the well is a dry hole or an accident results in an

injury, disagreements and law suits abound. These once very good specific contracts become cloudy and lawyers have a field day (more likely several field years).

The nature of the footage contract makes it impossible to have a clear cut division of responsibility. The operator furnishes well equipment and many of the goods and services required to drill the well. The contractor is often deemed responsible for the performance of well equipment and the proper application of the goods and services. Several lawsuits have resulted from inadequate mud systems. The mud company was hired by the operator and the operator specifies or approves and to a substantial degree controls the mud program. Regardless of contract wording to the contrary the one who pays the bill exerts considerable authority. Numerous other items such as exact blowout preventor arrangements, safety rules, etc. are specified by operators the sum of which preclude a footage drillers being truly independent contractors.

Those changes are something of a natural evolution resulting from the fact that few present day contract writers have experience extending prior to the late lamented boom of the late 1970's and early 1980's. Many of the more onerous changes are perceived by operators to be means of preventing some of the contractor excesses experienced in the boom years. In some cases the attitude goes so far as to be one of "getting even".

The upshot of this evolution in contract interpretation is many operators expect footage contractors to accept responsibilities far beyond what was once expected and which very closely resemble a turnkey contract. In an effort to alleviate a deteriorating condition the industry is turning to an increasing number of turnkey contracts.

As a result a number of drilling contractors who are financially capable (and some who were not) have gone into turnkey drilling. In theory a vast majority of oil and gas well drilling should best be accomplished on turnkey contracts. Unfortunately it often does not work out that way. Old practices and traditions die hard. Contractors in many cases find there is a vast difference between running a drilling rig and managing a drilling operation. Risk management without contract "outs" is a very demanding matter that is often far beyond many drilling contractors' capability.

Operators likewise find many difficulties in adapting to a new type contract. In many cases individual egos simply will not tolerate the release of much day to day operational authority and the prestige and perks which come with selecting equipment, supplies and services. Others reason that since the contractor must include a profit in his bid if the operator can drill a well as efficiently otherwise the cost to him will be less.

Other operators with technical and operational staffs feel they are better qualified to conduct drilling operations than is any turnkey contractor. Sometimes they are.

However, there is an increasing frequency of investor partners demanding a fixed well cost. They have found through sad experience AFEs are often woefully inaccurate. The industry loosely claims AFEs are accurate to plus or minus 10%. That is rarely the case except for development wells in established areas. In fact

the cost of wildcat wells often are double the AFE estimate and costs as high as seven or eight times the authorized amount are of record. Non-operating partners are obligated under the standard operating agreement to pay drilling costs regardless of how much they are except in a few instances when they are specifically limited. Non-operating partners usually have no recourse unless they can prove gross negligence on the part of the operator.

The recent down turn in the oil business caused most operators to reduce their operational staffs dramatically. With little improvement in view for drilling activity few companies are training replacements. Some operators rely on retirees but time takes it toll of that group. Furthermore technology continues to advance and without ongoing training of drilling managers and supervisors the supply of qualified personnel will be further depleted.

The net effect is there appears to be a place in the industry for turnkey drilling contractors. They must perform under contracts which furnish the well owner a hole in a usable condition and allow the contractor the maximum freedom to apply technology and accumulated know how while operating within government regulations and reasonable safety standards.

CONTRACTS

The best contract would be one which reads as follows

> "Contractor will be furnished access to wellsite at legal location at which location he will drill a size hole to depth feet.
>
> Listed logs will be run total depth up to depth. Contractor will bear unlimited responsibility for the operation from staking location through completion of logging. Within ten days following completion of logging contractor will be paid agreed amount."

This contract would furnish the least expensive hole to the well owner. It would also quite probably furnish quite a few unusable holes but it has one great virtue. It leaves little room for misinterpretation and would reduce immensely the probability of legal involvements.

As specifications are added the operator necessarily increases its involvement, hence its responsibility, hence its liability. So when adding specifications for activities the operator must be aware of the consequences of the additions both in direct cost and potential later difficulties or liabilities.

Probably the most critical concern of the well owner should be the selection of a contractor. The contractor must have the operational and technical capability needed to drill the well and he must also have the financial capability to support the responsibility accepted in making the contract. When an operator feels compelled to write operational requirements into a contract it is a certain sign he feels the contractor does not meet the aforementioned capability requirements.

Since it is unrealistic to expect many contracts to take the form and more importantly the brevity of the one cited above contracts with varying specifications and liability limiting clauses will be used. No single standard contract or

variation on a single contract will become common. This is true because each attorney - both operators' and contractors' - has to contribute his protective language to his company's contract. Each clause will have to be tested in court as problems arise. In fact they will each be tested several times because insurance companies will be involved and most questions will settled out of court before litigation progresses far enough in the system for a legal precedent to be established. By the time one clause is fully tested several more will have been added thus insuring the perpetual involvement of the legal profession in drilling contracts.

Engineers and operational personnel - both operators' and contractors' - tend to want total freedom and operators' managers tend to place limits. The two naturally conflict because a drilling operation is complex, each service, item of equipment or segment of the operation intermeshes with others. A failure of a piece of equipment specified or furnished by the operator may cause a loss over which the contractor has no control. On the other hand a piece of equipment specified and furnished by the contractor or some drilling practice employed by the contractor may adversely effect the outcome of the drilling venture.

Contracts very rarely adequately cover all eventualities that arise in the execution of the contracted work. Many uncertainties exist in drilling wells which cannot be specified. Such things are extra logging runs, drill stem tests, or coring may become desirable but cannot be predicted. Under footage contracts the operation shifts to day work and the operator assumes control and responsibility for the operation until it is returned to the contractor in the same condition as it was when day work operations commenced. The same practice is followed under many turnkey contracts. Experience has shown a change from turnkey basis to day rate basis and back to turnkey basis may create unreconcilable difficulties. The contractor has sole responsibility for the well and equipment while on turnkey basis but that responsibility transfers to the operator on day work. The operator must accept the well on an "as is" basis. While operating the well on daywork a wide variety of events can cause damage to or even loss of the well. Damage may occur so the well cannot be returned to its pre-daywork state and the operation cannot be returned to turnkey operation. In that case the contract can be terminated, operations can be continued on daywork or the well may be abandoned or it can be redrilled under some separate arrangement. It is better therefore for all work to be performed on a turnkey basis. For example, if it becomes desirable to run a drill stem test the contractor can furnish a turnkey price for that operation. The operator then has a fixed price for the test but responsibility for the test and liability for the hole remains strictly with the contractor.

One of the more commonly used turnkey contract forms was developed by the International Association of Drilling Contractors (IADC) Oklahoma - Texas Panhandle Chapter. It has been adopted by the association as a standard and is now used by a large number of independent operators and some major oil companies.

This contract form was adapted from the commonly used IADC footage form. It is easily usable. As in all model contracts it includes some statements which will not be applicable in some circumstances and as a result some modification will be required for almost every well.

Exhibit "A" of the IADC form is very good and very simply indicates what

materials and services are to be furnished by each party.

OPERATORS CONCERN

The operator's responsibility is to have a hole drilled - often including running logs and casing - that is adequate to locate, evaluate and efficiently produce expected oil and gas reserves. There is a natural concern among operators drilling management that contractors may not perform just as the manager would but it is just that difference which may allow the contractor to compete.

The operator must ascertain that the contractor is financially capable of fulfilling the contract. Several avenues are available for making that determination. When a company whose stock is traded on one of the major exchanges is involved its quarterly and annual reports to stockholders will give a good indication of its financial condition.

Financial statements of closely held corporations, partnerships or individuals are much less reliable. When considering contractors in those categories bank references, financial rating group reports, National Association of Credit Managers reports and oil field service companies credit references should all be considered.

Contractors should furnish insurance certificates for all coverage related to the contract and the operator should be a named insured under applicable policies.

Operators should specify coverage including policy values that may affect its operation. These may include the following coverage and possibly others - all risk care custody and control, operators extra expense and if necessary for the operators business coverage to insure specific performance under the contract.

Contracts should require the contractor to comply with all applicable laws and regulatory body rules and to be totally responsible for any failure to comply and if necessary to be bonded to insure compliance.

The operator may or may not give the contractor the option to stop the operation and move off voiding the contract with or without penalty. Circumstances develop which preclude completion of a particular borehole and a contractor may quite reasonably be allowed to start over or to in effect give up. An alternative might be to require a bond which would guarantee completion of the well.

When there is any question of a contractor's ability to meet its financial obligations a performance bond that will guarantee payment of costs incurred under the contract should be required.

Under most circumstances the only concerns with the borehole and the drilling operation are limited to the following:

1. Hole deviation must be within limits which allow the well to be produced.

2. Bottom hole location must be within an area which will allow reasonable drainage of the reservoir.

More stringent requirements in regard to 1. and 2. above simply increase cost and operational difficulty without achieving any benefit. An example is contracts for wells which will produce gas often specify a maximum allowable angle of 5° or occasionally even 3°. In other cases well specifications call for the bottom hole location to be within a 3-500 ft. radius circle when if that area is critical to reasonable depletion of the reservoir the well can seldom be an economic venture.

3. Tubulars employed in drilling the well which are consequential to subsequent operations on the well - either continued drilling or producing - must be of adequate design for that service.

4. Interval to be covered with cement and in some cases some cement qualities should be specified for those wells in which production may be obtained from intervals behind casing set as a part of the turnkey contract.

5. Drilling fluid necessary to retrieve necessary geologic information whether through cuttings, cores, testing or wireline logging.

The operators concerns in drilling a well are quite simple. A hole must be provided from which can be retrieved the needed geologic information and if warranted to conduct necessary tests and to produce the well to depletion. Contract requirements should insofar as possible insure those ends. It should be remembered that all requirements cost money and only those that are essential should be included. When a contractor bids he must pass on to the operator every cost he has plus some amount to cover his overhead, handling and risk. Since the economics of well drilling are largely controlled by drilling costs, if the operator is to run an efficient business the drilling contracts he commits to should achieve that necessary end at the minimum reasonable cost.

CONTRACTOR CONCERNS

The contractor's first concern is that he have sufficient information to make a reasonable bid. Often the operator will have the only reliable data for predicting drilling conditions that can materially affect drilling costs. In some areas that information can only be obtained from geophysical data. It may require interpretation by someone particularly skilled in that technique. In rank wildcat areas the exploration geologist is the very best source of information on which a contractor must base a drilling program. Contractors must remember exploration geologists have to be the world's greatest undieing optimists for if they were not they would be in some other profession. It is the wise contractor who learns to weed out a geologist's wishful thinking when preparing a bid.

Operators frequently furnish a recommended drilling program including casing size and setting depths, mud weight requirements, mud type and some drilling practices. On a few occasions some or all of those may be specified. Adequate study frequently indicates the proposed or specified program to be deficient and an alternate proposal must be submitted.

The contractor must determine to his satisfaction that he will be paid for his services. He must be satisfied that should he be awarded a contract he will be

paid, that he will be paid within the time specified and that the amount he bids is adequate to justify the risks involved in the undertaking.

Contractors must ascertain the contract does not contain specifications and requirements which impose intolerable burdens or are excessively restrictive. It is the contractor's ability to procure goods and services at the least cost and his ability to develop and use techniques which reduce cost that allow him to compete and accept risks involved in turnkey drilling.

WELL SPECIFICATIONS AND WHO FURNISHES WHAT

Most model contracts include a section entitled "Equipment, Materials and Services to Be Provided as Designated". It provides check spaces for both turnkey and daywork operations. It typically contains a list of about one hundred items. Detailed specifications for some of the more significant items are usually given elsewhere in the contract.

While some specifications are always necessary, minimum detailed specifications which allow a contractor maximum latitude will the produce most satisfactory contract from both cost and administrative standpoints.

A case in point is tubular goods requirements. The operators concern for casing is the burst, collapse and tension strength of any string that will be involved in the completion and producing of the well. There may on occasion be some component(s) of formation fluids that may dictate particular metallurgy requirements. The well owner has several options:

1. He allows the contractor to design, procure and run the tubulars he considers adequate for drilling the well.

2. He may specify the strength required.

3. He may allow a range of weights, grades and/or variety of threads.

4. He may specify particular weights, grades and threads.

5. He may specify several manufacturers or a particular manufacturer.

6. He may purchase and furnish the tubulars to be used.

The foregoing list of options appear in order of desirability to contractors. While these apply to tubulars a similar list can be made for any goods and services employed in drilling a well. When an operator furnishes any equipment or service responsibility in the event of a failure becomes clouded. Regardless of terms included in the contract there is an open invitation to litigation in the event of any problem that can be attributable to operator furnished equipment.

In one case a bid request specified the operator would furnish casing and cement including all such complementary equipment as floats, stage collar and other cementing hardware. It was further specified the contractor would assume all risk for running, landing and cementing the casing. In the event of a failure of any of the equipment, material or services involved the contractor having accepted the

casing and cementing services as furnished, would be totally liable and could have had to sidetrack the well and possibly redrill it. Yet because the operator has purchased a failed piece of equipment the contractor would have no recourse.

While that case was extreme and was apparently a drilling managers method of circumventing his management's desire to obtain turnkey bids similar requirements are common and contractors must be careful to avoid responsibility where they have no control.

Predictions of the longevity of the current world wide oversupply of crude oil vary from four to fourteen years. With the development of alternate energy sources it could last even longer. Whatever the period is it will certainly be one of unstable prices which will make long range planning difficult for exploration and production companies. In order for them to maintain an efficient operation they will be forced to rigidly control overhead costs. Among major oil companies and many independents a trend toward emphasis on enhanced recovery operations and purchasing reserves indicates a reduction in drilling related operations.

With the current slow down in drilling and reduction in operating personnel in most companies there has not been an accompanying reduction in administrative and service overhead. Turnkey drilling would allow operators to eliminate some purchasing, materials handling and associated personnel. Contractors would provide the requisite services accommodating ups and downs of drilling activity and in most cases providing them at a lesser cost.

There is concern among operators that changing from footage and/or day work contracts to turnkey contracts will ultimately increase overall drilling cost. However that same fear existed in the 1950's when operators began to dispose of company operated drilling rigs. That move in spite of dire predictions to the contrary resulted in reduced costs. The short term return to daywork contracts and operator owned drilling companies during the late 1970's did not produce lower costs. In fact as soon as contractors could be found to drill on footage or turnkey contracts the vast majority of operators returned to that form of contract.

It is and will remain important that operators support drilling research and development efforts. The nature of oil and gas drilling is such that it is unlikely contractors are apt to develop proprietary systems or techniques. Rather, as soon as one company, whether it is an operator or contractor, discovers or develops anything new in the drilling industry the new development rapidly becomes common practice. As a result operators are the primary beneficiaries of advances in technology and as such must continue their interest in the advancement of drilling related technology.

Like many industry practices turnkey contracting has and will continue to develop on an area by area and company by company basis. Some companies presently turnkey all wells for which they can get a turnkey bid and some as yet refuse to consider such a bid. As time progresses areas, well types, financial consideration etc. which make turnkey contracting attractive will become better defined and probably more importantly as contract writers become better acquainted with the concept turnkey contracting will become more generally accepted.

Turnkey contracting cannot for the foreseeable future encompass all wells

drilled. Drilling some classes of wells is sufficiently hazardous that only the promise of substantial reserves will justify taking the risks involved. Under those conditions operators must at least share risks. But as turnkey contracting becomes more prevalent limits on the type well that can be drilled on a turnkey contract will expand. Now the field of turnkey drilling includes many abnormal pressured wells, offshore wells, directional wells and variety of frontier wildcats with depths ranging to 25,000 ft.

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